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SUBJECT: Forwards response to NRC 810521 safety evaluation on environ-
 qualification of safety-related electrical equipment.
 Revision to Phase II response to IE Bulletin 79-01B also
 encl.

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September 14, 1981
L-81-402

Office of Nuclear Reactor Regulation
Attention: Mr. S. A. Varga, Chief
Operating Reactors Branch #1
Division of Operating Reactors
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

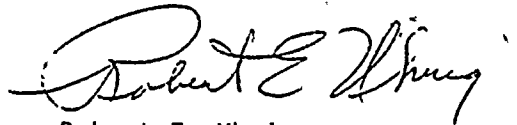
Dear Mr. Varga:

Re: Turkey Point Units 3 & 4
Docket Nos. 50-250 & 50-251
Environmental Qualification of
Safety-Related Electrical Equipment

Florida Power & Light has completed its review of the May 21, 1981 NRC Safety Evaluation Report on Environmental Qualification of Safety-Related Electrical Equipment for Turkey Point Units 3 & 4. Our response is attached.

Also attached is a revision to our Phase II report in response to IE Bulletin 79-01B. The Phase II report was submitted by our letter (L-80-210) dated July 3, 1980.

Very truly yours,


Robert E. Uhrig
Vice President
Advanced Systems & Technology

REU/PLP/ras

cc: Mr. J. P. O'Reilly, Region II
Harold F. Reis, Esquire

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ENVIRONMENTAL QUALIFICATION OF
ELECTRICAL EQUIPMENT
IE BULLETIN 79-01B

RESPONSE TO
THE SAFETY EVALUATION REPORT
BY THE OFFICE OF NUCLEAR REACTOR REGULATION
EQUIPMENT QUALIFICATION BRANCH

FLORIDA POWER & LIGHT COMPANY
TURKEY POINT UNITS 3 & 4
DOCKET NO. 50-250/50-251

AUGUST 1981

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8109170222



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RESPONSE TO
THE SAFETY EVALUATION REPORT
BY THE OFFICE OF NUCLEAR REACTOR REGULATION
EQUIPMENT QUALIFICATION BRANCH
FOR FLORIDA POWER & LIGHT COMPANY
TURKEY POINT UNITS 3 & 4
DOCKET NO. 50-250/251

1. INTRODUCTION

This response covers the generic concerns and the specific deficiencies identified in the Safety Evaluation Report (SER) attached to the Nuclear Regulatory Commission letter dated May 21, 1981. The response is based on a review of the original Phase II response and the documentation referenced therein with a view to provide additional information/ classification, as necessary, to help the Staff complete review of the Component Evaluations.

The Section 2 below provides response to the generic concerns indicated under Section 3 of the SER. The response to the specific deficiencies indicated in the Appendix B of the SER is covered in Section 3 below.

Revised Component Evaluation Sheets are provided in Appendix S for cases where information has been updated.



2. RESPONSE TO GENERIC CONCERNS IN THE SER

Response to the generic concerns indicated under Section 3 of the SER is provided below. The SER statement of concern is reproduced as an inset on the top of each response with the SER section number indicated in parenthesis under the statement.



2.1 Completeness of Safety Related Equipment

Display instrumentation which provides information for the reactor operators to aid them in the safe handling of the plant was not specifically identified by the licensee. A complete list of all display instrumentation mentioned in the LOCA and HELB emergency procedures must be provided.

Equipment qualification information in the form of summary sheets should be provided for all components of the display instrumentation exposed to harsh environments.

Instrumentation which is not considered to be safety related but which is mentioned in the emergency procedure should appear on the list. For these instruments, (1) justification should be provided for not considering the instrument safety related and (2) assurance should be provided that its subsequent failure will not mislead the operator or adversely affect the mitigation of the consequences of the accident. The environmental qualification of post-accident sampling and monitoring and radiation monitoring equipment is closely related to the review of the TMI Lessons-Learned modifications and will be performed in conjunction with that review.

(3.1)

The display instrumentation list is included in Appendix P. This list is based on the display instrumentation referred to in the LOCA and HELB Emergency Operating Procedures. The list is divided into three parts:

Part I: Display Instrumentation Devices

Part II: Verification of Valve Position

Part III: Feeder Breaker Position Indication

The list identifies the devices that are critical for the safe shutdown and post accident monitoring. Some of the significant information included in the list are: tag number of initiation device; system component evaluation worksheet page number for the initiating device included in the master list; justification in the form of notes for not including in the master list some of the initiating devices located in harsh environment.



2.2 Service Conditions

The staff assumed and requires the licensee to verify that the containment spray system is not subjected to a disabling single-component failure and therefore satisfies the requirements of Section 4.2.1 of the DOR guidelines.

(3.2)

The containment spray system is one of the two separate Engineered Safety Feature Systems available to contain the effects of a postulated accident exceeding the containment design pressure. The other Engineered Safety System is the Emergency Containment Coolers. The post accident containment pressure can be maintained below the design value with one of the two spray pumps or by two of the three Emergency Containment Coolers.

The Containment Spray Pumps are fed from different load centers (safety related) and their associated circuits are routed independently of each other. The system is not subject to disabling single component failure.



2.3 Temperature, Pressure, and Humidity Conditions Inside Containment

The licensee's specified temperature (service condition) of 276°F does not satisfy the above requirement. A saturation temperature corresponding to the pressure profile (298°F peak temperature at 50 psig) should be used instead. The licensee should update his equipment summary tables to reflect this change.) If there is any equipment that does not meet the staff position, the licensee must provide either justification that the equipment will perform its intended function under the specified conditions or propose corrective action.

(3.3)

The NRC Staff position on the necessity for temperature margin is, we believe, based on tests conducted at CVTR (Reference 1). During this test, steam was injected into the containment and the temperature response was measured. Measured steam flow rates and actual heat transfer coefficients were then used in the CONTEMPT code to analytically predict the containment's response. The results indicated that CONTEMPT's single calculated temperature is approximately a volume-weighted average of the temperature behavior of the containment. Thus, the CONTEMPT code underestimated the peak temperature in the CVTR containment.

The NRC position would impose a 22°F margin (298 vs. 276°F) to account for CVTR indicated stratification which test data clearly shows is short-lived. The stratification manifests itself prior to the containment spray system becoming effective. Once the containment spray is initiated, the temperature converges very rapidly such that after 15 minutes the temperature difference is approximately 10°F (see Figure 55 of Reference 1). Thus, the stratification phenomenon is short-lived and should only be considered relevant to the peak of the temperature transient.

Reference 1. "Simulated Design Basis Accident Tests of the Carolinas Virginia Tube Reactor Containments - Final Report," Idaho Nuclear Corporation, NRTS, Idaho, December 1970, TID-4500.



The CONTEMPT calculation in the CVTR test report is based on "measured" values, whereas the Turkey Point containment analysis is based on "conservative" values. In accordance with standard practice, the Turkey Point analysis uses conservative parameters to produce the severest applicable containment transient. Thus the COCO calculation for Turkey Point predicts a volume-weighted average temperature that exceeds that which could reasonably be expected; the COCO predicted peak is higher than would be predicted using "measured" or "actual" values. Any appreciable under prediction of the peak temperature would not be present at Turkey Point.

The major conservations utilized in the Turkey Point FSAR analysis, which maximize the containment pressure and temperature response are the models used in determining blowdown and the condensing heat transfer coefficients. For Turkey Point, the Henry-Fauske correlation is used to predict subcooled blowdown and the Moody correlation for saturated blowdown. These correlations maximize the mass and energy release to containment and hence their use in containment analysis results in an upper bound temperature and pressure response. In addition, the heat transfer from the core to the discharging fluid is maximized.

Tagami/Uchida relationships are used in the Turkey Point FSAR analysis to predict the atmosphere to containment structures heat transfer coefficient. The heat transfer coefficients used in the CONTEMPT analysis shown on Figure 68 of the CVTR report are actual measured values. A comparison of the CVTR measured values with those which would be used for a design basis containment (Turkey Point) analysis are shown in Figures 38 and 45 of the

CVTR report. Figure 63 of the CVTR report shows the pressures which would result from a CONTEMPT analysis using measured steam injection rates and design basis heat transfer correlations as used in the Turkey Point containment response analysis. Using Figure 63, a CONTEMPT temperature analysis using design basis heat transfer correlations can be shown to be within 5°F of the maximum reported in the CVTR test. A comparison is shown as marked up on Figure 68 of the CVTR report (page 8).

In summary, the Turkey Point temperature response is an adequate basis for temperature qualification. The DBA analysis is already sufficiently conservative to account for any temperature stratification, as the mass and energy releases to the containment are maximized, and a lower bounding passive heat sink heat transfer correlation is utilized.



3.2 Temperature Calculations

CONTEMPT-calculated temperature results are compared with experimental data from Steam Test 3 in Figure 68. The experimental bulk atmosphere and surface temperatures for the operating region shown in this figure are from Heat Plug 2 and are nearly representative of the average behavior for the operating region. (However, higher temperatures were recorded at some points in the region.) Temperatures at two locations in the intermediate region are shown on the figure to illustrate the large differences noted in this region. The temperature of the basement region is representative of the average behavior in this region. CONTEMPT, being a single volume code, calculates a single temperature, shown by the dashed line in Figure 68, which in this case is approximately a volume-weighted average of the temperature behavior throughout the containment. As can be seen, the experimental maximum temperatures are underestimated by CONTEMPT. This underestimation was not particularly serious in the case of CVTR because the temperature of the injected steam was relatively low (about 380°F), the injection rates were low, the volumes relatively open, and interconnecting flow paths large. However, for fast blowdowns of high temperature water (approximately 600°F) and blowdowns in smaller volumes, or blowdowns for which more serious flow restrictions exist, temperature predictions may be seriously in error and localized heating exceeding design limits may result.

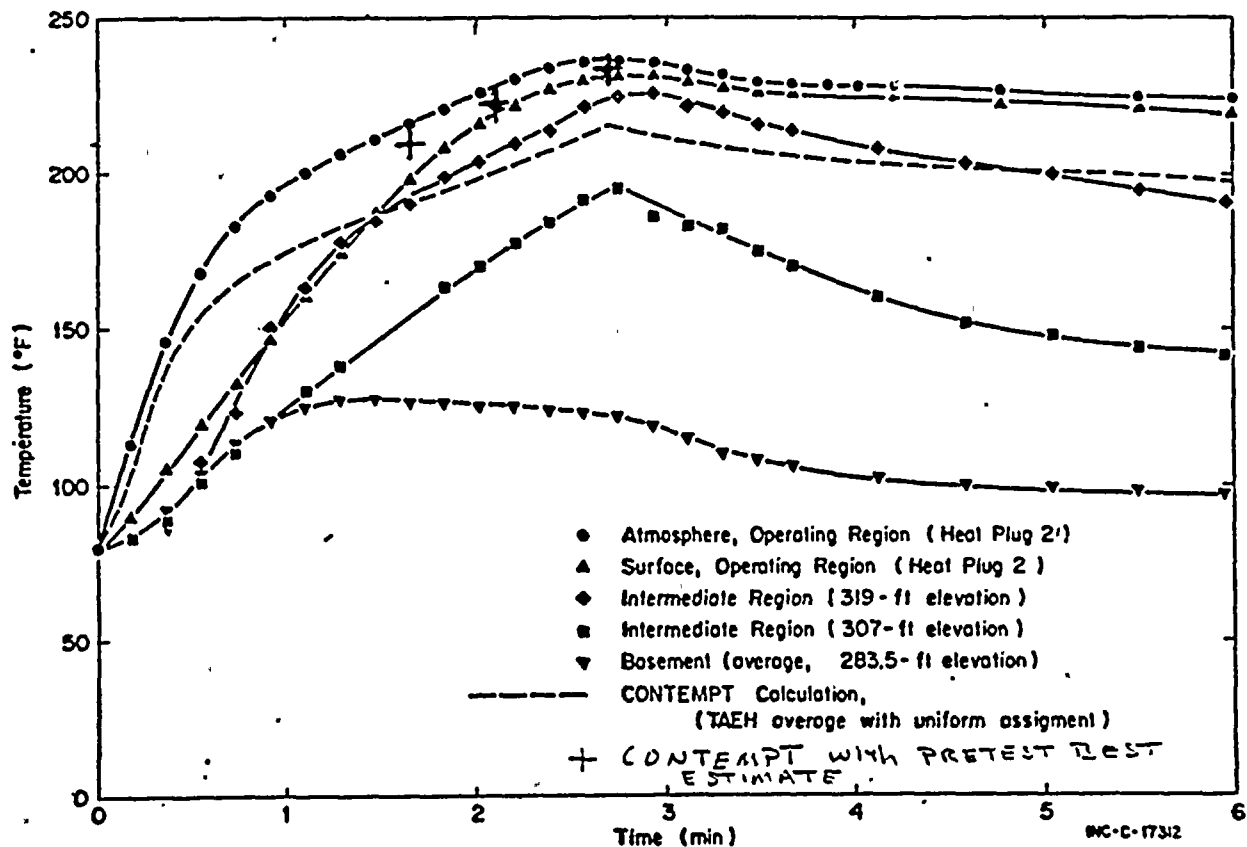


FIG. 68 STEAM TEST 3, TEMPERATURE RESULTS.



2.4 Submergence

The licensee stated further that some of the components will perform their functions before becoming submerged. In these cases, the licensee should provide an assessment of the failure modes associated with the submergence of the components. The licensee should also provide assurance that the subsequent failure of these components will not adversely affect any other safety functions or mislead an operator. Additionally, the licensee should discuss operating time, across the spectrum of events, in relation to the time of submergence. If the results of the licensee's assessment are acceptable, then the components may be exempt from the submergence parameter of qualification.

(3.5)

The devices in Unit 3 which were committed to be relocated have been relocated above flood elevation (19'-0"). The Unit 4 devices will be relocated during the next refueling outage, currently scheduled for the last quarter of 1981. Justification for continued operation has been previously provided in the Phase II response to IE Bulletin 79-01B.

A failure mode analysis was done on the following devices which will not be relocated as they would have performed their safety-related function before becoming submerged.

- o CVCS Letdown Isolation Valves SV-200A, 200B, and 200C:

These valves fail close and are closed automatically by a containment isolation signal. The valve schematic review indicates that there is no possibility of a malfunction due to submergence. The valve limit switch could provide an incorrect valve position indication. As stated in the Original Phase II Response, the second isolation valve CV-204, located outside containment will provide the back-up indication of containment isolation of the letdown line. The valve CV-204 also fails closed and closes on a containment isolation signal.



- o The submergence of Terminal Box TB3144 which is associated with the valve SV-3-200A will not adversely affect a safety related function, or provide misleading information to the operator.

This configuration does not exist in the Unit 4 counterpart TB 4144. The failure mode review of TB 4144 indicates no effect on any safety related function and does not provide misleading information to operator on a safety related function.

It is not clear from the information submitted that submergence of safety-related electrical equipment outside of containment was addressed. The licensee should address this area more specifically in the 90-day response and upgrade the CES as appropriate.

(3.5)

There are no safety related items subject to submergence outside containment. According to Florida Power & Light's reponse to the Giambusso letter (Documentation Reference 40.1) and the AEC's concurrence with the response (Documentation Reference 40.2), the only high energy pipe breaks postulated in the auxiliary building are in the chemical and volume control system. The blowdown resulting from these breaks will drain into the Residual Heat Removal pump room sumps. There are two sump pumps in each RHR pump room. The pump's circuits are fed from redundant Motor Control Centers, run in separate raceway, and therefore, not subject to a common mode failure. As the other postulated HELB points outside the containment, discussed in the above referenced document are in open areas, there is no possibility of submergence.



2.5 Chemical Spray

The licensee's FSAR value for the chemical concentration is 2030 ppm boric acid solution; the concentration and pH values of the boric acid solution used by several vendors for their qualification testing cannot be established by the licensee's submittals. Therefore, for the purpose of this review, the effects of chemical spray will be considered unresolved. The staff will review the licensee's response when it is submitted and discuss the resolution in a supplemental report.

(3.5)

A reevaluation was done to compare the chemical spray composition of the various test sprays with that of Turkey Point post-accident spray. It was concluded that all but two of the various manufacturer's test sprays were more aggressive than the post-accident spray. These two cases were analyzed on the basis of the materials that will be exposed to the spray environment. In both cases the component in question is a totally enclosed motor whose only exposed portion is a coated cast iron casing. The post-accident spray will have no detrimental effect on the operation of these motors.

Where no Chemical Spray test was done, an engineering analysis was performed to determine the affect of the post-accident spray on the exposed material of the component. The analyses indicated no corrosive effect on the materials reviewed.

2.6 Aging

- (1) Make a detailed comparison of existing equipment and the materials identified in Appendix C of the DOR guidelines. The first supplement to IEB-79-01B requires licensees to utilize the table in Appendix C and identify any additional materials as the result of their effort.

(3.7)

The desired qualified life is assumed to be 40 years for all the devices included in the Master List. Where 40 year qualified life for devices/components cannot be established, a shorter qualified life is determined based on useful life of the "weak link", the most age sensitive active component. The device/component is assigned a maximum maintenance/replacement interval based on its useful life.

Where documentation exists for the 40 year qualified life, the device has been evaluated on that basis. If no accelerated aging tests were done, a useful life analysis has been performed using time/temperature dependent reaction theory that uses the Arrhenius equation.

Each device has been reviewed for thermal age related failure mechanisms, which could affect its function. The main consideration in this review has been to identify if the device has any material that is susceptible to significant aging (less than 40 years of useful life). If no such material exists, the device has been considered qualified for 40 years. As a first step, all materials which do not have a potential for significant thermal aging are exempted from the analysis.

Two documents are used for age exemption:

1. Table C-1 of IE Bulletin 79-01B.



This table recognizes the following materials as having potential for significant thermal aging:

Vulkanized Fiber, Polyester (unfilled), Nylon (polyamide), Polycarbonate, Chlorosulfonated polyethylene (hypalon), Buna-N (HBR/Nitrile Rubber), Delrin, Cycloc, Polyethylene, Neoprene, Ethylene Propylene Rubber (EPR), crosslinked polyethylene (XLPE), and SER Rubber.

2. IEEE Standard 650-1979 - "Qualification of Class IE Static Battery Charger & Inverters for Nuclear Power Generating Stations".

This standard (Appendices 3 and C) identifies the following components as not having significant effect of thermal aging within the maximum qualified life of 40 years:

A. Electronic Components:

Silicon semi-conductors, resistors, tantalum dry electrolytic capacitors, ceramic capacitors, dry paper and plastic film capacitors, Mica capacitors, glass capacitors, integrated micro-electronic devices, and hybrid micro circuits.

B. Non-electronic components made of steel; aluminum; copper; epoxy/fiberglass G-10, G-11 equivalent; brass; ceramic; and glass-filled diallyl phthalate.

After exempting the materials which are not age sensitive, the most age sensitive materials are analyzed to determine useful life. If the life



is determined to be greater than 40 years (allowing reasonable margin over 40 years to account for aging due to LOCA temperature transient and for the assumptions and approximations made in the analysis), the device is deemed to be qualified. If the useful life of most age sensitive material is determined to be less than 40 years, the functions of the component made of this material is analyzed. If it is found to have a significant bearing on the device function, the component is identified as the "weak link". If the component is not a replaceable item, the whole device is qualified for the lower life of the component.

Arrhenius techniques are assumed to be the acceptable method of calculation of useful life. The useful life indicated in the EPRI Useful Life Table is calculated by available data covering activation energy, intercept of the regression line, and acceleration aging test duration and test temperature. If only the test temperature and duration is known without activation energy, a conservative activation energy of 0.5 was assumed in the useful life calculation. If no test data is available on a material, the useful life of a similar material is assumed.

- (2) Establish an on going program to review surveillance and maintenance records to identify potential age-related degradations.
- (3) Establish component maintenance and replacement schedules which include considerations of aging characteristics of the installed components.

(3-7)

See Appendix R for response to these items.

The licensee identified a number of equipment items for which a specified qualified life was established (for example, 5 years, 15 years, or 40 years). In its assessment of these submittals, the staff did not review the adequacy of the methodology nor the basis used to arrive at these values; the staff has assumed that the established values are based on state-of-the-art technology and are acceptable.



For this review, however, the staff requires that the licensee submit supplemental information to verify and identify the degree of conformance to the above requirements. The response should include all the equipment identified as required to maintain functional operability in harsh environments.

The licensee indicated that this phase of the response is outstanding and the the review is in progress. The staff will review the licensee's response when it is submitted and discuss its evaluation in a supplemental report.

(3-7)

This question was unresolved and listed as outstanding in the Phase I response to the bulletin. The review was completed and included in the Phase II response.

Documentation Reference 53 identifies the materials which are susceptible to significant degradation due to thermal aging and evaluates the useful life of all devices covered in the Master List.

All the devices in the Master List are divided into discrete groups based on manufacturers and model number or type. A Thermal Aging Table is filled out for each group. Following is a brief explanation of the various columns of a Thermal Aging Table.

- o Manufacturer
 - o Model Number
 - o Tag Number -
 - o Description of Materials -
- } Self explanatory
- All the tag numbers which share the same manufacturer and the model number are listed.
- A list of all materials used in the construction is provided. In some cases, the list covers only the organic materials on the assumption that the inorganic materials are exempted.



- o Aging Required: An indication of "YES" or "NO" is provided
 - "YES" - indicates that the material is not exempted by Reference 1 or 2. It does not, however, indicate that the material is determined to be age sensitive.
 - "NO" - indicates the material has been exempted by Reference 1 or 2.
- o Activation Energy ("E")
- o Slope ("b") of Regression Line
 - Derived from EPRI Useful Life Table
- o Intercept ("a") of Regression Line
- o Useful Life
- o Ambient Temperature - Applicable ambient temperature.

Where documentation exists for the 40-year qualified life, the device has been evaluated on that basis. If no accelerated aging tests were done, a useful life analysis has been performed using time/temperature dependent reaction theory that uses the Arrhenius Equation

$$K = A \cdot e^{\frac{-E_a}{K_B T}}$$

where

- k = Reaction Rate
- A = Frequency Factor (constant)
- Ea = Activation Energy (ev)
- K_B = Boltzman Constant (8.617×10^{-5} eV/K)
- T = Absolute Temperature ($^{\circ}$ K)

Where test data on a material is available, useful life is calculated at any desired ambient temperature by using the following equation, which is a



derivative of Arrhenius Equation:

$$\frac{L_1}{L_2} = e^{\frac{E_a}{K} \left(\frac{1}{T_1} - \frac{1}{T_2} \right)}$$

where L_1 = Life required at temperature T_1 corresponding to ambient temperature

L_2 = Test duration at temperature T_2 corresponding to test temperature

E_a = Activation Energy (ev)

K_B = Boltzman Constant (8.617×10^{-5} ev/ $^{\circ}$ K)

T_1 and T_2 are in $^{\circ}$ K



3. QUALIFICATION OF EQUIPMENT

The component qualification evaluations have been reviewed in light of the NRC cited deficiencies listed in the Safety Evaluation Report (Appendix B). This review included the supporting documents listed in Section C4 of the original Phase II Response to the IE Bulletin 79-01B, and also the Emergency Operating Procedures. The aim of this review was to establish the following:

- o Equipment included in the master list, which does not perform essential safety functions in the harsh environment, will not impact safety related functions or mislead the operator due to its failure, e.g., limit switches on the air operated solenoid valves.
- o Equipment performs its function before its exposure to the harsh environment, and has adequate time margin.
- o Subsequent failure of the equipment as a result of the harsh environment does not degrade other safety functions or mislead the operator.
- o The safety-related function can be accomplished by some other equipment which has been qualified and satisfies the single failure criterion.
- o Equipment is in a mild environment and is not subjected to an environment resulting from a postulated accident (harsh environment).



3.1 Response to Deficiencies Listed in Appendix B of SER

Appendix Q provides the necessary clarification/supplemental information to respond to the deficiencies listed in the Appendix B of the SER.

Appendix Q includes an index of all the devices and deficiencies and is arranged in the form of a matrix. This index is followed by Response Sheets to the deficiencies, each sheet covering the devices which have the same manufacturer and model number, and located in the same environment. Where necessary, additional information in the form of graphs, etc., is provided with the Response Sheets. The documents supporting the responses provided are available for review in the central files.



3.2 Discussion of Qualification Method (QM)

Qualification Method has been listed as a deficiency for almost all items in the Appendix B (SER). Even though it is not very clear as to the staff's specific concerns, a discussion is provided below to explain the methodology used in determining the adequacy of qualification in the evaluation.

The original Phase II response was based on an extensive research of qualification documents, dialogue with the original suppliers, and research of test data on some of the component materials.

The regulatory requirements at the time of original design and procurement were to design to satisfy environmental factors. Design does not mean qualification testing. The term design was meant to include an appropriate combination of qualification tests; analyses; vendor's design, operating and test experience; and use of available literature. Accordingly, qualification tests were not performed for some equipment; in some instances the test durations were shorter than the accident duration; all accident parameters were not necessarily covered in all tests; in some cases, especially for devices located outside containment, no radiation tests were specified; and in accordance with the prevailing industry practice at the time, accelerated pre-aging tests were not done for most of the equipment.

The lack of qualification tests to current USNRC requirements does not provide sufficient justification to disqualify the equipment for its intended function. To demonstrate this, appropriate engineering



analyses were performed to reaffirm the adequacy of the equipment to perform its intended function in the stipulated harsh environment.

Following are the methods used in the qualification of the devices:

3.2.1 Where adequate qualification tests were done:

Test results were reviewed and evaluations were based on these.

3.2.2 Where qualification test was done but test duration did not cover the required time:

The test results were analyzed to determine the margin between the test and required values in regard to Temperature, Pressure, Humidity, Chemical Spray, and Radiation.

If the temperature profile did not completely envelop the required profile, the margin in the test was extrapolated using 10°C rule and checked whether the extrapolated time was greater than the required time with an adequate margin.

If a pressure profile did not completely envelop the required profile, the margin in the test was checked to determine whether the test enveloped the required profile for a sufficient duration with adequate margin. A determination was made, based on material and construction of the device, whether the device will perform adequately for the intended period beyond the test duration.



If the tests were performed with saturated steam, it was assumed to simulate the required 100% humidity.

The aggressivity of the test chemical spray was checked against the specified spray. If the aggressivity of the test spray is greater, the device is deemed to be qualified based on test. If it is lower, a determination was made, based on knowledge of the chemical reaction of the required spray-on materials, as to the adequacy of the device to withstand the post accident spray.

If no aging tests were done, an engineering analysis was made to determine useful life. Refer to the discussion under Section 2.6 for the methodology used.

3.2.3 Where no qualification tests were done:

A research was made with vendor's help in some cases, to locate any test the vendor may have performed which could provide information about the limits of temperature, pressure, etc... A subcomponent and material list was made using vendor furnished information. An engineering analysis was then performed on the basis of the construction and materials used. Relevant published data was used in the analysis and referenced, as appropriate.



The devices which were qualified based on engineering analyses fall into three environmental categories:

Category I - In-Containment Devices:

There are a few devices, located inside containment, for which qualification tests were not done, but were determined to be qualifiable based on engineering analysis. For a few devices like, ASCO Solenoid valves, NAMCO limit switches, charcoal filter thermocouple reference junctions, and the containment recirculation sump level switches, no analyses were made. As indicated in the Phase II response, these would be replaced; a justification for continued unit operation was provided.

A systematic analysis based on the equipment material and construction was performed taking all the post-accident parameters into consideration. Vendor furnished data, any type test information, and other published materials were used in the analysis.

Category II - Inside Auxiliary Building:

Except for radiation due to recirculation fluid after a LOCA, an accident inside containment, or outside auxiliary building, does not affect the environment inside the auxiliary building. As stated under Section 2.4, there is no adverse affect resulting from the postulated HELB accident inside auxiliary building.



The engineering analysis, therefore, included only the effects of radiation. This was done based on vendor furnished data and/or published information on the radiation effects on materials.

Category III - Outside Containment and Outside Auxiliary

Building:

The devices in this category are located in HELB areas outdoors. The only parameters considered are temperature (212°F) and humidity. The pressure is assumed to be atmospheric as the postulated break locations are not in enclosed areas. Radiation is not a relevant parameter. (Refer to Section B.1 & Attachment 6 of the Phase II Response).

The engineering analysis reviewed the material and construction of the device and discussed the affects of temperature and humidity on these, based on vendor furnished data and/or other published information.



3.3 Discussion on Margin (M)

Margin has been identified as a deficiency for a number of devices in Appendix B (SER). The Response Sheets in the Appendix Q provide a disposition in these cases.

For many devices margin has been noted as a deficiency, presumably because the Specified Time and Qualified Time values are the same on the Component Evaluation Sheets, i.e., the qualified time is equal to the accident required time. In these cases the qualified values are either extrapolated test results or values based on engineering analysis. In either case the qualified values can be shown to be significantly higher than the value indicated on the component evaluation sheet. Therefore, sufficient margin is available in these cases even though not explicitly indicated on the Component Evaluation Work Sheets.



4. CONCLUSIONS

It is believed that this response addresses and answers completely the generic concerns and the deficiencies indicated in the SER. In many instances, the staff's reasons for the indication of deficiencies were not adequately clear. However, some clarification was provided via discussions with the members of the Equipment Qualification Branch during a telephone conversation and during the Equipment Qualification Seminar held in Bethesda, Maryland between the 7th and 10th of July, 1981. The format of this response is based on the clarification provided by the staff and the Safety Evaluation Report.



APPENDIX P
SUPPLEMENT TO MASTER LIST-
DISPLAY INSTRUMENTATION

RESPONSE TO SER
ENVIRONMENTAL QUALIFICATION OF
ELECTRICAL EQUIPMENT
IE BULLETIN 79-01B
TURKEY POINT UNITS 3 & 4
DOCKETS 50-250/251



DISPLAY INSTRUMENTATION

The following constitutes a complete listing of all display instrumentation referred to in the LOCA and HELB Emergency Operating Procedures for Turkey Point Units 3 and 4.

The listing is divided into three parts:

I) Display Instrumentation

This category includes those indicators, recorder, lights, and annunciation panel windows that get their signals from instruments that measure process variables throughout the plant. The complete loops of these instruments are available in the plant central files for inspection. In each case, the instrument is located in the control room. That part of the loop exposed to the harsh environment was previously covered in the component evaluation worksheets. The page number of the component evaluation is included in the list as appropriate. Initiating devices not in the harsh environment are labeled 'mild' in this "C.E.S. page no." column.

II) Valve Position Verification

Indicating/status lights that verify the position of those valves included in the emergency procedures are listed in this section. These valves are grouped as follows:

- a) Valves located in a harsh environment (The associated C.E.S. page number is listed)
- b) Valves located in a mild environment (These valves are labeled 'mild')
- c) Valves that perform their function before being subjected to the harsh environment
- d) Valves that are not considered to be safety related, but are included in the Emergency Operating Procedures.

III) Feeder Breaker Position Indication

The indicating lights and annunciator windows are initiated by the motor feeder breakers. Both the breakers and the indicating lights/annunciators are located in mild environment.

- o Mild environment is assumed to be one that is not affected by the accident, i.e., the environmental parameters are not affected by the accident any more than during the normal shutdown mode of operation.
- o The "Remarks" column refers to explanatory notes as necessary. These notes follow the list.
- o Item numbers followed by * indicate those display instruments that are listed in the Emergency Operating Procedures, but are non-essential. Malfunction or subsequent failure of the equipment does not degrade other safety functions or mislead the operator.



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SECTION B.3

ADDENDUM TO MASTER LIST

PART: I : DISPLAY INSTRUMENTATION DEVICES

SECTION/ ITEM No.	DEVICE NUMBER	SIGNAL INITIATION		SYSTEM	SERVICE	REMARKS
		TAG No.	C.E.S. PG.			
I-1	PI-3-403	PT-3-403	1-1	RCS	Wide Range Reactor Coolant Pressure	
I-2	PI-3-405	PT-3-405	1-2	RCS	Wide Range Reactor Coolant Pressure	
I-3	PI-4-403	PT-4-403	1-5	RCS	Wide Range Reactor Coolant Pressure	
I-4	PI-4-405	PT-4-405	1-6	RCS	Wide Range Reactor Coolant Pressure	
I-5*	Monitor	PT-3-406	1-3	RCS	Reactor Coolant Subcool Margin Monitor	
		PT-3-404	1-4	RCS	Reactor Coolant Subcool Margin Monitor	
		TE-3-413A	1-49	RCS	Reactor Coolant Subcool Margin Monitor	
		TE-3-413B	1-50	RCS	Reactor Coolant Subcool Margin Monitor	
		TE-3-423A	1-51	RCS	Reactor Coolant Subcool Margin Monitor	
		TE-3-423B	1-52	RCS	Reactor Coolant Subcool Margin Monitor	
		TE-3-433A	1-53	RCS	Reactor Coolant Subcool Margin Monitor	
		TE-3-433B	1-54	RCS	Reactor Coolant Subcool Margin Monitor	
		PT-4-406	1-7	RCS	Reactor Coolant Subcool Margin Monitor	
		PT-4-404	1-8	RCS	Reactor Coolant Subcool Margin Monitor	
I-6*	Monitor	TE-4-413A	1-55	RCS	Reactor Coolant Subcool Margin Monitor	
		TE-4-413B	1-56	RCS	Reactor Coolant Subcool Margin Monitor	
		TE-4-423A	1-57	RCS	Reactor Coolant Subcool Margin Monitor	
		TE-4-423B	1-58	RCS	Reactor Coolant Subcool Margin Monitor	
		TE-4-433A	1-59	RCS	Reactor Coolant Subcool Margin Monitor	
		TE-4-433B	1-60	RCS	Reactor Coolant Subcool Margin Monitor	
		TE-3-413A	1-49	RCS	Reactor Coolant Hot Leg Wide Range Temp.	
		TE-3-423A	1-51	RCS	Reactor Coolant Hot Leg Wide Range Temp.	
		TE-3-433A	1-53	RCS	Reactor Coolant Hot Leg Wide Range Temp.	
		TE-4-413A	1-55	RCS	Reactor Coolant Hot Leg Wide Range Temp.	
I-7	TR-3-413	TE-4-423A	1-57	RCS	Reactor Coolant Hot Leg Wide Range Temp.	
		TE-4-433A	1-59	RCS	Reactor Coolant Hot Leg Wide Range Temp.	
I-8	TR-4-413	PT-3-455	1-9	RCS	Pressurizer Pressure	
		PT-3-456	1-10	RCS	Pressurizer Pressure	
I-9	PI-3-455	PT-3-455	1-9	RCS	Pressurizer Pressure	
I-10	PI-3-456	PT-3-456	1-10	RCS	Pressurizer Pressure	
I-11	PI-3-457	PT-3-457	1-11	RCS	Pressurizer Pressure	



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SECTION B.3

ADDENDUM TO MASTER LIST

PART I : DISPLAY INSTRUMENTATION DEVICES

SECTION/ ITEM No.	DEVICE NUMBER	SIGNAL INITIATION		SYSTEM	SERVICE	REMARKS
		TAG No.	C.E.S. PG.			
I-12	PI-4-455	PT-4-455	1-12	RCS	Pressurizer Pressure	
I-13	PI-4-456	PT-4-456	1-13	RCS	Pressurizer Pressure	
I-14	PI-4-457	PT-4-457	1-14	RCS	Pressurizer Pressure	
I-15	LI-3-459A	LT-3-459	1-15	RCS	Pressurizer Level	
I-16	LI-3-460	LT-3-460	1-16	RCS	Pressurizer Level	
I-17	LI-3-461	LT-3-461	1-17	RCS	Pressurizer Level	
I-18	LR-3-459	459-461	1-15, 16 & 17	RCS	Pressurizer Level	
I-19	LI-4-459A	LT-4-459	1-18	RCS	Pressurizer Level	
I-20	LI-4-460	LT-4-460	1-19	RCS	Pressurizer Level	
I-21	LI-4-461	LT-4-461	1-20	RCS	Pressurizer Level	
I-22	LR-4-459	459-461	1-18, 19 & 20	RCS	Pressurizer Level	
I-23*	TI-3-412D	TE-3-412D	1-22	RCS	Reactor Coolant System T avg.	
I-24*	TI-3-422D	TE-3-422D	1-24	RCS	Reactor Coolant System T avg.	
I-25*	TI-3-432D	TE-3-432D	1-26	RCS	Reactor Coolant System T avg.	
I-26*	TI-4-412D	TE-4-412D	1-28	RCS	Reactor Coolant System T avg.	
I-27*	TI-4-422D	TE-4-422D	1-30	RCS	Reactor Coolant System T avg.	
I-28*	TI-4-432D	TE-4-432D	1-32	RCS	Reactor Coolant System T avg.	
I-29	TR-3-410	TE-3-410	1-37	RCS	Reactor Coolant Cold Leg Wide Range Temp.	
		TE-3-420	1-39	RCS	Reactor Coolant Cold Leg Wide Range Temp.	
		TE-3-430	1-41	RCS	Reactor Coolant Cold Leg Wide Range Temp.	
I-30		TE-4-410	1-43	RCS	Reactor Coolant Cold Leg Wide Range Temp.	
		TE-4-420	1-45	RCS	Reactor Coolant Cold Leg Wide Range Temp.	
		TE-4-430	1-47	RCS	Reactor Coolant Cold Leg Wide Range Temp.	
I-31	Indicator	ZS-3-6303A	1-38	RCS	Safety Valve Acoustic Monitor	
I-32	Indicator	ZS-3-6303B	1-40	RCS	Safety Valve Acoustic Monitor	
I-33	Indicator	ZS-3-6303C	1-42	RCS	Safety Valve Acoustic Monitor	
I-34	Indicator	ZS-4-6303A	1-44	RCS	Safety Valve Acoustic Monitor	
I-35	Indicator	ZS-4-6303B	1-46	RCS	Safety Valve Acoustic Monitor	
I-36	Indicator	ZS-4-6303C	1-48	RCS	Safety Valve Acoustic Monitor	



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SECTION B.3

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PART I : DISPLAY INSTRUMENTATION DEVICES

SECTION/ ITEM No.	DEVICE NUMBER	SIGNAL INITIATION		SYSTEM	SERVICE	REMARKS
		TAG No.	C.E.S. PG.			
I-37	FI-3-110	FT-3-110	2-28	CVCS	Emergency Boration Flow	
I-38	FI-4-110	FT-4-110	2-29	CVCS	Emergency Boration Flow	
I-39	FI-3-122	FT-3-122	2-60	CVCS	Charging Pump Discharge Flow	
I-40	FI-4-122	FT-4-122	2-61	CVCS	Charging Pump Discharge Flow	
I-41*	LI-3-115	LT-3-115	MILD	CVCS	Volume Control Tank Level	
I-42*	LI-4-115	LT-4-115	MILD	CVCS	Volume Control Tank Level	
I-43	LI-106	LT-106	MILD	CVCS	Boric Acid Tank "A" Level	
I-44	LI-108	LT-108	MILD	CVCS	Boric Acid Tank "B" Level	
I-45	LI-108B	LT-108	MILD	CVCS	Boric Acid Tank "B" Level	
I-46	LI-102	LT-102	MILD	CVCS	Boric Acid Tank "C" Level	
I-47	PI-3-940	PT-3-940	3-1	SI/RHR	Safety Injection Header Pressure	
I-48	PI-4-940	PT-4-940	3-2	SI/RHR	Safety Injection Header Pressure	
I-49	PI-3-943	PT-3-943	3-3	SI/RHR	Safety Injection Header Pressure	
I-50	PI-4-943	PT-4-943	3-4	SI/RHR	Safety Injection Header Pressure	
I-51	FI-3-940	FT-3-940	3-5	SI/RHR	Safety Injection Flow to R.C.S.	
I-52	FI-3-943	FT-3-943	3-6	SI/RHR	Safety Injection Flow to R.C.S.	
I-53	FI-4-940	FT-4-940	3-7	SI/RHR	Safety Injection Flow to R.C.S.	
I-54	FI-4-943	FT-4-943	3-8	SI/RHR	Safety Injection Flow to R.C.S.	
I-55	FI-3-932	FT-3-932	3-9	SI/RHR	Safety Injection Flow to R.C.S. Hot Leg	
I-56	FI-3-933	FT-3-933	3-10	SI/RHR	Safety Injection Flow to R.C.S. Hot Leg	
I-57	FI-4-932	FT-4-932	3-11	SI/RHR	Safety Injection Flow to R.C.S. Hot Leg	
I-58	FI-4-933	FT-4-933	3-12	SI/RHR	Safety Injection Flow to R.C.S. Hot Leg	
I-59	FI-3-605	FT-3-605	3-13	SI/RHR	Residual Heat Removal Discharge Flow	
I-60	FI-4-605	FT-4-605	3-14	SI/RHR	Residual Heat Removal Discharge Flow	
I-61	XE Y	LS-3-1570	3-73	SI/RHR	South Cont. Recirc Sump (A)	
I-62	XE Z	LS-3-1571	3-74	SI/RHR	North Cont. Recirc Sump (B)	
I-63	XE Y	LS-4-1570	3-75	SI/RHR	South Cont. Recirc Sump (A)	
I-64	XE Z	LS-4-1571	3-76	SI/RHR	Norht Cont. Recirc Sump (B)	



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SECTION B.3ADDENDUM TO MASTER LISTPART II : DISPLAY INSTRUMENTATION DEVICES

SECTION/ ITEM No.	DEVICE NUMBER	SIGNAL INITIATION		SYSTEM	SERVICE	REMARKS
		TAG No.	C.E.S. PG.			
I-65	LI-3-1545D	LT-3-1545	MILD	SI/RHR	Refueling Water Storage Tank Level	
I-66	LI-4-1545D	LT-4-1545	MILD	SI/RHR	Refueling Water Storage Tank Level	
I-67 *	I-7/6	LS-3-1535		SI/RHR	High RHR Sump Water Level	See Note 6
I-68 *	I-8/6	LS-3-1536		SI/RHR	High RHR Sump Water Level	See Note 6
I-69 *	I-7/6	LS-4-1535		SI/RHR	High RHR Sump Water Level	See Note 6
I-70 *	I-8/6	LS-4-1536		SI/RHR	High RHR Sump Water Level	See Note 6
I-71 *	FI-3-613	FT-3-613A	4-37	CCW	Component Cooling Water to RCP Flow	
I-72 *	FI-4-613	FT-4-613A	4-38	CCW	Component Cooling Water to RCP Flow	
I-73 *	FI-3-613 B	FT-3-613 B	4-39	CCW	Component Cooling Water to RCP Flow	
I-74 *	FI-4-613 B	FT-4-613 B	4-40	CCW	Component Cooling Water to RCP Flow	
I-75	PI-3-474	PT-3-474	5-1	M.S.	Steam Generator Pressure Loop 'A'	
I-76	PI-3-475	PT-3-475	5-2	M.S.	Steam Generator Pressure Loop 'A'	
I-77	PI-3-476	PT-3-476	5-3	M.S.	Steam Generator Pressure Loop 'A'	
I-78	PI-3-484	PT-3-484	5-4	M.S.	Steam Generator Pressure Loop 'B'	
I-79	PI-3-485	PT-3-485	5-5	M.S.	Steam Generator Pressure Loop 'B'	
I-80	PI-3-486	PT-3-486	5-6	M.S.	Steam Generator Pressure Loop 'B'	
I-81	PI-3-494	PT-3-494	5-7	M.S.	Steam Generator Pressure Loop 'C'	
I-82	PI-3-495	PT-3-495	5-8	M.S.	Steam Generator Pressure Loop 'C'	
I-83	PI-3-496	PT-3-496	5-9	M.S.	Steam Generator Pressure Loop 'C'	
I-84	PI-4-474	PT-4-474	5-10	M.S.	Steam Generator Pressure Loop 'A'	
I-85	PI-4-475	PT-4-474	5-11	M.S.	Steam Generator Pressure Loop 'A'	
I-86	PI-4-476	PT-4-476	5-12	M.S.	Steam Generator Pressure Loop 'A'	
I-87	PI-4-484	PT-4-484	5-13	M.S.	Steam Generator Pressure Loop 'B'	
I-88	PI-4-485	PT-4-485	5-14	M.S.	Steam Generator Pressure Loop 'B'	
I-89	PI-4-486	PT-4-486	5-15	M.S.	Steam Generator Pressure Loop 'B'	
I-90	PI-4-494	PT-4-494	5-16	M.S.	Steam Generator Pressure Loop 'C'	
I-91	PI-4-495	PT-4-495	5-17	M.S.	Steam Generator Pressure Loop 'C'	
I-92	PI-4-496	PT-4-494	5-18	M.S.	Steam Generator Pressure Loop 'C'	



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SECTION B.3ADDENDUM TO MASTER LISTPART 1 : DISPLAY INSTRUMENTATION DEVICES

SECTION/ ITEM No.	DEVICE NUMBER	SIGNAL INITIATION		SYSTEM	SERVICE	REMARKS
		TAG No.	C.E.S. PG.			
I-93	PI-3-464A	PT-3-464	5-19	M.S.	Steam Generator Header Pressure	
I-94	PI-3-466	PT-3-466	5-20	M.S.	Steam Generator Header Pressure	
I-95	PI-3-468	PT-3-468	5-21	M.S.	Steam Generator Header Pressure	
I-96	PI-4-464A	PT-4-464	5-22	M.S.	Steam Generator Header Pressure	
I-97	PI-4-466	PT-4-466	5-23	M.S.	Steam Generator Header Pressure	
I-98	PI-4-468	PT-4-468	5-24	M.S.	Steam Generator Header Pressure	
I-99*	FI-3-475	FT-3-475	5-25	M.S.	Main Steamline Flow	
I-100*	FI-3-484	FT-3-484	5-26	M.S.	Main Steamline Flow	
I-101*	FI-3-485	FT-3-485	5-27	M.S.	Main Steamline Flow	
I-102*	FI-3-494	FT-3-494	5-28	M.S.	Main Steamline Flow	
I-103*	FI-3-495	FT-3-495	5-29	M.S.	Main Steamline Flow	
I-104*	FI-3-474	FT-3-474	5-30	M.S.	Main Steamline Flow	
I-105*	FI-4-474	FT-4-474	5-31	M.S.	Main Steamline Flow	
I-106*	FI-4-475	FT-4-475	5-32	M.S.	Main Steamline Flow	
I-107*	FI-4-484	FT-4-484	5-33	M.S.	Main Steamline Flow	
I-108*	FI-4-485	FT-4-485	5-34	M.S.	Main Steamline Flow	
I-109*	FI-4-494	FT-4-494	5-35	M.S.	Main Steamline Flow	
I-110*	FI-4-495	FT-4-494	5-36	M.S.	Main Steamline Flow	
I-111	LI-3-474	LT-3-474	7-1	F.W.	Steam Generator Narrow Range Level	
I-112	LI-3-475	LT-3-475	7-2	F.W.	Steam Generator Narrow Range Level	
I-113	LI-3-476	LT-3-476	7-3	F.W.	Steam Generator Narrow Range Level	
I-114	FR-3-478	474-476	7-1,2,3	F.W.	Steam Generator Narrow Range Level	
I-115	LI-3-484	LT-3-484	7-4	F.W.	Steam Generator Narrow Range Level	
I-116	LI-3-485	LT-3-485	7-5	F.W.	Steam Generator Narrow Range Level	
I-117	LI-3-486	LT-3-486	7-6	F.W.	Steam Generator Narrow Range Level	
I-118	Fr-3-488	484-486	7-4,5,6	F.W.	Steam Generator Narrow Range Level	
I-119	LI-3-494	LT-3-494	7-7	F.W.	Steam Generator Narrow Range Level	
I-120	LI-3-495	LT-3-495	7-8	F.W.	Steam Generator Narrow Range Level	



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PART I : DISPLAY INSTRUMENTATION DEVICES

SECTION/ ITEM No.	DEVICE NUMBER	SIGNAL INITIATION		SYSTEM	SERVICE	REMARKS
		TAG No.	C.E.S. PG.			
I-121	LI-3-496	LT-3-496	7-9	F.W.	Steam Generator Narrow Range Level	
I-122	FR-3-498	494-496	7-7, 8, 9	F.W.	Steam Generator Narrow Range Level	
I-123	LI-4-474	LT-4-474	7-10	F.W.	Steam Generator Narrow Range Level	
I-124	LI-4-475	LT-4-475	7-11	F.W.	Steam Generator Narrow Range Level	
I-125	LI-4-476	LT-4-476	7-12	F.W.	Steam Generator Narrow Range Level	
I-126	FR-4-478	474-476	7-10, 11, 12	F.W.	Steam Generator Narrow Range Level	
I-127	LI-4-484	LT-4-484	7-13	F.W.	Steam Generator Narrow Range Level	
I-128	LI-4-485	LT-4-485	7-14	F.W.	Steam Generator Narrow Range Level	
I-129	LI-4-486	LT-4-486	7-15	F.W.	Steam Generator Narrow Range Level	
I-130	FR-4-488	484-486	7-13, 14, 15	F.W.	Steam Generator Narrow Range Level	
I-131	LI-4-494	LT-4-494	7-16	F.W.	Steam Generator Narrow Range Level	
I-132	LI-4-495	LT-4-495	7-17	F.W.	Steam Generator Narrow Range Level	
I-133	LI-4-496	LT-4-496	7-18	F.W.	Steam Generator Narrow Range Level	
I-134	FR-4-498	494-496	7-16, 17, 18	F.W.	Steam Generator Narrow Range Level	
I-135*	FI-3-476	FT-3-476	MILD	F.W.	Steam Generator 'A' Feedwater Flow	
I-136*	FI-3-477	FT-3-477	MILD	F.W.	Steam Generator 'A' Feedwater Flow	
I-137*	FI-3-486	FT-3-486	MILD	F.W.	Steam Generator 'B' Feedwater Flow	
I-138*	FI-3-487	FT-3-487	MILD	F.W.	Steam Generator 'B' Feedwater Flow	
I-139*	FI-3-496	FT-3-496	MILD	F.W.	Steam Generator 'C' Feedwater Flow	
I-140*	FI-3-497	FT-3-497	MILD	F.W.	Steam Generator 'C' Feedwater Flow	
I-141*	FI-4-476	FT-4-476	MILD	F.W.	Steam Generator 'A' Feedwater Flow	
I-142*	FI-4-477	FT-4-477	MILD	F.W.	Steam Generator 'A' Feedwater Flow	
I-143*	FI-4-486	FT-4-486	MILD	F.W.	Steam Generator 'B' Feedwater Flow	
I-144*	FI-4-487	FT-4-487	MILD	F.W.	Steam Generator 'B' Feedwater Flow	
I-145*	FI-4-496	FT-4-496	MILD	F.W.	Steam Generator 'C' Feedwater Flow	
I-146*	FI-4-497	FT-4-497	MILD	F.W.	Steam Generator 'C' Feedwater Flow	
I-147	R-3-1414	TE-3-3440	9-1	C-VENT.	Charcoal Filter Temp.	
		TE-3-3463	9-24	C-VENT.	Charcoal Filter Temp.	



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SECTION/ ITEM No.	DEVICE NUMBER	SIGNAL INITIATION		SYSTEM	SERVICE	REMARKS
		TAG No.	C.E.S. PG.			
I-148	R-4-1414	TE-4-3440 ↓	9-25 ↓	C-VENT	Charcoal Filter Temp.	
		TE-4-3463	9-48	C-VENT.	Charcoal Filter Temp.	
I-149	R 311	RD-3-11	9-51	C-VENT.	Containment Air Particle	
I-150	R 312	RD-3-12	9-52	C-VENT.	Containment Gas Monitor	
I-151	R 411	RD-4-11	9-53	C-VENT.	Containment Air Particule	
I-152	R 412	RD-4-12	9-54	C-VENT.	Containment Gas Monitor	
I-153	PI-3-1622	PT-3-1622	9-91	C-VENT.	Containment Pressure	
I-154	PI-3-1623	PT-3-1623	9-92	C-VENT.	Conainment Pressure	
I-155	PI-4-1622	PT-4-1622	9-93	C-VENT.	Containment Pressure	
I-156	PI-4-1623	PT-4-1623	9-94	C-VENT.	Containment Pressure	
I-157	LI-3-1544	LT-3-1544		C&FW	Condensate Storage Tank Level	Pneumatic
I-158	LI-4-1544	LT-4-1544		C&FW	Condensate Storage Tank Level	Pneumatic
I-159	FI-3-1401	FT-3-1401		C&FW	Auxiliary Feedwater Flow	Pneumatic
I-160	FI-3-1457	FT-3-1457		C&FW	Auxiliary Feedwater Flow	Pneumatic
I-161	FI-3-1458	FT-3-1458		C&FW	Auxiliary Feedwater Flow	Pneumatic
I-162	FI-4-1401	FT-4-1401		C&FW	Auxiliary Feedwater Flow	Pneumatic
I-163	FI-4-1457	FT-4-1457		C&FW	Auxiliary Feedwater Flow	Pneumatic
I-164	FI-4-1458	FT-4-1458		C&FW	Auxiliary Feedwater. Flow	Pneumatic



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SECTION/ ITEM No.	INDICATION	C.E.S. PAGE	VALVE MONITORED	SYSTEM	SERVICE	REMARKS
II- 1	Lights	1-33	MOV-3-535	RCS	Pressurizer PORV Back Up Isolation	
II- 2	Lights	1-34	MOV-3-536	RCS	Pressurizer PORV Back Up Isolation	
II- 3	Lights	1-35	MOV-4-535	RCS	Pressurizer PORV Back Up Isolation	
II- 4	Lights	1-36	MOV-4-536	RCS	Pressurizer PORV Back Up Isolation	
	Monitor		3-551A	RCS	Pressurizer Safety Valve	See I-31
	Monitor		3-551B	RCS	Pressurizer Safety Valve	See I-32
	Monitor		3-551C	RCS	Pressurizer Safety Valve	See I-33
	Monitor		4-551A	RCS	Pressurizer Safety Valve	See I-34
	Monitor		4-551B	RCS	Pressurizer Safety Valve	See I-35
	Monitor		4-551C	RCS	Pressurizer Safety Valve	See I-36
II- 5*	Lights	2-2	CV-3-310A	CVCS	R.C.S. Charging Line	See Note 1
II- 6*	Lights	2-4	CV-3-310B	CVCS	R.C.S. Charging Line	See Note 1
II- 7*	Lights	2-6	CV-4-310A	CVCS	R.C.S. Charging Line	See Note 1
II- 8*	Lights	2-8	CV-4-310B	CVCS	R.C.S. Charging Line	See Note 1
II- 9*	Lights	2-10	CV-3-200A	CVCS	R.C.S. Letdown Orifice Isolation	
II- 10*	Lights	2-12	CV-3-200B	CVCS	R.C.S. Letdown Orifice Isolation	
II- 11*	Lights	2-14	CV-3-200C	CVCS	R.C.S. Letdown Orifice Isolation	
II- 12*	Lights	2-16	CV-4-200A	CVCS	R.C.S. Letdown Orifice Isolation	
II- 13*	Lights	2-18	CV-4-200B	CVCS	R.C.S. Letdown Orifice Isolation	
II- 14*	Lights	2-20	CV-4-200C	CVCS	R.C.S. Letdown Orifice Isolation	
II- 15	Lights	3-21	MOV-3-744A	SI/RHR	R.C.S. Inlet Isolation	
II- 16	Lights	3-22	MOV-4-744A	SI/RHR	R.C.S. Inlet Isolation	
II- 17	Lights	3-23	MOV-3-744B	SI/RHR	R.C.S. Inlet Isolation	
II- 18	Lights	3-24	MOV-4-744B	SI/RHR	R.C.S. Inlet Isolation	
II- 19	Lights	3-29	MOV-3-843A	SI/RHR	Boron SI Valve (L.P.'A' Cold Leg)	
II- 20	Lights	3-30	MOV-3-843B	SI/RHR	Boron SI Valve (L.P.'B' Cold Leg)	
II- 21	Lights	3-31	MOV-4-843A	SI/RHR	Boron SI Valve (L.P.'A' Cold Leg)	
II- 22	Lights	3-32	MOV-4-843B	SI/RHR	Boron SI Valve (L.P.'B' Cold Leg)	
II- 23	Lights	3-51	MOV-3-867A	SI/RHR	B.I.T. High High Pressure Valve	



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SECTION/ ITEM No.	INDICATION	C.E.S. PAGE	VALVE MONITORED	SYSTEM	SERVICE	REMARKS
II- 24	Lights	3-52	MOV-3-867B	SI/RHR	B.I.T. High High Pressure Valve	
II- 25	Lights	3-53	MOV-4-867A	SI/RHR	B.I.T. High High Pressure Valve	
II- 26	Lights	3-54	MOV-4-867B	SI/RHR	B.I.T. High High Pressure Valve	
II- 27	Lights	3-61	MOV-3-869	SI/RHR	Hot Leg S.I. Stop Valve	
II- 28	Lights	3-62	MOV-4-869	SI/RHR	Hot Leg S.I. Stop Valve	
II- 29	Lights	6-1	MOV-3-1403	A.F.W.	Aux. Feedwater Steam Valves	
II- 30	Lights	6-2	MOV-3-1404	A.F.W.	Aux. Feedwater Steam Valves	
II- 31	Lights	6-3	MOV-3-1405	A.F.W.	Aux. Feedwater Steam Valves	
II- 32	Lights	6-4	MOV-4-1403	A.F.W.	Aux. Feedwater Steam Valves	
II- 33	Lights	6-5	MOV-4-1404	A.F.W.	Aux. Feedwater Steam Valves	
II - 34	Lights	6-6	MOV-4-1405	A.F.W.	Aux. Feedwater Steam Valves	
II- 35	Lights	8-1	MOV-3-1410	C&FW	Steam Generator Blowdown	
II- 36	Lights	8-3	MOV-3-1411	C&FW	Steam Generator Blowdown	
II- 37	Lights	8-5	MOV-3-1412	C&FW	Steam Generator Blowdown	
II- 38	Lights	8-7	MOV-4-1410	C&FW	Steam Generator Blowdown	
II- 39	Lights	8-9	MOV-4-1411	C&FW	Steam Generator Blowdown	
II- 40	Lights	8-11	MOV-4-1412	C&FW	Steam Generator Blowdown	
	FI-3-1401	8-13	CV-3-2816	C&FW	Aux. Feedwater Regulating Valves	See I-157
	FI-3-1401	8-14	CV-3-2831	C&FW	Aux. Feedwater Regulating Valves	See I-157
	FI-3-1457	8-15	CV-3-2817	C&FW	Aux. Feedwater Regulating Valves	See I-158
	FI-3-1457	8-16	CV-3-2832	C&FW	Aux. Feedwater Regulating Valves	See I-158
	FI-3-1458	8-17	CV-3-2818	C&FW	Aux. Feedwater Regulating Valves	See I-159
	FI-3-1458	8-18	CV-3-2833	C&FW	Aux. Feedwater Regulating Valves	See I-159
	FI-4-1401	8-19	CV-4-2816	C&FW	Aux. Feedwater Regulating Valves	See I-160
	FI-4-1401	8-20	CV-4-2831	C&FW	Aux. Feedwater Regulating Valves	See I-160
	FI-4-1457	8-21	CV-4-2817	C&FW	Aux. Feedwater Regulating Valves	See I-161
	FI-4-1457	8-22	CV-4-2832	C&FW	Aux. Feedwater Regulating Valves	See I-161
	FI-4-1458	8-23	CV-4-2818	C&FW	Aux. Feedwater Regulating Valves	See I-162



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II- 41	FI-4-1458	8-24	CV-4-2833	C&FW	Aux. Feedwater Regulating Valves	See I-162
II- 42	POG- 3-2823	9-107	CV-3-2911	C.Vent.	Containment Isolation Air Sample	
II- 43	POG-3-2824	9-108	CV-3-2912	C.Vent.	Containment Isolation Air Sample	
II- 44	POG-3-2825	9-109	CV-3-2913	C.Vent.	Containment Isolation Air Sample	
II- 45	POG-4-2823	9-110	CV-4-2911	C.Vent.	Containment Isolation Air Sample	
II- 46	POG-4-2824	9-111	CV-4-2912	C.Vent.	Containment Isolation Air Sample	
II- 47	POG-4-2825	9-112	CV-4-2913	C.Vent.	Containment Isolation Air Sample	
II- 48	Lights	9-115	POV-3-2601	C.Vent.	Containment Purge Air Supply Valve	
II- 49	Lights	9-118	POV-3-2603	C.Vent.	Containment Purge Air Return Valve	
II- 50	Lights	9-121	POV-4-2601	C.Vent.	Containment Purge Air Supply Valve	
II- 51	Lights	9-124	POV-4-2603	C.Vent.	Containment Purge Air Return Valve	
II- 52	Lights	9-126	CV-3-2819	C.Vent.	Containment Instrument Air Bleed Valve	
II- 53*	Lights	9-128	CV-4-2819	C.Vent.	Containment Instrument Air Bleed Valve	
II- 54*	Lights	MILD	HCV-104	SI/RHR	Boric Acid Tank 'C' Recirculation	
II- 55*	Lights	MILD	HCV-105	SI/RHR	Boric Acid Tank 'B' Recirculation	
II- 56	Lights	MILD	HCV-110	SI/RHR	Boric Acid Tank 'A' Recirculation	
II- 57	Lights	MILD	CV-3-2826	C.Vent.	Containment Instrument Air Bleed Valve	
II- 58	Lights	MILD	CV-4-2826	C.Vent.	Containment Instrument Air Bleed Valve	
II- 59	Lights	MILD	POV-3-2600	C.Vent.	Containment Purge Air Supply Valve	
II- 60	Lights	MILD	POV-3-2602	C.Vent.	Containment Purge Air Return Valve	
II- 61	Lights	MILD	POV-4-2600	C.Vent.	Containment Pruge Air Supply Valve	
II- 62	Lights	MILD	POV-4-2602	C.Vent.	Containment Purge Air Return Valve	
II- 63	Lights	MILD	CV-3-516	R.C.S.	P.R.T. Gas Analyzer Isolation	See note 2
II- 64	Lights	MILD	CV-4-516	R.C.S.	P.R.T. Gas Analyzer Isolation	See note 2
II- 65	Lights	MILD	CV-3-519A	R.C.S.	P.R.T. Spray Line Isolation	See note 2
II- 66	Lights	MILD	CV-4-519A	R.C.S.	P.R.T. Spray Line Isolation	See note 2
II- 67	Lights	MILD	CV-3-204	CVCS	Letdown Line Containment Isol.	See note 2
II- 68	Lights	MILD	CV-4-204	CVCS	Letdown Line Conatinment Isol.	See note 2
II- 69	FI-3-122	MILD	HCV-3-121	CVCS	Letdown Charging	Notes 1&2
II- 69	FI-4-122	MILD	HCV-4-121	CVCS	Letdown Charging	Notes 1 & 2



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SECTION/ ITEM No.	INDICATION	C.E.S. PAGE	VALVE MONITORED	SYSTEM	SERVICE	REMARKS
II- 70	Lights	MILD	MOV-3-381	SI/RHR	R.C.P. Seal Water Return Line	See note 2
II- 71	Lights	MILD	MOV-4-381	SI/RHR	R.C.P. seal Water Return Line	See note 2
II- 72 *	Lights	MILD	SV-3-841A	SI/RHR	B.I.T. to Boric Acid Tanks	See note 2
II- 73 *	Lights	MILD	SV-3-841B	SI/RHR	B.I.T. to Boric Acid Tanks	See note 2
II- 74 *	Lights	MILD	SV-4-841 A	SI/RHR	B.I.T. to Boric Acid Tanks	See Note 2
II- 75 *	Lights	MILD	SV-4-841 B	SI/RHR	B.I.T. to Boric Acid Tanks	See Note 2
II- 76	Lights	MILD	CV-3-855	SI/RHR	Accumulator N ₂ & Tank Fill Isolation	See Note 2
II- 77	Lights	MILD	CV-4-855	SI/RHR	Accumulator N ₂ & Tank Fill Isolation	See Note 2
II- 78	Lights	MILD	FCV-3-626	CCW	CCW Thermal Barrier Isolation	See Note 2
II- 79	Lights	MILD	FCV-4-626	CCW	CCW Thermal Barrier Isolation	See Note 2
II- 80	Lights	MILD	CV-3-739	CCW	Excess Letdown Heat Exchanger Isol.	See Note 2
II- 81	Lights	MILD	CV-4-739	CCW	Excess Letdown Heat Exchanger Isol.	See Note 2
II- 82	Lights	MILD	MOV-3-1417	CCW	Containment Cooling Water Inlet	See Note 2
II- 83	Lights	MILD	MOV-3-1418	CCW	Containment Cooling Water Discharge	See Note 2
II- 84	Lights	MILD	MOV-4-1417	CCW	Containment Cooling Water Inlet	See Note 2
II- 85	Lights	MILD	MOV-4-1418	CCW	Containment Cooling Water Discharge	See Note 2
II- 86	Lights	MILD	MOV-3-1425	M.S.	Steam Generator Water Sampling	See Note 2
II- 87	Lights	MILD	MOV-3-1426	M.S.	Steam Generator Water Sampling	See Note 2
II- 88	Lights	MILD	MOV-3-1427	M.S.	Steam Generator Water Sampling	See Note 2
II- 89	Lights	MILD	MOV-4-1425	M.S.	Steam Generator Water Sampling	See Note 2
II- 90	Lights	MILD	MOV-4-1426	M.S.	Steam Generator Water Sampling	See Note 2
II- 91	Lights	MILD	MOV-4-1427	M.S.	Steam Generator Water Sampling	See Note 2
	FI-3-476	MILD	FCV-3-478	F.W.	Main Feedwater Control Valves	See I- 135
	FI-3-486	MILD	FCV-3-488	F.W.	Main Feedwater Control Valves	See I- 137
	FI-3-496	MILD	FCV-3-498	F.W.	Main Feedwater Control Valves	See I- 139
	FI-3-477	MILD	FCV-3-479	F.W.	Main Feedwater Bypass Valves	See I- 136
	FI-3-487	MILD	FCV-3-489	F.W.	Main Feedwater Bypass Valves	See I- 138
	FI-3-497	MILD	FCV-3-499	F.W.	Main Feedwater Bypass Valves	See I- 140



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SECTION/ ITEM No.	INDICATION	C.E.S. PAGE	VALVE MONITORED	SYSTEM	SERVICE	REMARKS
	FI-3-476	MILD	FCV-4-478	F.W.	Main Feedwater Control Vlvs	See I- 141
	FI-3-486	MILD	FCV-4-488	F.W.	Main Feedwater Control Vlvs	See I- 143
	FI-3-496	MILD	FCV-4-498	F.W.	Main Feedwater Control Vlvs	See I- 145
	FI-3-477	MILD	FCV-4-479	F.W.	Main Feedwater Bypass Valves	See I -142
	FI-3-487	MILD	FCV-4-489	F.W.	Main Feedwater Bypass Valves	See I- 144
	FI-3-497	MILD	FCV-4-499	F.W.	Main Feedwater Bypass Valves	See I- 146
II- 92	Lights	MILD	CV-3-956 A	Sample	Containment Sample System Isolation	See Note 2
II -93	Lights	MILD	CV-3-956 B	Sample	Containment Sample System Isolation	See Note 2
II - 94	Lights	MILD	CV-3-956 C	Sample	Containment Sample System Isolation	See Note 2
II - 95	Lights	MILD	CV-3-956 D	Sample	Containment Sample System Isolation	See Note 2
II - 96	Lights	MILD	CV-4-956 A	Sample	Containment Sample System Isolation	See Note 2
II - 97	Lights	MILD	CV-4-956 B	Sample	Containment Sample System Isolation	See Note 2
II - 98	Lights	MILD	CV-4-956 C	Sample	Containment Sample System Isoaltion	See Note 2
II - 99	Lights	MILD	CV-4-956 D	Sample	Containment Sample System Isolation	See Note 2
II - 100	Lights	MILD	CV-3-4658A	WstDisp	R.C.D.T. to Vent Header	See Note 2
II- 101	Lights	MILD	CV-3-4658B	WstDisp	R.C.D.T. to Vent Header	See Note 2
II - 102	Lights	MILD	CV-4-4658A	WstDisp	R.C.D.T. to Vent Header	See Note 2
II - 103	Lights	MILD	CV-4-4658B	WstDisp	R.C.D.T. to Vent Header	See Note 2
II - 104	Lights	MILD	CV-3-4659A	WstDisp	R.C.D.T. Gas Analyzer Isolation	See Note 2
II - 105	Lights	MILD	CV-3-4659B	WstDisp	R.C.D.T. Gas Analyzer Isolation	See Note 2
II - 106	Lights	MILD	CV-4-4659A	WstDisp	R.C.D.T. Gas Analyzer Isolation	See Note 2
II - 107	Lights	MILD	CV-4-4659B	WSTDisp	R.C.D.T. Gas Analyzer Isolation	See Note 2
II- 108	Lights	MILD	CV-3-4668A	WstDisp	R.C.D.T. Pump Discharge	See Note 2
II - 109	Lights	MILD	CV-3-4668B	WstDisp	R.C.D.T. Pump Discharge	See Note 2
II - 110	Lights	MILD	CV-4-4668A	WstDisp	R.C.D.T. Pump Discharge	See Note 2
II- 111	Lights	MILD	CV-4-4668B	WstDisp	R.C.D.T. Pump Discharge	See Note 2
II - 112*	Lights	See Note 3	CV-3-951	Sample	Pressurizer Steam Space Sample	See Note 3
II - 113*	Lights	See Note 3	CV-4-951	Sample	Pressurizer Steam Space Sample	See Note 3
II - 114*	Lights	See Note 3	CV-3-953	Sample	Pressurizer Liquid Space Sample	See Note 3



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SECTION/ ITEM No.	INDICATION	C.E.S. PAGE	VALVE MONITORED	SYSTEM	SERVICE	REMARKS
II - 115*	Lights	See Note 3	CV-4-953	Sample	Pressurizer Liquid Space Sample	See Note 3
II - 116*	Lights	See Note 3	CV-3-955A	Sample	Hot Leg Sample Valve	See Note 3
II - 117*	Lights	See Note 3	CV-3-955B	Sample	Hot Leg Sample Valve	See Note 3
II - 118*	Lights	See Note 3	CV-4-955A	Sample	Hot Leg Sample Valve	See Note 3
II - 119*	Lights	See Note 3	CV-4-955B	Sample	Hot Leg Sample Valve	See Note 3
II - 120*	Lights	See Note 3	CV-3-955C	Sample	Accumulator Sample Valve	See Note 3
II - 121*	Lights	See Note 3	CV-3-955D	Sample	Accumulator Sample Valve	See Note 3
II - 122*	Lights	See Note 3	CV-3-955E	Sample	Accumulator Sample Valve	See Note 3
II - 123*	Lights	See Note 3	CV-4-955C	Sample	Accumulator Sample Valve	See Note 3
II - 124*	Lights	See Note 3	CV-4-955D	Sample	Accumulator Sample Valve	See Note 3
II - 125*	Lights	See Note 3	CV-4-955E	Sample	Accumulator Sample Valve	See Note 3
II - 126*	Lights	See Note 4	CV-3-850A	Sample	Accumulator S.I. Test Valve	See Note 4
II - 127*	Lights	See Note 4	CV-3-850B	Sample	Accumulator S.I. Test Valve	See Note 4
II - 128*	Lights	See Note 4	CV-3-850C	Sample	Accumulator S.I. Test Valve	See Note 4
II - 129*	Lights	See Note 4	CV-3-850D	Sample	Accumulator S.I. Test Valve	See Note 4
II - 130*	Lights	See Note 4	CV-3-850E	Sample	Accumulator S.I. Test Valve	See Note 4
II - 131*	Lights	See Note 4	CV-3-850F	Sample	Accumulator S.I. Test Valve	See Note 4
II - 132*	Lights	See Note 4	CV-4-850A	Sample	Accumulator S.I. Test Valve	See Note 4
II - 133*	Lights	See Note 4	CV-4-850B	Sample	Accumulator S.I. Test Valve	See Note 4
II - 134*	Lights	See Note 4	CV-4-850C	Sample	Accumulator S.I. Test Valve	See Note 4
II - 135*	Lights	See Note 4	CV-4-850D	Sample	Accumulator S.I. Test Valve	See Note 4
II - 136*	Lights	See Note 4	CV-4-850E	Sample	Accumulator S.I. Test Valve	See Note 4
II - 137*	Lights	See Note 4	CV-4-850F	Sample	Accumulator S.I. Test Valve	See Note 4
II - 138	Lights	MILD	CV-3-2821	WstDisp	Containment Sump Pump Discharge	See Note 2
II - 139	Lights	MILD	CV-3-2822	WstDisp	Containment Sump Pump Discharge	See Note 2
II - 140	Lights	MILD	CV-4-2821	WstDisp	Containment Sump Pump Discharge	See Note 2
II - 141	Lights	MILD	CV-4-2822	WstDisp	Containment Sump Pump Discharge	See Note 2



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II-142	Lights	2-58	MOV-3-350	CVCS	Boric Acid Injection Stop	
II-143	Lights	2-59	MOV-4-350	CVCS	Boric Acid Injection Stop	
II-144	Lights	MILD	MOV-3-749A	CCW	RHX Cool Water Isolation	See Note 2
II-145	Lights	MILD	MOV-3-749B	CCW	RHX Cool Water Isolation	See Note 2
II-146	Lights	MILD	MOV-4-749A	CCW	RHX Cool Water Isolation	See Note 2
II-147	Lights	MILD	MOV-4-749B	CCW	RHX Cool Water Isolation	See Note 2
II-148	Lights	3-25	MOV-3-750	SI/RHR	RCS to RHR Inlet Isolation	
II-149	Lights	3-26	MOV-4-750	SI/RHR	RCS to RHR Inlet Isolation	
II-150	Lights	3-27	MOV-3-751	SI/RHR	RCS to RHR Inlet Isolation	
II-151	Lights	3-28	MOV-4-751	SI/RHR	RCS to RHR Inlet Isolation	
II-152	Lights	MILD	CV-3-856A	SI/RHR	Safety Injection Test	See Note 2
II-153	Lights	MILD	CV-3-856B	SI/RHR	Safety Injection Test	See Note 2
II-154	Lights	MILD	CV-4-865A	SI/RHR	Safety Injection Test	See Note 2
II-155	Lights	MILD	CV-4-856B	SI/RHR	Safety Injection Test	See Note 2
II-156	Lights	3-39	MOV-3-860A	SI/RHR	Containment Sump Isolation	
II-157	Lights	3-40	MOV-3-860B	SI/RHR	Containment Sump Isolation	
II-158	Lights	3-41	MOV-4-860A	SI/RHR	Containment Sump Isolation	
II-159	Lights	3-42	MOV-4-860B	SI/RHR	Containment Sump Isolation	
II-160	Lights	MILD	MOV-3-861A	SI/RHR	RHR Header Stop	See Note 2
II-161	Lights	MILD	MOV-3-861B	SI/RHR	RHR Header Stop	See Note 2
II-162	Lights	MILD	MOV-4-861A	SI/RHR	RHR Header Stop	See Note 2
II-163	Lights	MILD	MOV-4-861B	SI/RHR	RHR Header Stop	See Note 2
II-164	Lights	MILD	MOV-3-862A	SI/RHR	RWST Stop to RHR Header	See Note 2
II-165	Lights	MILD	MOV-3-862B	SI/RHR	RWST Stop to RHR Header	See Note 2
II-166	Lights	MILD	MOV-4-862A	SI/RHR	RWST Stop to RHR Header	See Note 2
II-167	Lights	MILD	MOV-4-862B	SI/RHR	RWST Stop to RHR Header	See Note 2
II-168	Lights	3-43	MOV-3-863A	SI/RHR	RHR Heat Exchanger Outlet	
II-169	Lights	3-44	MOV-3-863B	SI/RHR	RHR Heat Exchanger Outlet	



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II-170	Lights	3-45	MOV-4-863A	SI/RHR	RHR Heat Exchanger Outlet	
II-171	Lights	3-46	MOV-4-863B	SI/RHR	RHR Heat Exchanger Outlet	
II-172	Lights	MILD	MOV-3-864A	SI/RHR	Ref. Water Storage Isolation	See Note 2
II-173	Lights	MILD	MOV-3-864B	SI/RHR	Ref. Water Storage Isolation	See Note 2
II-174	Lights	MILD	MOV-4-864A	SI/RHR	Ref. Water Storage Isolation	See Note 2
II-175	Lights	MILD	MOV-4-864B	SI/RHR	Ref. Water Storage Isolation	See Note 2
II-176	Lights	3-47	MOV-3-866A	SI/RHR	S.I. to RCS Hot Leg Isolation	
II-177	Lights	3-48	MOV-3-866B	SI/RHR	S.I. to RCS Hot Leg Isolation	
II-178	Lights	3-49	MOV-4-866A	SI/RHR	S.I. to RCS Hot Leg Isolation	
II-179	Lights	3-50	MOV-4-866B	SI/RHR	S.I. to RCS Hot Leg Isolation	
II-180	Lights	MILD	MOV-3-872	SI/RHR	Alternate Low Head S.I. Line	See Note 2
II-181	Lights	MILD	MOV-4-872	SI/RHR	Alternate Low Head S.I. Line	See Note 2
II-182	Lights	3-57	MOV-3-880A	SI/RHR	Containment Spray Pump Discharge	
II-183	Lights	3-58	MOV-3-880B	SI/RHR	Containment Spray Pump Discharge	
II-184	Lights	3-59	MOV-4-880A	SI/RHR	Containment Spray Pump Discharge	
II-185	Lights	3-60	MOV-4-880B	SI/RHR	Containment Spray Pump Discharge	
II-186	Lights	1-61	PCV-3-455C	RCS	Pressurizer Power Operated Relief Valves	
II-187	Lights	1-62	PCV-3-456	RCS	Pressurizer Power Operated Relief Valves	
II-188	Lights	1-63	PCV-4-455C	RCS	Pressurizer Power Operated Relief Valves	
II-189	Lights	1-64	PCV-4-456	RCS	Pressurizer Power Operated Relief Valves	



FACILITY : TURKEY POINT

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DOCKET No.: UNIT 3 50-250
UNIT 4 50-251

SECTION B.3

ADDENDUM TO MASTER LIST

PART III FEEDER BREAKER POSITION INDICATION

SECTION/ ITEM No.	TAG NUMBER	SIGNAL INITIATION		SYSTEM	SERVICE	REMARKS
		BREAKER	ENVIRONMENT			
III- 1	3P201A	3B0105	MILD	CVCS	Charging Pump	
III- 2	3P201B	3B0203	MILD	CVCS	Charging Pump	
III- 3	3P201C	3B0308	MILD	CVCS	Charging Pump	
III- 4	4P201A	4B0105	MILD	CVCS	Charging Pump	
III- 5	4P201A	4B0203	MILD	CVCS	Charging Pump	
III- 6	4P201C	4B0308	MILD	CVCS	Charging Pump	
III- 7	3P203A	3B0725	MILD	CVCS	Boric Acid Transfer Pump	
III- 8	3P203B	3B0803	MILD	CVCS	Boric Acid Transfer Pump	
III- 9	4P203 A	4B0725	MILD	CVCS	Boric Acid Transfer Pump	
III-10	4P203 B	4B0804	MILD	CVCS	Boric Acid Transfer Pump	
III-11	P3214 A	3B0109	MILD	SI/RHR	Containment Spray Pump	
III-12	P3214 B	3B0403	MILD	SI/RHR	Containment Spray Pump	
III-13	P4214 A	4B0109	MILD	SI/RHR	Containment Spray Pump	
III-14	P4214 B	4B0403	MILD	SI/RHR	Containment Spray Pump	
III-15	P3210 A	3 AA15	MILD	SI/RHR	Residual Heat Removal Pump	
III-16	P3210 A	3 AB15	MILD	SI/RHR	Residual Heat Removal Pump	
III-17	P 4210 A	4 AA15	MILD	SI/RHR	Residual Heat Removal Pump	
III-18	P 4210 B	4 AB 15	MILD	SI/RHR	Residual Heat Removal Pump	
III-19	3 P 215 A	3 AA 13	MILD	SI/RHR	Safety Injection Pump	
III-20	3 P 215 B	3 AB 12	MILD	SI/RHR	Safety Injection Pump	
III-21	4 P 215 A	4 AA 13	MILD	SI/RHR	Safety Injection Pump	
III-22	4 P 215 B	4 AB 12	MILD	SI/RHR	Safety Injection Pump	
III-23	3 P 211 A	3 AA 12	MILD	CCW	Component Cooling Water Pump	
III-24	3 P 211 B	3 AB 13	MILD	CCW	Component Cooling Water Pump	
III-25	3 P 211 C	3 AA 17	MILD	CCW	Component Cooling Water Pump	
III-26	4 P 211 A	4 AA 12	MILD	CCW	Component Cooling Water Pump	
III-27	4 P 211 B	4 AB 13	MILD	CCW	Component Cooling Water Pump	
III-28	4 P 211 C	4 AA 17	MILD	CCW	Component Cooling Water Pump	



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DOCKET No.: UNIT 3 50-250
UNIT 4 50-251

SECTION B.3

ADDENDUM TO MASTER LIST

PART III FEEDER BREAKER POSITION INDICATION

SECTION/ ITEM No.	TAG NUMBER	SIGNAL INITIATION		SYSTEM	SERVICE	REMARKS
		BREAKER	ENVIRONMENT			
III- 29	3 V 3 A	3 B 0611	MILD	C.Vent.	Emergency Containment Filter Fan	
III- 30	3 V 3 B	B 0806	MILD	C.Vent	Emergency Containment Filter Fan	
III- 31	3 V 3 C	3 B 0719	MILD	C.Vent	Emergency Conatinment Filter Fan	
III- 32	4 V 3 A	B 0811	MILD	C.Vent	Emergency Containment Filter Fan	
III- 33	4 V 3 B	4 B 0519	MILD	C.Vent	Emergency Containment Filter Fan	
III- 34	4 V 3 C	4 B 0611	MILD	C.Vent	Emergency Containment Filter Fan	
III- 35	3 V 30 A	3 B 0650	MILD	C.Vent	Emergency Containment Cooling Fan	
III- 36	3 V 30 B	B 0820	MILD	C.Vent	Emergency Containment Cooling Fan	
III- 37	3 V 30 C	3 B 0729	MILD	C.Vent	Emergency Containment Cooling Fan	
III- 38	4 V 30 A	B 0830	MILD	C.Vent	Emergency Containment Cooling Fan	
III- 39	4 V 30 B	4 B 0520	MILD	C.Vent	Emergency Containment Cooling Fan	
III- 40	4 V 30 C	4 B 0650	MILD	C.Vent	Emergency Conatinment Cooling Fan	
III- 41	3 P 1 A	3 AA 03	MILD	F.W.	Steam Generator Feed Pump	
III- 42	3 P 1 B	3 AB 03	MILD	F.W.	Steam Generator Feed Pump	
III- 43	4 P 1 A	4 AA 03	MILD	F.W.	Steam Generator Feed Pump	
III- 44	4 P 1 B	4 AB 03	MILD	F.W.	Steam Generator Feed Pump	
III- 45	3 P 9 A	3 AA 19	MILD	I.C.W.	Intake Cooling Water Pumps	
III- 46	3 P 9 B	3 AB 17	MILD	I.C.W.	Intake Cooling Water Pumps	
III- 47	3 P 9 C	3 AB 19	MILD	I.C.W.	Intake Cooling Water Pumps	
III- 48	4 P 9 A	4 AA 19	MILD	I.C.W.	Intake Cooling Water Pumps	
III- 49	4 P 9 B	4 AB 17	MILD	I.C.W.	Intake Cooling Water Pumps	
III- 50	4 P 9 A	4 AB 19	MILD	I.C.W.	Intake Cooling Water Pumps	
III- 51	A Diesel	3AA20, AB20	MILD	DG	Diesel Generator	
III- 52	B Diesel	4AA20, AB21	MILD	DG	Diesel Generator	
III- 53*	3 P 200 A	3 AA 01	MILD	RCS	Reactor Coolant Pumps	See Note 5
III- 54*	3 P 200 B	3 AB 01	MILD	RCS	Reactor Coolant Pumps	See Note 5
III- 55*	3 P 200 C	3 AB 06	MILD	RCS	Reactor Coolant Pumps	See Note 5
III- 56*	4 P 200 A	4 AA 01	MILD	RCS	Reactor Coolant Pumps	See Note 5



FACILITY : TURKEY POINT

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DOCKET No.: UNIT 3 50-250
UNIT 4 50-251

SECTION B.3

ADDENDUM TO MASTER LIST

PART III FEEDER BREAKER POSITION INDICATION

SECTION/ ITEM No.	TAG NUMBER	SIGNAL INITIATION		SYSTEM	SERVICE	REMARKS
		BREAKER	ENVIRONMENT			
III- 57*	4 P 200 A	4 AB 01	MILD	RCS	Reactor Coolant Pumps	See Note 5
III- 58*	4 P 200 B	4 AB 06	MILD	RCS	Reactor Coolant Pumps	See Note 5
III- 59*	3 B 11	3 B 0307	MILD	RCS	Pressurizer Heater Control	See Note 5
III- 60*	3 B 12	3 B 0107	MILD	RCS	Pressurizer Heater Back Up	See Note 5
III- 61*	3 B 13	3 B 0408	MILD	RCS	Pressurizer Heater Back Up	See Note 5
III- 62*	4 B 11	4 B 0307	MILD	RCS	Pressurizer Heater Control	See Note 5
III- 63*	4 B 12	4 B 0107	MILD	RCS	Pressurizer Heater Back Up	See Note 5
III- 64*	4 B 13	4 B 0408	MILD	RCS	Pressurizer Heater Back Up	See Note 5
III- 65*	3 P 23 A	3 B 0667	MILD	RCS	Containment Sump Pump	See Note 5
III- 66*	3 P 23 B	3 B 0778	MILD	RCS	Containment Sump Pump	See Note 5
III- 67*	4 P 23 A	4 B 0667	MILD	RCS	Containment Sump Pump	See Note 5
III- 68*	4 P 23 B	4 B 0778	MILD	RCS	Containment Sump Pump	See Note 5
III- 69	3V9	3 B 0628	MILD	C. VENT	Containment Purge Supply Fan	See Note 5
III- 70	4V9	4 B 0628	MILD	C. VENT	Containment Purge Supply Fan	See Note 5
III- 71	3V20	3 B 0663	MILD	C. VENT	Containment Purge Supply Fan	See Note 5
III- 72	4V20	4 B 0663	MILD	C. VENT	Containment Purge Supply Fan	See Note 5
III- 73	3X02	3 AA 02	MILD	POWER	Auxiliary Transformer Breaker	
III- 74	3X02	3 AB 02	MILD	POWER	Auxiliary Transformer Breaker	
III- 75	4X02	4 AA 02	MILD	POWER	Auxiliary Transformer Breaker	
III- 76	4X02	4 AB 02	MILD	POWER	Auxiliary Transformer Breaker	
III- 77	3X03	3 AA 05	MILD	POWER	Start-Up Transformer Breaker	
III- 78	3X03	3 AB 05	MILD	POWER	Start-Up Transformer Breaker	
III- 79	4X03	4 AA 05	MILD	POWER	Start-Up Transformer Breaker	
III- 80	4X03	4 AB 05	MILD	POWER	Start-Up Transformer Breaker	



NOTES

DISPLAY INSTRUMENTATION

- Note 1) Back-up verification of valve position is given by FI*122.
- Note 2) These valves are located in the pipe and valve room; the environment is considered mild for the duration of the required valve operation. The valves close upon receipt of a containment isolation signal and are not required to operate post LOCA. These valves are not exposed to the containment atmosphere.

The operator is required to verify that these valves close, to ensure that the containment is isolated following an accident. The indicating lights listed in Part II of this appendix will be used in this verification. These valves can only be operated manually after reset of the containment isolation signal. Subsequent failure of the equipment as a result of radiation shine will not degrade other safety functions or mislead the operator.

- Note 3) Post-Accident Sampling is not a requirement at Turkey Point, therefore, these valves were not included in the Master List. The position of these valves is required to be verified to ensure the valves are closed. These valves are administratively controlled; they are opened only when a sample is being taken and the operator cannot leave the station until the valves are closed. There are redundant containment isolation valves closed by a containment isolation signal downstream of these (located outside containment) that accomplish the same safety related function.
- Note 4) The safety injection test valves are normally closed and are manually operated from the control room in conjunction with the locked closed valve CV*895 (locally controlled from pipe and valve room) which is administratively controlled during Sampling. The valve CV*895 is located outside containment is not subjected to accident environment.
- Note 5) These equipments are not needed for mitigation of an accident. The indicating lights are included to verify the position of the feeder breakers which are tripped by a safety injection signal.
- Note 6) This component is not required for mitigation of an accident. Increasing water level in an RHR Sump Pump Room is listed in the Emergency Operating Procedures as one of 3 symptoms indicating malfunction of low head recirculation following a LOCA. This level switch provides input to a non-Class IE annunciator in the control room. The other two symptoms, rising containment pressure and excessive RHR pump discharge flow, are monitored by Class IE components whose environmental qualifications are provided in C.E.S. Pages 3-13, 3-14, 9-91, 9-92, 9-93 and 9-94.



APPENDIX Q
RESPONSE SHEETS TO APPENDIX B (SER)
DEFICIENCIES

RESPONSE TO SER
ENVIRONMENTAL QUALIFICATION OF
ELECTRICAL EQUIPMENT
IE BULLETIN 79-01B
TURKEY POINT UNITS 3 & 4
DOCKETS 50-250/251



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APPENDIX Q

INSIDE CONTAINMENT (NOTE 2)

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MFR.	MODEL NO.	TAG NO.	CES PAGE NO.	NRC CITED DEFICIENCIES (NOTE 1)												RESPONSE PAGE NO.
				R	T	QT	RT	P	H	CS	A	S	M	QM	RPN	
ASCO	X8211-B46-SW-HV-164196	SV-2905	9-73,79	X							X		X	X		1
ASCO	X8211-B46-SW-HV-164196	SV-2906	9-74,80	X							X		X	X		1
ASCO	X8211-B46-SW-HV-164196	SV-2907	9-75,81	X							X		X	X		1
ASCO	X8211-B46-SW-HV-164196	SV-2908	9-76,82	X							X		X	X		1
ASCO	X8211-B46-SW-HV-164196	SV-2909	9-77,83	X							X		X	X		1
ASCO	X8211-B46-SW-HV-164196	SV-2910	9-78,84	X							X		X	X		1
ASCO	831654	SV-310A	2-1,5	X	X	X		X	X	X	X			X	X	2
ASCO	831654	SV-310B	2-3,7	X	X	X		X	X	X	X	X		X	X	2
ASCO	LB831654 (UNIT 3)	SV-3-200A	2-9	X	X	X		X	X	X	X	X		X	X	3,3A
ASCO	LB831654 (UNIT 3)	SV-3-200B	2-11	X	X	X		X	X	X	X	X		X	X	3,3A
ASCO	LB831654 (UNIT 3)	SV-3-200C	2-13	X	X	X		X	X	X	X	X		X	X	3,3A
ASCO	HT831654 (UNIT 4)	SV-4-200A	2-15	X	X	X		X	X	X	X	X		X	X	4,4A
ASCO	HT831654 (UNIT 4)	SV-4-200B	2-17	X	X	X		X	X	X	X	X		X	X	4,4A
ASCO	HT831654 (UNIT 4)	SV-4-200C	2-19	X	X	X		X	X	X	X	X		X	X	4,4A
ASCO	LB831665	SV-2601	9-113,119	X	X	X		X	X	X	X			X	X	5
ASCO	LB831665	SV-2804	9-114,120	X	X	X		X	X	X	X			X	X	5
ASCO	LB831665	SV-2603	9-116,122	X	X	X		X	X	X	X			X	X	5
ASCO	LB831665	SV-2806	9-117,123	X	X	X		X	X	X	X			X	X	5
ASCO	831434 (UNIT 3)	SV-3-2819	9-125	X	X	X		X	X	X	X			X	X	6
ASCO	LBX831614 (UNIT 4)	SV-4-2819	9-127	X	X	X		X	X	X	X			X	X	7
ASCO	NP831654V	Repl. Sol.	10-1								X			X		8

NOTES: 1. NRC Safety Evaluation Report of 5/27/81 is the source of deficiencies noted.
2. LOCA & HELB



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INSIDE CONTAINMENT (NOTE 2)

Page 2

MFR.	MODEL NO.	TAG NO.	CES PAGE NO.	NRC CITED DEFICIENCIES (NOTE 1)												RESPONSE PAGE NO.
				R	T	QT	RT	P	H	CS	A	S	M	QM	RPN	
ASCO	NP831665V	Repl. Sol.	10-2								X			X		9
BALL	Series D 3500S	FS-1422	9-58,64	X	X	X		X	X	X	X		X	X		10,10A
BALL	Series D 3500S	FS-1423	9-59,65	X	X	X		X	X	X	X		X	X		10,10A
BALL	Series D 3500S	FS-1424	9-60,66	X	X	X		X	X	X	X		X	X		10,10A
BALL	Series D 3500S	FS-1425	9-61,67	X	X	X		X	X	X	X		X	X		10,10A
BALL	Series D 3500S	FS-1426	9-62,68	X	X	X		X	X	X	X		X	X		10,10A
BALL	Series D 3500S	FS-1427	9-63,69	X	X	X		X	X	X	X		X	X		10,10A
BARTON	386/351	LT-459	1-15,18	X					X	X	X			X	X	11
BARTON	386/351	LT-460	1-16,19	X					X	X	X			X	X	11
BARTON	386/351	LT-461	1-17,20	X					X	X	X			X	X	11
CON-OHMIC	EZT213	TB-3115	9-49,50	X	X	X		X	X	X	X		X	X	X	12
CONAX	3000-E-SS12-G-T4	TE-3440	9-1,25	X	X	X		X	X	X	X		X	X		13,13A
CONAX	3000-E-SS12-G-T4	TE-3441	9-2,26	X	X	X		X	X	X	X		X	X		13,13A
CONAX	3000-E-SS12-G-T4	TE-3442	9-3,27	X	X	X		X	X	X	X		X	X		13,13A
CONAX	3000-E-SS12-G-T4	TE-3443	9-4,28	X	X	X		X	X	X	X		X	X		13,13A
CONAX	3000-E-SS12-G-T4	TE-3444	9-5,29	X	X	X		X	X	X	X		X	X		13,13A
CONAX	3000-E-SS12-G-T4	TE-3445	9-6,30	X	X	X		X	X	X	X		X	X		13,13A

NOTES: 1. NRC Safety Evaluation Report of 5/27/81 is the source of deficiencies noted.

2. LOCA & HELB



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INSIDE CONTAINMENT (NOTE 2)

Page 3

MFR.	MODEL NO.	TAG NO.	CES PAGE NO.	NRC CITED DEFICIENCIES (NOTE 1)												RESPONSE PAGE NO.
				R	T	QT	RT	P	H	CS	A	S	M	QM	RPN	
CONAX	3000-E-SS12-G-T4	TE-3446	9-7,31	X	X	X		X	X	X	X		X	X		13,13A
CONAX	3000-E-SS12-G-T4	TE-3447	9-8,32	X	X	X		X	X	X	X		X	X		13,13A
CONAX	3000-E-SS12-G-T4	TE-3448	9-9,33	X	X	X		X	X	X	X		X	X		13,13A
CONAX	3000-E-SS12-G-T4	TE-3449	9-10,34	X	X	X		X	X	X	X		X	X		13,13A
CONAX	3000-E-SS12-G-T4	TE-3450	9-11,35	X	X	X		X	X	X	X		X	X		13,13A
CONAX	3000-E-SS12-G-T4	TE-3451	9-12,36	X	X	X		X	X	X	X		X	X		13,13A
CONAX	3000-E-SS12-G-T4	TE-3452	9-13,37	X	X	X		X	X	X	X		X	X		13,13A
CONAX	3000-E-SS12-G-T4	TE-3453	9-14,38	X	X	X		X	X	X	X		X	X		13,13A
CONAX	3000-E-SS12-G-T4	TE-3454	9-15,39	X	X	X		X	X	X	X		X	X		13,13A
CONAX	3000-E-SS12-G-T4	TE-3455	9-16,40	X	X	X		X	X	X	X		X	X		13,13A
CONAX	3000-E-SS12-G-T4	TE-3456	9-17,41	X	X	X		X	X	X	X		X	X		13,13A
CONAX	3000-E-SS12-G-T4	TE-3457	9-18,42	X	X	X		X	X	X	X		X	X		13,13A
CONAX	3000-E-SS12-G-T4	TE-3458	9-19,43	X	X	X		X	X	X	X		X	X		13,13A
CONAX	3000-E-SS12-G-T4	TE-3459	9-20,44	X	X	X		X	X	X	X		X	X		13,13A
CONAX	3000-E-SS12-G-T4	TE-3460	9-21,45	X	X	X		X	X	X	X		X	X		13,13A
CONAX	3000-E-SS12-G-T4	TE-3461	9-22,46	X	X	X		X	X	X	X		X	X		13,13A
CONAX	3000-E-SS12-G-T4	TE-3462	9-23,47	X	X	X		X	X	X	X		X	X		13,13A
CONAX	3000-E-SS12-G-T4	TE-3463	9-24,48	X	X	X		X	X	X	X		X	X		13,13A
CONTINENTAL	C2200 W/C2010	CBL61	13-10		X			X	X		X			X		14

NOTES: 1. NRC Safety Evaluation Report of 5/27/81 is the source of deficiencies noted.
2. LOCA & HEB



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INSIDE CONTAINMENT (NOTE 2)

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MFR.	MODEL NO.	TAG NO.	CES PAGE NO.	NRC CITED DEFICIENCIES (NOTE 1)												RESPONSE PAGE NO.
				R	T	QT	RT	P	H	CS	A	S	M	QM	RPN	
CROUSE-HINDS	0100606	TP41	12-1,6		X	X		X		X	X		X	X		15,15A
CROUSE-HINDS	0100606	TP42	12-2,7		X	X		X		X	X		X	X		15,15A
CROUSE-HINDS	0100606	TP43	12-3,8		X	X		X		X	X		X	X		15,15A
CROUSE-HINDS	0100607	TP51	12-4,9		X	X		X		X	X		X	X		16,16A
CROUSE-HINDS	0100607	TP53/52	12-5,10		X	X		X		X	X		X	X		16,16A
CROUSE-HINDS	0100603	T3P11	12-11		X	X		X		X	X		X	X		17,17A
CROUSE-HINDS	0100603	TP12	12-12,14		X	X		X		X	X		X	X		17,17A
CROUSE-HINDS	0100604	TP22/21	12-13,15,16	X	X			X		X	X		X	X		18,18A
CROUSE-HINDS	0100608	TC11	12-17,23		X	X		X		X	X		X	X		19,19A
CROUSE-HINDS	0100608	TC12	12-18,24		X	X		X		X	X		X	X		19,19A
CROUSE-HINDS	0100608	TC13	12-19,25		X	X		X		X	X		X	X		19,19A
CROUSE-HINDS	0100609	TC21	12-20,26		X	X		X		X	X		X	X		20,20A
CROUSE-HINDS	0100609	TC22	12-21,29		X	X		X		X	X		X	X		20,20A
CROUSE-HINDS	0100609	TC23	12-22,27		X	X		X		X	X		X	X		20,20A
CROUSE-HINDS	0100611	T3I11	12-28		X	X		X		X	X		X	X		21,21A
CROUSE-HINDS	0100611	TI14	12-30,38		X	X		X		X	X		X	X		21,21A
CROUSE-HINDS	0100611	TI15	12-31,39		X	X		X		X	X		X	X		21,21A
CROUSE-HINDS	0100611	TI12	12-36,37		X	X		X		X	X		X	X		21,21A
CROUSE-HINDS	0100612	TI21	12-32,40		X	X		X		X	X		X	X		22,22A
CROUSE-HINDS	0100612	TI22	12-33,41		X	X		X		X	X		X	X		22,22A
CROUSE-HINDS	0100612	TI23	12-34,42		X	X		X		X	X		X	X		22,22A

NOTES: 1. NRC Safety Evaluation Report of 5/27/81 is the source of deficiencies noted.
2. LOCA & HELB



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APPENDIX Q

INSIDE CONTAINMENT (NOTE 2)

Page 5

MFR.	MODEL NO.	TAG NO.	CES PAGE NO.	NRC CITED DEFICIENCIES (NOTE 1)												RESPONSE PAGE NO.
				R	T	QT	RT	P	H	CS	A	S	M	QM	RPN	
CROUSE-HINDS	0100612	TI24	12-35,43		X	X		X		X	X		X	X		22,22A
FIELD	N/A	TB3122	14-4,26	X	X	X		X	X		X			X		23
FIELD	N/A	TB3123	14-5,27	X	X	X		X	X		X			X		23
FIELD	N/A	TB3124	14-6,28	X	X	X		X	X		X			X		23
FIELD	N/A	TB3125	14-7,29	X	X	X		X	X		X			X		23
FIELD	N/A	TB3126	14-8,30	X	X	X		X	X		X			X		23
FIELD	N/A	TB3127	14-9,31	X	X	X		X	X		X			X		23
FIELD	N/A	TB3115	14-10,25	X	X	X		X	X		X			X		23
FIELD	N/A	TB3143	14-13,34	X	X	X		X	X		X			X	X	23
FIELD	N/A	TB3144	14-14,35	X	X	X		X	X		X			X		23
FIELD	N/A	TB3145	14-15,36	X	X	X		X	X		X			X		23
FIELD	N/A	TB3301	14-19	X	X	X		X	X		X			X		23
FIELD	N/A	TB3303	14-20	X	X	X		X	X		X			X		23
FIELD	N/A	TB4389	14-33	X	X	X		X	X		X			X		23
FIELD	N/A	TB4367	14-39	X	X	X		X	X		X			X		23
FIELD	N/A	TB4368	14-40	X	X	X		X	X		X			X		23
FIELD	N/A	TB4369	14-41	X	X	X		X	X		X			X		23
FIELD	N/A	TB4371	14-42	X	X	X		X	X		X				X	23
FIELD	N/A	TB4372	14-43	X	X	X		X	X		X				X	23
FIELD	N/A	TB4379	14-44	X	X	X		X	X		X				X	23

NOTES: 1. NRC Safety Evaluation Report of 5/27/81 is the source of deficiencies noted.
2. LOCA & HEI.B



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				R	T	QT	RT	P	H	CS	A	S	M	QM	RPN	
FISCHER & PORTER	50EP1041 BCXANS	PT-403	1-1,5	X		X					X	X		X	X	24
FISCHER & PORTER	50EP1041 BCXANS	PT-405	1-2,6					X			X	X		X	X	25,25A
FISCHER & PORTER	50EP1041 BCXANS	PT-455	1-9,12				X		X	X	X			X		26
FISCHER & PORTER	50EP1041 BCXANS	PT-456	1-10,13				X		X	X	X			X		26
FISCHER & PORTER	50EP1041 BCXANS	PT-457	1-11,14				X		X	X	X			X		26
FISCHER & PORTER	10B2496 PBBABBB-NS	FT-932	3-9,11			X		X			X	X	X	X	X	27,27A
FISCHER & PORTER	10B2496 PBBABBB-NS	FT-933	3-10,12			X		X			X	X	X	X	X	27,27A
FISCHER & PORTER	10B2496 PBBABBB-NS	FT-475	5-25,32	X							X			X		28
FISCHER & PORTER	10B2496 PBBABBB-NS	FT-484	5-26,33	X							X			X		28
FISCHER & PORTER	10B2496 PBBABBB-NS	FT-485	5-27,34	X							X			X		28
FISCHER & PORTER	10B2496 PBBABBB-NS	FT-494	5-28,35	X							X			X		28
FISCHER & PORTER	10B2496 PBBABBB-NS	FT-495	5-29,36	X							X			X		28
FISCHER & PORTER	10B2496 PBBABBB-NS	FT-474	5-30,31	X							X			X		28
FISCHER & PORTER	13D2495 KBBABBB-NS	LT-474	7-1,10			X		X			X			X		29,29A
FISCHER & PORTER	13D2495 KBBABBB-NS	LT-475	7-2,11			X		X			X			X		29,29A
FISCHER & PORTER	13D2495 KBBABBB-NS	LT-476	7-3,12			X		X			X			X		29,29A
FISCHER & PORTER	13D2495 KBBABBB-NS	LT-484	7-4,13			X		X			X			X		29,29A
FISCHER & PORTER	13D2495 KBBABBB-NS	LT-485	7-5,14			X		X			X			X		29,29A
FISCHER & PORTER	13D2495 KBBABBB-NS	LT-486	7-6,15			X		X			X			X		29,29A
FISCHER & PORTER	13D2495 KBBABBB-NS	LT-494	7-7,16			X		X			X			X		29,29A
FISCHER & PORTER	13D2495 KBBABBB-NS	LT-495	7-8,17			X		X			X			X		29,29A

NOTES: 1. NRC Safety Evaluation Report of 5/27/81 is the source of deficiencies noted.
2. LOCA & HEI.B



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				R	T	QT	RT	P	H	CS	A	S	M	QM	RPN	
FISCHER & PORTER	13D2495 KBBABBB-NS	LT-496	7-9,18			X		X			X			X		29,29A
G.E.	VULKENE	CBL 60	13-8		X			X		X	X			X		30,A&B
G.E.	VULKENE	CBL 61	13-9		X			X		X	X			X		30,A&B
JOY	46-26-1200 (UNIT 3)	3V3A	9-55								X			X		31
JOY	56-26-1200	3V3B	9-56								X			X		32
JOY	56-26-1200	3V3C	9-57								X			X		32
JOY	42-26-1200 (UNIT 4)	4V3A	9-70								X			X		33
JOY	42-26-1200 (UNIT 4)	4V3B	9-71								X			X		33
JOY	42-26-1200 (UNIT 4)	4V3C	9-72								X			X		33
JOY	38-26-1200	V30A	9-85,88								X			X		34
JOY	38-26-1200	V30B	9-86,89								X			X		34
JOY	38-26-1200	V30C	9-87,90								X			X		34
LIMITORQUE	OP SMB-000 INS. B	MOV-535	1-33,35					X	X		X					35
LIMITORQUE	OP SMB-000 INS. B	MOV-536	1-34,36					X	X		X					35
LIMITORQUE	SMB-3 INS. H	MOV-744A	3-21,22	X	X			X	X	X	X					36,36A
LIMITORQUE	SMB-3 INS. H	MOV-744B	3-23,24	X	X			X	X	X	X					36,36A
LIMITORQUE	SMB-1 INS. B	MOV-750	3-25,26					X			X			X		37
LIMITORQUE	SMB-1 INS. B	MOV-751	3-27,28					X			X			X		37

NOTES: 1. NRC Safety Evaluation Report of 5/27/81 is the source of deficiencies noted.
2. LOCA & HEI.B



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MFR.	MODEL NO.	TAG NO.	CES PAGE NO.	NRC CITED DEFICIENCIES (NOTE 1)												RESPONSE PAGE NO.
				R	T	QT	RT	P	H	CS	A	S	M	QM	RPN	
LIMITORQUE	SMB-00 INS. B	MOV-866A	3-47,49					X	X		X			X		38
LIMITORQUE	SMB-00 INS. B	MOV-866B	3-48,50					X	X		X			X		38
MAGNETROL	A-153-F-EP/VP-X-Y-M13H	LS-1570	3-73,75	X	X	X		X	X	X	X	X	X	X	X	39
MAGNETROL	A-153-F-EP/VP-X-Y-M13H	LS-1571	3-74,76	X	X	X		X	X	X	X	X	X	X	X	39
MOORE	DEKORAD 1952-68380-004	CBL-L1P	13-25								X			X		40
NAMCO	D2400X	CV-310A (LS)	2-2,6	X	X	X		X	X	X	X		X	X	X	41,41A
NAMCO	D2400X	CV-310B (LS)	2-4,8	X	X	X		X	X	X	X	X	X	X	X	41,41A
NAMCO	D2400X	CV-200A (LS)	2-10,16	X	X	X		X	X	X	X	X		X	X	41,41A
NAMCO	D2400X	CV-200B (LS)	2-12,18	X	X	X		X	X	X	X	X		X	X	41,41A
NAMCO	D2400X	CV-200C (LS)	2-14,20	X	X	X		X	X	X	X	X		X	X	41,41A
NAMCO	D2400X	CV-2819 (LS)	9-126, 128	X	X			X	X		X			X	X	41,41A
NAMCO	D12009	POV-1601 (LS)	9-115, 121	X	X			X	X		X			X	X	42
NAMCO	D12009	POV-2603 (LS)	9-118, 124	X	X			X	X		X			X	X	42
NAMCO	EA-180-11302	REP. LS	10-3							X	X			X		43
OKONITE	X-OLENE/OKOSEAL	CBL N47	13-1								X	X		X		44
OKONITE	X-OLENE/OKOSEAL	CBL N50	13-2								X	X		X		44
OKONITE	X-OLENE/OKOSEAL	CBL N52	13-3								X	X		X		44

NOTES: 1. NRC Safety Evaluation Report of 5/27/81 is the source of deficiencies noted.
2. LOCA & HELB



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				R	T	QT	RT	P	H	CS	A	S	M	QM	RPN	
OKONITE	X-OLENE/OKOSEAL	CBL 53	13-4							X	X			X		44
OKONITE	X-OLENE/OKOSEAL	CBL 54	13-5							X	X			X		44
OKONITE	X-OLENE/OKOSEAL	CBL 55	13-6							X	X			X		44
OKONITE	X-OLENE/OKOSEAL	CBL 56	13-7							X	X			X		44
RAYCHEM	WCSF	WCSF	11-1								X			X		45
ROSEMOUNT	1153GA9	PT-406	1-3,7								X	X		X	X	46
ROSEMOUNT	1153GA9	PT-404	1-4,8								X	X		X	X	46
ROSEMOUNT	176KF	TE-412B	1-21,27								X			X		47
ROSEMOUNT	176KF	TE-412D	1-22,28								X			X		47
ROSEMOUNT	176KF	TE-422B	1-23,29								X			X		47
ROSEMOUNT	176KF	TE-422D	1-24,30								X			X		47
ROSEMOUNT	176KF	TE-432B	1-25,31								X			X		47
ROSEMOUNT	176KF	TE-432D	1-26,32								X			X		47
ROSEMOUNT	176KS	TE-410	1-37,43								X			X		48
ROSEMOUNT	176KS	TE-413									X			X		48
ROSEMOUNT	176KS	TE-420	1-39,45								X			X		48
ROSEMOUNT	176KS	TE-423									X			X		48
ROSEMOUNT	176KS	TE-430	1-41,47								X			X		48
ROSEMOUNT	176KS	TE-433									X			X		48

- NOTES: 1. NRC Safety Evaluation Report of 5/27/81 is the source of deficiencies noted.
2. LOCA & HELB



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NOTES: 1. NRC Safety Evaluation Report of 5/27/81 is the source of deficiencies noted.
2. LOCA & HEI.B

2. LOCA & HEI.B



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				R	T	QT	RT	P	H	CS	A	S	M	QM	RPN	
ASCO	LB831654	SV-100	2-25		X			X	X		X			X		50
ASCO	80033	SV-2920	4-1,4		X			X	X		X			X		51
ASCO	80033	SV-2921	4-2,5		X			X	X		X			X		51
ASCO	80033	SV-2922	4-3,6		X			X	X		X			X		51
ASCO	80033	SV-2923	4-7,10		X			X	X		X			X		51
ASCO	80033	SV-2924	4-8,11		X			X	X		X			X		51
ASCO	80033	SV-2925	4-9,12		X			X	X		X			X		51
ASCO	80173	SV-2910(SV)	4-13,19		X			X	X		X			X		52
ASCO	80173	SV-2812(SV)	4-15,21		X			X	X		X			X		52
ASCO	80173	SV-2814(SV)	4-17,23		X			X	X		X			X		52
ASCO	WP8042B45SW	SV-2911	9-107, 110	X							X		X	X		53
ASCO	WP8042B45SW	SV-2912	9-108, 111	X							X		X	X		53
ASCO	WP8042B45SW	SV-2913	9-109, 112	X							X		X	X		53
ASCO	8030A43	SV-3709	9-129, 131	X	X			X	X		X			X		54
ASCO	8030A43	SV-3713	9-130, 132	X	X			X	X		X			X		54
BARTON	288A-7704	PC-957A	3-69	X	X	X		X	X		X		X	X		55
BARTON	288A-7703	PC-957B	3-70	X	X	X		X	X		X		X	X		56
BARTON	288A-7702	PC-957C	3-71	X	X	X		X	X		X		X	X		57
BARTON	288A-7701	PC-957D	3-72	X	X	X		X	X		X		X	X		58

NOTES: 1. NRC Safety Evaluation Report of 5/27/81 is the source of deficiencies noted.



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				R	T	QT	RT	P	H	CS	A	S	M	QM	RPN	
CHEMPUMP	2GE-66200	P-203A	2-48,50		X			X	X		X			X		59
CHEMPUMP	2GE-66202	P-203B	2-52,54		X			X	X		X			X		59
DAYTON	S# 3N087E	T206	2-56		X	X		X	X		X		X	X		60
FIELD	N/A	TB3044	14-1	X	X	X		X	X		X			X		61
FIELD	N/A	TB3065	14-2	X	X	X		X	X		X			X		61
FIELD	N/A	TB3067	14-3	X	X	X		X	X		X			X		61
FIELD	N/A	TB3134	14-11	X	X	X		X	X		X			X		61
FIELD	N/A	TB3135	14-12	X	X	X		X	X		X			X		61
FIELD	N/A	TB3150	14-16	X	X	X		X	X		X			X		61
FIELD	N/A	TB3208	14-17	X	X	X		X	X		X			X		61
FIELD	N/A	TB3213	14-18	X	X	X		X	X		X			X		61
FIELD	N/A	TB3305	14-21	X	X	X		X	X		X			X		61
FIELD	N/A	TB3306	14-22	X	X	X		X	X		X			X		61
FISCHER&PORTER	10B2496PB	FT-122	2-60,61		X			X	X		X			X		62
FISCHER&PORTER	10B2496PB	FT-940	3-5,7		X			X	X		X			X		63
FISCHER&PORTER	10B2496PB	FT-943	3-6,8		X			X	X		X			X		63
FISCHER&PORTER	10B2496PB	FT-605	3-13,14		X			X	X		X			X		64
FISCHER&PORTER	50EP1041BCXANS	PT-940	3-1,2		X			X	X		X			X		65
FISCHER&PORTER	50EP1041BCXANS	PT-943	3-3,4		X			X	X		X			X		65

NOTES: 1. NRC Safety Evaluation Report of 5/27/81 is the source of deficiencies noted.
2. Radiation due to recirculation fluid.



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				R	T	QT	RT	P	H	CS	A	S	M	QM	RPN	
FISCHER&PORTER	10B2495JBNS	FT-613A	4-37,38		X			X	X		X			X		66
FISCHER&PORTER	10B2495JBNS	FT-613B	4-39,40		X			X	X		X			X		66
FISHER GOV.	TYPE 546	HCV-121(E/P)	2-21,23		X	X		X	X	X	X		X	X		67
FOXBORO	40M	TIC-100	2-26		X	X		X	X		X		X	X		68
FOXBORO	1802-SATS-BA-304	FT-110	2-28,29		X	X		X	X		X		X	X		69
GENERAL ELECTRIC	EB-5	N/A	11-4	X	X	X		X	X		X		X	X		70
LIMITORQUE	SMB-0 INS.B	MOV-843A	3-29,31		X			X	X		X			X		71
LIMITORQUE	SMB-0 INS.B	MOV-843B	3-30,32		X			X	X		X			X		71
LIMITORQUE	SMB-0 INS.B	MOV-860A	3-39,41		X			X	X		X			X		72
LIMITORQUE	SMB-0 INS.B	MOV-860B	3-40,42		X			X	X		X			X		72
LIMITORQUE	SMB-0 INS.B	MOV-880A	3-57,58		X			X	X		X			X		72
LIMITORQUE	SMB-0 INS.B	MOV-880B	3-59,60		X			X	X		X			X		72
LIMITORQUE	SMB-0 INS.B	MOV-872	3-63,64		X			X	X		X			X		72
LIMITORQUE	SMB-00 INS.B	MOV-863A	3-43,45		X			X	X		X			X		73
LIMITORQUE	SMB-00 INS.B	MOV-863B	3-44,46		X			X	X		X			X		73
LIMITORQUE	SMB-00 INS.B	MOV-867A	3-51,53		X			X	X		X			X		73
LIMITORQUE	SMB-00 INS.B	MOV-867B	3-52,54		X			X	X		X			X		73
LIMITORQUE	SMB-00 INS.B	MOV-878A	3-55		X			X	X		X			X		74

NOTES: 1. NRC Safety Evaluation Report of 5/27/81 is the source of deficiencies noted.
2. Radiation due to recirculation fluid.



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				R	T	QT	RT	P	H	CS	A	S	M	OM	RPN	
LIMITORQUE	SMB-00 INS.B	MOV-878B	3-56		X			X	X		X			X		75
LIMITORQUE	SMB-00 INS.B	MOV-869	3-61,62		X			X	X		X			X		75
LIMITORQUE	SMB-000	MOV-350	3-58,59		X			X	X		X			X		76
NAMCO	D1200G	CV-2810	4-14,20		X			X	X		X			X		77
NAMCO	D1200G	CV-2812	4-16,22		X			X	X		X			X		77
NAMCO	D1200G	CV-2814	4-18,24		X			X	X		X			X		77
NAMCO	D2400X	HCV-121	2-22,24		X			X	X		X			X		78
OKONITE	OKOLENE/OKOSEAL	CBL 21	13-16		X			X	X		X			X		79
OKONITE	OKOLENE/OKOSEAL	CBL 22	13-17		X			X	X		X			X		79
OKONITE	OKOLENE/OKOSEAL	CBL 23	13-18		X			X	X		X			X		79
OKONITE	OKOLENE/OKOSEAL	CBL 24	13-19		X			X	X		X			X		79
OKONITE	OKOLENE/OKOSEAL	CBL 25	13-20		X			X	X		X			X		79
OKONITE	OKOLENE/OKOSEAL	CBL 26	13-21		X			X	X		X			X		79
OKONITE	OKOLENE/OKOSEAL	CBL 63	13-22		X			X	X		X			X		79
OKONITE	OKOLENE/OKOSEAL	CBL 64	13-23		X			X	X		X			X		79
OKONITE	OKOLENE/OKOSEAL	CBL 80	13-24		X			X	X		X			X		79
REES, M.	2008	N201A	2-31,40		X			X	X		X			X		80
REES, M.	2008	N201B	2-34,43		X			X	X		X			X		80

NOTES: 1. NRC Safety Evaluation Report of 5/27/81 is the source of deficiencies noted.
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				R	T	QT	RT	P	H	CS	A	S	M	QM	RPN	
REES, M.	2008	N201C	2-37,46		X			X	X		X			X		80
REES, M.	2008	N215A	3-77,79		X	X		X	X		X		X	X		81
REES, M.	2008	N215B	3-78,80		X	X		X	X		X		X	X		81
REES, M.	2008	N211A	4-28,31		X	X		X	X		X		X	X		81
REES, M.	2008	N211B	4-29,32		X	X		X	X		X		X	X		81
REES, M.	2008	N211C	4-30,33		X	X		X	X		X		X	X		81
REES, M.	2008	N214A	3-81,83		X	X		X	X		X		X	X		81
REES, M.	2008	N214B	3-82,84		X	X		X	X		X		X	X		81
REES, M.	2008	N210A	3-85,87		X	X		X	X		X		X	X		81
REES, M.	2008	N210B	3-86,88		X	X		X	X		X		X	X		81
REES, M.	2284	N203A	2-49,53		X			X	X		X			X		82
REES, M.	2284	N203B	2-51,55		X			X	X		X			X		82
REES, M.	2284	N206	2-57		X			X	X		X			X		82
TRACER LAB	MK-16A(V-48)	RD-11	9-51,53		X			X	X		X			X		83
TRACER LAB	MK-16A(V-48)	RD-12	9-52,54		X			X	X		X			X		83
UNITED ELECTRIC	J7-222-A108	LC-101	2-27		X			X	X		X			X		84
UNITED ELECTRIC	J6-9536	PS-201A	2-32,41		X			X	X		X			X		85
UNITED ELECTRIC	J6-9536	PS-201B	2-35,44		X			X	X		X			X		85
UNITED ELECTRIC	J6-9536	PS-201C	2-38,47		X			X	X		X			X		85

NOTES: 1. NRC Safety Evaluation Report of 5/27/81 is the source of deficiencies noted.
2. Radiation due to recirculation fluid.



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APPENDIX Q

INSIDE AUXILIARY BUILDING (NOTE 2)

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MFR.	MODEL NO.	TAG NO.	CES PAGE NO.	NRC CITED DEFICIENCIES (NOTE 1)												RESPONSE PAGE NO.
				R	T	QT	RT	P	H	CS	A	S	M	QM	RPN	
UNITED ELECTRIC	J302-610	PC-600	3-65,67		X	X		X	X		X		X	X		86
UNITED ELECTRIC	J17A-670-8090	PC-601	3-66,68		X	X		X	X		X		X	X		87
UNITED ELECTRIC	J-7-358	PC-611	4-41,42		X	X		X	X		X		X	X		88
WESTINGHOUSE	TBDP	P201A	2-30,39		X			X	X		X			X		89
WESTINGHOUSE	TBDP	P201B	2-33,42		X			X	X		X			X		89
WESTINGHOUSE	TBDP	P201C	2-36,45		X			X	X		X			X		89
WESTINGHOUSE	TBDP	P214A	3-37,45		X			X	X		X			X		89
WESTINGHOUSE	TBDP	P214B	3-38,16		X			X	X		X			X		89
WESTINGHOUSE	ABDP	P210A	3-17,19		X			X	X		X			X		90
WESTINGHOUSE	ABDP	P210B	3-18,20		X			X	X		X			X		90
WESTINGHOUSE	ABDP	P215A	3-33,35		X			X	X		X			X		90
WESTINGHOUSE	ABDP	P215B	3-34,36		X			X	X		X			X		90
WESTINGHOUSE	SN1-S-68	P211A	4-25,31		X			X	X		X			X		91
WESTINGHOUSE	SN1-S-68	P211B	4-26,32		X			X	X		X			X		91
WESTINGHOUSE	SN1-S-68	P211C	4-27,33		X			X	X		X			X		91

NOTES: 1. NRC Safety Evaluation Report of 5/27/81 is the source of deficiencies noted.
2. Radiation due to recirculation fluid.



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APPENDIX Q

OUTSIDE AUXILIARY BUILDING (NOTE 2)

Page 17

MFR.	MODEL NO.	TAG NO.	CES PAGE NO.	NRC CITED DEFICIENCIES (NOTE 1)												RESPONSE PAGE NO.
				R	T	QT	RT	P	H	CS	A	S	M	QM	RPN	
ASCO	WPL B8316A44	SV-2604	5-37,46		X	X		X			X		X	X		92, 92A
ASCO	WPL B8316A44	SV-2605	5-38,47		X	X		X			X		X	X		92, 92A
ASCO	WPL B8316A44	SV-2609	5-40,49		X	X		X			X		X	X		92, 92A
ASCO	WPL B8316A44	SV-2610	5-41,50		X	X		X			X		X	X		92, 92A
ASCO	WPL B8316A44	SV-2614	5-43,52		X	X		X			X		X	X		92, 92A
ASCO	WPL B8316A44	SV-2615	5-44,53		X	X		X			X		X	X		92, 92A
ASCO	8316A44	SV-2900	7-19,22		X	X		X			X		X	X		93, 93A
ASCO	8316A44	SV-2902	7-20,23		X	X		X			X		X	X		93, 93A
ASCO	8316A44	SV-2904	7-21,24		X	X		X			X		X	X		93, 93A
ASCO	8300B61U (UNIT 3)	SV-3-2914	8-13		X	X		X			X		X	X		94, 94A
ASCO	8300B61U (UNIT 3)	SV-3-2915	8-14		X	X		X			X		X	X		94, 94A
ASCO	8300B61U (UNIT 3)	SV-3-2916	8-15		X	X		X			X		X	X		94, 94A
ASCO	8300B61U (UNIT 3)	SV-3-2917	8-16		X	X		X			X		X	X		94, 94A
ASCO	8300B61U (UNIT 3)	SV-3-2918	8-17		X	X		X			X		X	X		94, 94A
ASCO	8300B61U (UNIT 3)	SV-3-2919	8-18		X	X		X			X		X	X		94, 94A
ASCO	8302C-27-RF (UNIT 4)	SV-4-2914	8-19		X	X		X			X		X	X		95, 95A
ASCO	8302C-27-RF (UNIT 4)	SV-4-2915	8-20		X	X		X			X		X	X		95, 95A
ASCO	8302C-27-RF (UNIT 4)	SV-4-2916	8-21		X	X		X			X		X	X		95, 95A
ASCO	8302C-27-RF (UNIT 4)	SV-4-2917	8-22		X	X		X			X		X	X		95, 95A
ASCO	8302C-27-RF (UNIT 4)	SV-4-2918	8-23		X	X		X			X		X	X		95, 95A
ASCO	8302C-27-RF (UNIT 4)	SV-4-2919	8-24		X	X		X			X		X	X		95, 95A

- NOTES: 1. NRC Safety Evaluation Report of 5/27/81 is the source of deficiencies noted.
2. High Energy Line Break (HELB)



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APPENDIX Q

OUTSIDE AUXILIARY BUILDING (NOTE 2)

Page 18

MFR.	MODEL NO.	TAG NO.	CES PAGE NO.	NRC CITED DEFICIENCIES (NOTE 1)												RESPONSE PAGE NO.
				R	T	QT	RT	P	H	CS	A	S	M	QM	RPN	
BARTON	224-36443	DPS-2900	7-25,28		X	X		X			X		X	X		96
BARTON	224-51662	DPS-2901	7-26,29		X	X		X			X		X	X		97
BARTON	224-41130	DPS-2902	7-27,30		X	X		X			X		X	X		98
FISCHER & PORTER	50EP1041 BCXANS	PT-474	5-1,10		X			X	X		X			X		99
FISCHER & PORTER	50EP1041 BCXANS	PT-475	5-2,11		X			X	X		X			X		99
FISCHER & PORTER	50EP1041 BCXANS	PT-476	5-3,12		X			X	X		X			X		99
FISCHER & PORTER	50EP1041 BCXANS	PT-484	5-4,13		X			X	X		X			X		99
FISCHER & PORTER	50EP1041 BCXANS	PT-485	5-5,14		X			X	X		X			X		99
FISCHER & PORTER	50EP1041 BCXANS	PT-486	5-6,15		X			X	X		X			X		99
FISCHER & PORTER	50EP1041 BCXANS	PT-494	5-7,16		X			X	X		X			X		99
FISCHER & PORTER	50EP1041 BCXANS	PT-495	5-8,17		X			X	X		X			X		99
FISCHER & PORTER	50EP1041 BCXANS	PT-496	5-9,18		X			X	X		X			X		99
FISCHER & PORTER	50EP1041 BCXANS	PT-464	5-19,22		X			X	X		X			X		99
FISCHER & PORTER	50EP1041 BCXANS	PT-466	5-20,23		X			X	X		X			X		99
FISCHER & PORTER	50EP1041 BCXANS	PT-468	5-21,24		X			X	X		X			X		99
GENERAL CABLE	NONE	CBL-N6	13-12		X			X	X		X			X		100
LIMITORQUE	SMB-00 INS. B	MOV-1403	6-1,4		X	X		X	X		X			X		101
LIMITORQUE	SMB-500 INS. B	MOV-1404	6-2,5		X	X		X	X		X			X		102
LIMITORQUE	SMB-500 INS. B	MOV-1405	6-3,6		X	X		X	X		X			X		102

NOTES: 1. NRC Safety Evaluation Report of 5/27/81 is the source of deficiencies noted.
2. High Energy Line Break (HELB)



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OUTSIDE AUXILIARY BUILDING (NOTE 2)

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MFR.	MODEL NO.	TAG NO.	CES PAGE NO.	NRC CITED DEFICIENCIES (NOTE 1)												RESPONSE PAGE NO.
				R	T	QT	RT	P	H	CS	A	S	M	QM	RPN	
LIMITORQUE	SMB-000 INS. B	MOV-1410	8-1,7		X						X		X	X		103
LIMITORQUE	SMB-000 INS. B	MOV-1411	8-3,9		X						X		X	X		103
LIMITORQUE	SMB-000 INS. B	MOV-1412	8-5,11		X						X		X	X		103
NAMCO	D2400X2SR	POV-2604 (LS)	5-39,48		X	X		X			X		X	X		104
NAMCO	D2400X2SR	POV-2605 (LS)	5-42,51		X	X		X			X		X	X		104
OKONITE	OKONEX/OKOSEAL	CBL-N7	13-13		X			X	X		X			X		105
OKONITE	OKONEX/OKOSEAL	CBL-N19	13-14		X			X	X		X			X		105
OKONITE	OKONEX/OKOSEAL	CBL-N20	13-15		X			X	X		X			X		105
RAYCHEM	RNF-100	RNF-100	11-2	X	X			X	X		X		X	X		106
REES, M.	P.B. 2008, IND. LT 2508	N1410	8-2,8		X	X		X			X		X	X		107
REES, M.	P.B. 2008, IND. LT 2508	N1411	8-4,10		X	X		X			X		X	X		107
REES, M.	P.B. 2008, IND. LT 2508	N1412	8-6,12		X	X		X			X		X	X		107
3-M	SCOTCH 23	SCOTCH 23	11-5			X		X			X		X	X		108

- NOTES: 1. NRC Safety Evaluation Report of 5/27/81 is the source of deficiencies noted.
2. High Energy Line Break (HELB)



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ELECTRICAL PENETRATION ROOM (NOTE 2)

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MFR.	MODEL NO.	TAG NO.	CES PAGE NO.	NRC CITED DEFICIENCIES (NOTE 1)												RESPONSE PAGE NO.
				R	T	QT	RT	P	H	CS	A	S	M	QM	RPN	
AMP/RAYCHEM	CROSS LINED POLYETHYLENE	N/A	11-3		X	X		X	X	X	X		X	X		109
C-H	0100606	TP41	12-1,6		X	X		X		X	X		X	X		15,15A
C-H	0100606	TP42	12-2,7		X	X		X		X	X		X	X		15,15A
C-H	0100606	TP43	12-3,8		X	X		X		X	X		X	X		15,15A
C-H	0100607	TP51	12-4,9		X	X		X		X	X		X	X		16,16A
C-H	0100607	TP53/52	12-5,10		X	X		X		X	X		X	X		16,16A
C-H	0100603	T3P11	12-11		X	X		X		X	X		X	X		17,17A
C-H	0100603	TP12	12-12,14		X	X		X		X	X		X	X		17,17A
C-H	0100604	TP22/21	12-13,15		X	X		X		X	X		X	X		18,18A
C-H	0100608	TC11	12-17,23		X	X		X		X	X		X	X		19,19A
C-H	0100608	TC12	12-18,24		X	X		X		X	X		X	X		19,19A
C-H	0100608	TC13	12-19,25		X	X		X		X	X		X	X		19,19A
C-H	0100609	TC21	12-20,26		X	X		X		X	X		X	X		20,20A
C-H	0100609	TC22	12-21,29		X	X		X		X	X		X	X		20,20A
C-H	0100609	TC23	12-22,27		X	X		X		X	X		X	X		20,20A
C-H	0100611	T3I11	12-28		X	X		X		X	X		X	X		21,21A
C-H	0100611	TI14	12-30,38		X	X		X		X	X		X	X		21,21A
C-H	0100611	TI15	12-31,39		X	X		X		X	X		X	X		21,21A
C-H	0100611	TI12	12-36,37		X	X		X		X	X		X	X		21,21A
C-H	0100612	TI21	13-32,40		X	X		X		X	X		X	X		22,22A

- NOTES: 1. NRC Safety Evaluation Report of 5/27/81 is the source of deficiencies noted.
2. Radiation due to containment shine.



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APPENDIX Q

ELECTRICAL PENETRATION ROOM (NOTE 2)

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MFR.	MODEL NO.	TAG NO.	CES PAGE NO.	NRC CITED DEFICIENCIES (NOTE 1)												RESPONSE PAGE NO.
				R	T	QT	RT	P	H	CS	A	S	M	QM	RPN	
C-H	0100612	TI22	12-33,41		X	X		X		X	X		X	X		22,22A
C-H	0100612	TI23	12-34,42		X	X		X		X	X		X	X		22,22A
C-H	0100612	TI24	12-35,43		X	X		X		X	X		X	X		22,22A
STATIC-O-RING	6N-AA2-XRR	PS-2007	9-95,98	X	X			X	X		X			X		110
STATIC-O-RING	6N-AA2-XRR	PS-2008	9-96,99	X	X			X	X		X			X		110
STATIC-O-RING	6N-AA2-CRRX4	PS-2009	9-97,100	X	X			X	X		X			X		111
STATIC-O-RING	6N-AA2-CRRX4	PS-2056	9-101,104	X	X			X	X		X			X		111
STATIC-O-RING	6N-AA2-CRRX4	PS-2057	9-102,105	X	X			X	X		X			X		111
STATIC-O-RING	6N-AA2-CRRX4	PS-2058	9-103,106	X	X			X	X		X			X		111
WESTINGHOUSE	56DP2421-0000	PT-1622	9-91,93	X	X			X	X		X			X		112
WESTINGHOUSE	56PM2129-0000	PT-1623	9-92,94	X	X			X	X		X			X		113

- NOTES: 1. NRC Safety Evaluation Report of 5/27/81 is the source of deficiencies noted.
2. Radiation due to containment shine.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Solenoid - Charcoal Filter Dousing Valve
LOCATION: Inside Containment
MANUFACTURER: ASCO (Automatic Switch Company)
MODEL NUMBER: X8211-B46-SW (HV-164196)
DOC. REF. NUMBER: 21, 53
TAG NOS.(C.E.S. PAGE NO.): SV*2905, 2906, 2907, 2908, 2909 & 2910 (9-73 thru 9-84)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

R (Radiation) As no qualification test data is available for these valves regarding radiation, the materials used in construction are analyzed. The component parts are listed on ASCO Drawing HV-164-196. The 'weak link' is determined to be the Buna N seals and discs. Buna N retains its sealant properties to 5×10^7 rads. The qualified value of 4×10^7 rads indicated on the component evaluation sheet is therefore conservative. It should be noted that the solenoids are actually exposed to a cumulative integrated dose of 2×10^7 rads during the 72 hours following the accident. This dose includes the 40 year normal operation integrated dose.

A (Aging) See section 2.6.

M (Margin) Refer to the above discussion of radiation.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Solenoid Valve
LOCATION: Inside Containment
MANUFACTURER: ASCO (Automatic Switch Company)
MODEL NUMBER: 831654
DOC. REF. NUMBER: None
TAG NOS.(C.E.S. PAGE NO.): SV*310A, 310B (2-1, 2-3, 2-5, 2-7)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

R (Radiation)	As indicated in the original Phase II Response, these
T (Temperature)	devices will be replaced. There is no test data avail-
QT (Qualification Time)	able for environmental qualification of these solenoids.
H (Humidity)	Procurement action has been completed on qualified
P (Pressure)	replacements. Qualification is contingent upon the
CS (Chemical Spray)	integrity of the electrical conduit seals. This seal
A (Aging)	material is now in the qualification testing process.
QM (Qualification Method)	Pending successful completion of the qualification
RPN (Equipment Replacement)	testing, these solenoids will be replaced during the
	steam generator replacement outages.

These valves have been analyzed in a generic Westinghouse letter to USNRC (NS-CE-755, dated August 15, 1975) which demonstrated that all failure modes of the valve will result in safe operation. Potential modes of failure identified for solenoids in the letter were loss of air supply, electrical failures of the solenoid, environmentally caused degradation of the materials used in construction, and plunger binding due to thermal expansion of the plunger to the core. Subsequent failure of the equipment as a result of the harsh environment does not degrade other safety functions or mislead the operator. For an in-depth case by case failure mode analysis to justify the continued unit operation with these ASCO solenoid valves, refer to section C.1.12 of the Phase II submittal.

S (Submergence)	SV-3-310B has been relocated to above flood level elevation (revised component evaluation sheet attached) and SV-4-310B is scheduled for relocation (PC/M 80-147) during the next refueling outage.
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RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Solenoid Valve
 LOCATION: Inside Containment
 MANUFACTURER: ASCO (Automatic Switch Company)
 MODEL NUMBER: LB831654
 DOC. REF. NUMBER: None
 TAG NOS. (C.E.S. PAGE NO.): SV-3-200A, 200B, 200C (2-9, 2-11, 2-13)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

R (Radiation)	As indicated in the original Phase II Response, these devices will be replaced. There is no test data available for environmental qualification of these solenoids. Procurement action has been completed on qualified replacements. Qualification is contingent upon the integrity of the electrical conduit seals. This seal material is now in the qualification testing process. Pending successful completion of the qualification testing, these solenoids will be replaced during the steam generator replacement outages.
T (Temperature)	
QT (Qualification Time)	
P (Pressure)	
H (Humidity)	
CS (Chemical Spray)	
A (Aging)	
QM (Qualification Method)	These valves have been analyzed in a generic Westinghouse letter to USNRC (NS-CE-755, dated August 15, 1975) which demonstrated that all failure modes of the valve will result in safe operation. Potential modes of failure identified for solenoids in the letter were loss of air supply, electrical failures of the solenoid, environmentally caused degradation of the materials used in construction and plunger binding due to thermal expansion of the plunger to the core. Subsequent failure of the equipment as a result of the harsh environment does not degrade other safety functions or mislead the operator. For an in-depth case by case failure mode analysis to justify the continued unit operation with these ASCO solenoid valves, refer to section C.1.12 of the Phase II submittal.
RPN (Equipment Replacement)	

S (Submergence)	SV-3-200A, B, C and their associated limit switches perform their function before becoming submerged. These valves fail closed. Also, they close upon receipt of a containment isolation signal and subsequently become submerged (approximately 1/2 hour into the accident). The containment isolation
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DEFICIENCY CODE IDENTIFIED IN S.E.R.:
(Continued)

contacts and the spring return to open control switches, de-energize the circuits in the panels and preclude any possibility of a malfunction due to submergence. Also, the safety related function can be accomplished by the second isolation valve (CV-3-204) on this line which is located outside containment. CV-3-204 closes upon receipt of a containment isolation signal and fails closed. Therefore, indication of the outside valve position serves as a back-up indication of containment isolation.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Solenoid Valve
 LOCATION: Inside Containment
 MANUFACTURER: ASCO (Automatic Switch Company)
 MODEL NUMBER: HT831654
 DOC. REF. NUMBER: None
 TAG NOS. (C.E.S. PAGE NO.): SV-4-200A, 200B, 200C (2-15, 2-17, 2-19)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

R (Radiation)	As indicated in the original Phase II Response, these devices will be replaced. There is no test data available for environmental qualification of these solenoids. Procurement action has been completed on qualified replacements. Qualification is contingent upon the integrity of the electrical conduit seals. This seal material is now in the qualification testing process. Pending successful completion of the qualification testing, these solenoids will be replaced during the steam generator replacement outages.
T (Temperature)	
QT (Qualification Time)	
P (Pressure)	
H (Humidity)	
CS (Chemical Spray)	
A (Aging)	
QM (Qualification Method)	
RPN (Equipment Replacement)	

These valves have been analyzed in a generic Westinghouse letter to USNRC (NS-CE-755, dated August 15, 1975) which demonstrated that all failure modes of the valve will result in safe operation. Potential modes of failure identified for solenoids in the letter were loss of air supply, electrical failures of the solenoid, environmentally caused degradation of the materials used in construction, and plunger binding due to thermal expansion of the plunger to the core. Subsequent failure of the equipment as a result of the harsh environment does not degrade other safety functions or mislead the operator. For an in-depth case by case failure mode analysis to justify the continued unit operation with these ASCO solenoid valves, refer to section C.1.12 of the Phase II submittal.

S (Submergence)	SV-4-200A, B, C and their associated limit switches perform their function before becoming submerged. These valves fail closed. Also, they close upon receipt of a containment isolation signal and subsequently become submerged (approximately 1/2 hour into the accident). The containment isolation contacts and the spring return to open control switches
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DEFICIENCY CODE IDENTIFIED IN S.E.R.:
(Continued)

de-energize the circuits in the panels and preclude any possibility of a malfunction due to submergence. Also, the safety related function can be accomplished by the second isolation valve (CV-4-204) on this line which is located outside containment. CV-4-204 closes upon receipt of a containment isolation signal and fails closed. Therefore, indication of the outside valve position serves as a back-up indication of containment isolation.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Solenoid Valve
LOCATION: Inside Containment
MANUFACTURER: ASCO (Automatic Switch Company)
MODEL NUMBER: LB831665
DOC. REF. NUMBER: None
TAG NOS.(C.E.S. PAGE NO.): SV*2601, 2804, 2603, 2806
(9-113, 114, 116, 117, 119, 120, 122, 123)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

R (Radiation)
T (Temperature)
QT (Qualification Time)
P (Pressure)
H (Humidity)
CS (Chemical Spray)
A (Aging)
QM (Qualification Method)
RPN (Equipment Replacement)

As indicated in the original Phase II response, these devices will be replaced. There is no test data available for environmental qualification of these solenoids. Procurement action has been completed on qualified replacements. Qualification is contingent upon the integrity of the electrical conduit seals. This seal material is now in the qualification testing process. Pending successful completion of the qualification testing, these solenoids will be replaced during the steam generator replacement outages.

These valves have been analyzed in a generic Westinghouse letter to USNRC (NS-CE-755, dated August 15, 1975) which demonstrated that all failure modes of the valve will result in safe operation. Potential modes of failure identified for solenoids in the letter were loss of air supply, electrical failures of the solenoid, environmentally caused degradation of the materials used in construction, and plunger binding due to thermal expansion of the plunger to the core. Subsequent failure of the equipment as a result of the harsh environment does not degrade other safety functions or mislead the operator. For an in-depth case by case failure mode analysis to justify the continued unit operation with these ASCO solenoid valves, refer to section C.1.12 of the Phase II submittal.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Solenoid Valve
LOCATION: Inside Containment
MANUFACTURER: ASCO (Automatic Switch Company)
MODEL NUMBER: 831434
DOC. REF. NUMBER: None
TAG NOS. (C.F.S. PAGE NO.): SV-3-2819 (9-125)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

R (Radiation)
T (Temperature)
QT (Qualification Time)
P (Pressure)
H (Humidity)
CS (Chemical Spray)
A (Aging)
QM (Qualification Method)
RPN (Equipment Replacement)

As indicated in the original Phase II response, these devices will be replaced. There is no test data available for environmental qualification of these solenoids. Procurement action has been completed on qualified replacements. Qualification is contingent upon the integrity of the electrical conduit seals. This seal material is now in the qualification testing process. Pending successful completion of the qualification testing, these solenoids will be replaced during the steam generator replacement outages.

These valves have been analyzed in a generic Westinghouse letter to USNRC (NS-CE-755, dated August 15, 1975) which demonstrated that all failure modes of the valve will result in safe operation. Potential modes of failure identified for solenoids in the letter were loss of air supply, electrical failures of the solenoid, environmentally caused degradation of the materials used in construction, and plunger binding due to thermal expansion of the plunger to the core. Subsequent failure of the equipment as a result of the harsh environment does not degrade other safety functions or mislead the operator. For an in-depth case by case failure mode analysis to justify the continued unit operation with these ASCO solenoid valves, refer to section C.1.12 of the Phase II submittal.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Solenoid Valve
LOCATION: Inside Containment
MANUFACTURER: ASCO (Automatic Switch Company)
MODEL NUMBER: LBX831614
DOC. REF. NUMBER: None
TAG NOS.(C.E.S. PAGE NO.): SV-4-2819 (9-127)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

R (Radiation)
T (Temperature)
QT (Qualification Time)
P (Pressure)
H (Humidity)
CS (Chemical Spray)
A (Aging)
QM (Qualification Method)
RPN (Equipment Replacement)

As indicated in the original Phase II response, these devices will be replaced. There is no test data available for environmental qualification of these solenoids. Procurement action has been completed on qualified replacements. Qualification is contingent upon the integrity of the electrical conduit seals. This seal material is now in the qualification testing process. Pending successful completion of the qualification testing, these solenoids will be replaced during the steam generator replacement outages.

These valves have been analyzed in a generic Westinghouse letter to USNRC (NS-CE-755, dated August 15, 1975) which demonstrated that all failure modes of the valve will result in safe operation. Potential modes of failure identified for solenoids in the letter were loss of air supply, electrical failures of the solenoid, environmentally caused degradation of the materials used in construction, and plunger binding due to thermal expansion of the plunger to the core. Subsequent failure of the equipment as a result of the harsh environment does not degrade other safety functions or mislead the operator. For an in-depth case by case failure mode analysis to justify the continued unit operation with these ASCO solenoid valves, refer to section C.1.12 of the Phase II submittal.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Replacement Solenoid Valves
LOCATION: Inside Containment
MANUFACTURER: ASCO (Automatic Switch Company)
MODEL NUMBER: NP831654V
DOC. REF. NUMBER: 35, 53
TAG NOS. (C.E.S. PAGE NO.): (10-1)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

A (Aging) See section 2.6.
QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Replacement Solenoid Valve
LOCATION: Inside Containment
MANUFACTURER: ASCO (Automatic Switch Company)
MODEL NUMBER: NP831665V
DOC. REF. NUMBER: 35, 53
TAG NOS.(C.E.S. PAGE NO.): (10-2)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

A (Aging) See section 2.6.
QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Flow Switch
LOCATION: Inside Containment
MANUFACTURER: Ball Engineering Company
MODEL NUMBER: Series D 3500S
DOC. REF. NUMBER: 33, 53
TAG NOS.(C.E.S. PAGE NO.): * FS-1422, 1433, 1424, 1425, 1426, 1427
* Unit 3 & 4

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

QT (Qualified Time)
M (Margin) As indicated in the System Component Evaluation Work Sheet, no qualification tests were done by the vendor and therefore the equipment was qualified by engineering analysis. Qualification time is a function of the parameters: temperature, pressure, radiation, chemical spray and humidity. As discussed below, there is adequate margin to assure operation of the switch for at least 72 hours.

T (Temperature) The original equipment supplier has confirmed that the air flow switch will function adequately at the specified (equipment spec.) temperature of 285°F. The switch probe is in the emergency cooler air stream downstream of the cooler. The housing is subjected to the containment ambient. With a continuous rating of 285°F., the switch is determined to function properly through the post accident temperature profile with adequate margin.

P (Pressure) The switch has been rated for a fluid pressure of 3500 psi. The vendor has confirmed that a specified (equipment spec.) pressure of 60 psig will not effect the function of the switch.

R (Radiation) The engineering analysis for qualification against radiation identified two organic materials susceptible to radiation degradation. These are the "Viton" O-ring seal and the micro switch. Based on research on the radiation resistance of the component materials, it has been determined that the switch will not have any loss of function upto 1×10^8 rads. This provides an adequate margin over the expected dose for 72 hours. The integrated dose is calculated to be 2.5×10^8 rads.



DEFICIENCY CODE IDENTIFIED IN S.E.R.:

(Continued)

H (Humidity)

The equipment specification specified saturated steam-air atmosphere at 285⁰F, 60 psig. The vendor has confirmed meeting this requirement. Based on the construction and components of the switch, it has been determined that there is no loss of function due to humidity.

CS (Chemical Spray)

Based on a study done on the affect of Turkey Point post-accident chemical spray on the coated aluminum housing, it has been determined that there will not be any loss of function due to chemical spray.

A (Aging)

For aging qualification see section 2.6.

NOTE: The air flow switch is used to initiate dousing of charcoal filters if there is a loss of air flow due to failure of emergency cooling fan/filter which has been adequately qualified.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Level Transmitter
LOCATION: Inside Containment
MANUFACTURER: Barton
MODEL NUMBER: 386/351
DOC. REF. NUMBER: 8, 9, 12, 20, 34
TAG NOS.(C.E.S. PAGE NO.): * LT-459, 460, 461 (1-15 thru 1-20)
* Unit 3 & 4

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

R (Radiation) These transmitters are required to provide signal to initiate safety injection. The specified integrated radiation dose for these transmitters is estimated to be 8×10^5 rads for a period of 1/2 hour (required time). The qualified dose of 2.4×10^8 rads has an adequate margin over the specified value.

H (Relative Humidity) The environmental test was done in an atmosphere of saturated steam to simulate 100% humidity,

CS (Chemical Spray) These transmitters are coated with type Amercoat 66 paint. The test spray used has a higher aggressivity than the post accident spray and therefore the transmitters are considered qualified for post accident chemical spray.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.

RPN (Equipment Relocation) These transmitters are scheduled for replacement with qualified transmitters during the next re-fueling outage following procurement.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Thermocouple Reference Junction
LOCATION: Inside Containment
MANUFACTURER: Consolidated Ohmic Devices
MODEL NUMBER: EZT 213
DOC. REF. NUMBER: None
TAG NOS. (C.E.S. PAGE NO.): TB3115 (9-49) TB4115 (9-50)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

R (Radiation)	As indicated in the Phase II Response, these
T (Temperature)	devices will be replaced. There is no test data
QT (Qualified Time)	available for environmental qualification of
P (Pressure)	these thermocouple reference junctions, and there
H (Humidity)	are no qualified replacements on the market.
CS (Chemical Spray)	Several alternatives were considered. Engineering
A (Aging)	is now in progress to replace these with resistance
M (Margin)	temperature devices. The system will be modified
QM (Qualification Method)	with qualified RTD's during the unit refueling
RPN (Replacement)	outage following procurement. Justification for
	continued operation was provided in the Phase II
	Submittal.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Thermocouples
 LOCATION: Inside Containment
 MANUFACTURER: CONAX Corporation
 MODEL NUMBER: 3000-E-SS12-G-T4
 DOC. REF. NUMBER: 32, 53
 TAG NOS.(C.E.S. PAGE NO.): TE*3440 thru TE*3463 (9-1 thru 9-48)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

As no qualification tests were done on the thermocouples, and engineering evaluation was performed based on the analysis of the material content of the device.

R (Radiation)

The only organic materials used in the construction of the thermocouples are epoxy potting in the termination housing (Hysol C9-4190 base and H2-3416 hardener) and silicone resin, used in the impregnation of fiberglass insulation of the extension wire. The limiting radiation resistance of these materials is 10^8 rads.

T (Temperature)

Epoxy resins and silicones both have exceptional thermal stability. Conax Corporation has designed these thermocouples for applications well above 360°F . and has confirmed that these thermocouples will withstand temperature of 350°F .

QT (Qualification Time)

The specification parameters on the component evaluation sheets are a function of the required time. As the thermocouples are qualified for all applicable parameters to levels in excess of the 72 hour specified levels, the thermocouples are conservatively qualified for at least 72 hours.

P (Pressure)

H (Humidity)

CS (Chemical Spray)

The only part of the thermocouple exposed to these parameters is the Thermo Electric cast iron connector head. The connector has a threaded conduit entry in the bottom and a screw cover. The effect of these parameters on the connector head, and therefore on the functional integrity of the thermocouples, is considered to be minimal.



DEFICIENCY CODE IDENTIFIED IN S.E.R.:
(Continued)

A (Aging)	See section 2.6.
M (Margin)	Refer to the above discussion of temperature.
QM (Qualification Method)	See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Cable

LOCATION: Inside Containment

MANUFACTURER: Continental Wire & Cable

MODEL NUMBER: CC-2200 w/ CC-2010

DOC. REF. NUMBER: 31, 25, 53

TAG NOS.(C.E.S. PAGE NO.): 61 (13-10)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

P (Pressure) Turkey Point's containment pressure profile peaks at 50 psig for the 5 minutes immediately following an accident and drops to 18 psig within 2 hours. By t=24 hours, the pressure is down to 5 psig. The cable was tested to a peak pressure of 105 psig for a period of 2 hours. Should a failure occur due to pressure, it is much more likely to occur during this high pressure interval than during a prolonged period at much lower pressures. On this basis, the cable is qualified to meet the containment pressure profile.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.

T (Temperature) Although the test profile was of shorter duration than required, it was more rigorous during the 32 hours of test than the post-accident profile. The peak saturated steam test temperature of 340°F far exceeds those which are expected post-accident.

H (Humidity) The test was done in a saturated steam environment to simulate 100% humidity. Therefore, it has been determined that this cable meets the specified requirements.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Penetration
LOCATION: Inside/Outside Containment
MANUFACTURER: Crouse Hinds
MODEL NUMBER: 0100606
DOC. REF. NUMBER: 26, 53
TAG NOS. (C.E.S. PAGE NO.): T*P41, T*P42, T*P43 (12-1, 2, 3, 6, 7, 8)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature)

Although the test profile was of shorter duration than required, it was much more rigorous during 24 hours of test than the post-accident profile. The saturated steam test temperatures far exceed those which are expected post accident. The post-accident temperature peaks at 276°F (see section 2.3 for discussion on temperature) for 5 minutes while the penetrations were tested for 6 hours at 340°F followed by 16 hours at temperatures in excess of 276°F. The vendor has mathematically extrapolated the test temperatures to cover the post accident profile for a period well over the 31 day required time for penetrations.

QT (Qualification Time)

The specification parameters on the component evaluation sheets are a function of the required time. As the penetrations are qualified for all applicable parameters to levels in excess of the 31 day specified levels, the penetrations are conservatively qualified for at least 31 days.

P (Pressure)

The 24 hours of the test profile bounds and is much more rigorous than the post-accident profile. After 24 hours the expected post-accident pressure will have returned to the near normal ambient of 5 PSIG. Should a failure occur due to pressure, it is much more likely to occur during the high pressure interval than during a prolonged period at much lower pressures. On this basis, the penetration is qualified to meet the post-accident pressure profile.



DEFICIENCY CODE IDENTIFIED IN S.E.R.:

(Continued)

CS (Chemical Spray)

As chemical spray was not a test parameter, a study was done to determine the effects of the Turkey Point spray on the materials exposed to this spray. Based on this study, it has been determined that the aggressivity of the actual spray will not have a detrimental effect on the penetration.

A (Aging)

See section 2.6.

M (Margin)

Refer to the above discussions of temperature, qualification time and pressure.

QM (Qualification Method)

See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Penetration
 LOCATION: Inside/Outside Containment
 MANUFACTURER: Crouse Hinds
 MODEL NUMBER: 0100607
 DOC. REF. NUMBER: 26, 53
 TAG NOS.(C.E.S. PAGE NO.): T*P51, T3P53, T4P52 (12-4, 5, 9, 10)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature)

Although the test profile was of shorter duration than required, it was much more rigorous during 24 hours of test than the post-accident profile. The saturated steam test temperatures far exceed those which are expected post accident. The post-accident temperature peaks at 276°F (see section 2.3 for discussion on temperature) for 5 minutes while the penetrations were tested for 6 hours at 340°F followed by 16 hours at temperatures in excess of 276°F. The vendor has mathematically extrapolated the test temperatures to cover the post accident profile for a period well over the 31 day required time for penetrations.

QT (Qualification Time)

The specification parameters on the component evaluation sheets are a function of the required time. As the penetrations are qualified for all applicable parameters to levels in excess of the 31 day specified levels, the penetrations are conservatively qualified for at least 31 days.

P (Pressure)

The 24 hours of the test profile bounds and is much more rigorous than the post-accident profile. After 24 hours the expected post-accident pressure will have returned to the near normal ambient of 5 PSIG. Should a failure occur due to pressure, it is much more likely to occur during the high pressure interval than during a prolonged period at much lower pressures. On this basis, the penetration is qualified to meet the post-accident pressure profile.

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

(Continued)

CS (Chemical Spray)

As chemical spray was not a test parameter, a study was done to determine the effects of the Turkey Point spray on the materials exposed to this spray. Based on this study, it has been determined that the aggressivity of the actual spray will not have a detrimental effect on the penetration.

A (Aging)

See section 2.6.

M (Margin)

Refer to the above discussions of temperature, qualification time and pressure.

QM (Qualification Method)

See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Penetration
LOCATION: Inside/Outside Containment
MANUFACTURER: Crouse Hinds
MODEL NUMBER: 0100603
DOC. REF. NUMBER: 26, 53
TAG NOS.(C.E.S. PAGE NO.): T3P11, T*P12 (12-11, 12, 14)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) Although the test profile was of shorter duration than required, it was much more rigorous during 24 hours of test than the post-accident profile. The saturated steam test temperatures far exceed those which are expected post accident. The post-accident temperature peaks at 276°F (see section 2.3 for discussion on temperature) for 5 minutes while the penetrations were tested for 6 hours at 340°F followed by 16 hours at temperatures in excess of 276°F. The vendor has mathematically extrapolated the test temperatures to cover the post accident profile for a period well over the 31 day required time for penetrations.

QT (Qualification Time) The specification parameters on the component evaluation sheets are a function of the required time. As the penetrations are qualified for all applicable parameters to levels in excess of the 31 day specified levels, the penetrations are conservatively qualified for at least 31 days.

P (Pressure) The 24 hours of the test profile bounds and is much more rigorous than the post-accident profile. After 24 hours the expected post-accident pressure will have returned to the near normal ambient of 5 PSIG. Should a failure occur due to pressure, it is much more likely to occur during the high pressure interval than during a prolonged period at much lower pressures. On this basis, the penetration is qualified to meet the post-accident pressure profile.



DEFICIENCY CODE IDENTIFIED IN S.E.R.:

(Continued)

CS (Chemical Spray)

As chemical spray was not a test parameter, a study was done to determine the effects of the Turkey Point spray on the materials exposed to this spray. Based on this study, it has been determined that the aggressivity of the actual spray will not have a detrimental effect on the penetration.

A (Aging)

See section 2.6.

M (Margin)

Refer to the above discussions of temperature, qualification time and pressure.

QM (Qualification Method)

See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Penetration
LOCATION: Inside/Outside Containment
MANUFACTURER: Crouse Hinds
MODEL NUMBER: 0100604
DOC. REF. NUMBER: 26, 53
TAG NOS.(C.E.S. PAGE NO.): T*P22, T4P21 (12-13, 15, 16)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) Although the test profile was of shorter duration than required, it was much more rigorous during 24 hours of test than the post-accident profile. The saturated steam test temperatures far exceed those which are expected post accident. The post-accident temperature peaks at 276°F (see section 2.3 for discussion on temperature) for 5 minutes while the penetrations were tested for 6 hours at 340°F followed by 16 hours at temperatures in excess of 276°F. The vendor has mathematically extrapolated the test temperatures to cover the post accident profile for a period well over the 31 day required time for penetrations.

QT (Qualification Time) The specification parameters on the component evaluation sheets are a function of the required time. As the penetrations are qualified for all applicable parameters to levels in excess of the 31 day specified levels, the penetrations are conservatively qualified for at least 31 days.

P (Pressure) The 24 hours of the test profile bounds and is much more rigorous than the post-accident profile. After 24 hours the expected post-accident pressure will have returned to the near normal ambient of 5 PSIG. Should a failure occur due to pressure, it is much more likely to occur during the high pressure interval than during a prolonged period at much lower pressures. On this basis, the penetration is qualified to meet the post-accident pressure profile.



DEFICIENCY CODE IDENTIFIED IN S.E.R.:

(Continued)

CS (Chemical Spray)

As chemical spray was not a test parameter, a study was done to determine the effects of the Turkey Point spray on the materials exposed to this spray. Based on this study, it has been determined that the aggressivity of the actual spray will not have a detrimental effect on the penetration.

A (Aging)

See section 2.6.

M (Margin)

Refer to the above discussions of temperature, qualification time and pressure.

QM (Qualification Method)

See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Penetration
 LOCATION: Inside/Outside Containment
 MANUFACTURER: Crouse Hinds
 MODEL NUMBER: 0100608
 DOC. REF. NUMBER: 26, 53
 TAG NOS. (C.E.S. PAGE NO.): T*C11, T*C12, T*C13 (12-17, 18, 19, 23, 24, 25)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) Although the test profile was of shorter duration than required, it was much more rigorous during 24 hours of test than the post-accident profile. The saturated steam test temperatures far exceed those which are expected post accident. The post-accident temperature peaks at 276°F (see section 2.3 for discussion on temperature) for 5 minutes while the penetrations were tested for 6 hours at 340°F followed by 16 hours at temperatures in excess of 276°F. The vendor has mathematically extrapolated the test temperatures to cover the post accident profile for a period well over the 31 day required time for penetrations.

QT (Qualification Time) The specification parameters on the component evaluation sheets are a function of the required time. As the penetrations are qualified for all applicable parameters to levels in excess of the 31 day specified levels, the penetrations are conservatively qualified for at least 31 days.

P (Pressure) The 24 hours of the test profile bounds and is much more rigorous than the post-accident profile. After 24 hours the expected post-accident pressure will have returned to the near normal ambient of 5 PSIG. Should a failure occur due to pressure, it is much more likely to occur during the high pressure interval than during a prolonged period at much lower pressures. On this basis, the penetration is qualified to meet the post-accident pressure profile.



DEFICIENCY CODE IDENTIFIED IN S.E.R.:

(Continued)

CS (Chemical Spray)

As chemical spray was not a test parameter, a study was done to determine the effects of the Turkey Point spray on the materials exposed to this spray. Based on this study, it has been determined that the aggressivity of the actual spray will not have a detrimental effect on the penetration.

A (Aging)

See section 2.6.

M (Margin)

Refer to the above discussions of temperature, qualification time and pressure.

QM (Qualification Method)

See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Penetration

LOCATION: Inside/Outside Containment

MANUFACTURER: Crouse Hinds

MODEL NUMBER: 0100609

DOC. REF. NUMBER: 26, 53

TAG NOS. (C.E.S. PAGE NO.): T*C21, T*C22, T*C23 (12-20, 21, 22, 26, 27, 29)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) Although the test profile was of shorter duration than required, it was much more rigorous during 24 hours of test than the post-accident profile. The saturated steam test temperatures far exceed those which are expected post accident. The post-accident temperature peaks at 276°F (see section 2.3 for discussion on temperature) for 5 minutes while the penetrations were tested for 6 hours at 340°F followed by 16 hours at temperatures in excess of 276°F. The vendor has mathematically extrapolated the test temperatures to cover the post accident profile for a period well over the 31 day required time for penetrations.

QT (Qualification Time) The specification parameters on the component evaluation sheets are a function of the required time. As the penetrations are qualified for all applicable parameters to levels in excess of the 31 day specified levels, the penetrations are conservatively qualified for at least 31 days.

P (Pressure) The 24 hours of the test profile bounds and is much more rigorous than the post-accident profile. After 24 hours the expected post-accident pressure will have returned to the near normal ambient of 5 PSIG. Should a failure occur due to pressure, it is much more likely to occur during the high pressure interval than during a prolonged period at much lower pressures. On this basis, the penetration is qualified to meet the post-accident pressure profile.



DEFICIENCY CODE IDENTIFIED IN S.E.R.:

(Continued)

CS (Chemical Spray)

As chemical spray was not a test parameter, a study was done to determine the effects of the Turkey Point spray on the materials exposed to this spray. Based on this study, it has been determined that the aggressivity of the actual spray will not have a detrimental effect on the penetration.

A (Aging)

See section 2.6.

M (Margin)

Refer to the above discussions of temperature, qualification time and pressure.

QM (Qualification Method)

See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Penetration
LOCATION: Inside/Outside Containment
MANUFACTURER: Crouse Hinds
MODEL NUMBER: 0100611
DOC. REF. NUMBER: 26, 53
TAG NOS. (C.E.S. PAGE NO.): T3I11, T*I14, T*I15, T*I12
(12-28, 30, 31, 36, 37, 38, 39)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) Although the test profile was of shorter duration than required, it was much more rigorous during 24 hours of test than the post-accident profile. The saturated steam test temperatures far exceed those which are expected post accident. The post-accident temperature peaks at 276°F (see section 2.3 for discussion on temperature) for 5 minutes while the penetrations were tested for 6 hours at 340°F followed by 16 hours at temperatures in excess of 276°F. The vendor has mathematically extrapolated the test temperatures to cover the post accident profile for a period well over the 31 day required time for penetrations.

QT (Qualification Time) The specification parameters on the component evaluation sheets are a function of the required time. As the penetrations are qualified for all applicable parameters to levels in excess of the 31 day specified levels, the penetrations are conservatively qualified for at least 31 days.

P (Pressure) The 24 hours of the test profile bounds and is much more rigorous than the post-accident profile. After 24 hours the expected post-accident pressure will have returned to the near normal ambient of 5 PSIG. Should a failure occur due to pressure, it is much more likely to occur during the high pressure interval than during a prolonged period at much lower pressures. On this basis, the penetration is qualified to meet the post-accident pressure profile.



DEFICIENCY CODE IDENTIFIED IN S.E.R.:
(Continued)

CS (Chemical Spray)

As chemical spray was not a test parameter, a study was done to determine the effects of the Turkey Point spray on the materials exposed to this spray. Based on this study, it has been determined that the aggressivity of the actual spray will not have a detrimental effect on the penetration.

A (Aging)

See section 2.6.

M (Margin)

Refer to the above discussions of temperature, qualification time and pressure.

QM (Qualification Method)

See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Penetration
LOCATION: Inside/Outside Containment
MANUFACTURER: Crouse Hinds
MODEL NUMBER: 0100612
DOC. REF. NUMBER: 26, 53
TAG NOS. (C.E.S. PAGE NO.): T*I21, T*I22, T*I23, T*I24
(12-32, 33, 34, 35, 40, 41, 42, 43)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) Although the test profile was of shorter duration than required, it was much more rigorous during 24 hours of test than the post-accident profile. The saturated steam test temperatures far exceed those which are expected post accident. The post-accident temperature peaks at 276°F (see section 2.3 for discussion on temperature) for 5 minutes while the penetrations were tested for 6 hours at 340°F followed by 16 hours at temperatures in excess of 276°F. The vendor has mathematically extrapolated the test temperatures to cover the post accident profile for a period well over the 31 day required time for penetrations.

QT (Qualification Time) The specification parameters on the component evaluation sheets are a function of the required time. As the penetrations are qualified for all applicable parameters to levels in excess of the 31 day specified levels, the penetrations are conservatively qualified for at least 31 days.

P (Pressure) The 24 hours of the test profile bounds and is much more rigorous than the post-accident profile. After 24 hours the expected post-accident pressure will have returned to the near normal ambient of 5 PSIG. Should a failure occur due to pressure, it is much more likely to occur during the high pressure interval than during a prolonged period at much lower pressures. On this basis, the penetration is qualified to meet the post-accident pressure profile.



DEFICIENCY CODE IDENTIFIED IN S.E.R.:

(Continued)

CS (Chemical Spray)

As chemical spray was not a test parameter, a study was done to determine the effects of the Turkey Point spray on the materials exposed to this spray. Based on this study, it has been determined that the aggressivity of the actual spray will not have a detrimental effect on the penetration.

A (Aging)

See section 2.6.

M (Margin)

Refer to the above discussions of temperature, qualification time and pressure.

QM (Qualification Method)

See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Terminal Box (Enclosure)
 LOCATION: Inside Containment
 MANUFACTURER: Field Fabricated
 MODEL NUMBER: N/A
 DOC. REF. NUMBER: Attachment 7 to the Phase II Response
 TAG NOS.(C.E.S. PAGE NO.): (Section 14) TB3122, 3123, 3124, 3125, 3126, 3127, 3115, TB3143, 3144, 3145, 3301, 3303, 4389, 4367, 4368, 4369, 4371, 4372, 4379

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

R (Radiation) T (Temperature) QT (Qualification Time) P (Pressure) H (Humidity)	Section 14 component evaluation sheets are for the galvanized steel enclosures only. The terminal blocks, splices, and reference junctions housed in these enclosures are evaluated (and reviewed) elsewhere in the report.
	The construction of the box is 14 gage hot dipped galvanized sheet steel with a neoprene gasket around the door. No credit is taken for the gasket. The box is designed with a lip to keep sprays from entering.
	The galvanized steel is unaffected by the post LOCA radiation and temperature levels seen inside containment. From a materials standpoint, the terminal boxes will retain their functionality for long term post-LOCA operation. The box is not a pressure boundary and will not be pressurized.
A (Aging)	See section 2.6.
QM (Qualification Method)	See section 3.2.
RPN (Equipment Relocation)	TB3143 has been relocated to above the flood level (elevation 19'-0") by Plant Change/Modification 80-146. TB4371, TB4372, TB4379 and TB4143 are scheduled for relocation during the next refueling outage (PC/M 80-147).



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Pressure Transmitter
LOCATION: Inside Containment
MANUFACTURER: Fischer & Porter
MODEL NUMBER: 50EP 1041 BCXANS
DOC. REF. NUMBER: 13, 5, 53
TAG NOS.(C.E.S. PAGE NO.): PT-3-403, PT-4-403 (1-1 & 1-5)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

R (Radiation)
QT (Qualification Time)
A (Aging)
QM (Qualification Method)

As stated in Attachment 4 (copy attached) to the Phase II Response to I. E. Bulletin 79-01B, these transmitters do not have adequate qualifications for long term post-LOCA operation. Justification is provided for continued operation in Attachment 4 of the Phase II Submittal.

Procurement action has been initiated for qualified replacement transmitters. The vendor has initiated a qualification test to meet the latest regulatory requirements. The transmitters will be installed at the next available refueling outage after receipt.

S (Submergence)
RPN (Equipment Replacement)

The transmitter in Unit 3 has been relocated above the flood elevation (19'-0"). The Unit 4 transmitter will be relocated at the next refueling outage currently scheduled for the last quarter of 1981.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Pressure Transmitter
LOCATION: Inside Containment
MANUFACTURER: Fischer & Porter
MODEL NUMBER: 50EP1041BCXANS
DOC. REF. NUMBER: 6, 7, 8, 53
TAG NOS.(C.E.S. PAGE NO.): PT*405 (1-2, 6)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

P (Pressure) See the attached superimposed test profile over the post accident profile. The test profile envelops the accident profile during the test duration of 7 hours with adequate margin. Having withstood a pressure much higher than the required pressure for a 7 hour period, it is reasonable to conclude that the transmitters will withstand a much lower pressure for an extended period of time.

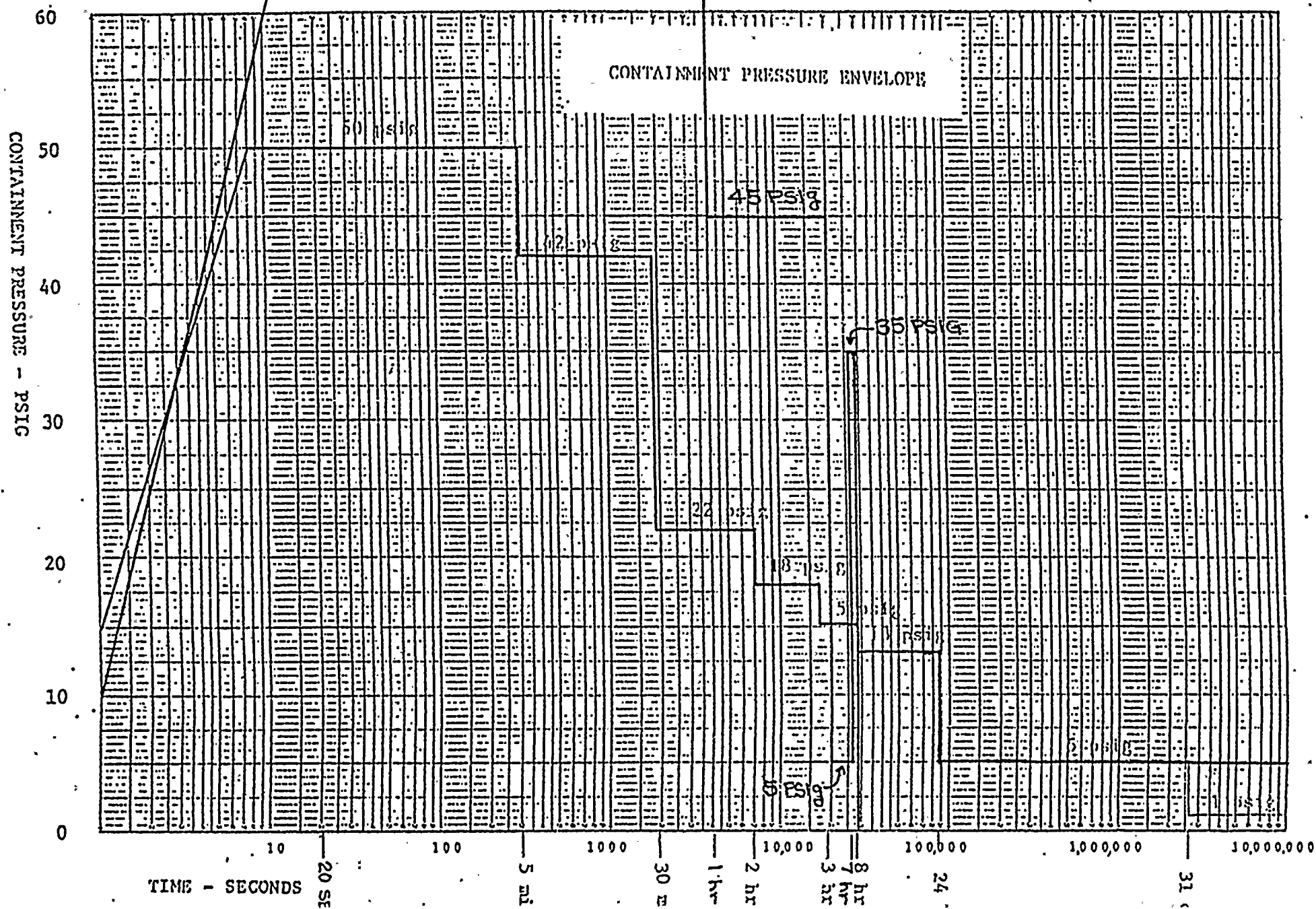
A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.

RPN (Equipment Relocation) See submergence below.

S (Submergence) Transmitter has been relocated above flood level in Unit 3 containment. See revised component evaluation sheet for Unit 3 in Appendix S.





RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Pressure Transmitter
LOCATION: Inside Containment
MANUFACTURER: Fischer & Porter
MODEL NUMBER: 5OEP1041BCXANS
DOC. REF. NUMBER: 8, 11, 20, 53
TAG NOS.(C.E.S. PAGE NO.): PT*455, 456, 457 (1-9 thru 1-14)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

RT (Required Time) These transmitters are required for initiation of safety injection signal after an accident. The required signal initiation time is 10 seconds. Therefore, the required time was very conservatively estimated and stated in the FSAR to be $\frac{1}{2}$ hour. The stipulation of a required time of 1 hour is therefore not required. Even if 1 hour is stipulated, the transmitters are deemed qualified.

H (Relative Humidity) The test included placing the transmitters in a test chamber and filling the chamber with saturated steam to simulate 100% humidity. Therefore, it has been determined that these instruments meet the specified requirements.

CS (Chemical Spray) These transmitters are coated with Amercoat type 66 paint. The test spray used has a higher aggressivity than the post accident spray, and therefore the transmitters are considered qualified for post accident chemical spray.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Flow Transmitter
LOCATION: Inside Containment
MANUFACTURER: Fischer & Porter
MODEL NUMBER: 10B2496 PBBABBB - NS
DOC. REF. NUMBER: 6, 7, 8, 36, 53
TAG NOS. (C.E.S. PAGE NO.): FT*932, 933 (3-9, 10, 11, 12)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

QT (Qualified Time)
M (Margin) The qualification test profile for temperature and pressure enveloped the required profile with a large margin. The test duration of 7 hours was extrapolated for temperature using 10°C rule. The transmitters, based on this margin, are qualified for 60 days, using the post accident temperature profile. To be conservative, the qualified time was indicated to be at least 31 days. The transmitters, based on the test and extrapolation of test result, has adequate margin.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.

S (Submergence) Unit 3 transmitters have been relocated to above flood level elevation and Unit 4 transmitters are scheduled to be relocated (PC/M 80-147) during the next refueling outage. The revised system component evaluation worksheet for Unit 3 transmitters are included in Appendix S.

P (Pressure) See the attached superimposed test profile over the post accident profile. The test profile envelops the accident profile during the test duration of 7 hours with adequate margin. Having withstood a pressure much higher than the required pressure for a 7 hour period, it is reasonable to conclude that the transmitters will withstand a much lower pressure for an extended period of time.

RPN (Equipment Relocation) See submergence above.



CONTAINMENT PRESSURE - PSIG

60

50

40

30

20

10

0

CONTAINMENT PRESSURE ENVELOPE

TIME - SECONDS

10

20 SEC

100

5 min

1000

30 min

1 hr

2 hr

10,000

3 hr

7 hr

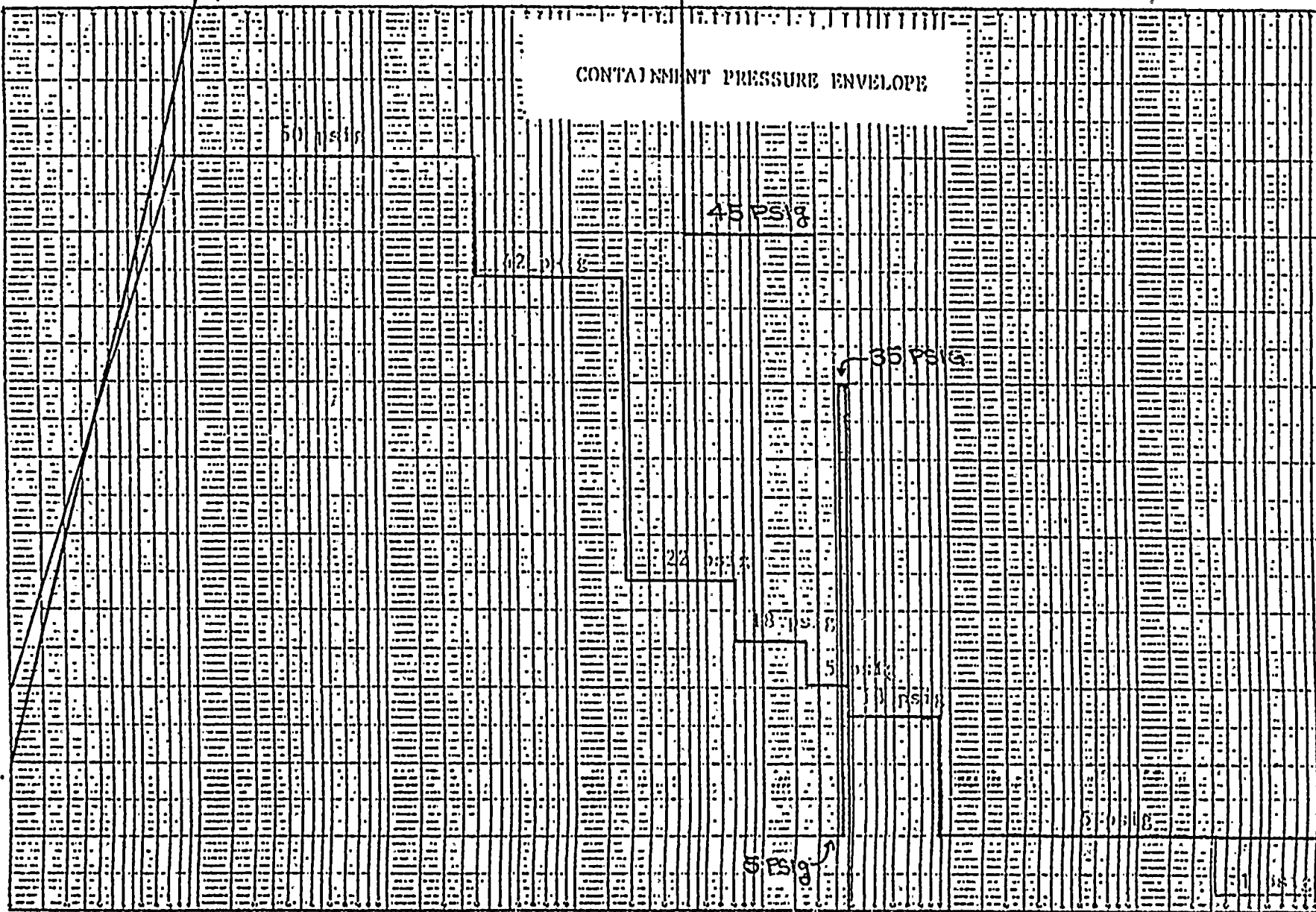
24 hr

100,000

1,000,000

31 d

10,000,000





RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Flow Transmitter
LOCATION: Inside Containment
MANUFACTURER: Fischer & Porter
MODEL NUMBER: 10B2496 PBBABBB - NS
DOC. REF. NUMBER: 13, 53
TAG NOS.(C.E.S. PAGE NO.): FT*475, 484, 485, 494, 495, 474 (5-25 thru 5-36)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

R (Radiation) These transmitters are required to operate to mitigate main steam line break accident. The "Attachment 3" referenced for specification value is in error. The "Attachment 3" refers to radiation dose after a LOCA accident. The specification integrated radiation dose for these transmitters for main steam line break accident is estimated to be 1×10^2 R. The qualified dose of 4×10^4 R has an adequate margin over the specified value. Revised C.E.S. provided in Appendix S.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Level Transmitter
LOCATION: Inside Containment
MANUFACTURER: Fischer & Porter
MODEL NUMBER: 13D2495KBBABBB-NS
DOC. REF. NUMBER: 6, 7, 8, 36, 53
TAG NOS. (C.E.S. PAGE NO.): LT*474, 475, 476, 484, 485, 486, 494, 495, 496
(7-1 thru 7-18)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

QT (Qualified Time) The qualification test profile for temperature and pressure enveloped the required profile with a large margin. The test duration of 7 hours was extrapolated for temperature using 10°C rule. The transmitters, based on this margin, are qualified for 60 days, using the post accident temperature profile. To be conservative, the qualified time was indicated to be at least 31 days. The transmitters, based on the test and extrapolation of test result, has adequate margin.

A (Aging) See section 2.6.

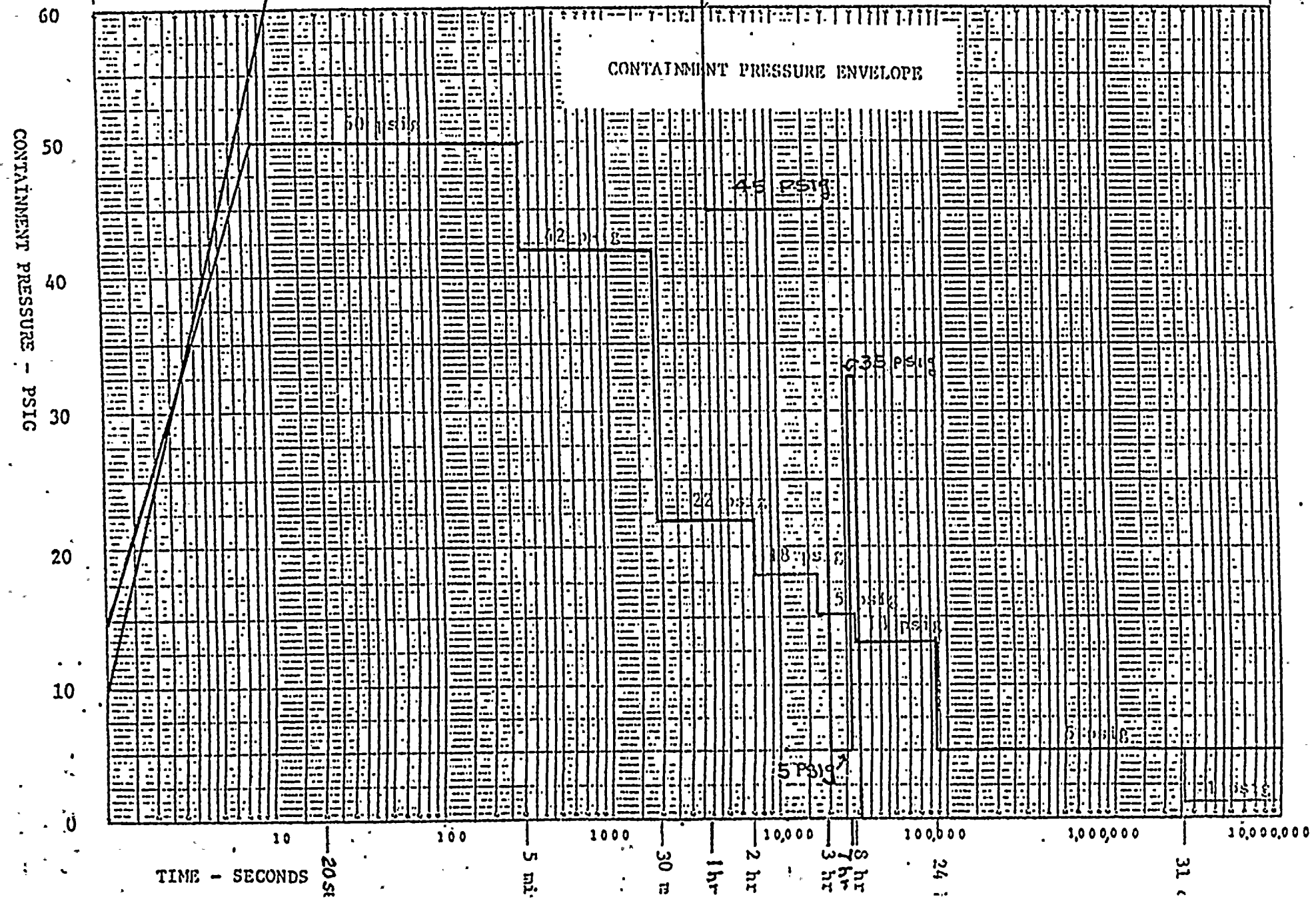
QM (Qualification Method) See section 3.2.

P (Pressure) See the attached superimposed test profile over the post accident profile. The test profile envelops the accident profile during the test duration of 7 hours with adequate margin. Having withstood a pressure much higher than the required pressure for a 7 hour period, it is reasonable to conclude that the transmitters will withstand a much lower pressure for an extended period of time.

75 PSIG

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← ACTUAL PROFILE



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Shielded Instrument Cable
LOCATION: Inside Containment
MANUFACTURER: General Electric
MODEL NUMBER: Vulkene
DOC. REF. NUMBER: 29, 53
TAG NOS. (C.E.S. PAGE NO.): 60 (13-8) 61 (13-9)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) Although the test profile was of shorter duration than required, it was much more rigorous in the first ten hours than the containment profile. A mathematical analysis was performed to extrapolate the first 10 hours of the test by the 10°C rule. This method is generally acceptable for cable insulations. The cable is qualified to the containment temperature profile for 205 days. (See attached sheet).

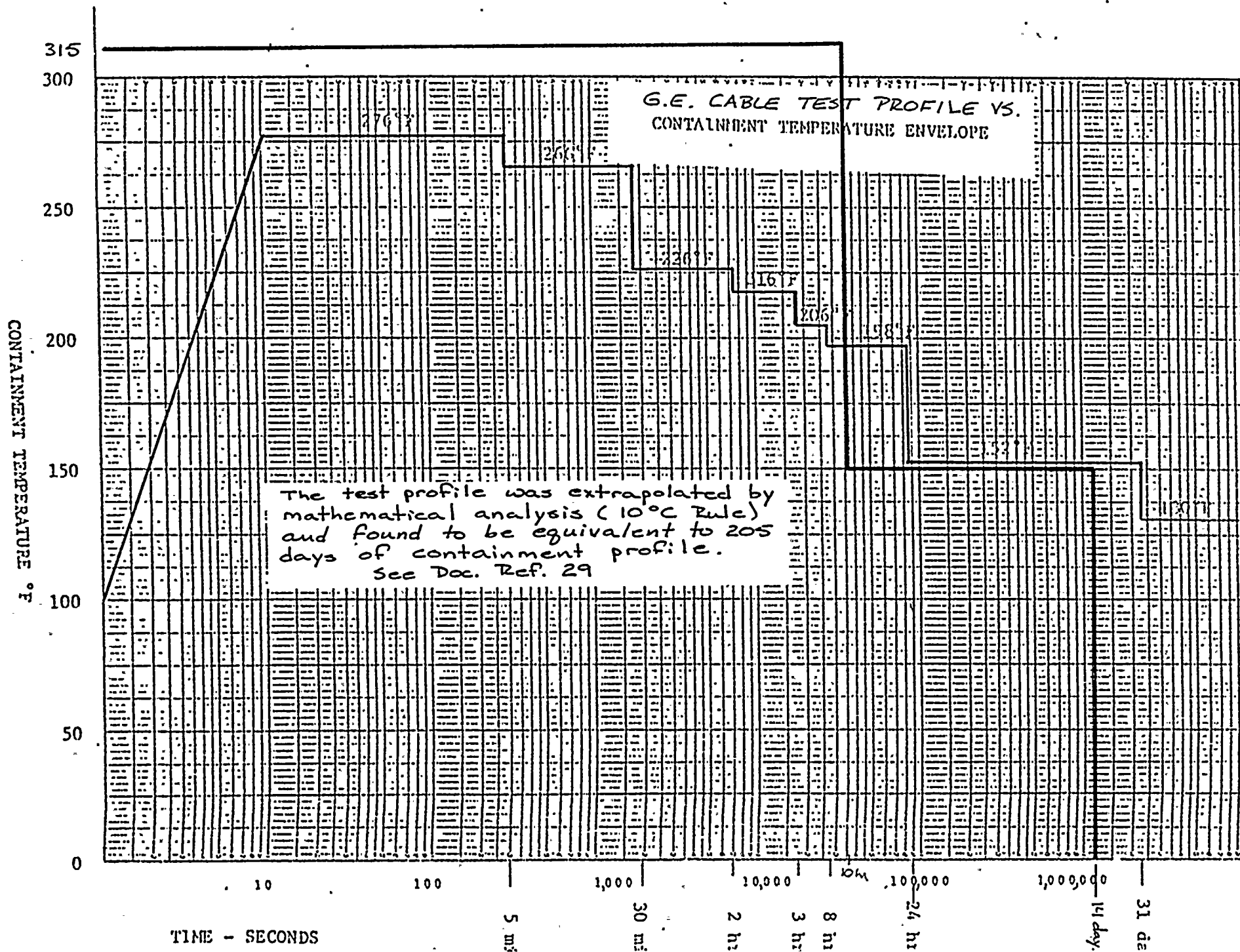
P (Pressure) The first ten hours of the test profile bounds and is much more rigorous than the containment profile (see attached sheet). Should a failure occur due to pressure, it is much more likely to occur during this high pressure interval than during a prolonged period at much lower pressures. On this basis the cable is qualified to meet the containment pressure profile.

CS (Containment Spray) The test spray was less aggressive than the actual spray. However, it has been determined that the aggressivity of the actual spray will not have a detrimental effect on the P.V.C. jacket of the cable.

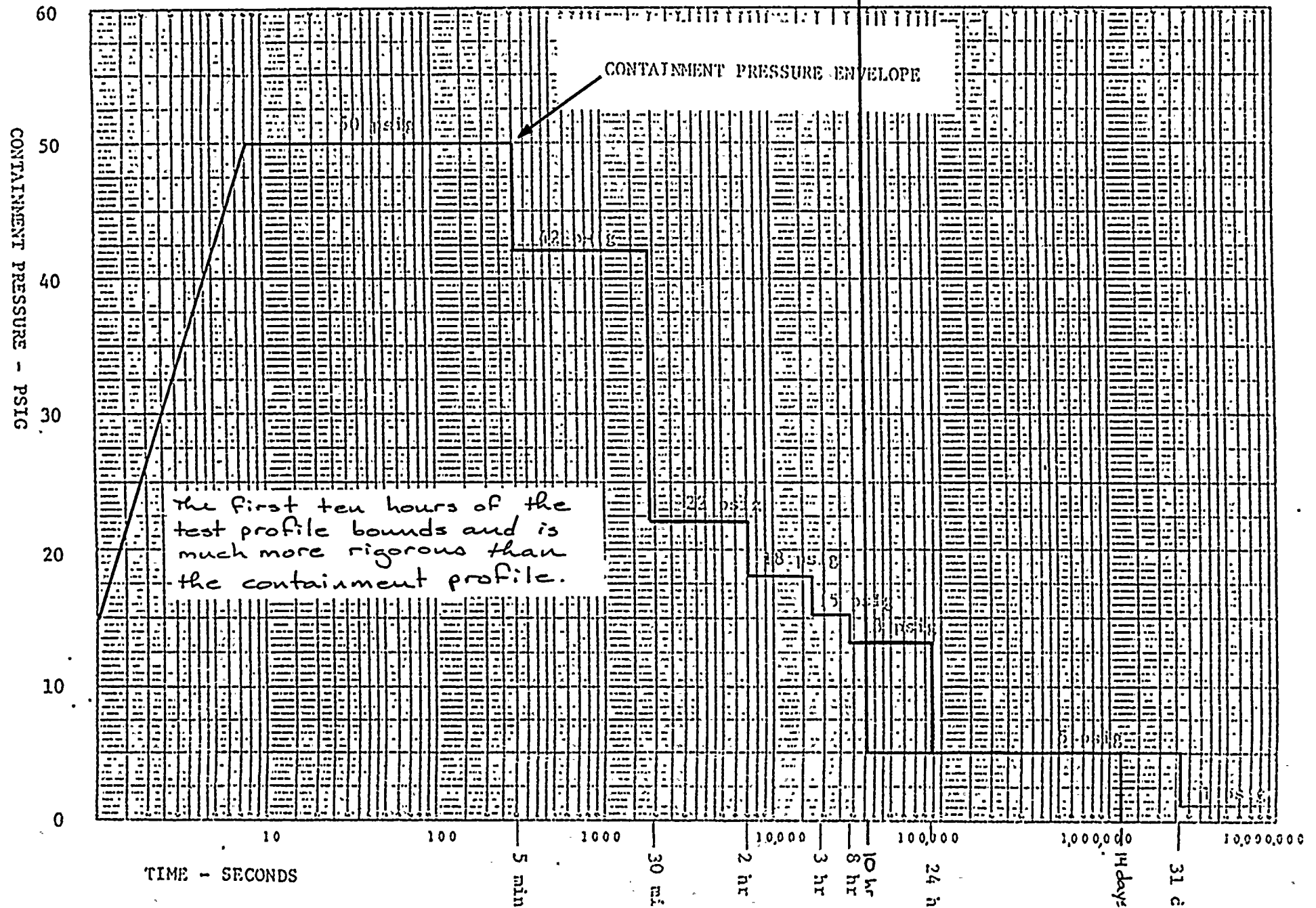
A (Aging) See section 2.6.

(QM) Qualification Method) See section 3.2.









RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Emergency Containment Filter Fan Motor
LOCATION: Inside Containment (El. 58')
MANUFACTURER: Joy Engineering
MODEL NUMBER: 46-26-1200
DOC. REF. NUMBER: 10, 53
TAG NOS. (C.E.S. PAGE NO.): 3V3A (9-55)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

A (Aging) See section 2.6.
QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Emergency Containment Filter Fan Motors
LOCATION: Inside Containment (El. 58')
MANUFACTURER: Joy Engineering
MODEL NUMBER: 56-26-1200
DOC. REF. NUMBER: 10, 53
TAG NOS. (C.E.S. PAGE NO.): 3V3B, 3V3C (9-56, 9-57)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

A (Aging) See section 2.6.
QM (Qualification Method) See section 3.2.

RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Emergency Containment Filter Fan Motors
LOCATION: Inside Containment (El. 58')
MANUFACTURER: Joy Engineering
MODEL NUMBER: 42-26-1200
DOC. REF. NUMBER: 10, 53
TAG NOS. (C.E.S. PAGE NO.): 4V3A, 4V3B, 4V3C (9-70, 71, 72)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

A (Aging) See section 2.6.
QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Emergency Containment Cooler Fan Motors
LOCATION: Inside Containment (El. 58')
MANUFACTURER: Joy Engineering
MODEL NUMBER: 38-26-1200
DOC. REF. NUMBER: 10, 53
TAG NOS. (C.E.S. PAGE NO.): *V30A, *V30B, *V30C (9-85 thru 90)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

A (Aging) See section 2.6.
QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Valve Motor Operator (A.C.)
LOCATION: Inside Containment
MANUFACTURER: Limitorque/Peerless
MODEL NUMBER: Class B Insul.
DOC. REF. NUMBER: 14, 15, 53
TAG NOS. (C.E.S. PAGE NO.): MOV*535, 536 (1-33, 34, 35, 36)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

P (Pressure) Turkey Point's containment pressure profile peaks at 50 psig for the 5 minutes immediately following an accident and drops to 22 psig within 1/2 hour. By t=24 hours, the pressure is down to 5 psig. The motor operator was tested to peak pressures of 50 and 60 psig for an hour each, and 40 psig for two hours. Should a failure occur due to pressure, it is much more likely to occur during this high pressure interval than during a prolonged period at much lower pressures. The peak pressure testing was much more rigorous than the accident profile. On this basis the motor operator is qualified to meet the containment pressure profile.

H (Humidity) Steam was introduced to the test chamber throughout the test to keep it pressurized. After 7 days in a saturated steam environment, the valve failed to actuate. Documentation shows that the valve motor operator performed with no problems 8-1/2 hours into the test. If moisture intrusion was the cause of subsequent failure, the problem wasn't manifest until some time between 8-1/2 hours and 7 days after the start of testing. In the Turkey Point application the valve is required for 2 hours. Based on this, the valve motor operator is qualified for this application.

A (Aging) See section 2.6.

RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Valve Motor Operator (A.C.)
LOCATION: Inside Containment
MANUFACTURER: Limitorque/Reliance
MODEL NUMBER: Class H Insulation
DOC. REF. NUMBER: 16, 14, 53
TAG NOS. (C.E.S. PAGE NO.): MOV*744A, 744B (3-21, 22, 23, 24)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

R (Radiation) The radiation test was done with a Class B insulated motor to a level of 2×10^8 rads with no degradation of insulation properties. Based on an engineering evaluation of the materials used in the industry for Class H insulation, it has been determined that the radiation resistance of the Class H material will be higher than that for Class B materials. Therefore, the radiation test provides an adequate margin over the specified value of 4×10^7 rads for 31 days.

T (Temperature) The valve was tested to a peak temperature of 331°F. for one hour followed by two hours at 312°F. and 2 hours at 287°F. The test lasted 6 days at lower temperatures. This is much more rigorous than the first 5 hours of post-accident profile and is extrapolated to fully cover the 31 day profile with margin.

P (Pressure) Turkey Point containment pressure profile peaks at 50 psig for the 5 minutes immediately following an accident and drops to 22 psig within 1/2 hour. By $t = 24$ hours, the pressure is down to 5 psig. The motor operator was tested to peak pressures of 90 psig for one hour followed by 70 psig for 2 hours and 40 psig for 2 hours. The test ran for six days at pressures above 10 psig. Should a failure occur due to pressure, it is much more likely to occur during the high pressure interval than during a prolonged period at much lower pressures. The peak pressure testing was much more rigorous than the accident profile, on this basis the motor operator is qualified to meet the containment pressure profile.



DEFICIENCY CODE IDENTIFIED IN S.E.R.:
(Continued)

H (Humidity)

Saturated steam was introduced to the chamber throughout the test to keep it pressurized. Therefore, the test is adequate to qualify for 100% humidity requirement.

CS (Chemical Spray)

As the chemical content of the test spray cannot be determined, an analysis was done on the effect of the Turkey Point spray on the valve actuator housing material that would come in contact with this spray. It was determined that the Turkey Point spray would not have a detrimental effect on the material.

A (Aging)

See section 2.6.

RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Valve Motor Operator (A.C.)
LOCATION: Inside Containment
MANUFACTURER: Limitorque/Reliance
MODEL NUMBER: Class B Insulation
DOC. REF. NUMBER: 15, 43, 45, 53
TAG NOS. (C.E.S. PAGE NO.): MOV*750, 751 (3-25, 26, 27, 28)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

P (Pressure) Turkey Point's containment pressure profile peaks at 50 psig for the 5 minutes immediately following an accident and drops to 22 psig within 1/2 hour. By $t = 24$ hours, the pressure is down to 5 psig. The motor operator was tested to peak pressures of 50 and 60 psig for an hour each, and 40 psig for two hours. Should a failure occur due to pressure, it is much more likely to occur during this high pressure interval than during a prolonged period at much lower pressures. The peak pressure testing was much more rigorous than the actual profile. On this basis the motor operator is qualified to meet the containment pressure profile.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Valve Motor Operator (A.C.)
LOCATION: Inside Containment
MANUFACTURER: Limitorque/Peerless
MODEL NUMBER: Class B Insulation
DOC. REF. NUMBER: 14, 15, 53
TAG NOS. (C.E.S. PAGE NO.): MOV*866A & 866B (3-47, 48, 49, 50)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

P (Pressure) Turkey Point's containment pressure profile peaks at 50 psig for the 5 minutes immediately following an accident and drops to 22 psig within 1/2 hour. By $t = 24$ hours, the pressure is down to 5 psig. The motor operator was tested to a peak pressure of 50 and 60 psig for an hour each, and 40 psig for two hours. Should a failure occur due to pressure, it is much more likely to occur during this high pressure interval than during a prolonged period at much lower pressures. The peak pressure testing was much more rigorous than the actual profile. On this basis the motor operator is qualified to meet the containment pressure profile.

H (Humidity) Steam was introduced to the test chamber throughout the test to keep it pressurized. After 7 days in a saturated steam environment, the valve failed to actuate. Documentation shows that the valve motor operator performed with no problems 8-1/2 hours into the test. If moisture intrusion was the cause of subsequent failure, the problem wasn't manifest until sometime between 8-1/2 hours and 7 days after the start of testing. In the Turkey Point application the valve is required for 2 hours. Based on this, the valve motor operator is qualified for this application.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Level Switch
LOCATION: Inside Containment
MANUFACTURER: Magnetrol
MODEL NUMBER: A-153-F-EP/VP-X-Y-M13H
DOC. REF. NUMBER: None
TAG NOS. (C.E.S. PAGE NO.): LS*1570, LS*1571 (3-73, 74, 75, 76)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

R (Radiation)
T (Temperature)
QT (Qualification Time)
P (Pressure)
H (Humidity)
CS (Chemical Spray)
A (Aging)
S (Submergence)
M (Margin)
QM (Qualification Method)
RPN (Replacement)

As indicated in the original Phase II Response, these devices will be replaced. There is no test data available for environmental qualification of these level switches. These switches give back-up indication for initiation of the recirculation. Primary indication is the refueling water storage tank level. In this case the safety related function is accomplished by alternate instrumentation that satisfies the single failure criterion.

Procurement action has been completed on qualified containment sump level measuring devices. These will provide redundant indication for the operator of the containment recirculation sump level. The existing Magnetrol level switches will not be replaced, but will be left to provide a back-up indication. These level switches will not be relocated as the safety related function will be performed by alternate instrumentation.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: 600V Instrumentation Cable
LOCATION: Inside Containment
MANUFACTURER: Samuel Moore and Company
MODEL NUMBER: Dekorad 1952-68380-004
DOC. REF. NUMBER: 51, 53
TAG NOS.(C.E.S. PAGE NO.): L1P (13-25)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

A (Aging) See section 2.6.
QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Limit Switch
 LOCATION: Inside Containment
 MANUFACTURER: NAMCO
 MODEL NUMBER: D2400X
 DOC. REF. NUMBER: None
 TAG NOS. (C.E.S. PAGE NO.): Limit Switch for CV*310A & 310B (2-2, 4, 6, 8)
 Limit Switch for CV*200A, 200B & 200C
 (2-10, 12, 14, 16, 18, 20)
 Limit Switch for CV*2819 (9-126, 128)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

R (Radiation)
 T (Temperature)
 QT (Qualification Time)
 P (Pressure)
 H (Humidity)
 CS (Chemical Spray)
 A (Aging)
 M (Margin)
 QM (Qualification Method)
 RPN (Equipment Replacement)

As indicated in the original Phase II Response, these devices will be replaced. There is no test data available for environmental qualification of these limit switches. Procurement action has been completed on qualified replacements. Qualification is contingent upon the integrity of the electrical conduit seals. This seal material is now in the qualification testing process. Pending successful completion of the qualification testing, these solenoids will be replaced during the current steam generator replacement outage.

The function of these limit switches is to monitor valve position following an accident. As discussed in section C.1.12b of the Phase II Submittal, there are backup position indication methods available to the control room operator. Subsequent failure of the equipment as a result of the harsh environment does not degrade other safety functions.

S (Submergence)

The limit switches for SV*310B will not be re-located as the qualified flow transmitters FT*110 and FT*122 serve as verification that either valve is in the open position. Appendix S includes revised component evaluation sheets which reflect this change.

The limit switches for valves CV*200A, 200B, and 200C (in the letdown line) will have performed their intended function before becoming submerged. They will become submerged approximately 1/2 hour into the accident. A backup isolation valve CV*204 located outside containment is available to verify the isolation of letdown line after the valves CV*200A, 200B & 200C are submerged.



DEFICIENCY CODE IDENTIFIED IN S.E.R.:
(Continued)

In both cases the safety related function can be accomplished by some other designated equipment that has been adequately qualified and satisfies the single failure criterion. Refer to Section C.1.12b for further failure mode analysis.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Limit Switch
LOCATION: Inside Containment
MANUFACTURER: NAMCO
MODEL NUMBER: D1200G
DOC. REF. NUMBER: None
TAG NOS.(C.E.S. PAGE NO.): Limit Switch for POV*2601 & 2603
(9-115, 118, 121, 124)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

R (Radiation)
T (Temperature
P (Pressure)
H (Humidity)
A (Aging)
QM (Qualification Method)
RPN Equipment Replacement)

As indicated in the original Phase II Response, these devices will be replaced. There is no test data available for environmental qualification of these limit switches. Procurement action has been completed on qualified replacements. Qualification is contingent upon the integrity of the electrical conduit seals. This seal material is now in the qualification testing process. Pending successful completion of the qualification testing, these solenoids will be replaced during the steam generator replacement outages.

The function of these limit switches is to monitor valve position following an accident. As discussed in section C.1.12b of the Phase II submittal, there are back-up position indication methods available to the control room operator. Subsequent failure of the equipment as a result of the harsh environment does not degrade other safety functions.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Replacement Limit Switch
LOCATION: Inside Containment
MANUFACTURER: NAMCO
MODEL NUMBER: EA-180-11302
DOC. REF. NUMBER: 52, 53
TAG NOS. (C.E.S. PAGE NO.): N/A (10-3)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

CS (Chemical Spray) The test spray was composed of boric acid in water with sodium thiosulfate and sodium hydroxide. The pH was maintained between 10 and 11. As the concentration of the spray was not specified and Turkey Point's spray is more acidic than the test spray, the problem is analyzed on the basis of the materials that will be exposed to the spray environment. The cast steel case of the limit switch is gasketed to protect the internals. It has been determined that the chemical spray at Turkey Point will have no detrimental effect on this metal.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: 600V Power/Control Cable
LOCATION: Inside Containment
MANUFACTURER: Okonite
MODEL NUMBER: X-OLENE/OKOSEAL
DOC. REF. NUMBER: 24, 25, 53
TAG NOS.(C.E.S. PAGE NO.): N47, N50, N52, 53, 54, 55, 56 (13-1, 2, 3, 4, 5, 6, 7)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

CS (Chemical Spray) As these cables were not exposed to a test spray, an analysis was performed on the basis of the materials exposed to the spray environment. The cable is jacketed with P.V.C. (poly vinyl chloride). The chemical spray at Turkey Point has been determined to have no detrimental effect on the cable jacket material.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.

RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Heat Shrinkable Insulating Sleeves
LOCATION: Inside Containment
MANUFACTURER: Raychem
MODEL NUMBER: WCSF Thermofit
DOC. REF. NUMBER: 37, 53
TAG NOS. (C.E.S. PAGE NO.): N/A (11-1)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

A (Aging) See section 2.6.
QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Pressure Transmitter
LOCATION: Inside Containment
MANUFACTURER: Rosemount
MODEL NUMBER: 1153GA9
DOC. REF. NUMBER: 44, 53
TAG NOS.(C.E.S. PAGE NO.): PT*404, 406 (1-3, 1-4, 1-7, 1-8)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

A (Aging) See section 2.6.
S (Submergence) Unit 3 transmitters have been relocated to above flood level elevation and Unit 4 transmitters are scheduled to be relocated (PC/M 80-147) during the next refueling outage. The revised system component evaluation work sheet for Unit 3 transmitters are included in Appendix S.
QM (Qualification Method) See section 3.2.
RPN (Equipment Relocation) See submergence above.

RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Resistance Temperature Detector
LOCATION: Inside Containment
MANUFACTURER: Rosemount
MODEL NUMBER: 176KF
DOC. REF. NUMBER: 13, 53
TAG NOS. (C.E.S. PAGE NO.): TE*412B, 412D, 422B, 422D, 432B, 432D
(1-21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

A (Aging) See section 2.6.
QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Resistance Temperature Detector
LOCATION: Inside Containment
MANUFACTURER: Rosemount
MODEL NUMBER: 176KS
DOC. REF. NUMBER: 13, 53
TAG NOS.(C.E.S. PAGE NO.): TE*410, 420, 430 (1-37, 39, 41, 43, 45, 47)

NOTE: TE*413, 423 and 433 have been replaced with qualified dual element PYCO RTD's as a part of the modification required for installation of subcooled margin monitoring system (TMI - Lessons learned installation). The component evaluation work sheets for the new RTD's were submitted to USNRC per Florida Power & Light letter L-81-49 dated 2-12-81.

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

A (Aging) See section 2.6.
QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Thermocouple Extension Wire
LOCATION: Inside Containment
MANUFACTURER: Thermo Electric Company Inc.
MODEL NUMBER: EGS/CUGSTW-20 KKX (EEX)
DOC. REF. NUMBER: 30, 53
TAG NOS. (C.E.S. PAGE NO.): N77 (13-11)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

P (Pressure) Because the extension wire is of solid construction, pressure effects on it are negligible and therefore, pressure is not considered a critical parameter for the cable to perform its intended function.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Solenoid Valve
LOCATION: Auxiliary Building
MANUFACTURER: ASCO (Automatic Switch Company)
MODEL NUMBER: LB831654
DOC. REF. NUMBER: 48, 53
TAG NOS.(C.E.S. PAGE NO.): SV-100 (2-25)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature)	As stated in the component evaluation sheets, the temperature, pressure and humidity inside the auxiliary building are not affected by the accident condition inside containment or HELB outside containment any more than during the normal shutdown mode of operation. Thus these parameters are considered a mild environment.
P (Pressure)	
H (Humidity)	
A (Aging)	See section 2.6.
QM (Qualification Method)	See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Solenoid Valve
LOCATION: Auxiliary Building
MANUFACTURER: ASCO (Automatic Switch Company)
MODEL NUMBER: 80033
DOC. REF. NUMBER: 48, 53
TAG NOS. (C.E.S. PAGE NO.): SV*2920-2925 (4-1 thru 4-12)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature)	As stated in the component evaluation sheets, the temperature, pressure and humidity inside the auxiliary building are not affected by the accident condition inside containment or HELB outside containment any more than during the normal shutdown mode of operation. Thus these parameters are considered a mild environment.
P (Pressure)	
H (Humidity)	
A (Aging)	See section 2.6.
QM (Qualification Method)	See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Solenoid Valve
LOCATION: Auxiliary Building
MANUFACTURER: ASCO (Automatic Switch Company)
MODEL NUMBER: 80173
DOC. REF. NUMBER: 48, 53
TAG NOS.(C.E.S. PAGE NO.): SV*2810, 2812, 2814 (4-13, 15, 17, 19, 21, 23)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature)	As stated in the component evaluation sheets, the temperature, pressure and humidity inside the auxiliary building are not affected by the accident condition inside containment or HELB outside containment any more than during the normal shutdown mode of operation. Thus these parameters are considered a mild environment.
P (Pressure)	
H (Humidity)	
A (Aging)	See section 2.6.
QM (Qualification Method)	See section 3.2.

RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Solenoid Valve
LOCATION: Auxiliary Building
MANUFACTURER: ASCO (Automatic Switch Company)
MODEL NUMBER: WP8042B455W
DOC. REF. NUMBER: 48, 53
TAG NOS.(C.E.S. PAGE NO.): SV*2911, 2912, 2913 (9-107 thru 9-112)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

R (Radiation) As no qualification test data is available for these valves regarding radiation, the materials used in construction were analyzed. From the component parts list provided by the vendor, the viton seals and discs were determined to be the 'weak link'. Viton has a radiation resistance of 1×10^7 rads. The qualified value of 1×10^6 rads indicated on the component evaluation sheets is therefore conservative.

A (Aging) See section 2.6.

M (Margin) See the above discussion of radiation.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Solenoid Valve
LOCATION: Auxiliary Building
MANUFACTURER: ASCO (Automatic Switch Company)
MODEL NUMBER: 8030A43
DOC. REF. NUMBER: 48, 53
TAG NOS.(C.E.S. PAGE NO.): SV*3709, 3713 (9-129, 130, 131, 132)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature)	As stated in the component evaluation sheets, the temperature, pressure and humidity inside the auxiliary building are not affected by the accident condition inside containment or HELB outside containment any more than during the normal shutdown mode of operation. Thus these parameters are considered a mild environment.
P (Pressure)	
H (Humidity)	
A (Aging)	See section 2.6.
QM (Qualification Method)	See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Pressure Controller
LOCATION: Outside Containment (Auxiliary Building)
MANUFACTURER: Barton
MODEL NUMBER: 288A-7704
DOC. REF. NUMBER: 53, 55
TAG NOS. (C.E.S. PAGE NO.): PC-957A (3-69)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

R (Radiation) These controllers are located in the safety injection pump rooms and are required to operate 31 days post LOCA. The total integrated dose is 7.5×10^5 R after 31 days. The model 288A differential pressure indicating switch was successfully tested to levels of 3.6×10^6 R. Based on this information these instruments are deemed qualified.

T (Temperature)
P (Pressure)
H (Humidity) As stated in the component evaluation sheets, the temperature, pressure and humidity inside the auxiliary building are not affected by the accident condition inside containment or HELB outside containment any more than during the normal shutdown mode of operation. Thus these parameters are considered a mild environment.

QT (Qualified Time)
M (Margin) These instruments have to be qualified for only the post accident radiation dose as other parameters are unchanged after an accident. The qualified integrated radiation dose is determined to be 3.6×10^6 R which corresponds to more than 31 days after a LOCA accident. The qualified time was indicated to be at least equal to the required time i.e., 31 days. Therefore, a significant margin is available in the qualified time.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Pressure Controller
LOCATION: Outside Containment (Auxiliary Building)
MANUFACTURER: Barton
MODEL NUMBER: 288A-7703
DOC. REF. NUMBER: 53, 55
TAG NOS.(C.E.S. PAGE NO.): PC-957B (3-70)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

R (Radiation) These controllers are located in the safety injection pump rooms and are required to operate 31 days post LOCA. The total integrated dose is 7.5×10^5 R after 31 days. The model 288A differential pressure indicating switch was successfully tested to levels of 3.6×10^6 R. Based on this information these instruments are deemed qualified.

T (Temperature)
P (Pressure)
H (Humidity) As stated in the component evaluation sheets, the temperature, pressure and humidity inside the auxiliary building are not affected by the accident condition inside containment or HELB outside containment any more than during the normal shutdown mode of operation. Thus these parameters are considered a mild environment.

QT (Qualified Time)
M (Margin) These instruments have to be qualified for only the post accident radiation dose as other parameters are unchanged after an accident. The qualified integrated radiation dose is determined to be 3.6×10^6 R which corresponds to more than 31 days after a LOCA accident. The qualified time was indicated to be at least equal to the required time i.e., 31 days. Therefore, a significant margin is available in the qualified time.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Pressure Controller
LOCATION: Outside Containment (Auxiliary Building)
MANUFACTURER: Barton
MODEL NUMBER: 288A-7702
DOC. REF. NUMBER: 53, 55
TAG NOS. (C.E.S. PAGE NO.): PC-957C (3-71)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

R (Radiation) These controllers are located in the safety injection pump rooms and are required to operate 31 days post LOCA. The total integrated dose is 7.5×10^5 R after 31 days. The model 288A differential pressure indicating switch was successfully tested to levels of 3.6×10^6 R. Based on this information these instruments are deemed qualified.

T (Temperature)
P (Pressure)
H (Humidity) As stated in the component evaluation sheets, the temperature, pressure and humidity inside the auxiliary building are not affected by the accident condition inside containment or HELB outside containment any more than during the normal shutdown mode of operation. Thus these parameters are considered a mild environment.

QT (Qualified Time)
M (Margin) These instruments have to be qualified for only the post accident radiation dose as other parameters are unchanged after an accident. The qualified integrated radiation dose is determined to be 3.6×10^6 R which corresponds to more than 31 days after a LOCA accident. The qualified time was indicated to be at least equal to the required time i.e., 31 days. Therefore, a significant margin is available in the qualified time.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Pressure Controller
LOCATION: Outside Containment (Auxiliary Building)
MANUFACTURER: Barton
MODEL NUMBER: 288A-7701
DOC. REF. NUMBER: 53, 55
TAG NOS. (C.E.S. PAGE NO.): PC-957D (3-72)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

R (Radiation) These controllers are located in the safety injection pump rooms and are required to operate 31 days post LOCA. The total integrated dose is 7.5×10^5 R after 31 days. The model 288A differential pressure indicating switch was successfully tested to levels of 3.6×10^6 R. Based on this information these instruments are deemed qualified.

T (Temperature)
P (Pressure)
H (Humidity) As stated in the component evaluation sheets, the temperature, pressure and humidity inside the auxiliary building are not affected by the accident condition inside containment or HELB outside containment any more than during the normal shutdown mode of operation. Thus these parameters are considered a mild environment.

QT (Qualified Time)
M (Margin) These instruments have to be qualified for only the post accident radiation dose as other parameters are unchanged after an accident. The qualified integrated radiation dose is determined to be 3.6×10^6 R which corresponds to more than 31 days after a LOCA accident. The qualified time was indicated to be at least equal to the required time i.e., 31 days. Therefore, a significant margin is available in the qualified time.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Boric Acid Transfer Pump Motor
LOCATION: Outside Containment
MANUFACTURER: Chem Pump
MODEL NUMBER: 2GE-66200
DOC. REF. NUMBER: 56, 53
TAG NOS. (C.E.S. PAGE NO.): *P203A, *P203B (2-48, 50, 52, 54)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature)	As stated on the component evaluation sheets, the temperature, pressure and humidity inside the auxiliary building are not affected by the accident condition inside containment or HELB outside containment any more than during the normal shutdown mode of operation. Thus these parameters are considered a mild environment.
P (Pressure)	
H (Humidity)	
A (Aging)	See section 2.6.
QM (Qualification Method)	See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Boric Acid Batch Tank Mixer
LOCATION: Outside Containment
MANUFACTURER: Dayton
MODEL NUMBER: 3N087E
DOC. REF. NUMBER: 59, 53
TAG NOS. (C.E.S. PAGE NO.): T206 (2-56)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) As stated on the component evaluation sheets, the
P (Pressure) temperature, pressure and humidity inside the
H (Humidity) auxiliary building are not affected by the
accident condition inside containment or HELB
outside containment anymore than during the
normal shutdown mode of operation. Thus these
parameters are considered a mild environment.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.

QT (Qualification Time) As radiation is the limiting parameter for this
motor, and it is qualified for an integrated dose
of 10^7 rads (over 2 orders of magnitude greater
than the expected 190 hour dose), the motor is
conservatively qualified for at least 190 hours.

M (Margin) See above discussion of qualification time.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Terminal Box (Enclosure)

LOCATION: Outside Containment

MANUFACTURER: Field Fabricated

MODEL NUMBER: N/A

DOC. REF. NUMBER: Attachment 7

TAG NOS.(C.E.S. PAGE NO.): (Section 14) TB3044, 3065, 3067, 3134, 3135, TB3150, 3208, 3213, 3305, 3306

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) The temperature, pressure and humidity in the
P (Pressure) auxiliary building are not affected by the
H (Humidity) accident condition inside containment or HELB outside containment anymore than during the normal shutdown mode of operation. Thus these parameters are considered a mild environment.

R (Radiation) Section 14 component evaluation sheets are for the
QT (Qualification Time) galvanized steel enclosures only. The terminal blocks housed in these enclosures are evaluated and reviewed elsewhere in the report.

The galvanized steel is unaffected by the radiation levels seen outside containment. The boxes will therefore retain their functionality for long term post LOCA operation. There is no listed terminal box in an HELB area.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Flow Transmitter

LOCATION: Outside Containment (Auxiliary Building) :

MANUFACTURER: Fischer & Porter

MODEL NUMBER: 10B2496PB

DOC. REF. NUMBER: 5, 13, 53

TAG NOS. (C.E.S. PAGE NO.): FT*122 (2-60, 61)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature)	See note 4 of system component evaluation sheet.
P (Pressure)	Note 4 states that temperature, pressure and
H (Humidity)	humidity inside the auxiliary building are not
	considered significant parameters for evaluation.
	These are not affected by the accident condition
	inside the containment anymore than during the
	normal shutdown mode of operation. Thus these
	parameters are considered a mild environment.
A (Aging)	See section 2.6.
QM (Qualification Method)	See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Flow Transmitter
LOCATION: Outside Containment (Auxiliary Building)
MANUFACTURER: Fischer & Porter
MODEL NUMBER: 10B2496PB
DOC. REF. NUMBER: 5, 13, 53
TAG NOS. (C.E.S. PAGE NO.): FT*940, 943 (3-5, 6, 7, 8)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature)	See note 4 of system component evaluation sheet.
P (Pressure)	Note 4 states that temperature, pressure and
H (Humidity)	humidity inside the auxiliary building are not
	considered significant parameters for evaluation.
	These are not affected by the accident condition
	inside the containment anymore than during the
	normal shutdown mode of operation. Thus these
	parameters are considered a mild environment.
A (Aging)	See section 2.6.
QM (Qualification Method)	See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Flow Transmitter
LOCATION: Outside Containment (Auxiliary Building)
MANUFACTURER: Fischer & Porter
MODEL NUMBER: 10B2496PB
DOC. REF. NUMBER: 6, 53
TAG NOS.(C.E.S. PAGE NO.): FT*605 (3-13, 14)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature)	As stated in the component evaluation sheets, the temperature, pressure and humidity inside the auxiliary building are not affected by the accident condition inside containment or HELB outside containment any more than during the normal shutdown mode of operation. Thus these parameters are considered a mild environment.
P (Pressure)	
H (Humidity)	
A (Aging)	See section 2.6.
QM (Qualification Method)	See section 3.2.

RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Pressure Transmitter
LOCATION: Outside Containment (Auxiliary Building)
MANUFACTURER: Fischer & Porter
MODEL NUMBER: 50EP1041BCXANS
DOC. REF. NUMBER: 5, 8, 11, 53
TAG NOS. (C.E.S. PAGE NO.): PT*940, 943 (3-1, 2, 3, 4)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature)	As stated in the component evaluation sheets, the temperature, pressure and humidity inside the auxiliary building are not affected by the accident condition inside containment or HELB outside containment any more than during the normal shutdown mode of operation. Thus these parameters are considered a mild environment.
P (Pressure)	
H (Humidity)	
A (Aging)	See section 2.6.
QM (Qualification Method)	See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Flow Transmitters
LOCATION: Outside Containment (Auxiliary Building)
MANUFACTURER: Fischer & Porter
MODEL NUMBER: 10B2495 JBNS
DOC. REF. NUMBER: 5, 13, 14, 53
TAG NOS.(C.E.S. PAGE NO.): FT*613A, 613B (4-37, 38, 39, 40)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature)	As stated in the component evaluation sheets, the temperature, pressure and humidity inside the auxiliary building are not affected by the accident condition inside containment or HELB outside containment any more than during the normal shutdown mode of operation. Thus these parameters are considered a mild environment.
P (Pressure)	
H (Humidity)	
A (Aging)	See section 2.7.
QM (Qualification Method)	See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Electro Pneumatic Transducer
LOCATION: Outside Containment
MANUFACTURER: Fisher Governor
MODEL NUMBER: Type 546
DOC. REF. NUMBER: 57, 53
TAG NOS. (C.E.S. PAGE NO.): HCV*121 (2-21, 23)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature)	As stated on the component evaluation sheets, the temperature, pressure and humidity inside the auxiliary building are not affected by the accident condition inside containment or HELB outside containment anymore than during the normal shutdown mode of operation. Thus these parameters are considered a mild environment.
P (Pressure)	
H (Humidity)	
QT (Qualification Time)	As radiation is the limiting parameter for this transducer and it is qualified for an integrated dose of twice the specified dose, the transducer is conservatively qualified for <u>at least</u> 190 hours.
CS (Chemical Spray)	There is no chemical spray outside containment.
A (Aging)	See section 2.6.
M (Margin)	See above discussion of qualification time.
QM (Qualification Method)	See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Temperature Indicating Controller
LOCATION: Outside Containment (Auxiliary Building)
MANUFACTURER: Foxboro
MODEL NUMBER: 40M
DOC. REF. NUMBER: 53, 60
TAG NOS.(C.E.S. PAGE NO.): TIC-100 (2-26)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) As stated in the component evaluation sheets, the
P (Pressure) temperature, pressure and humidity inside the
H (Humidity) auxiliary building are not affected by the accident
condition inside containment or HELB outside con-
tainment any more than during the normal shutdown
mode of operation. Thus these parameters are
considered a mild environment.

QT (Qualified Time) The controller has to be qualified for only the
M (Margin) post accident radiation dose as other parameters
are unchanged after an accident. The qualified
integrated radiation dose is determined to be
 1×10^5 R which corresponds to more than 31 days
after a LOCA accident. The qualified time was
indicated to be at least equal to the required
time, i.e., 190 hours. Therefore, a significant
margin is available in the qualified time.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Flow Transmitter
LOCATION: Outside Containment
MANUFACTURER: Foxboro
MODEL NUMBER: 1802-SATS-BA-304
DOC. REF. NUMBER: 53, 60
TAG NOS.(C.E.S. PAGE NO.): FT*110 (2-28, 29)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature)	As stated in the component evaluation sheets, the
P (Pressure)	temperature, pressure and humidity inside the
H (Humidity)	auxiliary building are not affected by the accident
	condition inside containment or HELB outside con-
	tainment any more than during the normal shutdown
	mode of operation. Thus these parameters are
	considered a mild environment.
QT (Qualified Time)	These transmitters have to be qualified for only
M (Margin)	the post accident radiation dose as other parameters
	are unchanged after an accident. The qualified
	integrated radiation dose is determined to be
	1×10^5 R which corresponds to more than 31 days
	after a LOCA accident. The qualified time was
	indicated to be at least equal to the required
	time, i.e., 190 hours. Therefore, a significant
	margin is available in the qualified time.
A (Aging)	See section 2.6.
QM (Qualification Method)	See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Terminal Block
 LOCATION: Outside Containment
 MANUFACTURER: General Electric
 MODEL NUMBER: EB-5
 DOC. REF. NUMBER: 53, 54
 TAG NOS.(C.E.S. PAGE NO.): N/A (11-4)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

R (Radiation) The radiation susceptible part of the terminal block is the wood flour filled phenolic block. This material has a radiation resistance of at least 1×10^7 rads based on the information provided by the supplier. The blocks have been conservatively qualified to 7.5×10^5 rads (the maximum required radiation level).

T (Temperature)
 P (Pressure)
 H (Humidity) The temperature, pressure and humidity in the auxiliary building are not affected by the accident condition inside containment anymore than during the normal shutdown mode of operation. There is no listed device with these terminal blocks located in HELB areas outside containment. Thus these parameters are considered a mild environment.

All safety related cable interconnections inside containment, with the exception of those associated limit switches, are made with qualified splices. The terminal blocks associated with limit switches will be replaced with qualified splices at the next refueling outages. The justification for continued operation can be found in section C.1, item 12b, of the Phase II Submittal.

QT (Qualification Time) As radiation is the limiting parameter for terminal blocks outside containment and the blocks are qualified for an integrated dose more than that is expected during 31 days after an accident, the blocks are conservatively assumed to be qualified for at least 31 days.

A (Aging) See section 2.6.

M (Margin) See discussions of radiation (R) and qualification time (QT).

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Valve Motor Operator
LOCATION: Outside Containment (Auxiliary Building)
MANUFACTURER: Limitorque
MODEL NUMBER: SMB-0 INS.B
DOC. REF. NUMBER: 43, 53
TAG NOS.(C.E.S. PAGE NO.): MOV*843A, B (3-29, 30, 31, 32)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) As stated in the component evaluation sheets, the
P (Pressure) temperature, pressure and humidity inside the
H (Humidity) auxiliary building are not affected by the accident
condition inside containment or HELB outside con-
tainment any more than during the normal shutdown
mode of operation. Thus these parameters are
considered a mild environment.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Valve Motor Operator
LOCATION: Outside Containment (Auxiliary Building)
MANUFACTURER: Limitorque
MODEL NUMBER: SMB-0 INS.B
DOC. REF. NUMBER: 14, 15, 53
TAG NOS.(C.E.S. PAGE NO.): MOV*860A, 860B, 880A, 880B, 872
(3-39, 40, 41, 42, 57, 58, 59, 60, 63, 64)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) As stated in the component evaluation sheets, the
P (Pressure) temperature, pressure and humidity inside the
H (Humidity) auxiliary building are not affected by the accident
condition inside containment or HELB outside containment any more than during the normal shutdown mode of operation. Thus these parameters are considered a mild environment.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Valve Motor Operator
LOCATION: Outside Containment (Auxiliary Building)
MANUFACTURER: Limitorque
MODEL NUMBER: SMB-00 INS.B
DOC. REF. NUMBER: 14, 15, 53
TAG NOS.(C.E.S. PAGE NO.): MOV*863A, 863B, 867A, 867B
(3-43, 44, 45, 46, 51, 52, 53, 54)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) As stated in the component evaluation sheets, the
P (Pressure) temperature, pressure and humidity inside the
H (Humidity) auxiliary building are not affected by the accident
condition inside containment or HELB outside con-
tainment any more than during the normal shutdown
mode of operation. Thus these parameters are
considered a mild environment.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Valve Motor Operator
LOCATION: Outside Containment (Auxiliary Building)
MANUFACTURER: Limitorque
MODEL NUMBER: SMB-00 INS.B
DOC. REF. NUMBER: 43, 53
TAG NOS.(C.E.S. PAGE NO.): MOV-878A (3-55)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) As stated in the component evaluation sheets, the
P (Pressure) temperature, pressure and humidity inside the
H (Humidity) auxiliary building are not affected by the accident
condition inside containment or HELB outside con-
tainment any more than during the normal shutdown
mode of operation. Thus these parameters are
considered a mild environment.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.

RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Valve Motor Operator
LOCATION: Outside Containment (Auxiliary Building)
MANUFACTURER: Limitorque
MODEL NUMBER: SMB-00 INS.B
DOC. REF. NUMBER: 14, 15, 53
TAG NOS.(C.E.S. PAGE NO.): MOV-878B, MOV*869 (3-56, 3-61, 3-62)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature)	As stated in the component evaluation sheets, the temperature, pressure and humidity inside the auxiliary building are not affected by the accident condition inside containment or HELB outside containment any more than during the normal shutdown mode of operation. Thus these parameters are considered a mild environment.
P (Pressure)	
H (Humidity)	
A (Aging)	See section 2.6.
QM (Qualification Method)	See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Valve Motor Operator
LOCATION: Outside Containment (Auxiliary Building)
MANUFACTURER: Limitorque
MODEL NUMBER: SMB-000
DOC. REF. NUMBER: 43, 53
TAG NOS. (C.E.S. PAGE NO.): MOV*350 (2-58, 59)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature)	As stated in the component evaluation sheets, the temperature, pressure and humidity inside the auxiliary building are not affected by the accident condition inside containment or HELB outside containment any more than during the normal shutdown mode of operation. Thus these parameters are considered a mild environment.
P (Pressure)	
H (Humidity)	
A (Aging)	See section 2.6.
QM (Qualification Method)	See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Limit Switch
LOCATION: Outside Containment
MANUFACTURER: NAMCO
MODEL NUMBER: D1200G
DOC. REF. NUMBER: 50, 53
TAG NOS.(C.E.S. PAGE NO.): Limit Switch for CV*2810, 2812, 2814
(4-14, 16, 18, 20, 22, 24)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) As stated on the component evaluation sheets, the
P (Pressure) temperature, pressure and humidity inside the aux-
H (Humidity) iliary building are not affected by the accident
conditions inside containment or HELB outside con-
tainment any more than during the normal shutdown
mode of operation. Thus these parameters are con-
sidered a mild environment.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Limit Switch
LOCATION: Outside Containment
MANUFACTURER: NAMCO
MODEL NUMBER: D2400X
DOC. REF. NUMBER: 50, 53
TAG NOS.(C.E.S. PAGE NO.): Limit Switch for HCV*121 (2-22, 24)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) As stated on the component evaluation sheets, the
P (Pressure) temperature, pressure and humidity inside the
H (Humidity) auxiliary building are not affected by the accident
conditions inside containment or HELB outside con-
tainment any more than during the normal shutdown
mode of operation. Thus these parameters are con-
sidered a mild environment.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Cable
LOCATION: Outside Containment
MANUFACTURER: Okonite
MODEL NUMBER: Okolene/Okoseal
DOC. REF. NUMBER: 25, 53
TAG NOS. (C.E.S. PAGE NO.): 21, 22, 23, 24, 25, 26, 63, 64, 80
(13-16 thru 13-24)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) As stated on the component evaluation sheets, the
P (Pressure) temperature, pressure and humidity inside the
H (Humidity) auxiliary building are not affected by the accident
conditions inside containment or HELB outside con-
tainment any more than during the normal shutdown
mode of operation. Thus these parameters are con-
sidered a mild environment.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Local Control Station
LOCATION: Outside Containment
MANUFACTURER: Mackworth G. Rees
MODEL NUMBER: 2008
DOC. REF. NUMBER: 83, 53
TAG NOS.(C.E.S. PAGE NO.): *N201A, B, C (2-31, 34, 37, 40, 43, 46)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) As stated on the component evaluation sheets, the
P (Pressure) temperature, pressure and humidity inside the
H (Humidity) auxiliary building are not affected by the accident
conditions inside containment or HELB outside con-
tainment any more than during the normal shutdown
mode of operation. Thus these parameters are con-
sidered a mild environment.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Local Control Station

LOCATION: Outside Containment

MANUFACTURER: Mackworth G. Rees

MODEL NUMBER: 2008

DOC. REF. NUMBER: 83, 53

TAG NOS.(C.E.S. PAGE NO.): *N215A, 215B, 211A, 211B, 211C, 214A, 214B, 210A, 210B (3-77 thru 3-88, 4-28 thru 4-33)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature)	As stated on the component evaluation sheets, the temperature, pressure and humidity inside the auxiliary building are not affected by the accident conditions inside containment or HELB outside containment any more than during the normal shutdown mode of operation. Thus these parameters are considered a mild environment.
P (Pressure)	
H (Humidity)	
QT (Qualification Time)	Radiation is the limiting parameter for devices in the auxiliary building. The local control station is qualified for an integrated dose greater than the specified dose. The local control station is indicated to be conservatively qualified for <u>at least</u> 31 days.
M (Margin)	Refer to above discussion of qualification time.
QM (Qualification Method)	See section 3.2.
A (Aging)	See section 2.6.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Local Control Station
LOCATION: Outside Containment
MANUFACTURER: Mackworth G. Rees
MODEL NUMBER: 2284
DOC. REF. NUMBER: 83, 53
TAG NOS. (C.E.S. PAGE NO.): *N203A, *N203B, N206 (2-49, 51, 53, 55, 57)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) As stated on the component evaluation sheets, the
P (Pressure) temperature, pressure and humidity inside the
H (Humidity) auxiliary building are not affected by the accident
conditions inside containment or HELB outside
containment any more than during the normal shut-
down mode of operation. Thus these parameters
are considered a mild environment.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Radiation Detector
LOCATION: Outside Containment
MANUFACTURER: Tracerlab
MODEL NUMBER: MK-16A (V-48)
DOC. REF. NUMBER: 58, 53
TAG NOS. (C.E.S. PAGE NO.): RD*11, RD*12 (9-51 thru 9-54)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) As stated on the component evaluation sheets, the
P (Pressure) temperature, pressure and humidity inside the auxi-
H (Humidity) liary building are not affected by the accident
conditions inside containment or HELB outside contain-
ment any more than during the normal shutdown
mode of operation. Thus these parameters are con-
sidered a mild environment.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Level Controller
LOCATION: Outside Containment (Auxiliary Building)
MANUFACTURER: United Electric
MODEL NUMBER: J7-222-A108
DOC. REF. NUMBER: LC-101 (2-27)
TAG NOS.(C.E.S. PAGE NO.):

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature)	As stated in the component evaluation sheets, the temperature, pressure and humidity inside the auxiliary building are not affected by the accident condition inside containment or HELB outside containment any more than during the normal shutdown mode of operation. Thus these parameters are considered a mild environment.
P (Pressure)	
H (Humidity)	
A (Aging)	See section 2.6.
QM (Qualification Method)	See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Pressure Switch
LOCATION: Outside Containment (Auxiliary Building)
MANUFACTURER: United Electric
MODEL NUMBER: J6-9536
DOC. REF. NUMBER: 46, 53
TAG NOS. (C.E.S. PAGE NO.): PS*201A, B, C (2-32, 2-35, 2-38, 2-41, 2-44, 2-47)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) As stated in the component evaluation sheets, the
P (Pressure) temperature, pressure and humidity inside the
H (Humidity) auxiliary building are not affected by the accident
condition inside containment or HELB outside con-
tainment any more than during the normal shutdown
mode of operation. Thus these parameters are
considered a mild environment.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Pressure Controller
LOCATION: Outside Containment (Auxiliary Building)
MANUFACTURER: United Electric
MODEL NUMBER: J302-610
DOC. REF. NUMBER: 46, 53
TAG NOS.(C.E.S. PAGE NO.): PC*600 (3-65, 3-67)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature)	As stated in the component evaluation sheets, the temperature, pressure and humidity inside the auxiliary building are not affected by the accident condition inside containment or HELB outside containment any more than during the normal shutdown mode of operation. Thus these parameters are considered a mild environment.
P (Pressure)	
H (Humidity)	
A (Aging)	See section 2.6.
QM (Qualification Method)	See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Pressure Controller
LOCATION: Outside Containment (Auxiliary Building)
MANUFACTURER: United Electric
MODEL NUMBER: J17A-670-8090
DOC. REF. NUMBER: 46, 53
TAG NOS. (C.E.S. PAGE NO.): PC*601 (3-66, 3-68)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature)	As stated in the component evaluation sheets, the temperature, pressure and humidity inside the auxiliary building are not affected by the accident condition inside containment or HELB outside containment any more than during the normal shutdown mode of operation. Thus these parameters are considered a mild environment.
P (Pressure)	
H (Humidity)	
A (Aging)	See section 2.6.
QM (Qualification Method)	See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Pressure Controller
LOCATION: Outside Containment (Auxiliary Building)
MANUFACTURER: United Electric
MODEL NUMBER: J-7-358
DOC. REF. NUMBER: 46, 53
TAG NOS.(C.E.S. PAGE NO.): PC*611 (4-41, 4-42)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) As stated in the component evaluation sheets, the
P (Pressure) temperature, pressure and humidity inside the
H (Humidity) auxiliary building are not affected by the accident
condition inside containment or HELB outside con-
tainment any more than during the normal shutdown
mode of operation. Thus these parameters are
considered a mild environment.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Pump Motor
LOCATION: Outside Containment
MANUFACTURER: Westinghouse
MODEL NUMBER: TBDP
DOC. REF. NUMBER: 47, 53
TAG NOS. (C.E.S. PAGE NO.): P201A, B, C & P214 A & B
(2-30, 33, 36, 39, 42, 45 and 3-15, 16, 37, 38)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) As stated on the component evaluation sheets, the
P (Pressure) temperature, pressure and humidity inside the auxil-
H (Humidity) iary building are not affected by the accident con-
ditions inside containment or HELB outside containment
anymore than during the normal shutdown mode of
operation. Thus these parameters are considered
a mild environment.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Pump Motor
LOCATION: Outside Containment
MANUFACTURER: Westinghouse
MODEL NUMBER: ABDF
DOC. REF. NUMBER: 47, 53
TAG NOS. (C.E.S. PAGE NO.): P210A, P210B, P215A, P215B
(3-17, 18, 19, 20, 33, 34, 35, 36)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature)	As stated on the component evaluation sheets, the temperature, pressure and humidity inside the auxiliary building are not affected by the accident conditions inside containment or HELB outside containment any more than during the normal shutdown mode of operation. Thus these parameters are considered a mild environment.
P (Pressure)	
H (Humidity)	
A (Aging)	See section 2.6.
QM (Qualification Method)	See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Component Cooling Pump Motor
LOCATION: Outside Containment
MANUFACTURER: Westinghouse
MODEL NUMBER: SN1-S-68
DOC. REF. NUMBER: 47, 53
TAG NOS. (C.E.S. PAGE NO.): *P211A, B & C (4-25, 26, 27, 31, 32, 33)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature)	As stated on the component evaluation sheets, the temperature, pressure and humidity inside the auxiliary building are not affected by the accident conditions inside containment or HELB outside containment anymore than during the normal shutdown mode of operation. Thus these parameters are considered a mild environment.
P (Pressure)	
H (Humidity)	
A (Aging)	See section 2.6.
QM (Qualification Method)	See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Solenoid Valve

LOCATION: Outside Auxiliary Building :

MANUFACTURER: ASCO (Automatic Switch Company)

MODEL NUMBER: WPLB8316A44

DOC. REF. NUMBER: 48, 53

TAG NOS.(C.E.S. PAGE NO.): SV*2604, 2605, 2609, 2610, 2614, 2615
(5-37, 38, 40, 41, 43, 44, 46, 47, 49, 50, 52, 53)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) A conservative temperature of 212°F is assumed for an HELB outdoors. The operability analysis was performed on the basis of the materials used in construction. The class "A" coils become the limiting factor from a temperature standpoint. This coil has a temperature limitation of 105°C (221° F). The valves are conservatively qualified for 212° F.

QT (Qualification Time) These valves are designed to close in 10 seconds. A conservative time of 5 minutes is used in the analysis. As temperature and humidity are the relevant parameters in the scenario and the valves are qualified to exceed the specification, the valves will remain functional for the qualification time.

In the case of isolation valves that may be exposed to the harsh environment after closing, the failure mode analysis becomes an important factor in qualifying the valves. The valves are prevented from opening by a permissive contact in the process protection racks (located in a mild environment). The valves cannot be opened until the containment isolation signal is reset. By studying the schematic diagrams, it has been determined that the valves will not misoperate as a result of the accident environment.

P (Pressure) As these valves are located outdoors pressure is not a relevant parameter.



DEFICIENCY CODE IDENTIFIED IN S.E.R.:

(Continued)

A (Aging)	; See section 2.6.
M (Margin)	Refer to above discussions of temperature and qualification time.
QM (Qualification Method)	See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Solenoid Valve
LOCATION: Outside Auxiliary Building
MANUFACTURER: ASCO (Automatic Switch Company)
MODEL NUMBER: 8316A44
DOC. REF. NUMBER: 48, 53
TAG NOS. (C.E.S. PAGE NO.): SV*2900, 2902, 2904 (7-19 thru 7-24)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) A conservative temperature of 212°F is assumed for an HELB outdoors. The operability analysis was performed on the basis of the materials used in construction. The class "A" coils become the limiting factor from a temperature standpoint. This coil has a temperature limitation of 105°C (221° F). The valves are conservatively qualified for 212° F.

QT (Qualification Time) These valves are designed to close in 10 seconds. A conservative time of 5 minutes is used in the analysis. As temperature and humidity are the relevant parameters in the scenario and the valves are qualified to exceed the specification, the valves will remain functional for the qualification time.

In the case of isolation valves that may be exposed to the harsh environment after closing, the failure mode analysis becomes an important factor in qualifying the valves. The valves are prevented from opening by a permissive contact in the process protection racks (located in a mild environment). The valves cannot be opened until the containment isolation signal is reset. By studying the schematic diagrams, it has been determined that the valves will not misoperate as a result of the accident environment.

P (Pressure) As these valves are located outdoors pressure is not a relevant parameter.



DEFICIENCY CODE IDENTIFIED IN S.E.R.:
(Continued)

A (Aging)	See section 2.6.
M (Margin)	Refer to above discussions of temperature and qualification time.
QM (Qualification Method)	See section 3.2.

RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Solenoid Valve
LOCATION: Outside Auxiliary Building
MANUFACTURER: ASCO (Automatic Switch Company)
MODEL NUMBER: 8300B61U
DOC. REF. NUMBER: 48, 53
TAG NOS.(C.E.S. PAGE NO.): SV-3-2914, 2915, 2916, 2917, 2918, 2919
(8-13 thru 8-18)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) A conservative temperature of 212°F is assumed for an HELB outdoors. The operability analysis was performed on the basis of the materials used in construction. The class "A" coils become the limiting factor from a temperature standpoint. This coil has a temperature limitation of 105°C (221° F). The valves are conservatively qualified for 212° F.

QT (Qualification Time) These valves are designed to close in 10 seconds. A conservative time of 5 minutes is used in the analysis. As temperature and humidity are the relevant parameters in the scenario and the valves are qualified to exceed the specification, the valves will remain functional for the qualification time.

In the case of isolation valves that may be exposed to the harsh environment after closing, the failure mode analysis becomes an important factor in qualifying the valves. The valves are prevented from opening by a permissive contact in the process protection racks (located in a mild environment). The valves cannot be opened until the containment isolation signal is reset. By studying the schematic diagrams, it has been determined that the valves will not misoperate as a result of the accident environment.

P (Pressure) As these valves are located outdoors pressure is not a relevant parameter.



DEFICIENCY CODE IDENTIFIED IN S.E.R.:
(Continued)

A (Aging)	See section 2.6.
M (Margin)	Refer to above discussions of temperature and qualification time.
QM (Qualification Method)	See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Solenoid Valve
LOCATION: Outside Auxiliary Building
MANUFACTURER: ASCO (Automatic Switch Company)
MODEL NUMBER: 8302C-27-RF
DOC. REF. NUMBER: 48, 53
TAG NOS. (C.E.S. PAGE NO.): SV-4-2914, 2915, 2916, 2917, 2918, 2919
(8-19 thru 8-24)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) A conservative temperature of 212°F is assumed for an HELB outdoors. The operability analysis was performed on the basis of the materials used in construction. The class "A" coils become the limiting factor from a temperature standpoint. This coil has a temperature limitation of 105°C (221° F). The valves are conservatively qualified for 212° F.

QT (Qualification Time) These valves are designed to close in 10 seconds. A conservative time of 5 minutes is used in the analysis. As temperature and humidity are the relevant parameters in the scenario and the valves are qualified to exceed the specification, the valves will remain functional for the qualification time.

In the case of isolation valves that may be exposed to the harsh environment after closing, the failure mode analysis becomes an important factor in qualifying the valves. The valves are prevented from opening by a permissive contact in the process protection racks (located in a mild environment). The valves cannot be opened until the containment isolation signal is reset. By studying the schematic diagrams, it has been determined that the valves will not misoperate as a result of the accident environment.

P (Pressure) As these valves are located outdoors pressure is not a relevant parameter.

DEFICIENCY CODE IDENTIFIED IN S.E.R.:
(Continued)

A (Aging)	See section 2.6.
M (Margin)	Refer to above discussions of temperature and qualification time.
QM (Qualification Method)	See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Differential Pressure Switch
LOCATION: Outside Containment
MANUFACTURER: Barton
MODEL NUMBER: 224-36443
DOC. REF. NUMBER: 53, 55
TAG NOS. (C.E.S. PAGE NO.): DPS*2900 (7-25, 7-28)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) The temperature in the HELB area is conservatively estimated to be 212°F. The differential pressure switches are qualified to operate up to 300°F. Therefore, they are deemed qualified.

QT (Qualified Time)
M (Margin) The 5 minute operating time as stated in the system component evaluation work sheet is a conservative estimate. The operating time and margin is based on temperature. Since the qualified temperature is much higher than the conservative estimate these switches exceed the requirements of their intended function.

P (Pressure) As these switches are located outdoors pressure is not a relevant parameter.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Differential Pressure Switch
LOCATION: Outside Containment
MANUFACTURER: Barton
MODEL NUMBER: 224-51662
DOC. REF. NUMBER: 53, 55
TAG NOS.(C.E.S. PAGE NO.): DPS*2901 (7-26, 7-29)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) The temperature in the HELB area is conservatively estimated to be 212°F. The differential pressure switches are qualified to operate up to 300°F. Therefore, they are deemed qualified.

QT (Qualified Time)
M (Margin) The 5 minute operating time as stated in the system component evaluation work sheet is a conservative estimate. The operating time and margin is based on temperature. Since the qualified temperature is much higher than the conservative estimate these switches exceed the requirements of their intended function.

P (Pressure) As these switches are located outdoors pressure is not a relevant parameter.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Differential Pressure Switch
LOCATION: Outside Containment
MANUFACTURER: Barton
MODEL NUMBER: 224-41130
DOC. REF. NUMBER: 53, 55
TAG NOS. (C.E.S. PAGE NO.): DPS*2902 (7-27, 7-30)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) The temperature in the HELB area is conservatively estimated to be 212°F. The differential pressure switches are qualified to operate up to 300°F. Therefore, they are deemed qualified.

QT (Qualified Time)
M (Margin) The 5 minute operating time as stated in the system component evaluation work sheet is a conservative estimate. The operating time and margin is based on temperature. Since the qualified temperature is much higher than the conservative estimate these switches exceed the requirements of their intended function.

P (Pressure) As these switches are located outdoors pressure is not a relevant parameter.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Pressure Transmitter
LOCATION: Outside Containment
MANUFACTURER: Fisher & Porter
MODEL NUMBER: 50EP1041BCXANS
DOC. REF. NUMBER: 5, 8, 11, 53
TAG NOS. (C.E.S. PAGE NO.): PT*474, 475, 476, 484, 485, 486, 494, 495, 496,
464, 466, 468 (5-1 thru 5-18)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) The temperature in the HELB area is conservatively estimated to be 212°F. These transmitters have been tested at temperatures averaging 290°F for 2 hours. Therefore, they are considered qualified for their actual environment.

P (Pressure) As stated in the section B-1 of the Phase II Response, the pressure near HELB area outside containment is considered to be atmospheric, and therefore is not relevant for qualification.

H (Humidity) The environmental test was done in an atmosphere of saturated steam to simulate 100% humidity.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Power Cable
LOCATION: Outside Containment
MANUFACTURER: General Cable
MODEL NUMBER: None
DOC. REF. NUMBER: 24, 25, 53
TAG NOS.(C.E.S. PAGE NO.): N6 (13-12)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) As stated on the component evaluation sheets, the
P (Pressure) temperature, pressure and humidity inside the aux-
H (Humidity) iliary building are not affected by the accident
conditions inside containment or HELB outside con-
tainment anymore than during the normal shutdown
mode of operation. Thus these parameters are
considered a mild environment.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Valve Motor Operator
LOCATION: Outside Containment
MANUFACTURER: Limitorque
MODEL NUMBER: SMB-00 Insulation B
DOC. REF. NUMBER: 14, 15, 53
TAG NOS.(C.E.S. PAGE NO.): MOV*1403 (6-1, 6-4)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature)	The prototype valve was tested in a saturated steam enclave to temperatures and pressures well in excess of the accident conditions and successfully cycled throughout the first 8 hours of test. The test conditions envelope the accident conditions.
QT (Qualification Time)	
P (Pressure)	
H (Humidity)	
QM (Qualification Method)	

A (Aging) See section 2.6.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Valve Motor Operator
LOCATION: Outside Containment
MANUFACTURER: Limitorque
MODEL NUMBER: SMB-500 Insulation B
DOC. REF. NUMBER: 14, 15, 53
TAG NOS. (C.E.S. PAGE NO.): MOV*1404, 1405 (6-2, 6-3, 6-5, 6-6)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature)	The prototype valve was tested in a saturated steam enclave to temperatures and pressures well in excess of the accident conditions and successfully cycled throughout the first 8 hours of test. The test conditions envelope the accident conditions.
QT (Qualification Time)	
P (Pressure)	
H (Humidity)	
QM (Qualification Method)	
A (Aging)	See section 2.6.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Valve Motor Operator
LOCATION: Outside Containment
MANUFACTURER: Limitorque/Reliance
MODEL NUMBER: SMB000/Class B
DOC. REF. NUMBER: 28, 53
TAG NOS.(C.E.S. PAGE NO.): MOV*1410, 1411, 1412 (8-1, 3, 5, 7, 9, 11)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) The prototype valve was tested in a saturated steam
M (Margin) enclave at a temperature of 212°F for a period of
5 hours. In this case adequate margin is available
in the test duration.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Limit Switches
 LOCATION: Outside Auxiliary Building
 MANUFACTURER: NAMCO
 MODEL NUMBER: D2400X2SR
 DOC. REF. NUMBER: 50, 53
 TAG NOS.(C.E.S. PAGE NO.): Lim Sw for POV*2604, 2605, 2606
 (5-39, 42, 45, 48, 51, 54)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) A conservative temperature of 212°F is assumed for an HELB outdoors. The operability analysis was performed on the basis of the materials used in construction. The metal body of these standard limit switches acts as a heat sink. The components inside were examined for temperature characteristics. It was determined that the limit switches will not be affected by the temperature levels of the required duration.

QT (Qualification Time) The valves are designed to close in 10 seconds. A conservative time of 5 minutes is used in the analysis. The limit switches are not needed beyond 5 minutes, as the valves cannot be re-opened until the containment isolation signal is reset. As temperature and humidity are the relevant parameters in the scenario and the valves are qualified to exceed the specification, the valves will function for the qualification time.

P (Pressure) As these valves are located outdoors pressure is not a relevant parameter.

A (Aging) See section 2.6.

M (Margin) Refer to above discussions of temperature and qualification time.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Power Cable
LOCATION: Outside Containment
MANUFACTURER: Okonite
MODEL NUMBER: Okonex/Okoseal
DOC. REF. NUMBER: 24, 25, 53
TAG NOS.(C.E.S. PAGE NO.): N7, N19, N20 (13-13, 14, 15)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature)	As stated on the component evaluation sheets, the temperature, pressure and humidity inside the auxiliary building are not affected by the accident conditions inside containment or HELB outside containment anymore than during the normal shutdown mode of operation. Thus these parameters are considered a mild environment.
P (Pressure)	
H (Humidity)	
A (Aging)	See section 2.6.
QM (Qualification Method)	See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Heat Shrink Tubing
LOCATION: Electrical Penetration Assembly
MANUFACTURER: Raychem
MODEL NUMBER: RNF-100
DOC. REF. NUMBER: 23, 53
TAG NOS.(C.E.S. PAGE NO.): N/A (11-2)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

R (Radiation) This radiation crosslinked material has been tested to levels exceeding 4×10^6 rads without any detrimental effects.

T (Temperature)
P (Pressure)
H (Humidity) As stated in the Phase II response, temperature, pressure, and humidity inside the electrical penetration room are not significant parameters. These are not affected by the accident condition inside containment. Thus these parameters are considered to be a mild environment.

A (Aging) See section 2.6.

M (Margin) See discussion of radiation.

QM (Qualification Method) See section 3.2.

RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Local Control Station
LOCATION: Outside Containment
MANUFACTURER: Mackworth G. Rees
MODEL NUMBER: 2008
DOC. REF. NUMBER: 38, 53
TAG NOS.(C.E.S. PAGE NO.): *N1410, 1411, 1412 (8-2, 4, 6, 8, 10, 12)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) A conservative temperature of 212°F is assumed for an HELB outdoors. The operability analysis was performed on the basis of the materials used in construction. The stations are located in a hot dipped galvanized box of 12 gage steel with a draw type latch. This in conjunction with the pushbutton's zinc casing is considered an effective heat sink due to adequate sizing of the box. For the time frame considered, the temperature inside the box will not rise to a point where the function of the pushbutton is affected.

QT (Qualification Time) The valves controlled by these local control stations are closed on initiation of auxiliary feedwater which will be actuated within minutes of loss of normal feedwater. The 30 minutes specified operating time is a conservative estimate. Valve operability will not be impaired within the stated qualification time.

P (Pressure) Pressure is not a relevant parameter as the local control station is located outdoors.

A (Aging) See section 2.6.

M (Margin) See above discussion on qualification time.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Electrical Tape
LOCATION: Outside Containment
MANUFACTURER: 3-M
MODEL NUMBER: Scotch 23
DOC. REF. NUMBER: 39, 53
TAG NOS. (C.E.S. PAGE NO.): N/A (11-5)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

QT (Qualification Time) The tape is used in various applications. Where radiation is the limiting factor, the tape is qualified for the 31 day post-accident application. Where temperature is the limiting parameter, the tape is qualified to operate at least 5 minutes at 212°F.

P (Pressure) Pressure is not a relevant parameter as the tape is located outdoors.

A (Aging) See section 2.6.

M (Margin) Refer to discussion on qualification time.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Heat Shrink Tubing
LOCATION: Penetration Room
MANUFACTURER: Amp/Raychem
MODEL NUMBER: Cross Linked Polyethelyene
DOC. REF. NUMBER: 53
TAG NOS.(C.E.S. PAGE NO.): N/A (11-3)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature)	As stated on the component evaluation sheets, the temperature, pressure and humidity inside the auxiliary building are not affected by the accident conditions inside containment or HELB outside containment anymore than during the normal shutdown mode of operation. Thus these parameters are considered a mild environment.
P (Pressure)	
H (Humidity)	
QT (Qualification Time)	Radiation is the limiting parameter in this application. The tubing is qualified for orders of magnitude greater than the specified radiation levels. The heat shrink tubing is conservatively qualified for at least 31 days.
A (Aging)	See section 2.6.
M (Margin)	Refer to discussion on qualification time.
QM (Qualification Method)	See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Pressure Switch
LOCATION: Outside Containment (Electrical Penetration Room)
MANUFACTURER: Static O - Ring
MODEL NUMBER: 6N-AA2-XRR
DOC. REF. NUMBER: 41, 53
TAG NOS.(C.E.S. PAGE NO.): PS*2007, 2008 (9-95, 9-96, 9-98, 9-99)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature)
P (Pressure)
H (Humidity)

As stated in the component evaluation sheets, the temperature, pressure and humidity inside the auxiliary building are not affected by the accident condition inside containment or HELB outside containment any more than during the normal shutdown mode of operation. Thus these parameters are considered a mild environment.

R (Radiation)

The radiation dose level at the switch location is an integrated dose of 5 rads. The organic materials which are susceptible to degradation due to radiation have been determined to have radiation resistance in excess of 1×10^6 R. The pressure switches should have no loss of function during their specified operating time due to radiation. Therefore, the switches are deemed qualified for their required operation time of 5 minutes.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Pressure Switch

LOCATION: Outside Containment (Electrical Penetration Room) :

MANUFACTURER: Static O-Ring

MODEL NUMBER: GN-AA2-CRRX4

DOC. REF. NUMBER: 41, 53

TAG NOS.(C.E.S. PAGE NO.): PS*2009, 2056, 2057, 2058 (9-97, 9-101, 9-102, 9-103, 9-100, 9-104, 9-105, 9-106)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

T (Temperature) As stated in the component evaluation sheets, the
P (Pressure) temperature, pressure and humidity inside the
H (Humidity) auxiliary building are not affected by the accident
condition inside containment or HELB outside con-
tainment any more than during the normal shutdown
mode of operation. Thus these parameters are
considered a mild environment.

R (Radiation) The radiation dose level at the switch location is
an integrated dose of 5 rads. The organic materials
which are susceptible to degradation due to radiation
have been determined to have a radiation resistance in
excess of 1×10^6 rads. The pressure switches should
have no loss of function during their specified
operating time due to radiation. Therefore, the
switches are deemed qualified for their required
operation time of 5 minutes.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Pressure Transmitter
LOCATION: Outside Containment
MANUFACTURER: Westinghouse
MODEL NUMBER: 56DP2421-0000
DOC. REF. NUMBER: 42, 53
TAG NOS.(C.E.S. PAGE NO.): PT*1622 (9-91, 93)

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

R (Radiation) No qualification data is available for these transmitters which are used as containment pressure monitoring transmitters. These transmitters are required to remain functional for 31 days after a LOCA/HELB accident inside containment. An analysis was provided to evaluate the qualification of the transmitter. The radiation dose level at the transmitter location is 5 rads/hour, with an integrated dose of 7.5×10^1 rad in 31 days. The organic materials which are susceptible to degradation due to radiation have been determined to have a radiation resistance in excess of 5×10^6 rads. The transmitters should have no loss of function for the required period of 31 days. Therefore, the transmitters are deemed qualified for their required operation time of 31 days after a LOCA/HELB.

T (Temperature)
P (Pressure)
H (Humidity) As stated in the component evaluation sheets, the temperature, pressure and humidity inside the auxiliary building are not affected by the accident condition inside containment or HELB outside containment any more than during the normal shutdown mode of operation. Thus these parameters are considered a mild environment.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



RESPONSE TO DEFICIENCIES IDENTIFIED IN S.E.R.

DEVICE: Pressure Transmitter
LOCATION: Outside Containment
MANUFACTURER: Westinghouse
MODEL NUMBER: 56DP2421-0000
DOC. REF. NUMBER: PT*1623 (9-92, 94)
TAG NOS. (C.E.S. PAGE NO.):

DEFICIENCY CODE IDENTIFIED IN S.E.R.:

R (Radiation) No qualification data is available for these transmitters which are used as containment pressure monitoring transmitters. These transmitters are required to remain functional for 31 days after a LOCA/HELB accident inside containment. An analysis was performed to evaluate the qualification of the transmitter. The radiation dose level at the transmitter location is 5 rads/hour, with an integrated dose of 7.5×10^1 rad in 31 days. The organic materials which are susceptible to degradation due to radiation have been determined to have a radiation resistance in excess of 5×10^6 rads. The transmitters should have no loss of function for the required period of 31 days. Therefore, the transmitters are deemed qualified for their required operation time of 31 days after a LOCA/HELB.

T (Temperature)
P (Pressure)
H (Humidity) As stated in the component evaluation sheets, the temperature, pressure and humidity inside the auxiliary building are not affected by the accident condition inside containment or HELB outside containment any more than during the normal shutdown mode of operation. Thus these parameters are considered a mild environment.

A (Aging) See section 2.6.

QM (Qualification Method) See section 3.2.



APPENDIX R
SURVEILLANCE AND MAINTENANCE/
REPLACEMENT PROGRAMS

RESPONSE TO SER
ENVIRONMENTAL QUALIFICATION OF
ELECTRICAL EQUIPMENT
IE BULLETIN 79-01B
TURKEY POINT UNITS 3 & 4
DOCKETS 50-250/251



SURVEILLANCE AND MAINTENANCE/REPLACEMENT PROGRAMS

In responding to NRC concerns regarding environmental qualification, we have studied the requirements and are formulating a program to modify existing procedures and review surveillance and maintenance records to assure that equipment which is exhibiting age-related degradation will be identified and replaced as necessary. Some of the records we are examining for utilization in this program include the Technical Specification surveillance system, the LER reporting system, the preventive maintenance system, and the Plant Work Order (PWO) system.

A large portion of the equipment in question is monitored and tested under the surveillance program. This is done to ensure operability and accuracy of redundant trains of safety related equipment. Records are kept of surveillances under the PWO system.

The LER reporting system has also been an effective tool for highlighting reoccurring problems with safety related equipment. Under the preventive maintenance system we conduct manufacturer's recommended periodic inspections and maintenance on selected equipment. The PWO system is the formal reporting system for logging maintenance history.

Florida Power & Light Company currently has a computer based reporting system for feedback of information obtained by the PWO system. Expansion of this system, the Generation Equipment Management System (GEMS), is being studied for potential utilization in the review of maintenance and surveillance records for aging degradation. A new, independent computer based system is also being considered.



Our present schedule will be to complete our reviews and formulate a program to meet the NRC implementation requirement of June, 1982.

In addition to studying the information feedback systems available for review of maintenance and surveillance conducted on the equipment in question, we are formulating guidelines for maintenance personnel to aid in identification of aging degradation. In accomplishing this task, we are relying heavily on industry efforts to develop effective techniques to detect age-related degradation. As we expect that this effort will be evolutionary in nature, we cannot provide a schedule for completion of this task at this time. We will, however, modify existing maintenance procedures to explicitly require visual inspection for signs of degradation including degradation due to aging in that equipment in a harsh environment. Procedure changes will be accomplished within NRC schedular requirements.

We are also currently compiling the list of equipment, reported under I&E Bulletin 79-01B, which does not have a demonstrated qualified life of 40 years. Components susceptible to degradation due to aging within this equipment are also being identified and an appropriate maintenance and/or replacement schedule will be developed. Our present plans are to utilize our Five-Year maintenance plan to identify this equipment and schedule maintenance or replacement prior to the expiration of its qualified life.



APPENDIX S
NEW AND REVISED SYSTEM COMPONENT
EVALUATION WORK SHEETS (SCEWS)

RESPONSE TO SER
ENVIRONMENTAL QUALIFICATION OF
ELECTRICAL EQUIPMENT
IE BULLETIN 79-01B
TURKEY POINT UNITS 3 & 4
DOCKETS 50-250/251

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO. PT-3-403 Component: Pressure Transmitter FUNCTION: LOCA/HELB (IN & OUT) MONITOR & MITIGATE MANUFACTURER: Fischer & Porter MODEL NO: 50EP1041BCXANS Ser. No. 6804A6255A49 ACCURACY: Spec: See Note 3 Demon: See Note 3 SERVICE: Reactor Coolant Press. Monitor & Interlock to MOV-3-750 LOCATION INSIDE CONTAINMENT ABOVE EL. 19'-0" Area 5 Elev 14'-0" Ref Dwg No. Mech 5610-T-E-4501, SH1, REV. 6 Elect 5610-E-100 REV 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No _____	Operating Time	31 days	6 MIN	22	13 (TABLE A-7)	Simultaneous Test	See Attachment 4
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	13 (fig. 5-2)	Simultaneous Test	See Attachment 4
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	13 para 5.3	Simultaneous Test	See Attachment 4
	Relative Humidity (%)	100	See Note 2	ASSURED	13 para 5.3	Simultaneous Test	See Attachment 4
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	13 para 5.2	Simultaneous Test	See Attachment 4
	Radiation	SEE ATTACHMENT #3	8.2X10 ⁵ R	2	5 (appendix)	Test on Similar Device	See Attachment 4
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	SEE NOTE 6
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) This is a Westinghouse proprietary information. For values refer to the Documentation Reference. 3) See discussion of component evaluation sheets (sec. C. 1.17). 6) Device has age susceptible maintenance items (will be included in the maintenance schedule).						

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
5. F. P. REPORT #DP2224-1 RP #002 WITH FPL TEST REP. F-C2815, MAY 1970.
53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
13. WESTINGHOUSE WCAP-9157 SECTION 2-7 & APPENDICES.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification	Outstanding
	Parameter	Specification	Qualification	Specification	Qualification	Method	Items
SYSTEM: REACTOR COOLANT. PLANT ID NO. PT-3-405 Component: Pressure Transmitter. FUNCTION: MITIGATE LOCA/HELB (I/O) MONITOR LOCA/HELB (I/O) MANUFACTURER: Fischer & Porter MODEL NO: 50EP1041BCKANS Ser. No. 6804A6257A25 (Hi-temp- Hi rad) ACCURACY: Spec: Demon: See Note 2 SERVICE: RCS press. Mon & interlock to MOV-3-751 LOCATION INSIDE CONTAINMENT ABOVE EL. 19'-0" Area 6 Elev 14 (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, SHI, REV. 6 Elect 5610-E- 103, REV. 6 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	31 days	>31 days	22	7 (figs. 3-6) & 36	Simultaneous test & Mathematical Analysis	None
	Temperature (°F)	SEE ATTACHMENT #1	320 (1hr) 293 (2hr) 227 (3½hr) 281 (½hr)	1	7 (figs. 3-6)	Simultaneous Test	None
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1hr) 45 PSIG (2hr) 5 PSIG (3½hr) 35 PSIG (½hr)	1	7 (figs. 3-6)	Simultaneous Test	None
	Relative Humidity (%)	100 %	100% Saturated Steam	ASSUMED	7 (page 2)	Simultaneous	None
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to PH 10.5	3	8	Qual. test for paint by Ameron	None
	Radiation	SEE ATTACHMENT #3	1.2X10 ⁸ R	2	6	Test on similar device	None
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	ENGINEERING ANALYSIS	None
	Submergence	N/A	N/A	N/A	N/A	N/A	None
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd assumed to be 40 years. 2) See discussion of component evaluation sheets (sec. C.1.17).							

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
22. Analysis of operating time for devices covered in IEB-7901B Master List.
36. Qualification of P & P transmitters-Analysis to extrapolate test results.
6. Fischer & Porter report #DP 2224-1 RPT-004 Dated 10-22-73.
7. P & P test report 2204-51-B-006.
8. Fischer & Porter letter 3-6-75 with Ameron lab REP # 15509 of 3/23/72.
53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 7901B MASTER LIST.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO. PT-3-406 Component: Pressure Transmitter FUNCTION: LOCA/HELB (in & out) Monitor & Mitigate MANUFACTURER: Rosemount MODEL NO: 1153 GA9 Ser. No. 163398R ACCURACY: Spec: See Note 3 Demon: SERVICE: Reactor Coolant Sub Cool Margin Monitor LOCATION: INSIDE CONTAINMENT ABOVE EL. 19'-0" Area 6 Elev 14' (FLOOR) Ref Dwg No. Mech 5610-T-E4501, Rev. 6 Elect 5610-E-103, REV. 6 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	31 DAYS	31 DAYS	22	44 - (Fig. 1 page 21)	Sequential Test	None
	Temperature (°F)	SEE ATTACHMENT #1	350°F	1	44 (Fig. 1 page 21)	Sequential Test	None
	Pressure (PSIA)	SEE ATTACHMENT #2	120 psig	1	44 (Fig. 1 page 21)	Sequential Test	None
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	44 (Fig. 1 page 21)	Sequential Test	None
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 ppm Boric Acid NAOH to pH 10.5	3	44 (appendix II page 5)	Sequential Test	None
	Radiation	SEE ATTACHMENT #3	44 x 10 ⁶ RADS	2	44 (para. 5.1)	Sequential Test	None
	Aging	40 Years	40 Years	See note 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) The specified pressure and temperature profiles fall well within tested profile (test duration: 68 hrs.) 3) See discussion of component evaluation sheets (sec. C.1.17)						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 44. ROSEMOUNT REPORT NO. 3788, REV. A.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO. PT-3-404 Component: Pressure Transmitter FUNCTION: LOCA/HELB (in & out) Monitor & Mitigate MANUFACTURER: Rosemount MODEL NO: 1153 GA9 Ser. No. 163399R ACCURACY: Spec: See Note 3 Demon: SERVICE: Reactor Coolant Sub Cool Margin Monitor LOCATION INSIDE CONTAINMENT ABOVE EL. 19'-0" Area 5 Elev 14' (FLOOR) Ref Dwg No. Mech 5610-T-E4501, 5610-T-E-4501, REV. 6 Elect 5610-E-100, REV. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	31 DAYS	>31 DAYS	22	44 (Fig. 1 page 21)	Sequential Test	None
	Temperature (°F)	SEE ATTACHMENT #1	350°F	1	44 (Fig. 1 page 21)	Sequential Test	None
	Pressure (PSIA)	SEE ATTACHMENT #2	120 psig	1	44 (Fig. 1 page 21)	Sequential Test	None
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	44 (Fig. 1 page 21)	Sequential Test	None
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 ppm Boric Acid NAOH to pH10.5	3	44 (appendix II page 5)	Sequential Test	None
	Radiation	SEE ATTACHMENT #3	44 x 10 ⁶ RADS	2	44 (para. 5.1)	Sequential Test	None
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	None
	Submergence	N/A	N/A	N/A	N/A	N/A	None

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd..assumed to be 40 years.
2) The specified pressure and temperature profiles fall well within tested profile (test duration:68 hrs.)
3) See discussion of component evaluation sheets (sec. C. 1.17)

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 44. ROSEMOUNT REPORT NO. 3788, REV. A.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification	Outstanding
	Parameter	Specification	Qualification	Specification	Qualification	Method	Items
SYSTEM: Reactor Coolant PLANT ID NO. PT-3-455 Component: Pressure Transmitter FUNCTION: Mitigate LOCA/HELB (in & out) MANUFACTURER: Fischer & Porter MODEL NO: 50EP1041 BCXANS SER # 6804A6255A85 ACCURACY: Spec: SEE NOTE 2 Demon: SEE NOTE 2 SERVICE: Pressurizer Pressure - To Provide SI Signal LOCATION INSIDE CONTAINMENT Area 5 3'-8" ABOVE FLOOR Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, Rev. 6 Elect 5610-E-101, Rev. 8 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	1/2 HR	2 HRS	22	11 (Table 2; P-A-8)	Simultaneous Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 3	1	11 (Table 2; P-A-8)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 3	1	11 (Table 2; P-A-8)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 3	ASSUMED	11 (Page A-6)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 3	3	8	QUAL. TEST FOR PAINT BY AMERON	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 3	2	20 Table 4 (Page 4-4)	Sequential	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17) 3) This is Westinghouse proprietary information. For values, reference qualification documentation.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 11. W CAP 7410-VOL. I FIRM REPORT #F-C2639, NOV. 1969.
 8. FISCHER AND PORTER LETTER 3-6-75 WITH AMERON LAB REP. #15504 OF 3-23-72.
 20. WCAP 7410-VOL I, SECTION #4.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification	Outstanding
	Parameter	Specification	Qualification	Specification	Qualification	Method	Items
<p>SYSTEM: Reactor Coolant PLANT ID NO. PT-3-456 Component: Pressure Transmitter FUNCTION: Mitigate LOCA/HELB (in & out) MANUFACTURER: Fischer & Porter MODEL NO: 50EP1041 BCXANS SER #6804A6257A82 ACCURACY: Spec: SEE NOTE 2 Demon: SEE NOTE 2 SERVICE: Pressurizer Pressure - To Provide SI Signal LOCATION INSIDE CONTAINMENT 3'-8" ABOVE FLOOR Area 5 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, Rev. 6 Elect 5610-E-101, Rev. 8 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u></p>	Operating Time	1/2 HR	2 HRS	22	11 (Table 2; P-A-8)	Simultaneous Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 3	1	11 (Table 2; P-A-8)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 3	1	11 (Table 2; P-A-8)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 3	ASSUMED	11 (Page A-6)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 3	3	8	QUAL. TEST FOR PAINT BY AMERON	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 3	2	20 Table 4 (Page 4-4)	Sequential	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
<p>NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) See discussion of component evaluation sheets (sec. C.1.17) 3) This is Westinghouse proprietary information. For values, reference qualification documentation.</p>							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 11. W CAP 7410-VOL I FPL REPORT #F-C2639, NOV. 1969.
 8. FISCHER AND PORTER LETTER 3-6-75 WITH AMERON LAB REP. #15504 OF 3-23-72.
 20. WCAP 7410-VOL I, SECTION #4.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Reactor Coolant PLANT ID NO. PT-3-457 Component: Pressure Transmitter FUNCTION: Mitigate LOCA/HELB (in & out) MANUFACTURER: Fischer & Porter MODEL NO: 50EP1041 BCXANS SER # 6804A6257A84 ACCURACY: Spec: SEE NOTE 2 Demon: .. SERVICE: Pressurizer Pressure - To Provide SI Signal LOCATION INSIDE CONTAINMENT 3'-8" ABOVE FLOOR Area 5 Elev 30'-6" Ref Dwg No. Mech 5610-T-E-4501, Rev. 6 Elect 5610-E-101, Rev. 8 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	1/2 HR	2 HRS	22	11 (Table 2; P-A-8)	Simultaneous Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 3	1	11 (Table 2; P-A-8)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 3	1	11 (Table 2; P-A-8)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 3	ASSUMED	11 (Page A-6)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 3	3	8	QUAL. TEST FOR PAINT BY AMERON	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 3	2	20 Table 4 (Page A-6)	Sequential	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the PSAR aging and submergence were not considered environmental parameters. Aging req'd assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C. 1.17) 3) This is Westinghouse proprietary information. For values, reference qualification documents.							

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
11. W CAP 7410-VOL. I FIRM REPORT #F-C2639, NOV. 1969.
8. FISCHER AND PORTER LETTER 3-6-75 WITH AMERON LAB REP. #15504 OF 3-23-72.
20. WCAP 7410-VOL I. SECTION #4.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: LT-3-459 Component: LEVEL TRANSMITTER FUNCTION: LOCA/HELB (IN & OUT) MITIGATE MANUFACTURER: ITT - BARTON MODEL NO: 386/351 SER #259 TRANSDUCER MODEL 224 ACCURACY: Spec: NOTE 3 Demon: NOTE 3 SERVICE: SAFETY INJECTION INITIATION, CONTAINMENT ISOLATION LOCATION INSIDE CONTAINMENT 1'-2" ABOVE FLOOR Area 5 Elev 30'-6" (FLOOR) Ref. Dwg No. Mech 5610-T-E-4501, Rev. 6 Elect 5610-E-101, Rev. 8 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	1/2 Hour SEE NOTE 4	2 Hours	17	12	Simultaneous Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 2	1	12	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 2	1	12	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 2	ASSUMED	12	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 2	3	34 & 8	Separate Test on the Protective Coating	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 2	2	20 & 9	Sequential Test	NONE
	Aging	40 YEARS	SEE NOTE 5	SEE NOTE 1	NONE	NONE	SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary document. For values refer to the documentation reference. 3) See discussion of component evaluation sheets (See C.1.17). 4) Min. oper. time (1/2 hr.) required per PTP-FSAR Table 6.7-1 (Ref. #17) to initiate S.I. signal coincident with PRZR. low press. Lessons Learned from T.M.I. deleted S.I. signal for PRZR. level, but req'd long term monitoring. Transmitter will be replaced during next refueling outage following procurement. 5) Aging analysis not done as device will be replaced per note 4.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 12. FPL TEST REPORT F-C2667 FROM WCAP7410-L
 8. AMERON CORROSION CONTROL DIV TEST.
 9. W LETTER TO NRC NS-CE-1586 DATED 10-28-77.
 20. TOPICAL REPORT ENVIRONMENTAL TESTING WCAP-7410-L-SECTION 4-1.
 17. TURKEY POINT-FSAR TABLE 6.7.-1.
 34. ITT-BARTON QUALITY RELEASE FOR LEVEL TRANSMITTERS.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: LT-3-460 Component: LEVEL TRANSMITTER FUNCTION: LOCA/HELB (IN & OUT) MITIGATE MANUFACTURER: IIT - BARTON MODEL NO: 386/351 SER #260 TRANSDUCER MODEL 224 ACCURACY: Spec: NOTE 3 Demon: SERVICE: SAFETY INJECTION INITIATION, CONTAINMENT ISOLATION LOCATION INSIDE CONTAINMENT 1'-2" ABOVE FLOOR Area 5 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, Rev. 6 Elect 5610-E-101, Rev. 8. Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	1/2 Hour SEE NOTE 4	2 Hours	17	12	Simultaneous Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 2	1	12	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 2	1	12	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 2	ASSUMED	12	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 2	3	34 & 8	Separate Test on the Protective Coating	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 2	2	20 & 9	Sequential Test	NONE
	Aging	40 YEARS	SEE NOTE 5	SEE NOTE 1	NONE	NONE	SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is a Westinghouse proprietary document. For values refer to the documentation reference. 3) See discussion of component evaluation sheets (Sec. C.1.17). 4) Min. oper. time (1/2 Hr.) required per PTP-FSAR Table 6.7-1 (Ref. #17) to initiate S.I. signal coincident with PRZR. low press. Lessons Learned from T.M.I. deleted S.I. signal for PRZR. level, but req'd long term monitoring. Transmitter will be replaced during next refueling outage following procurement. 5) Aging analysis not done as device will be replaced per note 4.							

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
12. FPL TEST REPORT F-C2667 FROM WCAP7410-L
8. AMERON CORROSION CONTROL DIV TEST.
9. W LETTER TO NRC NS-CE-1586 DATED 10-28-77.
20. TOPICAL REPORT ENVIRONMENTAL TESTING WCAP-7410-L-SECTION 4-1.
17. TURKEY POINT FSAR TABLE 6.7-1
34. IIT-BARTON QUALITY RELEASE FOR LEVEL TRANSMITTERS.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: LT-3-461 Component: LEVEL TRANSMITTER FUNCTION: LOCA/HELS (IN AND OUT) MITIGATE MANUFACTURER: IIT - BARTON MODEL NO: 386/351 SER #261 TRANSDUCER MODEL 224 ACCURACY: Spec: NOTE 3 Demon: NOTE 3 SERVICE: SAFETY INJECTION INITIATION, CONTAINMENT ISOLATION LOCATION INSIDE CONTAINMENT 1'-2" ABOVE FLOOR Area 5 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, Rev. 6 Elect 5610-E-101, Rev. 8 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	1/2 Hour SEE NOTE 4	2 Hours	17	12	Simultaneous Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 2	1	12	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 2	1	12	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 2	ASSUMED	12	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 2	3	34 & 8	Separate Test on the Protective Coating	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 2	2	20 & 9	Sequential Test	NONE
	Aging	40 YEARS	SEE NOTE 5	SEE NOTE 1	NONE	NONE	SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is a Westinghouse proprietary document. For values refer the documentation reference. 3) See discussion of component evaluation sheets (sec. C.1.17). 4) Min. oper. time (1/2 hr.) required per PTP-FSAR Table 6.7-1 (REF. #17) to initiate S.I. signal coincident with PRZR. Low press. Lessons Learned from I.M.I. deleted S.I. signal for PRZR. level, but required long term monitoring. Transmitter will be replaced during next refueling outage following procurement. 5) Aging analysis not done as device will be replaced per note 4.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 12. FPL TEST REPORT F-C2667 FROM WCAP7410-L
 8. AMERON CORROSION CONTROL DIV TEST.
 9. W LETTER TO NRC NS-CE-1586 DATED 10-28-77.
 20. TOPICAL REPORT ENVIRONMENTAL TESTING WCAP-7410-L-SECTION 4-1.
 17. TURKEY POINT FSAR TABLE 6.7-1.
 34. IIT-BARTON QUALITY RELEASE FOR LEVEL TRANSMITTERS.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: LI-4-459 Component: LEVEL TRANSMITTER FUNCTION: LOCA/HELB (IN & OUT) MITIGATE MANUFACTURER: IIT - BARTON MODEL NO: 386/351 SER #241 ACCURACY: Spec: NOTE 3 Demon: SERVICE: SAFETY INJECTION INITIATION, CONTAINMENT ISOLATION LOCATION INSIDE CONTAINMENT 1'-6" ABOVE FLOOR Area 11 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, Rev. 6 Elect 5610-E-108, Rev. 8. Flood Level Elev: 19'-0" DOG. REF. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	1/2 Hour SEE NOTE 4	2 Hours	17	12	Simultaneous Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 2	1	12	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 2	1	12	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 2	ASSUMED	12	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 2	3	34 & 8	Separate Test on the Protective Coating	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 2	2	20 & 9	Sequential Test	NONE
	Aging	40 YEARS	SEE NOTE 5	SEE NOTE 1	NONE	NONE	SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is a Westinghouse proprietary document. For values refer to the documentation reference. 3) See discussion of component evaluation sheets (Sec. C.1.17). 4) Min. oper. time (1/2 Hr.) required per PTP-FSAR Table 6.7-1 (Ref. #17) to initiate S.I. signal coincident with PRZR. low press. Lessons Learned from T.M.I. deleted S.I. signal for PRZR. level, but req'd long term monitoring. Transmitter will be replaced during next refueling outage following procurement. 5) Aging analysis not done as device will be replaced per note 4.							

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
12. FPL TEST REPORT F-C2667 FROM WCAP7410-L
8. AMERON CORROSION CONTROL DIV TEST.
9. W LETTER TO NRC NS-CE-1586 DATED 10-28-77.
20. TOPICAL REPORT ENVIRONMENTAL TESTING WCAP-7410-L-SECTION 4-1.
17. TURKEY POINT FSAR TABLE 6.7-1.
34. IIT-BARTON QUALITY RELEASE FOR LEVEL TRANSMITTERS.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: LT-4-460 Component: LEVEL TRANSMITTER FUNCTION: LOCA/HELB (IN & OUT) MITIGATE MANUFACTURER: ITT - BARTON MODEL NO: 386/351 SER #242 ACCURACY: Spec: SEE NOTE 3 Demon: SERVICE: SAFETY INJECTION INITIATION, CONTAINMENT ISOLATION LOCATION INSIDE CONTAINMENT 1'-6" ABOVE FLOOR Area 11 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, Rev. 6 Elect 5610-E-108, Rev. 8 Flood Level Elev: 19'-0" . DOC. REF. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	1/2 Hour SEE NOTE 4	2 Hours	17	12	Simultaneous Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 2	1	12	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 2	1	12	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 2	ASSURED	12	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 2	3	34 & 8	Separate Test on the Protective Coating	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 2	2	20 & 9	Sequential Test	NONE
	Aging	40 YEARS	SEE NOTE 5	SEE NOTE 1	NONE	NONE	SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is a Westinghouse proprietary document. For values refer to the documentation reference. 3) See discussion of component evaluation sheets (Sec. C.1.17). 4) Min. oper. time (1/2 hr.) required per PTP-FSAR Table 6.7-1 (Ref. #17) to initiate S.I. signal coincident with PRZR. low press. Lessons Learned from T.M.I. deleted S.I. signal for PRZR. level, but req'd long term monitoring. Transmitter will be replaced during next refueling outage following procurement. 5) Aging analysis not done as device will be replaced per note 4.							

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
12. FPL TEST REPORT P-C2667 FROM WCAP7410-L
8. AMERON CORROSION CONTROL DIV TEST.
9. W LETTER TO NRC NS-CE-1586 DATED 10-28-77.
20. TOPICAL REPORT ENVIRONMENTAL TESTING WCAP-7410-L-SECTION 4-1.
17. TURKEY POINT FSAR TABLE 6.7-1
34. ITT-BARTON QUALITY RELEASE FOR LEVEL TRANSMITTERS.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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Rev. 2

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO. LT-4-461 Component: LEVEL TRANSMITTER FUNCTION: LOCA/HELB (IN & OUT) MITIGATE MANUFACTURER: IIT - BARTON MODEL NO: 386/351 SER #243 ACCURACY: Spec: SEE NOTE 3 Demon: SERVICE: SAFETY INJECTION INITIATION, CONTAINMENT ISOLATION LOCATION INSIDE CONTAINMENT 1'-6" ABOVE FLOOR Area 11 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, Rev. 6 Elect 5610-E-108, Rev. 8 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	1/2 Hour SEE NOTE 4	2 Hours	17	12	Simultaneous Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 2	1	12	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 2	1	12	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 2	ASSUMED	12	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 2	3	34 & 8	Separate Test on the Protective Coating	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 2	2	20 & 9	Sequential Test	NONE
	Aging	40 YEARS	SEE NOTE 5	SEE NOTE 1	NONE	NONE	SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary document. For values refer to the documentation reference. 3) See discussion of component evaluation sheets (Sec. C.1.17). 4) Min. oper. time (1/2 hr.) required per PTP-FSAR Table 6.7-1 (Ref. #17) to initiate S.I. signal coincident with PRZR. level. Lessons Learned from T.M.I. deleted S.I. signal for PRZR. level, but req'd long term monitoring. Transmitter will be replaced during next refueling outage following procurement. 5) Aging analysis not done as device will be replaced per note 4.							

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
12. FPL TEST REPORT F-C2667 FROM WCAP7410-L
8. AMERON CORROSION CONTROL DIV TEST.
9. W LETTER TO NRC NS-CE-1586 DATED 10-28-77.
20. TOPICAL REPORT ENVIRONMENTAL TESTING WCAP-7410-L-SECTION 4-1.
17. TURKEY POINT FSAR TABLE 6.7-1.
34. IIT-BARTON QUALITY RELEASE FOR LEVEL TRANSMITTERS.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-412B Component: RESISTANCE TEMPERATURE DETECTOR (RTD) FUNCTION: LOCA/HELB (IN & OUT) MITIGATE MANUFACTURER: ROSEMOUNT MODEL NO: 176KF ACCURACY: Spec: SEE NOTE #2 Demon: SERVICE: RCS HOT LEG $\Delta T/T_{avg}$ PROTECTION LOCATION INSIDE CONTAINMENT 15'-6" ABOVE FLOOR Area 6 Elev 14'-0" (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, Rev. 6 Elect 5610-E-103, Rev. 6 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	1/2 Hour	52 Days See Note #3	22	13 (Page 5.5)	Simultaneous Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 4	1	13 (Page 5.5)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 4	1	13 (Page 5.3)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 4	ASSUMED	13	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 4	3	13 (Page 5.1)	Simultaneous Test	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 4	2	13 (Page A-3)	Sequential Test	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Tests done at levels higher than post accident environment to simulate long term operation (52 Days). 4) This is Westinghouse proprietary information. For values, reference qualification documentation.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 13. W - WCAP 9157.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-412D Component: RESISTANCE TEMPERATURE DETECTOR (RTD) FUNCTION: LOCA/HELB (IN & OUT) MITIGATE MANUFACTURER: ROSEMOUNT MODEL NO: 176KF ACCURACY: Spec: SEE NOTE #2 Demon: SERVICE: RCS HOT LEG $\Delta T/T_{avg}$ PROTECTION LOCATION INSIDE CONTAINMENT 15'-6" ABOVE FLOOR Area 5 Elev 14'-0" (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, Rev. 6 Elect 5610-E-100, Rev. 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	1/2 Hour	52 Days See Note #3	22	13 (Page 5.5)	Simultaneous Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 4	1	13 (Page 5.5)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 4	1	13 (Page 5.3)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 4	ASSUMED	13	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 4	3	13 (Page 5.1)	Simultaneous Test	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 4	2	13 (Page A-3)	Sequential Test	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the PSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Tests done at levels higher than post accident environment to simulate long term operation (52 Days). 4) This is Westinghouse proprietary information. For values, reference qualification documentation.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 13. W - WCAP 9157.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-422B Component: RESISTANCE TEMPERATURE DETECTOR (RTD) FUNCTION: LOCA/HELB (IN & OUT) MITIGATE MANUFACTURER: ROSEMOUNT MODEL NO: 176KF ACCURACY: Spec: SEE NOTE #2 Demon: SERVICE: RCS HOT LEG $\Delta T/T_{avg}$ PROTECTION LOCATION INSIDE CONTAINMENT 15'-6" ABOVE FLOOR Area 5 Elev 14'-0" (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, Rev. 6 Elect 5610-E-100, Rev. 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	1/2 Hour	52 Days See Note #3	22	13 (Page 5.5)	Simultaneous Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 4	1	13 (Page 5.5)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 4	1	13 (Page 5.3)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 4	ASSUMED	13	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 4	3	13 (Page 5.1)	Simultaneous Test	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 4	2	13 (Page A-3)	Sequential Test	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Tests done at levels higher than post accident environment to simulate long term operation (52 Days). 4) This is Westinghouse proprietary information. For values, reference qualification documentation.							

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
13. W - WCAP 9157.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETION 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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Rev. 2

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-422D Component: RESISTANCE TEMPERATURE DETECTOR (RTD) FUNCTION: LOCA/HELB (IN & OUT) MITIGATE MANUFACTURER: ROSEMOUNT MODEL NO: 176KF ACCURACY: Spec: SEE NOTE #2 Demon: SERVICE: RCS HOT LEG $\Delta T/T_{avg}$ PROTECTION LOCATION INSIDE CONTAINMENT 15'-6" ABOVE FLOOR Area 5 Elev 14'-0" Ref Dwg No. Mech 5610-T-E-4501, Rev. 6 Elect 5610-E-100, Rev. 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	1/2 Hour	52 Days See Note #3	22	13 (Page 5.5)	Simultaneous Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 4	1	13 (Page 5.5)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 4	1	13 (Page 5.3)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 4	ASSUMED	13	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 4	3	13 (Page 5.1)	Simultaneous Test	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 4	2	13 (Page A-3)	Sequential Test	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Tests done at levels higher than post accident environment to simulate long term operation (52 Days). 4) This is Westinghouse proprietary information. For values, reference qualification documentation.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 13. W - WCAP 9157.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-432B Component: RESISTANCE TEMPERATURE DETECTOR (RTD) FUNCTION: LOCA/HELB (IN & OUT) MITIGATE MANUFACTURER: ROSEMOUNT MODEL NO: 176KF ACCURACY: Spec: SEE NOTE #2 Demon: SERVICE: RCS HOT LEG $\Delta T/T_{avg}$ PROTECTION LOCATION INSIDE CONTAINMENT 15'-6" ABOVE FLOOR Area 6 Elev 14'-0" (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, Rev. 6 Elect 5610-E-103, Rev. 6 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	1/2 Hour	52 Days See Note #3	22	13 (Page 5.5)	Simultaneous Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 4	1	13 (Page 5.5)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 4	1	13 (Page 5.3)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 4	ASSUMED	13	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 4	3	13 (Page 5.1)	Simultaneous Test	NONE
	Radiation	SEE ATTACHMENT #3	-SEE NOTE 4	2	13 (Page A-3)	Sequential Test	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Tests done at levels higher than post accident environment to simulate long term operation (52 Days). 4) This is Westinghouse proprietary information. For values, reference qualification documentation.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 13. W - WCAP 9157.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-432D Component: RESISTANCE TEMPERATURE DETECTOR (RTD) FUNCTION: LOCA/HELB (IN & OUT) MITIGATE MANUFACTURER: ROSEMOUNT MODEL NO: 176KF ACCURACY: Spec: SEE NOTE #2 Demon: SERVICE: RCS HOT LEG $\Delta T/T_{avg}$ PROTECTION LOCATION INSIDE CONTAINMENT 15'-6" ABOVE FLOOR Area 6 Elev 14'-0" (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, Rev. 6 Elect 5610-E-103, Rev. 6 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	1/2 Hour	52 Days See Note #3	22	13 (Page 5.5)	Simultaneous Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 4	1	13 (Page 5.5)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 4	1	13 (Page 5.3)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 4	ASSUMED	13	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 4	3	13 (Page 5.1)	Simultaneous Test	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 4	2	13 (Page A-3)	Sequential Test	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Tests done at levels higher than post accident environment to simulate long term operation (52 Days). 4) This is Westinghouse proprietary information. For values, reference qualification documentation.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 13. W - WCAP 9157.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: RCS PLANT ID NO.: MOV-3-535 Component: VALVE MOTOR OPERATOR FUNCTION: LOCA/HELB (IN & OUT) MITIGATE MANUFACTURER: OPERATOR-LIMITORQUE MOTOR-PEERLESS SER #86764A MODEL NO: OPERATOR-SMB-000; MOTOR SER #JV81672 INSUL. CLASS B ACCURACY: Spec: Demon: NA SERVICE: PRESSURIZER RELIEF ISOLATION VALVE LOCATION INSIDE CONTAINMENT Area 5 TOP OF PRESSURIZER Elev 58' Ref Dwg No. Mech 5610-T-E-4501 Rev. 6 Elect 5610-E-102, Rev. 7 Flood Level Elev: 19' DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	2 Hrs.	SEE NOTE 2	22	15 (P. D-10)	Simultaneous Type Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 2	1	15 (P. D-20)	Simultaneous Type Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 2	1	15 (P. D-10 & D-20)	Simultaneous Type Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 2	ASSUMED	15	Simultaneous Type Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 2	3	15 (P. D-8, D-10)	Simultaneous Type Test	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 2	2	14 (P. 5-4)	Sequential Test on Same Device	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Sequential Test on Same Device	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary information. For values reference qualification documentation reference.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 14. WESTINGHOUSE WCAP - 7410-L-, VOL. I, SECTION 5.
 15. WESTINGHOUSE WCAP - 7410-L-, VOL. I, APPENDIX D FIRM F-C2485-01.
 22. ANALYSIS OF OPER. TIMES FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: RCS PLANT ID NO.: MOV-3-536 Component: VALVE MOTOR OPERATOR FUNCTION: LOCA/HELB (IN & OUT) MITIGATE MANUFACTURER: OPERATOR-LIMITORQUE SER #86773A MOTOR-PEERLESS MODEL NO: OPERATOR-SMB-000; MOTOR-S# HV81674 INSULATION CLASS B ACCURACY: Spec: Demon: NA SERVICE: PRESSURIZER RELIEF ISOLATION VALVE LOCATION INSIDE CONTAINMENT TOP OF PRESSURIZER Area 5 Elev 58' Ref Dwg No. Mech 5610-T-E-4501 Rev. 6 Elect 5610-E-102, Rev. 7 Flood Level Elev: 19' DOC. REF. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	2 Hours	SEE NOTE 2	22	15 (P. D-10)	Simultaneous Type Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 2	1	15 (P. D-20)	Simultaneous Type Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 2	1	15 (P. D-10-20)	Simultaneous Type Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 2	ASSUMED	15	Simultaneous Type Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 2	3	15 (P. D-8, D-10)	Simultaneous Type Test	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 2	2	14 (P. 5-4)	Sequential Test on Same Device	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Sequential Test on Same Device	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary information. For values reference qualification documentation reference.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 14. WESTINGHOUSE WCAP - 7410-L-, VOL. I, SECTION 5.
 15. WESTINGHOUSE WCAP - 7410-L-, VOL. I, APPENDIX D FPL F-C2485-01.
 22. ANALYSIS OF OPER. TIMES FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-410 Component: RESISTANCE TEMPERATURE DETECTOR (RTD) FUNCTION: LOCA/HELB (IN & OUT) POST ACCIDENT MON. MANUFACTURER: ROSEMOUNT MODEL NO: 176 KS ACCURACY: Spec: Demon: SEE NOTE 2 SERVICE: RCS COLD LEG TEMP. TO RECORDER LOCATION INSIDE CONTAINMENT 15'-6" ABOVE FLOOR Area 5 Elev 14'-0" Ref Dwg No. Mech 5610-T-E-4501, REV. 6 Elect 5610-E-100, Rev. 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	52 DAYS SEE NOTE #3	22	13 (Page 5.5)	SIMULTANEOUS TEST	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 4	1	13 (Page 5.5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 4	1	13 (Page 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE 4	ASSUMED	13	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 4	3	13 (Page 5.1)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 4	2	13 (Page A-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Tests done at levels higher than post accident environment to simulate long-term operation (52 days). 4) This is Westinghouse proprietary information. For values reference qualification documentation.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 13. W-WCAP 9157.
 - 3.2. CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
 UNIT: 3 & 4
 LOCALT: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO. ZT/2S-3-6303A Component: Acoustic Monitor FUNCTION: LOCA/HELB (in & out) MONITOR MANUFACTURER: Technology for Energy Corporation MODEL NO: E2273A Sensor 500 Charge Converter ACCURACY: Spec: Demon: SERVICE: Safety Valve Acoustic Monitoring System LOCATION: INSIDE CONTAINMENT TOP OF PRESSURIZER & PRESSURIZER WALL Area 5 Elev. 58' Ref. Dwg. No. Mech. 5177-108-M-1 Elect. 5610-E-102 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	>31 DAYS (NOTE 4)	22	64 (Page 7-9)	SIMULTANEOUS TEST	NONE
	Temperature (°F)	SEE ATTACHMENT #1	465°F	1	64 (Page 7-9)	SIMULTANEOUS TEST	SEE NOTE 3
	Pressure (PSIA)	SEE ATTACHMENT #2	102.7	1	64 (Page 7-9)	SIMULTANEOUS TEST	SEE NOTE 3
	Relative Humidity (%)	100	100	ASSUMED	64 (Page 3-14)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	5500 PPM BORON BUFFERED with NaOH to pH of 9	3	64 (Page 7-8)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	64 (Appendix C)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	12.4 YEARS	SEE NOTE 1	64 (Appendix A, Pg.1)	SEQUENTIAL TEST	SEE NOTE 2
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) The system was aged for 600 hours at 125°C. A maintenance schedule will be developed to periodically replace the age susceptible components. 3) The charge converter failed following the high temperature/pressure dwell. The vendor has proposed a fix that entails enclosing the converter in a pressure boundary supplied by them. 4) The actual test was conducted for 6 days, 21 hours. The test profile envelopes and is much more rigorous than the actual profile throughout the test.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 64. QUALIFICATION TEST REPORT (T.E.C. #517-TR-03) FOR ENVIRONMENTAL AND SEISMIC TESTING.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-420 Component: RESISTANCE TEMPERATURE DETECTOR (RTD) FUNCTION: LOCA/HELB (IN & OUT) POST ACCIDENT MON. MANUFACTURER: ROSEMOUNT MODEL NO: 176 KS ACCURACY: Spec: SEE NOTE-2 Demon: SERVICE: RCS COLD LEG TEMP. TO RECORDER LOCATION INSIDE CONTAINMENT 15'-6" ABOVE FLOOR Area 5 Elev 14'-0" (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, REV. 6 Elect 5610-E-100, Rev. 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	31 DAYS	52 DAYS SEE NOTE #3	22	13 (Page 5.5)	SIMULTANEOUS TEST	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 4	1	13 (Page 5.5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 4	1	13 (Page 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE 4	ASSUMED	13	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 4	3	13 (Page 5.1)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 4	2	13 (Page A-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Tests done at levels higher than post accident environment to simulate long-term operation (52 days). 4) This is Westinghouse proprietary information. For values reference qualification documentation.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 13. W-WCAP 9157.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO. 2T/2S-3-6303B Component: Acoustic Monitor	Operating Time	31 DAYS	>31 DAYS (NOTE 4)	22	64 (Page 7-9)	SIMULTANEOUS TEST	NONE
FUNCTION: LOCA/HELB (in & out) MONITOR	Temperature (°F)	SEE ATTACHMENT #1	465°F	1	64 (Page 7-9)	SIMULTANEOUS TEST	SEE NOTE 3
MANUFACTURER: Technology for Energy Corporation	Pressure (PSIA)	SEE ATTACHMENT #2	102.7	1	64 (Page 7-9)	SIMULTANEOUS TEST	SEE NOTE 3
MODEL NO: E2273A Sensor 500 Charge Converter	Relative Humidity (%)	100	100	ASSUMED	64 (Page 3-14)	SIMULTANEOUS TEST	NONE
ACCURACY: Spec: Demon:	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	5500 PPM BORON BUFFERED with NaOH to pH of 9	3	64 (Page 7-8)	SIMULTANEOUS TEST	NONE
SERVICE: Safety Valve Acoustic Monitoring System	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	64 (Appendix C)	SEQUENTIAL TEST	NONE
LOCATION: INSIDE CONTAINMENT TOP OF PRESSURIZER & PRESSURIZER WALL	Aging	40 YEARS	12.4 YEARS	SEE NOTE 1	64 (Appendix A, Pg. 1)	SEQUENTIAL TEST	SEE NOTE 2
Area 5 Elev. 58' Ref. Dwg. No. Mech. 5177-108-M-1 Elect. 5610-E-102	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) The system was aged for 600 hours at 125°C. A maintenance schedule will be developed to periodically replace the age susceptible components. 3) The charge converter failed following the high temperature/pressure dwell. The vendor has proposed a fix that entails enclosing the converter in a pressure boundary supplied by them. 4) The actual test was conducted for 6 days, 21 hours. The test profile envelopes and is much more rigorous than the actual profile throughout the test.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SHIP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 64. QUALIFICATION TEST REPORT (T.E.C. #517-TR-03) FOR ENVIRONMENTAL AND SEISMIC TESTING.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-430 Component: RESISTANCE TEMPERATURE DETECTOR (RTD) FUNCTION: LOCA/HELB (IN & OUT) POST ACCIDENT MON. MANUFACTURER: ROSEMOUNT MODEL NO: 176 KS ACCURACY: Spec: SEE NOTE 2 Demon: SEE NOTE 2 SERVICE: RCS COLD LEG TEMP. TO RECORDER LOCATION INSIDE CONTAINMENT 15'-6" ABOVE FLOOR Area 6 Elev 14'-0" (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, REV. 6 Elect 5610-E-103, Rev. 6 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	31 DAYS	52 DAYS SEE NOTE #3	22	13 (Page 5.5)	SIMULTANEOUS TEST	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 4	1	13 (Page 5.5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 4	1	13 (Page 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE 4	ASSUMED	13	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 4	3	13 (Page 5.1)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 4	2	13 (Page A-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) See discussion of component evaluation sheets (sec. C.1.17) 3) Tests done at levels higher than post accident environment to simulate long-term operation (52 days). 4) This is Westinghouse proprietary information. For values reference qualification documentation.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 13. W-WCAP 9157.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DRAWING: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO. ZT/ZS-3-6303C Component: Acoustic Monitor FUNCTION: LOCA/HELB (in & out) MONITOR MANUFACTURER: Technology for Energy Corporation MODEL NO: E2273A Sensor Charge Converter 500 ACCURACY: Spec: Demon: SERVICE: Safety Valve Acoustic Monitoring System LOCATION: INSIDE CONTAINMENT TOP OF PRESSURIZER & PRESSURIZER WALL Area 5 Elev. 58' Ref. Des. No. Mech. 5177-108-M-1 Elect. 5610-E-102 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	>31 DAYS (NOTE 4)	22	64 (Page 7-9)	SIMULTANEOUS TEST	NONE
	Temperature (°F)	SEE ATTACHMENT #1	465°F	1	64 (Page 7-9)	SIMULTANEOUS TEST	SEE NOTE 3
	Pressure (PSIA)	SEE ATTACHMENT #2	102.7	1	64 (Page 7-9)	SIMULTANEOUS TEST	SEE NOTE 3
	Relative Humidity (%)	100	100	ASSUMED	64 (Page 3-14)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	5500 PPM BORON BUFFERED WITH NAOH to pH of 9	3	64 (Page 7-8)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	64 (Appendix C)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	12.4 YEARS	SEE NOTE 1	64 (Appendix A, Pg.1)	SEQUENTIAL TEST	SEE NOTE 2
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) The system was aged for 600 hours at 125°C. A maintenance schedule will be developed to periodically replace the age susceptible components. 3) The charge converter failed following the high temperature/pressure dwell. The vendor has proposed a fix that entails enclosing the converter in a pressure boundary supplied by them. 4) The actual test was conducted for 6 days, 21 hours. The test profile envelopes and is much more rigorous than the actual profile throughout the test.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-010 MASTER LIST.
 64. QUALIFICATION TEST REPORT (T.E.C. #517-TR-03) FOR ENVIRONMENTAL AND SEISMIC TESTING.



FACILITY: TURKEY POINT
 UNIT: 3 & 4
 LOCATION: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO. ZT/ZS-4-6303A Component: Acoustic Monitor FUNCTION: LOCA/HELB (in & out) MONITOR MANUFACTURER: Technology for Energy Corporation MODEL NO: E2273A Sensor Charge Converter 500 ACCURACY: Spec: Demon: SERVICE: Safety Valve Acoustic Monitoring System LOCATION: INSIDE CONTAINMENT TOP OF PRESSURIZER & PRESSURIZER WALL Area 11 Elev. 58' Ref. Dwg. No. Mech. 5177-108-M-1 Elect. 5610-E-109 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	>31 DAYS (NOTE 4)	22	64 (Page 7-9)	SIMULTANEOUS TEST	NONE
	Temperature (°F)	SEE ATTACHMENT #1	465°F	1	64 (Page 7-9)	SIMULTANEOUS TEST	SEE NOTE 3
	Pressure (PSIA)	SEE ATTACHMENT #2	102.7	1	64 (Page 7-9)	SIMULTANEOUS TEST	SEE NOTE 3
	Relative Humidity (%)	100	100	ASSUMED	64 (Page 3-14)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	5500 PPM BORON BUFFERED with NaOH to pH of 9	3	64 (Page 7-8)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	64 (Appendix C)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	12.4 YEARS	SEE NOTE 1	64 (Appendix A, Pg.1)	SEQUENTIAL TEST	SEE NOTE 2
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) The system was aged for 600 hours at 125°C. A maintenance schedule will be developed to periodically replace the age susceptible components. 3) The charge converter failed following the high temperature/pressure dwell. The vendor has proposed a fix that entails enclosing the converter in a pressure boundary supplied by them. 4) The actual test was conducted for 6 days, 21 hours. The test profile envelopes and is much more rigorous than the actual profile throughout the test.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SURF LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 64. QUALIFICATION TEST REPORT (T.E.C. #517-TR-03) FOR ENVIRONMENTAL AND SEISMIC TESTING.

FACILITY: TURKEY POINT
 UNIT: 3 & 4
 LOGS: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO. ZT/ZS-4-6303B Component: Acoustic Monitor FUNCTION: LOCA/HELB (in & out) MONITOR MANUFACTURER: Technology for Energy Corporation MODEL NO: E2273A Sensor Charge Converter 500 ACCURACY: Spec: Demon: SERVICE: Safety Valve Acoustic Monitoring System LOCATION: INSIDE CONTAINMENT TOP OF PRESSURIZER & PRESSURIZER WALL Area 11 Elev. 58' Ref. Dwg. No. Mech. 5177-108-M-1 Elect. 5610-E-109 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	>31 DAYS (NOTE 4)	22	64 (Page 7-9)	SIMULTANEOUS TEST	NONE
	Temperature (°F)	SEE ATTACHMENT #1	465°F	1	64 (Page 7-9)	SIMULTANEOUS TEST	SEE NOTE 3
	Pressure (PSIA)	SEE ATTACHMENT #2	102.7	1	64 (Page 7-9)	SIMULTANEOUS TEST	SEE NOTE 3
	Relative Humidity (%)	100	100	ASSUMED	64 (Page 3-14)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	5500 PPM BORON BUFFERED with NaOH to pH of 9	3	64 (Page 7-8)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	64 (Appendix C)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	12.4 YEARS	SEE NOTE 1	64 (Appendix A, Pg. 1)	SEQUENTIAL TEST	SEE NOTE 2
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) The system was aged for 600 hours at 125°C. A maintenance schedule will be developed to periodically replace the age susceptible components. 3) The charge converter failed following the high temperature/pressure dwell. The vendor has proposed a fix that entails enclosing the converter in a pressure boundary supplied by them. 4) The actual test was conducted for 6 days, 21 hours. The test profile envelopes and is much more rigorous than the actual profile throughout the test.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. EPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 64. QUALIFICATION TEST REPORT (T.E.C. #517-TR-03) FOR ENVIRONMENTAL AND SEISMIC TESTING.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO. ZT/ZS-4-6303C Component: Acoustic Monitor	Operating Time	31 DAYS	>31 DAYS (NOTE 4)	22	64 (Page 7-9)	SIMULTANEOUS TEST	NONE
FUNCTION: LOCA/HELB (in & out) MONITOR	Temperature (°F)	SEE ATTACHMENT #1	465°F	1	64 (Page 7-9)	SIMULTANEOUS TEST	SEE NOTE 3
MANUFACTURER: Technology for Energy Corporation	Pressure (PSIA)	SEE ATTACHMENT #2	102.7	1	64 (Page 7-9)	SIMULTANEOUS TEST	SEE NOTE 3
MODEL NO: E2273A Sensor 500 Charge Converter	Relative Humidity (%)	100	100	ASSUMED	64 (Page 3-14)	SIMULTANEOUS TEST	NONE
ACCURACY: Spec: Demon:	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	5500 PPM BORON BUFFERED with NaOH to pH of 9	3	64 (Page 7-8)	SIMULTANEOUS TEST	NONE
SERVICE: Safety Valve Acoustic Monitoring System	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	64 (Appendix C)	SEQUENTIAL TEST	NONE
LOCATION: INSIDE CONTAINMENT TOP OF PRESSURIZER & PRESSURIZER WALL	Aging	40 YEARS	12.4 YEARS	SEE NOTE 1	64 (Appendix A, Pg.1)	SEQUENTIAL TEST	SEE NOTE 2
Area 11 Elev. 58' Ref. Dwg. No. Mech. 5177-108-M-1 Elect. 5610-E-109	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<p>NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) The system was aged for 600 hours at 125°C. A maintenance schedule will be developed to periodically replace the age susceptible components. 3) The charge converter failed following the high temperature/pressure dwell. The vendor has proposed a fix that entails enclosing the converter in a pressure boundary supplied by them. 4) The actual test was conducted for 6 days, 21 hours. The test profile envelopes and is much more rigorous than the actual profile throughout the test.</p>						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 64. QUALIFICATION TEST REPORT (T.E.C. #517-TR-03) FOR ENVIRONMENTAL AND SEISMIC TESTING.



FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-413A Component: RESISTANCE TEMPERATURE DETECTOR	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
MANUFACTURER: PYCO	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
MODEL NO: 122-4030-04-(4)-8-GS	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
ACCURACY: Spec: .1% Demon: .5%	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5)	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
Area 6 Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E-103/78-75, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-413B Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-GS ACCURACY: Spec: .1% Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 6' Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E-103/78-75, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. EPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-423A Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-GS ACCURACY: Spec: .1% Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 5' Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E-100/78-75, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SURF LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.



FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-423B Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-GS ACCURACY: Spec: .1% Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 5' Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E 100/78-75, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.

FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-433A Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-GS ACCURACY: Spec: .1% Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 6 Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E-103/78-75, REV. 4. Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2×10^8 RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.						

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.



FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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 REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-433B Component: RESISTANCE TEMPERATURE DETECTOR	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
MANUFACTURER: PYCO	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
MODEL NO: 122-4030-04-(4)-8-GS	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
ACCURACY: Spec: .1% Demon: .5%	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5)	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
Area Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E-103/78-75, REV. 4 Flood Level Elev. 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-4-413A Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-GS ACCURACY: Spec: .1% Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 12' Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E-110/78-76, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.						

- *DOCUMENT REFERENCES:
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 3. EPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-018 MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.



FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-4-413B Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-GS ACCURACY: Spec: .12 Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 12' Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E-110/78-76, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.						

- *DOCUMENT REFERENCES:
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 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-4-423A Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (In & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-GS ACCURACY: Spec: .1% Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 11' Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E-107/78-76, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.							

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 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-018 MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.



FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-4-423B Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-GS ACCURACY: Spec: .1% Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 11, Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E-107/78-76, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.



FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-4-433A Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-CS ACCURACY: Spec: .1% Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 12' Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E-110/78-76, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-4-433B Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-CS ACCURACY: Spec: .1% Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 12' Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E-110/78-76, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Reactor Coolant PLANT ID NO. No Tag No. (Assoc. w/PCV-3-455C) Component: 2 Limit Switches FUNCTION: LOCA/HELB (in and out) Monitor MANUFACTURER: NAMCO MODEL NO: LIM.SW.1-D2400X LIM.SW.2-D2400X ACCURACY: Spec: N/A Demon: N/A SERVICE: Position Indication Associated w/Pressurizer P.O. R.V. LOCATION: Inside Containment Top of Pressurizer Area 5 Elev. 58 Ref. Dwg. No. Mech. 5177-108-M-1 Elect. 5610-E-102 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	31 Days	NONE	See Note 2	NONE	---	See Note 4
	Temperature (°F)	See Attachment #1	NONE	1	NONE	---	See Note 4
	Pressure (PSIA)	See Attachment #2	NONE	1	NONE	---	See Note 4
	Relative Humidity (%)	100%	NONE	Assumed	NONE	---	See Note 4
	Chemical Spray	2030 ppm Boron Sol. as Boric Acid	NONE	3	NONE	---	See Note 4
	Radiation	See Attachment #3	NONE	2	NONE	---	See Note 4
	Aging	40 Years	NONE	See Note 1	See Note 3	---	See Note 4
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1. In the FSAR aging & submergence were not considered environmental parameters. Aging is required and assumed to be 40 years. 2. Operating time of associated valve. 3. Aging analysis not done as device will be replaced per note 4. 4. No qualification documents available on these limit switches. Qualified replacements will be installed during refueling outage following satisfactory completion of qualification test on conduit seal material.						

*DOCUMENT REFERENCES:

1. Post LOCA Pressure and Temperature Transients Inside Containment-Engineering Analysis.
2. Post LOCA Radiation Dose Inside Containment-Mathematical Analysis.
3. PPL Letter to USNRC L-75-210 Dated 4/30/75.
- 3.2 Calculation of Post LOCA Containment Sump Level.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Reactor Coolant PLANT ID NO. No Tag No. (Assoc. w/PCV-3-456) Component: 2 Limit Switches	Operating Time	31 Days	NONE	See Note 2	NONE	---	See Note 4
FUNCTION: LOCA/HELB (in and out) Monitor	Temperature (°F)	See Attachment #1	NONE	1	NONE	---	See Note 4
MANUFACTURER: NAMCO	Pressure (PSIA)	See Attachment #2	NONE	1	NONE	---	See Note 4
MODEL NO: LIM.SW.1-D2400X LIM.SW.2-D2400X	Relative Humidity (%)	100%	NONE	Assumed	NONE	---	See Note 4
ACCURACY: Spec: N/A Demon: N/A	Chemical Spray	2030 ppm Boron Sol. as Boric Acid	NONE	3	NONE	---	See Note 4
SERVICE: Position Indication Associated w/Pressurizer P.O. R.V.	Radiation	See Attachment #3	NONE	2	NONE	---	See Note 4
LOCATION: Inside Containment Top of Pressurizer	Aging	40 Years	NONE	See Note 1	See Note 3	---	See Note 4
Area 5 Elev. 58 Ref. Dwg. No. Mech. 5177-108-M-1. Elect. 5610-E-102	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	NOTES: 1. In the FSAR aging & submergence were not considered environmental parameters. Aging is required and assumed to be 40 years. 2. Operating time of associated valve. 3. Aging analysis not done as device will be replaced per note 4. 4. No qualification documents available on these limit switches. Qualified replacements will be installed during refueling outage following satisfactory completion of qualification test on conduit seal material.						

*DOCUMENT REFERENCES:

1. Post-LOCA Pressure and Temperature Transients Inside Containment-Engineering Analysis.
2. Post-LOCA Radiation Dose Inside Containment-Mathematical Analysis.
3. FPL Letter to USNRC L-75-210 Dated 4/30/75.
- 3.2. Calculation of Post LOCA Containment Sump Level.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Reactor Coolant PLANT ID NO. No Tag No. (Assoc. w/PCV-4-455C) Component: Limit Switches FUNCTION: LOCA/HELB (in and out) Monitor MANUFACTURER: NAMCO MODEL NO: LIM.SW.1-D2400X LIM.SW.2-D2400X ACCURACY: Spec: N/A Demon: N/A SERVICE: Position Indication Associated w/Pressurizer P.O. R.V. LOCATION: Inside Containment Top of Pressurizer Area 11 Elev. 58 Ref. Dwg. No. Mech. 5177-108-M-1. Elect. 5610-E-109 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 Days	NONE	See Note 2	NONE	---	See Note 4
	Temperature (°F)	See Attachment #1	NONE	1	NONE	---	See Note 4
	Pressure (PSIA)	See Attachment #2	NONE	1	NONE	---	See Note 4
	Relative Humidity (%)	100%	NONE	Assumed	NONE	---	See Note 4
	Chemical Spray	2030 ppm Boron Sol. as Boric Acid	NONE	3	NONE	---	See Note 4
	Radiation	See Attachment #3	NONE	2	NONE	---	See Note 4
	Aging	40 Years	NONE	See Note 1	See Note 3	---	See Note 4
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1. In the FSAR aging & submergence were not considered environmental parameters. Aging is required and assumed to be 40 years. 2. Operating time of associated valve. 3. Aging analysis not done as device will be replaced per note 4. 4. No qualification documents available on these limit switches. Qualified replacements will be installed during refueling outage following satisfactory completion of qualification test on conduit seal material.						

*DOCUMENT REFERENCES:

1. Post LOCA Pressure and Temperature Transients Inside Containment-Engineering Analysis.
2. Post LOCA Radiation Dose Inside Containment-Mathematical Analysis.
3. FPL Letter to USNRC L-75-210 Dated 4/30/75.
- 3.2 Calculation of Post LOCA Containment Sump Level.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Reactor Coolant PLANT ID NO. No Tag No. (Assoc. w/PCV-4-456) Component: 2 Limit Switches FUNCTION: LOCA/HELB (in and out) Monitor MANUFACTURER: NAMCO MODEL NO: LIM.SW.1-D2400X LIM.SW.2-D2400X ACCURACY: Spec: N/A Demon: N/A SERVICE: Position Indication Associated w/Pressurizer P.O. R.V. LOCATION: Inside Containment Top of Pressurizer Area 11 Elev. 58 Ref. Dwg. No. Mech. 5177-108-M-1 Elect. 5610-E-109 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	31 Days	NONE	See Note 2	NONE	---	See Note 4
	Temperature (°F)	See Attachment #1	NONE	1	NONE	---	See Note 4
	Pressure (PSIA)	See Attachment #2	NONE	1	NONE	---	See Note 4
	Relative Humidity (%)	100%	NONE	Assumed	NONE	---	See Note 4
	Chemical Spray	2030 ppm Boron Sol. as Boric Acid	NONE	3	NONE	---	See Note 4
	Radiation	See Attachment #3	NONE	2	NONE	---	See Note 4
	Aging	40 Years	NONE	See Note 1	See Note 3	---	See Note 4
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1. In the FSAR aging & submergence were not considered environmental parameters. Aging is required and assumed to be 40 years. 2. Operating time of associated valve. 3. Aging analysis not done as device will be replaced per note 4. 4. No qualification documents available on these limit switches. Qualified replacements will be installed during refueling outage following satisfactory completion of qualification test on conduit seal material.						

*DOCUMENT REFERENCES:

1. Post LOCA Pressure and Temperature Transients Inside Containment-Engineering Analysis.
2. Post LOCA Radiation Dose Inside Containment-Mathematical Analysis.
3. FPL Letter to USNRC L-75-210 Dated 4/30/75.
- 3.2 Calculation of Post LOCA Containment Sump Level.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CHEMICAL VOLUME CONTROL PLANT ID NO. SV-3-310A Component: SOLENOID VALVE FUNCTION: LOCA/HELB (IN & OUT) MITIGATE MANUFACTURER: AUTOMATIC SWITCH COMPANY MODEL NO: HT831654 ACCURACY: Spec: N/A Demon: N/A SERVICE: REACTOR COOLING SYS. CHARGING LINE LOCATION INSIDE CONTAINMENT 6'-1" ABOVE FLOOR Area 5 Elev 14 (FLOOR) Ref Dwg No. Mech 5610-T-E-4505, Rev. 5 Elect 5610-E-100, Rev. 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	190 HOURS	NONE	22	NONE	NONE	SEE NOTE 2
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	NONE	SEE NOTE 2
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	NONE	SEE NOTE 2
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	NONE	SEE NOTE 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	NONE	SEE NOTE 2
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	NONE	SEE NOTE 2
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 4	---	SEE NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required. Assumed to be 40 years.
 2) There is no data available for accident environment qualification. As previously indicated in response to IE Bulletin 79-01, it has been decided to replace this solenoid with a qualified one. Procurement action has been completed, and the installation will be done during the refueling outage after the satisfactory qualification test of the conduit seal material. See generic component evaluation sheet (Section 10) for the qualified replacement.
 4) Aging analysis not done as device will be replaced per note 2.

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. EPL LETTER TO USNRC L-75-210 DATED 4/30/75.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CVCS PLANT ID NO. No Tag. No. (Assoc. w/ CV-3-310A) Component: 2 LIMIT SWITCHES FUNCTION: LOCA/HELB (IN & OUT) MONITOR MANUFACTURER: NAMCO MODEL NO: LIM. SW. 1-D2400X LIM. SW. 2-D2400X ACCURACY: Spec: N/A Demo: N/A SERVICE: POSITION INDICATION ASSOCIATED WITH CV-3-310A LOCATION INSIDE CONTAINMENT 6'-4" and 6'-7" ABOVE FLOOR Area 5 Elev 14' (FLOOR) Ref Dwg No. Mech N/A Elect 5610-E-100 (Rev. 7) Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	190 HOURS	NONE	SEE NOTE 2	NONE	---	SEE NOTE 3
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	---	SEE NOTE 3
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	---	SEE NOTE 3
	Relative Humidity (%)	100%	NONE	ASSURED	NONE	---	SEE NOTE 3
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	---	SEE NOTE 3
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	---	SEE NOTE 3
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 5	---	SEE NOTE #5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1. IN THE FSAR AGING & SUBMERGENCE WERE NOT CONSIDERED ENVIRONMENTAL PARAMETERS. AGING REQUIRED ASSUMED TO BE 40 YEARS. 2. OPERATING TIME OF ASSOCIATED SOLENOID VALVE. 3. NO QUALIFICATION DOCUMENTS AVAILABLE ON THESE LIMIT SWITCHES. QUALIFIED REPLACEMENTS WILL BE INSTALLED DURING NEXT REFUELING OUTAGE AFTER SATISFACTORY COMPLETION OF QUALIFICATION TEST ON CONDUIT SEAL MATERIAL. 5. AGING ANALYSIS NOT DONE AS DEVICE WILL BE REPLACED PER NOTE 3.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CHEMICAL VOLUME CONTROL PLANT ID NO. SV-3-310B Component: SOLENOID VALVE FUNCTION: LOCA/HELS (IN & OUT) MITIGATE MANUFACTURER: AUTOMATIC SWITCH COMPANY MODEL NO: LB831654 SER #7055BT ACCURACY: Spec: N/A Demon: N/A SERVICE: REACTOR COOLING SYS. CHARGING LINE LOCATION INSIDE CONTAINMENT ABOVE EL. 19'-0" Area 5 Elev 14 FLOOR Ref Dwg No. Mech 5610-T-E-4505 Elect 5610-E-100, Rev. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	190 HOURS	NONE	22	NONE	NONE	SEE NOTE 2
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	NONE	SEE NOTE 2
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	NONE	SEE NOTE 2
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	NONE	SEE NOTE 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	NONE	SEE NOTE 2
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	NONE	SEE NOTE 2
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 4	---	SEE NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required, assumed to be 40 years. 2) There is no data available for accident environment qualification. As previously indicated in response to IE Bulletin 79-01, it has been decided to replace this solenoid with a qualified one. Procurement action has been completed, and the installation will be done during the refueling outage after the satisfactory qualification test of the conduit seal material. See generic component evaluation sheet (Section 10) for the qualified replacement. 4) Aging analysis not done as device will be replaced per note 2.						

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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Rev. 2

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CVCS PLANT ID NO. No Tag. No. (Assoc. w/ CV-3-310B) Component: 2 LIMIT SWITCHES FUNCTION: LOCA/HELB (IN & OUT) MONITOR MANUFACTURER: NAMCO MODEL NO: LIM. SW. 1-D2400X LIM. SW. 2-D2400X ACCURACY: Spec: N/A Demon: N/A SERVICE: POSITION INDICATION ASSOCIATED WITH CV-3-310B LOCATION INSIDE CONTAINMENT 3'-2" & 3'-5" ABOVE FLOOR Area 5 Elev 14' (FLOOR) Ref Dwg No. Mech N/A Elect 5610-E-100 (Rev. 7) Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes _____ No <u>X</u>	Operating Time	190 HOURS	NONE	SEE NOTE 2	NONE	---	SEE NOTE 3
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	---	SEE NOTE 3
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	---	SEE NOTE 3
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	---	SEE NOTE 3
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	---	SEE NOTE 3
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	---	SEE NOTE 3
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 5	---	SEE NOTE 5
	Submergence	ABOVE 19'-0"	NONE	3.2	NONE	NONE	SEE NOTE 4
NOTES: 1. IN THE FSAR AGING & SUBMERGENCE WERE NOT CONSIDERED ENVIRONMENTAL PARAMETERS. AGING REQUIRED ASSUMED TO BE 40 YEARS. 2. OPERATING TIME OF ASSOCIATED SOLENOID VALVE. 3. NO QUALIFICATION DOCUMENTS AVAILABLE ON THESE LIMIT SWITCHES. QUALIFIED REPLACEMENTS WILL BE INSTALLED DURING NEXT REFUELING OUTAGE AFTER SATISFACTORY COMPLETION OF QUALIFICATION TEST ON CONDUIT SEAL MATERIAL. 4. THESE LIMIT SWITCHES WILL NOT BE RELOCATED AS PREVIOUSLY INDICATED. FT-3-110 AND FT-3-122 SERVE AS VERIFICATION OF VALVE POSITION. 5. AGING ANALYSIS NOT DONE AS DEVICE WILL BE REPLACED PER NOTE 3.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CVCS PLANT ID NO. No Tag. No. (Assoc. w/ CV-4-310g) Component: 2 LIMIT SWITCHES FUNCTION: LOCA/HELB (IN & OUT) MONITOR MANUFACTURER: NAMCO MODEL NO: LIM. SW. 1-D2400X ACCURACY: Spec: N/A Demon: N/A SERVICE: POSITION INDICATION ASSOCIATED WITH CV-4-310B LOCATION: INSIDE CONTAINMENT Area 11 Elev 14' (FLOOR) Ref Dwg No. Mech N/A Elect 5610-E-107 (Rev. 6) Flood Level Elev: 19'-0" DOC REF 3.2 Above Flood Level: Yes _____ No <u>X</u>	Operating Time	190 HRS	NONE	SEE NOTE 2	NONE	---	SEE NOTE 3
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	---	SEE NOTE 3
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	---	SEE NOTE 3
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	---	SEE NOTE 3
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	---	SEE NOTE 3
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	---	SEE NOTE 3
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 4	---	SEE NOTE 5
	Submergence	ABOVE 19'	NONE	3.2	NONE	NONE	SEE NOTE 5
	NOTES: 1. IN THE FSAR AGING & SUBMERGENCE WERE NOT CONSIDERED ENVIRONMENTAL PARAMETERS. AGING REQD. ASSUMED TO BE 40 YEARS. 2. OPERATING TIME OF ASSOCIATED SOLENOID VALVE. 3. NO QUALIFICATION DOCUMENTS AVAILABLE ON THESE LIMIT SWITCHES. QUALIFIED REPLACEMENTS WILL BE INSTALLED DURING NEXT REFUELING OUTAGE AFTER SATISFACTORY COMPLETION OF QUALIFICATION TEST ON CONDUIT SEAL MATERIAL. 4. AGING ANALYSIS NOT DONE AS DEVICE WILL BE REPLACED PER NOTE 3. 5. THESE LIMIT SWITCHES WILL NOT BE RELOCATED AS PREVIOUSLY INDICATED. FT-3-110 AND FT-3-122 SERVE AS VERIFICATION OF VALVE POSITION.						

*DOCUMENT REFERENCES: 1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CHEMICAL VOLUME CONTROL PLANT ID NO. SV-3-200A Component: SOLENOID VALVE FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: AUTOMATIC SWITCH COMPANY MODEL NO: HT831854 ACCURACY: Spec: N/A Demon: N/A SERVICE: RCS LETDOWN ISOLATION LOCATION INSIDE CONTAINMENT 5'-0" ABOVE FLOOR Area 5 Elev 14' (FLOOR) Ref Dwg No. Mech 5610-T-E-4505 REV. 5 Elect 5610-E-100, Rev. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes _____ No <u> X </u>	Operating Time	1/2 HOUR	NONE	22	NONE	NONE	SEE NOTE 2
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	NONE	SEE NOTE 2
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	NONE	SEE NOTE 2
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	NONE	SEE NOTE 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	NONE	SEE NOTE 2
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	NONE	SEE NOTE 2
	Aging	40 YEARS	NONE	SEE NOTE 1	NONE	---	SEE NOTE 3
	Submergence	ABOVE 19'-0"	NONE	3.2	NONE	---	NONE SEE NOTE 4
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) There is no data available for accident environment qualification. As previously indicated in response to IE Bulletin 79-01, it has been decided to replace this solenoid with a qualified one. Procurement action has been completed, and the installation will be done during the refueling outage after the satisfactory qualification test of the conduit seal material. See generic component evaluation sheet (Section 10) for the qualified replacement. 3) Aging analysis not done as device will be replaced per note 2. 4) Device will have performed intended Function before becoming submerged.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. EPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CVCS PLANT ID NO. No Tag. No. (Assoc. w/ CV-3-200A) Component: 2 LIMIT SWITCHES FUNCTION: LOCA/HELB (IN & OUT) MONITOR MANUFACTURER: NAMCO MODEL NO: LIM. SW. 1-D2400X LIM. SW. 2-D2400X ACCURACY: Spec: N/A Demon: N/A SERVICE: POSITION INDICATION ASSOCIATED WITH CV-3- 200A LOCATION INSIDE CONTAINMENT 4'-8" & 5'-0" ABOVE FLOOR Area 5 Elev 14' (FLOOR) Ref Dwg No. Mech N/A Elect 5610-E-100 (Rev. 7) Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes _____ No <u> X </u>	Operating Time	1/2 HOUR	NONE	SEE NOTE 2	NONE	---	SEE NOTE 3
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	---	SEE NOTE 3
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	---	SEE NOTE 3
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	---	SEE NOTE 3
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	---	SEE NOTE 3
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	---	SEE NOTE 3
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 5	---	SEE NOTE 5
	Submergence	ABOVE 19'-0"	NONE	3.2	NONE	NONE	NONE SEE NOTE #6
NOTES: 1. IN THE FSAR AGING & SUBMERGENCE WERE NOT CONSIDERED ENVIRONMENTAL PARAMETERS. AGING REQUIRED ASSUMED TO BE 40 YEARS. 2. OPERATING TIME OF ASSOCIATED SOLENOID VALVE. 3. NO QUALIFICATION DOCUMENTS AVAILABLE ON THESE LIMIT SWITCHES. QUALIFIED REPLACEMENTS WILL BE INSTALLED DURING NEXT REFUELING OUTAGE AFTER SATISFACTORY COMPLETION OF QUALIFICATION TEST ON CONDUIT SEAL MATERIAL. 5. AGING ANALYSIS NOT DONE AS DEVICE WILL BE REPLACED PER NOTE 3. 6. DEVICE WILL HAVE PERFORMED INTENDED FUNCTION BEFORE BECOMING SUBMERGED.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. EPL LETTER TO USNRC L-75-210 DATED 4/30/75.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CHEMICAL VOLUME CONTROL PLANT ID NO. SV-3-200B Component: SOLENOID VALVE FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: AUTOMATIC SWITCH COMPANY MODEL NO: HT831854 SER #540298 ACCURACY: Spec: N/A Demon: N/A SERVICE: RCS LETDOWN ISOLATION LOCATION INSIDE CONTAINMENT 4'-2" ABOVE FLOOR Area 5 Elev 14 (FLOOR) Ref Dwg No. Mech 5610-T-E-4505 REV. 5. Elect 5610-E-100, REV. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes _____ No <u>X</u>	Operating Time	1/2 HOUR	NONE	22	NONE	NONE	SEE NOTE 2
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	NONE	SEE NOTE 2
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	NONE	SEE NOTE 2
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	NONE	SEE NOTE 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	NONE	SEE NOTE 2
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	NONE	SEE NOTE 2
	Aging	40 YEARS	NONE	SEE NOTE 1	NONE	---	SEE NOTE 3
	Submergence	ABOVE 19'-0"	NONE	3.2	NONE	---	NONE SEE NOTE 4
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) There is no data available for accident environment qualification. As previously indicated in response to IE Bulletin 79-01, it has been decided to replace this solenoid with a qualified one. Procurement action has been completed, and the installation will be done during the refueling outage after the satisfactory qualification test of the conduit seal material. See generic component evaluation sheet (Section 10) for the qualified replacement. 3) Aging analysis not done as device will be replaced per note 2. 4) Device will have performed intended function before becoming submerged.							

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CVCS PLANT ID NO. No Tag. No. (Assoc. w/ CV-3-200B) Component: 2 LIMIT SWITCHES FUNCTION: LOCA/HELB (IN & OUT) MONITOR MANUFACTURER: NAMCO MODEL NO: LIM. SW. 1-D2400X ACCURACY: Spec: N/A Demon: N/A SERVICE: POSITION INDICATION ASSOCIATED WITH CV-3-200B LOCATION INSIDE CONTAINMENT Area 5 Elev 14' (FLOOR) Ref Dwg No. Mech N/A Elect 5610-E-100 (Rev. 7) Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes _____ No <u>X</u>	Operating Time	1/2 HOUR	NONE	SEE NOTE 2	NONE	---	SEE NOTE 3
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	---	SEE NOTE 3
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	---	SEE NOTE 3
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	---	SEE NOTE 3
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	---	SEE NOTE 3
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	---	SEE NOTE 3
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 5	---	SEE NOTE 5
	Submergence	ABOVE 19'-0"	NONE	3.2	NONE	NONE	NONE SEE NOTE #6
	NOTES: 1. IN THE FSAR AGING & SUBMERGENCE WERE NOT CONSIDERED ENVIRONMENTAL PARAMETERS. AGING REQUIRED ASSUMED TO BE 40 YEARS. 2. OPERATING TIME OF ASSOCIATED SOLENOID VALVE. 3. NO QUALIFICATION DOCUMENTS AVAILABLE ON THESE LIMIT SWITCHES. QUALIFIED REPLACEMENTS WILL BE INSTALLED DURING NEXT REFUELING OUTAGE AFTER SATISFACTORY COMPLETION OF QUALIFICATION TEST ON CONDUIT SEAL MATERIAL. 5. AGING ANALYSIS NOT DONE AS DEVICE WILL BE REPLACED PER NOTE 3. 6. DEVICE WILL HAVE PERFORMED INTENDED FUNCTION BEFORE BECOMING SUBMERGED.						

- DOCUMENT REFERENCES:**
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CHEMICAL VOLUME CONTROL PLANT ID NO. SV-3-200C Component: SOLENOID VALVE FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: AUTOMATIC SWITCH COMPANY MODEL NO: HT831854 ACCURACY: Spec: N/A Demon: N/A SERVICE: RCS LETDOWN ISOLATION LOCATION INSIDE CONTAINMENT 3'-4" ABOVE FLOOR Area 5 Elev 14' (FLOOR) Ref Dwg No. Mech 5610-T-E-4505 REV. 5 Elect 5610-E-100, REV. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes _____ No <u>X</u>	Operating Time	1/2 HOUR	NONE	22	NONE	NONE	SEE NOTE 2
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	NONE	SEE NOTE 2
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	NONE	SEE NOTE 2
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	NONE	SEE NOTE 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	NONE	SEE NOTE 2
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	NONE	SEE NOTE 2
	Aging	40 YEARS	NONE	SEE NOTE 1	NONE	---	SEE NOTE 3
	Submergence	ABOVE 19'-0"	NONE	3.2	NONE	---	NONE SEE NOTE 4
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) There is no data available for accident environment qualification. As previously indicated in response to IE Bulletin 79-01, it has been decided to replace this solenoid with a qualified one. Procurement action has been completed, and the installation will be done during the refueling outage after the satisfactory qualification test of the conduit seal material. See generic component evaluation sheet (Section 10) for the qualified replacement. 3) Aging analysis not done as device will be replaced per note 2. 4) Device will have performed intended function before becoming submerged.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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SYSTEM COMPONENT EVALUATION WORK SHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CVCS PLANT ID NO. No Tag. No. (Assoc. w/ CV-3-200C) Component: 2 LIMIT SWITCHES FUNCTION: LOCA/HELB (IN & OUT) MONITOR MANUFACTURER: NAMCO MODEL NO: LIM. SW. 1-D2400X ACCURACY: Spec: N/A Demon: N/A SERVICE: POSITION INDICATION ASSOCIATED WITH CV-3-200C LOCATION INSIDE CONTAINMENT 3'-3" and 3'-6" ABOVE FLOOR Area 5 Elev 14' (FLOOR) Ref Dwg No. Mech N/A Elect 5610-E-100 (Rev. 7) Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes _____ No <u>X</u>	Operating Time	1/2 HOUR	NONE	SEE NOTE 2	NONE	---	SEE NOTE 3
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	---	SEE NOTE 3
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	---	SEE NOTE 3
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	---	SEE NOTE 3
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	---	SEE NOTE 3
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	---	SEE NOTE 3
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 5	---	SEE NOTE 5
	Submergence	ABOVE 19'-0"	NONE	3.2	NONE	NONE	NONE SEE NOTE #6
	NOTES: 1. IN THE FSAR AGING & SUBMERGENCE WERE NOT CONSIDERED ENVIRONMENTAL PARAMETERS. AGING REQ'D, ASSUMED TO BE 40 YEARS. 2. OPERATING TIME OF ASSOCIATED SOLENOID VALVE. 3. NO QUALIFICATION DOCUMENTS AVAILABLE ON THESE LIMIT SWITCHES. QUALIFIED REPLACEMENTS WILL BE INSTALLED DURING NEXT REFUELING OUTAGE AFTER SATISFACTORY COMPLETION OF QUALIFICATION TEST ON CONDUIT SEAL MATERIAL. 5. AGING ANALYSIS NOT DONE AS DEVICE WILL BE REPLACED PER NOTE 3. 6. DEVICE WILL HAVE PERFORMED INTENDED FUNCTION BEFORE BECOMING SUBMERGED.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: SAFETY INJECTION / RHR PLANT ID NO. : FT-3-932 Component: FLOW TRANSMITTER FUNCTION: MONITOR LOCA / HELB (IN) MANUFACTURER: FISCHER & PORTER OSC. AMP. 805B230U01 MODEL NO: 10B2496PBBABBB-NS (HI TEMP) SR #6804A6255A69 (HI RAD) ACCURACY: Spec: SEE NOTE #2 Demon: SEE NOTE #2 SERVICE: SAFETY INJECTION (HI HEAD) FLOW TO HOT LEG LOCATION INSIDE CONTAINMENT ABOVE EL. 19'-0" Area 6 Elev 14 (FLOOR) Ref Dwg No. Mech 5610-T-E-4510, Sh. 2, Rev. 4 Elect 5610-E-103, Rev. 6 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u> x </u> No <u> </u>	Operating Time	31 DAYS	> 31 DAYS	22	7 (Fig 3-6) & 36	Simultaneous Test & Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. Test for Paint by Ameron	NONE
	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required. Assumed to be 40 years. 2) See discussion of component evaluation sheets (sec.c.1.17)						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS
 6. FISHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-2273.
 7. F&P TEST REPORT 2204-51-B-006.
 8. FISHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: SAFETY INJECTION/ RHR PLANT ID NO.: FT-3-933 Component: FLOW TRANSMITTER FUNCTION: MONITOR LOCA/HELB (IN) MANUFACTURER: FISCHER & PORTER OSC. AMP. 805B241U01 MODEL NO: 10B2496FBBABBB-NS (HI TEMP) SR #7309A2751A1 (HI RAD) ACCURACY: Spec: Demon: SEE NOTE #2 SERVICE: SAFETY INJECTION (HI HEAD) FLOW TO HOT LEG LOCATION INSIDE CONTAINMENT ABOVE EL. 19'-0" Area 6 Elev 14' (FLOOR) Ref Dwg No. Mech 5610-T-E-4510, Sh. 2, Rev. 4 Elect 5610-E-103, Rev. 6 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u> x </u> No <u> </u>	Operating Time	31 DAYS	> 31 DAYS	22	7 (Fig 3-6) & 36	Simultaneous Test & Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100% Saturated Steam	ASSURED	7 (Page 2)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. Test for Paint by Ameron	NONE
	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required. Assumed to be 40 years. 2) See discussion of component evaluation sheets (sec.c.1.17).							

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS
6. FISCHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-2273.
7. F&P TEST REPORT 2204-51-B-006.
8. FISCHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: SAFETY INJECTION /RHR PLANT ID NO.: FT-4-932 Component: FLOW TRANSMITTER FUNCTION: MONITOR LOCA/HELB (IN) MANUFACTURER: FISCHER & PORTER OSC.AMP. 805B230U01 MODEL NO: 10B2496PBBABBB-NS (HI TEMP) SR# 6804A6257A66 (HI RAD) ACCURACY: Spec: Demon: SEE NOTE #2 SERVICE: SAFETY INJECTION (HI HEAD) FLOW TO HOT LEG LOCATION INSIDE CONTAINMENT 4'-2" ABOVE FLOOR Area 12 Elev 14' (FLOOR) Ref Dwg No. Mech 5610-T-E-4510, Sh. 2, Rev. 4 Elect 5610-E-110, Rev. 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes No <input checked="" type="checkbox"/>	Operating Time	31 DAYS	> 31 DAYS	22	7 (Fig 3-6) & 36	Simultaneous Test & Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. Test for Paint by Ameron	NONE
	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	ABOVE 19'	NONE	3.2	NONE	---	SEE NOTE 3
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required. Assumed to be 40 years. 2) See discussion of component evaluation sheets (sec. c.1. 17). 3) Device will be relocated at earliest available opportunity (sec.c.1.16).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS
 6. FISHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-2273.
 7. F&P TEST REPORT 2204-51-B-006.
 8. FISHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72.
 32. CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: SAFETY INJECTION RHR PLANT ID NO.: FT-4-933 Component: FLOW TRANSMITTER	Operating Time	31 DAYS	> 31 DAYS	22	7 (Fig 3-6) & 36	Simultaneous Test & Mathematical Analysis	NONE
FUNCTION: MONITOR LOCA/HELB (IN)	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (¼ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
MANUFACTURER: FISCHER & PORTER OSC. AMP. 805B230U01 MODEL NO: 10B2496PBBABBB-NS (HI TEMP) SR #6804A6257A67 (HI RAD)	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (¼ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
ACCURACY: Spec: Demon: SEE NOTE #2	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
SERVICE: SAFETY INJECTION (HI HEAD) FLOW TO HOT LEG	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. Test for Paint by Ameron	NONE
LOCATION INSIDE CONTAINMENT 3'-2" ABOVE FLOOR	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
Area 12 Elev 14' (FLOOR) Ref Dwg No. Mech 5610-T-E-4510, Sh. 2, Rev. 4 Elect 5610-E-110, Rev. 5	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level:	Submergence	ABOVE 19' -	NONE	3.2	NONE	---	SEE NOTE 3
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required, Assumed to be 40 years. 2) See discussion of component evaluation sheets (sec. c.1.17). 3) Device will be relocated at earliest available opportunity (sec. c.1.16)							
Yes _____ No <u> x </u>							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS
 6. FISHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-2273.
 7. F&P TEST REPORT 2204-51-B-006.
 8. FISHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: SI & RHR PLANT ID NO.: MOV-3-744A Component: VALVE MOTOR OPERATOR FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: OPERATOR-LIMITORQUE; MOTOR-RELIANCE MODEL NO: SMB-3; OPERATOR-S# 93570A MOTOR-MOD #R71015-7 INSULATION CLASS H ACCURACY: Spec: N/A SER.# 2-53197 Demon: N/A SERVICE: RCS INLET ISOLATION LOCATION INSIDE CONTAINMENT Area 6 10'-2" ABOVE FLOOR Elev 14' (FLOOR) Ref Dwg No. Mech 5610-T-E-4510 REV. 4 Elect 5610-E-103, Rev. 6 Flood Level Elev: 19' DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	31 Days	32 Days	22	16	Mathematical Analysis and TEST	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 2	1	16 (PG. C24-C28)	SIMULTANEOUS TYPE TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 2	1	16 (PG. C-11)	SIMULTANEOUS TYPE TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE 2	ASSUMED	16 (PG. C-1)	SIMULTANEOUS TYPE TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 2	3	16 (PG. C-1 & C-11)	SIMULTANEOUS TYPE TEST	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 2	2	14 (PG. 5-4)	SEQUENTIAL TEST ON SAME DEVICE	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	SEQUENTIAL TEST ON SAME DEVICE	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary information. For values reference qualification documentation reference:						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 14. WESTINGHOUSE WCAP - 7410-L, VOL. I, SECTION 5.
 16. WESTINGHOUSE WCAP-7410-L, APPENDIX C, FINAL REPORT F-C2232-01.
 22. ANALYSIS OF OPER. TIMES FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 19. LIMITORQUE TEST REPORT #600198
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: SI & RHR PLANT ID NO. MOV-3-744B Component: VALVE MOTOR OPERATOR FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: OPERATOR- LIMITORQUE MOTOR - RELIANCE MODEL NO: SMB-3; OPERATOR: S #93568A MOTOR: 7253251A1, INSUL: CLASS -H ACCURACY: Spec: N/A Demon: N/A SERVICE: RCS INLET ISOLATION LOCATION INSIDE CONTAINMENT 10'-2" ABOVE FLOOR Area 6 Elev 14' (FLOOR) Ref Dwg No. Mech 5610-T-E-4510 Rev. 4 Elect 5610-E-103 (REV 6) Flood Level Elev: 19' DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	31 Days	32 Days	22	16	Mathematical Analysis & Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 2	1	16 (PG. C24 - C28)	Simultaneous Type Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 2	1	16 (PG. C-11)	Simultaneous Type Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 2	ASSUMED	16 (PG. C-1)	Simultaneous Type Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 2	3	16 (PG. C-1 & C-11)	Simultaneous Type Test	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 2	2	14 (PG. 5-4)	Sequential Test on Same Device	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Sequential Test on Same Device	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary information. For values reference qualification documentation reference.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 14. WESTINGHOUSE WCAP - 7410-L, VOL. I, SECTION 5.
 16. WESTINGHOUSE WCAP-7410-L, APPENDIX C, FINAL REPORT P-C2232-01.
 22. ANALYSIS OF OPER. TIMES FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: SI & RHR PLANT ID NO. MOV-3-750 Component: VALVE MOTOR OPERATOR FUNCTION: LOCA/HELB MITIGATE (IN & OUT) MANUFACTURER: ACTUATOR: LIMITORQUE MOTOR: RELIANCE MODEL NO: SMB-1 Operator: S# 74094A Motor: S# 434082BT Insul: Class-B ACCURACY: Spec: N/A Demon: N/A SERVICE: RCS TO RHR INLET ISOLATION VALVE LOCATION INSIDE CONTAINMENT 5'-5" ABOVE FLOOR Area 6 Elev 14 Feet (FLOOR) Ref Dwg No. Mech 5610-T-E-451Q, Rev. 4 Elect 5610-E-103, Rev. 6 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	2 HOURS	24 HOURS	22	45	Test and Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	250° F.	1	43, Page 10 45	Sequential Type Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 2	1	45, 15 (Page D-10)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100%	ASSUMED	43 (Pg. 5)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 2	3	15 (Pages D-8, D-10)	Simultaneous Type Test	NONE
	Radiation	SEE ATTACHMENT #3	2.04 x 10 ⁸ RADS	2	43 (Page 2)	Sequential Test	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging reqd. assumed to be 40 years. 2) This is Westinghouse proprietary information. For values, refer qualification document reference.							

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210, DATED 4-30-75.
15. WESTINGHOUSE WCAP-7410-L, APPENDIX D, REPORT P-C2485-01.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
43. QUALIFICATION TYPE TEST REPORT NO. B0003, LIMITORQUE VALVE ACTUATORS.
45. ENGINEERING ANALYSIS OF RCS TO RHR INLET ISOLATION VALVES.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
<p>SYSTEM: SI & RHR PLANT ID NO. MOV-3-751 Component: VALVE MOTOR OPERATOR</p> <p>FUNCTION: LOCA/HELB (IN & OUT) MITIGATE</p> <p>MANUFACTURER: ACTUATOR: LIMITORQUE MOTOR: Reliance</p> <p>MODEL NO: SMB-1 Operator: S# 74097A Motor: S#- 434082-PB Insul: Class B</p> <p>ACCURACY: Spec: N/A Demo: N/A</p> <p>SERVICE: RCS TO RHR INLET ISOLATION VALVE</p> <p>LOCATION INSIDE CONTAINMENT 5'- 4" ABOVE FLOOR</p> <p>Art: 6 Elev 14 FT. (FLOOR) Rel Dwg No. Mech 5610-T-E-4510, Rev. 4 Elect 5610-E-103, Rev. 6</p> <p>Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level:</p> <p>Yes <u>X</u> No _____</p>	Operating Time	2 HRS.	24 HOURS	22	45	TESTING AND MATHEMATICAL ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	250	1	43 (Page 10) 45	SEQUENTIAL TYPE TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 2	1	45, 15 (Pg. D-10)	SIMULTANEOUS TYPE TEST	NONE
	Relative Humidity (%)	100%	100%	ASSUMED	43 (Pg. 5)	SIMULTANEOUS TYPE TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 2	3	15 (Pages D-8, D-10)	SIMULTANEOUS TYPE TEST	NONE
	Radiation	SEE ATTACHMENT #3	2.04×10^8 RADS	2	43 (Pg. 2)	SEQUENTIAL TYPE TEST	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
<p>NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary information. For values, reference qualification documentation reference.</p>							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 15. WESTINGHOUSE WCAP-7410-L, APPENDIX D, REPORT F-C2485-01.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 43. QUALIFICATION TYPE TEST REPORT NO. B0003, LIMITORQUE VALVE ACTUATORS.
 45. ENGINEERING ANALYSIS OF RCS TO RHR INLET ISOLATION VALVES.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: SI/RHR PLANT ID NO. MOV-3-866A Component: VALVE MOTOR OPERATOR FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: OPERATOR-LIMITORQUE MOTOR - PEERLESS MODEL NO: SMB-00-15; OPERATOR-S #84814A MOTOR-S #JV82913; INSUL. CLASS - B ACCURACY: Spec: Demon: NA SERVICE: SI to RCS HOTLEG ISOLATION LOCATION INSIDE CONTAINMENT 10'-9" ABOVE FLOOR Area 6 Elev 14' (FLOOR) Ref Dwg No. Mech 5610-T-E-4510, Rev. 4 Elect 5610-E-103 (REV 6) Flood Level Elev: 19' Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	2 HRS	SEE NOTE 2	22	15 (P. D-10)	Simultaneous Type Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 2	1	15 (PG. D-20)	Simultaneous Type Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 2	1	15 (PG. D-10, D-20)	Simultaneous Type Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 2	ASSUMED	15	Simultaneous Type Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 2	3	15 (P. D-8, D-10)	Simultaneous Type Test	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 2	2	14 (P. 5-4)	Sequential Test on Same Device	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary information. For values reference qualification document.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 14. WESTINGHOUSE WCAP - 7410-L-, VOL. I, SECTION 5.
 15. WESTINGHOUSE WCAP - 7410-L-, VOL. I, APPENDIX D FIRM F-C2485-01.
 22. ANALYSIS OF OPER. TIMES FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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Rev. 2

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: SI/RHR PLANT ID NO. MOV-3-866B Component: VALVE MOTOR OPERATOR FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: OPERATOR-LIMITORQUE MOTOR-PEERLESS MODEL NO: SMB-00-15; OPERATOR-S # 84784A MOTOR-S # JV82897; INSUL. CLASS - B ACCURACY: Spec: NA Demon: NA SERVICE: SI to RCS HOTLEG ISOLATION LOCATION INSIDE CONTAINMENT 9'-7" ABOVE FLOOR Area 6 Elev 14' Ref Dwg No. Mech 5610-T-E-4510 (Rev. 4) Elect 5610-E-103 (REV 6) Flood Level Elev: 19' Doc. Ref. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	2 Hrs.	SEE NOTE 2	22	15 (P. D-10)	Simultaneous Type Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 2	1	15 (PG. D-20)	Simultaneous Type Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 2	1	15 (PG. D-10, D-20)	Simultaneous Type Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 2	ASSUMED	15	Simultaneous Type Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 2	3	15 (P. D-8, D-10)	Simultaneous Type Test	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 2	2	14 (P-5-4)	Sequential Test on Same Device	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary information. For values reference qualification document.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 14. WESTINGHOUSE WCAP - 7410-L, VOL. I, SECTION 5.
 15. WESTINGHOUSE WCAP - 7410-L, VOL. I, APPENDIX D FIRM F-C2485-01.
 22. ANALYSIS OF OPER. TIMES FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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SYSTEM COMPONENT EVALUATION WORK SHEET

Rev. 2

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: SI/RHR PLANT ID NO. LS-3-1570 Component: LEVEL SWITCH FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: MAGNETROL MODEL NO: A-153-F-EP/VP-X-Y-M13H ACCURACY: Spec: NOTE 3 Demom: SERVICE: CONTAINMENT SUMP LEVEL LOCATION INSIDE CONTAINMENT 4'-3" ABOVE FLOOR Area 6 Elev 14' Ref Dwg No. Mech 5610-T-E-4510 (REV. 4) Elect 5610-E-103 (REV. 6) Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes _____ No <u>X</u>	Operating Time	8 HOURS	NONE	22	NONE	N/A	NOTE 2
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	N/A	NOTE 2
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	N/A	NOTE 2
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	N/A	NOTE 2
	Chemical Spray	2030 PPH BORON SOL AS BORIC ACID	NONE	3	NONE	N/A	NOTE 2
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	N/A	NOTE 2
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 4	N/A	SEE NOTE #4
	Submergence	ABOVE 19'-0"	NONE	3.2	NONE	NONE	SEE NOTE # 2
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) No qualification data available. Qualified containment sump level switches have been procured and will be installed during the steam generator outage. These new switches will perform the safety related function and the Magnetrol switches will remain as back-up indication. For this reason the Magnetrols will not be relocated. 3) See discussion of component evaluation sheets (Sec. C.1.17). 4) Aging analysis not done as device will be replaced per Note 2.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION		ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
		Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM:	SI/RHR	Operating Time	8 HOURS	NONE	22	NONE	N/A	NOTE 2
PLANT ID NO.	LS-3-1571	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	N/A	NOTE 2
Component:	LEVEL SWITCH	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	N/A	NOTE 2
FUNCTION:	LOCA/HEL B (INSIDE) MITIGATE	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	N/A	NOTE 2
MANUFACTURER:	MAGNETROL	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	N/A	NOTE 2
MODEL NO:	A-153-F-EP/VP-X-Y-M13H S # 431065	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	N/A	NOTE 2
ACCURACY: Spec:	NOTE 3	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 4	N/A	SEE NOTE #4
Demon:		Submergence	ABOVE 19'-0"	NONE	3.2	NONE	NONE	SEE NOTE #2
SERVICE:	CONTAINMENT SUMP LEVEL	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) No qualification data available. Qualified containment sump level switches have been procured and will be installed during the steam generator outage. These new switches will perform the safety related function and the Magnetrol switches will remain as back-up indication. For this reason the Magnetrols will not be relocated. 3) See discussion of component evaluation sheets (Sec. C.1.17). 4) Aging analysis not done as device will be replaced per Note.2.						
LOCATION	INSIDE CONTAINMENT							
Area	4'-3" ABOVE FLOOR							
Elev	14'							
Ref Dwg No.								
Mech	5610-T-E-4510 (REV. 4)							
Elect	5610-E-103 (REV. 6)							
Flood Level Elev:	19'-0" DOC. REF. 3.2							
Above Flood Level:								
Yes								
No	X							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B.
 - 3.2. CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: SI/RHR PLANT ID NO. LS-4-1570 Component: LEVEL SWITCH	Operating Time	8 HOURS	NONE	22	NONE	N/A	NOTE 2
FUNCTION: LOCA/HELS (INSIDE) MITIGATE	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	N/A	NOTE 2
MANUFACTURER: MAGNETROL	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	N/A	NOTE 2
MODEL NO: A-153-P-EP/VP-X-Y-M13H S # 440932	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	N/A	NOTE 2
ACCURACY: Spec: NOTE 3 Demon:	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	N/A	NOTE 2
SERVICE: CONTAINMENT SUMP LEVEL	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	N/A	NOTE 2
LOCATION INSIDE CONTAINMENT 4'-3" ABOVE FLOOR	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 4	N/A	SEE NOTE # 4
Area 12 (FLOOR) Elev 14'	Submergence	ABOVE 19'-0"	NONE	3.2	NONE	NONE	SEE NOTE #2
Ref Dwg No. Mech 5610-T-E-4510 (REV. 4) Elect 5610-E-110 (REV. 5)	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) No Qualification data available. Qualified containment sump level switches have been procured and will be installed during the steam generator outage. These new switches will perform the safety related function and the Magnetrol switches will remain as back-up indication. For this reason, the Magnetrols will not be relocated. 3) See discussion of component evaluation sheets (Sec. C.1.17). 4) Aging analysis not done as device will be replaced per Note 2.						
Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level:							
Yes _____ No <u>X</u>							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: SI/RHR PLANT ID NO. LS-4-1571 Component: LEVEL SWITCH	Operating Time	8 HOURS	NONE	22	NONE	N/A	NOTE 2
FUNCTION: LOCA/HELB (INSIDE) MITIGATE	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	N/A	NOTE 2
MANUFACTURER: MAGNETROL	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	N/A	NOTE 2
MODEL NO: A-153-P-EP/VP-X-Y-M13H S # 440931	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	N/A	NOTE 2
ACCURACY: Spec: NOTE 3 Demon:	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	N/A	NOTE 2
SERVICE: CONTAINMENT SUMP LEVEL	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	N/A	NOTE 2
LOCATION INSIDE CONTAINMENT 4'-2" ABOVE FLOOR	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 4	N/A	SEE NOTE #4
Area 12 Elev 14' (FLOOR)	Submergence	ABOVE 19'-0"	NONE	3.2	NONE	NONE	SEE NOTE #2
Ref Dwg No. Mech 5610-T-E-4510 (REV. 4) Elect 5610-E-110 (REV. 5)	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) No qualification data available. Qualified containment sump level switches have been procured and will be installed during the steam generator outage. These new switches will perform the safety related function and the Magnetrol switches will remain as back-up indication. For this reason the Magnetrols will not be relocated. 3) See discussion of component evaluation sheets (Sec. C.1.17). 4) Aging analysis not done as device will be replaced per Note 2.						
Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level:							
Yes No <u>X</u>							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: COMPONENT COOLING WATER PLANT ID NO. 3P211B Component: COMPONENT COOLING PUMP MOTOR FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: WESTINGHOUSE MODEL NO./STYLE 68F13681 SER 2S-68 ACCURACY: Spec: N/A Demon: N/A SERVICE: OPERATE COMPONENT COOLING PUMP LOCATION CCM PUMP ROOM UNIT 3 Area 10 Elev 18'-0 Ref Dwg No. Mech 5610-T-E-4512 Rev. 4 Elect 5610-E-127 REV7 Flood Level Elev: N/A Above Flood Level: N/A Yes _____ No _____	Operating Time	31 DAYS	> 31 DAYS NOTE 3	#22	#47 PAGE 5-1	PROTOTYPE TEST	NONE
	Temperature (°F)	NOTE 2	N/A	NOTE 2	N/A	N/A	NONE
	Pressure (PSIA)	NOTE 2	N/A	NOTE 2	N/A	N/A	NONE
	Relative Humidity (%)	NOTE 2	N/A	NOTE 2	N/A	N/A	NONE
	Chemical Spray	N/A	N/A	N/A	N/A	N/A	NONE
	Radiation	7.5x10 ⁵ RADS	2x10 ⁸ RADS	4	#47 PAGE 5-1	PROTOTYPE TEST	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd, assumed to be 40 years. 2) Temp, press, and humidity inside the auxiliary building are not considered significant parameters for evaluation. These are not affected by the accident condition inside the CTMT. anymore than during the normal shutdown mode of operation. 3) This operating time is considered as related to radiation only.							

- *DOCUMENT REFERENCES:
- 4. POST-LOCA RADIATION OUTSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 - 47. ENVIRONMENTAL QUAL. OF CLASS 1E MOTORS FOR NUCLEAR OUT-OF-CONTAINMENT USE WESTINGHOUSE WCAP-8754
 - 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN 1E BULLETIN 79-01B MASTER LIST.
 - 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN 1E BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: COMPONENT COOLING WATER PLANT ID NO. 3P211C Component: COMPONENT COOLING PUMP MOTOR FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: WESTINGHOUSE MODEL NO./STYLE SNI-S-68 68P13681 SER 3S-68 ACCURACY: Spec: N/A Demon: N/A SERVICE: OPERATE COMPONENT COOLING PUMP LOCATION CCW PUMP ROOM UNIT 3 Area 10 Elev 18'-0 Ref Dwg No. Mech 5610-T-E-4512 Rev. 4 Elect 5610-E-127 REV7 Flood Level Elev: N/A Above Flood Level: N/A Yes _____ No _____	Operating Time	31 DAYS	> 31 DAYS NOTE 3	#22	#47 PAGE 5-1	PROTOTYPE TEST	NONE
	Temperature (°F)	NOTE 2	N/A	NOTE 2	N/A	N/A	NONE
	Pressure (PSIA)	NOTE 2	N/A	NOTE 2	N/A	N/A	NONE
	Relative Humidity (%)	NOTE 2	N/A	NOTE 2	N/A	N/A	NONE
	Chemical Spray	N/A	N/A	N/A	N/A	N/A	NONE
	Radiation	7.5x10 ⁵ RADS	2x10 ⁸ RADS	4	#47 PAGE 5-1	PROTOTYPE TEST	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) Temp, press, and humidity inside the auxiliary building are not considered significant parameters for evaluation. These are not affected by the accident condition inside the CTHT. anymore than during the normal shutdown mode of operation. 3) This operating time is considered as related to radiation only.							

- *DOCUMENT REFERENCES:
- 4. POST-LOCA RADIATION OUTSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 - 47. ENVIRONMENTAL QUAL. OF CLASS IE MOTORS FOR NUCLEAR OUT-OF-CONTAINMENT USE WESTINGHOUSE WCAP-8754
 - 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO. PT-3-476 Component: PRESSURE TRANSMITTER FUNCTION: MIT-HELB (IN & OUT) MON-LOCA/HELB (IN & OUT) MANUFACTURER: FISCHER & PORTER MODEL NO: 5 OEP1041 BCXANS SER #6804A6255A29 ACCURACY: Spec: SEE NOTE 2 Demon: SERVICE: STEAM PRESS.-PROVIDE S.I. SIG. & MON. PRESS. LOCATION BY MNSIM PLATFM 4'-8" ABOVE TURB. DECK Area 24 Elev 42' (TURB. DECK) Ref Dwg No. Mech 5610-T-E-4061, Sh. 1, Rev. 2 Elect 5610-E-131, Rev. 12 Flood Level Elev: N/A Above Flood Level: N/A Yes _____ No _____	Operating Time	5 MIN See Note 3	2 HRS	22	11 (Table 2 P:A-8)	SIMULTANEOUS TEST	NONE
	Temperature (°F)	212°F	See Note 4	Attachment #6	11 (Table 2 Page A-8)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	Atmospheric	See Note 4	Attachment #6	11 (Table 2 Page A-8)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	See Note 4	Attachment #6	11 (Page A-6)	SIMULTANEOUS TEST	NONE
	Chemical Spray	N/A	See Note 4	"	8	QUAL. TEST FOR PAINT BY AMERON	NONE
	Radiation	SEE ATTACHMENT #6	8.2×10^5 RADS	Attachment #6	5 (Appendix "A")	TEST ON SIMILAR DEVICE	NONE
	Aging	40 Years	40 Years See Note 5	See Note 1	53	ENGINEERING ANALYSIS	NONE SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging reqd. Assumed to be 40 yrs.
 2) See discussion of component evaluation sheets (Sec. C.1.17)
 3) Even though per Ref. #22 Req'd. to operate for 24 hrs., the device will not see accident environment for more than 5 min.
 4) This is Westinghouse proprietary information. For Values reference Qualification Documentation.
 5) Device has age susceptible maintenance items (will be included in the maintenance schedule).

- *DOCUMENT REFERENCES:
- 22. ANALYSIS OF OPERATING TIMES FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 - 11. W-WCAP 7410-L VOL I OF II FIRM REPORT F-C2639 - NOV. 1969.
 - 8. FISCHER & PORTER LET. 3-6-75 WITH AMERON LAB REP# 1550a OF 3-23-72.
 - 5. F. P. REPORT #DP2224-1 RPT #002 WITH FIRM TEST REP F-C2815, MAY, 1970.
 - 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO. PT-4-496 Component: PRESSURE TRANSMITTER FUNCTION: MIT-HELB (IN & OUT) MON-LOCA/HELB (IN & OUT) MANUFACTURER: FISCHER & PORTER MODEL NO: 50EP1041 BCXANS SER #6804A6255A27 ACCURACY: Spec: SEE NOTE 2 Demon: SERVICE: STEAM PRESS.-PROVIDE S.I. SIG. & MON. PRESS. LOCATION BY INSTN PLATFM 4'-2" ABOVE TURB. DECK Area 17 Elev 42' (TURB. DECK) Ref Dwg No. Mech 5610-T-E-4061, Sh. 1, Rev. 2 Elect 5610-E-133, Rev. 8 Flood Level Elev: N/A Above Flood Level: N/A Yes _____ No _____	Operating Time	5 MIN See Note 3	2 HRS	22	11 (Table 2 P:A-8)	SIMULTANEOUS TEST	NONE
	Temperature (°F)	212°F	See Note 4	Attachment #6	11 (Table 2 Page A-8)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	Atmospheric	See Note 4	Attachment #6	11 (Table 2 Page A-B)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	See Note 4	Attachment #6	11 (Page A-6)	SIMULTANEOUS TEST	NONE
	Chemical Spray	N/A	See Note 4	-	8	QUAL. TEST FOR PAINT BY AMERON	NONE
	Radiation	SEE ATTACHMENT #6	8.2 x 10 ⁵ RADS	Attachment #6	5 (Appendix "A")	TEST ON SIMILAR DEVICE	NONE
	Aging	40 Years	40 Years See Note 5	See Note 1	53	ENGINEERING ANALYSIS	NONE SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. Assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Even though per Ref. #22 Req'd. to operate for 24 hrs., the device will not see accident environment for more than 5 min. 4) This is Westinghouse proprietary information. For Values reference Qualification Documentation. 5) Device has age susceptible maintenance items (will be included in the maintenance schedule).							

*DOCUMENT REFERENCES: 22. ANALYSIS OF OPERATING TIMES FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
11. WCAP 7410-L VOL I OF II FURL REPORT F-C2639 - NOV. 1969.

8. FISCHER & PORTER LET. 3-6-75 WITH AMERON LAB REP# 1550a OF 3-23-72.
5. F. P. REPORT #DP2224-1 RPT #002 WITH FURL TEST REP F-C2815, MAY, 1970.
53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO. PT-3-464 Component: PRESSURE TRANSMITTER FUNCTION: MIT-HELB (IN & OUT) MON-LOCA/HELB (IN & OUT) MANUFACTURER: FISCHER & PORTER MODEL NO: 50EP1041 BCXANS SER #6804A6257A15 ACCURACY: Spec: Demon: SEE NOTE 2 SERVICE: STEAM PRESS.-PROVIDE S.I. SIG. & MON. PRESS. LOCATION BY MSTM PLATFM 4'-8" ABOVE TURB. DECK Area 24 Elev 42' (TURB. DECK) Ref Dwg No. Mech 5610-T-E-4061, Sh. 1, Rev. 2 Elect 5610-E-131, Rev. 12 Flood Level Elev: N/A Above Flood Level: N/A Yes _____ No _____	Operating Time	5 MIN	2 HRS	22	11 Table 2 P:A-8)	SIMULTANEOUS TEST	NONE
	Temperature (°F)	212°F See Note 3	See Note 4	Attachment #6	11 (Table 2 Page A-8)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	Atmospheric	See Note 4	Attachment #6	11 (Table 2 Page A-B)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	See Note 4	Attachment #6	11 (Page A-6)	SIMULTANEOUS TEST	NONE
	Chemical Spray	N/A	See Note 4	-	8	QUAL. TEST FOR PAINT BY AMERON	NONE
	Radiation	SEE ATTACHMENT #6	8.2 x 10 ⁵ RADS	Attachment #6	5 (Appendix "A")	TEST ON SIMILAR DEVICE	NONE
	Aging	40 Years	40 Years See Note 5	See Note 1	53	ENGINEERING ANALYSIS	NONE SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. Assumed to be 40 years.
 2) See discussion of component evaluation sheets (Sec. C.1.17).
 3) This represents peak temperature in line break area.
 4) This is Westinghouse proprietary information. For values reference qualification documentation.
 5) Device has age susceptible maintenance items (will be included in the maintenance schedule).

*DOCUMENT REFERENCES: 22. ANALYSIS OF OPERATING TIMES FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 11. H-WCAP 7410-L VOL I OF II FIRM REPORT F-C2639 - NOV. 1969.

8. FISCHER & PORTER LET. 3-6-75 WITH AMERON LAB REP# 1550a OF 3-23-72.
 5. F. P. REPORT #DP2224-1 RPT #002 WITH FIRM TEST REP F-C2815, MAY, 1970.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO. FT-3-466 Component: PRESSURE TRANSMITTER FUNCTION: MIT-HELB (IN & OUT) MON-LOCA/HELB (IN & OUT) MANUFACTURER: FISCHER & PORTER MODEL NO: 5 OEP1041 BCXANS SER #6804A6255A19 ACCURACY: Spec: SEE NOTE 2 Demon: SERVICE: STEAM PRESS.-PROVIDE S.I. SIG. & MON. PRESS. LOCATION BY MNSTH PLATFM 4'-8" ABOVE TURB. DECK Area 24 Elev 42' (TURB. DECK) Ref Dwg No. Mech 5610-T-E-4061, Sh. 1, Rev. 2 Elect 5610-E-131, Rev. 12 Flood Level Elev: N/A Above Flood Level: N/A Yes _____ No _____	Operating Time	5 MIN	2 HRS	22	11 (Table 2 P:A-8)	SIMULTANEOUS TEST	NONE
	Temperature (°F)	212°F See Note 3	See Note 4	Attachment #6	11 (Table 2 Page A-8)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	Atmospheric	See Note 4	Attachment #6	11 (Table 2 Page A-B)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	See Note 4	Attachment #6	11 (Page A-6)	SIMULTANEOUS TEST	NONE
	Chemical Spray	N/A	See Note 4	-	8	QUAL. TEST FOR PAINT BY AMERON	NONE
	Radiation	SEE ATTACHMENT #6	8.2 x 10 ⁵ RADS	Attachment #6	5 (Appendix "A")	TEST ON SIMILAR DEVICE	NONE
	Aging	40 Years	40 Years See Note 5	See Note 1	53	ENGINEERING ANALYSIS	NONE SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. Assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) This represents peak temperature in line break area. 4) This is Westinghouse proprietary information. For values reference qualification documentation. 5) Device has age susceptible maintenance items (will be included in the maintenance schedule).							

- *DOCUMENT REFERENCES:
- 22. ANALYSIS OF OPERATING TIMES FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 - 11. H-WCAP 7410-L VOL I OF II FIRM REPORT F-C2639 - NOV. 1969.
 - 8. FISCHER & PORTER LET. 3-6-75 WITH AMERON LAB REP# 1550a OF 3-23-72.
 - 5. F. P. REPORT #DP2224-1 RPT #002 WITH FIRM TEST REP F-C2815, MAY, 1970.
 - 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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Rev. 2

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO. FT-3-475 Component: FLOW TRANSMITTER FUNCTION: MITIGATE HELB (Inside/Outside) MANUFACTURER: FISCHER & PORTER MODEL NO: 10B2496 PB BABBB-NS SERIAL NO: 6804A625A61, OSC. AMP # 805B217U01 ACCURACY: See Note 4 SERVICE: STEAM FLOW IN MN STEAM LINE LOCATION INSIDE CONTAINMENT 4'-0" ABOVE FLOOR Area 5. Elev 58' (FLOOR) Ref Dwg No. Mech 5610-T-E-4061, Rev. 2 Elect 5610-E-102, Rev. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	1 MINUTE	6 MINUTES	22	13 (TABLE A-7)	-	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE # 2	1	13 (FIG. 5.2)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE # 2	1	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE # 2	ASSUMED	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE # 2	3	13 (PARA. 5.2)	SIMULTANEOUS TEST	NONE
	Radiation	1 X 10 ² Rads	4 X 10 ⁴ R SEE NOTE # 3	13 Pg. 2.5	13 (TABLE A-6)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 5	SEE NOTE 1	53.	ENGINEERING ANALYSIS	NONE SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary information. For valves reference qualification documentation. 3) Transmitter required for main steam line break protection. Qualified radiation dose exceeds that during specified operating time. See Ref. # 13 (Page 2.6). 4) See discussion of component evaluation sheets (Sec. C.1.17). 5) Device has age sensitive maintenance item (will be included in the maintenance schedule).						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 13. WESTINGHOUSE W CAP-9157.
 22. ANALYSIS OF OPERATING TIME COVERED IN I. E. BULLETIN 79-01B. MASTER LIST.
 - 3.2. CALCULATION FOR POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO. FT-3-484 Component: FLOW TRANSMITTER FUNCTION: MITIGATE HELB (Inside/Outside) MANUFACTURER: FISCHER & PORTER MODEL NO: 10B2496 PB ABBB-NS SER #R6804A6257A59 OSC. AMP #805B217U01 ACCURACY: SEE NOTE 4 SERVICE: STEAM FLOW IN MN STEAM LINE LOCATION INSIDE CONTAINMENT 3'-10" ABOVE FLOOR Area 5. Elev 58' (FLOOR) Ref Dwg No. Mech 5610-T-E-4061, Rev. 2 Elect 5610-E-102, Rev. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	1 MINUTE	6 MINUTES	22	13 (TABLE A-7)	-	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE # 2	1	13 (FIG. 5.2)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE # 2	1	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE # 2	ASSUMED	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE # 2	3	13 (PARA. 5.2)	SIMULTANEOUS TEST	NONE
	Radiation	1 X 10 ² Rads	4 X 10 ⁴ R SEE NOTE # 3	13 Pg. 2.5	13 (TABLE A-6)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 5	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) This is Westinghouse proprietary information. For valves reference qualification documentation. 3) Transmitter required for main steam line break protection. Qualified radiation dose exceeds that during specified operating time. See Ref. # 13 (Page 2.6). 4) See discussion of component evaluation sheets (sec. C.1.17) 5) Device has age sensitive maintenance item (will be included in the maintenance schedule).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 13. WESTINGHOUSE W CAP-9157.
 22. ANALYSIS OF OPERATING TIME COVERED IN I. E. BULLETIN 79-01B. MASTER LIST.
 - 3.2. CALCULATION FOR POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO. FT-3-485 Component: FLOW TRANSMITTER FUNCTION: MITIGATE HELB (Inside/Outside) MANUFACTURER: FISCHER & PORTER MODEL NO: 10PB2496 PB BABBB-NS SER # 7110A5531A15 OSC. AMP. #805B217U01 ACCURACY: SEE NOTE 4 SERVICE: STEAM FLOW IN MN STEAM LINE LOCATION INSIDE CONTAINMENT 3'-10" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-T-E-4061, Rev. 2 Elect 5610-E-102, Rev. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	1 MINUTE	6 MINUTES	22	13 (TABLE A-7)	-	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE # 2	1	13 (FIG. 5.2)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE # 2	1	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE # 2	ASSUMED	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE # 2	3	13 (PARA. 5.2)	SIMULTANEOUS TEST	NONE
	Radiation	1 X 10 ² Rads	4 X 10 ⁴ R SEE NOTE # 3	13 Pg. 2.5	13 (TABLE A-6)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 5	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd, assumed to be 40 years.. 2) This is Westinghouse proprietary information. For valves reference qualification documentation. 3) Transmitter required for main steam line break protection. Qualified radiation dose exceeds that during specified operating time. See Ref. # 13 (Page 2.6). 4) See discussion of component evaluation sheets (Sec. C.1.17) 5) Device has age sensitive maintenance item (will be included in the maintenance schedule).						

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
13. WESTINGHOUSE W CAP-9157.
22. ANALYSIS OF OPERATING TIME COVERED IN I. E. BULLETIN 79-01B. MASTER LIST.
- 3.2 CALCULATION FOR POST LOCA CONTAINMENT SUMP LEVEL.
53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO. FT-3-494 Component: FLOW TRANSMITTER FUNCTION: MITIGATE HELB (Inside/Outside) MANUFACTURER: FISCHER & PORTER MODEL NO: 10B2496 PB BABBB-NS SER # 6804A6255A63 ACCURACY: See Note 4 SERVICE: STEAM FLOW IN MN STEAM LINE LOCATION INSIDE CONTAINMENT 1'-0" ABOVE FLOOR Area 5 Elev 58 (FLOOR) Ref Dwg No. Mech 5610-T-E-4061, Rev. 2 Elect 5610-E-102, Rev. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	1 MINUTE	6 MINUTES	22	13 (TABLE A-7)	-	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE # 2	1	13 (FIG. 5.2)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE # 2	1	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE # 2	ASSUMED	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE # 2	3	13 (PARA. 5.2)	SIMULTANEOUS TEST	NONE
	Radiation	1 X 10 ² Rads	4 X 10 ⁴ R SEE NOTE # 3	13 Pg. 2.5	13 (TABLE A-6)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 5	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary information. For valves reference qualification documentation. 3) Transmitter required for main steam line break protection. Qualified radiation dose exceeds that during specified operating time. See Ref. # 13 (Page 2.6). 4) See discussion of component evaluation sheets(sec. C.1.17) 5) Device has age sensitive maintenance item (will be included in the maintenance schedule).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 13. WESTINGHOUSE W CAP-9157.
 22. ANALYSIS OF OPERATING TIME COVERED IN I. E. BULLETIN 79-01B. MASTER LIST.
 - 3.2 CALCULATION FOR POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO. FT-3-495 Component: FLOW TRANSMITTER FUNCTION: MITIGATE HELB (Inside/Outside) MANUFACTURER: FISCHER & PORTER MODEL NO: 10B2496 PB BABBB-NS SER #6804A6255A65 OSC. AMP. #805B217U01 ACCURACY: SEE NOTE 4 SERVICE: STEAM FLOW IN MN STEAM LINE LOCATION INSIDE CONTAINMENT 7" ABOVE FLOOR Area 6. Elev 58' (FLOOR) Ref Dwg No. Mech 5610-T-E-4061, Rev. 2 Elect 5610-E-105, Rev. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	1 MINUTE	6 MINUTES	22	13 (TABLE A-7)	-	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE # 2	1	13 (FIG. 5.2)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE # 2	1	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE # 2	ASSUMED	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE # 2	3	13 (PARA. 5.2)	SIMULTANEOUS TEST	NONE
	Radiation	1 X 10 ² Rads	4 X 10 ⁴ R SEE NOTE # 3	13 Pg. 2.5	13 (TABLE A-6)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 5	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) This is Westinghouse proprietary information. For valves reference qualification documentation. 3) Transmitter required for main steam line break protection. Qualified radiation dose exceeds that during specified operating time. See Ref. # 13 (Page 2.6). 4) See discussion of component evaluation sheets (sec. C.1.17) 5) Device has age sensitive maintenance item (will be included in the maintenance schedule).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 13. WESTINGHOUSE W CAP-9157.
 22. ANALYSIS OF OPERATING TIME COVERED IN I. E. BULLETIN 79-01B. MASTER LIST.
 - 3.2. CALCULATION FOR POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO. FT-3-474 Component: FLOW TRANSMITTER FUNCTION: MITIGATE HELB (Inside/Outside) MANUFACTURER: FISCHER & PORTER MODEL NO: 10B2496 PB BABBE-NS SER # R6804A6255A52 OSC. AMP. #805B217U01 ACCURACY: SEE NOTE 4 SERVICE: STEAM FLOW IN MN STEAM LINE LOCATION INSIDE CONTAINMENT 4'-0" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-T-E-4061, Rev. 2 Elect 5610-E-102, Rev. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	1 MINUTE	6 MINUTES	22	13 (TABLE A-7)	-	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE # 2	1	13 (FIG. 5.2)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE # 2	1	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE # 2	ASSUMED	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE # 2	3	13 (PARA. 5.2)	SIMULTANEOUS TEST	NONE
	Radiation	1 X 10 ² Rads	4 X 10 ⁴ R SEE NOTE # 3	13 Pg. 2.5	13 (TABLE A-6)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 years SEE NOTE 5	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) This is Westinghouse proprietary information. For valves reference qualification documentation. 3) Transmitter required for main steam line break protection. Qualified radiation dose exceeds that during specified operating time. See Ref. # 13 (Page 2.6). 4) See discussion of component evaluation sheets (Sec. C.1.17) 5) Device has age sensitive maintenance item (will be included in the maintenance schedule.)							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 13. WESTINGHOUSE W CAP-9157.
 22. ANALYSIS OF OPERATING TIME COVERED IN I. E. BULLETIN 79-01B. MASTER LIST.
 - 3.2 CALCULATION FOR POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO. FT-4-474 Component: FLOW TRANSMITTER FUNCTION: MITIGATE HELB (Inside/Outside) MANUFACTURER: FISCHER & PORTER MODEL NO: 10B2496 PB BABBB-NS SERIAL NO: 6804A6255A64, OSC. AMP # 805B217U01 ACCURACY: See Note 4 SERVICE: STEAM FLOW IN MN STEAM LINE LOCATION INSIDE CONTAINMENT 4'-5" ABOVE FLOOR Area 11 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-T-E-4061, Rev. 2 Elect 5610-E-109, Rev. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	1 MINUTE	6 MINUTES	22	13 (TABLE A-7)	-	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE # 2	1	13 (FIG. 5.2)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE # 2	1	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE # 2	ASSUMED	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE # 2	3	13 (PARA. 5.2)	SIMULTANEOUS TEST	NONE
	Radiation	1 X 10 ² Rads	4 X 10 ⁴ R SEE NOTE # 3	13 Pg. 2.5	13 (TABLE A-6)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE # 5	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary information. For valves reference qualification documentation. 3) Transmitter required for main steam line break protection. Qualified radiation dose exceeds that during specified operating time. See Ref. # 13 (Page 2.6). 4) See discussion of component evaluation sheets (Sec. C.1.17). 5) Device has age sensitive maintenance item (will be included in the maintenance schedule).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 13. WESTINGHOUSE W CAP-9157.
 22. ANALYSIS OF OPERATING TIME COVERED IN I. E. BULLETIN 79-01B. MASTER LIST.
 - 3.2 CALCULATION FOR POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO. FT-4-475 Component: FLOW TRANSMITTER FUNCTION: MITIGATE HELB (Inside/Outside) MANUFACTURER: FISCHER & PORTER MODEL NO: 10B2496 PB BABBB-NS SERIAL NO: 6804A6257A51 ACCURACY: See Note 4 SERVICE: STEAM FLOW IN MN STEAM LINE LOCATION INSIDE CONTAINMENT 4'-4" ABOVE FLOOR Area 11. Elev 58' (FLOOR) Ref Dwg No. Mech 5610-T-E-4061, Rev. 2 Elect 5610-E-109, Rev. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	1 MINUTE	6 MINUTES	22	13 (TABLE A-7)	-	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE #2	1	13 (FIG. 5.2)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE #2	1	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE #2	ASSUMED	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE #2	3	13 (PARA. 5.2)	SIMULTANEOUS TEST	NONE
	Radiation	1 X 10 ² Rads	4 X 10 ⁴ R SEE NOTE #3	13 Pg. 2.5	13 (TABLE A-6)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 5	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary information. For valves reference qualification documentation. 3) Transmitter required for main steam line break protection. Qualified radiation dose exceeds that during specified operating time. See Ref. # 13 (Page 2.6). 4) See discussion of component evaluation sheets (Sec. C.1.17). 5) Device has age sensitive maintenance item (will be included in the maintenance schedule).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 13. WESTINGHOUSE W CAP-9157.
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 - 3.2 CALCULATION FOR POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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Rev. 2

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO: FT-4-484 Component: FLOW TRANSMITTER FUNCTION: MITIGATE HELB (Inside/Outside) MANUFACTURER: FISCHER & PORTER MODEL NO: 10B2496 PB BABBB-NS SERIAL NO: 7110A5531A14, OSC. AMP # 805B217U01 ACCURACY: See Note 4 SERVICE: STEAM FLOW IN MN STEAM LINE LOCATION INSIDE CONTAINMENT 4'-6" ABOVE FLOOR Area 11 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-T-E-4061, Rev. 2 Elect 5610-E-109, Rev. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	1 MINUTE	6 MINUTES	22	13 (TABLE A-7)	-	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE # 2	1	13 (FIG. 5.2)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE # 2	1	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE # 2	ASSUMED	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE # 2	3	13 (PARA. 5.2)	SIMULTANEOUS TEST	NONE
	Radiation	1 X 10 ² Rads	4 X 10 ⁴ R SEE NOTE #3	13 Pg. 2.5	13 (TABLE A-6)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 5	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary information. For valves reference qualification documentation. 3) Transmitter required for main steam line break protection. Qualified radiation dose exceeds that during specified operating time. See Ref. # 13 (Page 2.6). 4) See discussion of component evaluation sheets (Sec. C.1.17). 5) Device has age sensitive maintenance item (will be included in the maintenance schedule).						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 13. WESTINGHOUSE W CAP-9157.
 22. ANALYSIS OF OPERATING TIME COVERED IN I. E. BULLETIN 79-01B. MASTER LIST.
 - 3.2 CALCULATION FOR POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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Rev. 2

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO: FT-4-485 Component: FLOW TRANSMITTER FUNCTION: MITIGATE HELB (Inside/Outside) MANUFACTURER: FISCHER & PORTER MODEL NO: 10B2496 PB BABBB-NS SERIAL NO: 6804A6257A60, OSC. AMP #805B217U01 ACCURACY: See Note 4 SERVICE: STEAM FLOW IN MN STEAM LINE LOCATION INSIDE CONTAINMENT 4'-6" ABOVE FLOOR Area 11 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-T-E-4061, Rev. 2 Elect 5610-E-109, Rev. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	1 MINUTE	6 MINUTES	22	13 (TABLE A-7)	-	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE # 2	1	13 (FIG. 5.2)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE # 2	1	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE # 2	ASSUMED	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE # 2	3	13 (PARA. 5.2)	SIMULTANEOUS TEST	NONE
	Radiation	1 X 10 ² Rads	4 X 10 ³ R SEE NOTE # 3	13 Pg. 2.5	13 (TABLE A-6)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 5	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary information. For valves reference qualification documentation. 3) Transmitter required for main steam line break protection. Qualified radiation dose exceeds that during specified operating time. See Ref. # 13 (Page 2.6). 4) See discussion of component evaluation sheets (Sec. C.1.17) 5) Device has age sensitive maintenance item (will be included in the maintenance schedule).						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 13. WESTINGHOUSE W CAP-9157.
 22. ANALYSIS OF OPERATING TIME COVERED IN I. E. BULLETIN 79-01B. MASTER LIST.
 - 3.2. CALCULATION FOR POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO. FT-4-494 Component: FLOW TRANSMITTER FUNCTION: MITIGATE HELB (Inside/Outside) MANUFACTURER: FISCHER & PORTER MODEL NO: 10B2496 PB BABBB-NS SERIAL NO: 6804A6257A57, OSC. AMP. # 805B217001 ACCURACY: See Note 4 SERVICE: STEAM FLOW IN MN STEAM LINE LOCATION INSIDE CONTAINMENT 4" ABOVE FLOOR Area 11 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-T-E-4061, Rev. 2 Elect 5610-E-109, Rev. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	1 MINUTE	6 MINUTES	22	13 (TABLE A-7)	-	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE # 2	1	13 (FIG. 5.2)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE # 2	1	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE # 2	ASSUMED	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE # 2	3	13 (PARA. 5.2)	SIMULTANEOUS TEST	NONE
	Radiation	1 X 10 ² Rads	4 X 10 ⁴ R SEE NOTE # 3	13 Pg. 2.5	13 (TABLE A-6)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 5	SEE NOTE 1	53	ENGINEERING ANALYSIS	SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary information. For valves reference qualification documentation. 3) Transmitter required for main steam line break protection. Qualified radiation dose exceeds that during specified operating time. See Ref. # 13 (Page 2.6). 4) See discussion of component evaluation sheets (Sec. C.1.17). 5) Device has age sensitive maintenance item (will be included in the maintenance schedule).						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 13. WESTINGHOUSE W CAP-9157.
 22. ANALYSIS OF OPERATING TIME COVERED IN I. E. BULLETIN 79-01B. MASTER LIST.
 - 3.2 CALCULATION FOR POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO: FT-4-495 Component: FLOW TRANSMITTER FUNCTION: MITIGATE HELB (Inside/Outside) MANUFACTURER: FISCHER & PORTER MODEL NO: 10B2496 PB BABBB-NS SERIAL NO: 6904A6257A62, OSC. AMP # 805B241U01 ACCURACY: See Note 4 SERVICE: STEAM FLOW IN MN STEAM LINE LOCATION INSIDE CONTAINMENT 7" ABOVE FLOOR Area 11. Elev 58' (FLOOR) Ref Dwg No. Mech 5610-T-E-4061, Rev. 2 Elect 5610-E-109, Rev. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	1 MINUTE	6 MINUTES	22	13 (TABLE A-7)	-	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE # 2	1	13 (FIG. 5.2)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE # 2	1	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE # 2	ASSUMED	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE # 2	3	13 (PARA. 5.2)	SIMULTANEOUS TEST	NONE
	Radiation	1 X 10 ⁻² Rads	4 X 10 ⁻⁴ R SEE NOTE # 3	13 Pg. 2.5	13 (TABLE A-6)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 5	SEE NOTE 1	53	ENGINEERING ANALYSIS	SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary information. For valves reference qualification documentation. 3) Transmitter required for main steam line break protection. Qualified radiation dose exceeds that during specified operating time. See Ref. # 13 (Page 2.6). 4) See discussion of component evaluation sheets (Sec. C.1.17). 5) Device has age sensitive maintenance item (will be included in the maintenance schedule).						

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
13. WESTINGHOUSE W CAP-9157.
22. ANALYSIS OF OPERATING TIME COVERED IN I. E. BULLETIN 79-01B. MASTER LIST.
- 3.2 CALCULATION FOR POST LOCA CONTAINMENT SUMP LEVEL.
53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DUCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
<p>SYSTEM: MAIN FEEDWATER PLANT ID NO.: LT-3-474 Component: LEVEL TRANSMITTER</p> <p>FUNCTION: MITIGATE LOCA/HELB (I/O) MONITOR LOCA/HELB (I/O)</p> <p>MANUFACTURER: FISCHER & PORTER</p> <p>MODEL NO: 13D2495KBBABB-NS (HI-TEMP) SR #6804A6257A69 (HI-RAD)</p> <p>ACCURACY: Spec: Demon: SEE NOTE #2</p> <p>SERVICE: MONITOR STEAM GENERATOR WATER LEVEL AND PROVIDE ACCIDENT TRIP SIG.</p> <p>LOCATION INSIDE CONTAINMENT 3'-10" ABOVE FLOOR</p> <p>Area 6 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4062, Sht. 2, Rev. 3 Elect 5610-E-104, Rev. 5</p> <p>Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level:</p> <p>Yes <u>X</u> No <u> </u></p>	Operating Time	24 Hours	7 Hrs - Test 24 Hrs - Anal.	22	7 (Fig 3-6) 36	Simultaneous Test & Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (¼ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (¼ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. TEST for Paint by Ameron	NONE
	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 3	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
2) See discussion of component evaluation sheets (Sec. C.1.17).
3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS.
 6. FISCHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-22-73.
 7. F&P TEST REPORT 2204-51-B-006.
 8. FISCHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN FEEDWATER PLANT ID NO.: LT-3-475 Component: LEVEL TRANSMITTER FUNCTION: MITIGATE LOCA/HELB (I/O) MONITOR LOCA/HELB (I/O) MANUFACTURER: FISCHER & PORTER MODEL NO: 13D2495KBBABB-NS (HI-TEMP) (HI-RAD) ACCURACY: Spec: SER #R6804A6257A71 Demon: SEE NOTE #2 SERVICE: MONITOR STEAM GENERATOR WATER LEVEL AND PROVIDE ACCIDENT TRIP SIG. LOCATION INSIDE CONTAINMENT 3'-10" ABOVE FLOOR Area 6 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4062, Sht..2, Rev. 3 Elect 5610-E-104, Rev. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	24 Hours	7 Hrs - Test 24 Hrs - Anal.	22	7 (Fig 3-6) 36	Simultaneous Test & Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. TEST for Paint by Ameron	NONE
	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 3	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS.
 6. FISCHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-22-73.
 7. F&P TEST REPORT 2204-51-B-006.
 8. FISCHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification	Outstanding
	Parameter	Specification	Qualification	Specification	Qualification	Method	Items
<p>SYSTEM: MAIN FEEDWATER PLANT ID NO.: LT-3-476 Component: LEVEL TRANSMITTER</p> <p>FUNCTION: MITIGATE LOCA/HELB (I/O) MONITOR LOCA/HELB (I/O)</p> <p>MANUFACTURER: FISCHER & PORTER</p> <p>MODEL NO: 13D2495KBBABB-NS (HI-TEMP) SR #6804A6257A72 (HI-RAD)</p> <p>ACCURACY: Spec: Demon: SEE NOTE #2</p> <p>SERVICE: MONITOR STEAM GENERATOR WATER LEVEL AND PROVIDE ACCIDENT TRIP SIG.</p> <p>LOCATION INSIDE CONTAINMENT 3'-11" ABOVE FLOOR</p> <p>Area 6 Elev 30'-6" (FLOOR)</p> <p>Ref Dwg No. Mech 5610-T-E-4062, Sht. 2, Rev. 3 Elect 5610-E-104, Rev. 5</p> <p>Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level:</p> <p>Yes <u>X</u> No <u> </u></p>	Operating Time	24 Hours	7 Hrs - Test 24 Hrs - Anal.	22	7 (Fig 3-6) 36	Simultaneous Test & Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. TEST for Paint by Ameron	NONE
	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 3	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	<p>NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assume to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.</p>						

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS.
6. FISCHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-22-73.
7. F&P TEST REPORT 2204-51-B-006.
8. FISCHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
<p>SYSTEM: MAIN FEEDWATER PLANT ID NO.: LT-3-484 Component: LEVEL TRANSMITTER</p> <p>FUNCTION: MITIGATE LOCA/HELB (I/O) MONITOR LOCA/HELB (I/O)</p> <p>MANUFACTURER: FISCHER & PORTER</p> <p>MODEL NO: 13D2497KBBABBB-NS (HI-TEMP) SR #6804A6255A74 (HI-RAD)</p> <p>ACCURACY: Spec: Demon: SEE NOTE #2</p> <p>SERVICE: MONITOR STEAM GENERATOR WATER LEVEL AND PROVIDE ACCIDENT TRIP SIG.</p> <p>LOCATION INSIDE CONTAINMENT 3'-11" ABOVE FLOOR</p> <p>Area 5 Elev 30'-6" (FLOOR)</p> <p>Ref Dwg No. Mech 5610-T-E-4062, Sht. 2, Rev. 3 Elect 5610-E-101, Rev. 8</p> <p>Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level:</p> <p>Yes <u>X</u> No <u> </u></p>	Operating Time	24 Hours	7 Hrs - Test 24 Hrs - Anal.	22	7 (Fig 3-6) 36	Simultaneous Test & Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. TEST for Paint by Ameron	NONE
	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 3	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
<p>NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.</p>							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS.
 6. FISCHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-22-73.
 7. F&P TEST REPORT 2204-51-B-006.
 8. FISCHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a OF 3/23/72
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN FEEDWATER PLANT ID NO.: LT-3-485 Component: LEVEL TRANSMITTER FUNCTION: MITIGATE LOCA/HELBS (I/O) MONITOR LOCA/HELBS (I/O) MANUFACTURER: FISCHER & PORTER MODEL NO: 13D2495KBBABB-NS (HI-TEMP) SR #6804A6255A75 (HI-RAD) ACCURACY: Spec: Demon: SEE NOTE #2 SERVICE: MONITOR STEAM GENERATOR WATER LEVEL AND PROVIDE ACCIDENT TRIP SIG. LOCATION INSIDE CONTAINMENT 3'-11" ABOVE FLOOR Area 5 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4062, Sht. 2, Rev. 3 Elect 5610-E-101, Rev. 8 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	24 Hours	7 Hrs - Test 24 Hrs - Anal.	22	7 (Fig 3-6) 36	Simultaneous Test & Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. TEST for Paint by Ameron	NONE
	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 3	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.							

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS.
6. FISCHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-22-73.
7. F&P TEST REPORT 2204-51-B-006.
8. FISCHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL
53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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Rev. 2

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN FEEDWATER PLANT ID NO.: LT-3-486 Component: LEVEL TRANSMITTER FUNCTION: MITIGATE LOCA/HELB (I/O) MONITOR LOCA/HELB (I/O) MANUFACTURER: FISCHER & PORTER MODEL NO: 13D2495KBBABB-NS (HI-TEMP) SR #6804A6255A76 (HI-RAD) ACCURACY: Spec: Demon: SEE NOTE #2 SERVICE: MONITOR STEAM GENERATOR WATER LEVEL AND PROVIDE ACCIDENT TRIP SIG. LOCATION INSIDE CONTAINMENT 3'-11" ABOVE FLOOR Area 5 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4062, Sht. 2, Rev. 3 Elect 5610-E-101, Rev. 8 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	24 Hours	7 Hrs - Test 24 Hrs - Anal.	22	7 (Fig 3-6) 36	Simultaneous Test & Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. TEST for Paint by Ameron	NONE
	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 3	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS.
 6. FISCHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-22-73.
 7. F&P TEST REPORT 2204-51-B-006.
 8. FISCHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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Rev. 2

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN FEEDWATER PLANT ID NO.: LT-3-494 Component: LEVEL TRANSMITTER FUNCTION: MITIGATE LOCA/HELB (I/O) MONITOR LOCA/HELB (I/O) MANUFACTURER: FISCHER & PORTER MODEL NO: 13D2495KBBABBB-NS (HI-TEMP) (HI-RAD) ACCURACY: Spec: SER #R6804A6257A72 Demon: SEE NOTE #2 SERVICE: MONITOR STEAM GENERATOR WATER LEVEL AND PROVIDE ACCIDENT TRIP SIG. LOCATION INSIDE CONTAINMENT 3'-10" ABOVE FLOOR Area 6 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4062, Sht. 2, Rev. 3 Elect 5610-E-104, Rev. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	24 Hours	7 Hrs - Test 24 Hrs - Anal.	22	7 (Fig 3-6) 36	Simultaneous Test & Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. TEST for Paint by Ameron	NONE
	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 3	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
 2) See discussion of component evaluation sheets (Sec. C.1.17).
 3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. PPL LETTER TO USNRC L-75-210 DATED 4/30/75.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS.
6. FISCHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-22-73.
7. F&P TEST REPORT 2204-51-B-006.
8. FISCHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification	Outstanding
	Parameter	Specification	Qualification	Specification	Qualification	Method	Items
SYSTEM: MAIN FEEDWATER PLANT ID NO.: LT-3-495 Component: LEVEL TRANSMITTER FUNCTION: MITIGATE LOCA/HELB (I/O) MONITOR LOCA/HELB (I/O) MANUFACTURER: FISCHER & PORTER MODEL NO: 13D2495KBBABB-NS (HI-TEMP) SR #6804A6255A78 (HI-RAD) ACCURACY: Spec: Demon: SEE NOTE #2 SERVICE: MONITOR STEAM GENERATOR WATER LEVEL AND PROVIDE ACCIDENT TRIP SIG. LOCATION INSIDE CONTAINMENT 3'-11" ABOVE FLOOR Area 6 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4062, Sht. 2, Rev. 3 Elect 5610-E-104, Rev. 5 Flood Level Elev: 19'-0" DOC, REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	24 Hours	7 Hrs - Test 24 Hrs - Anal.	22	7 (Fig 3-6) 36	Simultaneous Test & Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. TEST for Paint by Ameron	NONE
	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 3	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS.
 6. FISCHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-22-73.
 7. F&P TEST REPORT 2204-51-B-006.
 8. FISCHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN FEEDWATER PLANT ID NO.: LT-3-496 Component: LEVEL TRANSMITTER FUNCTION: MITIGATE LOCA/HELB (I/O) MONITOR LOCA/HELB (I/O) MANUFACTURER: FISCHER & PORTER MODEL NO: 13D2495KBBABBB-NS (HI-TEMP) SR #6804A6255A79 (HI-RAD) ACCURACY: Spec: Demon: SEE NOTE #2 SERVICE: MONITOR STEAM GENERATOR WATER LEVEL AND PROVIDE ACCIDENT TRIP SIG. LOCATION INSIDE CONTAINMENT 3'-10" ABOVE FLOOR Area 6 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4062, Sht. 2, Rev. 3 Elect 5610-E-104, Rev. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	24 Hours	7 Hrs - Test 24 Hrs - Anal.	22	7 (Fig 3-6) 36	Simultaneous Test & Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. TEST for Paint by Ameron	NONE
	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 3	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the PSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.							

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS.
6. FISCHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-22-73.
7. F&P TEST REPORT 2204-51-B-006.
8. FISCHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
<p>SYSTEM: MAIN FEEDWATER PLANT ID NO.: LT-4-484 Component: LEVEL TRANSMITTER</p> <p>FUNCTION: MITIGATE LOCA/HELB (I/O) MONITOR LOCA/HELB (I/O)</p> <p>MANUFACTURER: FISCHER & PORTER</p> <p>MODEL NO: 13D2495KBBABB-NS (HI-TEMP, HI-RAD) SR #7110A5531A12 ACCURACY: Spec: . Demon: SEE NOTE #2</p> <p>SERVICE: MONITOR STEAM GENERATOR WATER LEVEL AND PROVIDE ACCIDENT TRIP SIG.</p> <p>LOCATION INSIDE CONTAINMENT 2'-10" ABOVE FLOOR</p> <p>Area 11 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4062, Sht. 2, Rev. 3 Elect 5610-E-108, Rev. 8</p> <p>Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level:</p> <p>Yes <u>X</u> No <u> </u></p>	Operating Time	24 Hours	7 Hrs - Test 24 Hrs - Anal.	22	7 (Fig 3-6) 36	Simultaneous Test & Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. TEST for Paint by Ameron	NONE
	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 3	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
2) See discussion of component evaluation sheets (Sec. C.1.17).
3) Device has age susceptible maintenance item (will be included in the maintenance schedule).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS.
 6. FISCHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-22-73.
 7. F&P TEST REPORT 2204-51-B-006.
 8. FISCHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN FEEDWATER PLANT ID NO.: LT-4-494 Component: LEVEL TRANSMITTER FUNCTION: MITIGATE LOCA/HELB (I/O) MONITOR LOCA/HELB (I/O) MANUFACTURER: FISCHER & PORTER MODEL NO: 13D2495KBBABB-NS (HI-TEMP, HI-RAD) SR #6804A6257A 73 ACCURACY: Spec: Demon: ... SEE NOTE #2 SERVICE: MONITOR STEAM GENERATOR WATER LEVEL AND PROVIDE ACCIDENT TRIP SIG. LOCATION INSIDE CONTAINMENT 3'-2" ABOVE FLOOR Area 12 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4062, Sht. 2, Rev. 3 Elect 5610-E-111, Rev. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	24 Hours	7 Hrs - Test 24 Hrs - Anal.	22	7 (Fig 3-6) 36	Simultaneous Test & Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. TEST for Paint by Ameron	NONE
	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 3	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Device has age susceptible maintenance item (will be included in the maintenance schedule).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS.
 6. FISCHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-22-73.
 7. F&P TEST REPORT 2204-51-B-006.
 8. FISCHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 - 53 ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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Rev. 2

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN FEEDWATER PLANT ID NO.: LT-4-495 Component: LEVEL TRANSMITTER FUNCTION: MITIGATE LOCA/HELB (I/O) MONITOR LOCA/HELB (I/O) MANUFACTURER: FISCHER & PORTER MODEL NO: 13D2495KBBABB-NS (HI-TEMP, HI-RAD) SR #7110A5531A11 ACCURACY: Spec: Demon: SEE NOTE #2 SERVICE: MONITOR STEAM GENERATOR WATER LEVEL AND PROVIDE ACCIDENT TRIP SIG. LOCATION INSIDE CONTAINMENT 3'-2" ABOVE FLOOR Area 12 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4062, Sht. 2, Rev. 3 Elect 5610-E-1111, Rev. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	24 Hours	7 Hrs - Test 24 Hrs - Anal.	22	7 (Fig 3-6) 36	Simultaneous Test & Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. TEST for Paint by Ameron	NONE
	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 3	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Device has age susceptible maintenance item(will be included in the maintenance schedule).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS.
 6. FISCHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-22-73.
 7. F&P TEST REPORT 2204-51-B-006.
 8. FISCHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3440 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 21'-2" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV 12 Elect 5610-E-105, REV5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment. 3) See discussion of component evaluation sheets (Sec. C.1.17).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3441 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 17'-0" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11-REV-12 Elect 5610-E-105,REV5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment.
 3) See discussion of component evaluation sheets (Sec. C.1.17).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3442 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: NOTE 3 SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 16'-0" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11-REV-12 Elect 5610-E-105, REV 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment.
 3) See discussion of component evaluation sheets (Sec. C.1.17).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3443 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HKLB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-C-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 12'-1" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref DWG No. Mech 5610-M-11, REV-12 Elect 5610-E-105, REV 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment. 3) See discussion of component evaluation sheets (Sec. C.1.17).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master list.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3444 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HCLB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 10'-0" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV-12 Elect 5610-E-105, REV 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment.
 3) See discussion of component evaluation sheets (Sec. C.1.17).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3445 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELS (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 7'-2" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV-12 Elect 5610-E-105, REV 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment.
 3) See discussion of component evaluation sheets (Sec. C.1.17).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master list.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN MASTER LIST.

FACILITY: TURKEY POINT
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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3446 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 14'-1" ABOVE FLOOR Area Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV 12 Elect 5610-E-105, REV 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSURED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years;
 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment.
 3) See discussion of component evaluation sheets (Sec. C.1.17).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3447 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 12'-8" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV 12 Elect 5610-E-105, REV 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment. 3) See discussion of component evaluation sheets (Sec. C.1.17).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification - Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3448 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: Demon: NOTE 3 SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 21'-5" ABOVE FLOOR Area 3 Elev 58' (FLOOR) Ref Dwg No. Mech - 5610-M-11, REV 12 Elect 5610-E-102, REV. 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE-1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment. 3) See discussion of component evaluation sheets (Sec. C. 1.17).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2. CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3449 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 17'-2" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11-REV 12 Elect 5610-E-1C2, REV 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment.
 3) See discussion of component evaluation sheets (Sec. C.1.17).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
<p>SYSTEM: Containment Vent PLANT ID NO. TE-3-3450 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE</p> <p>MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: NOTE 3</p> <p>SERVICE: Cont. Vent. Sys. Charcoal filter temp.</p> <p>LOCATION INSIDE CONTAINMENT 16'-4" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11,REV-12 Elect 5610-E-102,REV 7</p> <p>Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level:</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment.
3) See discussion of component evaluation sheets (Sec. C.1.17).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3451 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 12'-2" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref DWG No. Mech 5610-M-11, REV 12 Elect 5610-E-102, REV 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSURED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PFH BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment. 3) See discussion of component evaluation sheets (Sec. C.1.17)							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3452 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 14'-1" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV 12 Elect 5610-E-102-REV 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	72 HRS	72HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment. 3) See discussion of component evaluation sheets (Sec. C. 1.17).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3453 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 12'-7" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV 12 Elect 5610-E-102-REV 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment. 3) See discussion of component evaluation sheets (Sec. C.1.17).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCAT CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3454 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 10'-0" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV-12 Elect 5610-E-102, REV.7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment.
3) See discussion of component evaluation sheets (Sec. C.1.17).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
 UNIT: 3 & 4
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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3455 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 7'-2" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref DWG No. Mech 5610-M-11, REV-12 Elect 5610-E-102, REV 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	1 N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment.
 3) See discussion of component evaluation sheets (Sec. C.1.17).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3456 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 21'-7" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV-12 Elect 5610-E-105, REV 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment.
3) See discussion of component evaluation sheets (Sec. C.1.17).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3457 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 17'-0" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV 12 Elect 5610-E-105, REV 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment.
3) See discussion of component evaluation sheets (Sec. C.1.17).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3458 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-C-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 16'-3" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-W-11,REV-12 Elect 5610-E-105,REV5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment.
3) See discussion of component evaluation sheets (Sec. C.1.17).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3459 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 12'-0" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV 12 Elect 5610-E-105-REV 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2. Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment. 3) See discussion of component evaluation sheets (Sec. C.1.17)							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. EPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3460 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 10'-0" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV 12 Elect 5610-E-105, REV 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment. 3) See discussion of component evaluation sheets (Sec. C.1.17).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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SYSTEM COMPONENT EVALUATION WORK SHEET

Rev. 2

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO: TE-3-3461 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 7'-3" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV 12 Elect 5610-E-105-REV 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment. 3) See discussion of component evaluation sheets (Sec. C.1.17)							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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SYSTEM COMPONENT EVALUATION WORK SHEET

Rev. 2

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3462 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 14'-1" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dog No. Mech 5610-M-11, REV-12 Elect 5610-E-105, REV 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment.
 3) See discussion of component evaluation sheets (Sec. C.1.17).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3463 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 12'-6" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV-12 Elect 5610-E-105, REV 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment.
 3) See discussion of component evaluation sheets (Sec. C.1.17)

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master list.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENTILATION PLANT ID NO. SEE TB 3115 Component: REFERENCE JUNCTION FUNCTION: LOCA/HELB (INSIDE) MITIGATE & MONITOR MANUFACTURER: CONSOLIDATED OHMIC DEVICES INC. MODEL NO: EZT 213 ACCURACY: Spec: NOTE 2 Demon: NOTE 2 SERVICE: TO PROVIDE REFERENCE JUNCTION POINTS FOR THERMOCOUPLES TC 3440-3463. LOCATION INSIDE CONTAINMENT 6'-5" ABOVE FLOOR Area 5 Elev 14' Ref Dwg No. Mech N/A Elect 5610-E-100 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u>X</u> No _____	Operating Time	72 Hrs.	None	22	None	None	See Note 3
	Temperature (°F)	SEE ATTACHMENT #1	None	1	None	None	See Note 3
	Pressure (PSIA)	SEE ATTACHMENT #2	None	1	None	None	See Note 3
	Relative Humidity (%)	100 %	None	ASSUMED	None	None	See Note 3
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	None	3	None	None	See Note 3
	Radiation	SEE ATTACHMENT #3	None	2	None	None	See Note 3
	Aging	40 YEARS	None	SEE NOTE 1	SEE NOTE 4	N/A	See Note 4
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) No qualification data available. Qualified replacements will be installed during unit refueling outage after procurement. 4) Aging analysis not done as device will be replaced per note 3.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENTILATION PLANT ID NO. SEE TB 4115 Component: REFERENCE JUNCTION FUNCTION: LOCA/HELB (INSIDE) MITIGATE & MONITOR MANUFACTURER: CONSOLIDATED OHMIC DEVICES INC. MODEL NO: EZT 213 ACCURACY: Spec: NOTE 2 Demon: SERVICE: TO PROVIDE REFERENCE JUNCTION POINTS FOR THERMOCOUPLES (TC 4440-4463) LOCATION: INSIDE CONTAINMENT 4'-4" ABOVE FLOOR Area 11 Elev 30'-6" Ref Dwg No. Mech N/A Elect 5610-E-108, REV. 8 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	72 Hrs.	None	22	None	None	See Note 3
	Temperature (°F)	SEE ATTACHMENT #1	None	1	None	None	See Note 3
	Pressure (PSIA)	SEE ATTACHMENT #2	None	1	None	None	See Note 3
	Relative Humidity (%)		None	ASSUMED	None	None	See Note 3
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	None	3	None	None	See Note 3
	Radiation	SEE ATTACHMENT #3	None	2	None	None	See Note 3
	Aging	40 YEARS	None	See Note 1	See Note 4	N/A	See Note 4
	Submergence	N/A	N/A	N/A	N/A	N/A	None
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) No qualification data available. Qualified replacements will be installed during unit refueling outage after procurement 4) Aging analysis not done as device will be replaced per note 3.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENT PLANT ID NO. 3V3A. Component: CNMT EMERG FILTER FAN MOTOR FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: JOY ENGINEERING MODEL NO: 46-26-1200 SERIES 2000(N) ACCURACY: Spec: } N/A Demo: } SERVICE: TO REMOVE PARTICULATE & IODINE FROM POST LOCA CONTMT ATMOSPHERE LOCATION INSIDE CONTAINMENT 21'-8" ABOVE FLOOR Area 6 Elev 58' (floor) Ref Dwg No. Mech 5610-M-11, Rev. 12 Elect 5610-E-105, Rev. 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	72 HRS	190 HRS	22	10	Simultaneous Test	None
	Temperature (°F)	SEE ATTACHMENT #1	See P #3 of Attachment #8	1	10 (G1 Thru G5)	Simultaneous Test	None
	Pressure (PSIA)	SEE ATTACHMENT #2	See P #3 of Attachment #8	1	10 (G1 Thru G5)	Simultaneous Test	None
	Relative Humidity (%)	100%	100%	ASSUMED	10	Simultaneous Test	None
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	10000 PPM Boron Neutralized to PH 6.8	3	10	Simultaneous Test	None
	Radiation	SEE ATTACHMENT #3	1 X 10 ⁹ R	2	10 (B-1 Thru B-4)	Engg. Analysis	None
	Aging	40 Years	40 Years	See Note 1.	53	Engg. Analysis	None
	Submergence	N/A	N/A	N/A	N/A	N/A	None
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN 1EB-79-01B MASTER LIST
 10. JOY ENGINEERING TEST REPORT 1969, VENDOR PRINT (VP) 5610-M-39-41-1
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENT PLANT ID NO. 3V3B Component: CNMT EMERG FILTER FAN MOTOR FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: JOY ENGINEERING MODEL NO: 46-26-1200 SERIES 2000(N) ACCURACY: Spec: } N/A Demon: } SERVICE: TO REMOVE PARTICULATE & IODINE FROM POST LOCA CONTAINMENT ATMOSPHERE LOCATION INSIDE CONTAINMENT 21'-8" ABOVE FLOOR Area: 5 Elev: 58' (FLOOR) Ref Dwg No. Mech: 5610-M-11, Rev. 12 Elect: 5610-E-102, Rev. 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	..72 HRS. ..	190 HRS	22	10	Simultaneous Test	None
	Temperature (°F)	SEE ATTACHMENT #1	See P #3 of Attachment #8	1	10 (G1 Thru G5)	Simultaneous Test	None
	Pressure (PSIA)	SEE ATTACHMENT #2	See P #3 of Attachment #8	1	10 (G1 Thru G5)	Simultaneous Test	None
	Relative Humidity (%)	100%	100%	ASSUMED	10	Simultaneous Test	None
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	10000 PPM Boron Neutralized to PH 6.8	3	10	Simultaneous Test	None
	Radiation	SEE ATTACHMENT #3	1 X 10 ⁹ R	2	10 (R-1 Thru R-4)	Engg. Analysis	None
	Aging	40 Years	40 Years	SEE NOTE 1	53	Engg. Analysis	None
	Submergence	N/A	N/A	N/A	N/A	N/A	None
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging is required and assumed to be 40 years.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-79-01B MASTER LIST
 10. JOY ENGINEERING TEST REPORT 1969, VENDOR PRINT (VP) 5610-M-39-41-1
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENT PLANT ID NO. 3V3C Component: CNMT EMERG FILTER FAN MOTOR FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: JOY ENGINEERING MODEL NO: 46-26-1200 SERIES 2000(N) ACCURACY: Spec: } N/A Demon: } SERVICE: TO REMOVE PARTICULATE & IODINE FROM POST LOCA CONTIME ATMOSPHERE LOCATION INSIDE CONTAINMENT 21'-8" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, Rev. 12 Elect 5610-E-105, Rev. 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	72 HRS	190 HRS	22	10	Simultaneous Test	None
	Temperature (°F)	SEE ATTACHMENT #1	See P #3 of Attachment #8	1	10 (G1 Thru G5)	Simultaneous Test	None
	Pressure (PSIA)	SEE ATTACHMENT #2	See P #3 of Attachment #8	1	10 (G1 Thru G5)	Simultaneous Test	None
	Relative Humidity (%)	100%	100%	ASSUMED	10	Simultaneous Test	None
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	10000 PPM Boron Neutralized to PH 6.8	3	10	Simultaneous Test	None
	Radiation	SEE ATTACHMENT #3	1 X 10 ⁹ R	2	10 (R-1 Thru R-4)	Engg. Analysis	None
	Aging	40 Years	40 Years	SEE NOTE 1	53	Engineering Analysis	None
	Submergence	N/A	N/A	N/A	N/A	N/A	None
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging is required and assumed to be 40 years.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-79-01B MASTER LIST
 10. JOY ENGINEERING TEST REPORT 1969, VENDOR PRINT (VP) 5610-M-39-41-1
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. FS-3-1422 Component: Air Flow Switch FUNCTION: Monitor Air Flow MANUFACTURER: Ball Engineering Co. MODEL NO: Series "D" Model 3500S-S SER #2671 ACCURACY: Spec: NOTE 4 Demon: SERVICE: Alarm Loss of Air Flow LOCATION INSIDE CONTAINMENT 27' - 8" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, Rev 12 Elect 5610-E-105 Rev. 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HOURS	72 HOURS	22	33	Engineering Analysis	See Note 2 NONE
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	33	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	33	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	33	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	33	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	33	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required. Assumed to be 40 yrs. 2) No qualification tests were done by vendor. The engineering analysis (ref. #33) confirms the adequacy of the device for the environment. 4) See discussion of component evaluation sheets (Sec. C 1.17)							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIMES FOR DEVICES COVERED IN IEB-079-01B MASTER LIST.
 33. CONTAINMENT VENT AIRFLOW SWITCHES - ENVIRONMENTAL QUALIFICATION ANALYSIS.
 32. CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01 B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. FS-3-1423 Component: Air Flow Switch FUNCTION: Monitor Air Flow MANUFACTURER: Ball Engineering Co. MODEL NO: Series "D" Model 3500S-S SER #2672 ACCURACY: Spec: NOTE 4 Demon: SERVICE: Alarm Loss of Air Flow LOCATION INSIDE CONTAINMENT 27' - 8" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, Rev 12 Elect 5610-E-105 Rev. 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	72 HOURS	72 HOURS	22	33	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	33	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	33	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	33	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPH BORON SOL AS BORIC ACID	See Note 2	3	33	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	33	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required. Assumed to be 40 yrs.
 2) No qualification tests were done by vendor. The engineering analysis (ref. #33) confirms the adequacy of the device for the environment.
 4) See discussion of component evaluation sheets (sec.C 1-17).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIMES FOR DEVICES COVERED IN 1 EB-79-01B MASTER LIST.
 33. CONTAINMENT VENT AIRFLOW SWITCHES - ENVIRONMENTAL QUALIFICATION ANALYSIS.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. FS-3-1424 Component: Air Flow Switch FUNCTION: Monitor Air Flow MANUFACTURER: Ball Engineering Co. MODEL NO: Series "D" Model 3500S-S SER #2673 ACCURACY: Spec: NOTE 4 Demon: SERVICE: Alarm Loss of Air Flow LOCATION INSIDE CONTAINMENT 27' - 8" ABOVE FLOOR Area 5 Elev. 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, Rev 12 Elect 5610-E-102, Rev. 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HOURS	72 HOURS	22	33	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	33	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	33	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	33	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	33	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	33	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required. Assumed to be 40 yrs.
2) No qualification tests were done by vendor. The engineering analysis (ref. #33) confirms the adequacy of the device for the environment.
3) Assumed to be located at same elevation as unit 4 counterpart.

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIMES FOR DEVICES COVERED IN IEB-79-01B MASTER LIST.
 33. CONTAINMENT VENT AIRFLOW SWITCHES - ENVIRONMENTAL QUALIFICATION ANALYSIS.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. FS-3-1425 Component: Air Flow Switch FUNCTION: Monitor Air Flow MANUFACTURER: Ball Engineering Co. MODEL NO: Series "D" Model 3500S-S SER #2674 ACCURACY: Spec: NOTE 4 Demon: SERVICE: Alarm Loss of Air Flow LOCATION: INSIDE CONTAINMENT 27' - 8" ABOVE FLOOR Area 5 (FLOOR) Elev 58 Ref Dwg No. Mech 5610-M-11, Rev 12 Elect 5610-E-102, Rev. 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u> x </u> No <u> </u>	Operating Time	72 HOURS	72 HOURS	22	33	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	33	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	33	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	33	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	33	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	33	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required. Assumed to be 40 yrs. 2) No qualification tests were done by vendor. The engineering analysis (ref. #33) confirms the adequacy of the device for the environment. 4) See discussion of component evaluation sheets (sec. C.1.17).						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIMES FOR DEVICES COVERED IN IEB-79-01B MASTER LIST.
 33. CONTAINMENT VENT AIRFLOW SWITCHES - ENVIRONMENTAL QUALIFICATION ANALYSIS.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. FS-3-1426 Component: Air Flow Switch FUNCTION: Monitor Air Flow MANUFACTURER: Ball Engineering Co. MODEL NO: Series "D" Model 3500S-S SER #2675 ACCURACY: Spec: NOTE 4 Demon: SERVICE: Alarm Loss of Air Flow LOCATION INSIDE CONTAINMENT 27' - 8" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, Rev 12 Elect 5610-E-105 Rev. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u> x </u> No <u> </u>	Operating Time	72 HOURS	72 HOURS	22	33	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	33	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	33	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	33	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	33	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	33	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required, Assumed to be 40 years. 2) No qualification tests were done by vendor. The engineering analysis (ref. #33) confirms the adequacy of the device for the environment. 4) See discussion of component evaluation sheets (Sect. C 1-17).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIMES FOR DEVICES COVERED IN 1 EB-79-01B MASTER LIST.
 33. CONTAINMENT VENT AIRFLOW SWITCHES - ENVIRONMENTAL QUALIFICATION ANALYSIS.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. FS-3-1427 Component: Air Flow Switch FUNCTION: Monitor Air Flow MANUFACTURER: Ball Engineering Co. MODEL NO: Series "D" Model 3500S-S SER #2676 ACCURACY: Spec: NOTE 4 Demon: SERVICE: Alarm Loss of Air Flow LOCATION INSIDE CONTAINMENT 27' - 8" ABOVE FLOOR Area 6 Elev 58 (FLOOR) Ref Dwg No. Mech 5610-M-11, Rev 12 Elect 5610-E-105 Rev. 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HOURS	72 HOURS	22	33	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	33	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	33	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	33	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	33	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	33	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required, Assumed to be 40 years.
2) No qualification tests were done by vendor. The engineering analysis (ref. #33) confirms the adequacy of the device for the environment.
4) See discussion of component evaluation sheets (sec.C. 1. 17).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIMES FOR DEVICES COVERED IN IEB-79-01B MASTER LIST.
 33. CONTAINMENT VENT AIRFLOW SWITCHES - ENVIRONMENTAL QUALIFICATION ANALYSIS.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENTILATION PLANT ID NO. SV-3-2905 Component: Solenoid Valves FUNCTION: LOCA/HELB (inside) MITIGATE MANUFACTURER: Automatic Switch Company MODEL NO: 8211C46 SER # S47989 ACCURACY: Spec: N/A Demon: N/A SERVICE: Charcoal Filter Spray Dousing Valves LOCATION INSIDE CONTAINMENT 4'-1" ABOVE FLOOR Area 6 Elev. 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV. 12 Elect 5610-E-105, REV. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	11 DAYS	22	21	Simultaneous Test and Math. Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	311 F	1	21	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	60 PSIG	1	21	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100%	ASSUMED	21	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	3000 PPM Boron Sol as Boric Acid	3	21	Prototype Test & Engineering Analysis	NONE
	Radiation	SEE ATTACHMENT #3	4 X 10 ⁴ RADS	2	21	Engineering Analysis	NONE
	Aging	40 YEARS	< 40 YEARS	SEE NOTE 1	53	Engineering Analysis	SEE NOTE 3
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.							

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
21. ENGINEERING ANALYSIS OF DOUSING VALVES.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENTILATION PLANT ID NO. SV-3-2906 Component: Solenoid Valves FUNCTION: LOCA/HELB (inside) MITIGATE MANUFACTURER: Automatic Switch Company MODEL NO: X8211-B46-SW HV-164196 SER #59279T2 ACCURACY: Spec: N/A Demon: N/A SERVICE: Charcoal Filter Spray Dousing Valves LOCATION INSIDE CONTAINMENT 4'-1" ABOVE FLOOR Area 6 Elev. 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV. 12 Elect 5610-E-105 REV. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	72 HRS	11 DAYS	22	21	Simultaneous Test and Math. Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	311 F	1	21	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	60 PSIG	1	21	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100%	ASSUMED	21	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	3000 PPM Boron Sol as Boric Acid	3	21	Prototype Test & Engineering Analysis	NONE
	Radiation	SEE ATTACHMENT #3	4 X 10 ⁴ RADS	2	21	Engineering Analysis	NONE
	Aging	40 YEARS	< 40 YEARS	SEE NOTE 1	53	Engineering Analysis	SEE NOTE 3
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 21. ENGINEERING ANALYSIS OF DOUSING VALVES.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENTILATION PLANT ID NO. SV-3-2907 Component: Solenoid Valves FUNCTION: LOCA/HELB (inside) MITIGATE MANUFACTURER: Automatic Switch Company MODEL NO: X8211-B46-SW HV-164196 SER #59279T4 ACCURACY: Spec: N/A Demon: N/A SERVICE: Charcoal Filter Spray Dousing Valves LOCATION INSIDE CONTAINMENT 9'-6" ABOVE PER. HATCH PLAT. Area 5 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-M-11, REV. 12 Elect 5610-E-101 REV. 8 Flood Level Elev: 19'-0" DOC. REP. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	72 HRS	11 DAYS	22	21	Simultaneous Test and Math. Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	311 F	1	21	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	60 PSIG	1	21	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100%	ASSUMED	21	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	3000 PPM Boron Sol as Boric Acid	3	21	Prototype Test & Engineering Analysis	NONE
	Radiation	SEE ATTACHMENT #3	4 X 10 ⁴ RADS	2	21	Engineering Analysis	NONE
	Aging	40 YEARS	< 40 YEARS	SEE NOTE 1	53	Engineering Analysis	SEE NOTE 3
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 21. ENGINEERING ANALYSIS OF DOUSING VALVES.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENTILATION PLANT ID NO. SV-3-2908 Component: Solenoid Valves FUNCTION: LOCA/HELB (inside) MITIGATE MANUFACTURER: Automatic Switch Company MODEL NO: X8211-B46-SW HV-164196 ACCURACY: Spec: N/A Demon: N/A SERVICE: Charcoal Filter Spray Dousing Valves LOCATION INSIDE CONTAINMENT 9'-6" ABOVE PLAT. Area Elev. 30'-6" (FLOOR) Ref Dwg No. Mech 5610-M-11, REV. 12 Elect 5610-E-101 REV. 8 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	72 HRS	11 DAYS	22	21	Simultaneous Test and Math. Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	311 F	1	21	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	60 PSIG	1	21	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100%	ASSUMED	21	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	3000 PPM Boron Sol as Boric Acid	3	21	Prototype Test & Engineering Analysis	NONE
	Radiation	SEE ATTACHMENT #3	4 X 10 ⁴ RADS	2	21	Engineering Analysis	NONE
	Aging	40 YEARS	< 40 YEARS	SEE NOTE 1	53	Engineering Analysis	SEE NOTE 3
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
21. ENGINEERING ANALYSIS OF DOUSING VALVES.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENTILATION PLANT ID NO. SV-3-2909 Component: Solenoid Valves FUNCTION: LOCA/HELB (inside) MITIGATE MANUFACTURER: Automatic Switch Company MODEL NO: X8211-B46-SW HV-164196 SER #59279T5 ACCURACY: Spec: N/A Demon: N/A SERVICE: Charcoal Filter Spray Dousing Valves LOCATION INSIDE CONTAINMENT 4'-0" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref DWG No. Mech 5610-M-11, REV. 12 Elect 5610-E-105 REV. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	72 HRS	11 DAYS	22	21	Simultaneous Test and Math. Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	311 F	1	21	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	60 PSIG	1	21	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100%	ASSUMED	21	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	3000 PPM Boron Sol as Boric Acid	3	21	Prototype Test & Engineering Analysis	NONE
	Radiation	SEE ATTACHMENT #3	4 X 10 RADS	2	21	Engineering Analysis	NONE
	Aging	40 YEARS	< 40 YEARS	SEE NOTE 1	53	Engineering Analysis	SEE NOTE 3
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. EPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 21. ENGINEERING ANALYSIS OF DOUSING VALVES.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 3.2. CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENTILATION PLANT ID NO: SV-3-2910 Component: Solenoid Valves FUNCTION: LOCA/HELB (inside) MITIGATE MANUFACTURER: Automatic Switch Company MODEL NO: X8211-B46-SW HV-164196 SER #59279T8 ACCURACY: Spec: N/A Demon: N/A SERVICE: Charcoal Filter Spray Dousing Valves LOCATION INSIDE CONTAINMENT 4'-0" ABOVE FLOOR Area 6 Elev. 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV. 12 Elect 5610-E-105-REV. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	72 HRS	11 DAYS	22	21	Simultaneous Test and Math. Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	311 F	1	21	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	60 PSIG	1	21	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100%	ASSURED	21	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	3000 PPM Boron Sol as Boric Acid	3	21	Prototype Test & Engineering Analysis	NONE
	Radiation	SEE ATTACHMENT #3	4 X 10 ⁴ RADS	2	21	Engineering Analysis	NONE
	Aging	40 YEARS	< 40 YEARS	SEE NOTE 1	53	Engineering Analysis	SEE NOTE 3
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 21. ENGINEERING ANALYSIS OF DOUSING VALVES.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENT PLANT ID NO. 3V30A Component: CNMT EMERG COOLER FAN MOTOR FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: JOY ENGINEERING MODEL NO: 38-26-1200 SERIES 2000(N) ACCURACY: Spec: } N/A Demon: } SERVICE: PROVIDE EMERGENCY COOLING OF POST LOCA CONTMT ATMOSPHERE LOCATION INSIDE CONTAINMENT 21'-4" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, Rev. 12 Elect 5610-E-105, Rev. 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	.72 HRS ..	190 HRS	22	10	Simultaneous Test	None
	Temperature (°F)	SEE ATTACHMENT #1	See P #3 of Attachment #8	1	10 (G1 Thru G5)	Simultaneous Test	None
	Pressure (PSIA)	SEE ATTACHMENT #2	See P #3 of Attachment #8	1	10 (G1 Thru G5)	Simultaneous Test	None
	Relative Humidity (%)	100%	100%	ASSUMED	10	Simultaneous Test	None
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	10000 PPM Boron Neutralized to PH 6.8	3	10	Simultaneous Test	None
	Radiation	SEE ATTACHMENT #3	1 X 10 ⁹ R	2	10 (B-1 Thru B-4)	Engg. Analysis	None
	Aging	40 Years	40 Years	SEE NOTE 1	53	Engineering Analysis	None
	Submergence	N/A	N/A	N/A	N/A	N/A	None

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging is required and assumed to be 40 years.

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. PPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-79-01B MASTER LIST
 10. JOY ENGINEERING TEST REPORT 1969, VENDOR PRINT (VP) 5610-M-39-41-1
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENT PLANT ID NO. 3V30B Component: CNMT EMERG COOLER FAN MOTOR FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: JOY ENGINEERING MODEL NO: 38-26-1200 SERIES 2000(N) ACCURACY: Spec: } N/A Demon: } SERVICE: PROVIDE EMERGENCY COOLING OF POST LOCA CONTMNT ATMOSPHERE LOCATION INSIDE CONTAINMENT 12'-8" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, Rev. 12 Elect 5610-E-102, Rev. 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	72 HRS	190 HRS	22	10	Simultaneous Test	None
	Temperature (°F)	SEE ATTACHMENT #1	See P #3 of Attachment #8	1	10 (G1 Thru G5)	Simultaneous Test	None
	Pressure (PSIA)	SEE ATTACHMENT #2	See P #3 of Attachment #8	1	10 (G1 Thru G5)	Simultaneous Test	None
	Relative Humidity (%)	100%	100%	ASSUMED	10	Simultaneous Test	None
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	10000 PPM Boron Neutralized to PH 6.8	3	10	Simultaneous Test	None
	Radiation	SEE ATTACHMENT #3	1 X 10 ⁹ R	2	10 (B-1 Thru B-4)	Engg. Analysis	None
	Aging	40 Years	40 Years	SEE NOTE 1	53	Engineering Analysis	None
	Submergence	N/A	N/A	N/A	N/A	N/A	None
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging is required and assumed to be 40 years.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-79-01B MASTER LIST
 10. JOY ENGINEERING TEST REPORT 1969, VENDOR PRINT (VP) 5610-M-39-41-1
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENT PLANT ID NO. 3V30C Component: CNMT EMERG COOLER FAN MOTOR FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: JOY ENGINEERING MODEL NO: 38-26-1200 SERIES 2000(N) ACCURACY: Spec: } N/A Demon: } SERVICE: PROVIDE EMERGENCY COOLING OF POST LOCA CONTMNT ATMOSPHERE LOCATION INSIDE CONTAINMENT 21'-4" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, Rev. 12 Elect 5610-E-105, Rev. 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	72 HRS	190 HRS	22	10	Simultaneous Test	None
	Temperature (°F)	SEE ATTACHMENT #1	See P #3 of Attachment #8	1	10 (G1 Thru G5)	Simultaneous Test	None
	Pressure (PSIA)	SEE ATTACHMENT #2	See P #3 of Attachment #8	1	10 (G1 Thru G5)	Simultaneous Test	None
	Relative Humidity (%)	100%	100%	ASSUMED	10	Simultaneous Test	None
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	10000 PPM Boron Neutralized to PH 6.8	3	10	Simultaneous Test	None
	Radiation	SEE ATTACHMENT #3	1 X 10 ⁹ R	2	10 (B-1 Thru B-4)	Engg. Analysis	None
	Aging	40 Years	40 Years	SEE NOTE 1	53	Engineering Analysis	None
	Submergence	N/A	N/A	N/A	N/A	N/A	None

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging is required and assumed to be 40 years.

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-79-01B MASTER LIST
 10. JOY ENGINEERING TEST REPORT 1969, VENDOR PRINT (VP) 5610-M-39-41-1
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENTILATION PLANT ID NO. SV-3-2601 Component: SOLENOID VALVE FUNCTION: LOCA/HELB (INSIDE) MITIGATION MANUFACTURER: AUTOMATIC SWITCH COMPANY MODEL NO: CAT. NO. LB831665 SER #49792A ACCURACY: Spec: N/A Demon: N/A SERVICE: SOLENOID VALVE FOR POV-3-2601 LOCATION INSIDE CONTAINMENT 27'-10" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, Rev. 12 Elect 5610-E-102, Rev. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	1/2 HOUR	NONE	22	NONE	NONE	SEE NOTE 2
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	NONE	SEE NOTE 2
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	NONE	SEE NOTE 2
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	NONE	SEE NOTE 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	NONE	SEE NOTE 2
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	NONE	SEE NOTE 2
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 4	---	SEE NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging is required. Assumed to be 40 years.
 2) There is no data available for accident environment qualification. As previously indicated in response to IE Bulletin 79-01, it has been decided to replace this solenoid with a qualified one. Procurement action has been completed, and the installation will be done during the refueling outage after the satisfactory qualification test of the conduit seal material. See generic component evaluation sheet (Section 10) for the qualified replacement.
 4) Aging analysis not done as device will be replaced per note 2.

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENTILATION PLANT ID NO. SV-3-2804 Component: SOLENOID VALVE FUNCTION: LOCA/HELB (INSIDE) MITIGATION MANUFACTURER: AUTOMATIC SWITCH COMPANY MODEL NO: CAT. NO. LB831665 ACCURACY: Spec: N/A Demon: N/A SERVICE: SOLENOID VALVE FOR POV-3-2601 LOCATION: INSIDE CONTAINMENT 27'-10" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, Rev. 12 Elect 5610-E-102, Rev. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	1/2 HOUR	NONE	22	NONE	NONE	SEE NOTE 2
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	NONE	SEE NOTE 2
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	NONE	SEE NOTE 2
	Relative Humidity (%)	100%	NONE	ASSURED	NONE	NONE	SEE NOTE 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	NONE	SEE NOTE 2
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	NONE	SEE NOTE 2
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 4	---	SEE NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required. Assumed to be 40 years. 2) There is no data available for accident environment qualification. As previously indicated in response to IE Bulletin 79-01, it has been decided to replace this solenoid with a qualified one. Procurement action has been completed, and the installation will be done during the refueling outage after the satisfactory qualification test of the conduit-seal material. See generic component evaluation sheet (Section 10) for the qualified replacement. 4) Aging analysis not done as device will be replaced per note 2.						

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CMT. VENTIL. PLANT ID NO. No Tag. No. (Assoc. w/POV-3-2601) Component: 2 LIMIT SWITCHES FUNCTION: LOCA/HELB (IN & OUT) MONITOR MANUFACTURER: NAMCO MODEL NO: LIM. SW. 1-D1200G ACCURACY: Spec: N/A Demon: N/A SERVICE: POSITION INDICATION ASSOCIATED WITH POV-3-2601 LOCATION INSIDE CONTAINMENT 27'-10" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech N/A Elect 5610-E-102 (Rev. 7) Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	1/2 HOUR	NONE	SEE NOTE 2	NONE	---	SEE NOTE 3
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	---	SEE NOTE 3
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	---	SEE NOTE 3
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	---	SEE NOTE 3
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	---	SEE NOTE 3
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	---	SEE NOTE 3
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 5	---	SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1. IN THE FSAR AGING & SUBMERGENCE WERE NOT CONSIDERED ENVIRONMENTAL PARAMETERS. AGING REQUIRED ASSUMED TO BE 40 YEARS. 2. OPERATING TIME OF ASSOCIATED SOLENOID VALVE. 3. NO QUALIFICATION DOCUMENTS AVAILABLE ON THESE LIMIT SWITCHES. QUALIFIED REPLACEMENTS WILL BE INSTALLED DURING NEXT REFUELING OUTAGE AFTER SATISFACTORY COMPLETION OF QUALIFICATION TEST ON CONDUIT SEAL MATERIAL. 5. AGING ANALYSIS NOT DONE AS DEVICE WILL BE REPLACED PER NOTE 3.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENTILATION PLANT ID NO. SV-3-2603 Component: SOLENOID VALVE FUNCTION: LOCA/HELB (INSIDE) MITIGATION MANUFACTURER: AUTOMATIC SWITCH COMPANY MODEL NO: CAT. NO. LB831665 SER #49792A ACCURACY: Spec: N/A Demon: N/A SERVICE: CONTAINMENT PURGE VALVE LOCATION: INSIDE CONTAINMENT 15'-6" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, Rev. 12 Elect 5610-E-102, Rev. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	1/2 HOUR	NONE	22	NONE	NONE	SEE NOTE 2
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	NONE	SEE NOTE 2
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	NONE	SEE NOTE 2
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	NONE	SEE NOTE 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	NONE	SEE NOTE 2
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	NONE	SEE NOTE 2
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 4	N/A	SEE NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required: Assumed to be 40 years. 2) There is no data available for accident environment qualification. As previously indicated in response to IE Bulletin 79-01, it has been decided to replace this solenoid with a qualified one. Procurement action has been completed, and the installation will be done during the refueling outage after the satisfactory qualification test of the conduit seal material. See generic component evaluation sheet (Section 10) for the qualified replacement. 4) Aging analysis not done as devices will be replaced per note 2.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. EPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENTILATION PLANT ID NO. SV-3-2806 Component: SOLENOID VALVE FUNCTION: LOCA/HELB (INSIDE) MITIGATION MANUFACTURER: AUTOMATIC SWITCH COMPANY MODEL NO: CAT. NO. LB831665 SER #49792A ACCURACY: Spec: N/A Demon: N/A SERVICE: CONTAINMENT PURGE VALVE LOCATION: INSIDE CONTAINMENT 15' - 6" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, Rev. 12 Elect 5610-E-102, Rev. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	1/2 HOUR	NONE	22	NONE	NONE	SEE NOTE 2
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	NONE	SEE NOTE 2
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	NONE	SEE NOTE 2
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	NONE	SEE NOTE 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	NONE	SEE NOTE 2
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	NONE	SEE NOTE 2
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 4	---	SEE NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required. Assumed to be 40 years. 2) There is no data available for accident environment qualification. As previously indicated in response to IE Bulletin 79-01, it has been decided to replace this solenoid with a qualified one. Procurement action has been completed, and the installation will be done during the refueling outage after the satisfactory qualification test of the conduit seal material. See generic component evaluation sheet (Section 10) for the qualified replacement. 4) Aging analysis not done as device will be replaced per note 2.						

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification - Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CMT. VENTIL. PLANT ID NO. No Tag. No. (Assoc. w/ POV-3-2603) Component: 2 LIMIT SWITCHES FUNCTION: LOCA/HELB (IN & OUT) MONITOR MANUFACTURER: NAMCO MODEL NO: LIM. SW. 1-D1200G-2 LIM. SW. 2-D1200G-2SR ACCURACY: Spec: N/A Demon: N/A SERVICE: POSITION INDICATION ASSOCIATED WITH POV-3-2603 LOCATION INSIDE CONTAINMENT. 15'-6" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech N/A Elect 5610-E-102 (Rev. 7) Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	1/2 HOUR	NONE	SEE NOTE 2	NONE	---	SEE NOTE 3
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	---	SEE NOTE 3
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	---	SEE NOTE 3
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	---	SEE NOTE 3
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	---	SEE NOTE 3
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	---	SEE NOTE 3
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 5	---	SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1. IN THE FSAR AGING & SUBMERGENCE WERE NOT CONSIDERED ENVIRONMENTAL PARAMETERS. AGING REQUIRED ASSUMED TO BE 40 YEARS. 2. OPERATING TIME OF ASSOCIATED SOLENOID VALVE. 3. NO QUALIFICATION DOCUMENTS AVAILABLE ON THESE LIMIT SWITCHES. QUALIFIED REPLACEMENTS WILL BE INSTALLED DURING NEXT REFUELING OUTAGE AFTER SATISFACTORY COMPLETION OF QUALIFICATION TEST ON CONDUIT SEAL MATERIAL. 5. AGING ANALYSIS NOT DONE AS DEVICE WILL BE REPLACED PER NOTE 3.							

*DOCUMENT REFERENCES: 1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENTILATION PLANT ID NO. SV-3-2819 Component: SOLENOID VALVE FUNCTION: LOCA/HELS (INSIDE) MITIGATE MANUFACTURER: AUTOMATIC SWITCH COMPANY MODEL NO: Cat. No. 8316C14 SER #21258D ACCURACY: Spec: N/A Demon: N/A SERVICE: SOLENOID VALVE FOR CONTROL VALVE CV-3-2819 LOCATION INSIDE CONTAINMENT 11'-3" ABOVE FLOOR Area 5 Elev 14' (FLOOR) Ref Dwg No. Mech 5610-M-11, Rev. 12 Elect 5610-E-100, Rev. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes _____ No _____	Operating Time	1/2 HOUR	NONE	22	NONE	NONE	SEE NOTE 2
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	NONE	SEE NOTE 2
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	NONE	SEE NOTE 2
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	NONE	SEE NOTE 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	NONE	SEE NOTE 2
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	NONE	SEE NOTE 2
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 4	---	SEE NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required. Assumed to be 40 years. 2) There is no data available for accident environment qualification. As previously indicated in response to IE Bulletin 79-01, it has been decided to replace this solenoid with a qualified one. Procurement action has been completed, and the installation will be done during the refueling outage after the satisfactory qualification test of the conduit seal material. See generic component evaluation sheet (Section 10) for the qualified replacement. 4) Aging analysis not done as device will be replaced per note 2.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CMT. VENTIL. PLANT ID NO. No Tag. No. (Assoc. w/ CV-3-2819) Component: 2 LIMIT SWITCHES FUNCTION: LOCA/HELB (IN & OUT) MONITOR MANUFACTURER: NAMCO MODEL NO: LIM. SW. 1-D2400X LIM. SW. 2-D2400X ACCURACY: Spec: N/A Demon: N/A SERVICE: POSITION INDICATION ASSOCIATED WITH CV-3-2819 LOCATION INSIDE CONTAINMENT 10'-6" & 10'-9" ABOVE FLOOR Area 5 Elev 14' (FLOOR) Ref Dwg No. Mech N/A Elect 5610-E-100 (Rev. 7) Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	1/2 HOUR	NONE	SEE NOTE 2	NONE	---	SEE NOTE 3
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	---	SEE NOTE 3
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	---	SEE NOTE 3
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	---	SEE NOTE 3
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	---	SEE NOTE 3
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	---	SEE NOTE 3
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 5	---	SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1. IN THE FSAR AGING & SUBMERGENCE WERE NOT CONSIDERED ENVIRONMENTAL PARAMETERS. AGING REQUIRED ASSUMED TO BE 40 YEARS. 2. OPERATING TIME OF ASSOCIATED SOLENOID VALVE. 3. NO QUALIFICATION DOCUMENTS AVAILABLE ON THESE LIMIT SWITCHES. QUALIFIED REPLACEMENTS WILL BE INSTALLED DURING NEXT REFUELING OUTAGE AFTER SATISFACTORY COMPLETION OF QUALIFICATION TEST ON CONDUIT SEAL MATERIAL. 5. AGING ANALYSIS NOT DONE AS DEVICE WILL BE REPLACED PER NOTE 3.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO. CABLE CODE LT1 Component: 3/C #16 CABLE W/CROSS-LINKED EPR INSUL. AND HYPALON JACKET FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: ANACONDA MODEL NO: FLAME-GUARD (FR-EP) ACCURACY: Spec: N/A Demon: N/A SERVICE: 600V INSTRUMENT CABLE LOCATION: INSIDE CONTAINMENT AND OUTSIDE CONTAINMENT Area VARIOUS Elev. VARIOUS Ref. Dsg. No. Mech. N/A Elect. M/R 5177-105-E-862.1 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS	NOTE 2	62 (page 3-9 and analysis)	SIMULTANEOUS TEST AND ENGINEERING ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	385	1	62 (page 3-9)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	80.7	1	62 (page 3-9)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	62 (page 3-2)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	6200 PPM BORON AS H ₃ BO ₃ BUFFERED TO A pH of 8.6-10.0	3	62 (page 3-9)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	62 (page 3-1)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	62 (page 3-1)	SEQUENTIAL TEST	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This time is based on the longest operating time of the devices served by this cable. (Associated Device: TE-413A)						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. PPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 62. QUALIFICATION TEST REPORT #F-C4836-2 FOR ANACONDA FLAME-GUARD (FR-EP) 1E CABLES, AND TEMPERATURE EXTRAPOLATION.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO. CABLE CODE LP1 Component: 2/C #16 CABLE W/CROSS-LINKED EPR INSUL. AND HYPALON JACKET FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: ANACONDA MODEL NO: FLAME-GUARD (FR-EP) ACCURACY: Spec: N/A Demon: N/A SERVICE: 600V INSTRUMENT CABLE LOCATION: INSIDE CONTAINMENT AND OUTSIDE CONTAINMENT Area VARIOUS Elev. VARIOUS Ref. Dwg. No. Mech. N/A Elect. M/R 5177-105-E-862.1 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS	NOTE 2	62 (page 3-9 and analysis)	SIMULTANEOUS TEST AND ENGINEERING ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	385	1	62 (page 3-9)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	80.7	1	62 (page 3-9)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	62 (page 3-2)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	6200 PPM BORON AS H ₃ BO ₃ BUFFERED TO A pH of 8.6-10.0	3	62 (page 3-9)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	62 (page 3-1)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	62 (page 3-1)	SEQUENTIAL TEST	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This time is based on the longest operating time of the devices served by this cable.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 62. QUALIFICATION TEST REPORT #F-C4836-2 FOR ANACONDA FLAME-GUARD (FR-EP) IE CABLES, AND TEMPERATURE EXTRAPOLATION.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: CABLE CODE LTI Component: 3/C #16 CABLE W/CROSS-LINKED POLYETHYLENE INSUL. AND NEOPRENE JACKET FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: ROCKBESTOS MODEL NO: FIREWALL III ACCURACY: Spec: N/A Demom: N/A SERVICE: 600V INSTRUMENTATION CABLE LOCATION: INSIDE CONTAINMENT Area VARIOUS Elev. VARIOUS Ref. Dwg. No. Mech. N/A Elect. M/R 5177-105-E-857 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	NOTE 2	63 (page 8)	SIMULTANEOUS TEST AND ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	63 (page 8)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	63 (page 8)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	63 (page 8)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	3000 PPM BORON BUFFERED W/NaOH to pH 9.0-11.0	3	63 (page 8)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	63 (page 9)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	63 (page 2)	SEQUENTIAL TEST	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This time is based on the longest operating time of the devices served by this cable. (Associated device: TE-413A) 3) Actual test duration was 30 days, however the test profile envelopes the actual profile throughout test.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 63. ROCKBESTOS QUALIFICATION TEST REPORT OF 6/7/78 FOR FIREWALL III CLASS 1E ELECTRIC CABLES.

FACILITY: THURNE POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO. VENDOR SUPPLIED CABLE Component: COAXIAL CABLE WITH XLPE INSUL. AND HYPALON JACKET FUNCTION: LOCA/HELB (in & out) MONITOR MANUFACTURER: BRAND-REX COMPANY MODEL NO: CS-75146 NUCLEAR GRADE CABLES ACCURACY: Spec: N/A Demon: N/A SERVICE: SAFETY VALVE ACOUSTIC MONITORING SYSTEM LOCATION: INSIDE CONTAINMENT Area VARIOUS Elev. VARIOUS Ref. Dwg. No. Mech. N/A Elect. M/R 5177-105-J-720 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	> 31 DAYS NOTE 4	NOTE 2	65 (page 4-3)	SIMULTANEOUS TEST	NONE
	Temperature (°F)	SEE ATTACHMENT #1	385°F	1	65 (page 4-3)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127	1	65 (page 4-3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	65 (page 4-2)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	6200 PPM BORON AS BORIC ACID WITH pH of 10.0	3	65 (page 4-2)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	64 Appendix C 65 Appendix B	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	12.4 YEARS	SEE NOTE 1	64 (Appendix A, pg.1)	SEQUENTIAL TEST	SEE NOTE 3
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This time is based on the longest operating time of the devices served by this cable. (Associated device: ZS-6303A) 3) The cable was aged for 600 hr. at 125°C. A maintenance schedule will be developed to periodically replace the cable. 4) The actual test was conducted for 30 days. The test profile envelopes the actual profile throughout the test.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 64. QUALIFICATION TEST REPORT (TEC #517-TR-03) FOR ENVIRONMENTAL AND SEISMIC TESTING.
 65. QUALIFICATION TESTS OF BRAND-REX COAXIAL TYPE CABLES. FIRM FINAL REPORT #F-C5120-2.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MISCELLANEOUS PLANT ID NO. TB 3122 Component: TERMINAL BOX (SEE MASTER LIST FOR ASSOC. DEVICES) FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: FIELD FABRICATED PER BECHTEL DRAWING 5610-E-308 MODEL NO: N/A ACCURACY: Spec: N/A Demon: N/A SERVICE: TO PROVIDE LOCAL INTERCONNECT FACILITY LOCATION INSIDE CONTAINMENT 4'-10" ABOVE FLOOR Area 5 Elev 58'-0" (FLOOR) Ref Dwg No. Mech N/A Elect 5610-E-102 REV 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	72 Hrs.	SEE ATTACHMENT # 7	See Note 2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Temperature (°F)	See Attachment #1	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Pressure (PSIA)	See Attachment #2	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Relative Humidity (%)	100%	SEE ATTACHMENT # 7	Assumed	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE ATTACHMENT # 7	3	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Radiation	SEE ATTACHMENT #3	SEE ATTACHMENT # 7	2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Aging	40 YEARS	> 40 YEARS	SEE NOTE 1	53	Engineering ANALYSIS	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
2) Operating time indicated reflects the longest time of devices catered by this box (see Evaluation for SV-3-2908).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MISCELLANEOUS PLANT ID NO. TB 3123 Component: TERMINAL BOX (SEE MASTER LIST FUNCTION: FOR ASSOC. DEVICES) LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: FIELD FABRICATED PER BECHTEL DRAWING 5610-E-308 MODEL NO: N/A ACCURACY: Spec: N/A Demon: N/A SERVICE: TO PROVIDE LOCAL INTERCONNECT FACILITY LOCATION INSIDE CONTAINMENT 3'-8" ABOVE FLOOR Area 6 Elev. 58'-0" (FLOOR) Ref Dwg No. Mech N/A Elect 5610-E-105 Rev 5 Flood Level Elev: 19'-0" Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	72 Hrs	SEE ATTACHMENT # 7	See Note 2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Temperature (°F)	See Attachment #1	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Pressure (PSIA)	See Attachment #2	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Relative Humidity (%)	100%	SEE ATTACHMENT # 7	Assumed	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE ATTACHMENT # 7	3	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Radiation	SEE ATTACHMENT #3	SEE ATTACHMENT # 7	2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Aging	40 YEARS	> 40 YEARS	SEE NOTE 1	53	Engineering ANALYSIS	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) Operating time indicated reflects the longest time of devices catered by this box (see Evaluation for SV-3-2906).						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification	Outstanding
	Parameter	Specification	Qualification	Specification	Qualification	Method	Items
<p>SYSTEM: MISCELLANEOUS PLANT ID NO. TB 3124 Component: TERMINAL BOX (SEE MASTER LIST FOR ASSOC. DEVICES) FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: FIELD FABRICATED PER BECHTEL DRAWING 5610-E-308 MODEL NO: N/A ACCURACY: Spec: N/A Demon: N/A SERVICE: TO PROVIDE LOCAL INTERCONNECT FACILITY LOCATION: INSIDE CONTAINMENT 4'-10" ABOVE FLOOR Area 5 Elev. 58'-0" (FLOOR) Ref Dwg No. Mech N/A Elect 5610-E-102 REV 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	Operating Time	72 Hrs.	SEE ATTACHMENT # 7	See Note 2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Temperature (°F)	See Attachment #1	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Pressure (PSIA)	See Attachment #2	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Relative Humidity (%)	100%	SEE ATTACHMENT # 7	Assumed	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE ATTACHMENT # 7	3	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Radiation	SEE ATTACHMENT #3	SEE ATTACHMENT # 7	2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Aging	40 YEARS	> 40 YEARS	SEE NOTE 1	53	Engineering ANALYSIS	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	<p>NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) Operating time indicated reflects the longest time of devices catered by this box (see Evaluation for SV-3-2907).</p>						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MISCELLANEOUS PLANT ID NO. TB 3125 Component: TERMINAL BOX (SEE MASTER LIST FUNCTION: FOR ASSOC. DEVICES) LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: FIELD FABRICATED PER BECHTEL DRAWING 5610-E-308 MODEL NO: N/A ACCURACY: Spec: N/A Demon: N/A SERVICE: TO PROVIDE LOCAL INTERCONNECT FACILITY LOCATION INSIDE CONTAINMENT 4'-9" ABOVE FLOOR Area 6 Elev. 58'-0" (FLOOR) Ref Dwg No. Mech N/A Elect 5610-E-105 REV 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	72 Hrs.	SEE ATTACHMENT # 7	See Note 2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Temperature (°F)	See Attachment #1	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Pressure (PSIA)	See Attachment #2	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Relative Humidity (%)	100%	SEE ATTACHMENT #7	Assumed	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE ATTACHMENT #7	3	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Radiation	SEE ATTACHMENT #3	SEE ATTACHMENT # 7	2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Aging	40 YEARS	>40 YEARS	See Note 1	53	ENGINEERING ANALYSIS	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) Operating time indicated reflects the longest time of devices catered by this box (see Evaluation for SV-3-2905).						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 - 53 ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MISCELLANEOUS PLANT ID NO. TB 3126 Component: TERMINAL BOX (SEE MASTER LIST FOR ASSOC. DEVICES) FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: FIELD FABRICATED PER BECHTEL DRAWING 5610-E-308 MODEL NO: N/A ACCURACY: Spec: N/A Demon: N/A SERVICE: TO PROVIDE LOCAL INTERCONNECT FACILITY LOCATION INSIDE CONTAINMENT 4'-10" ABOVE FLOOR Area 6 Elev. 58'-0" (FLOOR) Ref Dwg No. Mech N/A Elect 5610-E-105 REV 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	72 Hrs.	SEE ATTACHMENT # 7	See Note 2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Temperature (°F)	See Attachment #1	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Pressure (PSIA)	See Attachment #2	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Relative Humidity (%)	100%	SEE ATTACHMENT # 7	Assumed	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE ATTACHMENT # 7	3	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Radiation	SEE ATTACHMENT #3	SEE ATTACHMENT # 7	2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Aging	40 YEARS	>40 YEARS	See Note 1	53	ENGINEERING ANALYSIS	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the PSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) Operating time indicated reflects the longest time of devices catered by this box (see Evaluation for SV-3-2909)						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETION 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MISCELLANEOUS PLANT ID NO. TB 3127 Component: TERMINAL BOX (SEE MASTER LIST FOR ASSOC. DEVICES) FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: FIELD FABRICATED PER BECHTEL DRAWING 5610-E-308 MODEL NO: N/A ACCURACY: Spec: N/A Demon: N/A SERVICE: TO PROVIDE LOCAL INTERCONNECT FACILITY LOCATION: INSIDE CONTAINMENT 4'-10" ABOVE FLOOR Area 6 Elev. 58'-0" (FLOOR) Ref Dwg No. Mech N/A Elect 5610-E-105 REV 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	72 Hrs.	SEE ATTACHMENT # 7	See Note 2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Temperature (°F)	See Attachment #1	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Pressure (PSIA)	See Attachment #2	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Relative Humidity (%)	100%	SEE ATTACHMENT # 7	Assumed	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE ATTACHMENT # 7	3	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Radiation	SEE ATTACHMENT #3	SEE ATTACHMENT # 7	2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Aging	40 YEARS	> 40 YEARS	See Note 1	53	ENGINEERING ANALYSIS	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) Operating time indicated reflects the longest time of devices catered by this box (see Evaluation for SV-3-2910).						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 - 53: ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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Rev. 2

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification	Outstanding
	Parameter	Specification	Qualification	Specification	Qualification	Method	Items
SYSTEM: CMT. VENTILATION PLANT ID NO. TB 3115 Component: TERMINAL BOX (SEE MASTER LIST FOR ASSOC. DEVICES) FUNCTION: LOCA/HELB (INSIDE) MITIGATE & MONITOR MANUFACTURER: FIELD FABRICATED PER BECHTEL DRAWING 5610-E-308 MODEL NO: N/A ACCURACY: Spec: N/A Demon: N/A SERVICE: TO PROVIDE LOCAL INTERCONNECT FACILITY LOCATION: INSIDE CONTAINMENT 6'-5" ABOVE FLOOR Area 5 Elev. 14' (FLOOR) Ref Dwg No. Mech N/A Elect 5610-E-100, REV. 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HOURS	SEE ATTACHMENT #7	SEE NOTE 2	SEE ATTACHMENT #7	ENGINEERING ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE ATTACHMENT #7	1	SEE ATTACHMENT #7	ENGINEERING ANALYSIS	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE ATTACHMENT #7	1	SEE ATTACHMENT #7	ENGINEERING ANALYSIS	NONE
	Relative Humidity (%)	100%	SEE ATTACHMENT #7	ASSUMED	SEE ATTACHMENT #7	ENGINEERING ANALYSIS	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE ATTACHMENT #7	3	SEE ATTACHMENT #7	ENGINEERING ANALYSIS	NONE
	Radiation	SEE ATTACHMENT #3	SEE ATTACHMENT #7	2	SEE ATTACHMENT #7	ENGINEERING ANALYSIS	NONE
	Aging	40 YEARS	> 40 YEARS	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
2) Operating time indicated reflects the longest time of devices catered by this box (see Evaluation for TE-3-3440).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. EPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MISCELLANEOUS PLANT ID NO. TB-3143 Component: TERMINAL BOX (SEE MASTER LIST FOR ASSOC. DEVICES) FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: FIELD FABRICATED PER BECHTEL DRAWING 5610-E-308 MODEL NO: N/A ACCURACY: Spec: N/A Demon: N/A SERVICE: TO PROVIDE LOCAL INTERCONNECT FACILITY LOCATION INSIDE CONTAINMENT ABOVE EL. 19'-0" Area 5 Elev. 14'-0" Ref Dwg No. Mech N/A Elect 5610-E-100 REV 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	190 Hrs.	SEE ATTACHMENT # 7	See Note 2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Temperature (°F)	See Attachment #1	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Pressure (PSIA)	See Attachment #2	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Relative Humidity (%)	100%	SEE ATTACHMENT # 7	Assumed	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE ATTACHMENT # 7	3	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Radiation	SEE ATTACHMENT #3	SEE ATTACHMENT # 7	2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Aging	40 YEARS	> 40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) Operating time indicated reflects the longest time of devices catered by this box (see Evaluation for SV-3-310A).						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MISCELLANEOUS PLANT ID NO. TB 3144 Component: TERMINAL BOX (SEE MASTER LIST FUNCTION: FOR ASSOC. DEVICES) LOCATION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: FIELD FABRICATED PER BECHTEL DRAWING 5610-E-308 MODEL NO: N/A ACCURACY: Spec: N/A Demon: N/A SERVICE: TO PROVIDE LOCAL INTERCONNECT FACILITY LOCATION: INSIDE CONTAINMENT 2'-0" ABOVE FLOOR Area 5 Elev. 14'-0" Ref Dwg No. Mech N/A Elect 5610-E-100 REV 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes No <input checked="" type="checkbox"/>	Operating Time	1/2 hr.	SEE ATTACHMENT # 7	See Note 2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Temperature (°F)	See Attachment #1	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Pressure (PSIA)	See Attachment #2	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Relative Humidity (%)	100%	SEE ATTACHMENT # 7	Assumed	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE ATTACHMENT # 7	3	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Radiation	SEE ATTACHMENT #3	SEE ATTACHMENT # 7	2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Aging	40 YEARS	> 40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	ABOVE 19'-0"	NONE	3.2	NONE	NONE	NONE SEE NOTE #4
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) Operating time indicated reflects the longest time of devices catered by this box (see Evaluation for SV-3-2601). 4) Device will have performed intended function before becoming submerged.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MISCELLANEOUS PLANT ID NO. TB 3145 Component: TERMINAL BOX (SEE MASTER LIST FOR ASSOC. DEVICES) FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: FIELD FABRICATED PER BECHTEL DRAWING 5610-E-308 MODEL NO: N/A ACCURACY: Spec: N/A Demon: N/A SERVICE: TO PROVIDE LOCAL INTERCONNECT FACILITY LOCATION: INSIDE CONTAINMENT 8'-8" ABOVE FLOOR Area 5 Elev. 14'-0" Ref Dwg No. Mech N/A Elect 5610-E-100 REV 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: NOTE 3 Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	190 Hrs.	SEE ATTACHMENT # 7	See Note 2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Temperature (°F)	See Attachment #1	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Pressure (PSIA)	See Attachment #2	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Relative Humidity (%)	100%	SEE ATTACHMENT # 7	Assumed	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE ATTACHMENT # 7	3	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Radiation	SEE ATTACHMENT #3	SEE ATTACHMENT # 7	2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Aging	40 YEARS	> 40 YEARS	See Note 1	53	ENGINEERING ANALYSIS	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) Operating time indicated reflects the longest time of devices catered by this box (see Evaluation for SV -3-310B).						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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Rev. 2

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MISCELLANEOUS PLANT ID NO. TB 3301 Component: TERMINAL BOX (SEE MASTER LIST FOR ASSOC. DEVICES) FUNCTION: LOCA/HELB (INSIDE, & OUTSIDE) MITIGATE MANUFACTURER: FIELD FABRICATED PER BECHTEL DRAWING 5610-E-308 MODEL NO: N/A ACCURACY: Spec: N/A Demon: N/A SERVICE: TO PROVIDE LOCAL INTERCONNECT FACILITY LOCATION INSIDE CONTAINMENT 5'-7" ABOVE FLOOR Area 5 Elev. 14'-0" Ref Dwg No. Mech N/A Elect 5610-E-100, Rev. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 days	SEE ATTACHMENT # 7	See Note 2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Temperature (°F)	See Attachment #1	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Pressure (PSIA)	See Attachment #2	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Relative Humidity (%)	100%	SEE ATTACHMENT #7	Assumed	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE ATTACHMENT #7	3	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Radiation	SEE ATTACHMENT #3	SEE ATTACHMENT # 7	2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Aging	40 YEARS	> 40 YEARS	See Note 1	53	Engineering ANALYSIS	NONE
	Submergence	ABOVE 19'-0"	SEE NOTE 3	3.2	SEE NOTE 3	NONE	SEE NOTE 3
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) Operating time indicated reflects the longest time of devices catered by this box (see Evaluation for LT-3-459).						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. EPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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Rev. 2

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MISCELLANEOUS PLANT ID NO. TB 3303 Component: TERMINAL BOX (SEE MASTER LIST FOR ASSOC. DEVICES) FUNCTION: LOCA/HELB(INSIDE & OUTSIDE)MITIGATE & MONITOR MANUFACTURER: FIELD FABRICATED PER BECHTEL DRAWING 5610-E-308 MODEL NO: N/A ACCURACY: Spec: N/A Demon: N/A SERVICE: TO PROVIDE LOCAL INTERCONNECT FACILITY LOCATION INSIDE CONTAINMENT 6'-6" ABOVE FLOOR Area 6 Elev. 14'-0" Ref Dwg No. Mech N/A Elect 5610-E-103, Rev. 6 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	24 Hrs.	SEE ATTACHMENT # 7	See Note 2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Temperature (°F)	See Attachment #1	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Pressure (PSIA)	See Attachment #2	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Relative Humidity (%)	100%	SEE ATTACHMENT #7	Assumed	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Chemical Spray	2030 PFH BORON SOL AS BORIC ACID	SEE ATTACHMENT #7	3	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Radiation	SEE ATTACHMENT #3	SEE ATTACHMENT # 7	2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Aging	40 YEARS	> 40 YEARS	See Note 1	53	Engineering ANALYSIS	NONE
	Submergence	ABOVE 19'-0"	SEE NOTE 3	3.2	SEE NOTE 3	NONE	SEE NOTE 3
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) Operating time indicated reflects the longest time of devices catered by this box (see Evaluation for LT-3-474).						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

SUPPLEMENT AND REVISIONS
TO
VOLUMES I AND II
OF THE
"ENVIRONMENTAL QUALIFICATION OF CLASS 1E EQUIPMENT:
PHASE II RESPONSE TO IE BULLETIN 79-01B"

REGULATORY DOCKET FILE COPY

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CONTENTS

- o Introduction and Table of Contents, Revised 2 Sheets
- o Section B, Revised 1 Sheet
- o Section B.1, Revised Page 8 (1 Sheet)
- o Section B.2, Revised Index and Master List (35 Sheets)
- o New Section B.3 (22 Sheets)
- o Section C.1, Revised 4 Sheets
- o Section C.2-1, Revised 45 Sheets, 5 New Sheets
- o Section C.2-2, Revised 12 Sheets
- o Section C.2-3, Revised 18 Sheets
- o Section C.2-4, Revised 3 Sheets
- o Section C.2-5, Revised 18 Sheets
- o Section C.2-7, Revised 13 Sheets
- o Section C.2-9, Revised 59 Sheets
- o Section C.2-13, Revised 5 Sheets
- o Section C.2-14, Revised 13 Sheets
- o Section C.4, Revised 1 Sheet

IE BULLETIN 79-01B RESPONSE

This response (Phase II) revises, where applicable, and updates the information in the Phase I response. The response covers Action Items 1, 2, 3, 4, & 5 of USNRC's cover letter to IE Bulletin 79-01B, dated January 14, 1980.

This document includes the following:

SECTION A: List of systems included.

SECTION B: Master list of components which are required to mitigate a postulated accident or monitor post accident conditions. Only the components in the accident environment are included.

SECTION C: Component evaluation worksheets which provide information on the environmental qualifications available for the components covered in Section B.

Sections B and C include discussions on the basis for the Master List and Component Evaluation worksheets, respectively.

All components listed and located outside the containment of Units 3 & 4 have been verified by field walkdown. The devices inside Unit 4 containment have also been walked down and the Phase I response for these devices have been updated as necessary and included in this response. The component evaluation sheets for devices located inside Unit 3 containment have been revised to reflect the walkdown information.

The work on the Phase I & II responses were done based on Procedure 5177-124-E001. Quality assurance audits were performed periodically to comply with the procedure.

FLORIDA POWER AND LIGHT COMPANY

TURKEY POINT UNITS 3 & 4

DOCKET: 50-250 AND 50-251

RESPONSE TO IE BULLETIN 79-01B (PHASE II)

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- A. List of Systems Included in the Master List
- B. Master List of System Components Required to Function for
LOCA/HELB Accident
 - B.1 Discussion of the Master List
 - B.2 Master List of System Components
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- C. System Component Evaluation Work Sheets
 - C.1 Discussion of System Component Evaluation Work Sheets
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 - C.2-1 Reactor Coolant System
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 - C.2-9 Containment Ventilation System
 - C.2-10 Miscellaneous - Replacement ASCO and NAMCO Devices
 - C.2-11 Miscellaneous - Splice Materials
 - C.2-12 Miscellaneous - Electrical Penetrations
 - C.2-13 Miscellaneous - Cables
 - C.2-14 Miscellaneous - Terminal Boxes
 - C.3 Attachments
 - C.4 List of Qualification Document References

SECTION B

MASTER LIST OF SYSTEM COMPONENTS REQUIRED
TO FUNCTION FOR LOCA/HELB ACCIDENT

- Section B 1 Discussion of the Master List
- Section B 2 Master List of System Components
- Section B 3 Display Instrumentation

7. Boric Acid Transfer Pump Motors
8. Boric Acid Batch Tank Agitator Motor
9. Boric Acid Batch Tank Level Switch (LC-101)
10. TIC-100 & TCV-100 - Boric Acid Batching Tank Temperature Controller
and Steam Inlet Control Valve to Batching Tank

EQUIPMENT ADDED FOR TMI LESSONS LEARNED

Equipment added to comply with NUREG 0578, TMI Short Term Lessons Learned, is being evaluated as it is installed. New component evaluation sheets are being submitted periodically as part of this ongoing process.

SECTION B.2INDEX FOR MASTER LIST

Facility: Turkey Point
Unit: 3 & 4

Docket No: \\\nUnit 3 - 50-250
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Facility: Turkey Point
Unit: 3 & 4

Docket No:
Unit 3 - 50-250
Unit 4 - 50-251

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SECTION B.2

INDEX FOR MASTER LIST

Facility: Turkey Point
Unit: 3 & 4

Docket No:
Unit 3 - 50-250
Unit 4 - 50-251

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7B	FEEDWATER	2	8/14/81	
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8A	CONDENSATE AND FEEDWATER AUXILIARY	1	6/27/80	
8B	CONDENSATE AND FEEDWATER AUXILIARY			
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SECTION B.2

INDEX FOR MASTER LIST

Facility: Turkey Point
Unit: 3 & 4

Docket No:
Unit 3 50-250
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PAGE NO.	SYSTEM	REV	DATE	REMARKS
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9F	CONTAINMENT VENTILATION	2	8/14/81	
9G	CONTAINMENT VENTILATION	2	8/14/81	
9H	CONTAINMENT VENTILATION	1	6/27/80	
9I	CONTAINMENT VENTILATION	2	8/14/81	
9J	CONTAINMENT VENTILATION	1	6/27/80	
10A	MISCELLANEOUS - REPLACEMENT ASCO & NAMCO DEVICES	1	6/27/80	
11A	MISCELLANEOUS-SPLICE MATERIALS	1	6/27/80	
12A	MISCELLANEOUS-ELECTRICAL PENETRATIONS	1	6/27/80	
12B	MISCELLANEOUS-ELECTRICAL PENETRATIONS			
12C	MISCELLANEOUS-ELECTRICAL PENETRATIONS			
12D	MISCELLANEOUS-ELECTRICAL PENETRATIONS			

SECTION B.2

INDEX FOR MASTER LIST

Facility: Turkey Point

Unit: 3 & 4

Docket No:

Unit 3 - 50-250

Unit 4 - 50-251

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12F	MISCELLANEOUS-ELECTRICAL PENETRATIONS			
12G	MISCELLANEOUS-ELECTRICAL PENETRATIONS			
13A	MISCELLANEOUS - CABLES	1	6/27/80	
13B	MISCELLANEOUS - CABLES	2	1/28/81	
13C	MISCELLANEOUS - CABLES	0	8/14/81	
14A	MISCELLANEOUS - TERMINAL BOXES	2	8/14/81	
14B	MISCELLANEOUS - TERMINAL BOXES	2	8/14/81	
14C	MISCELLANEOUS - TERMINAL BOXES	2	8/14/81	
14D	MISCELLANEOUS - TERMINAL BOXES	1	6/27/80	
14E	MISCELLANEOUS - TERMINAL BOXES	1	6/27/80	
14F	MISCELLANEOUS - TERMINAL BOXES	1	6/27/80	

MASTER LIST

FACILITY: TURKEY POINT

UNIT: 3 & 4

(Class IE Electrical Equipment Required to
Function Under Postulated Accident Conditions)

DOCKET NO:

UNIT 3 - 50-250

UNIT 4 - 50-251

SYSTEM: REACTOR COOLANT SYSTEM

See Dwg. 5610-T-E-4501, Sht. 1 of 1, Rev. 6

FUNCTION LEGEND

L - LOCA
 H - HELB
 I - INSIDE CTMT
 O - OUTSIDE CTMT
 Mi - MITIGATE
 Mo - MONITOR

COMPONENTS

SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
1-1	PT-3-403	PRESSURE TRANSMITTER	X		Mi & Mo-L/HI,HO
1-2	PT-3-405	PRESSURE TRANSMITTER	X		Mi & Mo-L/HI,HO
1-3	PT-3-406	PRESSURE TRANSMITTER	X		Mi & Mo-L/HI,HO
1-4	PT-3-404	PRESSURE TRANSMITTER	X		Mi & Mo-L/HI,HO
1-5	PT-4-403	PRESSURE TRANSMITTER	X		Mi & Mo-L/HI,HO
1-6	PT-4-405	PRESSURE TRANSMITTER	X		Mi & Mo-L/HI,HO
1-7	PT-4-406	PRESSURE TRANSMITTER	X		Mi & Mo-L/HI,HO
1-8	PT-4-404	PRESSURE TRANSMITTER	X		Mi & Mo-L/HI,HO
1-9	PT-3-455	PRESSURE TRANSMITTER	X		Mi - L/HI,HO
1-10	PT-3-456	PRESSURE TRANSMITTER	X		Mi - L/HI,HO
1-11	PT-3-457	PRESSURE TRANSMITTER	X		Mi - L/HI,HO
1-12	PT-4-455	PRESSURE TRANSMITTER	X		Mi - L/HI,HO
1-13	PT-4-456	PRESSURE TRANSMITTER	X		Mi - L/HI,HO
1-14	PT-4-457	PRESSURE TRANSMITTER	X		Mi - L/HI,HO

MASTER LIST

FACILITY: TURKEY POINT

UNIT: 3 & 4

(Class IE Electrical Equipment Required to
Function Under Postulated Accident Conditions)

DOCKET NO:

UNIT 3 - 50-250

UNIT 4 - 50-251

SYSTEM: REACTOR COOLANT SYSTEM

See Dwg. 5610-T-E-4501, Sht, 1 of 1, Rev. 6

FUNCTION LEGEND

L - LOCA
H - HELB
I - INSIDE CTMT
O - OUTSIDE CTMT
Mi - MITIGATE
Mo - MONITOR

COMPONENTS

SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
1-15	LT-3-459	LEVEL TRANSMITTER	X		Mi - L/HI,HO
1-16	LT-3-460	LEVEL TRANSMITTER	X		Mi - L/HI,HO
1-17	LT-3-461	LEVEL TRANSMITTER	X		Mi - L/HI,HO
1-18	LT-4-459	LEVEL TRANSMITTER	X		Mi - L/HI,HO
1-19	LT-4-460	LEVEL TRANSMITTER	X		Mi - L/HI,HO
1-20	LT-4-461	LEVEL TRANSMITTER	X		Mi - L/HI,HO
1-21	TE-3-412-B	RESISTANCE TEMPERATURE DETECTOR	X		Mi - L/HI,HO
1-22	TE-3-412-D	RESISTANCE TEMPERATURE DETECTOR	X		Mi - L/HI,HO
1-23	TE-3-422-B	RESISTANCE TEMPERATURE DETECTOR	X		Mi - L/HI,HO
1-24	TE-3-422-D	RESISTANCE TEMPERATURE DETECTOR	X		Mi - L/HI,HO
1-25	TE-3-432-B	RESISTANCE TEMPERATURE DETECTOR	X		Mi - L/HI,HO
1-26	TE-3-432-D	RESISTANCE TEMPERATURE DETECTOR	X		Mi - L/HI,HO
1-27	TE-4-412-B	RESISTANCE TEMPERATURE DETECTOR	X		Mi - L/HI,HO
1-28	TE-4-412-D	RESISTANCE TEMPERATURE DETECTOR	X		Mi - L/HI,HO

MASTER LIST

FACILITY: TURKEY POINT

UNIT: 3 & 4

(Class IE Electrical Equipment Required to
Function Under Postulated Accident Conditions)

DOCKET NO:

UNIT 3 - 50-250

UNIT 4 - 50-251

SYSTEM: REACTOR COOLANT SYSTEM

See Dwg. 5610-T-E-4501, Sht. 1 of 1, Rev. 6

FUNCTION LEGEND

L - LOCA

H - HELB

I - INSIDE CTMT

O - OUTSIDE CTMT

Mi - MITIGATE

Mo - MONITOR

COMPONENTS

SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
1-29	TE-4-422-B	RESISTANCE TEMPERATURE DETECTOR	X		Mi - L/HI,HO
1-30	TE-4-422-D	RESISTANCE TEMPERATURE DETECTOR	X		Mi - L/HI,HO
1-31	TE-4-432-B	RESISTANCE TEMPERATURE DETECTOR	X		Mi - L/HI,HO
1-32	TE-4-432-D	RESISTANCE TEMPERATURE DETECTOR	X		Mi - L/HI,HO
1-33	MOV-3-535	VALVE MOTOR OPERATOR	X		Mi - L/HI,HO
1-34	MOV-3-536	VALVE MOTOR OPERATOR	X		Mi - L/HI,HO
1-35	MOV-4-535	VALVE MOTOR OPERATOR	X		Mi - L/HI,HO
1-36	MOV-4-536	VALVE MOTOR OPERATOR	X		Mi - L/HI,HO
1-37	TE-3-410	RESISTANCE TEMPERATURE DETECTOR	X		Mo - L/HI,HO
1-38	ZT/ZS-3-6303A	ACOUSTIC MONITOR	X		Mo - L/HI,HO
1-39	TE-3-420	RESISTANCE TEMPERATURE DETECTOR	X		Mo - L/HI,HO
1-40	ZT/ZS-3-6303B	ACOUSTIC MONITOR	X		Mo - L/HI,HO
1-41	TE-3-430	RESISTANCE TEMPERATURE DETECTOR	X		Mo - L/HI,HO
1-42	ZT/ZS-3-6303C	ACOUSTIC MONITOR	X		Mo - L/HI,HO

MASTER LIST

FACILITY: TURKEY POINT

UNIT: 3 & 4

(Class IE Electrical Equipment Required to
Function Under Postulated Accident Conditions)

DOCKET NO:

UNIT 3 - 50-250

UNIT 4 - 50-251

SYSTEM:

REACTOR COOLANT SYSTEM

See Dwg. 5610-T-E-4501, Sht. 1 of 1, Rev. 6

FUNCTION LEGEND

L - LOCA

H - HELB

I - INSIDE CTMT

O - OUTSIDE CTMT

Mi - MITIGATE

Mo - MONITOR

COMPONENTS

SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
1-43	TE-4-410	RESISTANCE TEMPERATURE DETECTOR	X		Mo - L/HI,HO
1-44	ZT/ZS-4-6303A	ACOUSTIC MONITOR	X		Mo - L/HI,HO
1-45	TE-4-420	RESISTANCE TEMPERATURE DETECTOR	X		Mo - L/HI,HO
1-46	ZT/ZS-4-6303B	ACOUSTIC MONITOR	X		Mo - L/HI,HO
1-47	TE-4-430	RESISTANCE TEMPERATURE DETECTOR	X		Mo - L/HI,HO
1-48	ZT/ZS-4-6303C	ACOUSTIC MONITOR	X		Mo - L/HI,HO
1-49	TE-3-413A	RESISTANCE TEMPERATURE DETECTOR	X		Mi & Mo-L/HI, HO
1-50	TE-3-413B	RESISTANCE TEMPERATURE DETECTOR	X		Mi & Mo-L/HI, HO
1-51	TE-3-423A	RESISTANCE TEMPERATURE DETECTOR	X		Mi & Mo-L/HI, HO
1-52	TE-3-423B	RESISTANCE TEMPERATURE DETECTOR	X		Mi & Mo-L/HI, HO
1-53	TE-3-433A	RESISTANCE TEMPERATURE DETECTOR	X		Mi & Mo-L/HI, HO
1-54	TE-3-433B	RESISTANCE TEMPERATURE DETECTOR	X		Mi & Mo-L/HI, HO
1-55	TE-4-413A	RESISTANCE TEMPERATURE DETECTOR	X		Mi & Mo-L/HI, HO
1-56	TE-4-413B	RESISTANCE TEMPERATURE DETECTOR	X		Mi & Mo-L/HI, HO

MASTER LIST

FACILITY: TURKEY POINT
UNIT: 3 & 4

(Class IE Electrical Equipment Required to
Function Under Postulated Accident Conditions)

DOCKET NO:

UNIT 3 - 50-250

UNIT 4 - 50-251

SYSTEM: SEE DWG. 5610-T-E-451, Sheet 1 of 1, Revision 6

FUNCTION LEGEND

L - LOCA
H - HELB
I - INSIDE CTMT
O - OUTSIDE CTMT
MI - MITIGATE
Mo - MONITOR

COMPONENTS

SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
1-57	TE-4-423A	RESISTANCE TEMPERATURE DETECTOR	X		MI & Mo-L/HI & HO
1-58	TE-4-423B	RESISTANCE TEMPERATURE DETECTOR	X		MI & Mo-L/HI & HO
1-59	TE-4-433A	RESISTANCE TEMPERATURE DETECTOR	X		MI & Mo-L/HI & HO
1-60	TE-4-433B	RESISTANCE TEMPERATURE DETECTOR	X		MI & Mo-L/HI & HO
1-61	----	LIMIT SWITCHES ASSOC. WITH PCV-3-455C	X		Mo-L/HI, HO
1-62	----	LIMIT SWITCHES ASSOC. WITH PCV-3-456	X		Mo-L/HI, HO
1-63	----	LIMIT SWITCHES ASSOC. WITH PCV-4-455C	X		Mo-L/HI, HO
1-64	----	LIMIT SWITCHES ASSOC. WITH PCV-4-456	X		Mo-L/HI, HO
		NOTE: For Associated Cables, Penetrations, Termin-			
		al Boxes and Splices, See Respective Titled			
		Section of Master			
		List.			

MASTER LISTFUNCTION LEGEND

FACILITY: TURKEY POINT

UNIT: 3 & 4

(Class IE Electrical Equipment Required to
Function Under Postulated Accident Conditions)

DOCKET NO.:

UNIT 3 - 50-250

UNIT 4 - 50-251

SYSTEM: CHEMICAL & VOLUME CONTROL SYSTEM

See Dwg. 5610-T-E-4504, Shts. 1 and 2, Rev. 5

L - LOCA
H - HELB
I - INSIDE CTMT
O - OUTSIDE CTMT
Mi - MITIGATE
Mo - MONITOR

COMPONENTS					
SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
2-1	SV-3-310A	SOLENOID VALVE	X		Mi-L/Hi,HO
2-2	----	LIMIT SWITCHES ASSOC. WITH CV-3-310A	X		Mo-L/Hi,HO
2-3	SV-3-310B	SOLENOID VALVE	X		Mi-L/Hi,HO
2-4	----	LIMIT SWITCHES ASSOC. WITH CV-3-310B	X		Mo-L/Hi,HO
2-5	SV-4-310A	SOLENOID VALVE	X		Mi-L/Hi,HO
2-6	----	LIMIT SWITCHES ASSOC. WITH CV-4-310A	X		Mo-L/Hi,HO
2-7	SV-4-310B	SOLENOID VALVE	X		Mi-L/Hi,HO
2-8	----	LIMIT SWITCHES ASSOC. WITH CV-4-310B	X		Mo-L/Hi,HO
2-9	SV-3-200A	SOLENOID VALVE	X		Mi-L/Hi
2-10	----	LIMIT SWITCHES ASSOC. WITH CV-3-200A	X		Mo-L/Hi
2-11	SV-3-200B	SOLENOID VALVE	X		Mi-L/Hi
2-12	----	LIMIT SWITCHES ASSOC. WITH CV-3-200B	X		Mo-L/Hi
2-13	SV-3-200C	SOLENOID VALVE	X		Mi-L/Hi

MASTER LIST

FACILITY: TURKEY POINT

UNIT: 3 & 4

(Class IE Electrical Equipment Required to
Function Under Postulated Accident Conditions)

DOCKET NO:

UNIT 3 - 50-250

UNIT 4 --50-251

SYSTEM: CHEMICAL & VOLUME CONTROL SYSTEM

See Dwg. 5610-T-E-4505, Shts, 1 and 2, Rev. 5

FUNCTION LEGEND

L - LOCA
H - HELB
I - INSIDE CTMT
O - OUTSIDE CTMT
Mi - MITIGATE
Mo - MONITOR

COMPONENTS					
SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
2-14	----	LIMIT SWITCHES ASSOC. WITH CV-3-200C	X		Mo-L/HI
2-15	SV-4-200A	SOLENOID VALVE	X		Mi-L/HI
2-16	----	LIMIT SWITCHES ASSOC. WITH CV-4-200A	X		Mo-L/HI
2-17	SV-4-200B	SOLENOID VALVE	X		Mi-L/HI
2-18	----	LIMIT SWITCHES ASSOC. WITH CV-4-200B	X		Mo-L/HI
2-19	SV-4-200C	SOLENOID VALVE	X		Mi-L/HI
2-20	----	LIMIT SWITCHES ASSOC. WITH CV-4-200C	X		Mo-L/HI
2-21	----	ELECTRO-PNEUMATIC TRANSDUCER WITH HCV-3-121		X	Mi-L
2-22	----	LIMIT SWITCHES ASSOC. WITH HCV-3-121		X	Mo-L
2-23	----	ELECTRO-PNEUMATIC TRANSDUCER WITH HCV-4-121		X	Mi-L
2-24	----	LIMIT SWITCHES ASSOC. WITH HCV-4-121		X	Mo-L
2-25	SV-100	SOLENOID VALVE ASSOC. WITH TCV-100		X	Mi-L
2-26	TIC-100	TEMPERATURE INDICATING CONTROLLER		X	Mi-L
2-27	LC-100	LEVEL CONTROLLER		X	Mi-L

MASTER LIST

FACILITY: TURKEY POINT

UNIT: 3 & 4

(Class IE Electrical Equipment Required to
Function Under Postulated Accident Conditions)

DOCKET NO:

UNIT 3 - 50-250

UNIT 4 - 50-251

SYSTEM: SAFETY INJECTION & RESIDUAL HEAT REMOVAL

See Dwg. 5610-T-E-4510, Sht.1 of 2, Rev.4 Sht.2 of 2, Rev.3

FUNCTION LEGEND

L - LOCA
H - HELB
I - INSIDE CTMT
O - OUTSIDE CTMT
Mi - MITIGATE
Mo - MONITOR

COMPONENTS

SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
3-1	PT-3-940	PRESSURE TRANSMITTER		X	Mo - L/HI
3-2	PT-4-940	PRESSURE TRANSMITTER		X	Mo - L/HI
3-3	PT-3-943	PRESSURE TRANSMITTER		X	Mo - L/HI
3-4	PT-4-943	PRESSURE TRANSMITTER		X	Mo - L/HI
3-5	FT-3-940	FLOW TRANSMITTER		X	Mo - L/HI
3-6	FT-3-943	FLOW TRANSMITTER		X	Mo - L/HI
3-7	FT-4-940	FLOW TRANSMITTER		X	Mo - L/HI
3-8	FT-4-943	FLOW TRANSMITTER		X	Mo - L/HI
3-9	FT-3-932	FLOW TRANSMITTER	X		Mo - L/HI
3-10	FT-3-933	FLOW TRANSMITTER	X		Mo - L/HI
3-11	FT-4-932	FLOW TRANSMITTER	X		Mo - L/HI
3-12	FT-4-933	FLOW TRANSMITTER	X		Mo - L/HI
3-13	FT-3-605	FLOW TRANSMITTER		X	Mo - L/HI
3-14	FT-4-605	FLOW TRANSMITTER		X	Mo - L/HI

MASTER LIST

FACILITY: TURKEY POINT

UNIT: 3 & 4

(Class IE Electrical Equipment Required to
Function Under Postulated Accident Conditions)

DOCKET NO:

UNIT 3 - 50-250

UNIT 4 - 50-251

SYSTEM: SAFETY INJECTION & RESIDUAL HEAT REMOVAL

See Dwg. 5610-T-E-4510, Sht. 1 of 2, Rev. 5 and Sht. 2 of 2, Rev. 3

FUNCTION LEGEND

L - LOCA
H - HELB
I - INSIDE CTMT
O - OUTSIDE CTMT
Mi - MITIGATE
Mo - MONITOR

COMPONENTS

SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
3-15	P-4-214A	CONTAINMENT SPRAY PUMP		X	Mi - L/HI
3-16	P-4-214B	CONTAINMENT SPRAY PUMP		X	Mi - L/HI
3-17	P-3-210A	RESIDUAL HEAT REMOVAL PUMP		X	Mi - L/HI
3-18	P-3-210B	RESIDUAL HEAT REMOVAL PUMP		X	Mi - L/HI
3-19	P-4-210A	RESIDUAL HEAT REMOVAL PUMP		X	Mi - L/HI
3-20	P-4-210B	RESIDUAL HEAT REMOVAL PUMP		X	Mi - L/HI
3-21	MOV-3-744A	VALVE MOTOR OPERATOR	X		Mi - L/HI
3-22	MOV-4-744A	VALVE MOTOR OPERATOR	X		Mi - L/HI
3-23	MOV-3-744B	VALVE MOTOR OPERATOR	X		Mi - L/HI
3-24	MOV-4-744B	VALVE MOTOR OPERATOR	X		Mi - L/HI
3-25	MOV-3-750	VALVE MOTOR OPERATOR	X		Mi - L/HI
3-26	MOV-4-750	VALVE MOTOR OPERATOR	X		Mi - L/HI
3-27	MOV-3-751	VALVE MOTOR OPERATOR	X		Mi - L/HI
3-28	MOV-4-751	VALVE MOTOR OPERATOR	X		Mi - L/HI

MASTER LIST

FACILITY: TURKEY POINT

UNIT: 3 & 4

(Class IE Electrical Equipment Required to
Function Under Postulated Accident Conditions)

DOCKET NO:

UNIT 3 - 50-250

UNIT 4 --50-251

SYSTEM: SAFETY INJECTION & RESIDUAL HEAT REMOVAL

See Dwg. 5610-T-E-4510, Sht. 1 of 2, Rev. 4 and Sht. 2 of 2, Rev. 3

FUNCTION LEGEND

L - LOCA

H - HELB

I - INSIDE CTMT

O - OUTSIDE CTMT

Mi - MITIGATE

Mo - MONITOR

COMPONENTS					
SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
3-43	MOV-3-863A	VALVE MOTOR OPERATOR		X	Mi-L/Hi
3-44	MOV-3-863B	VALVE MOTOR OPERATOR		X	Mi-L/Hi
3-45	MOV-4-863A	VALVE MOTOR OPERATOR		X	Mi-L/Hi
3-46	MOV-4-863B	VALVE MOTOR OPERATOR		X	Mi-L/Hi
3-47	MOV-3-866A	VALVE MOTOR OPERATOR	X		Mi-L/Hi
3-48	MOV-3-866B	VALVE MOTOR OPERATOR	X		Mi-L/Hi
3-49	MOV-4-866A	VALVE MOTOR OPERATOR	X		Mi-L/Hi
3-50	MOV-4-866B	VALVE MOTOR OPERATOR	X		Mi-L/Hi
3-51	MOV-3-867A	VALVE MOTOR OPERATOR		X	Mi-L/Hi
3-52	MOV-3-867B	VALVE MOTOR OPERATOR		X	Mi-L/Hi
3-53	MOV-4-867A	VALVE MOTOR OPERATOR		X	Mi-L/Hi
3-54	MOV-4-867B	VALVE MOTOR OPERATOR		X	Mi-L/Hi
3-55	MOV-878A	VALVE MOTOR OPERATOR		X	Mi-L/Hi
3-56	MOV-878B	VALVE MOTOR OPERATOR		X	Mi-L/Hi

MASTER LIST

FACILITY: TURKEY POINT

UNIT: 3 & 4

(Class IE Electrical Equipment Required to
Function Under Postulated Accident Conditions)

DOCKET NO:

UNIT 3 - 50-250

UNIT 4 --50-251

SYSTEM: SAFETY INJECTION & RESIDUAL HEAT REMOVAL

See Dwg. 5610-T-E-4510, Sht. 1 of 2, Rev. 4, and Sht. 2 of 2, Rev. 3

FUNCTION LEGEND

L - LOCA

H - HELB

I - INSIDE CTMT

O - OUTSIDE CTMT

Mi - MITIGATE

Mo - MONITOR

COMPONENTS

SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
3-71	PC-957C	PRESSURE CONTROLLER		X	Mi-L/HI
3-72	PC-957D	PRESSURE CONTROLLER		X	Mi-L/HI
3-73	LS-3-1570	LEVEL SWITCH	X		Mi-L/HI
3-74	LS-3-1571	LEVEL SWITCH	X		Mi-L/HI
3-75	LS-4-1570	LEVEL SWITCH	X		Mi-L/HI
3-76	LS-4-1571	LEVEL SWITCH	X		Mi-L/HI
3-77	3N215A	LOCAL CONTROL STATION		X	Mi-L/HI
3-78	3N215B	LOCAL CONTROL STATION		X	Mi-L/HI
3-79	4N215A	LOCAL CONTROL STATION		X	Mi-L/HI
3-80	4N215B	LOCAL CONTROL STATION		X	Mi-L/HI
3-81	3N214A	LOCAL CONTROL STATION		X	Mi-L/HI
3-82	3N214B	LOCAL CONTROL STATION		X	Mi-L/HI
3-83	4N214A	LOCAL CONTROL STATION		X	Mi-L/HI
3-84	4N214B	LOCAL CONTROL STATION		X	Mi-L/HI

MASTER LIST

FACILITY: TURKEY POINT

UNIT: 3 & 4

(Class IE Electrical Equipment Required to
Function Under Postulated Accident Conditions)

DOCKET NO:

UNIT 3 - 50-250

UNIT 4 - 50-251

SYSTEM: COMPONENT COOLING WATER

See Dwg. 5610-T-E-4512

FUNCTION LEGEND

L - LOCA
H - HELB
I - INSIDE CTMT
O - OUTSIDE CTMT
Mi - MITIGATE
Mo - MONITOR

COMPONENTS					
SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
4-15	SV-3-2812	SOLENOID VALVE ASSOC. WITH CV-3-2812		X	Mi-L/HI
4-16	---	LIMIT SWITCHES ASSOC. WITH CV-3-2812		X	Mo-L/HI
4-17	SV-3-2814	SOLENOID VALVE ASSOC. WITH CV-3-2814		X	Mi-L/HI
4-18	---	LIMIT SWITCHES ASSOC. WITH CV-3-2814		X	Mo-L/HI
4-19	SV-4-2810	SOLENOID VALVE ASSOC. WITH CV-4-2810		X	Mi-L/HI
4-20	---	LIMIT SWITCHES ASSOC. WITH CV-4-2810		X	Mo-L/HI
4-21	SV-4-2812	SOLENOID VALVE ASSOC. WITH CV-4-2812		X	Mi-L/HI
4-22	---	LIMIT SWITCHES ASSOC. WITH CV-4-2812		X	Mo-L/HI
4-23	SV-4-2814	SOLENOID VALVE ASSOC. WITH CV-4-2814		X	Mi-L/HI
4-24	---	LIMIT SWITCHES ASSOC. WITH CV-4-2814		X	Mo-L/HI
4-25	3P211A	COMPONENT COOLING WATER PUMP		X	Mi-L/HI
4-26	3P211B	COMPONENT COOLING WATER PUMP		X	Mi-L/HI
4-27	3P211C	COMPONENT COOLING WATER PUMP		X	Mi-L/HI
4-28	3N211A	LOCAL CONTROL STATION		X	Mi-L/HI

MASTER LIST

FACILITY: TURKEY POINT

UNIT: 3 & 4

(Class IE Electrical Equipment Required to
Function Under Postulated Accident Conditions)

DOCKET NO:

UNIT 3 - 50-250

UNIT 4 - 50-251

SYSTEM: MAIN STEAM

See Dwg. 5610-T-E-4061, Sh. 1 of 3, Rev. 2

FUNCTION LEGEND

L - LOCA
H - HELB
I - INSIDE CTMT
O - OUTSIDE CTMT
Mi - MITIGATE
Mo - MONITOR

COMPONENTS					
SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
5-1	PT-3-474	Pressure Transmitter		X	Mi HI, HO Mo L/HI, HO
5-2	PT-3-475	Pressure Transmitter		X	Mi HI, HO Mo L/HI, HO
5-3	PT-3-476	Pressure Transmitter		X	Mi HI, HO Mo L/HI, HO
5-4	PT-3-484	Pressure Transmitter		X	Mi HI, HO Mo L/HI, HO
5-5	PT-3-485	Pressure Transmitter		X	Mi HI, HO Mo L/HI, HO
5-6	PT-3-486	Pressure Transmitter		X	Mi HI, HO Mo L/HI, HO
5-7	PT-3-494	Pressure Transmitter		X	Mi HI, HO Mo L/HI, HO
5-8	PT-3-495	Pressure Transmitter		X	Mi HI, HO Mo L/HI, HO
5-9	PT-3-496	Pressure Transmitter		X	Mi HI, HO Mo L/HI, HO
5-10	PT-4-474	Pressure Transmitter		X	Mi HI, HO Mo L/HI, HO
5-11	PT-4-475	Pressure Transmitter		X	Mi HI, HO Mo L/HI, HO
5-12	PT-4-476	Pressure Transmitter		X	Mi HI, HO Mo L/HI, HO
5-13	PT-4-484	Pressure Transmitter		X	Mi HI, HO Mo L/HI, HO
5-14	PT-4-485	Pressure Transmitter		X	Mi HI, HO Mo L/HI, HO

MASTER LIST

FACILITY: TURKEY POINT

UNIT: 3 & 4

(Class IE Electrical Equipment Required to
Function Under Postulated Accident Conditions)

DOCKET NO:

UNIT 3 - 50-250

UNIT 4 - 50-251

SYSTEM: MAIN STEAM

See Dwg. 5610-T-E-4061, Sh. 1 of 3, Rev. 2

FUNCTION LEGENDL - LOCA
H - HELB
I - INSIDE CTMT
O - OUTSIDE CTMT
Mi - MITIGATE
Mo - MONITOR

COMPONENTS					
SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
5-15	PT-4-486	Pressure Transmitter		X	Mi HI, HO Mo L/HI, HO
5-16	PT-4-494	Pressure Transmitter		X	Mi HI, HO Mo L/HI, HO
5-17	PT-4-495	Pressure Transmitter		X	Mi HI, HO Mo L/HI, HO
5-18	PT-4-496	Pressure Transmitter		X	Mi HI, HO Mo L/HI, HO
5-19	PT-3-464	Pressure Transmitter		X	Mi HI, HO Mo L/HI, HO
5-20	PT-3-466	Pressure Transmitter		X	Mi HI, HO Mo L/HI, HO
5-21	PT-3-468	Pressure Transmitter		X	Mi HI, HO Mo L/HI, HO
5-22	PT-4-464	Pressure Transmitter		X	Mi HI, HO Mo L/HI, HO
5-23	PT-4-466	Pressure Transmitter		X	Mi HI, HO Mo L/HI, HO
5-24	PT-4-468	Pressure Transmitter		X	Mi HI, HO Mo L/HI, HO
5-25	FT-3-475	Flow Transmitter	X		Mi-HI, HO
5-26	FT-3-484	Flow Transmitter	X		Mi-HI, HO
5-27	FT-3-485	Flow Transmitter	X		Mi-HI, HO
5-28	FT-3-494	Flow Transmitter	X		Mi-HI, HO

MASTER LIST

FACILITY: TURKEY POINT

UNIT: 3 & 4

(Class IE Electrical Equipment Required to
Function Under Postulated Accident Conditions)

DOCKET NO:

UNIT 3 - 50-250

UNIT 4 - 50-251

SYSTEM: MAIN STEAM

See Dwg. 5610-T-E-4061, Sh. 1 of 3, Rev. 2

FUNCTION LEGEND

L - LOCA
H - HELB
I - INSIDE CTMT
O - OUTSIDE CTMT
MI - MITIGATE
Mo - MONITOR

COMPONENTS					
SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
5-29	FT-3-495	Flow Transmitter	X		MI-HI, HO
5-30	FT-3-474	Flow Transmitter	X		MI-HI, HO
5-31	FT-4-474	Flow Transmitter	X		MI-HI, HO
5-32	FT-4-475	Flow Transmitter	X		MI-HI, HO
5-33	FT-4-484	Flow Transmitter	X		MI-HI, HO
5-34	FT-4-485	Flow Transmitter	X		MI-HI, HO
5-35	FT-4-494	Flow Transmitter	X		MI-HI, HO
5-36	FT-4-495	Flow Transmitter	X		MI-HI, HO
5-37	SV-3-2604	Solenoid Valve Assoc. with POV-3-2604		X	MI-HI, HO
5-38	SV-3-2605	Solenoid Valve Assoc. with POV-3-2604		X	MI-HI, HO
5-39	-----	Limit Sw. Assoc W/POV-3-2604		X	Mo-HI, HO
5-40	SV-3-2609	Solenoid Valve Assoc. W/POV-3-2605		X	MI-HI, HO
5-41	SV-3-2610	Solenoid Valve Assoc. W/POV-3-2605		X	MI-HI, HO
5-42	---	Lim Sw. Assoc. W/POV -3-2605		X	Mo-HI, HO

MASTER LIST

FACILITY: TURKEY POINT

UNIT: 3 & 4

(Class IE Electrical Equipment Required
to Function Under Postulated Accident
Conditions)

DOCKET NO:

UNIT 3 - 50-250

UNIT 4 - 50-251

SYSTEM: FEEDWATER

See Dwg. 5610-T-E-4062, Sh. 2 of 5, Rev. 3

FUNCTION LEGEND

L - LOCA
H - HELB
I - INSIDE CTMT
O - OUTSIDE CTMT
MI - MITIGATE
Mo - MONITOR

COMPONENTS					
SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
7-1	LT-3-474	Level Transmitter	X		Mi & Mo-L/HI,HO
7-2	LT-3-475	Level Transmitter	X		Mi & Mo-L/HI,HO
7-3	LT-3-476	Level Transmitter	X		Mi & Mo-L/HI,HO
7-4	LT-3-484	Level Transmitter	X		Mi & Mo-L/HI,HO
7-5	LT-3-485	Level Transmitter	X		Mi & Mo-L/HI,HO
7-6	LT-3-486	Level Transmitter	X		Mi & Mo-L/HI,HO
7-7	LT-3-494	Level Transmitter	X		Mi & Mo-L/HI,HO
7-8	LT-3-495	Level Transmitter	X		Mi & Mo-L/HI,HO
7-9	LT-3-496	Level Transmitter	X		Mi & Mo-L/HI,HO
7-10	LT-4-474	Level Transmitter	X		Mi & Mo-L/HI,HO
7-11	LT-4-475	Level Transmitter	X		Mi & Mo-L/HI,HO
7-12	LT-4-476	Level Transmitter	X		Mi & Mo-L/HI,HO
7-13	LT-4-484	Level Transmitter	X		Mi & Mo-L/HI,HO
7-14	LT-4-485	Level Transmitter	X		Mi & Mo-L/HI,HO

MASTER LIST

FACILITY: TURKEY POINT

UNIT: 3 & 4

(Class IE Electrical Equipment Required to
Function Under Postulated Accident Conditions)

DOCKET NO:

UNIT 3 - 50-250

UNIT 4 --50-251

SYSTEM: FEEDWATER

See Dwg. 5610-T-E-4062, Sh. 2 of 5, Rev. 3

FUNCTION LEGEND

L - LOCA
H - HELB
I - INSIDE CTMT
O - OUTSIDE CTMT
Mi - MITIGATE
Mo - MONITOR

COMPONENTS					
SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
7-15	LT-4-486	Level Transmitter	X		Mi & Mo-L/HI,HO
7-16	LT-4-494	Level Transmitter	X		Mi & Mo-L/HI,HO
7-17	LT-4-495	Level Transmitter	X		Mi & Mo-L/HI,HO
7-18	LT-4-496	Level Transmitter	X		Mi & Mo-L/HI,HO
7-19	SV-3-2900	Solenoid Valve Associated with CV-3-2900		X	Mi-L/HI,HO
7-20	SV-3-2902	Solenoid Valve Associated with CV-3-2901		X	Mi-L/HI,HO
7-21	SV-3-2904	Solenoid Valve Associated with CV-3-2902		X	Mi-L/HI,HO
7-22	SV-4-2900	Solenoid Valve Associated with CV-4-2900		X	Mi-L/HI,HO
7-23	SV-4-2902	Solenoid Valve Associated with CV-4-2901		X	Mi-L/HI,HO
7-24	SV-4-2904	Solenoid Valve Associated with CV-4-2902		X	Mi-L/HI,HO
7-25	DPS-3-2900	Differential Pressure Switch		X	Mi-L/HI,HO
7-26	DPS-3-2901	Differential Pressure Switch		X	Mi-L/HI,HO
7-27	DPS-3-2902	Differential Pressure Switch		X	Mi-L/HI,HO
7-28	DPS-4-2900	Differential Pressure Switch		X	Mi-L/HI,HO

MASTER LIST

FACILITY: TURKEY POINT

UNIT: 3 & 4

DOCKET NO:

UNIT 3 - 50-250

UNIT 4 - 50-251

SYSTEM: CONTAINMENT VENTILATION

See Dwg. 5610-M11, Rev. 12

(Class IE Electrical Equipment Required to
Function Under Postulated Accident Conditions)FUNCTION LEGEND

L - LOCA

H - HELB

I - INSIDE CTMT

O - OUTSIDE CTMT

Mi - MITIGATE

Mo - MONITOR

COMPONENTS

SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
9-1	TE-3-3440	Thermocouple	X		Mi & Mo-L/Hi
9-2	TE-3-3441	Thermocouple	X		Mi & Mo-L/Hi
9-3	TE-3-3442	Thermocouple	X		Mi & Mo-L/Hi
9-4	TE-3-3443	Thermocouple	X		Mi & Mo-L/Hi
9-5	TE-3-3444	Thermocouple	X		Mi & Mo-L/Hi
9-6	TE-3-3445	Thermocouple	X		Mi & Mo-L/Hi
9-7	TE-3-3446	Thermocouple	X		Mi & Mo-L/Hi
9-8	TE-3-3447	Thermocouple	X		Mi & Mo-L/Hi
9-9	TE-3-3448	Thermocouple	X		Mi & Mo-L/Hi
9-10	TE-3-3449	Thermocouple	X		Mi & Mo-L/Hi
9-11	TE-3-3450	Thermocouple	X		Mi & Mo-L/Hi
9-12	TE-3-3451	Thermocouple	X		Mi & Mo-L/Hi
9-13	TE-3-3452	Thermocouple	X		Mi & Mo-L/Hi
9-14	TE-3-3453	Thermocouple	X		Mi & Mo-L/Hi

MASTER LIST

FACILITY: TURKEY POINT
UNIT: 3 & 4

FUNCTION LEGEND

L - LOCA
H - HELB
I - INSIDE CTMT
O - OUTSIDE CTMT
Mi - MITIGATE
Mo - MONITOR

DOCKET NO: (Class IE Electrical Equipment Required to
Function Under Postulated Accident Conditions)

UNIT 3 - 50-250

UNIT 4 - 50-251

SYSTEM: CONTAINMENT VENTILATION
See Dwg. 5610-M11, Rev. 12

COMPONENTS					
SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
9-15	TE-3-3454	Thermocouple	X		Mi & Mo-L/HI
9-16	TE-3-3455	Thermocouple	X		Mi & Mo-L/HI
9-17	TE-3-3456	Thermocouple	X		Mi & Mo-L/HI
9-18	TE-3-3457	Thermocouple	X		Mi & Mo-L/HI
9-19	TE-3-3458	Thermocouple	X		Mi & Mo-L/HI
9-20	TE-3-3459	Thermocouple	X		Mi & Mo-L/HI
9-21	TE-3-3460	Thermocouple	X		Mi & Mo-L/HI
9-22	TE-3-3461	Thermocouple	X		Mi & Mo-L/HI
9-23	TE-3-3462	Thermocouple	X		Mi & Mo-L/HI
9-24	TE-3-3463	Thermocouple	X		Mi & Mo-L/HI
9-25	TE-4-3440	Thermocouple	X		Mi & Mo-L/HI
9-26	TE-4-3441	Thermocouple	X		Mi & Mo-L/HI
9-27	TE-4-3442	Thermocouple	X		Mi & Mo-L/HI
9-28	TE-4-3443	Thermocouple	X		Mi & Mo-L/HI

MASTER LIST

FACILITY: TURKEY POINT

UNIT: 3 & 4

(Class IE Electrical Equipment Required to
Function Under Postulated Accident Conditions)

DOCKET NO:

UNIT 3 - 50-250

UNIT 4 - 50-251

SYSTEM: CONTAINMENT VENTILATION

See Dwg. 5610-M11, Rev. 12

FUNCTION LEGEND

L - LOCA

H - HELB

I - INSIDE CTMT

O - OUTSIDE CTMT

Mi - MITIGATE

Mo - MONITOR

COMPONENTS

SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
9-43	TE-4-3458	Thermocouple	X		Mi & Mo-L/HI
9-44	TE-4-3459	Thermocouple	X		Mi & Mo-L/HI
9-45	TE-4-3460	Thermocouple	X		Mi & Mo-L/HI
9-46	TE-4-3461	Thermocouple	X		Mi & Mo-L/HI
9-47	TE-4-3462	Thermocouple	X		Mi & Mo-L/HI
9-48	TE-4-3463	Thermocouple	X		Mi & Mo-L/HI
9-49	See TB3115	Reference J-Box	X		Mi & Mo-L/HI
9-50	See TB4115	Reference J-Box	X		Mi & Mo-L/HI
9-51	RD-3-11	Radiation Detector		X	Mi & Mo-L/HI
9-52	RD-3-12	Radiation Detector		X	Mi & Mo-L/HI
9-53	RD-4-11	Radiation Detector		X	Mi & Mo-L/HI
9-54	RD-4-12	Radiation Detector		X	Mi & Mo-L/HI
9-55	3V3A	Filter Fan	X		Mi-L/HI
9-56	3V3B	Filter Fan	X		Mi-L/HI

MASTER LIST

FACILITY: TURKEY POINT
UNIT: 3 & 4

(Class IE Electrical Equipment Required to
Function Under Postulated Accident Conditions)

DOCKET NO:
UNIT 3 - 50-250
UNIT 4 - 50-251

SYSTEM: CONTAINMENT VENTILATION
See Dwg. 5610-M11, Rev. 12

FUNCTION LEGEND

L - LOCA
H - HELB
I - INSIDE CTMT
O - OUTSIDE CTMT
Mi - MITIGATE
Mo - MONITOR

COMPONENTS					
SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
9-57	3V3C	Filter Fan	X		Mi-L/HI
9-58	FS-3-1422	Flow Switch	X		Mi-L/HI
9-59	FS-3-1423	Flow Switch	X		Mi-L/HI
9-60	FS-3-1424	Flow Switch	X		Mi-L/HI
9-61	FS-3-1425	Flow Switch	X		Mi-L/HI
9-62	FS-3-1426	Flow Switch	X		Mi-L/HI
9-63	FS-3-1427	Flow Switch	X		Mi-L/HI
9-64	FS-4-1422	Flow Switch	X		Mi-L/HI
9-65	FS-4-1423	Flow Switch	X		Mi-L/HI
9-66	FS-4-1424	Flow Switch	X		Mi-L/HI
9-67	FS-4-1425	Flow Switch	X		Mi-L/HI
9-68	FS-4-1426	Flow Switch	X		Mi-L/HI
9-69	FS-4-1427	Flow Switch	X		Mi-L/HI
9-70	4V3A	Filter Fan	X		Mi-L/HI

MASTER LIST

FACILITY: TURKEY POINT

UNIT: 3 & 4

(Class IE Electrical Equipment Required to
Function Under Postulated Accident Conditions)

DOCKET NO:

UNIT 3 - 50-250

UNIT 4 - 50-251

SYSTEM: CONTAINMENT VENTILATION

See Dwg. 5610-M11, Rev. 12

FUNCTION LEGEND

L - LOCA

H - HELB

I - INSIDE CTMT

O - OUTSIDE CTMT

Mi - MITIGATE

Mo - MONITOR

COMPONENTS

SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
9-71	4V3B	Filter Fan	X		Mi-L/Hi
9-72	4V3C	Filter Fan	X		Mi-L/Hi
9-73	SV-3-2905	Solenoid Valve	X		Mi-L/Hi
9-74	SV-3-2906	Solenoid Valve	X		Mi-L/Hi
9-75	SV-3-2907	Solenoid Valve	X		Mi-L/Hi
9-76	SV-3-2908	Solenoid Valve	X		Mi-L/Hi
9-77	SV-3-2909	Solenoid Valve	X		Mi-L/Hi
9-78	SV-3-2910	Solenoid Valve	X		Mi-L/Hi
9-79	SV-4-2905	Solenoid Valve	X		Mi-L/Hi
9-80	SV-4-2906	Solenoid Valve	X		Mi-L/Hi
9-81	SV-4-2907	Solenoid Valve	X		Mi-L/Hi
9-82	SV-4-2908	Solenoid Valve	X		Mi-L/Hi
9-83	SV-4-2909	Solenoid Valve	X		Mi-L/Hi
9-84	SV-4-2910	Solenoid Valve	X		M-L/Hi

MASTER LIST

FACILITY: TURKEY POINT

UNIT: 3 & 4

(Class IE Electrical Equipment Required to
Function Under Postulated Accident Conditions)

DOCKET NO:

UNIT 3 - 50-250

UNIT 4 - 50-251

SYSTEM: CONTAINMENT VENTILATION

See Dwg. 5610-M11, Rev. 12

FUNCTION LEGEND

L - LOCA
H - HELB
I - INSIDE CTMT
O - OUTSIDE CTMT
Mi - MITIGATE
Mo - MONITOR

COMPONENTS					
SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
9-85	3V30A	Cooling Fan	X		Mi-L/Hi
9-86	3V30B	Cooling Fan	X		Mi-L/Hi
9-87	3V30C	Cooling Fan	X		Mi-L/Hi
9-88	4V30A	Cooling Fan	X		Mi-L/Hi
9-89	4V30B	Cooling Fan	X		Mi-L/Hi
9-90	4V30C	Cooling Fan	X		Mi-L/Hi
9-91	PT-3-1622	Pressure Transmitter		X	Mo-L/Hi
9-92	PT-3-1623	Pressure Transmitter		X	Mo-L/Hi
9-93	PT-4-1622	Pressure Transmitter		X	Mo-L/Hi
9-94	PT-4-1623	Pressure Transmitter		X	Mo-L/Hi
9-95	PS-3-2007	Pressure Switch		X	Mi-L/Hi
9-96	PS-3-2008	Pressure Switch		X	Mi-L/Hi
9-97	PS-3-2009	Pressure Switch		X	Mi-L/Hi
9-98	PS-4-2007	Pressure Switch		X	Mi-L/Hi

MASTER LIST

FACILITY: TURKEY POINT

UNIT: 3 & 4

DOCKET NO:

UNIT 3 - 50-250

UNIT 4 - 50-251

SYSTEM: CONTAINMENT VENTILATION

See Dwg. 5610-M11, Rev. 12

(Class IE Electrical Equipment Required to
Function Under Postulated Accident Conditions)

FUNCTION LEGEND

L - LOCA
H - HELB
I - INSIDE CTMT
O - OUTSIDE CTMT
MI - MITIGATE
Mo - MONITOR

COMPONENTS					
SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
9-113	SV-3-2601	Solenoid Valve associated with POV-3-2601	X		MI-L/HI
9-114	SV-3-2804	Solenoid Valve associated with POV-3-2601	X		MI-L/HI
9-115	---	Limit switches assoc. with POV-3-2601	X		Mo-L/HI
9-116	SV-3-2603	Sol. Vlv. Assoc. w/POV-3-2603	X		MI-L/HI
9-117	SV-3-2806	Solenoid Valve Associated w/POV-3-2603	X		MI-L/HI
9-118	---	Limit Switches Assoc. with POV-3-2603	X		Mo-L/HI
9-119	SV-4-2601	Solenoid Valve Associated w/ POV-4-2601	X		MI-L/HI
9-120	SV-4-2804	Solenoid Valve Associated w/POV-4-2601	X		MI-L/HI
9-121	---	Limit Switches Assoc. with POV-4-2601	X		Mo-L/HI
9-122	SV-4-2603	Solenoid Valve Associated w/POV-4-2603	X		MI-L/HI
9-123	SV-4-2806	Solenoid Valve Associated w/POV-4-2603	X		MI-L/HI
9-124	---	Limit Switches Assoc. with POV-4-2603	X		Mo-L/HI
9-125	SV-3-2819	Solenoid Valve Assoc. with CV-3-2819	X		MI-L/HI
9-126	----	Limit Switches Assoc. with CV-3-2819	X		

MASTER LIST

FACILITY: TURKEY POINT

UNIT: 3 & 4

(Class IE Electrical Equipment Required to
Function Under Postulated Accident Conditions)

DOCKET NO:

UNIT 3 - 50-250

UNIT 4 - 50-251

SYSTEM: MISCELLANEOUS - CABLES

FUNCTION LEGEND

L - LOCA
H - HELB
I - INSIDE CTMT
O - OUTSIDE CTMT
Mi - MITIGATE
Mo - MONITOR

COMPONENTS					
SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
13-15	Cable Code N20	3/C #12 Power Cable		X	Mi & Mo-L/HI&HO
13-16	Cable Code 21	2/C #12 Control Cable		X	Mi & Mo-L/HI&HO
13-17	Cable Code 22	3/C #12 Control Cable		X	Mi & Mo-L/HI&HO
13-18	Cable Code 23	5/C #12 Control Cable		X	Mi & Mo-L/HI&HO
13-19	Cable Code 24	7/C #12 Control Cable		X	Mi & Mo-L/HI&HO
13-20	Cable Code 25	9/C #12 Control Cable		X	Mi & Mo-L/HI&HO
13-21	Cable Code 26	12/C #12 Control Cable		X	Mi & Mo-L/HI&HO
13-22	Cable Code 63	2/C #16 Instrument Cable		X	Mi & Mo-L/HI&HO
13-23	Cable Code 64	4/C #16 Instrument Cable		X	Mi & Mo-L/HI&HO
13-24	Cable Code 80	2PR. #16 Instrument Cable		X	Mi & Mo-L/HI&HO
13-25	Cable Code L1P	2/C #16 Instrument Cable	X		Mi & Mo-L/HI&HO
13-26	Cable Code LT1	3/C #16 Instrument Cable	X	X	Mi & Mo-L/HI&HO
13-27	Cable Code LP1	2/C #16 Instrument Cable	X	X	Mi & Mo-L/HI&HO
13-28	Cable Code LT1	3/C #16 Instrument Cable	X		Mi & Mo-L/HI-HO

MASTER LIST

FACILITY: TURKEY POINT

UNIT: 3 & 4

(Class IE Electrical Equipment Required to
Function Under Postulated Accident Conditions)

DOCKET NO:

UNIT 3 - 50-250

UNIT 4 - 50-251

SYSTEM: MISCELLANEOUS - TERMINAL BOXES

FUNCTION LEGEND

L - LOCA
H - HELB
I - INSIDE CTMT
O - OUTSIDE CTMT
Mi - MITIGATE
Mo - MONITOR

COMPONENTS					
SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
14-1	TB 3044	Terminal Box (Assoc. Dev. SV-3-2921 SV-3-2924, SV-3-2812)		X	Mi-L/HI
14-2	TB 3065	Terminal Box (Assoc. Dev: SV-3-2922 SV-3-2814)		X	Mi-L/HI
14-3	TB 3067	Terminal Box (Assoc. Dev: SV-3-2913)		X	Mi & Mo - L/HI
14-4	TB 3122	Terminal Box (Assoc. Dev: SV-3-2908)	X		Mi-L/HI
14-5	TB 3123	Terminal Box (Assoc. Dev: SV-3-2906)	X		Mi-L/HI
14-6	TB 3124	Terminal Box (Assoc. Dev: SV-3-2907)	X		Mi-L/HI
14-7	TB 3125	Terminal Box (Assoc. Dev: SV-3-2905)	X		Mi-L/HI
14-8	TB 3126	Terminal Box (Assoc. Dev: SV-3-2909)	X		Mi-L/HI
14-9	TB 3127	Terminal Box (Assoc. Dev: SV-3-2910)	X		Mi-L/HI
14-10	TB 3115	Terminal Box (Assoc. Dev.: TE-3-3440 thru TE-3-3463)	X		Mi & Mo-L/HI
14-11	TB 3134	Terminal Box (Assoc. Dev: SV-3-2925)		X	Mi-L/HI, HO

MASTER LIST

FACILITY: TURKEY POINT

UNIT: 3 & 4

(Class IE Electrical Equipment Required to
Function Under Postulated Accident Conditions)

DOCKET NO:

UNIT 3 - 50-250

UNIT 4 - 50-251

SYSTEM: MISCELLANEOUS - TERMINAL BOXES

FUNCTION LEGEND

L - LOCA
H - HELB
I - INSIDE CTMT
O - OUTSIDE CTMT
Mi - MITIGATE
Mo - MONITOR

COMPONENTS					
SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
14-12	TB 3135	Terminal Box (Assoc. Dev: TIC-100)		X	Mi-L/Hi
14-13	TB 3143	Terminal Box (Assoc. Dev: SV-3-2819 SV-3-200C, SV-3-310A)	X		Mi-L/Hi
14-14	TB 3144	Terminal Box (Assoc. Dev: SV-3-2601, SV-3-2804, SV-3-2603, SV-3-2806, SV-3-200A)	X		Mi-L/Hi
14-15	TB 3145	Terminal Box (Assoc. Dev: SV-3-310B SV-3-200B)	X		Mi-L/Hi, HO
14-16	TB 3150	Terminal Box (Assoc Dev: FT-3-110 SV-3-2911, SV-3-2912)		X	Mi & Mo-L/Hi
14-17	TB 3208	Terminal Box (Assoc. Dev: SV-3-2810 SV-3-2920 SV-3-2923)		X	Mi-L/Hi
14-18	TB 3213	Terminal Box (Assoc. Dev: PC-957A PC-957B, PC-957C, PC-957D)		X	Mi-L/Hi

MASTER LIST

FACILITY: TURKEY POINT

UNIT: 3 & 4

(Class IE Electrical Equipment Required to
Function Under Postulated Accident Conditions)

DOCKET NO:

UNIT 3 - 50-250

UNIT 4 - 50-251

SYSTEM: MISCELLANEOUS - TERMINAL BOXES

FUNCTION LEGEND

L - LOCA
H - HELB
I - INSIDE CTMT
O - OUTSIDE CTMT
Mi - MITIGATE
Mo - MONITOR

COMPONENTS					
SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
14 -19	TB3301	Terminal Box (Assoc. Dev: TE-3-412B	X		Mi-L/HI, HO
		TE-3-412D, LT-3-459, PT-3-455)			
14 -20	TB3303	Terminal Box (Assoc. Dev: LT-3-474)	X		Mi & Mo-L/HI, HO
14 -21	TB3305	Terminal Box (Assoc. Dev: FT-3-475		X	Mi-HI, HO
		FT-3-485, FT-3-495)			
14 -22	TB3306	Terminal Box (Assoc. Dev: FT-3-475		X	Mi-HI, HO
		FT-3-485, FT-3-495)			
14 -23	TB4044	Terminal Box (Assoc. Dev:		X	Mi-L/HI
		SV-4-2923, SV-4-2810)			
14 -24	TB4067	Terminal Box (Assoc. Dev: SV-4-2913)		X	Mi & Mo-L/HI
14 -25	TB4115	Terminal Box (Assoc. Dev:	X		Mi & Mo-L/HI
		TE-4-3440 thru TE-4-3463)			
14 -26	TB4122	Terminal Box (Assoc. Dev: SV-4-2905)	X		Mi - L/HI

FLORIDA POWER AND LIGHT COMPANY

TURKEY POINT UNITS 3 & 4

DOCKET : 50-250 AND 50-251

SECTION B.3

DISPLAY INSTRUMENTATION

ADDENDUM TO MASTER LIST OF SYSTEM COMPONENTS
REQUIRED TO FUNCTION FOR LOCA/HELB ACCIDENT

APPENDIX P OF
RESPONSE TO
SAFETY EVALUATION REPORT
I.E. BULLETIN 79-01 B

August 14, 1981



DISPLAY INSTRUMENTATION

The following constitutes a complete listing of all display instrumentation referred to in the LOCA and HELB Emergency Operating Procedures for Turkey Point Units 3 and 4.

The listing is divided into three parts:

I) Display Instrumentation

This category includes those indicators, recorder, lights, and annunciation panel windows that get their signals from instruments that measure process variables throughout the plant. The complete loops of these instruments are available in the plant central files for inspection. In each case, the instrument is located in the control room. That part of the loop exposed to the harsh environment was previously covered in the component evaluation worksheets. The page number of the component evaluation is included in the list as appropriate. Initiating devices not in the harsh environment are labeled 'mild' in this "C.E.S. page no." column.

II) Valve Position Verification

Indicating/status lights that verify the position of those valves included in the emergency procedures are listed in this section. These valves are grouped as follows:

- a) Valves located in a harsh environment (The associated C.E.S. page number is listed)
- b) Valves located in a mild environment (These valves are labeled 'mild')
- c) Valves that perform their function before being subjected to the harsh environment
- d) Valves that are not considered to be safety related, but are included in the Emergency Operating Procedures.

III) Feeder Breaker Position Indication

The indicating lights and annunciator windows are initiated by the motor feeder breakers. Both the breakers and the indicating lights/annunciators are located in mild environment.

- o Mild environment is assumed to be one that is not affected by the accident, i.e., the environmental parameters are not affected by the accident any more than during the normal shutdown mode of operation.
- o The "Remarks" column refers to explanatory notes as necessary. These notes follow the list.
- o Item numbers followed by * indicate those display instruments that are listed in the Emergency Operating Procedures, but are non-essential. Malfunction or subsequent failure of the equipment does not degrade other safety functions or mislead the operator.

FACILITY : TURKEY POINT

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DOCKET No.: UNIT 3 50-250
UNIT 4 50-251

SECTION B.3

ADDENDUM TO MASTER LIST

PART 1 : DISPLAY INSTRUMENTATION DEVICES

SECTION/ ITEM No.	DEVICE NUMBER	SIGNAL INITIATION		SYSTEM	SERVICE	REMARKS
		TAG No.	C.F.S. PG.			
I-1	PI-3-403	PT-3-403	1-1	RCS	Wide Range Reactor Coolant Pressure	
I-2	PI-3-405	PT-3-405	1-2	RCS	Wide Range Reactor Coolant Pressure	
I-3	PI-4-403	PT-4-403	1-5	RCS	Wide Range Reactor Coolant Pressure	
I-4	PI-4-405	PT-4-405	1-6	RCS	Wide Range Reactor Coolant Pressure	
I-5*	Monitor	PT-3-406	1-3	RCS	Reactor Coolant Subcool Margin Monitor	
		PT-3-404	1-4	RCS	Reactor Coolant Subcool Margin Monitor	
		TE-3-413A	1-49	RCS	Reactor Coolant Subcool Margin Monitor	
		TE-3-413B	1-50	RCS	Reactor Coolant Subcool Margin Monitor	
		TE-3-423A	1-51	RCS	Reactor Coolant Subcool Margin Monitor	
		TE-3-423B	1-52	RCS	Reactor Coolant Subcool Margin Monitor	
		TE-3-433A	1-53	RCS	Reactor Coolant Subcool Margin Monitor	
		TE-3-433B	1-54	RCS	Reactor Coolant Subcool Margin Monitor	
		PT-4-406	1-7	RCS	Reactor Coolant Subcool Margin Monitor	
		PT-4-404	1-8	RCS	Reactor Coolant Subcool Margin Monitor	
I-6*	Monitor	TE-4-413A	1-55	RCS	Reactor Coolant Subcool Margin Monitor	
		TE-4-413B	1-56	RCS	Reactor Coolant Subcool Margin Monitor	
		TE-4-423A	1-57	RCS	Reactor Coolant Subcool Margin Monitor	
		TE-4-423B	1-58	RCS	Reactor Coolant Subcool Margin Monitor	
		TE-4-433A	1-59	RCS	Reactor Coolant Subcool Margin Monitor	
		TE-4-433B	1-60	RCS	Reactor Coolant Subcool Margin Monitor	
		TE-3-413A	1-49	RCS	Reactor Coolant Hot Leg Wide Range Temp.	
		TE-3-423A	1-51	RCS	Reactor Coolant Hot Leg Wide Range Temp.	
		TE-3-433A	1-53	RCS	Reactor Coolant Hot Leg Wide Range Temp.	
		TE-4-413A	1-55	RCS	Reactor Coolant Hot Leg Wide Range Temp.	
I-8	TR-4-413	TE-4-423A	1-57	RCS	Reactor Coolant Hot Leg Wide Range Temp.	
		TE-4-433A	1-59	RCS	Reactor Coolant Hot Leg Wide Range Temp.	
I-9	PI-3-455	PT-3-455	1-9	RCS	Pressurizer Pressure	
I-10	PI-3-456	PT-3-456	1-10	RCS	Pressurizer Pressure	
I-11	PI-3-457	PT-3-457	1-11	RCS	Pressurizer Pressure	

FACILITY : TURKEY POINT

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DOCKET No.: UNIT 3 50-250
UNIT 4 50-251

SECTION B.3

ADDENDUM TO MASTER LIST

PART 1 : DISPLAY INSTRUMENTATION DEVICES

SECTION/ ITEM No.	DEVICE NUMBER	SIGNAL INITIATION		SYSTEM	SERVICE	REMARKS
		TAG No.	C.E.S. PG.			
I-12	PI-4-455	PT-4-455	1-12	RCS	Pressurizer Pressure	
I-13	PI-4-456	PT-4-456	1-13	RCS	Pressurizer Pressure	
I-14	PI-4-457	PT-4-457	1-14	RCS	Pressurizer Pressure	
I-15	LI-3-459A	LT-3-459	1-15	RCS	Pressurizer Level	
I-16	LI-3-460	LT-3-460	1-16	RCS	Pressurizer Level	
I-17	LI-3-461	LT-3-461	1-17	RCS	Pressurizer Level	
I-18	LR-3-459	459-461	1-15, 16 & 17	RCS	Pressurizer Level	
I-19	LI-4-459A	LT-4-459	1-18	RCS	Pressurizer Level	
I-20	LI-4-460	LT-4-460	1-19	RCS	Pressurizer Level	
I-21	LI-4-461	LT-4-461	1-20	RCS	Pressurizer Level	
I-22	LR-4-459	459-461	1-18, 19 & 20	RCS	Pressurizer Level	
I-23*	TI-3-412D	TE-3-412D	1-22	RCS	Reactor Coolant System T avg.	
I-24*	TI-3-422D	TE-3-422D	1-24	RCS	Reactor Coolant System T avg.	
I-25*	TI-3-432D	TE-3-432D	1-26	RCS	Reactor Coolant System T avg.	
I-26*	TI-4-412D	TE-4-412D	1-28	RCS	Reactor Coolant System T avg.	
I-27*	TI-4-422D	TE-4-422D	1-30	RCS	Reactor Coolant System T avg.	
I-28*	TI-4-432D	TE-4-432D	1-32	RCS	Reactor Coolant System T avg.	
I-29	TR-3-410	TE-3-410	1-37	RCS	Reactor Coolant Cold Leg Wide Range Temp	
		TE-3-420	1-39	RCS	Reactor Coolant Cold Leg Wide Range Temp.	
		TE-3-430	1-41	RCS	Reactor Coolant Cold Leg Wide Range Temp.	
I-30	TR-4-410	TE-4-410	1-43	RCS	Reactor Coolant Cold Leg Wide Range Temp	
		TE-4-420	1-45	RCS	Reactor Coolant Cold Leg Wide Range Temp	
		TE-4-430	1-47	RCS	Reactor Coolant Cold Leg Wide Range Temp	
I-31	Indicator	ZS-3-6303A	1-38	RCS	Safety Valve Acoustic Monitor	
I-32	Indicator	ZS-3-6303B	1-40	RCS	Safety Valve Acoustic Monitor	
I-33	Indicator	ZS-3-6303C	1-42	RCS	Safety Valve Acoustic Monitor	
I-34	Indicator	ZS-4-6303A	1-44	RCS	Safety Valve Acoustic Monitor	
I-35	Indicator	ZS-4-6303B	1-46	RCS	Safety Valve Acoustic Monitor	
I-36	Indicator	ZS-4-6303C	1-48	RCS	Safety Valve Acoustic Monitor	

FACILITY : TURKEY POINT

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DOCKET No.:UNIT 3 50-250

UNIT 4 50-251

SECTION B.3

ADDENDUM TO MASTER LIST

PART I : DISPLAY INSTRUMENTATION DEVICES

SECTION/ ITEM No.	DEVICE NUMBER	SIGNAL INITIATION		SYSTEM	SERVICE	REMARKS
		TAG No.	C.F.S. PG.			
I-37	FI-3-110	FT-3-110	2-28	CVCS	Emergency Boration Flow	
I-38	FI-4-110	FT-4-110	2-29	CVCS	Emergency Boration Flow	
I-39	FI-3-122	FT-3-122	2-60	CVCS	Charging Pump Discharge Flow	
I-40	FI-4-122	FT-4-122	2-61	CVCS	Charging Pump Discharge Flow	
I-41*	LI-3-115	LT-3-115	MILD	CVCS	Volume Control Tank Level	
I-42*	LI-4-115	LT-4-115	MILD	CVCS	Volume Control Tank Level	
I-43	LI-106	LT-106	MILD	CVCS	Boric Acid Tank "A" Level	
I-44	LI-108	LT-108	MILD	CVCS	Boric Acid Tank "B" Level	
I-45	LI-108B	LT-108	MILD	CVCS	Boric Acid Tank "B" Level	
I-46	LI-102	LT-102	MILD	CVCS	Boric Acid Tank "C" Level	
I-47	PI-3-940	PT-3-940	3-1	SI/RHR	Safety Injection Header Pressure	
I-48	PI-4-940	PT-4-940	3-2	SI/RHR	Safety Injection Header Pressure	
I-49	PI-3-943	PT-3-943	3-3	SI/RHR	Safety Injection Header Pressure	
I-50	PI-4-943	PT-4-943	3-4	SI/RHR	Safety Injection Header Pressure	
I-51	FI-3-940	FT-3-940	3-5	SI/RHR	Safety Injection Flow to R.C.S.	
I-52	FI-3-943	FT-3-943	3-6	SI/RHR	Safety Injection Flow to R.C.S.	
I-53	FI-4-940	FT-4-940	3-7	SI/RHR	Safety Injection Flow to R.C.S.	
I-54	FI-4-943	FT-4-943	3-8	SI/RHR	Safety Injection Flow to R.C.S.	
I-55	FI-3-932	FT-3-932	3-9	SI/RHR	Safety Injection Flow to R.C.S. Hot Leg	
I-56	FI-3-933	FT-3-933	3-10	SI/RHR	Safety Injection Flow to R.C.S. Hot Leg	
I-57	FI-4-932	FT-4-932	3-11	SI/RHR	Safety Injection Flow to R.C.S. Hot Leg	
I-58	FI-4-933	FT-4-933	3-12	SI/RHR	Safety Injection Flow to R.C.S. Hot Leg	
I-59	FI-3-605	FT-3-605	3-13	SI/RHR	Residual Heat Removal Discharge Flow	
I-60	FI-4-605	FT-4-605	3-14	SI/RHR	Residual Heat Removal Discharge Flow	
I-61	XE Y	LS-3-1570	3-73	SI/RHR	South Cont. Recirc Sump (A)	
I-62	XE Z	LS-3-1571	3-74	SI/RHR	North Cont. Recirc Sump (B)	
I-63	XE Y	LS-4-1570	3-75	SI/RHR	South Cont. Recirc Sump (A)	
I-64	XE Z	LS-4-1571	3-76	SI/RHR	North Cont. Recirc Sump (B)	

FACILITY : TURKEY POINT

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DOCKET No.: UNIT 3 50-250
UNIT 4 50-251

SECTION B.3

ADDENDUM TO MASTER LIST

: PART I : DISPLAY INSTRUMENTATION DEVICES

SECTION/ ITEM No.	DEVICE NUMBER	SIGNAL INITIATION		SYSTEM	SERVICE	REMARKS
		TAG No.	C.E.S. PG.			
I-65	LI-3-1545D	LT-3-1545	MILD	SI/RHR	Refueling Water Storage Tank Level	
I-66	LI-4-1545D	LT-4-1545	MILD	SI/RHR	Refueling Water Storage Tank Level	
I-67 *	I-7/6	LS-3-1535		SI/RHR	High RHR Sump Water Level	See Note 6
I-68 *	I-8/6	LS-3-1536		SI/RHR	High RHR Sump Water Level	See Note 6
I-69 *	I-7/6	LS-4-1535		SI/RHR	High RHR Sump Water Level	See Note 6
I-70 *	I-8/6	LS-4-1536		SI/RHR	High RHR Sump Water Level	See Note 6
I-71 *	FI-3-613	FT-3-613A	4-37	CCW	Component Cooling Water to RCP Flow	
I-72 *	FI-4-613	FT-4-613A	4-38	CCW	Component Cooling Water to RCP Flow	
I-73 *	FI-3-613 B	FT-3-613 B	4-39	CCW	Component Cooling Water to RCP Flow	
I-74 *	FI-4-613 B	FT-4-613 B	4-40	CCW	Component Cooling Water to RCP Flow	
I-75	PI-3-474	PT-3-474	5-1	M.S.	Steam Generator Pressure Loop 'A'	
I-76	PI-3-475	PT-3-475	5-2	M.S.	Steam Generator Pressure Loop 'A'	
I-77	PI-3-476	PT-3-476	5-3	M.S.	Steam Generator Pressure Loop 'A'	
I-78	PI-3-484	PT-3-484	5-4	M.S.	Steam Generator Pressure Loop 'B'	
I-79	PI-3-485	PT-3-485	5-5	M.S.	Steam Generator Pressure Loop 'B'	
I-80	PI-3-486	PT-3-486	5-6	M.S.	Steam Generator Pressure Loop 'B'	
I-81	PI-3-494	PT-3-494	5-7	M.S.	Steam Generator Pressure Loop 'C'	
I-82	PI-3-495	PT-3-495	5-8	M.S.	Steam Generator Pressure Loop 'C'	
I-83	PI-3-496	PT-3-496	5-9	M.S.	Steam Generator Pressure Loop 'C'	
I-84	PI-4-474	PT-4-474	5-10	M.S.	Steam Generator Pressure Loop 'A'	
I-85	PI-4-475	PT-4-474	5-11	M.S.	Steam Generator Pressure Loop 'A'	
I-86	PI-4-476	PT-4-476	5-12	M.S.	Steam Generator Pressure Loop 'A'	
I-87	PI-4-484	PT-4-484	5-13	M.S.	Steam Generator Pressure Loop 'B'	
I-88	PI-4-485	PT-4-485	5-14	M.S.	Steam Generator Pressure Loop 'B'	
I-89	PI-4-486	PT-4-486	5-15	M.S.	Steam Generator Pressure Loop 'B'	
I-90	PI-4-494	PT-4-494	5-16	M.S.	Steam Generator Pressure Loop 'C'	
I-91	PI-4-495	PT-4-495	5-17	M.S.	Steam Generator Pressure Loop 'C'	
I-92	PI-4-496	PT-4-494	5-18	M.S.	Steam Generator Pressure Loop 'C'	

FACILITY : TURKEY POINT

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DOCKET No.: UNIT 3 50-250

UNIT 4 50-251

SECTION B.3ADDENDUM TO MASTER LIST.. PART 1 : DISPLAY INSTRUMENTATION DEVICES

SECTION/ ITEM No.	DEVICE NUMBER	SIGNAL INITIATION		SYSTEM	SERVICE	REMARKS
		TAG No.	C.E.S. PG.			
I-93	PI-3-464A	PT-3-464	5-19	M.S.	Steam Generator Header Pressure	
I-94	PI-3-466	PT-3-466	5-20	M.S.	Steam Generator Header Pressure	
I-95	PI-3-468	PT-3-468	5-21	M.S.	Steam Generator Header Pressure	
I-96	PI-4-464A	PT-4-464	5-22	M.S.	Steam Generator Header Pressure	
I-97	PI-4-466	PT-4-466	5-23	M.S.	Steam Generator Header Pressure	
I-98	PI-4-468	PT-4-468	5-24	M.S.	Steam Generator Header Pressure	
I-99*	FI-3-475	FT-3-475	5-25	M.S.	Main Steamline Flow	
I-100*	FI-3-484	FT-3-484	5-26	M.S.	Main Steamline Flow	
I-101*	FI-3-485	FT-3-485	5-27	M.S.	Main Steamline Flow	
I-102*	FI-3-494	FT-3-494	5-28	M.S.	Main Steamline Flow	
I-103*	FI-3-495	FT-3-495	5-29	M.S.	Main Steamline Flow	
I-104*	FI-3-474	FT-3-474	5-30	M.S.	Main Steamline Flow	
I-105*	FI-4-474	FT-4-474	5-31	M.S.	Main Steamline Flow	
I-106*	FI-4-475	FT-4-475	5-32	M.S.	Main Steamline Flow	
I-107*	FI-4-484	FT-4-484	5-33	M.S.	Main Steamline Flow	
I-108*	FI-4-485	FT-4-485	5-34	M.S.	Main Steamline Flow	
I-109*	FI-4-494	FT-4-494	5-35	M.S.	Main Steamline Flow	
I-110*	FI-4-495	FT-4-494	5-36	M.S.	Main Steamline Flow	
I-111	LI-3-474	LT-3-474	7-1	F.W.	Steam Generator Narrow Range Level	
I-112	LI-3-475	LT-3-475	7-2	F.W.	Steam Generator Narrow Range Level	
I-113	LI-3-476	LT-3-476	7-3	F.W.	Steam Generator Narrow Range Level	
I-114	FR-3-478	474-476	7-1,2,3	F.W.	Steam Generator Narrow Range Level	
I-115	LI-3-484	LT-3-484	7-4	F.W.	Steam Generator Narrow Range Level	
I-116	LI-3-485	LT-3-485	7-5	F.W.	Steam Generator Narrow Range Level	
I-117	LI-3-486	LT-3-486	7-6	F.W.	Steam Generator Narrow Range Level	
I-118	Fr-3-488	484-486	7-4,5,6	F.W.	Steam Generator Narrow Range Level	
I-119	LI-3-494	LT-3-494	7-7	F.W.	Steam Generator Narrow Range Level	
I-120	LI-3-495	LT-3-495	7-8	F.W.	Steam Generator Narrow Range Level	

FACILITY : TURKEY POINT

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DOCKET No.: UNIT 3 50-250
UNIT 4 50-251

SECTION B.3

ADDENDUM TO MASTER LIST

PART I : DISPLAY INSTRUMENTATION DEVICES

SECTION/ ITEM No.	DEVICE NUMBER	SIGNAL INITIATION		SYSTEM	SERVICE	REMARKS
		TAG No.	C.E.S. PG.			
I-121	LI-3-496	LT-3-496	7-9	F.W.	Steam Generator Narrow Range Level	
I-122	FR-3-498	494-496	7-7,8,9	F.W.	Steam Generator Narrow Range Level	
I-123	LI-4-474	LT-4-474	7-10	F.W.	Steam Generator Narrow Range Level	
I-124	LI-4-475	LT-4-475	7-11	F.W.	Steam Generator Narrow Range Level	
I-125	LI-4-476	LT-4-476	7-12	F.W.	Steam Generator Narrow Range Level	
I-126	FR-4-478	474-476	7-10,11,12	F.W.	Steam Generator Narrow Range Level	
I-127	LI-4-484	LT-4-484	7-13	F.W.	Steam Generator Narrow Range Level	
I-128	LI-4-485	LT-4-485	7-14	F.W.	Steam Generator Narrow Range Level	
I-129	LI-4-486	LT-4-486	7-15	F.W.	Steam Generator Narrow Range Level	
I-130	FR-4-488	484-486	7-13,14,15	F.W.	Steam Generator Narrow Range Level	
I-131	LI-4-494	LT-4-494	7-16	F.W.	Steam Generator Narrow Range Level	
I-132	LI-4-495	LT-4-495	7-17	F.W.	Steam Generator Narrow Range Level	
I-133	LI-4-496	LT-4-496	7-18	F.W.	Steam Generator Narrow Range Level	
I-134	FR-4-498	494-496	7-16,17,18	F.W.	Steam Generator Narrow Range Level	
I-135*	FI-3-476	FT-3-476	MILD	F.W.	Steam Generator 'A' Feedwater Flow	
I-136*	FI-3-477	FT-3-477	MILD	F.W.	Steam Generator 'A' Feedwater Flow	
I-137*	FI-3-486	FT-3-486	MILD	F.W.	Steam Generator 'B' Feedwater Flow	
I-138*	FI-3-487	FT-3-487	MILD	F.W.	Steam Generator 'B' Feedwater Flow	
I-139*	FI-3-496	FT-3-496	MILD	F.W.	Steam Generator 'C' Feedwater Flow	
I-140*	FI-3-497	FT-3-497	MILD	F.W.	Steam Generator 'C' Feedwater Flow	
I-141*	FI-4-476	FT-4-476	MILD	F.W.	Steam Generator 'A' Feedwater Flow	
I-142*	FI-4-477	FT-4-477	MILD	F.W.	Steam Generator 'A' Feedwater Flow	
I-143*	FI-4-486	FT-4-486	MILD	F.W.	Steam Generator 'B' Feedwater Flow	
I-144*	FI-4-487	FT-4-487	MILD	F.W.	Steam Generator 'B' Feedwater Flow	
I-145*	FI-4-496	FT-4-496	MILD	F.W.	Steam Generator 'C' Feedwater Flow	
I-146*	FI-4-497	FT-4-497	MILD	F.W.	Steam Generator 'C' Feedwater Flow	
I-147	R-3-1414	TE-3-3440	9-1	C-VENT.	Charcoal Filter Temp.	
		TE-3-3463	9-24	C-VENT.	Charcoal Filter Temp.	

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ADDENDUM TO MASTER LIST

PART I : DISPLAY INSTRUMENTATION DEVICES

SECTION/ ITEM No.	DEVICE NUMBER	SIGNAL INITIATION		SYSTEM	SERVICE	REMARKS
		TAG No.	C.E.S. PG.			
I-148	R-4-1414	TE-4-3440 ↓	9-25 ↓	C-VENT	Charcoal Filter Temp.	
		TE-4-3463	9-48	C-VENT.	Charcoal Filter Temp.	
I-149	R 311	RD-3-11	9-51	C-VENT.	Containment Air Particle	
I-150	R 312	RD-3-12	9-52	C-VENT.	Containment Gas Monitor	
I-151	R 411	RD-4-11	9-53	C-VENT.	Containment Air Particule	
I-152	R 412	RD-4-12	9-54	C-VENT.	Containment Gas Monitor	
I-153	PI-3-1622	PT-3-1622	9-91	C-VENT.	Containment Pressure	
I-154	PI-3-1623	PT-3-1623	9-92	C-VENT.	Conainment Pressure	
I-155	PI-4-1622	PT-4-1622	9-93	C-VENT.	Containment Pressure	
I-156	PI-4-1623	PT-4-1623	9-94	C-VENT.	Containment Pressure	
I-157	LI-3-1544	LT-3-1544		C&FW	Condensate Storage Tank Level	Pneumatic
I-158	LI-4-1544	LT-4-1544		C&FW	Condensate Storage Tank Level	Pneumatic
I-159	FI-3-1401	FT-3-1401		C&FW	Auxiliary Feedwater Flow	Pneumatic
I-160	FI-3-1457	FT-3-1457		C&FW	Auxiliary Feedwater Flow	Pneumatic
I-161	FI-3-1458	FT-3-1458		C&FW	Auxiliary Feedwater Flow	Pneumatic
I-162	FI-4-1401	FT-4-1401		C&FW	Auxiliary Feedwater Flow	Pneumatic
I-163	FI-4-1457	FT-4-1457		C&FW	Auxiliary Feedwater Flow	Pneumatic
I-164	FI-4-1458	FT-4-1458		C&FW	Auxiliary Feedwater Flow	Pneumatic

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PART II VERIFICATION OF VALVE POSITION

SECTION/ ITEM No.	INDICATION	C.E.S. PAGE	VALVE MONITORED	SYSTEM	SERVICE	REMARKS
II- 1	Lights	1-33	MOV-3-535	RCS	Pressurizer PORV Back Up Isolation	
II- 2	Lights	1-34	MOV-3-536	RCS	Pressurizer PORV Back Up Isolation	
II- 3	Lights	1-35	MOV-4-535	RCS	Pressurizer PORV Back Up Isolation	
II- 4	Lights	1-36	MOV-4-536	RCS	Pressurizer PORV Back Up Isolation	
	Monitor		3-551A	RCS	Pressurizer Safety Valve	See I-31
	Monitor		3-551B	RCS	Pressurizer Safety Valve	See I-32
	Monitor		3-551C	RCS	Pressurizer Safety Valve	See I-33
	Monitor		4-551A	RCS	Pressurizer Safety Valve	See I-34
	Monitor		4-551B	RCS	Pressurizer Safety Valve	See I-35
	Monitor		4-551C	RCS	Pressurizer Safety Valve	See I-36
II- 5*	Lights	2-2	CV-3-310A	CVCS	R.C.S. Charging Line	See Note 1
II- 6*	Lights	2-4	CV-3-310B	CVCS	R.C.S. Charging Line	See Note 1
II- 7*	Lights	2-6	CV-4-310A	CVCS	R.C.S. Charging Line	See Note 1
II- 8*	Lights	2-8	CV-4-310B	CVCS	R.C.S. Charging Line	See Note 1
II- 9*	Lights	2-10	CV-3-200A	CVCS	R.C.S. Letdown Orifice Isolation	
II- 10*	Lights	2-12	CV-3-200B	CVCS	R.C.S. Letdown Orifice Isolation	
II- 11*	Lights	2-14	CV-3-200C	CVCS	R.C.S. Letdown Orifice Isolation	
II- 12*	Lights	2-16	CV-4-200A	CVCS	R.C.S. Letdown Orifice Isolation	
II- 13*	Lights	2-18	CV-4-200B	CVCS	R.C.S. Letdown Orifice Isolation	
II- 14*	Lights	2-20	CV-4-200C	CVCS	R.C.S. Letdown Orifice Isolation	
II- 15	Lights	3-21	MOV-3-744A	SI/RHR	R.C.S. Inlet Isolation	
II- 16	Lights	3-22	MOV-4-744A	SI/RHR	R.C.S. Inlet Isolation	
II- 17	Lights	3-23	MOV-3-744B	SI/RHR	R.C.S. Inlet Isolation	
II- 18	Lights	3-24	MOV-4-744B	SI/RHR	R.C.S. Inlet Isolation	
II- 19	Lights	3-29	MOV-3-843A	SI/RHR	Boron SI Valve (L.P.'A' Cold Leg)	
II- 20	Lights	3-30	MOV-3-843B	SI/RHR	Boron SI Valve (L.P.'B' Cold Leg)	
II- 21	Lights	3-31	MOV-4-843A	SI/RHR	Boron SI Valve (L.P.'A' Cold Leg)	
II- 22	Lights	3-32	MOV-4-843B	SI/RHR	Boron SI Valve (L.P.'B' Cold Leg)	
II- 23	Lights	3-51	MOV-3-867A	SI/RHR	B.I.T. High High Pressure Valve	

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PART II VERIFICATION OF VALVE POSITION

SECTION/ ITEM No.	INDICATION	C.E.S. PAGE	VALVE MONITORED	SYSTEM	SERVICE	REMARKS
II- 24	Lights	3-52	MOV-3-867B	SI/RHR	B.I.T. High High Pressure Valve	
II- 25	Lights	3-53	MOV-4-867A	SI/RHR	B.I.T. High High Pressure Valve	
II- 26	Lights	3-54	MOV-4-867B	SI/RHR	B.I.T. High High Pressure Valve	
II- 27	Lights	3-61	MOV-3-869	SI/RHR	Hot Leg S.I. Stop Valve	
II- 28	Lights	3-62	MOV-4-869	SI/RHR	Hot Leg S.I. Stop Valve	
II- 29	Lights	6-1	MOV-3-1403	A.F.W.	Aux. Feedwater Steam Valves	
II- 30	Lights	6-2	MOV-3-1404	A.F.W.	Aux. Feedwater Steam Valves	
II- 31	Lights	6-3	MOV-3-1405	A.F.W.	Aux. Feedwater Steam Valves	
II- 32	Lights	6-4	MOV-4-1403	A.F.W.	Aux. Feedwater Steam Valves	
II- 33	Lights	6-5	MOV-4-1404	A.F.W.	Aux. Feedwater Steam Valves	
II - 34	Lights	6-6	MOV-4-1405	A.F.W.	Aux. Feedwater Steam Valves	
II- 35	Lights	8-1	MOV-3-1410	C&FW	Steam Generator Blowdown	
II- 36	Lights	8-3	MOV-3-1411	C&FW	Steam Generator Blowdown	
II- 37	Lights	8-5	MOV-3-1412	C&FW	Steam Generator Blowdown	
II- 38	Lights	8-7	MOV-4-1410	C&FW	Steam Generator Blowdown	
II- 39	Lights	8-9	MOV-4-1411	C&FW	Steam Generator Blowdown	
II- 40	Lights	8-11	MOV-4-1412	C&FW	Steam Generator Blowdown	
	FI-3-1401	8-13	CV-3-2816	C&FW	Aux. Feedwater Regulating Valves	See I-157
	FI-3-1401	8-14	CV-3-2831	C&FW	Aux. Feedwater Regulating Valves	See I-157
	FI-3-1457	8-15	CV-3-2817	C&FW	Aux. Feedwater Regulating Valves	See I-158
	FI-3-1457	8-16	CV-3-2832	C&FW	Aux. Feedwater Regulating Valves	See I-158
	FI-3-1458	8-17	CV-3-2818	C&FW	Aux. Feedwater Regulating Valves	See I-159
	FI-3-1458	8-18	CV-3-2833	C&FW	Aux. Feedwater Regulating Valves	See I-159
	FI-4-1401	8-19	CV-4-2816	C&FW	Aux. Feedwater Regulating Valves	See I-160
	FI-4-1401	8-20	CV-4-2831	C&FW	Aux. Feedwater Regulating Valves	See I-160
	FI-4-1457	8-21	CV-4-2817	C&FW	Aux. Feedwater Regulating Valves	See I-161
	FI-4-1457	8-22	CV-4-2832	C&FW	Aux. Feedwater Regulating Valves	See I-161
	FI-4-1458	8-23	CV-4-2818	C&FW	Aux. Feedwater Regulating Valves	See I-162

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SECTION/ ITEM No.	INDICATION	C.E.S. PAGE	VALVE MONITORED	SYSTEM	SERVICE	REMARKS
	FI-4-1458	8-24	CV-4-2833	C&FW	Aux. Feedwater Regulating Valves	See I-162
II- 41	POG- 3-2823	9-107	CV-3-2911	C.Vent.	Containment Isolation Air Sample	
II- 42	POG-3-2824	9-108	CV-3-2912	C.Vent.	Containment Isolation Air Sample	
II- 43	POG-3-2825	9-109	CV-3-2913	C.Vent.	Containment Isolation Air Sample	
II- 44	POG-4-2823	9-110	CV-4-2911	C.Vent.	Containment Isolation Air Sample	
II- 45	POG-4-2824	9-111	CV-4-2912	C.Vent.	Containment Isolation Air Sample	
II- 46	POG-4-2825	9-112	CV-4-2913	C.Vent.	Containment Isolation Air Sample	
II- 47	Lights	9-115	POV-3-2601	C.Vent.	Containment Purge Air Supply Valve	
II- 48	Lights	9-118	POV-3-2603	C.Vent.	Containment Purge Air Return Valve	
II- 49	Lights	9-121	POV-4-2601	C.Vent.	Containment Purge Air Supply Valve	
II- 50	Lights	9-124	POV-4-2603	C.Vent.	Containment Purge Air Return Valve	
II- 51	Lights	9-126	CV-3-2819	C.Vent.	Containment Instrument Air Bleed Valve	
II- 52	Lights	9-128	CV-4-2819	C.Vent.	Containment Instrument Air Bleed Valve	
II- 53*	Lights	MILD	HCV-104	SI/RHR	Boric Acid Tank 'C' Recirculation	
II- 54*	Lights	MILD	HCV-105	SI/RHR	Boric Acid Tank 'B' Recirculation	
II- 55*	Lights	MILD	HCV-110	SI/RHR	Boric Acid Tank 'A' Recirculation	
II- 56	Lights	MILD	CV-3-2826	C.Vent.	Containment Instrument Air Bleed Valve	
II- 57	Lights	MILD	CV-4-2826	C.Vent.	Containment Instrument Air Bleed Valve	
II- 58	Lights	MILD	POV-3-2600	C.Vent.	Containment Purge Air Supply Valve	
II- 59	Lights	MILD	POV-3-2602	C.Vent.	Containment Purge Air Return Valve	
II- 60	Lights	MILD	POV-4-2600	C.Vent.	Containment Pruge Air Supply Valve	
II- 61	Lights	MILD	POV-4-2602	C.Vent.	Containment Purge Air Return Valve	
II- 62	Lights	MILD	CV-3-516	R.C.S.	P.R.T. Gas Analyzer Isolation	See note 2
II- 63	Lights	MILD	CV-4-516	R.C.S.	P.R.T. Gas Analyzer Isolation	See note 2
II- 64	Lights	MILD	CV-3-519A	R.C.S.	P.R.T. Spray Line Isolation	See note 2
II- 65	Lights	MILD	CV-4-519A	R.C.S.	P.R.T. Spray Line Isolation	See note 2
II- 66	Lights	MILD	CV-3-204	CVCS	Letdown Line Containment Isol.	See note 2
II- 67	Lights	MILD	CV-4-204	CVCS	Letdown Line Conatinement Isol.	See note 2
II- 68	FI-3-122	MILD	HCV-3-121	CVCS	Letdown Charging	Notes 1&2
II- 69	FI-4-122	MILD	HCV-4-121	CVCS	Letdown Charging	Notes 1 & 2

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SECTION/ ITEM No.	INDICATION	C.E.S. PAGE	VALVE MONITORED	SYSTEM	SERVICE	REMARKS
II- 70	Lights	MILD	MOV-3-381	SI/RHR	R.C.P. Seal Water Return Line	See note 2
II- 71	Lights	MILD	MOV-4-381	SI/RHR	R.C.P. seal Water Return Line	See note 2
II- 72 *	Lights	MILD	SV-3-841A	SI/RHR	B.I.T. to Boric Acid Tanks	See note 2
II- 73 *	Lights	MILD	SV-3-841B	SI/RHR	B.I.T. to Boric Acid Tanks	See note 2
II- 74 *	Lights	MILD	SV-4-841 A	SI/RHR	B.I.T. to Boric Acid Tanks	See Note 2
II- 75 *	Lights	MILD	SV-4-841 B	SI/RHR	B.I.T. to Boric Acid Tanks	See Note 2
II- 76	Lights	MILD	CV-3-855	SI/RHR	Accumulator N ₂ & Tank Fill Isolation	See Note 2
II- 77	Lights	MILD	CV-4-855	SI/RHR	Accumulator N ₂ & Tank Fill Isolation	See Note 2
II- 78	Lights	MILD	FCV-3-626	CCW	CCW Thermal Barrier Isolation	See Note 2
II- 79	Lights	MILD	FCV-4-626	CCW	CCW Thermal Barrier Isolation	See Note 2
II- 80	Lights	MILD	CV-3-739	CCW	Excess Letdown Heat Exchanger Isol.	See Note 2
II- 81	Lights	MILD	CV-4-739	CCW	Excess Letdown Heat Exchanger Isol.	See Note 2
II- 82	Lights	MILD	MOV-3-1417	CCW	Containment Cooling Water Inlet	See Note 2
II- 83	Lights	MILD	MOV-3-1418	CCW	Containment Cooling Water Discharge	See Note 2
II- 84	Lights	MILD	MOV-4-1417	CCW	Containment Cooling Water Inlet	See Note 2
II- 85	Lights	MILD	MOV-4-1418	CCW	Containment Cooling Water Discharge	See Note 2
II- 86	Lights	MILD	MOV-3-1425	M.S.	Steam Generator Water Sampling	See Note 2
II- 87	Lights	MILD	MOV-3-1426	M.S.	Steam Generator Water Sampling	See Note 2
II- 88	Lights	MILD	MOV-3-1427	M.S.	Steam Generator Water Sampling	See Note 2
II- 89	Lights	MILD	MOV-4-1425	M.S.	Steam Generator Water Sampling	See Note 2
II- 90	Lights	MILD	MOV-4-1426	M.S.	Steam Generator Water Sampling	See Note 2
II- 91	Lights	MILD	MOV-4-1427	M.S.	Steam Generator Water Sampling	See Note 2
	FI-3-476	MILD	FCV-3-478	F.W.	Main Feedwater Control Valves	See I- 135
	FI-3-486	MILD	FCV-3-488	F.W.	Main Feedwater Control Valves	See I- 137
	FI-3-496	MILD	FCV-3-498	F.W.	Main Feedwater Control Valves	See I- 139
	FI-3-477	MILD	FCV-3-479	F.W.	Main Feedwater Bypass Valves	See I- 136
	FI-3-487	MILD	FCV-3-489	F.W.	Main Feedwater Bypass Valves	See I- 138
	FI-3-497	MILD	FCV-3-499	F.W.	Main Feedwater Bypass Valves	See I- 140

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SECTION/ ITEM No.	INDICATION	C.E.S. PAGE	VALVE MONITORED	SYSTEM	SERVICE	REMARKS
	FI-3-476	MILD	FCV-4-478	F.W.	Main Feedwater Control Vlvs	See I- 141
	FI-3-486	MILD	FCV-4-488	F.W.	Main Feedwater Control Vlvs	See I- 143
	FI-3-496	MILD	FCV-4-498	F.W.	Main Feedwater Control Vlvs	See I- 145
	FI-3-477	MILD	FCV-4-479	F.W.	Main Feedwater Bypass Valves	See I -142
	FI-3-487	MILD	FCV-4-489	F.W.	Main Feedwater Bypass Valves	See I- 144
	FI-3-497	MILD	FCV-4-499	F.W.	Main Feedwater Bypass Valves	See I- 146
II- 92	Lights	MILD	CV-3-956 A	Sample	Containment Sample System Isolation	See Note 2
II -93	Lights	MILD	CV-3-956 B	Sample	Containment Sample System Isolation	See Note 2
II - 94	Lights	MILD	CV-3-956 C	Sample	Containment Sample System Isolation	See Note 2
II - 95	Lights	MILD	CV-3-956 D	Sample	Containment Sample System Isolation	See Note 2
II - 96	Lights	MILD	CV-4-956 A	Sample	Containment Sample System Isolation	See Note 2
II - 97	Lights	MILD	CV-4-956 B	Sample	Containment Sample System Isolation	See Note 2
II - 98	Lights	MILD	CV-4-956 C	Sample	Containment Sample System Isoaltion	See Note 2
II - 99	Lights	MILD	CV-4-956 D	Sample	Containment Sample System Isolation	See Note 2
II - 100	Lights	MILD	CV-3-4658A	WstDisp	R.C.D.T. to Vent Header	See Note 2
II- 101	Lights	MILD	CV-3-4658B	WstDisp	R.C.D.T. to Vent Header	See Note 2
II - 102	Lights	MILD	CV-4-4658A	WstDisp	R.C.D.T. to Vent Header	See Note 2
II - 103	Lights	MILD	CV-4-4658B	WstDisp	R.C.D.T. to Vent Header	See Note 2
II - 104	Lights	MILD	CV-3-4659A	WstDisp	R.C.D.T. Gas Analyzer Isolation	See Note 2
II - 105	Lights	MILD	CV-3-4659B	WstDisp	R.C.D.T. Gas Analyzer Isolation	See Note 2
II - 106	Lights	MILD	CV-4-4659A	WstDisp	R.C.D.T. Gas Analyzer Isolation	See Note 2
II - 107	Lights	MILD	CV-4-4659B	WSTDISP	R.C.D.T. Gas Analyzer Isolation	See Note 2
II- 108	Lights	MILD	CV-3-4668A	WstDisp	R.C.D.T. Pump Discharge	See Note 2
II - 109	Lights	MILD	CV-3-4668B	WstDisp	R.C.D.T. Pump Discharge	See Note 2
II - 110	Lights	MILD	CV-4-4668A	WstDisp	R.C.D.T. Pump Discharge	See Note 2
II- 111	Lights	MILD	CV-4-4668B	WstDisp	R.C.D.T. Pump Discharge	See Note 2
II - 112*	Lights	See Note 3	CV-3-951	Sample	Pressurizer Steam Space Sample	See Note 3
II - 113*	Lights	See Note 3	CV-4-951	Sample	Pressurizer Steam Space Sample	See Note 3
II - 114*	Lights	See Note 3	CV-3-953	Sample	Pressurizer Liquid Space Sample	See Note 3

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SECTION/ ITEM No.	INDICATION	C.E.S. PAGE	VALVE MONITORED	SYSTEM	SERVICE	REMARKS
II - 115*	Lights	See Note 3	CV-4-953	Sample	Pressurizer Liquid Space Sample	See Note 3
II - 116*	Lights	See Note 3	CV-3-955A	Sample	Hot Leg Sample Valve	See Note 3
II - 117*	Lights	See Note 3	CV-3-955B	Sample	Hot Leg Sample Valve	See Note 3
II - 118*	Lights	See Note 3	CV-4-955A	Sample	Hot Leg Sample Valve	See Note 3
II - 119*	Lights	See Note 3	CV-4-955B	Sample	Hot Leg Sample Valve	See Note 3
II - 120*	Lights	See Note 3	CV-3-955C	Sample	Accumulator Sample Valve	See Note 3
II - 121*	Lights	See Note 3	CV-3-955D	Sample	Accumulator Sample Valve	See Note 3
II - 122*	Lights	See Note 3	CV-3-955E	Sample	Accumulator Sample Valve	See Note 3
II - 123*	Lights	See Note 3	CV-4-955C	Sample	Accumulator Sample Valve	See Note 3
II - 124*	Lights	See Note 3	CV-4-955D	Sample	Accumulator Sample Valve	See Note 3
II - 125*	Lights	See Note 3	CV-4-955E	Sample	Accumulator Sample Valve	See Note 3
II - 126*	Lights	See Note 4	CV-3-850A	Sample	Accumulator S.I. Test Valve	See Note 4
II - 127*	Lights	See Note 4	CV-3-850B	Sample	Accumulator S.I. Test Valve	See Note 4
II - 128*	Lights	See Note 4	CV-3-850C	Sample	Accumulator S.I. Test Valve	See Note 4
II - 129*	Lights	See Note 4	CV-3-850D	Sample	Accumulator S.I. Test Valve	See Note 4
II - 130*	Lights	See Note 4	CV-3-850E	Sample	Accumulator S.I. Test Valve	See Note 4
II - 131*	Lights	See Note 4	CV-3-850F	Sample	Accumulator S.I. Test Valve	See Note 4
II - 132*	Lights	See Note 4	CV-4-850A	Sample	Accumulator S.I. Test Valve	See Note 4
II - 133*	Lights	See Note 4	CV-4-850B	Sample	Accumulator S.I. Test Valve	See Note 4
II - 134*	Lights	See Note 4	CV-4-850C	Sample	Accumulator S.I. Test Valve	See Note 4
II - 135*	Lights	See Note 4	CV-4-850D	Sample	Accumulator S.I. Test Valve	See Note 4
II - 136*	Lights	See Note 4	CV-4-850E	Sample	Accumulator S.I. Test Valve	See Note 4
II - 137*	Lights	See Note 4	CV-4-850F	Sample	Accumulator S.I. Test Valve	See Note 4
II - 138	Lights	MILD	CV-3-2821	WstDisp	Containment Sump Pump Discharge	See Note 2
II - 139	Lights	MILD	CV-3-2822	WstDisp	Containment Sump Pump Discharge	See Note 2
II - 140	Lights	MILD	CV-4-2821	WstDisp	Containment Sump Pump Discharge	See Note 2
II - 141	Lights	MILD	CV-4-2822	WstDisp	Containment Sump Pump Discharge	See Note 2

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SECTION/ ITEM No.	INDICATION	C.E.S. PAGE	VALVE MONITORED	SYSTEM	SERVICE	REMARKS
II-142	Lights	2-58	MOV-3-350	CVCS	Boric Acid Injection Stop	
II-143	Lights	2-59	MOV-4-350	CVCS	Boric Acid Injection Stop	
II-144	Lights	MILD	MOV-3-749A	CCW	RHX Cool Water Isolation	See Note 2
II-145	Lights	MILD	MOV-3-749B	CCW	RHX Cool Water Isolation	See Note 2
II-146	Lights	MILD	MOV-4-749A	CCW	RHX Cool Water Isolation	See Note 2
II-147	Lights	MILD	MOV-4-749B	CCW	RHX Cool Water Isolation	See Note 2
II-148	Lights	3-25	MOV-3-750	SI/RHR	RCS to RHR Inlet Isolation	
II-149	Lights	3-26	MOV-4-750	SI/RHR	RCS to RHR Inlet Isolation	
II-150	Lights	3-27	MOV-3-751	SI/RHR	RCS to RHR Inlet Isolation	
II-151	Lights	3-28	MOV-4-751	SI/RHR	RCS to RHR Inlet Isolation	
II-152	Lights	MILD	CV-3-856A	SI/RHR	Safety Injection Test	See Note 2
II-153	Lights	MILD	CV-3-856B	SI/RHR	Safety Injection Test	See Note 2
II-154	Lights	MILD	CV-4-865A	SI/RHR	Safety Injection Test	See Note 2
II-155	Lights	MILD	CV-4-856B	SI/RHR	Safety Injection Test	See Note 2
II-156	Lights	3-39	MOV-3-860A	SI/RHR	Containment Sump Isolation	
II-157	Lights	3-40	MOV-3-860B	SI/RHR	Containment Sump Isolation	
II-158	Lights	3-41	MOV-4-860A	SI/RHR	Containment Sump Isolation	
II-159	Lights	3-42	MOV-4-860B	SI/RHR	Containment Sump Isolation	
II-160	Lights	MILD	MOV-3-861A	SI/RHR	RHR Header Stop	See Note 2
II-161	Lights	MILD	MOV-3-861B	SI/RHR	RHR Header Stop	See Note 2
II-162	Lights	MILD	MOV-4-861A	SI/RHR	RHR Header Stop	See Note 2
II-163	Lights	MILD	MOV-4-861B	SI/RHR	RHR Header Stop	See Note 2
II-164	Lights	MILD	MOV-3-862A	SI/RHR	RWST Stop to RHR Header	See Note 2
II-165	Lights	MILD	MOV-3-862B	SI/RHR	RWST Stop to RHR Header	See Note 2
II-166	Lights	MILD	MOV-4-862A	SI/RHR	RWST Stop to RHR Header	See Note 2
II-167	Lights	MILD	MOV-4-862B	SI/RHR	RWST Stop to RHR Header	See Note 2
II-168	Lights	3-43	MOV-3-863A	SI/RHR	RHR Heat Exchanger Outlet	
II-169	Lights	3-44	MOV-3-863B	SI/RHR	RHR Heat Exchanger Outlet	

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SECTION B.3

ADDENDUM TO MASTER LIST

PART II VERIFICATION OF VALVE POSITION

SECTION/ ITEM No.	INDICATION	C.E.S. PAGE	VALVE MONITORED	SYSTEM	SERVICE	REMARKS
II-170	Lights	3-45	MOV-4-863A	SI/RHR	RHR Heat Exchanger Outlet	
II-171	Lights	3-46	MOV-4-863B	SI/RHR	RHR Heat Exchanger Outlet	
II-172	Lights	MILD	MOV-3-864A	SI/RHR	Ref. Water Storage Isolation	See Note 2
II-173	Lights	MILD	MOV-3-864B	SI/RHR	Ref. Water Storage Isolation	See Note 2
II-174	Lights	MILD	MOV-4-864A	SI/RHR	Ref. Water Storage Isolation	See Note 2
II-175	Lights	MILD	MOV-4-864B	SI/RHR	Ref. Water Storage Isolation	See Note 2
II-176	Lights	3-47	MOV-3-866A	SI/RHR	S.I. to RCS Hot Leg Isolation	
II-177	Lights	3-48	MOV-3-866B	SI/RHR	S.I. to RCS Hot Leg Isolation	
II-178	Lights	3-49	MOV-4-866A	SI/RHR	S.I. to RCS Hot Leg Isolation	
II-179	Lights	3-50	MOV-4-866B	SI/RHR	S.I. to RCS Hot Leg Isolation	
II-180	Lights	MILD	MOV-3-872	SI/RHR	Alternate Low Head S.I. Line	See Note 2
II-181	Lights	MILD	MOV-4-872	SI/RHR	Alternate Low Head S.I. Line	See Note 2
II-182	Lights	3-57	MOV-3-880A	SI/RHR	Containment Spray Pump Discharge	
II-183	Lights	3-58	MOV-3-880B	SI/RHR	Containment Spray Pump Discharge	
II-184	Lights	3-59	MOV-4-880A	SI/RHR	Containment Spray Pump Discharge	
II-185	Lights	3-60	MOV-4-880B	SI/RHR	Containment Spray Pump Discharge	
II-186	Lights	1-61	PCV-3-455C	RCS	Pressurizer Power Operated Relief Valves	
II-187	Lights	1-62	PCV-3-456	RCS	Pressurizer Power Operated Relief Valves	
II-188	Lights	1-63	PCV-4-455C	RCS	Pressurizer Power Operated Relief Valves	
II-189	Lights	1-64	PCV-4-456	RCS	Pressurizer Power Operated Relief Valves	

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SECTION B.3

ADDENDUM TO MASTER LIST

PART III FEEDER BREAKER POSITION INDICATION

SECTION/ ITEM No.	TAG NUMBER	SIGNAL INITIATION		SYSTEM	SERVICE	REMARKS
		BREAKER	ENVIRONMENT			
III- 1	3P201A	3B0105	MILD	CVCS	Charging Pump	
III- 2	3P201B	3B0203	MILD	CVCS	Charging Pump	
III- 3	3P201C	3B0308	MILD	CVCS	Charging Pump	
III- 4	4P201A	4B0105	MILD	CVCS	Charging Pump	
III- 5	4P201A	4B0203	MILD	CVCS	Charging Pump	
III- 6	4P201C	4B0308	MILD	CVCS	Charging Pump	
III- 7	3P203A	3B0725	MILD	CVCS	Boric Acid Transfer Pump	
III- 8	3P203B	3B0803	MILD	CVCS	Boric Acid Transfer Pump	
III- 9	4P203 A	4B0725	MILD	CVCS	Boric Acid Transfer Pump	
III-10	4P203 B	4B0804	MILD	CVCS	Boric Acid Transfer Pump	
III-11	P3214 A	3B0109	MILD	SI/RHR	Containment Spray Pump	
III-12	P3214 B	3B0403	MILD	SI/RHR	Containment Spray Pump	
III-13	P4214 A	4B0109	MILD	SI/RHR	Containment Spray Pump	
III-14	P4214 B	4B0403	MILD	SI/RHR	Containment Spray Pump	
III-15	P3210 A	3 AA15	MILD	SI/RHR	Residual Heat Removal Pump	
III-16	P3210 A	3 AB15	MILD	SI/RHR	Residual Heat Removal Pump	
III-17	P 4210 A	4 AA15	MILD	SI/RHR	Residual Heat Removal Pump	
III-18	P 4210 B	4 AB 15	MILD	SI/RHR	Residual Heat Removal Pump	
III-19	3 P 215 A	3 AA 13	MILD	SI/RHR	Safety Injection Pump	
III-20	3 P 215 B	3 AB 12	MILD	SI/RHR	Safety Injection Pump	
III-21	4 P 215 A	4 AA 13	MILD	SI/RHR	Safety Injection Pump	
III-22	4 P 215 B	4 AB 12	MILD	SI/RHR	Safety Injection Pump	
III-23	3 P 211 A	3 AA 12	MILD	CCW	Component Cooling Water Pump	
III-24	3 P 211 B	3 AB 13	MILD	CCW	Component Cooling Water Pump	
III-25	3 P 211 C	3 AA 17	MILD	CCW	Component Cooling Water Pump	
III-26	4 P 211 A	4 AA 12	MILD	CCW	Component Cooling Water Pump	
III-27	4 P 211 B	4 AB 13	MILD	CCW	Component Cooling Water Pump	
III-28	4 P 211 C	4 AA 17	MILD	CCW	Component Cooling Water Pump	

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SECTION B.3

ADDENDUM TO MASTER LIST

PART III FEEDER BREAKER POSITION INDICATION

SECTION/ ITEM No.	TAG NUMBER	SIGNAL INITIATION		SYSTEM	SERVICE	REMARKS
		BREAKER	ENVIRONMENT			
III- 29	3 V 3 A	3 B 0611	MILD	C.Vent.	Emergency Containment Filter Fan	
III- 30	3 V 3 B	B 0806	MILD	C.Vent	Emergency Containment Filter Fan	
III- 31	3 V 3 C	3 B 0719	MILD	C.Vent	Emergency Conatinment Filter Fan	
III- 32	4 V 3 A	B 0811	MILD	C.Vent	Emergency Containment Filter Fan	
III- 33	4 V 3 B	4 B 0519	MILD	C.Vent	Emergency Containment Filter Fan	
III- 34	4 V 3 C	4 B 0611	MILD	C.Vent	Emergency Containment Filter Fan	
III- 35	3 V 30 A	3 B 0650	MILD	C.Vent	Emergency Containment Cooling Fan	
III- 36	3 V 30 B	B 0820	MILD	C.Vent	Emergency Containment Cooling Fan	
III- 37	3 V 30 C	3 B 0729	MILD	C.Vent	Emergency Containment Cooling Fan	
III- 38	4 V 30 A	B 0830	MILD	C.Vent	Emergency Containment Cooling Fan	
III- 39	4 V 30 B	4 B 0520	MILD	C.Vent	Emergency Containment Cooling Fan	
III- 40	4 V 30 C	4 B 0650	MILD	C.Vent	Emergency Conatinment Cooling Fan	
III- 41	3 P 1 A	3 AA 03	MILD	F.W.	Steam Generator Feed Pump	
III- 42	3 P 1 B	3 AB 03	MILD	F.W.	Steam Generator Feed Pump	
III- 43	4 P 1 A	4 AA 03	MILD	F.W.	Steam Generator Feed Pump	
III- 44	4 P 1 B	4 AB 03	MILD	F.W.	Steam Generator Feed Pump	
III- 45	3 P 9 A	3 AA 19	MILD	I.C.W.	Intake Cooling Water Pumps	
III- 46	3 P 9 B	3 AB 17	MILD	I.C.W.	Intake Cooling Water Pumps	
III- 47	3 P 9 C	3 AB 19	MILD	I.C.W.	Intake Cooling Water Pumps	
III- 48	4 P 9 A	4 AA 19	MILD	I.C.W.	Intake Cooling Water Pumps	
III- 49	4 P 9 B	4 AB 17	MILD	I.C.W.	Intake Cooling Water Pumps	
III- 50	4 P 9 A	4 AB 19	MILD	I.C.W.	Intake Cooling Water Pumps	
III- 51	A Diesel	3AA20, AB20	MILD	DG	diesel Generator	
III- 52	B Diesel	4AA20, AB21	MILD	DG	diesel Generator	
III- 53*	3 P 200 A	3 AA 01	MILD	RCS	Reactor Coolant Pumps	See Note 5
III- 54*	3 P 200 B	3 AB 01	MILD	RCS	Reactor Coolant Pumps	See Note 5
III- 55*	3 P 200 C	3 AB 06	MILD	RCS	Reactor Coolant Pumps	See Note 5
III- 56*	4 P 200 A	4 AA 01	MILD	RCS	Reactor Coolant Pumps	See Note 5

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SECTION B.3

ADDENDUM TO MASTER LIST

PART III FEEDER BREAKER POSITION INDICATION

SECTION/ ITEM No.	TAG NUMBER	SIGNAL INITIATION		SYSTEM	SERVICE	REMARKS
		BREAKER	ENVIRONMENT			
III- 57*	4 P 200 A	4 AB 01	MILD	RCS	Reactor Coolant Pumps	See Note 5
III- 58*	4 P 200 B	4 AB 06	MILD	RCS	Reactor Coolant Pumps	See Note 5
III- 59*	3 B 11	3 B 0307	MILD	RCS	Pressurizer Heater Control	See Note 5
III- 60*	3 B 12	3 B 0107	MILD	RCS	Pressurizer Heater Back Up	See Note 5
III- 61*	3 B 13	3 B 0408	MILD	RCS	Pressurizer Heater Back Up	See Note 5
III- 62*	4 B 11	4 B 0307	MILD	RCS	Pressurizer Heater Control	See Note 5
III- 63*	4 B 12	4 B 0107	MILD	RCS	Pressurizer Heater Back Up	See Note 5
III- 64*	4 B 13	4 B 0408	MILD	RCS	Pressurizer Heater Back Up	See Note 5
III- 65*	3 P 23 A	3 B 0667	MILD	RCS	Containment Sump Pump	See Note 5
III- 66*	3 P 23 B	3 B 0778	MILD	RCS	Containment Sump Pump	See Note 5
III- 67*	4 P 23 A	4 B 0667	MILD	RCS	Containment Sump Pump	See Note 5
III- 68*	4 P 23 B	4 B 0778	MILD	RCS	Containment Sump Pump	See Note 5
III- 69	3V9	3 B 0628	MILD	C. VENT	Containment Purge Supply Fan	See Note 5
III- 70	4V9	4 B 0628	MILD	C. VENT	Containment Purge Supply Fan	See Note 5
III- 71	3V20	3 B 0663	MILD	C. VENT	Containment Purge Supply Fan	See Note 5
III- 72	4V20	4 B 0663	MILD	C. VENT	Containment Purge Supply Fan	See Note 5
III- 73	3X02	3 AA 02	MILD	POWER	Auxiliary Transformer Breaker	
III- 74	3X02	3 AB 02	MILD	POWER	Auxiliary Transformer Breaker	
III- 75	4X02	4 AA 02	MILD	POWER	Auxiliary Transformer Breaker	
III- 76	4X02	4 AB 02	MILD	POWER	Auxiliary Transformer Breaker	
III- 77	3X03	3 AA 05	MILD	POWER	Start-Up Transformer Breaker	
III- 78	3X03	3 AB 05	MILD	POWER	Start-Up Transformer Breaker	
III- 79	4X03	4 AA 05	MILD	POWER	Start-Up Transformer Breaker	
III- 80	4X03	4 AB 05	MILD	POWER	Start-Up Transformer Breaker	

NOTES

DISPLAY INSTRUMENTATION

- Note 1) Back-up verification of valve position is given by FI*122.
- Note 2) These valves are located in the pipe and valve room; the environment is considered mild for the duration of the required valve operation. The valves close upon receipt of a containment isolation signal and are not required to operate post LOCA. These valves are not exposed to the containment atmosphere.

The operator is required to verify that these valves close, to ensure that the containment is isolated following an accident. The indicating lights listed in Part II of this appendix will be used in this verification. These valves can only be operated manually after reset of the containment isolation signal. Subsequent failure of the equipment as a result of radiation shine will not degrade other safety functions or mislead the operator.

- Note 3) Post-Accident Sampling is not a requirement at Turkey Point, therefore, these valves were not included in the Master List. The position of these valves is required to be verified to ensure the valves are closed. These valves are administratively controlled; they are opened only when a sample is being taken and the operator cannot leave the station until the valves are closed. There are redundant containment isolation valves closed by a containment isolation signal downstream of these (located outside containment) that accomplish the same safety related function.
- Note 4) The safety injection test valves are normally closed and are manually operated from the control room in conjunction with the locked closed valve CV*895 (locally controlled from pipe and valve room) which is administratively controlled during Sampling. The valve CV*895 is located outside containment is not subjected to accident environment.
- Note 5) These equipments are not needed for mitigation of an accident. The indicating lights are included to verify the position of the feeder breakers which are tripped by a safety injection signal.
- Note 6) This component is not required for mitigation of an accident. Increasing water level in an RHR Sump Pump Room is listed in the Emergency Operating Procedures as one of 3 symptoms indicating malfunction of low head recirculation following a LOCA. This level switch provides input to a non-Class IE annunciator in the control room. The other two symptoms, rising containment pressure and excessive RHR pump discharge flow, are monitored by Class IE components whose environmental qualifications are provided in C.E.S. Pages 3-13, 3-14, 9-91, 9-92, 9-93 and 9-94.

SECTION C.1

DISCUSSION OF COMPONENT EVALUATION WORK SHEETS

1. The component evaluation sheets are formatted in accordance with the sample in the I. E. Bulletin 79-01B.
2. A component evaluation sheet has been prepared for every line item in the Master List. The page number on a component evaluation sheet corresponds to the line number on the Master List. Each Section of the component evaluation sheets corresponds to the Section in the Master List.
3. The component evaluations have been based on an extensive research of the qualification documents. Where qualification documents were not available, evaluations were made by engineering analysis of the component materials. Where necessary, vendor information was obtained in preparing the engineering analysis.
4. For all the devices located inside and outside containment (Units 3 and 4), the manufacturer, model number, serial number, location, area and floor elevation were confirmed by a field walkdown.
5. Flood elevation was considered only for equipment located inside containment. The elevation indicated on the component evaluation sheets represents floor elevation.
6. See C.1.17.

period of time they are required following a LOCA. Also, the Air Flow Switches in the emergency filter air path initiates dousing on loss of air flow.

F. Terminal Blocks Inside Containment

General Electric type EB 5 terminal blocks associated with air operated valve limit switches will be replaced with qualified splices at the next refueling outages. See the discussion on NAMCO limit switches (Item 12 b) for the justification for continued unit operation till the replacements are made.

g. Steam Generator Level Transmitters (Unit 4)

During Unit 4 Containment walkdown, three steam generator level transmitters LT-4-484 (Steam Generator "B") and LT-4-494 & LT-4-495 (Steam Generator "C") were found to contain "Standard" Oscillator-Amplifier units (Model 805B217U05). The transmitters, except for the Oscillator Amplifiers are suitable for LOCA pressure and temperature (heavy duty casing, "O" ring sealing, sealed conduit entry, etc.). The "standard" oscillator amplifier is qualified for 8.2×10^5 R and therefore not adequate for post LOCA radiation levels. The oscillator amplifiers have been replaced with the high temperature/high radiation model.

h. Pressurizer P.O.R.V. Limit Switches

The Power Operated Relief Valves (PORV), PCV-456 and PCV-455C, are provided with position indication that is not qualified for a LOCA environment. The potential problem arising from this is that the Emergency Operating Procedure does refer to verifying position of the PORV's. Therefore, there is a possibility of an incorrect indication to the operator.

However, there is adequate qualified instrumentation available to enable the operator to make this determination. The accident of most concern is a small LOCA since a stuck open PORV may be the

cause itself. This condition can be determined by the operator through the use of other post-accident qualified instruments (PT*455, PT*456, PT*457, LT*459, LT*460 and LT*461). First, the motor operated block valves 535 and 536 would be used to isolate the respective PORV. The operator could then monitor the pressurizer level by using LT*459, LT*460, LT*461, and pressurizer pressure by using PT*455, PT*456 and PT*457 to determine the effects of isolating each PORV. By this means the operator can determine the position of the PORV's.

13. The following items which were listed in the response to IE Bulletin 79-01 as needing further review, have been evaluated and found adequate to meet the intended safe shutdown functions:

1. Thermocouples associated with Emergency Containment Ventilation Charcoal Filters;
2. Extension wires associated with the thermocouples.
3. Air flow switches in the Emergency Filter Air Path.

14. THERMAL AGING

The desired qualified life is assumed to be 40 years for all the devices included in the Master List. Where 40 year qualified life for devices/components cannot be established, a shorter qualified life is determined based on useful life of the "weak link", the most age sensitive active component. The device/component is assigned a maximum maintenance/replacement interval based on its useful life.

Where documentation exists for the 40 year qualified life, the device has been evaluated on that basis. If no accelerated aging tests were done, a useful life analysis has been performed using time/temperature dependent reaction theory that uses the Arrhenius equation,

$$\frac{-E_a}{K_B T}$$

$$k = A.e$$

where

k = Reaction rate

A = Frequency factor (constant)

E_a = Activation energy

K_B = Boltzman Constant (8.617 x 10⁻⁵ ev/°K)

T = Absolute temperature (°K)

conservatively assumed to be 104° F. For aging analysis, a conservative year-round average temperature is assumed to be 45°C (113° F) for both Units 3 & 4.

Outside Containment: A conservative average ambient temperature of 40° C (104° F) is assumed as a year-round average for both Units 3 & 4. However, in a few cases where temperature is known to be higher than 40° C (e.g. cables), the evaluation is based on the higher temperature.

15. SUBMERGENCE

During the recent walkdowns of Units 3 and 4, a few items were identified as having potential for submergence by Post LOCA flooding.

The dispositions have been indicated on the evaluation sheets. Basically, two approaches have been adopted which are as follows:

1. Where device has performed its safe shutdown function before submergence, the device will be left in its present location.
2. Where device is required for long term Post LOCA mitigation/monitoring, the device will be relocated above maximum flood level.

The following justification is offered for continued unit operation for conditions under Item 2 above:

1. RCS pressure transmitters FT-405 and safety injection flow transmitters FT-932 and FT-933 are Fischer and Porter high temperature and high radiation models. These are qualified for LOCA temperature and pressure profiles, therefore should continue to function normally under 2-3 feet of water.

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TO COMPONENT EVALUATION
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SYSTEM: REACTOR COOLANT					
PAGE NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	REV	DATE	REMARKS
1-1	PT-3-403	PRESSURE TRANSMITTER	2	8/14/81	
1-2	PT-3-405	PRESSURE TRANSMITTER	2	8/14/81	
1-3	PT-3-406	PRESSURE TRANSMITTER	2	8/14/81	
1-4	PT-3-404	PRESSURE TRANSMITTER	2	8/14/81	
1-5	PT-4-403	PRESSURE TRANSMITTER	<u>1</u>	<u>6/27/80</u>	
1-6	PT-4-405	PRESSURE TRANSMITTER			
1-7	PT-4-406	PRESSURE TRANSMITTER			
1-8	PT-4-404	PRESSURE TRANSMITTER	↓	↓	
1-9	PT-3-455	PRESSURE TRANSMITTER	2	8/14/81	
1-10	PT-3-456	PRESSURE TRANSMITTER	2	8/14/81	
1-11	PT-3-457	PRESSURE TRANSMITTER	2	8/14/81	
1-12	PT-4-455	PRESSURE TRANSMITTER	<u>1</u>	<u>6/27/80</u>	
1-13	PT-4-456	PRESSURE TRANSMITTER			
1-14	PT-4-457	PRESSURE TRANSMITTER	↓	↓	
1-15	LT-3-459	LEVEL TRANSMITTER	2	8/14/81	
1-16	LT-3-460	LEVEL TRANSMITTER	2	8/14/81	
1-17	LT-3-461	LEVEL TRANSMITTER	2	8/14/81	
1-18	LT-4-459	LEVEL TRANSMITTER	<u>2</u>	<u>8/14/81</u>	
1-19	LT-4-460	LEVEL TRANSMITTER		8/14/81	
1-20	LT-4-461	LEVEL TRANSMITTER	↓	8/14/81	

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SYSTEM: REACTOR COOLANT					
PAGE NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	REV	DATE	REMARKS
1-21	TE-3-412-B	RESISTANCE TEMPERATURE DETECTOR	2	8/14/81	
1-22	TE-3-412-D	RESISTANCE TEMPERATURE DETECTOR			
1-23	TE-3-422-B	RESISTANCE TEMPERATURE DETECTOR			
1-24	TE-3-422-D	RESISTANCE TEMPERATURE DETECTOR			
1-25	TE-3-432-B	RESISTANCE TEMPERATURE DETECTOR			
1-26	TE-3-432-D	RESISTANCE TEMPERATURE DETECTOR	↓	↓	
1-27	TE-4-412-B	RESISTANCE TEMPERATURE DETECTOR	1	6/27/80	
1-28	TE-4-412-D	RESISTANCE TEMPERATURE DETECTOR			
1-29	TE-4-422-B	RESISTANCE TEMPERATURE DETECTOR			
1-30	TE-4-422-D	RESISTANCE TEMPERATURE DETECTOR			
1-31	TE-4-432-B	RESISTANCE TEMPERATURE DETECTOR			
1-32	TE-4-432-D	RESISTANCE TEMPERATURE DETECTOR	↓	↓	
1-33	MOV-3-535	VALVE MOTOR OPERATOR	2	8/14/81	
1-34	MOV-3-536	VALVE MOTOR OPERATOR	↓	↓	
1-35	MOV-4-535	VALVE MOTOR OPERATOR	1	6/27/80	
1-36	MOV-4-536	VALVE MOTOR OPERATOR	↓	↓	
1-37	TE-3-410	RESISTANCE TEMPERATURE DETECTOR	2	8/14/81	
1-38	ZT/ZS-3-6303A	ACOUSTIC MONITOR	0		
1-39	TE-3-420	RESISTANCE TEMPERATURE DETECTOR	2		
1-40	ZT/ZS-3-6303B	ACOUSTIC MONITOR	0	↓	

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FACILITY: TURKEY POINT

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SYSTEM: REACTOR COOLANT

PAGE NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	REV	DATE	REMARKS
1-41	TE-3-430	RESISTANCE TEMPERATURE DETECTOR	2	8/14/81	
1-42	ZT/ZS-3-6303C	ACOUSTIC MONITOR	0	8/14/81	
1-43	TE-4-410	RESISTANCE TEMPERATURE DETECTOR	1	6/27/80	
1-44	ZT/ZS-4-6303A	ACOUSTIC MONITOR	0	8/14/81	
1-45	TE-4-420	RESISTANCE TEMPERATURE DETECTOR	1	6/27/80	
1-46	ZT/ZS-4-6303B	ACOUSTIC MONITOR	0	8/14/81	
1-47	TE-4-430	RESISTANCE TEMPERATURE DETECTOR	1	6/27/80	
1-48	ZT/ZS-4-6303C	ACOUSTIC MONITOR	0	8/14/81	
1-49	TE-3-413A	RESISTANCE TEMPERATURE DETECTOR	0	1/28/81	
1-50	TE-3-413B	RESISTANCE TEMPERATURE DETECTOR			
1-51	TE-3-423A	RESISTANCE TEMPERATURE DETECTOR			
1-52	TE-3-423B	RESISTANCE TEMPERATURE DETECTOR			
1-53	TE-3-433A	RESISTANCE TEMPERATURE DETECTOR			
1-54	TE-3-433B	RESISTANCE TEMPERATURE DETECTOR			
1-55	TE-4-413A	RESISTANCE TEMPERATURE DETECTOR			
1-56	TE-4-413B	RESISTANCE TEMPERATURE DETECTOR			
1-57	TE-4-423A	RESISTANCE TEMPERATURE DETECTOR			
1-58	TE-4-423B	RESISTANCE TEMPERATURE DETECTOR			
1-59	TE-4-433A	RESISTANCE TEMPERATURE DETECTOR			
1-60	TE-4-433B	RESISTANT TEMPERATURE DETECTOR			

FACILITY: TURKEY POINT
UNIT: 3 & 4

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UNIT 4 - 50-251

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FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO. PT-3-403 Component: Pressure Transmitter FUNCTION: LOCA/HELB (IN & OUT) MONITOR & MITIGATE MANUFACTURER: Fischer & Porter MODEL NO: 50EP1041BCXANS Ser. No. 6804A6255A49 ACCURACY: Spec: Demon: See Note 3 SERVICE: Reactor Coolant Press. Monitor & Interlock to MOV-3-750 LOCATION INSIDE CONTAINMENT ABOVE EL. 19'-0" Area 5 Elev 14'-0" Ref Dwg No. Mech 5610-T-E-4501, SH1, REV. 6 Elect 5610-E-100 REV 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	31 days	6 MIN	22	13 (TABLE A-7)	Simultaneous Test	See Attachment 4
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	13 (fig. 5-2)	Simultaneous Test	See Attachment 4
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	13 para 5.3	Simultaneous Test	See Attachment 4
	Relative Humidity (%)	100	See Note 2	ASSUMED	13 para 5.3	Simultaneous Test	See Attachment 4
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	13 para 5.2	Simultaneous Test	See Attachment 4
	Radiation	SEE ATTACHMENT #3	8.2X10 ⁵ R	2	5 (appendix)	Test on Similar Device	See Attachment 4
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	SEE NOTE 6
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) This is a Westinghouse proprietary information. For values refer to the Documentation Reference. 3) See discussion of component evaluation sheets (sec. C. 1.17). 6) Device has age susceptible maintenance items (will be included in the maintenance schedule).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 5. F. P. REPORT #DP2224-1 RP #002 WITH FIRL TEST REP. F-C2815, MAY 1970.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 3.2. CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 13. WESTINGHOUSE WCAP-9157 SECTION 2-7 & APPENDICES.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT. PLANT ID NO. PT-3-405 Component: Pressure Transmitter FUNCTION: MITIGATE LOCA/HELB (I/O) MONITOR LOCA/HELB (I/O) MANUFACTURER: Fischer & Porter MODEL NO: 50EP1041BCXANS Ser. No. 6804A6257A25 (Hi-temp- Hi rad) ACCURACY: Spec: Demon: See Note 2 SERVICE: RCS press. Mon & interlock to MOV-3-751 LOCATION INSIDE CONTAINMENT ABOVE EL. 19'-0" Area 6 Elev 14 (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, SH1, REV. 6 Elect 5610-E- 103, REV. 6 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	31 days	>31 days	22	7 (fig. 3-6) & 36	Simultaneous test & Mathematical Analysis	None
	Temperature (°F)	SEE ATTACHMENT #1	320 (1hr) 293 (2hr) 227 (3½hr) 281 (½hr)	1	7 (figs. 3-6)	Simultaneous Test	None
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1hr) 45 PSIG (2hr) 5 PSIG (3½hr) 35 PSIG (½hr)	1	7 (figs. 3-6)	Simultaneous Test	None
	Relative Humidity (%)	100 %	100% Saturated Steam	ASSUMED	7 (page 2)	Simultaneous	None
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to PH 10.5	3	8	Qual. test for paint by Ameron	None
	Radiation	SEE ATTACHMENT #3	1.2X10 ⁸ R	2	6	Test on similar device	None
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	ENGINEERING ANALYSIS	None
	Submergence	N/A	N/A	N/A	N/A	N/A	None
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd assumed to be 40 years. 2) See discussion of component evaluation sheets (sec. C.1.17).						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating time for devices covered in IEB-7901B Master List.
 36. Qualification of F & P transmitters-Analysis to extrapolate test results.
 6. Fischer & Porter report #DP 2224-1 RPT-004 Dated 10-22-73.
 7. F & P test report 2204-51-B-006.
 8. Fischer & Porter letter 3-6-75 with Ameron lab REP # 15509 of 3/23/72.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 7901B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO. PT-3-406 Component: Pressure Transmitter FUNCTION: LOCA/HELB (in & out) Monitor & Mitigate MANUFACTURER: Rosemount MODEL NO: 1153 GA9 Ser. No. 163398R ACCURACY: Spec: See Note 3 Demon: SERVICE: Reactor Coolant Sub Cool Margin Monitor LOCATION: INSIDE CONTAINMENT ABOVE EL. 19'-0" Area 6 Elev 14' (FLOOR) Ref Dwg No. Mech 5610-T-E4501, Rev. 6 Elect 5610-E-103, REV. 6 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	31 DAYS	31 DAYS	22	44 - (Fig. 1 page 21)	Sequential Test	None
	Temperature (°F)	SEE ATTACHMENT #1	350°F	1	44 (Fig. 1 page 21)	Sequential Test	None
	Pressure (PSIA)	SEE ATTACHMENT #2	120 psig	1	44 (Fig. 1 page 21)	Sequential Test	None
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	44 (Fig. 1 page 21)	Sequential Test	None
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 ppm Boric Acid NAOH to pH 10.5	3	44 (appendix II page 5)	Sequential Test	None
	Radiation	SEE ATTACHMENT #3	44 x 10 ⁶ RADS	2	44 (para. 5.1)	Sequential Test	None
	Aging	40 Years	40 Years	See note 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years.
2) The specified pressure and temperature profiles fall well within tested profile (test duration: 68 hrs.)
3) See discussion of component evaluation sheets (sec. C.1.17)

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
44. ROSEMOUNT REPORT NO. 3788, REV. A.
53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO. PT-3-404 Component: Pressure Transmitter FUNCTION: LOCA/HELB (in & out) Monitor & Mitigate MANUFACTURER: Rosemount MODEL NO: 1153 GA9 Ser. No. 163399R ACCURACY: Spec: See Note 3 Demon: SERVICE: Reactor Coolant Sub Cool Margin Monitor LOCATION INSIDE CONTAINMENT ABOVE EL. 19'-0" Area 5 Elev 14' (FLOOR) Ref Dwg No. Mech 5610-T-E4501, 5610-T-E-4501, REV. 6 Elect 5610-E-100, REV. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	31 DAYS	>31 DAYS	22	44 (Fig. 1 page 21)	Sequential Test	None
	Temperature (°F)	SEE ATTACHMENT #1	350°F	1	44 (Fig. 1 page 21)	Sequential Test	None
	Pressure (PSIA)	SEE ATTACHMENT #2	120 psig	1	44 (Fig. 1 page 21)	Sequential Test	None
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	44 (Fig. 1 page 21)	Sequential Test	None
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 ppm Boric Acid NAOH to pH10.5	3	44 (appendix II page 5)	Sequential Test	None
	Radiation	SEE ATTACHMENT #3	44 x 10 ⁶ RADS	2	44 (para. 5.1)	Sequential Test	None
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	None
	Submergence	N/A	N/A	N/A	N/A	N/A	None
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd..assumed to be 40 years. 2) The specified pressure and temperature profiles fall well within tested profile (test duration:68 hrs.) 3) See discussion of component evaluation sheets (sec. C. 1.17)						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 44. ROSEMOUNT REPORT NO. 3788, REV. A.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Reactor Coolant PLANT ID NO. PT-3-455 Component: Pressure Transmitter FUNCTION: Mitigate LOCA/HELB (in & out) MANUFACTURER: Fischer & Porter MODEL NO: 50EP1041 BCXANS SER # 6804A6255A85 ACCURACY: Spec: SEE NOTE 2. Demon: SERVICE: Pressurizer Pressure - To Provide SI Signal LOCATION INSIDE CONTAINMENT Area 5 3'-8" ABOVE FLOOR Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, Rev. 6 Elect 5610-E-101, Rev. 8 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	1/2 HR	2 HRS	22	11 (Table 2; P-A-8)	Simultaneous Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 3	1	11 (Table 2; P-A-8)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 3	1	11 (Table 2; P-A-8)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 3	ASSUMED	11 (Page A-6)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 3	3	8	QUAL. TEST FOR PAINT BY AMERON	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 3	2	20 Table 4 (Page 4-4)	Sequential	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years.
2) See discussion of component evaluation sheets (Sec. C.1.17)
3) This is Westinghouse proprietary information. For values, reference qualification documentation.

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 11. WCAP 7410-VOL. I FIRM REPORT #F-C2639, NOV. 1969.
 8. FISCHER AND PORTER LETTER 3-6-75 WITH AMERON LAB REP. #15504 OF 3-23-72.
 20. WCAP 7410-VOL I, SECTION #4.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Reactor Coolant PLANT ID NO. PT-3-456 Component: Pressure Transmitter FUNCTION: Mitigate LOCA/HELB (in & out) MANUFACTURER: Fischer & Porter MODEL NO: 50EP1041 BCXANS SER # 6804A6257A82 ACCURACY: Spec: SEE NOTE 2 Demon: .. SERVICE: Pressurizer Pressure - To Provide SI Signal LOCATION INSIDE CONTAINMENT 3'-8" ABOVE FLOOR Area 5 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, Rev. 6 Elect 5610-E-101, Rev. 8 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	1/2 HR	2 HRS	22	11 (Table 2; P-A-8)	Simultaneous Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 3	1	11 (Table 2; P-A-8)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 3	1	11 (Table 2; P-A-8)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 3	ASSUMED	11 (Page A-6)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 3	3	8	QUAL. TEST FOR PAINT BY AMERON	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 3	2	20 Table 4 (Page 4-4)	Sequential	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) See discussion of component evaluation sheets (sec. C.1.17) 3) This is Westinghouse proprietary information. For values, reference qualification documentation.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 11. W CAP 7410-VOL. I FIRM REPORT #F-C2639, NOV. 1969.
 8. FISCHER AND PORTER LETTER 3-6-75 WITH AMERON LAB REP. #15504 OF 3-23-72.
 20. WCAP 7410-VOL I, SECTION #4.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Reactor Coolant PLANT ID NO. PT-3-457 Component: Pressure Transmitter FUNCTION: Mitigate LOCA/HELB (in & out) MANUFACTURER: Fischer & Porter MODEL NO: 50EP1041 BCXANS SER # 6804A6257A84 ACCURACY: Spec: SEE NOTE 2 Demon: .. SERVICE: Pressurizer Pressure - To Provide SI Signal LOCATION INSIDE CONTAINMENT 3'-8" ABOVE FLOOR Area 5 Elev 30'-6" Ref Dwg No. Mech 5610-T-E-4501, Rev. 6 Elect 5610-E-101, Rev. 8 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	1/2 HR	2 HRS	22	11 (Table 2; P-A-8)	Simultaneous Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 3	1	11 (Table 2; P-A-8)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 3	1	11 (Table 2; P-A-8)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 3	ASSUMED	11 (Page A-6)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 3	3	8	QUAL. TEST FOR PAINT BY AMERON	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 3	2	20 Table 4 (Page A-4)	Sequential	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the PSAR aging and submergence were not considered environmental parameters. Aging req'd assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C. 1.17) 3) This is Westinghouse proprietary information. For values, reference qualification documents.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 11. W CAP 7410-VOL I FIRM REPORT #F-C2639, NOV. 1969.
 8. FISCHER AND PORTER LETTER 3-6-75 WITH AMERON LAB REP. #15504 OF 3-23-72.
 20. WCAP 7410-VOL I. SECTION #4.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: LT-3-459 Component: LEVEL TRANSMITTER FUNCTION: LOCA/HELB (IN & OUT) MITIGATE MANUFACTURER: IIT - BARTON MODEL NO: 386/351 SER #259 TRANSDUCER MODEL 224 ACCURACY: Spec: NOTE 3 Demon: NOTE 3 SERVICE: SAFETY INJECTION INITIATION, CONTAINMENT ISOLATION LOCATION INSIDE CONTAINMENT 1'-2" ABOVE FLOOR Area 5 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, Rev. 6 Elect 5610-E-101, Rev. 8 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u> x </u> No <u> </u>	Operating Time	1/2 Hour SEE NOTE 4	2 Hours	17	12	Simultaneous Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 2	1	12	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 2	1	12	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 2	ASSUMED	12	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 2	3	34 & 8	Separate Test on the Protective Coating	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 2	2	20 & 9	Sequential Test	NONE
	Aging	40 YEARS	SEE NOTE 5	SEE NOTE 1	NONE	NONE	SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary document. For values refer to the documentation reference. 3) See discussion of component evaluation sheets (See C.1.17). 4) Min. oper. time (1/2 hr.) required per FTP-FSAR Table 6.7-1 (Ref. #17) to initiate S.I. signal coincident with PRZR. low press. Lessons Learned from T.M.I. deleted S.I. signal for PRZR. level, but req'd long term monitoring. Transmitter will be replaced during next refueling outage following procurement. 5) Aging analysis not done as device will be replaced per note 4.							

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
12. FIRM TEST REPORT F-C2667 FROM WCAP7410-L
8. AMERON CORROSION CONTROL DIV TEST.
9. W LETTER TO NRC NS-CE-1586 DATED 10-28-77.
20. TOPICAL REPORT ENVIRONMENTAL TESTING WCAP-7410-L-SECTION 4-1.
17. TURKEY POINT-FSAR TABLE 6.7.-1.
34. IIT-BARTON QUALITY RELEASE FOR LEVEL TRANSMITTERS.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: LT-3-460 Component: LEVEL TRANSMITTER FUNCTION: LOCA/HELB (IN & OUT) MITIGATE MANUFACTURER: IIT - BARTON MODEL NO: 386/351 SER #260 TRANSDUCER MODEL 224 ACCURACY: Spec: NOTE 3 Demon: SERVICE: SAFETY INJECTION INITIATION, CONTAINMENT ISOLATION LOCATION INSIDE CONTAINMENT 1'-2" ABOVE FLOOR Area 5 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, Rev. 6 Elect 5610-E-101, Rev. 8 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	1/2 Hour SEE NOTE 4	2 Hours	17	12	Simultaneous Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 2	1	12	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 2	1	12	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 2	ASSUMED	12	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 2	3	34 & 8	Separate Test on the Protective Coating	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 2	2	20 & 9	Sequential Test	NONE
	Aging	40 YEARS	SEE NOTE 5	SEE NOTE 1	NONE	NONE	SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is a Westinghouse proprietary document. For values refer to the documentation reference. 3) See discussion of component evaluation sheets (Sec. C.1.17). 4) Min. oper. time (1/2 Hr.) required per PTF-FSAR Table 6.7-1 (Ref. #17) to initiate S.I. signal coincident with PRZR. low press. Lessons Learned from T.M.I. deleted S.I. signal for PRZR. level, but req'd long term monitoring. Transmitter will be replaced during next refueling outage following procurement. 5) Aging analysis not done as device will be replaced per note 4.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 12. FIRM TEST REPORT F-C2667 FROM WCAP/7410-L
 8. AMERON CORROSION CONTROL DIV TEST.
 9. W LETTER TO NRC NS-CE-1586 DATED 10-28-77.
 20. TOPICAL REPORT ENVIRONMENTAL TESTING WCAP-7410-L-SECTION 4-1.
 17. TURKEY POINT FSAR TABLE 6.7-1
 34. IIT-BARTON QUALITY RELEASE FOR LEVEL TRANSMITTERS.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: LT-3-461 Component: LEVEL TRANSMITTER FUNCTION: LOCA/HELB (IN AND OUT) MITIGATE MANUFACTURER: IIT - BARTON MODEL NO: 386/351 SER #261 TRANSDUCER MODEL 224 ACCURACY: Spec: NOTE 3 Demon: NOTE 3 SERVICE: SAFETY INJECTION INITIATION, CONTAINMENT ISOLATION LOCATION INSIDE CONTAINMENT 1'-2" ABOVE FLOOR Area 5 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, Rev. 6 Elect 5610-E-101, Rev. 8 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	1/2 Hour SEE NOTE 4	2 Hours	17	12	Simultaneous Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 2	1	12	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 2	1	12	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 2	ASSUMED	12	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 2	3	34 & 8	Separate Test on the Protective Coating	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 2	2	20 & 9	Sequential Test	NONE
	Aging	40 YEARS	SEE NOTE 5	SEE NOTE 1	NONE	NONE	SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is a Westinghouse proprietary document. For values refer the documentation reference. 3) See discussion of component evaluation sheets (sec. C.1.17). 4) Min. oper. time (1/2 hr.) required per PTP-FSAR Table 6.7-1 (REF. #17) to initiate S.I. signal coincident with PRZR. Low press. Lessons Learned from I.M.I. deleted S.I. signal for PRZR. level, but required long term monitoring. Transmitter will be replaced during next refueling outage following procurement. 5) Aging analysis not done as device will be replaced per note 4.							

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
12. FIRM TEST REPORT F-C2667 FROM WCAP7410-L
8. AMERON CORROSION CONTROL DIV TEST.
9. W LETTER TO NRC NS-CE-1586 DATED 10-28-77.
20. TOPICAL REPORT ENVIRONMENTAL TESTING WCAP-7410-L-SECTION 4-1.
17. TURKEY POINT FSAR TABLE 6.7-1.
34. IIT-BARTON QUALITY RELEASE FOR LEVEL TRANSMITTERS.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: LT-4-459 Component: LEVEL TRANSMITTER FUNCTION: LOCA/HELB (IN & OUT) MITIGATE MANUFACTURER: IIT - BARTON MODEL NO: 386/351 SER #241 ACCURACY: Spec: Demon: NOTE 3 SERVICE: SAFETY INJECTION INITIATION, CONTAINMENT ISOLATION LOCATION INSIDE CONTAINMENT 1'-6" ABOVE FLOOR Area 11 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, Rev. 6 Elect 5610-E-108, Rev. 8. Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u> x </u> No <u> </u>	Operating Time	1/2 Hour SEE NOTE 4	2 Hours	17	12	Simultaneous Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 2	1	12	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 2	1	12	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 2	ASSUMED	12	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 2	3	34 & 8	Separate Test on the Protective Coating	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 2	2	20 & 9	Sequential Test	NONE
	Aging	40 YEARS	SEE NOTE 5	SEE NOTE 1	NONE	NONE	SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
 2) This is a Westinghouse proprietary document. For values refer to the documentation reference.
 3) See discussion of component evaluation sheets (Sec. C.1.17).
 4) Min. oper. time (1/2 Hr.) required per PTP-FSAR Table 6.7-1 (Ref. #17) to initiate S.I. signal coincident with PRZR. level, but req'd long term monitoring. Transmitter will be replaced during next refueling outage following procurement.
 5) Aging analysis not done as device will be replaced per note 4.

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
12. FPL TEST REPORT F-C2667 FROM WCAP7410-L
8. AMERON CORROSION CONTROL DIV TEST.
9. W LETTER TO NRC NS-CE-1586 DATED 10-28-77.
20. TOPICAL REPORT ENVIRONMENTAL TESTING WCAP-7410-L-SECTION 4-1.
17. TURKEY POINT FSAR TABLE 6.7-1.
34. IIT-BARTON QUALITY RELEASE FOR LEVEL TRANSMITTERS.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: LT-4-460 Component: LEVEL TRANSMITTER FUNCTION: LOCA/HELB (IN & OUT) MITIGATE MANUFACTURER: ITT - BARTON MODEL NO: 386/351 SER #242 ACCURACY: Spec: SEE NOTE 3 Demon: SERVICE: SAFETY INJECTION INITIATION, CONTAINMENT ISOLATION LOCATION INSIDE CONTAINMENT 1'-6" ABOVE FLOOR Area 11 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, Rev. 6 Elect 5610-E-108, Rev. 8 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	1/2 Hour SEE NOTE 4	2 Hours	17	12	Simultaneous Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 2	1	12	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 2	1	12	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 2	ASSUMED	12	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 2	3	34 & 8	Separate Test on the Protective Coating	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 2	2	20 & 9	Sequential Test	NONE
	Aging	40 YEARS	SEE NOTE 5	SEE NOTE 1	NONE	NONE	SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is a Westinghouse proprietary document. For values refer to the documentation reference. 3) See discussion of component evaluation sheets (Sec. C.1.17). 4) Min. oper. time (1/2 hr.) required per PTP-FSAR Table 6.7-1 (Ref. #17) to initiate S.I. signal coincident with PRZR. level, but req'd long term monitoring. Transmitter will be replaced during next refueling outage following procurement. 5) Aging analysis not done as device will be replaced per note 4.							

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
12. FPL TEST REPORT F-C2667 FROM WCAP7410-L
8. AMERON CORROSION CONTROL DIV TEST.
9. W LETTER TO NRC NS-CE-1586 DATED 10-28-77.
20. TOPICAL REPORT ENVIRONMENTAL TESTING WCAP-7410-L-SECTION 4-1.
17. TURKEY POINT FSAR TABLE 6.7-1
34. ITT-BARTON QUALITY RELEASE FOR LEVEL TRANSMITTERS.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO. LT-4-461 Component: LEVEL TRANSMITTER FUNCTION: LOCA/HELB (IN & OUT) MITIGATE MANUFACTURER: IIT - BARTON MODEL NO: 386/351 SER #243 ACCURACY: Spec: SEE NOTE 3 Demon: SEE NOTE 3 SERVICE: SAFETY INJECTION INITIATION, CONTAINMENT ISOLATION LOCATION INSIDE CONTAINMENT 1'-6" ABOVE FLOOR Area 11 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, Rev. 6 Elect 5610-E-108, Rev. 8 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	1/2 Hour SEE NOTE 4	2 Hours	17	12	Simultaneous Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 2	1	12	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 2	1	12	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 2	ASSUMED	12	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 2	3	34 & 8	Separate Test on the Protective Coating	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 2	2	20 & 9	Sequential Test	NONE
	Aging	40 YEARS	SEE NOTE 5	SEE NOTE 1	NONE	NONE	SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary document. For values refer to the documentation reference. 3) See discussion of component evaluation sheets (Sec. C.1.17). 4) Min. oper. time (1/2 hr.) required per PTP-FSAR Table 6.7-1 (Ref. #17) to initiate S.I. signal coincident with PRZR. low press. Lessons Learned from T.M.I. deleted S.I. signal for PRZR. level, but req'd long term monitoring. Transmitter will be replaced during next refueling outage following procurement. 5) Aging analysis not done as device will be replaced per note 4.							

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
12. FURL TEST REPORT F-C2667 FROM WCAP7410-L
8. AMERON CORROSION CONTROL DIV TEST.
9. W LETTER TO NRC NS-CE-1586 DATED 10-28-77.
20. TOPICAL REPORT ENVIRONMENTAL TESTING WCAP-7410-L-SECTION 4-1.
17. TURKEY POINT FSAR TABLE 6.7-1.
34. IIT-BARTON QUALITY RELEASE FOR LEVEL TRANSMITTERS.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-412B Component: RESISTANCE TEMPERATURE DETECTOR (RTD) FUNCTION: LOCA/HELB (IN & OUT) MITIGATE MANUFACTURER: ROSEMOUNT MODEL NO: 176KF ACCURACY: Spec: SEE NOTE #2 Demon: SERVICE: RCS HOT LEG $\Delta T/T_{avg}$ PROTECTION LOCATION INSIDE CONTAINMENT 15'-6" ABOVE FLOOR Area 6 Elev 14'-0" (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, Rev. 6 Elect 5610-E-103, Rev. 6 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	1/2 Hour	52 Days See Note #3	22	13 (Page 5.5)	Simultaneous Test	NONE
	Temperature ($^{\circ}$ F)	SEE ATTACHMENT #1	SEE NOTE 4	1	13 (Page 5.5)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 4	1	13 (Page 5.3)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 4	ASSUMED	13	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 4	3	13 (Page 5.1)	Simultaneous Test	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 4	2	13 (Page A-3)	Sequential Test	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Tests done at levels higher than post accident environment to simulate long term operation (52 Days). 4) This is Westinghouse proprietary information. For values, reference qualification documentation.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 13. W - WCAP 9157.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-412D Component: RESISTANCE TEMPERATURE DETECTOR (RTD) FUNCTION: LOCA/HELB (IN & OUT) MITIGATE MANUFACTURER: ROSEMOUNT MODEL NO: 176KF ACCURACY: Spec: SEE NOTE #2 Demon: SERVICE: RCS HOT LEG $\Delta T/T_{avg}$ PROTECTION LOCATION INSIDE CONTAINMENT 15'-6" ABOVE FLOOR Area 5 Elev 14'-0" (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, Rev. 6 Elect 5610-E-100, Rev. 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	1/2 Hour	52 Days See Note #3	22	13 (Page 5.5)	Simultaneous Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 4	1	13 (Page 5.5)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 4	1	13 (Page 5.3)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 4	ASSUMED	13	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 4	3	13 (Page 5.1)	Simultaneous Test	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 4	2	13 (Page A-3)	Sequential Test	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Tests done at levels higher than post accident environment to simulate long term operation (52 Days). 4) This is Westinghouse proprietary information. For values, reference qualification documentation.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 13. W - WCAP 9157.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-422B Component: RESISTANCE TEMPERATURE DETECTOR (RTD) FUNCTION: LOCA/HELB (IN & OUT) MITIGATE MANUFACTURER: ROSEMOUNT MODEL NO: 176KF ACCURACY: Spec: SEE NOTE #2 Demon: SERVICE: RCS HOT LEG $\Delta T/T_{avg}$ PROTECTION LOCATION INSIDE CONTAINMENT 15'-6" ABOVE FLOOR Area 5 Elev 14'-0" (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, Rev. 6 Elect 5610-E-100, Rev. 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	1/2 Hour	52 Days See Note #3	22	13 (Page 5.5)	Simultaneous Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 4	1	13 (Page 5.5)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 4	1	13 (Page 5.3)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 4	ASSUMED	13	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 4	3	13 (Page 5.1)	Simultaneous Test	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 4	2	13 (Page A-3)	Sequential Test	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Tests done at levels higher than post accident environment to simulate long term operation (52 Days). 4) This is Westinghouse proprietary information. For values, reference qualification documentation.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 13. W - WCAP 9157.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETION 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-422D Component: RESISTANCE TEMPERATURE DETECTOR (RTD) FUNCTION: LOCA/HELB (IN & OUT) MITIGATE MANUFACTURER: ROSEMOUNT MODEL NO: 176KF ACCURACY: Spec: SEE NOTE #2 Demon: SEE NOTE #2 SERVICE: RCS HOT LEG $\Delta T/T_{avg}$ PROTECTION LOCATION INSIDE CONTAINMENT 15'-6" ABOVE FLOOR Area 5 Elev 14'-0" Ref Dwg No. Mech 5610-T-E-4501, Rev. 6 Elect 5610-E-100, Rev. 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	1/2 Hour	52 Days See Note #3	22	13 (Page 5.5)	Simultaneous Test	NONE
	Temperature ($^{\circ}$ F)	SEE ATTACHMENT #1	SEE NOTE 4	1	13 (Page 5.5)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 4	1	13 (Page 5.3)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 4	ASSUMED	13	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 4	3	13 (Page 5.1)	Simultaneous Test	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 4	2	13 (Page A-3)	Sequential Test	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Tests done at levels higher than post accident environment to simulate long term operation (52 Days). 4) This is Westinghouse proprietary information. For values, reference qualification documentation.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 13. W - WCAP 9157.
 - 3.2. CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-432B Component: RESISTANCE TEMPERATURE DETECTOR (RTD) FUNCTION: LOCA/HELPS (IN & OUT) MITIGATE MANUFACTURER: ROSEMOUNT MODEL NO: 176KF ACCURACY: Spec: SEE NOTE #2 Demon: SERVICE: RCS HOT LEG $\Delta T/T_{avg}$ PROTECTION LOCATION INSIDE CONTAINMENT 15'-6" ABOVE FLOOR Area 6 Elev 14'-0" (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, Rev. 6 Elect 5610-E-103, Rev. 6 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	1/2 Hour	52 Days See Note #3	22	13 (Page 5.5)	Simultaneous Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 4	1	13 (Page 5.5)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 4	1	13 (Page 5.3)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 4	ASSUMED	13	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 4	3	13 (Page 5.1)	Simultaneous Test	NONE
	Radiation	SEE ATTACHMENT #3	- SEE NOTE 4	2	13 (Page A-3)	Sequential Test	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Tests done at levels higher than post accident environment to simulate long term operation (52 Days). 4) This is Westinghouse proprietary information. For values, reference qualification documentation.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 13. W - WCAP 9157.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-432D Component: RESISTANCE TEMPERATURE DETECTOR (RTD) FUNCTION: LOCA/HELB (IN & OUT) MITIGATE MANUFACTURER: ROSEMOUNT MODEL NO: 176KF ACCURACY: Spec: SEE NOTE #2 Demon: SERVICE: RCS HOT LEG $\Delta T/T_{avg}$ PROTECTION LOCATION INSIDE CONTAINMENT 15'-6" ABOVE FLOOR Area 6 Elev 14'-0" (FLOOR) Ref Dwg No. Mech 5610-T-E-4501; Rev. 6 Elect 5610-E-103; Rev. 6 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	1/2 Hour	52 Days See Note #3	22	13 (Page 5.5)	Simultaneous Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 4	1	13 (Page 5.5)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 4	1	13 (Page 5.3)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 4	ASSUMED	13	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 4	3	13 (Page 5.1)	Simultaneous Test	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 4	2	13 (Page A-3)	Sequential Test	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Tests done at levels higher than post accident environment to simulate long term operation (52 Days). 4) This is Westinghouse proprietary information. For values, reference qualification documentation.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 13. W - WCAP 9157.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SURP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: RCS PLANT ID NO.: MOV-3-535 Component: VALVE MOTOR OPERATOR FUNCTION: LOCA/HELB (IN & OUT) MITIGATE MANUFACTURER: OPERATOR-LIMITORQUE MOTOR-PEERLESS SER #86764A MODEL NO: OPERATOR-SHE-000; MOTOR SER #JV81672 INSUL. CLASS B ACCURACY: Spec: NA Demon: NA SERVICE: PRESSURIZER RELIEF ISOLATION VALVE LOCATION INSIDE CONTAINMENT Area 5 TOP OF PRESSURIZER Elev 58' Ref Dwg No. Mech 5610-T-E-4501 Rev. 6 Elect 5610-E-102, Rev. 7 Flood Level Elev: 19' DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	2 Hrs.	SEE NOTE 2	22	15 (P. D-10)	Simultaneous Type Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 2	1	15 (P. D-20)	Simultaneous Type Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 2	1	15 (P. D-10 & D-20)	Simultaneous Type Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 2	ASSUMED	15	Simultaneous Type Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 2	3	15 (P. D-8, D-10)	Simultaneous Type Test	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 2	2	14 (P. 3-4)	Sequential Test on Same Device	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Sequential Test on Same Device	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary information. For values reference qualification documentation reference.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 14. WESTINGHOUSE WCAP - 7410-L-, VOL. 1, SECTION 5.
 15. WESTINGHOUSE WCAP - 7410-L-, VOL. 1, APPENDIX D FIRM F-C2485-01.
 22. ANALYSIS OF OPER. TIMES FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: RCS PLANT ID NO.: MOV-3-536 Component: VALVE MOTOR OPERATOR FUNCTION: LOCA/HELB (IN & OUT) MITIGATE MANUFACTURER: OPERATOR-LIMITORQUE SER #86773A MOTOR-PEERLESS MODEL NO: OPERATOR-SHE-000; MOTOR-S# HV81674 INSULATION CLASS B ACCURACY: Spec: NA Demon: NA SERVICE: PRESSURIZER RELIEF ISOLATION VALVE LOCATION INSIDE CONTAINMENT TOP OF PRESSURIZER Area 5 Elev 58' Ref Dwg No. Mech 5610-T-E-4501 Rev. 6 Elect 5610-E-102, Rev. 7 Flood Level Elev: 19' DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	2 Hours	SEE NOTE 2	22	15 (P. D-10)	Simultaneous Type Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 2	1	15 (P. D-20)	Simultaneous Type Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 2	1	15 (P. D-10-20)	Simultaneous Type Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 2	ASSUMED	15	Simultaneous Type Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 2	3	15 (P. D-8, D-10)	Simultaneous Type Test	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 2	2	14 (P. 5-4)	Sequential Test on Same Device	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Sequential Test on Same Device	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary information. For values reference qualification documentation reference.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 14. WESTINGHOUSE WCAP - 7410-L-, VOL. I, SECTION 5.
 15. WESTINGHOUSE WCAP - 7410-L-, VOL. I, APPENDIX D FIRM F-C2485-01.
 22. ANALYSIS OF OPER. TIMES FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-410 Component: RESISTANCE TEMPERATURE DETECTOR (RTD) FUNCTION: LOCA/HELB (IN & OUT) POST ACCIDENT MON. MANUFACTURER: ROSEMOUNT MODEL NO: 176 KS ACCURACY: Spec: SEE NOTE 2 Demon: SEE NOTE 2 SERVICE: RCS COLD LEG TEMP. TO RECORDER LOCATION INSIDE CONTAINMENT 15'-6" ABOVE FLOOR Area 5 Elev 14'-0" Ref Dwg No. Mech 5610-T-E-4501, REV. 6 Elect 5610-E-100, Rev. 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	31 DAYS	52 DAYS SEE NOTE #3	22	13 (Page 5.5)	SIMULTANEOUS TEST	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 4	1	13 (Page 5.5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 4	1	13 (Page 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE 4	ASSUMED	13	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 4	3	13 (Page 5.1)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 4	2	13 (Page A-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the PSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Tests done at levels higher than post accident environment to simulate long-term operation (52 days). 4) This is Westinghouse proprietary information. For values reference qualification documentation.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 13. W-WCAP 9157.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: THREE POINT
UNIT: 3 & 4
LOGNET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO. ZT/ZS-3-6303A Component: Acoustic Monitor	Operating Time	31 DAYS	>31 DAYS (NOTE 4)	22	64 (Page 7-9)	SIMULTANEOUS TEST	NONE
FUNCTION: LOCA/HELBS (in & out) MONITOR	Temperature (°F)	SEE ATTACHMENT #1	465°F	1	64 (Page 7-9)	SIMULTANEOUS TEST	SEE NOTE 3
MANUFACTURER: Technology for Energy Corporation	Pressure (PSIA)	SEE ATTACHMENT #2	102:7	1	64 (Page 7-9)	SIMULTANEOUS TEST	SEE NOTE 3
MODEL NO: E2273A Sensor 500 Charge Converter	Relative Humidity (%)	100	100	ASSUMED	64 (Page 3-14)	SIMULTANEOUS TEST	NONE
ACCURACY: Spec: Demon:	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	5500 PPM BORON BUFFERED with NaOH to pH of 9	3	64 (Page 7-8)	SIMULTANEOUS TEST	NONE
SERVICE: Safety Valve Acoustic Monitoring System	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	64 (Appendix C)	SEQUENTIAL TEST	NONE
LOCATION: INSIDE CONTAINMENT TOP OF PRESSURIZER & PRESSURIZER WALL	Aging	40 YEARS	12.4 YEARS	SEE NOTE 1	64 (Appendix A, Pg.1)	SEQUENTIAL TEST	SEE NOTE 2
Area 5 Elev. 58' Ref. Dwg. No. Mech. 5177-108-M-1 Elect. 5610-E-102	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) The system was aged for 600 hours at 125°C. A maintenance schedule will be developed to periodically replace the age susceptible components. 3) The charge converter failed following the high temperature/pressure dwell. The vendor has proposed a fix that entails enclosing the converter in a pressure boundary supplied by them. 4) The actual test was conducted for 6 days, 21 hours. The test profile envelopes and is much more rigorous than the actual profile throughout the test.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SHIP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01R MASTER LIST.
 64. QUALIFICATION TEST REPORT (T.E.C. #517-TR-03) FOR ENVIRONMENTAL AND SEISMIC TESTING.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-420 Component: RESISTANCE TEMPERATURE DETECTOR (RTD) FUNCTION: LOCA/HELB (IN & OUT) POST ACCIDENT MON. MANUFACTURER: ROSEMOUNT MODEL NO: 176 KS ACCURACY: Spec: SEE NOTE 2 Demon: SEE NOTE 2 SERVICE: RCS COLD LEG TEMP. TO RECORDER LOCATION INSIDE CONTAINMENT 15'-6" ABOVE FLOOR Area 5 Elev 14'-0" (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, REV. 6 Elect 5610-E-100, Rev. 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	31 DAYS	52 DAYS SEE NOTE #3	22	13 (Page 5.5)	SIMULTANEOUS TEST	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 4	1	13 (Page 5.5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 4	1	13 (Page 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE 4	ASSUMED	13	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 4	3	13 (Page 5.1)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 4	2	13 (Page A-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Tests done at levels higher than post accident environment to simulate long-term operation (52 days). 4) This is Westinghouse proprietary information. For values reference qualification documentation.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 13. W-WCAP 9157.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

PROJECT: TURKEY POINT
UNIT: 3 & 4
LOCAL: 50-250 & 50-251

SYSTEM COMPONENT, ANALYSIS WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO. ZT/ZS-3-6303B Component: Acoustic Monitor FUNCTION: LOCA/HELB (In & out) MONITOR MANUFACTURER: Technology for Energy Corporation MODEL NO: E2273A Sensor Charge Converter 500 ACCURACY: Spec: Demont: SERVICE: Safety Valve Acoustic Monitoring System LOCATION: INSIDE CONTAINMENT TOP OF PRESSURIZER & PRESSURIZER WALL Area 5 Elev. 58' Ref. Dwg. No. Mech. 5177-108-M-1 Elect. 5610-E-102 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	>31 DAYS (NOTE 4)	22	64 (Page 7-9)	SIMULTANEOUS TEST	NONE
	Temperature (°F)	SEE ATTACHMENT #1	465°F	1	64 (Page 7-9)	SIMULTANEOUS TEST	SEE NOTE 3
	Pressure (PSIA)	SEE ATTACHMENT #2	102.7	1	64 (Page 7-9)	SIMULTANEOUS TEST	SEE NOTE 3
	Relative Humidity (%)	100	100	ASSUMED	64 (Page 3-14)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL. AS BORIC ACID	5500 PPM BORON BUFFERED with NaOH to pH of 9	3	64 (Page 7-8)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	64 (Appendix C)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	12.4 YEARS	SEE NOTE 1	64 (Appendix A, Pg.1)	SEQUENTIAL TEST	SEE NOTE 2
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) The system was aged for 600 hours at 125°C. A maintenance schedule will be developed to periodically replace the age susceptible components. 3) The charge converter failed following the high temperature/pressure dwell. The vendor has proposed a fix that entails enclosing the converter in a pressure boundary supplied by them. 4) The actual test was conducted for 6 days, 21 hours. The test profile envelopes and is much more rigorous than the actual profile throughout the test.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. EPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SURV LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-016 MASTER LIST.
 64. QUALIFICATION TEST REPORT (T.E.C. #517-TR-03) FOR ENVIRONMENTAL AND SEISMIC TESTING.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-430 Component: RESISTANCE TEMPERATURE DETECTOR (RTD) FUNCTION: LOCA/HELB (IN & OUT) POST ACCIDENT MON. MANUFACTURER: ROSEMOUNT MODEL NO: 176 KS ACCURACY: Spec: SEE NOTE 2 Demon: SERVICE: RCS COLD LEG TEMP. TO RECORDER LOCATION INSIDE CONTAINMENT 15'-6" ABOVE FLOOR Area 6 Elev 14'-0" (FLOOR) Ref Dwg No. Mech 5610-T-E-4501, REV. 6 Elect 5610-E-103, Rev. 6 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No _____	Operating Time	31 DAYS	52 DAYS SEE NOTE #3	22	13 (Page 5.5)	SIMULTANEOUS TEST	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 4	1	13 (Page 5.5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 4	1	13 (Page 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE 4	ASSUMED	13	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 4	3	13 (Page 5.1)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 4	2	13 (Page A-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) See discussion of component evaluation sheets (sec. C.1.17) 3) Tests done at levels higher than post accident environment to simulate long-term operation (52 days). 4) This is Westinghouse proprietary information. For values reference qualification documentation.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 13. W-WCAP 9157.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

PROJECT: TULF POINT
 UNIT: 3 & 4
 DRAWING: 50-250 & 50-251

SYSTEM COMPONENT ANALYSIS WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO. ZT/ZS-3-6303C Component: Acoustic Monitor FUNCTION: LOCA/HELB (in & out) MONITOR MANUFACTURER: Technology for Energy Corporation MODEL NO: E2273A Sensor Charge Converter 500 ACCURACY: Spec: Deron: SERVICE: Safety Valve Acoustic Monitoring System LOCATION: INSIDE CONTAINMENT TOP OF PRESSURIZER & PRESSURIZER WALL Area 5 Elev. 58' Ref. Dwg. No. Mech. 5177-108-M-1 Elect. 5610-E-102 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	>31 DAYS (NOTE 4)	22	64 (Page 7-9)	SIMULTANEOUS TEST	NONE
	Temperature (°F)	SEE ATTACHMENT #1	465°F	1	64 (Page 7-9)	SIMULTANEOUS TEST	SEE NOTE 3
	Pressure (PSIA)	SEE ATTACHMENT #2	102.7	1	64 (Page 7-9)	SIMULTANEOUS TEST	SEE NOTE 3
	Relative Humidity (%)	100	100	ASSUMED	64 (Page 3-14)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	5500 PPM BORON BUFFERED with NaOH to pH of 9	3	64 (Page 7-8)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	64 (Appendix C)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	12.4 YEARS	SEE NOTE 1	64 (Appendix A, Pg.1)	SEQUENTIAL TEST	SEE NOTE 2
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) The system was aged for 600 hours at 125°C. A maintenance schedule will be developed to periodically replace the age susceptible components. 3) The charge converter failed following the high temperature/pressure dwell. The vendor has proposed a fix that entails enclosing the converter in a pressure boundary supplied by them. 4) The actual test was conducted for 6 days, 21 hours. The test profile envelopes and is much more rigorous than the actual profile throughout the test.						

- DOCUMENT REFERENCES:**
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. EPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SURF LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01E MASTER LIST.
 64. QUALIFICATION TEST REPORT (T.E.C. #517-TR-03) FOR ENVIRONMENTAL AND SEISMIC TESTING.

SY-FILE: TUSSET POINT
 DATE: 3 6 6
 DRAW: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

PAGE 1-44

REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO. ZT/ZS-4-6303A Component: Acoustic Monitor FUNCTION: LOCA/HELB (in & out) MONITOR MANUFACTURER: Technology for Energy Corporation MODEL NO: E2273A Sensor Charge Converter 500 ACCURACY: Spec: Demon: SERVICE: Safety Valve Acoustic Monitoring System LOCATION: INSIDE CONTAINMENT TOP OF PRESSURIZER & PRESSURIZER WALL Area 11 Elev. 58' Ref. Des. No. Mech. 5177-108-M-1 Elect. 5610-E-109 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	>31 DAYS (NOTE 4)	22	64 (Page 7-9)	SIMULTANEOUS TEST	NONE
	Temperature (°F)	SEE ATTACHMENT #1	465°F	1	64 (Page 7-9)	SIMULTANEOUS TEST	SEE NOTE 3
	Pressure (PSIA)	SEE ATTACHMENT #2	102.7	1	64 (Page 7-9)	SIMULTANEOUS TEST	SEE NOTE 3
	Relative Humidity (%)	100	100	ASSUMED	64 (Page 3-14)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL. AS BORIC ACID	5500 PPM BORON BUFFERED with NaOH to pH of 9.	3	64 (Page 7-8)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	64 (Appendix C)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	12.4 YEARS	SEE NOTE 1	64 (Appendix A, Pg.1)	SEQUENTIAL TEST	SEE NOTE 2
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) The system was aged for 600 hours at 125°C. A maintenance schedule will be developed to periodically replace the age susceptible components. 3) The charge converter failed following the high temperature/pressure dwell. The vendor has proposed a fix that entails enclosing the converter in a pressure boundary supplied by them. 4) The actual test was conducted for 6 days, 21 hours. The test profile envelopes and is much more rigorous than the actual profile throughout the test.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS;
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SURF LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 64. QUALIFICATION TEST REPORT (T.E.C. #517-TR-03) FOR ENVIRONMENTAL AND SEISMIC TESTING.

EVALUATION: JERSEY POINT
DATE: 3 6 4
PAGE: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

PAGE: 1-46

REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO. ZT/ZS-4-6303B Component: Acoustic Monitor FUNCTION: LOCA/HELB (In & out) MONITOR MANUFACTURER: Technology for Energy Corporation MODEL NO: E2273A Sensor Charge Converter 500 ACCURACY: Spec: Demon: SERVICE: Safety Valve Acoustic Monitoring System LOCATION: INSIDE CONTAINMENT TOP OF PRESSURIZER & PRESSURIZER WALL Area 11 Elev. 58' Ref. Des. No. Mech. 5177-108-M-1 Elect. 5610-E-109 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	>31 DAYS (NOTE 4)	22	64 (Page 7-9)	SIMULTANEOUS TEST	NONE
	Temperature (°F)	SEE ATTACHMENT #1	465°F	1	64 (Page 7-9)	SIMULTANEOUS TEST	SEE NOTE 3
	Pressure (PSIA)	SEE ATTACHMENT #2	102.7	1	64 (Page 7-9)	SIMULTANEOUS TEST	SEE NOTE 3
	Relative Humidity (%)	100	100	ASSUMED	64 (Page 3-14)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	5500 PPM BORON BUFFERED with NaOH to pH of 9	3	64 (Page 7-8)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	64 (Appendix C)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	12.4 YEARS	SEE NOTE 1	64 (Appendix A, Pg.1)	SEQUENTIAL TEST	SEE NOTE 2
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) The system was aged for 600 hours at 125°C. A maintenance schedule will be developed to periodically replace the age susceptible components. 3) The charge converter failed following the high temperature/pressure dwell. The vendor has proposed a fix that entails enclosing the converter in a pressure boundary supplied by them. 4) The actual test was conducted for 6 days, 21 hours. The test profile envelopes and is much more rigorous than the actual profile throughout the test.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. EPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IF BULLETIN 79-018 MASTER LIST.
 64. QUALIFICATION TEST REPORT (T.E.C. #517-TR-03) FOR ENVIRONMENTAL AND SEISMIC TESTING.

PROJECT: TURKEY POINT
 UNIT: 3 & 4
 DRAWING: 50-250 & 50-251

SYSTEM COMPONENT ANALYSIS WORK SHEET

PAGE 1-48

REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO. ZT/ZS-4-6303C Component: Acoustic Monitor FUNCTION: LOCA/HELB (in & out) MONITOR MANUFACTURER: Technology for Energy Corporation MODEL NO: E2273A Sensor 500 Charge Converter ACCURACY: Spec: Deviation: SERVICE: Safety Valve Acoustic Monitoring System LOCATION: INSIDE CONTAINMENT TOP OF PRESSURIZER & PRESSURIZER WALL Area 11 Elev. 58' Ref. Dwg. No. Mech. 5177-108-M-1 Elect. 5610-E-109 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	>31 DAYS (NOTE 4)	22	64 (Page 7-9)	SIMULTANEOUS TEST	NONE
	Temperature (°F)	SEE ATTACHMENT #1	465°F	1	64 (Page 7-9)	SIMULTANEOUS TEST	SEE NOTE 3
	Pressure (PSIA)	SEE ATTACHMENT #2	102.7	1	64 (Page 7-9)	SIMULTANEOUS TEST	SEE NOTE 3
	Relative Humidity (%)	100	100	ASSUMED	64 (Page 3-14)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	5500 PPM BORON BUFFERED with NaOH to pH of 9	3	64 (Page 7-8)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	64 (Appendix C)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	12.4 YEARS	SEE NOTE 1	64 (Appendix A, Pg.1)	SEQUENTIAL TEST	SEE NOTE 2
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) The system was aged for 600 hours at 125°C. A maintenance schedule will be developed to periodically replace the age susceptible components. 3) The charge converter failed following the high temperature/pressure dwell. The vendor has proposed a fix that entails enclosing the converter in a pressure boundary supplied by them. 4) The actual test was conducted for 6 days, 21 hours. The test profile envelopes and is much more rigorous than the actual profile throughout the test.						

- DOCUMENT REFERENCES:**
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. EPL LETTER TO USNRC L-75-210 DATED 6/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SURF LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-016 MASTER LIST.
 64. QUALIFICATION TEST REPORT (T.E.C. #517-TR-03) FOR ENVIRONMENTAL AND SEISMIC TESTING.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-413A Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-GS ACCURACY: Spec: .1% Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 6 Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E-103/78-75, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.

FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

PAGE 1-50

REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-413B Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-GS ACCURACY: Spec: .1% Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 6 Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E-103/78-75, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-423A Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (In & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-CS ACCURACY: Spec: .1% Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 5 Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E-100/78-75, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. EPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-423B Component: RESISTANCE TEMPERATURE DETECTOR	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
MANUFACTURER: PYCO	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
MODEL NO: 122-4030-04-(4)-8-GS	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
ACCURACY: Spec: .12 Demon: .5%	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5)	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
Area 5 Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E 100/78-75, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.							

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.

FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-433A Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-GS ACCURACY: Spec: -.1% Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 64' Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E-103/78-75, REV. 4. Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.

FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-433B Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-GS ACCURACY: Spec: .1% Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 6 Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E-103/78-75, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.

FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-4-413A Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-GS ACCURACY: Spec: .1% Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 12' Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E-110/78-76, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-018 MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.

FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-4-413B Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-GS ACCURACY: Spec: .1% Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 12' Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E-110/78-76, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.

FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-4-423A Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-GS ACCURACY: Spec: .1% Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 11' Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E-107/78-76, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.						

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-4-423B Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-CS ACCURACY: Spec: .1% Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 11, Elev. 14, Ref. Dwg. No. Mech. Elect. 5610-E-107/78-76, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SHIP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-4-433A Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/RELB (In & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-CS ACCURACY: Spec: .1% Demont: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 12, Elev. 12, Ref. Dwg. No. Mech. Elect. 5610-E-110/78-76, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.

FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCNET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-4-433B Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-GS ACCURACY: Spec: .12 Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 12' Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E-110/78-76, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

PAGE 1-61

REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Reactor Coolant PLANT ID NO. No Tag No. (Assoc. w/PCV-3-455C) Component: 2 Limit Switches FUNCTION: LOCA/HELB (in and out) Monitor MANUFACTURER: NAMCO MODEL NO: LIM.SW.1-D2400X LIM.SW.2-D2400X ACCURACY: Spec: N/A Demon: N/A SERVICE: Position Indication Associated w/Pressurizer P.O. R.V. LOCATION: Inside Containment Top of Pressurizer Area 5 Elev. 58 Ref. Dwg. No. Mech. 5177-108-M-1 Elect. 5610-E-102 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 Days	NONE	See Note 2	NONE	---	See Note 4
	Temperature (°F)	See Attachment #1	NONE	1	NONE	---	See Note 4
	Pressure (PSIA)	See Attachment #2	NONE	1	NONE	---	See Note 4
	Relative Humidity (%)	100%	NONE	Assumed	NONE	---	See Note 4
	Chemical Spray	2030 ppm Boron Sol. as Boric Acid	NONE	3	NONE	---	See Note 4
	Radiation	See Attachment #3	NONE	2	NONE	---	See Note 4
	Aging	40 Years	NONE	See Note 1	See Note 3	---	See Note 4
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1. In the FSAR aging & submergence were not considered environmental parameters. Aging is required and assumed to be 40 years. 2. Operating time of associated valve. 3. Aging analysis not done as device will be replaced per note 4. 4. No qualification documents available on these limit switches. Qualified replacements will be installed during refueling outage following satisfactory completion of qualification test on conduit seal material.						

*DOCUMENT REFERENCES:

1. Post LOCA Pressure and Temperature Transients Inside Containment-Engineering Analysis.
2. Post LOCA Radiation Dose Inside Containment-Mathematical Analysis.
3. FPL Letter to USNRC L-75-210 Dated 4/30/75.
- 3.2 Calculation of Post LOCA Containment Sump Level.

FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Reactor Coolant PLANT ID NO. No Tag No. (Assoc. w/PCV-3-456) Component: 2 Limit Switches FUNCTION: LOCA/HELB (in and out) Monitor MANUFACTURER: NAMCO MODEL NO: LIM.SW.1-D2400X LIM.SW.2-D2400X ACCURACY: Spec: N/A Demon: N/A SERVICE: Position Indication Associated w/Pressurizer P.O. R.V. LOCATION: Inside Containment Top of Pressurizer Area 5 Elev. 58 Ref. Dwg. No. Mech. 5177-108-M-1 Elect. 5610-E-102 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 Days	NONE	See Note 2	NONE	---	See Note 4
	Temperature (°F)	See Attachment #1	NONE	1	NONE	---	See Note 4
	Pressure (PSIA)	See Attachment #2	NONE	1	NONE	---	See Note 4
	Relative Humidity (%)	100%	NONE	Assumed	NONE	---	See Note 4
	Chemical Spray	2030 ppm Boron Sol. as Boric Acid	NONE	3	NONE	---	See Note 4
	Radiation	See Attachment #3	NONE	2	NONE	---	See Note 4
	Aging	40 Years	NONE	See Note 1	See Note 3	---	See Note 4
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1. In the FSAR aging & submergence were not considered environmental parameters. Aging is required and assumed to be 40 years. 2. Operating time of associated valve. 3. Aging analysis not done as device will be replaced per note 4. 4. No qualification documents available on these limit switches. Qualified replacements will be installed during refueling outage following satisfactory completion of qualification test on conduit seal material.						

*DOCUMENT REFERENCES:

1. Post LOCA Pressure and Temperature Transients Inside Containment-Engineering Analysis.
2. Post LOCA Radiation Dose Inside Containment-Mathematical Analysis.
3. FPL Letter to USNRC L-75-210 Dated 4/30/75.
- 3.2. Calculation of Post LOCA Containment Sump Level.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

PAGE 1-63

REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Reactor Coolant PLANT ID NO. No Tag No. (Assoc. w/PCV-4-455C) Component: 2 Limit Switches FUNCTION: LOCA/HELB (in and out) Monitor MANUFACTURER: NAMCO MODEL NO: LIM.SW.1-D2400X LIM.SW.2-D2400X ACCURACY: Spec: N/A Demon: N/A SERVICE: Position Indication Associated w/Pressurizer P.O. R.V. LOCATION: Inside Containment Top of Pressurizer Area 11 Elev. 58 Ref. Dwg. No. Mech. 5177-108-M-1 Elect. 5610-E-109 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 Days	NONE	See Note 2	NONE	---	See Note 4
	Temperature (°F)	See Attachment #1	NONE	1	NONE	---	See Note 4
	Pressure (PSIA)	See Attachment #2	NONE	1	NONE	---	See Note 4
	Relative Humidity (%)	100%	NONE	Assumed	NONE	---	See Note 4
	Chemical Spray	2030 ppm Boron Sol. as Boric Acid	NONE	3	NONE	---	See Note 4
	Radiation	See Attachment #3	NONE	2	NONE	---	See Note 4
	Aging	40 Years	NONE	See Note 1	See Note 3	---	See Note 4
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1. In the FSAR aging & submergence were not considered environmental parameters. Aging is required and assumed to be 40 years. 2. Operating time of associated valve. 3. Aging analysis not done as device will be replaced per note 4. 4. No qualification documents available on these limit switches. Qualified replacements will be installed during refueling outage following satisfactory completion of qualification test on conduit seal material.						

*DOCUMENT REFERENCES:

1. Post LOCA Pressure and Temperature Transients Inside Containment-Engineering Analysis.
2. Post LOCA Radiation Dose Inside Containment-Mathematical Analysis.
3. FPL Letter to USNRC L-75-210 Dated 4/30/75.
- 3.2 Calculation of Post LOCA Containment Sump Level.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Reactor Coolant PLANT ID NO. No Tag No. (Assoc. w/PCV-4-456) Component: 2 Limit Switches FUNCTION: LOCA/HELB (in and out) Monitor MANUFACTURER: NAMCO MODEL NO: LIM.SW.1-D2400X LIM.SW.2-D2400X ACCURACY: Spec: N/A Demon: N/A SERVICE: Position Indication Associated w/Pressurizer P.O. R.V. LOCATION: Inside Containment Top of Pressurizer Area 11 Elev. 58 Ref. Dwg. No. Mech. 5177-108-M-1 Elect. 5610-E-109 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	31 Days	NONE	See Note 2	NONE	---	See Note 4
	Temperature (°F)	See Attachment #1	NONE	1	NONE	---	See Note 4
	Pressure (PSIA)	See Attachment #2	NONE	1	NONE	---	See Note 4
	Relative Humidity (%)	100%	NONE	Assumed	NONE	---	See Note 4
	Chemical Spray	2030 ppm Boron Sol. as Boric Acid	NONE	3	NONE	---	See Note 4
	Radiation	See Attachment #3	NONE	2	NONE	---	See Note 4
	Aging	40 Years	NONE	See Note 1	See Note 3	---	See Note 4
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1. In the FSAR aging & submergence were not considered environmental parameters. Aging is required and assumed to be 40 years. 2. Operating time of associated valve. 3. Aging analysis not done as device will be replaced per note 4. 4. No qualification documents available on these limit switches. Qualified replacements will be installed during refueling outage following satisfactory completion of qualification test on conduit seal material.						

*DOCUMENT REFERENCES:

1. Post LOCA Pressure and Temperature Transients Inside Containment-Engineering Analysis.
2. Post LOCA Radiation Dose Inside Containment-Mathematical Analysis.
3. FPL Letter to USNRC L-75-210 Dated 4/30/75.
- 3.2 Calculation of Post LOCA Containment Sump Level.

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FACILITY: TURKEY POINT
UNIT: 3 & 4

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TO COMPONENT EVALUATION
WORK SHEETS

DOCKET NO:
UNIT 3 - 50-250
UNIT 4 - 50-251

SYSTEM: CHEMICAL & VOLUME CONTROL					
PAGE NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	REV	DATE	REMARKS
2-1	SV-3-310A	SOLENOID VALVE	2	8/14/81	
2-2	---	LIMIT SWITCHES ASSOC. WITH CV-3-310A	2	8/14/81	
2-3	SV-3-310B	SOLENOID VALVE	2	8/14/81	
2-4	---	LIMIT SWITCHES ASSOC. WITH CV-3-310B	2	8/14/81	
2-5	SV-4-310A	SOLENOID VALVE	1	6/27/80	
2-6	---	LIMIT SWITCHES ASSOC. WITH CV-4-310A			
2-7	SV-4-310B	SOLENOID VALVE			
2-8	---	LIMIT SWITCHES ASSOC. WITH CV-4-310B	2	8/14/81	
2-9	SV-3-200A	SOLENOID VALVE	2		
2-10	---	LIMIT SWITCHES ASSOC. WITH CV-3-200A	2		
2-11	SV-3-200B	SOLENOID VALVE	2		
2-12	---	LIMIT SWITCHES ASSOC. WITH CV-3-200B	2		
2-13	SV-3-200C	SOLENOID VALVE	2		
2-14	---	LIMIT SWITCHES ASSOC. WITH CV-3-200C	2		
2-15	SV-4-200A	SOLENOID VALVE	1	6/27/80	
2-16	---	LIMIT SWITCHES ASSOC. WITH CV-4-200A			
2-17	SV-4-200B	SOLENOID VALVE			
2-18	---	LIMIT SWITCHES ASSOC. WITH CV-4-200B			
2-19	SV-4-200C	SOLENOID VALVE			
2-20	---	LIMIT SWITCHES ASSOC. WITH CV-4-200C			

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification - Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CHEMICAL VOLUME CONTROL PLANT ID NO. SV-3-310A Component: SOLENOID VALVE FUNCTION: LOCA/HELB (IN & OUT) MITIGATE MANUFACTURER: AUTOMATIC SWITCH COMPANY MODEL NO: HT831654 ACCURACY: Spec: N/A Demon: N/A SERVICE: REACTOR COOLING SYS. CHARGING LINE LOCATION INSIDE CONTAINMENT 6'-1" ABOVE FLOOR Area 5 Elev 14' (FLOOR) Ref Dwg No. Mech 5610-T-E-4505, Rev. 5 Elect 5610-E-100, Rev. 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	190 HOURS	NONE	22	NONE	NONE	SEE NOTE 2
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	NONE	SEE NOTE 2
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	NONE	SEE NOTE 2
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	NONE	SEE NOTE 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	NONE	SEE NOTE 2
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	NONE	SEE NOTE 2
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 4	---	SEE NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required. Assumed to be 40 years. 2) There is no data available for accident environment qualification. As previously indicated in response to IE Bulletin 79-01, it has been decided to replace this solenoid with a qualified one. Procurement action has been completed, and the installation will be done during the refueling outage after the satisfactory qualification test of the conduit seal material. See generic component evaluation sheet (Section 10) for the qualified replacement. 4) Aging analysis not done as device will be replaced per note 2.							

DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. EPL LETTER TO USNRC L-75-210 DATED 4/30/75.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CVCS PLANT ID NO. No Tag. No. (Assoc. w/ CV-3-310A) Component: 2 LIMIT SWITCHES FUNCTION: LOCA/HELB (IN & OUT) MONITOR MANUFACTURER: NAMCO MODEL NO: LIM. SW. 1-D2400X LIM. SW. 2-D2400X ACCURACY: Spec: N/A Demo: N/A SERVICE: POSITION INDICATION ASSOCIATED WITH CV-3-310A LOCATION INSIDE CONTAINMENT 6'-4" and 6'-7" ABOVE FLOOR Area 5 Elev 14' (FLOOR) Ref Dwg No. Mech N/A Elect 5610-E-100 (Rev. 7) Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	190 HOURS	NONE	SEE NOTE 2	NONE	---	SEE NOTE 3
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	---	SEE NOTE 3
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	---	SEE NOTE 3
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	---	SEE NOTE 3
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	---	SEE NOTE 3
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	---	SEE NOTE 3
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 5	---	SEE NOTE #5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1. IN THE FSAR AGING & SUBMERGENCE WERE NOT CONSIDERED ENVIRONMENTAL PARAMETERS. AGING REQUIRED ASSUMED TO BE 40 YEARS. 2. OPERATING TIME OF ASSOCIATED SOLENOID VALVE. 3. NO QUALIFICATION DOCUMENTS AVAILABLE ON THESE LIMIT SWITCHES. QUALIFIED REPLACEMENTS WILL BE INSTALLED DURING NEXT REFUELING OUTAGE AFTER SATISFACTORY COMPLETION OF QUALIFICATION TEST ON CONDUIT SEAL MATERIAL. 5. AGING ANALYSIS NOT DONE AS DEVICE WILL BE REPLACED PER NOTE 3.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. EPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CHEMICAL VOLUME CONTROL PLANT ID NO. SV-3-310B Component: SOLENOID VALVE FUNCTION: LOCA/HELB (IN & OUT) MITIGATE MANUFACTURER: AUTOMATIC SWITCH COMPANY MODEL NO: LB831654 SER #7055BT ACCURACY: Spec: N/A Demon: N/A SERVICE: REACTOR COOLING SYS. CHARGING LINE LOCATION INSIDE CONTAINMENT ABOVE EL. 19'-0" Area 5 Elev 14' FLOOR Ref Dwg No. Mech 5610-T-E-4505 Elect 5610-E-100, Rev. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	190 HOURS	NONE	22	NONE	NONE	SEE NOTE 2
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	NONE	SEE NOTE 2
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	NONE	SEE NOTE 2
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	NONE	SEE NOTE 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	NONE	SEE NOTE 2
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	NONE	SEE NOTE 2
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 4	---	SEE NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required, assumed to be 40 years. 2) There is no data available for accident environment qualification. As previously indicated in response to IE Bulletin 79-01, it has been decided to replace this solenoid with a qualified one. Procurement action has been completed, and the installation will be done during the refueling outage after the satisfactory qualification test of the conduit seal material. See generic component evaluation sheet (Section 10) for the qualified replacement. 4) Aging analysis not done as device will be replaced per note 2.							

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CVCS PLANT ID NO. No Tag. No. (Assoc. w/ CV-3-310B) Component: 2 LIMIT SWITCHES FUNCTION: LOCA/HELB (IN & OUT) MONITOR MANUFACTURER: NAMCO MODEL NO: LIM. SW. 1-D2400X LIM. SW. 2-D2400X ACCURACY: Spec: N/A Demon: N/A SERVICE: POSITION INDICATION ASSOCIATED WITH CV-3-310B LOCATION INSIDE CONTAINMENT 3'-2" & 3'-5" ABOVE FLOOR Area 5 Elev 14' (FLOOR) Ref Dwg No. Mech N/A Elect 5610-E-100 (Rev. 7) Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes No <input checked="" type="checkbox"/>	Operating Time	190 HOURS	NONE	SEE NOTE 2	NONE	---	SEE NOTE 3
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	---	SEE NOTE 3
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	---	SEE NOTE 3
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	---	SEE NOTE 3
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	---	SEE NOTE 3
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	---	SEE NOTE 3
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 5	---	SEE NOTE 5
	Submergence	ABOVE 19'-0"	NONE	3.2	NONE	NONE	SEE NOTE 4
NOTES: 1. IN THE FSAR AGING & SUBMERGENCE WERE NOT CONSIDERED ENVIRONMENTAL PARAMETERS. AGING REQUIRED ASSUMED TO BE 40 YEARS. 2. OPERATING TIME OF ASSOCIATED SOLENOID VALVE. 3. NO QUALIFICATION DOCUMENTS AVAILABLE ON THESE LIMIT SWITCHES. QUALIFIED REPLACEMENTS WILL BE INSTALLED DURING NEXT REFUELING OUTAGE AFTER SATISFACTORY COMPLETION OF QUALIFICATION TEST ON CONDUIT SEAL MATERIAL. 4. THESE LIMIT SWITCHES WILL NOT BE RELOCATED AS PREVIOUSLY INDICATED. FT-3-110 AND FT-3-122 SERVE AS VERIFICATION OF VALVE POSITION. 5. AGING ANALYSIS NOT DONE AS DEVICE WILL BE REPLACED PER NOTE 3.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CVCS PLANT ID NO. No Tag. No. (Assoc. w/ CV-4-310B) Component: 2 LIMIT SWITCHES FUNCTION: LOCA/HELB (IN & OUT) MONITOR MANUFACTURER: NAMCO MODEL NO: LIM. SW. 1-D2400X LIM. SW. 2-D2400X ACCURACY: Spec: N/A Demon: N/A SERVICE: POSITION INDICATION ASSOCIATED WITH CV-4-310B LOCATION: INSIDE CONTAINMENT 3'-4" & 3'-7" ABOVE FLOOR Area 11 Elev 14' (FLOOR) Ref Dwg No. Mech N/A Elect 5610-E-107 (Rev. 6) Flood Level Elev: 19'-0" DOC REF 3.2 Above Flood Level: Yes _____ No <u> X </u>	Operating Time	190 HRS	NONE	SEE NOTE 2	NONE	---	SEE NOTE 3
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	---	SEE NOTE 3
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	---	SEE NOTE 3
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	---	SEE NOTE 3
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	---	SEE NOTE 3
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	---	SEE NOTE 3
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 4	---	SEE NOTE 5
	Submergence	ABOVE 19'	NONE	3.2	NONE	NONE	SEE NOTE 5
NOTES: 1. IN THE FSAR AGING & SUBMERGENCE WERE NOT CONSIDERED ENVIRONMENTAL PARAMETERS. AGING REQD. ASSUMED TO BE 40 YEARS. 2. OPERATING TIME OF ASSOCIATED SOLENOID VALVE. 3. NO QUALIFICATION DOCUMENTS AVAILABLE ON THESE LIMIT SWITCHES. QUALIFIED REPLACEMENTS WILL BE INSTALLED DURING NEXT REFUELING OUTAGE AFTER SATISFACTORY COMPLETION OF QUALIFICATION TEST ON CONDUIT SEAL MATERIAL. 4. AGING ANALYSIS NOT DONE AS DEVICE WILL BE REPLACED PER NOTE 3. 5. THESE LIMIT SWITCHES WILL NOT BE RELOCATED AS PREVIOUSLY INDICATED. FT-3-110 AND FT-3-122 SERVE AS VERIFICATION OF VALVE POSITION.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CHEMICAL VOLUME CONTROL PLANT ID NO. SV-3-200A Component: SOLENOID VALVE FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: AUTOMATIC SWITCH COMPANY MODEL NO: HT831854 ACCURACY: Spec: N/A Demon: N/A SERVICE: RCS LETDOWN ISOLATION LOCATION INSIDE CONTAINMENT 5'-0" ABOVE FLOOR Area 5 Elev 14' (FLOOR) Ref Dwg No. Mech 5610-T-E-4505 REV. 5 Elect 5610-E-100, Rev. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes _____ No <u>X</u>	Operating Time	1/2 HOUR	NONE	22	NONE	NONE	SEE NOTE 2
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	NONE	SEE NOTE 2
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	NONE	SEE NOTE 2
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	NONE	SEE NOTE 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	NONE	SEE NOTE 2
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	NONE	SEE NOTE 2
	Aging	40 YEARS	NONE	SEE NOTE 1	NONE	---	SEE NOTE 3
	Submergence	ABOVE 19'-0"	NONE	3.2	NONE	---	NONE SEE NOTE 4
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) There is no data available for accident environment qualification. As previously indicated in response to IE Bulletin 79-01, it has been decided to replace this solenoid with a qualified one. Procurement action has been completed, and the installation will be done during the refueling outage after the satisfactory qualification test of the conduit seal material. See generic component evaluation sheet (Section 10) for the qualified replacement. 3) Aging analysis not done as device will be replaced per note 2. 4) Device will have performed intended Function before becoming submerged.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CVCS PLANT ID NO. No Tag. No. (Assoc. w/ CV-3-200A) Component: 2 LIMIT SWITCHES FUNCTION: LOCA/HELB (IN & OUT) MONITOR MANUFACTURER: NAMCO MODEL NO: LIM. SW. 1-D2400X ACCURACY: Spec: N/A Demon: N/A SERVICE: POSITION INDICATION ASSOCIATED WITH CV-3-200A LOCATION INSIDE CONTAINMENT Area 4'-8" & 5'-0" ABOVE FLOOR Elev 5 Ref Dwg No. 14' (FLOOR) Mech N/A Elect 5610-E-100 (Rev. 7) Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes _____ No <u>X</u>	Operating Time	1/2 HOUR	NONE	SEE NOTE 2	NONE	---	SEE NOTE 3
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	---	SEE NOTE 3
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	---	SEE NOTE 3
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	---	SEE NOTE 3
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	---	SEE NOTE 3
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	---	SEE NOTE 3
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 5	---	SEE NOTE 5
	Submergence	ABOVE 19'-0"	NONE	3.2	NONE	NONE	NONE SEE NOTE #6
	NOTES: 1. IN THE FSAR AGING & SUBMERGENCE WERE NOT CONSIDERED ENVIRONMENTAL PARAMETERS. AGING REQUIRED ASSUMED TO BE 40 YEARS. 2. OPERATING TIME OF ASSOCIATED SOLENOID VALVE. 3. NO QUALIFICATION DOCUMENTS AVAILABLE ON THESE LIMIT SWITCHES. QUALIFIED REPLACEMENTS WILL BE INSTALLED DURING NEXT REFUELING OUTAGE AFTER SATISFACTORY COMPLETION OF QUALIFICATION TEST ON CONDUIT SEAL MATERIAL. 5. AGING ANALYSIS NOT DONE AS DEVICE WILL BE REPLACED PER NOTE 3. 6. DEVICE WILL HAVE PERFORMED INTENDED FUNCTION BEFORE BECOMING SUBMERGED.						

*DOCUMENT REFERENCES: 1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CHEMICAL VOLUME CONTROL PLANT ID NO. SV-3-200B Component: SOLENOID VALVE FUNCTION: LOCA/HELS (INSIDE) MITIGATE MANUFACTURER: AUTOMATIC SWITCH COMPANY MODEL NO: HT831854 SER #540298 ACCURACY: Spec: N/A Demon: N/A SERVICE: RCS LETDOWN ISOLATION LOCATION INSIDE CONTAINMENT 4'-2" ABOVE FLOOR Area 5 Elev 14 (FLOOR) Ref Dwg No. Mech 5610-T-E-4505 REV. 5. Elect 5610-E-100, REV. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes _____ No <u>X</u>	Operating Time	1/2 HOUR	NONE	22	NONE	NONE	SEE NOTE 2
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	NONE	SEE NOTE 2
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	NONE	SEE NOTE 2
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	NONE	SEE NOTE 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	NONE	SEE NOTE 2
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	NONE	SEE NOTE 2
	Aging	40 YEARS	NONE	SEE NOTE 1	NONE	---	SEE NOTE 3
	Submergence	ABOVE 19'-0"	NONE	3.2	NONE	---	NONE SEE NOTE 4

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd, assumed to be 40 years.
 2) There is no data available for accident environment qualification. As previously indicated in response to IE Bulletin 79-01, it has been decided to replace this solenoid with a qualified one. Procurement action has been completed, and the installation will be done during the refueling outage after the satisfactory qualification test of the conduit seal material. See generic component evaluation sheet (Section 10) for the qualified replacement.
 3) Aging analysis not done as device will be replaced per note 2.
 4) Device will have performed intended Function before becoming submerged.

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CVCS PLANT ID NO. No Tag. No. (Assoc. w/ CV-3-200B) Component: 2 LIMIT SWITCHES	Operating Time	1/2 HOUR	NONE	SEE NOTE 2	NONE	---	SEE NOTE 3
FUNCTION: LOCA/HELB (IN & OUT) MONITOR	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	---	SEE NOTE 3
MANUFACTURER: NAMCO	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	---	SEE NOTE 3
MODEL NO: LIM. SW. 1-D2400X LIM. SW. 2-D2400X	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	---	SEE NOTE 3
ACCURACY: Spec: N/A Demon: N/A	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	---	SEE NOTE 3
SERVICE: POSITION INDICATION ASSOCIATED WITH CV-3-200B	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	---	SEE NOTE 3
LOCATION INSIDE CONTAINMENT 4'-0" & 4'-3" ABOVE FLOOR	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 5	---	SEE NOTE 5
Area 5 Elev 14' (FLOOR)	Submergence	ABOVE 19'-0"	NONE	3.2	NONE	NONE	NONE SEE NOTE #6
Ref Dwg No. Mech N/A Elect 5610-E-100 (Rev. 7)	<p>NOTES: 1. IN THE FSAR AGING & SUBMERGENCE WERE NOT CONSIDERED ENVIRONMENTAL PARAMETERS. AGING REQUIRED ASSUMED TO BE 40 YEARS.</p> <p>2. OPERATING TIME OF ASSOCIATED SOLENOID VALVE.</p> <p>3. NO QUALIFICATION DOCUMENTS AVAILABLE ON THESE LIMIT SWITCHES. QUALIFIED REPLACEMENTS WILL BE INSTALLED DURING NEXT REFUELING OUTAGE AFTER SATISFACTORY COMPLETION OF QUALIFICATION TEST ON CONDUIT SEAL MATERIAL.</p> <p>5. AGING ANALYSIS NOT DONE AS DEVICE WILL BE REPLACED PER NOTE 3.</p> <p>6. DEVICE WILL HAVE PERFORMED INTENDED FUNCTION BEFORE BECOMING SUBMERGED.</p>						
Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level:							
Yes _____ No <u>X</u>							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USMRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CHEMICAL VOLUME CONTROL PLANT ID NO. SV-3-200C Component: SOLENOID VALVE FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: AUTOMATIC SWITCH COMPANY MODEL NO: HT831854 ACCURACY: Spec: N/A Demon: N/A SERVICE: RCS LETDOWN ISOLATION LOCATION INSIDE CONTAINMENT 3'-4" ABOVE FLOOR Area 5 Elev 14' (FLOOR) Ref Dwg No. Mech 5610-T-E-4505 REV. 5 Elect 5610-E-100, REV. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes _____ No X _____	Operating Time	1/2 HOUR	NONE	22	NONE	NONE	SEE NOTE 2
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	NONE	SEE NOTE 2
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	NONE	SEE NOTE 2
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	NONE	SEE NOTE 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	NONE	SEE NOTE 2
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	NONE	SEE NOTE 2
	Aging	40 YEARS	NONE	SEE NOTE 1	NONE	---	SEE NOTE 3
	Submergence	ABOVE 19'-0"	NONE	3.2	NONE	---	NONE SEE NOTE 4
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) There is no data available for accident environment qualification. As previously indicated in response to IE Bulletin 79-01, it has been decided to replace this solenoid with a qualified one. Procurement action has been completed, and the installation will be done during the refueling outage after the satisfactory qualification test of the conduit seal material. See generic component evaluation sheet (Section 10) for the qualified replacement. 3) Aging analysis not done as device will be replaced per note 2. 4) Device will have performed intended function before becoming submerged.						

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CVCS PLANT ID NO. No Tag. No. (Assoc. w/ CV-3-200C) Component: 2 LIMIT SWITCHES FUNCTION: LOCA/HELB (IN & OUT) MONITOR MANUFACTURER: NAMCO MODEL NO: LIM. SW. 1-D2400X LIM. SW. 2-D2400X ACCURACY: Spec: N/A Demon: N/A SERVICE: POSITION INDICATION ASSOCIATED WITH CV-3-200C LOCATION INSIDE CONTAINMENT 3'-3" and 3'-6" ABOVE FLOOR Area 5 Elev 14' (FLOOR) Ref Dwg No. Mech N/A Elect 5610-E-100 (Rev. 7) Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes No <u>X</u>	Operating Time	1/2 HOUR	NONE	SEE NOTE 2	NONE	---	SEE NOTE 3
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	---	SEE NOTE 3
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	---	SEE NOTE 3
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	---	SEE NOTE 3
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	---	SEE NOTE 3
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	---	SEE NOTE 3
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 5	---	SEE NOTE 5
	Submergence	ABOVE 19'-0"	NONE	3.2	NONE	NONE	NONE SEE NOTE #6
	NOTES: 1. IN THE FSAR AGING & SUBMERGENCE WERE NOT CONSIDERED ENVIRONMENTAL PARAMETERS. AGING REQ'D, ASSUMED TO BE 40 YEARS. 2. OPERATING TIME OF ASSOCIATED SOLENOID VALVE. 3. NO QUALIFICATION DOCUMENTS AVAILABLE ON THESE LIMIT SWITCHES. QUALIFIED REPLACEMENTS WILL BE INSTALLED DURING NEXT REFUELING OUTAGE AFTER SATISFACTORY COMPLETION OF QUALIFICATION TEST ON CONDUIT SEAL MATERIAL. 5. AGING ANALYSIS NOT DONE AS DEVICE WILL BE REPLACED PER NOTE 3. 6. DEVICE WILL HAVE PERFORMED INTENDED FUNCTION BEFORE BECOMING SUBMERGED.						

*DOCUMENT REFERENCES: 1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
3.2 CALCULATION OF POST LOCA CONTAINMENT SHMP LEVEL.

SECTION C2-3

FACILITY: TURKEY POINT
UNIT: 3 & 4

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DOCKET NO:
UNIT 3 - 50-250
UNIT 4 - 50-251

SYSTEM: SAFETY INJECTION & RESIDUAL HEAT REMOVAL					
PAGE NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	REV	DATE	REMARKS
3-1	PT-3-940	PRESSURE TRANSMITTER	<u>1</u>	<u>6/27/80</u>	
3-2	PT-4-940	PRESSURE TRANSMITTER			
3-3	PT-3-943	PRESSURE TRANSMITTER			
3-4	PT-4-943	PRESSURE TRANSMITTER			
3-5	FT-3-940	FLOW TRANSMITTER			
3-6	FT-3-943	FLOW TRANSMITTER			
3-7	FT-4-940	FLOW TRANSMITTER			
3-8	FT-4-943	FLOW TRANSMITTER	↓	↓	
3-9	FT-3-932	FLOW TRANSMITTER	<u>2</u>	<u>8/14/81</u>	
3-10	FT-3-933	FLOW TRANSMITTER			
3-11	FT-4-932	FLOW TRANSMITTER			
3-12	FT-4-933	FLOW TRANSMITTER	↓	↓	
3-13	FT-3-605	FLOW TRANSMITTER	<u>1</u>	<u>6/27/80</u>	
3-14	FT-4-605	FLOW TRANSMITTER			
3-15	P-4-214A	CONTAINMENT SPRAY PUMP			
3-16	P-4-214B	CONTAINMENT SPRAY PUMP			
3-17	P-3-210A	RESIDUAL HEAT REMOVAL PUMP			
3-18	P-3-210B	RESUDUAL HEAT REMOVAL PUMP			
3-19	P-4-210A	RESIDUAL HEAT REMOVAL PUMP			
3-20	P-4-210B	RESIDUAL HEAT REMOVAL PUMP	↓	↓	

SECTION C2- 3

FACILITY: TURKEY POINT
UNIT: 3 & 4

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DOCKET NO:
UNIT 3 - 50-250
UNIT 4 - 50-251

SYSTEM: SAFETY INJECTION & RESIDUAL HEAT REMOVAL

PAGE NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	REV	DATE	REMARKS
3-21	MOV-3-744A	VALVE MOTOR OPERATOR	2	8/14/81	
3-22	MOV-4-744A	VALVE MOTOR OPERATOR	1	6/27/80	
3-23	MOV-3-744B	VALVE MOTOR OPERATOR	2	8/14/81	
3-24	MOV-4-744B	VALVE MOTOR OPERATOR	1	6/27/80	
3-25	MOV-3-750	VALVE MOTOR OPERATOR	2	8/14/81	
3-26	MOV-4-750	VALVE MOTOR OPERATOR	1	6/27/80	
3-27	MOV-3-751	VALVE MOTOR OPERATOR	2	8/14/81	
3-28	MOV-4-751	VALVE MOTOR OPERATOR	1	6/27/80	
3-29	MOV-3-843A	VALVE MOTOR OPERATOR			
3-30	MOV-3-843B	VALVE MOTOR OPERATOR			
3-31	MOV-4-843A	VALVE MOTOR OPERATOR			
3-32	MOV-4-843B	VALVE MOTOR OPERATOR			
3-33	3P215A	SAFETY INJECTION PUMP			
3-34	3P215B	SAFETY INJECTION PUMP			
3-35	4P215A	SAFETY INJECTION PUMP			
3-36	4P215B	SAFETY INJECTION PUMP			
3-37	P-3-214A	CONTAINMENT SPRAY PUMP			
3-38	P-3-214B	CONTAINMENT SPRAY PUMP			
3-39	MOV-3-860A	VALVE MOTOR OPERATOR			
3-40	MOV-3-860B	VALVE MOTOR OPERATOR	↓	↓	

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3461 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 7'-3" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV 12 Elect 5610-E-105-REV 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment.
 3) See discussion of component evaluation sheets (Sec. C.1.17)

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. EPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

SECTION C2-3

FACILITY: TURKEY POINT
UNIT: 3 & 4

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UNIT 4 - 50-251

SYSTEM: SAFETY INJECTION & RESIDUAL HEAT REMOVAL

PAGE NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	REV	DATE	REMARKS
3-41	MOV-4-860A	VALVE MOTOR OPERATOR	<u>1</u>	<u>6/27/80</u>	
3-42	MOV-4-860B	VALVE MOTOR OPERATOR			
3-43	MOV-3-863A	VALVE MOTOR OPERATOR			
3-44	MOV-3-863B	VALVE MOTOR OPERATOR			
3-45	MOV-4-863A	VALVE MOTOR OPERATOR			
3-46	MOV-4-863B	VALVE MOTOR OPERATOR			
3-47	MOV-3-866A	VALVE MOTOR OPERATOR	2	8/14/81	
3-48	MOV-3-866B	VALVE MOTOR OPERATOR	2	8/14/81	
3-49	MOV-4-866A	VALVE MOTOR OPERATOR	<u>1</u>	<u>6/27/80</u>	
3-50	MOV-4-866B	VALVE MOTOR OPERATOR			
3-51	MOV-3-867A	VALVE MOTOR OPERATOR			
3-52	MOV-3-867B	VALVE MOTOR OPERATOR			
3-53	MOV-4-867A	VALVE MOTOR OPERATOR			
3-54	MOV-4-867B	VALVE MOTOR OPERATOR			
3-55	MOV-878A	VALVE MOTOR OPERATOR			
3-56	MOV-878B	VALVE MOTOR OPERATOR			
3-57	MOV-3-880A	VALVE MOTOR OPERATOR			
3-58	MOV-3-880B	VALVE MOTOR OPERATOR			
3-59	MOV-4-880A	VALVE MOTOR OPERATOR			
3-60	MOV-4-880B	VALVE MOTOR OPERATOR	↓	↓	

SECTION C2-3FACILITY: TURKEY POINT
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UNIT 3 - 50-250
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SYSTEM: SAFETY INJECTION & RESIDUAL HEAT REMOVAL					
PAGE NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	REV	DATE	REMARKS
3-61	MOV-3-869	VALVE MOTOR OPERATOR	<u>1</u>	<u>6/27/80</u>	
3-62	MOV-4-869	VALVE MOTOR OPERATOR			
3-63	MOV-3-872	VALVE MOTOR OPERATOR			
3-64	MOV-4-872	VALVE MOTOR OPERATOR			
3-65	PC-3-600	PRESSURE CONTROLLER			
3-66	PC-3-601	PRESSURE CONTROLLER			
3-67	PC-4-600	PRESSURE CONTROLLER			
3-68	PC-4-601	PRESSURE CONTROLLER			
3-69	PC-957A	PRESSURE CONTROLLER			
3-70	PC-957B	PRESSURE CONTROLLER			
3-71	PC-957C	PRESSURE CONTROLLER			
3-72	PC-957D	PRESSURE CONTROLLER			
3-73	LS-3-1570	LEVEL SWITCH	<u>2</u>	<u>8/14/81</u>	
3-74	LS-3-1571	LEVEL SWITCH			
3-75	LS-4-1570	LEVEL SWITCH			
3-76	LS-4-1571	LEVEL SWITCH			
3-77	3N215A	LOCAL CONTROL SWITCH	<u>1</u>	<u>6/27/80</u>	
3-78	3N215B	LOCAL CONTROL SWITCH			
3-79	4N215A	LOCAL CONTROL SWITCH			
3-80	4N215B	LOCAL CONTROL SWITCH			

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: SAFETY INJECTION / RHR PLANT ID NO.: FT-3-932 Component: FLOW TRANSMITTER FUNCTION: MONITOR LOCA / HELB (IN) MANUFACTURER: FISCHER & PORTER OSC. AMP. 805B230U01 MODEL NO: 10B2496PBBABBB-NS (HI TEMP) SR #6804A6255A69 (HI RAD) ACCURACY: Spec: Demon: SEE NOTE #2 SERVICE: SAFETY INJECTION (HI HEAD) FLOW TO HOT LEG LOCATION INSIDE CONTAINMENT ABOVE EL. 19'-0" Area 6 Elev 14 (FLOOR) Ref Dwg No. Mech 5610-T-E-4510, Sh. 2, Rev. 4 Elect 5610-E-103, Rev. 6 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	31 DAYS	> 31 DAYS	22	7 (Fig 3-6) & 36	Simultaneous Test & Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. Test for Paint by Ameron	NONE
	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	33	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required. Assumed to be 40 years. 2) See discussion of component evaluation sheets (sec.c.1.17)							

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS
6. FISHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-2273.
7. F&P TEST REPORT 2204-51-B-006.
8. FISHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: SAFETY INJECTION/ RHR PLANT ID NO.: FT-3-933 Component: FLOW TRANSMITTER FUNCTION: MONITOR LOCA/HELB (IN) MANUFACTURER: FISCHER & PORTER OSC. AMP. 805B241U01 MODEL NO: 10B2496PBBABBB-NS (HI TEMP) SR #7309A2751A1 (HI RAD) ACCURACY: Spec: Demon: SEE NOTE #2 SERVICE: SAFETY INJECTION (HI HEAD) FLOW TO HOT LEG LOCATION INSIDE CONTAINMENT ABOVE EL. 19'-0" Area 6 Elev 14' (FLOOR) Ref Dwg No. Mech 5610-T-E-4510, Sh. 2, Rev. 4 Elect 5610-E-103, Rev. 6 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	31 DAYS	> 31 DAYS	22	7 (Fig 3-6) & 36	Simultaneous Test & Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. Test for Paint by Ameron	NONE
	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required. Assumed to be 40 years.
2) See discussion of component evaluation sheets (sec.c.1.17).

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS
6. FISCHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-2273.
7. F&P TEST REPORT 2204-51-B-006.
8. FISCHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: SAFETY INJECTION /RHR PLANT ID NO.: FT-4-932 Component: FLOW TRANSMITTER FUNCTION: MONITOR LOCA/HELB (IN) MANUFACTURER: FISCHER & PORTER OSC.AMP. 805B230U01 MODEL NO: 10B2496PBBABBB-NS (HI TEMP) SR# 6804A6257A66 (HI RAD) ACCURACY: Spec: Demon: SEE NOTE #2 SERVICE: SAFETY INJECTION (HI HEAD) FLOW TO HOT LEG LOCATION INSIDE CONTAINMENT 4'-2" ABOVE FLOOR Area 12 Elev 14' (FLOOR) Ref Dwg No. Mech 5610-T-E-4510, Sh. 2, Rev. 4 Elect 5610-E-110, Rev. 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes _____ No <u> X </u>	Operating Time	31 DAYS	> 31 DAYS	22	7 (Fig 3-6) & 36	Simultaneous Test & Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (¼ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (¼ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. Test for Paint by Ameron	NONE
	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	ABOVE 19'	NONE	3.2	NONE	---	SEE NOTE 3
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required. Assumed to be 40 years; 2) See discussion of component evaluation sheets (sec. c.1. 17). 3) Device will be relocated at earliest available opportunity (sec.c.1.16).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS
 6. FISHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-2273.
 7. F&P TEST REPORT 2204-51-B-006.
 8. FISHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72.
 32. CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: SAFETY INJECTION RHR PLANT ID NO.: FT-4-933 Component: FLOW TRANSMITTER FUNCTION: MONITOR LOCA/HELB (IN) MANUFACTURER: FISCHER & PORTER OSC. AMP. 805B230U01 MODEL NO: 10B2496PBBABBB-NS (HI TEMP) SR #6804A6257A67 (HI RAD) ACCURACY: Spec: Demon: SEE NOTE #2 SERVICE: SAFETY INJECTION (HI HEAD) FLOW TO HOT LEG LOCATION INSIDE CONTAINMENT 3'-2" ABOVE FLOOR Area 12 Elev 14' (FLOOR) Ref Dwg No. Mech 5610-T-E-4510, Sh. 2, Rev. 4 Elect 5610-E-110, Rev. 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes _____ No x_____	Operating Time	31 DAYS	> 31 DAYS	22	7 (Fig 3-6) & 36	Simultaneous Test & Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. Test for Paint by Ameron	NONE
	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	ABOVE 19' -	NONE	3.2	NONE	---	SEE NOTE 3

NOTES: 1) In the PSAR aging and submergence were not considered environmental parameters. Aging required, Assumed to be 40 years.
2) See discussion of component evaluation sheets (sec. c.1.17).
3) Device will be relocated at earliest available opportunity (sec. c.1.16)

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS
6. FISHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-2273.
7. F&P TEST REPORT 2204-51-B-006.
8. FISHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: SI & RHR PLANT ID NO.: MOV-3-744A Component: VALVE MOTOR OPERATOR FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: OPERATOR-LIMITORQUE; MOTOR-RELIANCE MODEL NO: SMB-3; OPERATOR-S# 93570A MOTOR-MOD #R71015-7 INSULATION CLASS H ACCURACY: Spec: N/A SER.# 2-53197 Demon: N/A SERVICE: RCS INLET ISOLATION LOCATION INSIDE CONTAINMENT Area 6 Elev 14' (FLOOR) Ref Dwg No. Mech 5610-T-E-4510 REV. 4 Elect 5610-E-103, Rev. 6 Flood Level Elev: 19' DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 Days	32 Days	22	16	Mathematical Analysis and TEST	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 2	1	16 (PG. C24-C28)	SIMULTANEOUS TYPE TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 2	1	16 (PG. C-11)	SIMULTANEOUS TYPE TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE 2	ASSUMED	16 (PG. C-1)	SIMULTANEOUS TYPE TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 2	3	16 (PG. C-1 & C-11)	SIMULTANEOUS TYPE TEST	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 2	2	14 (PG. 5-4)	SEQUENTIAL TEST ON SAME DEVICE	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	SEQUENTIAL TEST ON SAME DEVICE	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary information. For values reference qualification documentation reference.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 14. WESTINGHOUSE WCAP - 7410-L, VOL. I, SECTION 5.
 16. WESTINGHOUSE WCAP-7410-L, APPENDIX C, FINAL REPORT F-C2232-01.
 22. ANALYSIS OF OPER. TIMES FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 19. LIMITORQUE TEST REPORT #600198
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: SI & RHR PLANT ID NO. MOV-3-744B Component: VALVE MOTOR OPERATOR FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: OPERATOR- LIMITORQUE MOTOR - RELIANCE MODEL NO: SNE-3; OPERATOR: S #93568A MOTOR: 7253251A1, INSUL: CLASS -H ACCURACY: Spec: N/A Demon: N/A SERVICE: RCS INLET ISOLATION LOCATION INSIDE CONTAINMENT 10'-2" ABOVE FLOOR Area 6 Elev 14' (FLOOR) Ref Dwg No. Mech 5610-T-E-4510 Rev. 4 Elect 5610-E-103 (REV 6) Flood Level Elev: 19' DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	31 Days	32 Days	22	16	Mathematical Analysis & Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 2	1	16 (PG. C24 - C28)	Simultaneous Type Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 2	1	16 (PG. C-11)	Simultaneous Type Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 2	ASSUMED	16 (PG. C-1)	Simultaneous Type Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 2	3	16 (PG. C-1 & C-11)	Simultaneous Type Test	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 2	2	14 (PG. 5-4)	Sequential Test on Same Device	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Sequential Test on Same Device	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary information. For values reference qualification documentation reference.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 14. WESTINGHOUSE WCAP - 7410-L, VOL. I, SECTION 5.
 16. WESTINGHOUSE WCAP-7410-L, APPENDIX C, FINAL REPORT F-C2232-01.
 22. ANALYSIS OF OPER. TIMES FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
NOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: SI & RHR PLANT ID NO. MOV-3-750 Component: VALVE MOTOR OPERATOR FUNCTION: LOCA/HELB MITIGATE (IN & OUT) MANUFACTURER: ACTUATOR: LIMITORQUE MOTOR: RELIANCE MODEL NO: SHB-1 Operator: S# 74094A Motor: S# 434082BT Insul: Class-B ACCURACY: Spec: N/A Demon: N/A SERVICE: RCS TO RHR INLET ISOLATION VALVE LOCATION INSIDE CONTAINMENT 5'-5" ABOVE FLOOR Area 6 Elev 14 Feet (FLOOR) Ref Dwg No. Mech 5610-T-E-4510 Rev. 4 Elect 5610-E-103, Rev. 6 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	2 HOURS	24 HOURS	22	45	Test and Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	250° F.	1	43, Page 10 45	Sequential Type Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 2	1	45, 15 (Page D-10)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100%	ASSUMED	43 (Pg. 5)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 2	3	15 (Pages D-8, D-10)	Simultaneous Type Test	NONE
	Radiation	SEE ATTACHMENT #3	2.04 X 10 ⁸ RADS	2	43 (Page 2)	Sequential Test	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging reqd. assumed to be 40 years.
2) This is Westinghouse proprietary information. For values, refer qualification document reference.

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210, DATED 4-30-75.
15. WESTINGHOUSE WCAP-7410-L, APPENDIX D, REPORT F-C2485-01.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
43. QUALIFICATION TYPE TEST REPORT NO. B0003, LIMITORQUE VALVE ACTUATORS.
45. ENGINEERING ANALYSIS OF RCS TO RHR INLET ISOLATION VALVES.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: SI & RHR PLANT ID NO. MOV-3-751 Component: VALVE MOTOR OPERATOR FUNCTION: LOCA/HELB (IN & OUT) MITIGATE MANUFACTURER: ACTUATOR: LIMITORQUE MOTOR: Reliance MODEL NO: SMB-1 Operator: S# 74097A Motor: S#- 434082-PB Insul: Class B ACCURACY: Spec: N/A Demon: N/A SERVICE: RCS TO RHR INLET ISOLATION VALVE LOCATION INSIDE CONTAINMENT 5'- 4" ABOVE FLOOR Elev 6 Elev 14 FT. (FLOOR) Rel Dwg No. Mech 5610-T-E-4510, Rev. 4 Elect 5610-E-103, Rev. 6 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	2 HRS.	24 HOURS	22	45	TESTING AND MATHEMATICAL ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	250	1	43 (Page 10) 45	SEQUENTIAL TYPE TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 2	1	45, 15 (Pg. D-10).	SIMULTANEOUS TYPE TEST	NONE
	Relative Humidity (%)	100%	100%	ASSUMED	43 (Pg. 5)	SIMULTANEOUS TYPE TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 2	3	15 (Pages D-8, D-10)	SIMULTANEOUS TYPE TEST	NONE
	Radiation	SEE ATTACHMENT #3	2.04×10^8 RADS	2	43 (Pg. 2)	SEQUENTIAL TYPE TEST	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary information. For values, reference qualification documentation reference.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. EPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 15. WESTINGHOUSE WCAP-7410-L, APPENDIX D, REPORT F-C2485-01.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 43. QUALIFICATION TYPE TEST REPORT NO. B0003, LIMITORQUE VALVE ACTUATORS.
 45. ENGINEERING ANALYSIS OF RCS TO RHR INLET ISOLATION VALVES.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: SI/RHR PLANT ID NO. MOV-3-866A Component: VALVE MOTOR OPERATOR FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: OPERATOR-LIMITORQUE MOTOR - PEERLESS MODEL NO: SMB-00-15; OPERATOR-S #84814A MOTOR-S #JV82913; INSUL. CLASS - B ACCURACY: Spec: Demon: NA SERVICE: SI to RCS HOTLEG ISOLATION LOCATION INSIDE CONTAINMENT 10'-9" ABOVE FLOOR Area 6 Elev 14' (FLOOR) Ref Dwg No. Mech 5610-T-E-4510, Rev. 4 Elect 5610-E-103 (REV 6) Flood Level Elev: 19' Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	2 HRS	SEE NOTE 2	22	15 (P. D-10)	Simultaneous Type Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 2	1	15 (PG. D-20)	Simultaneous Type Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 2	1	15 (PG. D-10, D-20)	Simultaneous Type Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 2	ASSUMED	15	Simultaneous Type Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 2	3	15 (P. D-8, D-10)	Simultaneous Type Test	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 2	2	14 (P. 5-4)	Sequential Test on Same Device	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary information. For values reference qualification document.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 14. WESTINGHOUSE WCAP - 7410-L, VOL. I, SECTION 5.
 15. WESTINGHOUSE WCAP - 7410-L, VOL. I, APPENDIX D FIRM F-C2485-01.
 22. ANALYSIS OF OPER. TIMES FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: SI/RHR PLANT ID NO. MOV-3-866B Component: VALVE MOTOR OPERATOR FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: OPERATOR-LIMITORQUE MOTOR-PEERLESS MODEL NO: SMB-00-15; OPERATOR-S # 84784A MOTOR-S #JV82897; INSUL. CLASS - B ACCURACY: Spec: NA Demon: NA SERVICE: SI to RCS HOTLEG ISOLATION LOCATION INSIDE CONTAINMENT 9'-7" ABOVE FLOOR Area 6 Elev 14' Ref Dwg No. Mech 5610-T-E-4510 (Rev. 4) Elect 5610-E-103 (REV 6) Flood Level Elev: 19' Doc. Ref. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	2 Hrs.	SEE NOTE 2	22	15 (P. D-10)	Simultaneous Type Test	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE 2	1	15 (PG. D-20)	Simultaneous Type Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE 2	1	15 (PG. D-10, D-20)	Simultaneous Type Test	NONE
	Relative Humidity (%)	100%	SEE NOTE 2	ASSUMED	15	Simultaneous Type Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE 2	3	15 (P. D-8, D-10)	Simultaneous Type Test	NONE
	Radiation	SEE ATTACHMENT #3	SEE NOTE 2	2	14 (P-5-4)	Sequential Test on Same Device	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary information. For values reference qualification document.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 14. WESTINGHOUSE WCAP - 7410-L, VOL. I, SECTION 5.
 15. WESTINGHOUSE WCAP - 7410-L, VOL. I, APPENDIX D FIRM F-C2485-01.
 22. ANALYSIS OF OPER. TIMES FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 - 3.2. CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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SYSTEM COMPONENT EVALUATION WORK SHEET

Rev. 2.

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: SI/RHR PLANT ID NO. LS-3-1570 Component: LEVEL SWITCH FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: MAGNETROL MODEL NO: A-153-F-EP/VP-X-Y-M13H ACCURACY: Spec: NOTE 3 Demon: SERVICE: CONTAINMENT SUMP LEVEL LOCATION INSIDE CONTAINMENT Area 6 Elev 14' Ref Dwg No. Mech 5610-T-E-4510 (REV. 4) Elect 5610-E-103 (REV. 6) Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes _____ No <u> X </u>	Operating Time	8 HOURS	NONE	22	NONE	N/A	NOTE 2
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	N/A	NOTE 2
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	N/A	NOTE 2
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	N/A	NOTE 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	N/A	NOTE 2
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	N/A	NOTE 2
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 4	N/A	SEE NOTE #4
	Submergence	ABOVE 19'-0"	NONE	3.2	NONE	NONE	SEE NOTE # 2
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) No qualification data available. Qualified containment sump level switches have been procured and will be installed during the steam generator outage. These new switches will perform the safety related function and the Magnetrol switches will remain as back-up indication. For this reason the Magnetrols will not be relocated. 3) See discussion of component evaluation sheets (Sec. C.1.17). 4) Aging analysis not done as device will be replaced per Note 2.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: SI/RHR PLANT ID NO. LS-3-1571 Component: LEVEL SWITCH FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: MAGNETROL MODEL NO: A-153-F-EP/VP-X-Y-H13H S # 431065 ACCURACY: Spec: NOTE 3 Demon: SERVICE: CONTAINMENT SUMP LEVEL LOCATION INSIDE CONTAINMENT 4'-3" ABOVE FLOOR Area 6 Elev 14' Ref Dwg No. Mech 5610-T-E-4510 (REV. 4) Elect 5610-E-103 (REV. 6) Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes _____ No <u>X</u>	Operating Time	8 HOURS	NONE	22	NONE	N/A	NOTE 2
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	N/A	NOTE 2
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	N/A	NOTE 2
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	N/A	NOTE 2
	Chemical Spray	2030 PPH BORON SOL AS BORIC ACID	NONE	3	NONE	N/A	NOTE 2
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	N/A	NOTE 2
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 4	N/A	SEE NOTE #4
	Submergence	ABOVE 19'-0"	NONE	3.2	NONE	NONE	SEE NOTE #2
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) No qualification data available. Qualified containment sump level switches have been procured and will be installed during the steam generator outage. These new switches will perform the safety related function and the Magnetrol switches will remain as back-up indication. For this reason the Magnetrols will not be relocated. 3) See discussion of component evaluation sheets (Sec. C.1.17). 4) Aging analysis not done as device will be replaced per Note.2.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: SI/RHR PLANT ID NO: LS-4-1570 Component: LEVEL SWITCH FUNCTION: LOCA/HELS (INSIDE) MITIGATE MANUFACTURER: MAGNETROL MODEL NO: A-153-F-EP/VP-X-Y-M13H S # 440932 ACCURACY: Spec: NOTE 3 Demon: SERVICE: CONTAINMENT SUMP LEVEL LOCATION INSIDE CONTAINMENT 4'-3" ABOVE FLOOR Area 12 (FLOOR) Elev 14' Ref Dwg No. Mech 5610-T-E-4510 (REV. 4) Elect 5610-E-110 (REV. 5) Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes No <u>X</u>	Operating Time	8 HOURS	NONE	22	NONE	N/A	NOTE 2
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	N/A	NOTE 2
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	N/A	NOTE 2
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	N/A	NOTE 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	N/A	NOTE 2
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	N/A	NOTE 2
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 4	N/A	SEE NOTE # 4
	Submergence	ABOVE 19'-0"	NONE	3.2	NONE	NONE	SEE NOTE #2
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) No Qualification data available. Qualified containment sump level switches have been procured and will be installed during the steam generator outage. These new switches will perform the safety related function and the Magnetrol switches will remain as back-up indication. For this reason the Magnetrols will not be relocated. 3) See discussion of component evaluation sheets (Sec. C.1.17). 4) Aging analysis not done as device will be replaced per Note 2.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: SI/RHR PLANT ID NO. LS-4-1571 Component: LEVEL SWITCH	Operating Time	8 HOURS	NONE	22	NONE	N/A	NOTE 2
FUNCTION: LOCA/HELB (INSIDE) MITIGATE	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	N/A	NOTE 2
MANUFACTURER: MAGNETROL	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	N/A	NOTE 2
MODEL NO: A-153-F-EP/VP-X-Y-M13H S # 440931	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	N/A	NOTE 2
ACCURACY: Spec: NOTE 3 Demon:	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	N/A	NOTE 2
SERVICE: CONTAINMENT SUMP LEVEL	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	N/A	NOTE 2
LOCATION INSIDE CONTAINMENT 4'-2" ABOVE FLOOR	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 4	N/A	SEE NOTE #4
Area 12 Elev 14' (FLOOR)	Submergence	ABOVE 19'-0"	NONE	3.2	NONE	NONE	SEE NOTE #2
Ref Dwg No. Mech 5610-T-E-4510 (REV. 4) Elect 5610-E-110 (REV. 5)	<p>NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years.</p> <p>2) No qualification data available. Qualified containment sump level switches have been procured and will be installed during the steam generator outage. These new switches will perform the safety related function and the Magnetrol switches will remain as back-up indication. For this reason the Magnetrols will not be relocated.</p> <p>3) See discussion of component evaluation sheets (Sec. C.1.17).</p> <p>4) Aging analysis not done as device will be replaced per Note 2.</p>						
Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level:							
Yes No <u>X</u>							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

SECTION C2-4

FACILITY: TURKEY POINT
UNIT: 3 & 4

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TO COMPONENT EVALUATION
WORK SHEETS

DOCKET NO:
UNIT 3 - 50-250
UNIT 4 - 50-251

SYSTEM: COMPONENT COOLING WATER

PAGE NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	REV	DATE	REMARKS
4-21	SV-4-2812	SOLENOID VALVE ASSOC. WITH CV-4-2812	1	6/27/80	
4-22	---	LIMIT SWITCHES ASSOC. WITH CV-4-2812			
4-23	SV-4-2814	SOLENOID VALVE ASSOC. WITH CV-4-2814			
4-24	---	LIMIT SWITCHES ASSOC. WITH CV-4-2814			
4-25	3P211A	COMPONENT COOLING WATER PUMP	↓	↓	
4-26	3P211B	COMPONENT COOLING WATER PUMP	2	8/14/81	
4-27	3P211C	COMPONENT COOLING WATER PUMP	2	8/14/81	
4-28	3N211A	LOCAL CONTROL STATION	1	6/27/80	
4-29	3N211B	LOCAL CONTROL STATION			
4-30	3N211C	LOCAL CONTROL STATION			
4-31	4P211A	COMPONENT COOLING WATER PUMP			
4-32	4P211B	COMPONENT COOLING WATER PUMP			
4-33	4P211C	COMPONENT COOLING WATER PUMP			
4-34	4N211A	LOCAL CONTROL STATION			
4-35	4N211B	LOCAL CONTROL STATION			
4-36	4N211C	LOCAL CONTROL STATION			
4-37	FT-3-613A	FLOW TRANSMITTER			
4-38	FT-4-613A	FLOW TRANSMITTER			
4-39	FT-3-613B	FLOW TRANSMITTER			
4-40	FT-4-613B	FLOW TRANSMITTER	↓	↓	

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: COMPONENT COOLING WATER PLANT ID NO. 3P211B Component: COMPONENT COOLING PUMP MOTOR FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: WESTINGHOUSE MODEL NO./STYLE 68F13681 SER 2S-68 ACCURACY: Spec: N/A Demon: N/A SERVICE: OPERATE COMPONENT COOLING PUMP LOCATION CCW PUMP ROOM UNIT 3 Area 10 Elev 18'-0 Ref Dwg No. Mech 5610-T-E-4512 Rev. 4 Elect 5610-E-127 REV7 Flood Level Elev: N/A Above Flood Level: N/A Yes _____ No _____	Operating Time	31 DAYS	> 31 DAYS NOTE 3	#22	#47 PAGE 5-1	PROTOTYPE TEST	NONE
	Temperature (°F)	NOTE 2	N/A	NOTE 2	N/A	N/A	NONE
	Pressure (PSIA)	NOTE 2	N/A	NOTE 2	N/A	N/A	NONE
	Relative Humidity (%)	NOTE 2	N/A	NOTE 2	N/A	N/A	NONE
	Chemical Spray	N/A	N/A	N/A	N/A	N/A	NONE
	Radiation	7.5x10 ⁵ RADS	2x10 ⁸ RADS	4	#47 PAGE 5-1	PROTOTYPE TEST	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) Temp, press, and humidity inside the auxiliary building are not considered significant parameters for evaluation. These are not affected by the accident condition inside the CTMT. anymore than during the normal shutdown mode of operation. 3) This operating time is considered as related to radiation only.							

- *DOCUMENT REFERENCES:
- 4. POST-LOCA RADIATION OUTSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 - 47. ENVIRONMENTAL QUAL. OF CLASS 1E MOTORS FOR NUCLEAR OUT-OF-CONTAINMENT USE WESTINGHOUSE WCAP-3754
 - 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN 1E BULLETIN 79-01B MASTER LIST.
 - 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN 1E BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: COMPONENT COOLING WATER PLANT ID NO. 3P211C Component: COMPONENT COOLING PUMP MOTOR FUNCTION: LOCA/HELBS (INSIDE) MITIGATE MANUFACTURER: WESTINGHOUSE MODEL NO./STYLE SN1-S-68 68F13681 SER 3S-68 ACCURACY: Spec: N/A Demon: N/A SERVICE: OPERATE COMPONENT COOLING PUMP LOCATION CCW PUMP ROOM UNIT 3 Area 10 Elev 18'-0 Ref Dwg No. Mech 5610-T-E-4512 Rev. 4 Elect 5610-E-127 REV7 Flood Level Elev: N/A Above Flood Level: N/A Yes _____ No _____	Operating Time	31 DAYS	>31 DAYS NOTE 3	#22	#47 PAGE 5-1	PROTOTYPE TEST	NONE
	Temperature (°F)	NOTE 2	N/A	NOTE 2	N/A	N/A	NONE
	Pressure (PSIA)	NOTE 2	N/A	NOTE 2	N/A	N/A	NONE
	Relative Humidity (%)	NOTE 2	N/A	NOTE 2	N/A	N/A	NONE
	Chemical Spray	N/A	N/A	N/A	N/A	N/A	NONE
	Radiation	7.5x10 ⁵ RADS	2x10 ⁸ RADS	4	#47 PAGE 5-1	PROTOTYPE TEST	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years.
 2) Temp, press, and humidity inside the auxiliary building are not considered significant parameters for evaluation. These are not affected by the accident condition inside the CMT. anymore than during the normal shutdown mode of operation.
 3) This operating time is considered as related to radiation only.

- *DOCUMENT REFERENCES:
- 4. POST-LOCA RADIATION OUTSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 - 47. ENVIRONMENTAL QUAL. OF CLASS 1E MOTORS FOR NUCLEAR OUT-OF-CONTAINMENT USE WESTINGHOUSE WCAP-8754
 - 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN 1E BULLETIN 79-01B MASTER LIST.
 - 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN 1E BULLETIN 79-01B MASTER LIST.

SECTION C2-5

FACILITY: TURKEY POINT
UNIT: 3 & 4

INDEX
TO COMPONENT EVALUATION
WORK SHEETS

DOCKET NO:
UNIT 3 - 50-250
UNIT 4 - 50-251

SYSTEM: MAIN STEAM

PAGE NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	REV	DATE	REMARKS
5-1	PT-3-474	PRESSURE TRANSMITTER	1	6/27/80	
5-2	PT-3-475	PRESSURE TRANSMITTER	↓	↓	
5-3	PT-3-476	PRESSURE TRANSMITTER	2	8/14/81	
5-4	PT-3-484	PRESSURE TRANSMITTER	1	6/27/80	
5-5	PT-3-485	PRESSURE TRANSMITTER			
5-6	PT-3-486	PRESSURE TRANSMITTER			
5-7	PT-3-494	PRESSURE TRANSMITTER			
5-8	PT-3-495	PRESSURE TRANSMITTER			
5-9	PT-3-496	PRESSURE TRANSMITTER			
5-10	PT-4-474	PRESSURE TRANSMITTER			
5-11	PT-4-475	PRESSURE TRANSMITTER			
5-12	PT-4-476	PRESSURE TRANSMITTER			
5-13	PT-4-484	PRESSURE TRANSMITTER			
5-14	PT-4-485	PRESSURE TRANSMITTER			
5-15	PT-4-486	PRESSURE TRANSMITTER			
5-16	PT-4-494	PRESSURE TRANSMITTER			
5-17	PT-4-495	PRESSURE TRANSMITTER	↓	↓	
5-18	PT-4-496	PRESSURE TRANSMITTER	2	8/14/81	
5-19	PT-3-464	PRESSURE TRANSMITTER			
5-20	PT-3-466	PRESSURE TRANSMITTER	↓	↓	

SECTION C2-5FACILITY: TURKEY POINT
UNIT: 3 & 4INDEX
TO COMPONENT EVALUATION
WORK SHEETSDOCKET NO:
UNIT 3 - 50-250
UNIT 4 - 50-251

SYSTEM: MAIN STEAM					
PAGE NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	REV	DATE	REMARKS
5-21	PT-3-468	PRESSURE TRANSMITTER	<u>1</u>	<u>6/27/80</u>	
5-22	PT-4-464	PRESSURE TRANSMITTER			
5-23	PT-4-466	PRESSURE TRANSMITTER			
5-24	PT-4-468	PRESSURE TRANSMITTER			
5-25	FT-3-475	FLOW TRANSMITTER	<u>2</u>	<u>8/14/81</u>	
5-26	FT-3-484	FLOW TRANSMITTER			
5-27	FT-3-485	FLOW TRANSMITTER			
5-28	FT-3-494	FLOW TRANSMITTER			
5-29	FT-3-495	FLOW TRANSMITTER			
5-30	FT-3-474	FLOW TRANSMITTER			
5-31	FT-4-474	FLOW TRANSMITTER			
5-32	FT-4-475	FLOW TRANSMITTER			
5-33	FT-4-484	FLOW TRANSMITTER			
5-34	FT-4-485	FLOW TRANSMITTER			
5-35	FT-4-494	FLOW TRANSMITTER			
5-36	FT-4-495	FLOW TRANSMITTER			
5-37	SV-3-2604	SOLENOID VALVE ASSOC. WITH POV-3-2604	<u>1</u>	<u>6/27/81</u>	
5-38	SV-3-2605	SOLENOID VALVE ASSOC. WITH POV-3-2604			
5-39	---	LIMIT SWITCH ASSOC. WITH POV-3-2604			
5-40	SV-3-2609	SOLENOID VALVE ASSOC. WITH POV-3-2605			

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO. PT-3-476 Component: PRESSURE TRANSMITTER FUNCTION: MIT-HELB (IN & OUT) MON-LOCA/HELB (IN & OUT) MANUFACTURER: FISCHER & PORTER MODEL NO: 5 OEP1041 BCXANS SER #6804A6255A29 ACCURACY: Spec: SEE NOTE 2 Demon: SERVICE: STEAM PRESS.-PROVIDE S.I. SIG. & MON. PRESS. LOCATION BY MSTM PLATFH 4'-8" ABOVE TURB. DECK Area 24 Elev 42' (TURB. DECK) Ref Dwg No. Mech 5610-T-E-4061, Sh. 1, Rev. 2 Elect 5610-E-131, Rev. 12 Flood Level Elev: N/A Above Flood Level: N/A Yes _____ No _____	Operating Time	5 MIN See Note 3	2 HRS	22	11 (Table 2 P:A-8)	SIMULTANEOUS TEST	NONE
	Temperature (°F)	212°F	See Note 4	Attachment #6	11 (Table 2 Page A-8)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	Atmospheric	See Note 4	Attachment #6	11 (Table 2 Page A-8)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	See Note 4	Attachment #6	11 (Page A-6)	SIMULTANEOUS TEST	NONE
	Chemical Spray	N/A	See Note 4	-	8	QUAL. TEST FOR PAINT BY AMERON	NONE
	Radiation	SEE ATTACHMENT #6	8.2 x 10 ⁵ RADS	Attachment #6	5 (Appendix "A")	TEST ON SIMILAR DEVICE	NONE
	Aging	40 Years	40 Years See Note 5	See Note 1	53	ENGINEERING ANALYSIS	NONE SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging reqd. Assumed to be 40 yrs.
2) See discussion of component evaluation sheets (Sec. C.1.17)
3) Even though per Ref. #22 Req'd. to operate for 24 hrs., the device will not see accident environment for more than 5 min.
4) This is Westinghouse proprietary information. For Values reference Qualification Documentation.
5) Device has age susceptible maintenance items (will be included in the maintenance schedule).

- *DOCUMENT REFERENCES:
- 22. ANALYSIS OF OPERATING TIMES FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 - 11. H-WCAP 7410-L VOL I OF II FIRM REPORT F-C2639 - NOV. 1969.
 - 8. FISCHER & PORTER LET. 3-6-75 WITH AMERON LAB REP# 1550a OF 3-23-72.
 - 5. P. P. REPORT #DP2224-1 RPT #002 WITH FIRM TEST REP F-C2815, MAY, 1970.
 - 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification	Outstanding
	Parameter	Specification	Qualification	Specification	Qualification	Method	Items
SYSTEM: MAIN STEAM PLANT ID NO. PT-4-496 Component: PRESSURE TRANSMITTER FUNCTION: MIT-HELB (IN & OUT) MON-LOCA/HELB (IN & OUT) MANUFACTURER: FISCHER & PORTER MODEL NO: 50EP1041 BCXANS SER #6804A6255A27 ACCURACY: Spec: SEE NOTE 2 Demon: SERVICE: STEAM PRESS.-PROVIDE S.I. SIG. & MON. PRESS. LOCATION BY MNSM PLATF 4'-2" ABOVE TURB. DECK Area 17 Elev 42' (TURB. DECK) Ref Dwg No. Mech 5610-T-E-4061, Sh. 1, Rev. 2 Elect 5610-E-133, Rev. 8 Flood Level Elev: N/A Above Flood Level: N/A Yes _____ No _____	Operating Time	5 MIN See Note 3	2 HRS	22	11 (Table 2 P:A-8)	SIMULTANEOUS TEST	NONE
	Temperature (°F)	212°F	See Note 4	Attachment #6	11 (Table 2 Page A-8)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	Atmospheric	See Note 4	Attachment #6	11 (Table 2 Page A-B)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	See Note 4	Attachment #6	11 (Page A-6)	SIMULTANEOUS TEST	NONE
	Chemical Spray	N/A	See Note 4	-	8	QUAL. TEST FOR PAINT BY AMERON	NONE
	Radiation	SEE ATTACHMENT #6	8.2 x 10 ⁵ RADS	Attachment #6	5 (Appendix "A")	TEST ON SIMILAR DEVICE	NONE
	Aging	40 Years	40 Years See Note 5	See Note 1	53	ENGINEERING ANALYSIS	NONE SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. Assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Even though per Ref. #22 Req'd. to operate for 24 hrs., the device will not see accident environment for more than 5 min. 4) This is Westinghouse proprietary information. For Values reference Qualification Documentation. 5) Device has age susceptible maintenance items (will be included in the maintenance schedule).						

- *DOCUMENT REFERENCES:
- 22. ANALYSIS OF OPERATING TIMES FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 - 11. H-WCAP 7410-L VOL I OF II FIRM REPORT F-C2639 - NOV. 1969.
 - 8. FISCHER & PORTER LET. 3-6-75 WITH AMERON LAB REP# 1550a OF 3-23-72.
 - 5. F. P. REPORT #DP2224-1 RPT #002 WITH FIRM TEST REP F-C2815, MAY, 1970.
 - 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO. PT-3-464 Component: PRESSURE TRANSMITTER FUNCTION: MIT-HELB (IN & OUT) MON-LOCA/HELB (IN & OUT) MANUFACTURER: FISCHER & PORTER MODEL NO: 50EP1041 BCXANS SER #6804A6257A15 ACCURACY: Spec: Demon: SEE NOTE 2 SERVICE: STEAM PRESS.-PROVIDE S.I. SIG. & MON. PRESS. LOCATION BY INSTN PLATFM 4'-8" ABOVE TURB. DECK Area 24 Elev 42' (TURB. DECK) Ref Dwg No. Mech 5610-T-E-4061, Sh. 1, Rev. 2 Elect 5610-E-131, Rev. 12 Flood Level Elev: N/A Above Flood Level: N/A Yes _____ No _____	Operating Time	5 MIN	2 HRS	22	11 Table 2 P:A-8)	SIMULTANEOUS TEST	NONE
	Temperature (°F)	212°F See Note 3	See Note 4	Attachment #6	11 (Table 2 Page A-8)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	Atmospheric	See Note 4	Attachment #6	11 (Table 2 Page A-B)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	See Note 4	Attachment #6	11 (Page A-6)	SIMULTANEOUS TEST	NONE
	Chemical Spray	N/A	See Note 4	-	8	QUAL. TEST FOR PAINT BY AMERON	NONE
	Radiation	SEE ATTACHMENT #6	8.2 x 10 ⁵ RADS	Attachment #6	5 (Appendix "A")	TEST ON SIMILAR DEVICE	NONE
	Aging	40 Years	40 Years See Note 5	See Note 1	53	ENGINEERING ANALYSIS	NONE SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. Assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) This represents peak temperature in line break area. 4) This is Westinghouse proprietary information. For values reference qualification documentation. 5) Device has age susceptible maintenance items (will be included in the maintenance schedule).							

*DOCUMENT REFERENCES: 22. ANALYSIS OF OPERATING TIMES FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
11. WCAP 7410-L VOL I OF II FIRM REPORT F-C2639 - NOV. 1969.

8. FISCHER & PORTER LET. 3-6-75 WITH AMERON LAB REP# 1550a OF 3-23-72.
5. F. P. REPORT #DP2224-1 RPT #002 WITH FIRM TEST REP F-C2815, MAY, 1970.
53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO. FT-3-466 Component: PRESSURE TRANSMITTER FUNCTION: MIT-HELB (IN & OUT) MON-LOCA/HELB (IN & OUT) MANUFACTURER: FISCHER & PORTER MODEL NO: 5 OEP1041 BCXANS SER #6804A6255A19 ACCURACY: Spec: SEE NOTE 2 Demon: SEE NOTE 2 SERVICE: STEAM PRESS.-PROVIDE S.I. SIG. & MON. PRESS. LOCATION BY MNSTH PLATFH 4'-8" ABOVE TURB. DECK Area 24 Elev 42' (TURB. DECK) Ref Dwg No. Mech 5610-T-E-4061, Sh. 1, Rev. 2 Elect 5610-E-131, Rev. 12 Flood Level Elev: N/A Above Flood Level: N/A Yes _____ No _____	Operating Time	5 MIN	2 HRS	22	11 (Table 2 P:A-8)	SIMULTANEOUS TEST	NONE
	Temperature (°F)	212°F See Note 3	See Note 4	Attachment #6	11 (Table 2 Page A-8)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	Atmospheric	See Note 4	Attachment #6	11 (Table 2 Page A-B)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	See Note 4	Attachment #6	11 (Page A-6)	SIMULTANEOUS TEST	NONE
	Chemical Spray	N/A	See Note 4	-	8	QUAL. TEST FOR PAINT BY AMERON	NONE
	Radiation	SEE ATTACHMENT #6	8.2 x 10 ⁵ RADS	Attachment #6	5 (Appendix "A")	TEST ON SIMILAR DEVICE	NONE
	Aging	40 Years	40 Years See Note 5	See Note 1	53	ENGINEERING ANALYSIS	NONE SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. Assumed to be 40 years.
 2) See discussion of component evaluation sheets (Sec. C.1.17).
 3) This represents peak temperature in line break area.
 4) This is Westinghouse proprietary information. For values reference qualification documentation.
 5) Device has age susceptible maintenance items (will be included in the maintenance schedule).

- *DOCUMENT REFERENCES:
- 22. ANALYSIS OF OPERATING TIMES FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 - 11. H-WCAP 7410-L VOL I OF II FURL REPORT F-C2639 - NOV. 1969.
 - 8. FISCHER & PORTER LET. 3-6-75 WITH AMERON LAB REP# 1550a OF 3-23-72.
 - 5. F. P. REPORT #DP2224-1 RPT #002 WITH FURL TEST REP F-C2815, MAY, 1970.
 - 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.



FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO. FT-3-475 Component: FLOW TRANSMITTER FUNCTION: MITIGATE HELB (Inside/Outside) MANUFACTURER: FISCHER & PORTER MODEL NO: 10B2496 PB BABBB-NS SERIAL NO: 6804A6253A61, OSC. AMP # 805B217U01 ACCURACY: See Note 4 SERVICE: STEAM FLOW IN MN STEAM LINE LOCATION INSIDE CONTAINMENT 4'-0" ABOVE FLOOR Area 5. Elev 58' (FLOOR) Ref Dwg No. Mech 5610-T-E-4061, Rev. 2 Elect 5610-E-102, Rev. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	1 MINUTE	6 MINUTES	22	13 (TABLE A-7)	-	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE # 2	1	13 (FIG. 5.2)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE # 2	1	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE # 2	ASSUMED	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE # 2	3	13 (PARA. 5.2)	SIMULTANEOUS TEST	NONE
	Radiation	1 X 10 ² Rads	4 X 10 ⁴ R SEE NOTE # 3	13 Pg. 2.5	13 (TABLE A-6)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 5	SEE NOTE 1	53.	ENGINEERING ANALYSIS	NONE SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary information. For valves reference qualification documentation. 3) Transmitter required for main steam line break protection. Qualified radiation dose exceeds that during specified operating time. See Ref. # 13 (Page 2.6). 4) See discussion of component evaluation sheets (Sec. C.1.17). 5) Device has age sensitive maintenance item (will be included in the maintenance schedule).						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS..
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 13. WESTINGHOUSE W CAP-9157.
 22. ANALYSIS OF OPERATING TIME COVERED IN I. E. BULLETIN 79-01B. MASTER LIST.
 - 3.2 CALCULATION FOR POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO. FT-3-484 Component: FLOW TRANSMITTER FUNCTION: MITIGATE HELB (Inside/Outside) MANUFACTURER: FISCHER & PORTER MODEL NO: 10B2496 PB ABBB-NS SER #R6804A6257A59 OSC. AMP #805B217U01 ACCURACY: SEE NOTE 4 SERVICE: STEAM FLOW IN MN STEAM LINE LOCATION INSIDE CONTAINMENT 3'-10" ABOVE FLOOR Area 5. Elev 58' (FLOOR) Ref Dwg No. Mech 5610-T-E-4061, Rev. 2 Elect 5610-E-102, Rev. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	1 MINUTE	6 MINUTES	22	13 (TABLE A-7)	-	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE # 2	1	13 (FIG. 5.2)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE # 2	1	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE # 2	ASSUMED	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE # 2	3	13 (PARA. 5.2)	SIMULTANEOUS TEST	NONE
	Radiation	1 X 10 ² Rads	4 X 10 ⁴ R SEE NOTE # 3	13 Pg. 2.5	13 (TABLE A-6)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 5	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) This is Westinghouse proprietary information. For valves reference qualification documentation. 3) Transmitter required for main steam line break protection. Qualified radiation dose exceeds that during specified operating time. See Ref. # 13 (Page 2.6). 4) See discussion of component evaluation sheets (sec. C.1.17) 5) Device has age sensitive maintenance item (will be included in the maintenance schedule).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 13. WESTINGHOUSE W CAP-9157.
 22. ANALYSIS OF OPERATING TIME COVERED IN I. E. BULLETIN 79-01B. MASTER LIST.
 - 3.2 CALCULATION FOR POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO. FT-3-485 Component: FLOW TRANSMITTER FUNCTION: MITIGATE HELB (Inside/Outside) MANUFACTURER: FISCHER & PORTER MODEL NO: 10PB2496 PB BABBB-NS SER # 7110A5531A15 OSC. AMP. #805B217U01 ACCURACY: SEE NOTE 4 SERVICE: STEAM FLOW IN MN STEAM LINE LOCATION INSIDE CONTAINMENT 3'-10" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-T-E-4061, Rev. 2 Elect 5610-E-102, Rev. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No _____	Operating Time	1 MINUTE	6 MINUTES	22	13 (TABLE A-7)	-	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE # 2	1	13 (FIG. 5.2)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE # 2	1	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE # 2	ASSUMED	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE # 2	3	13 (PARA. 5.2)	SIMULTANEOUS TEST	NONE
	Radiation	1 X 10 ² Rads	4 X 10 ⁶ R SEE NOTE # 3	13 Pg. 2.5	13 (TABLE A-6)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 5	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years.. 2) This is Westinghouse proprietary information. For valves reference qualification documentation. 3) Transmitter required for main steam line break protection. Qualified radiation dose exceeds that during specified operating time. See Ref. # 13 (Page 2.6). 4) See discussion of component evaluation sheets (Sec. C.1.17) 5) Device has age sensitive maintenance item (will be included in the maintenance schedule).						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 13. WESTINGHOUSE W CAP-9157.
 22. ANALYSIS OF OPERATING TIME COVERED IN I. E. BULLETIN 79-01B. MASTER LIST.
 - 3.2 CALCULATION FOR POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO. FT-3-494 Component: FLOW TRANSMITTER FUNCTION: MITIGATE HELB (Inside/Outside) MANUFACTURER: FISCHER & PORTER MODEL NO: 10B2496 PB BABBB-NS SER #6804A6255A63 ACCURACY: See Note 4 SERVICE: STEAM FLOW IN MN STEAM LINE LOCATION INSIDE CONTAINMENT 1'-0" ABOVE FLOOR Area 5 Elev 58 (FLOOR) Ref Dwg No. Mech 5610-T-E-4061, Rev. 2 Elect 5610-E-102, Rev. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	1 MINUTE	6 MINUTES	22	13 (TABLE A-7)	-	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE # 2	1	13 (FIG. 5.2)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE # 2	1	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE # 2	ASSUMED	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE # 2	3	13 (PARA. 5.2)	SIMULTANEOUS TEST	NONE
	Radiation	1 X 10 ² Rads	4 X 10 ⁴ R SEE NOTE # 3	13 Pg. 2.5	13 (TABLE A-6)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 5	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary information. For valves reference qualification documentation. 3) Transmitter required for main steam line break protection. Qualified radiation dose exceeds that during specified operating time. See Ref. # 13 (Page 2.6). 4) See discussion of component evaluation sheets(sec. C.1.17). 5) Device has age sensitive maintenance item (will be included in the maintenance schedule).						

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
13. WESTINGHOUSE W CAP-9157.
22. ANALYSIS OF OPERATING TIME COVERED IN I. E. BULLETIN 79-01B. MASTER LIST.
- 3.2 CALCULATION FOR POST LOCA CONTAINMENT SUMP LEVEL.
53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO. FT-3-495 Component: FLOW TRANSMITTER FUNCTION: MITIGATE HELB (Inside/Outside) MANUFACTURER: FISCHER & PORTER MODEL NO: 10B2496 PB BABBB-NS SER #6804A6255A65 OSC. AMP. #805B217U01 ACCURACY: SEE NOTE 4 SERVICE: STEAM FLOW IN MN STEAM LINE LOCATION INSIDE CONTAINMENT 7" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-T-E-4061, Rev. 2 Elect 5610-E-105, Rev. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	1 MINUTE	6 MINUTES	22	13 (TABLE A-7)	-	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE # 2	1	13 (FIG. 5.2)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE # 2	1	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE # 2	ASSUMED	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE # 2	3	13 (PARA. 5.2)	SIMULTANEOUS TEST	NONE
	Radiation	1 X 10 ² Rads	4 X 10 ⁴ R SEE NOTE # 3	13 Pg. 2.5	13 (TABLE A-6)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 5	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years.
2) This is Westinghouse proprietary information. For valves reference qualification documentation.
3) Transmitter required for main steam line break protection. Qualified radiation dose exceeds that during specified operating time. See Ref. # 13 (Page 2.6).
4) See discussion of component evaluation sheets (sec. C.1.17).
5) Device has age sensitive maintenance item (will be included in the maintenance schedule).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 13. WESTINGHOUSE W CAP-9157.
 22. ANALYSIS OF OPERATING TIME COVERED IN I. E. BULLETIN 79-01B. MASTER LIST.
 - 3.2 CALCULATION FOR POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO. FT-3-474 Component: FLOW TRANSMITTER FUNCTION: MITIGATE HELB (Inside/Outside) MANUFACTURER: FISCHER & PORTER MODEL NO: 10B2496 PB BABBB-NS SER #R6804A6255A52 OSC. AMP. #805B217U01 ACCURACY: SEE NOTE 4 SERVICE: STEAM FLOW IN MN STEAM LINE LOCATION INSIDE CONTAINMENT 4'-0" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-T-E-4061, Rev. 2 Elect 5610-E-102, Rev. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	1 MINUTE	6 MINUTES	22	13 (TABLE A-7)	-	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE # 2	1	13 (FIG. 5.2)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE # 2	1	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE # 2	ASSUMED	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE # 2	3	13 (PARA. 5.2)	SIMULTANEOUS TEST	NONE
	Radiation	1 X 10 ⁻² Rads	4 X 10 ⁻⁴ R SEE NOTE # 3	13 Pg. 2.5	13 (TABLE A-6)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 years SEE NOTE 5	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) This is Westinghouse proprietary information. For valves reference qualification documentation. 3) Transmitter required for main steam line break protection. Qualified radiation dose exceeds that during specified operating time. See Ref. # 13 (Page 2.6). 4) See discussion of component evaluation sheets (Sec. C.1.17) 5) Device has age sensitive maintenance item (will be included in the maintenance schedule.)							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 13. WESTINGHOUSE W CAP-9157.
 22. ANALYSIS OF OPERATING TIME COVERED IN I. E. BULLETIN 79-01B. MASTER LIST.
 - 3.2 CALCULATION FOR POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO. FT-4-474 Component: FLOW TRANSMITTER FUNCTION: MITIGATE HELB (Inside/Outside) MANUFACTURER: FISCHER & PORTER MODEL NO: 10B2496 PB BABBB-NS SERIAL NO: 6804A6255A64, OSC. AMP # 805B217U01 ACCURACY: See Note 4 SERVICE: STEAM FLOW IN HN STEAM LINE LOCATION INSIDE CONTAINMENT 4'-5" ABOVE FLOOR Area 11 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-T-E-4061, Rev. 2 Elect 5610-E-109, Rev. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	1 MINUTE	6 MINUTES	22	13 (TABLE A-7)	-	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE # 2	1	13 (FIG. 5.2)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE # 2	1	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE # 2	ASSUMED	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE # 2	3	13 (PARA. 5.2)	SIMULTANEOUS TEST	NONE
	Radiation	1 X 10 ² Rads	4 X 10 ⁴ R SEE NOTE # 3	13 Pg. 2.5	13 (TABLE A-6)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 5	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE SEE NOTE 5.
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary information. For valves reference qualification documentation. 3) Transmitter required for main steam line break protection. Qualified radiation dose exceeds that during specified operating time. See Ref. # 13 (Page 2.6). 4) See discussion of component evaluation sheets (Sec. C.1.17). 5) Device has age sensitive maintenance item (will be included in the maintenance schedule).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 13. WESTINGHOUSE W CAP-9157.
 22. ANALYSIS OF OPERATING TIME COVERED IN I. E. BULLETIN 79-01B. MASTER LIST.
 - 3.2 CALCULATION FOR POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO: FT-4-475 Component: FLOW TRANSMITTER FUNCTION: MITIGATE HELB (Inside/Outside) MANUFACTURER: FISCHER & PORTER MODEL NO: 10B2496 PB BABBB-NS SERIAL NO: 680A6257A51 ACCURACY: See Note 4 SERVICE: STEAM FLOW IN MN STEAM LINE LOCATION INSIDE CONTAINMENT 4'-4" ABOVE FLOOR Area 11. Elev 58' (FLOOR) Ref Dwg No. Mech 5610-T-E-4061, Rev. 2 Elect 5610-E-109, Rev. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	1 MINUTE	6 MINUTES	22	13 (TABLE A-7)	-	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE #2	1	13 (FIG. 5.2)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE #2	1	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE #2	ASSUMED	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE #2	3	13 (PARA. 5.2)	SIMULTANEOUS TEST	NONE
	Radiation	1 X 10 ² Rads	4 X 10 ⁴ R SEE NOTE #3	13 Pg. 2.5	13 (TABLE A-6)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 5	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE SEE NOTE 5.
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary information. For valves reference qualification documentation. 3) Transmitter required for main steam line break protection. Qualified radiation dose exceeds that during specified operating time. See Ref. # 13 (Page 2.6). 4) See discussion of component evaluation sheets (Sec. C.1.17). 5) Device has age sensitive maintenance item (will be included in the maintenance schedule).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 13. WESTINGHOUSE W CAP-9157.
 22. ANALYSIS OF OPERATING TIME COVERED IN I. E. BULLETIN 79-01B. MASTER LIST.
 - 3.2 CALCULATION FOR POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO. FT-4-484 Component: FLOW TRANSMITTER FUNCTION: MITIGATE HELB (Inside/Outside) MANUFACTURER: FISCHER & PORTER MODEL NO: 10B2496 PB BABBB-NS SERIAL NO: 7110A5531A14, OSC. AMP # 805B217U01 ACCURACY: See Note 4 SERVICE: STEAM FLOW IN MN STEAM LINE LOCATION INSIDE CONTAINMENT 4'-6" ABOVE FLOOR Area 11 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-T-E-4061, Rev. 2 Elect 5610-E-109, Rev. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	1 MINUTE	6 MINUTES	22	13 (TABLE A-7)	-	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE # 2	1	13 (FIG. 5.2)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE # 2	1	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE # 2	ASSUMED	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE # 2	3	13 (PARA. 5.2)	SIMULTANEOUS TEST	NONE
	Radiation	1 X 10 ² Rads	4 X 10 ⁴ R SEE NOTE #3	13 Pg. 2.5	13 (TABLE A-6)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 5	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
2) This is Westinghouse proprietary information. For valves reference qualification documentation.
3) Transmitter required for main steam line break protection. Qualified radiation dose exceeds that during specified operating time. See Ref. # 13 (Page 2.6).
4) See discussion of component evaluation sheets (Sec. C.1.17).
5) Device has age sensitive maintenance item (will be included in the maintenance schedule).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 13. WESTINGHOUSE W CAP-9157.
 22. ANALYSIS OF OPERATING TIME COVERED IN I. E. BULLETIN 79-01B. MASTER LIST.
 - 3.2 CALCULATION FOR POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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Rev. 2

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO. FT-4-485 Component: FLOW TRANSMITTER FUNCTION: MITIGATE HELB (Inside/Outside) MANUFACTURER: FISCHER & PORTER MODEL NO: 10B2496 PB BABBB-NS SERIAL NO: 6804A6257A60, OSC. AMP #805B217U01 ACCURACY: See Note 4 SERVICE: STEAM FLOW IN MN STEAM LINE LOCATION INSIDE CONTAINMENT 4'-6" ABOVE FLOOR Area 11 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-T-E-4061, Rev. 2 Elect 5610-E-109, Rev. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No _____	Operating Time	1 MINUTE	6 MINUTES	22	13 (TABLE A-7)	-	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE # 2	1	13 (FIG. 5.2)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE # 2	1	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE # 2	ASSUMED	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	BORON SOL AS BORIC ACID	SEE NOTE # 2	3	13 (PARA. 5.2)	SIMULTANEOUS TEST	NONE
	Radiation	1 X 10 ² Rads	4 X 10 ⁴ R SEE NOTE # 3	13 Pg. 2.5	13 (TABLE A-6)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 5	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
2) This is Westinghouse proprietary information. For valves reference qualification documentation.
3) Transmitter required for main steam line break protection. Qualified radiation dose exceeds that during specified operating time. See Ref. # 13 (Page 2.6).
4) See discussion of component evaluation sheets (Sec. C.1.17)
5) Device has age sensitive maintenance item (will be included in the maintenance schedule).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 13. WESTINGHOUSE W CAP-9157.
 22. ANALYSIS OF OPERATING TIME COVERED IN I. E. BULLETIN 79-01B. MASTER LIST.
 - 3.2. CALCULATION FOR POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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Rev. 2

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO. FT-4-494 Component: FLOW TRANSMITTER FUNCTION: MITIGATE HELB (Inside/Outside) MANUFACTURER: FISCHER & PORTER MODEL NO: 10B2496 PB BABBB-NS SERIAL NO: 6804A6257A57, OSC. AMP. # 805B217U01 ACCURACY: See Note 4 SERVICE: STEAM FLOW IN MN STEAM LINE LOCATION INSIDE CONTAINMENT 4" ABOVE FLOOR Area 11. Elev 58' (FLOOR) Ref Dwg No. Mech 5610-T-E-4061, Rev. 2 Elect 5610-E-109, Rev. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	1 MINUTE	6 MINUTES	22	13 (TABLE A-7)	-	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE # 2	1	13 (FIG. 5.2)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE # 2	1	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE # 2	ASSUMED	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE # 2	3	13 (PARA. 5.2)	SIMULTANEOUS TEST	NONE
	Radiation	1 X 10 ² Rad/s	4 X 10 ⁴ R SEE NOTE # 3	13 Pg. 2.5	13 (TABLE A-6)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 5	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary information. For valves reference qualification documentation. 3) Transmitter required for main steam line break protection. Qualified radiation dose exceeds that during specified operating time. See Ref. # 13 (Page 2.6). 4) See discussion of component evaluation sheets (Sec. C.1.17). 5) Device has age sensitive maintenance item (will be included in the maintenance schedule).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 13. WESTINGHOUSE W CAP-9157.
 22. ANALYSIS OF OPERATING TIME COVERED IN I. E. BULLETIN 79-01B. MASTER LIST.
 - 3.2 CALCULATION FOR POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN STEAM PLANT ID NO. FT-4-495 Component: FLOW TRANSMITTER FUNCTION: MITIGATE HELB (Inside/Outside) MANUFACTURER: FISCHER & PORTER MODEL NO: 10B2496 PB BABBB-NS SERIAL NO: 6904A6257A62, OSC. AMP # 805B241U01 ACCURACY: See Note 4 SERVICE: STEAM FLOW IN MN STEAM LINE LOCATION INSIDE CONTAINMENT 7" ABOVE FLOOR Area 11. Elev 58' (FLOOR) Ref Dwg No. Mech 5610-T-E-4061, Rev. 2 Elect 5610-E-109, Rev. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	1 MINUTE	6 MINUTES	22	13 (TABLE A-7)	-	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE NOTE # 2	1	13 (FIG. 5.2)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE NOTE # 2	1	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100%	SEE NOTE # 2	ASSUMED	13 (PARA. 5.3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE NOTE # 2	3	13 (PARA. 5.2)	SIMULTANEOUS TEST	NONE
	Radiation	1 X 10 ² Rads	4 X 10 ⁴ R SEE NOTE # 3	13 Pg. 2.5	13 (TABLE A-6)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 5	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This is Westinghouse proprietary information. For valves reference qualification documentation. 3) Transmitter required for main steam line break protection. Qualified radiation dose exceeds that during specified operating time. See Ref. # 13 (Page 2.6). 4) See discussion of component evaluation sheets (Sec. C.1.17). 5) Device has age sensitive maintenance item (will be included in the maintenance schedule).						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 13. WESTINGHOUSE W CAP-9157.
 22. ANALYSIS OF OPERATING TIME COVERED IN I. E. BULLETIN 79-01B. MASTER LIST.
 - 3.2 CALCULATION FOR POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

SECTION C2-7

FACILITY: TURKEY POINT
UNIT: 3 & 4

INDEX
TO COMPONENT EVALUATION
WORK SHEETS

DOCKET NO:
UNIT 3 - 50-250
UNIT 4 - 50-251

SYSTEM: FEEDWATER

PAGE NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	REV	DATE	REMARKS
7-1	LT-3-474	LEVEL TRANSMITTER	<u>2</u>	<u>8/14/81</u>	
7-2	LT-3-475	LEVEL TRANSMITTER			
7-3	LT-3-476	LEVEL TRANSMITTER			
7-4	LT-3-484	LEVEL TRANSMITTER			
7-5	LT-3-485	LEVEL TRANSMITTER			
7-6	LT-3-486	LEVEL TRANSMITTER			
7-7	LT-3-494	LEVEL TRANSMITTERR			
7-8	LT-3-495	LEVEL TRANSMITTER			
7-9	LT-3-496	LEVEL TRANSMITTER	↓	↓	
7-10	LT-4-474	LEVEL TRANSMITTER	<u>1</u>	<u>6/27/80</u>	
7-11	LT-4-475	LEVEL TRANSMITTER			
7-12	LT-4-476	LEVEL TRANSMITTER	↓	↓	
7-13	LT-4-484	LEVEL TRANSMITTER	2	8/14/81	
7-14	LT-4-485	LEVEL TRANSMITTER	1	6/27/80	
7-15	LT-4-486	LEVEL TRANSMITTER	1	6/27/80	
7-16	LT-4-494	LEVEL TRANSMITTER	2	8/14/81	
7-17	LT-4-495	LEVEL TRANSMITTER	2	8/14/81	
7-18	LT-4-496	LEVEL TRANSMITTER	<u>1</u>	<u>6/27/80</u>	
7-19	SV-3-2900	SOLENOID VALVE ASSOC. WITH CV-3-2900			
7-20	SV-3-2902	SOLENOID VALVE ASSOC. WITH CV-3-2901	↓	↓	

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification	Outstanding
	Parameter	Specification	Qualification	Specification	Qualification	Method	Items
<p>SYSTEM: MAIN FEEDWATER PLANT ID NO.: LT-3-474 Component: LEVEL TRANSMITTER</p> <p>FUNCTION: MITIGATE LOCA/HELB (I/O) MONITOR LOCA/HELB (I/O)</p> <p>MANUFACTURER: FISCHER & PORTER</p> <p>MODEL NO: 13D2495KBBABBB-NS (HI-TEMP) SR #6804A6257A69 (HI-RAD)</p> <p>ACCURACY: Spec: Demon: SEE NOTE #2</p> <p>SERVICE: MONITOR STEAM GENERATOR WATER LEVEL AND PROVIDE ACCIDENT TRIP SIG.</p> <p>LOCATION INSIDE CONTAINMENT 3'-10" ABOVE FLOOR</p> <p>Area 6 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4062, Sht. 2, Rev. 3 Elect 5610-E-104, Rev. 5</p> <p>Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level:</p> <p>Yes <u>X</u> No <u> </u></p>	Operating Time	24 Hours	7 Hrs - Test 24 Hrs - Anal.	22	7 (Fig 3-6) 36	Simultaneous Test & Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. TEST for Paint by Ameron	NONE
	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 3	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
<p>NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.</p>							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS.
 6. FISCHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-22-73.
 7. F&P TEST REPORT 2204-51-B-006.
 8. FISCHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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Rev. 2

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN FEEDWATER PLANT ID NO.: LI-3-475 Component: LEVEL TRANSMITTER FUNCTION: MITIGATE LOCA/HELB (I/O) MONITOR LOCA/HELB (I/O) MANUFACTURER: FISCHER & PORTER MODEL NO: 13D2495KBBABB-NS (HI-TEMP) (HI-RAD) ACCURACY: Spec: SER #R6804A6257A71 Demon: SEE NOTE #2 SERVICE: MONITOR STEAM GENERATOR WATER LEVEL AND PROVIDE ACCIDENT TRIP SIG. LOCATION INSIDE CONTAINMENT 3'-10" ABOVE FLOOR Area 6 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4062, Sht..2, Rev. 3 Elect 5610-E-104, Rev. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	24 Hours	7 Hrs - Test 24 Hrs - Anal.	22	7 (Fig 3-6) 36	Simultaneous Test & Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. TEST for Paint by Ameron	NONE
	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 3	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS.
 6. FISCHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-22-73.
 7. F&P TEST REPORT 2204-51-B-006.
 8. FISCHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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Rev. 2

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN FEEDWATER PLANT ID NO.: LT-3-476 Component: LEVEL TRANSMITTER FUNCTION: MITIGATE LOCA/HELB (I/O) MONITOR LOCA/HELB (I/O) MANUFACTURER: FISCHER & PORTER MODEL NO: 13D2495KBBABB-NS (HI-TEMP) SR #6804A6257A72 (HI-RAD) ACCURACY: Spec: Demon: SEE NOTE #2 SERVICE: MONITOR STEAM GENERATOR WATER LEVEL AND PROVIDE ACCIDENT TRIP SIG. LOCATION INSIDE CONTAINMENT 3'-11" ABOVE FLOOR Area 6 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4062, Sht. 2, Rev. 3 Elect 5610-E-104, Rev. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	24 Hours	7 Hrs - Test 24 Hrs - Anal.	22	7 (Fig 3-6) 36	Simultaneous Test & Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. TEST for Paint by Ameron	NONE
	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 3	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assume to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS.
 6. FISCHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-22-73.
 7. F&P TEST REPORT 2204-51-B-006.
 8. FISCHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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Rev. 2

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN FEEDWATER PLANT ID NO.: LT-3-484 Component: LEVEL TRANSMITTER FUNCTION: MITIGATE LOCA/HELB (I/O) MONITOR LOCA/HELB (I/O) MANUFACTURER: FISCHER & PORTER MODEL NO: 13D2497KBBABB-NS (HI-TEMP) SR #6804A6255A74 (HI-RAD) ACCURACY: Spec: Demon: SEE NOTE #2 SERVICE: MONITOR STEAM GENERATOR WATER LEVEL AND PROVIDE ACCIDENT TRIP SIG. LOCATION INSIDE CONTAINMENT 3'-11" ABOVE FLOOR Area 5 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4062, Sht. 2, Rev. 3 Elect 5610-E-101, Rev. 8 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	24 Hours	7 Hrs - Test 24 Hrs - Anal.	22	7 (Fig 3-6) 36	Simultaneous Test & Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. TEST for Paint by Ameron	NONE
	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 3	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS.
 6. FISCHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-22-73.
 7. F&P TEST REPORT 2204-51-B-006.
 8. FISCHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification	Outstanding
	Parameter	Specification	Qualification	Specification	Qualification	Method	Items
SYSTEM: MAIN FEEDWATER PLANT ID NO.: LT-3-485 Component: LEVEL TRANSMITTER FUNCTION: MITIGATE LOCA/HELB (I/O) MONITOR LOCA/HELB (I/O) MANUFACTURER: FISCHER & PORTER MODEL NO: 13D2495KBBABB-NS (HI-TEMP) SR #6804A6255A75 (HI-RAD) ACCURACY: Spec: Demon: SEE NOTE #2 SERVICE: MONITOR STEAM GENERATOR WATER LEVEL AND PROVIDE ACCIDENT TRIP SIG. LOCATION INSIDE CONTAINMENT 3'-11" ABOVE FLOOR Area 5 Elev 30'-6" (FLOOR) Ref Dwg No. Yach 5610-T-E-4062, Sht. 2, Rev. 3 Elect 5610-E-101, Rev. 8 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	24 Hours	7 Hrs - Test 24 Hrs - Anal.	22	7 (Fig 3-6) 36	Simultaneous Test & Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. TEST for Paint by Ameron	NONE
	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 3	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS.
 6. FISCHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-22-73.
 7. F&P TEST REPORT 2204-51-B-006.
 8. FISCHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN FEEDWATER PLANT ID NO.: LT-3-486 Component: LEVEL TRANSMITTER FUNCTION: MITIGATE LOCA/HELB (I/O) MONITOR LOCA/HELB (I/O) MANUFACTURER: FISCHER & PORTER MODEL NO: 13D2495KBBABBB-NS (HI-TEMP) SR #6804A6255A76 (HI-RAD) ACCURACY: Spec: Demon: SEE NOTE #2 SERVICE: MONITOR STEAM GENERATOR WATER LEVEL AND PROVIDE ACCIDENT TRIP SIG. LOCATION INSIDE CONTAINMENT 3'-11" ABOVE FLOOR Area 5 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4062, Sht. 2, Rev. 3 Elect 5610-E-101, Rev. 8 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	24 Hours	7 Hrs - Test 24 Hrs - Anal.	22	7 (Fig 3-6) 36	Simultaneous Test & Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. TEST for Paint by Ameron	NONE
	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 3	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS.
 6. FISCHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-22-73.
 7. F&P TEST REPORT 2204-51-B-006.
 8. FISCHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification	Outstanding
	Parameter	Specification	Qualification	Specification	Qualification	Method	Items
SYSTEM: MAIN FEEDWATER PLANT ID NO.: LT-3-494 Component: LEVEL TRANSMITTER	Operating Time	24 Hours	7 Hrs - Test 24 Hrs - Anal.	22	7 (Fig 3-6) 36	Simultaneous Test & Mathematical Analysis	NONE
FUNCTION: MITIGATE LOCA/HELB (I/O) MONITOR LOCA/HELB (I/O)	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
MANUFACTURER: FISCHER & PORTER	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
MODEL NO: 13D2495KBBABB-NS (HI-TEMP) (HI-RAD)	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
ACCURACY: Spec: SER #R6804A6257A72 Demon: SEE NOTE #2	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. TEST for Paint by Ameron	NONE
SERVICE: MONITOR STEAM GENERATOR WATER LEVEL AND PROVIDE ACCIDENT TRIP SIG.	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
LOCATION INSIDE CONTAINMENT 3'-0" ABOVE FLOOR	Aging	40 YEARS	40 YEARS SEE NOTE 3	SEE NOTE 1	53	Engineering Analysis	NONE
Area 6 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4062, Sht. 2, Rev. 3 Elect 5610-E-104, Rev. 5	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
2) See discussion of component evaluation sheets (Sec. C.1.17).
3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.

Yes X
No

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS.
6. FISCHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-22-73.
7. F&P TEST REPORT 2204-51-B-006.
8. FISCHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification	Outstanding
	Parameter	Specification	Qualification	Specification	Qualification	Method	Items
SYSTEM: MAIN FEEDWATER PLANT ID NO.: LT-3-495 Component: LEVEL TRANSMITTER	Operating Time	24 Hours	7 Hrs - Test 24 Hrs - Anal.	22	7 (Fig 3-6) 36	Simultaneous Test & Mathematical Analysis	NONE
FUNCTION: MITIGATE LOCA/HELB (I/O) MONITOR LOCA/HELB (I/O)	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
MANUFACTURER: FISCHER & PORTER	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
MODEL NO: 13D2495KBBABB-NS (HI-TEMP) SR #6804A6255A78 (HI-RAD)	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
ACCURACY: Spec: Demon: SEE NOTE #2	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. TEST for Paint by Ameron	NONE
SERVICE: MONITOR STEAM GENERATOR WATER LEVEL AND PROVIDE ACCIDENT TRIP SIG.	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
LOCATION INSIDE CONTAINMENT 3'-11" ABOVE FLOOR	Aging	40 YEARS	40 YEARS SEE NOTE 3	SEE NOTE 1	53	Engineering Analysis	NONE
Area 6 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4062, Sht. 2, Rev. 3 Elect 5610-E-104, Rev. 5	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the PSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
 2) See discussion of component evaluation sheets (Sec. C.1.17).
 3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.

Flood Level Elev: 19'-0" DOC. REF. 3.2
 Above Flood Level:
 Yes X
 No

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS.
6. FISCHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-22-73.
7. F&P TEST REPORT 2204-51-B-006.
8. FISCHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN FEEDWATER PLANT ID NO.: LT-3-496 Component: LEVEL TRANSMITTER FUNCTION: MITIGATE LOCA/HELB (I/O) MONITOR LOCA/HELB (I/O) MANUFACTURER: FISCHER & PORTER MODEL NO: 13D2495KBBABB-NS (HI-TEMP) SR #6804A6255A79 (HI-RAD) ACCURACY: Spec: Demon: SEE NOTE #2 SERVICE: MONITOR STEAM GENERATOR WATER LEVEL AND PROVIDE ACCIDENT TRIP SIG. LOCATION INSIDE CONTAINMENT 3'-10" ABOVE FLOOR Area 6 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4062, Sht. 2, Rev. 3 Elect 5610-E-104, Rev. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	24 Hours	7 Hrs - Test 24 Hrs - Anal.	22	7 (Fig 3-6) 36	Simultaneous Test & Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. TEST for Paint by Ameron	NONE
	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 3	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS.
 6. FISCHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-22-73.
 7. F&P TEST REPORT 2204-51-B-006.
 8. FISCHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN FEEDWATER PLANT ID NO.: LT-4-484 Component: LEVEL TRANSMITTER FUNCTION: MITIGATE LOCA/HELB (I/O) MONITOR LOCA/HELB (I/O) MANUFACTURER: FISCHER & PORTER MODEL NO: 13D2495KBBABB-NS (HI-TEMP, HI-RAD) SR #7110A5531A12 ACCURACY: Spec: - Demon: SEE NOTE #2 SERVICE: MONITOR STEAM GENERATOR WATER LEVEL AND PROVIDE ACCIDENT TRIP SIG. LOCATION INSIDE CONTAINMENT 2'-10" ABOVE FLOOR Area 11 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4062, Sht. 2, Rev. 3 Elect 5610-E-108, Rev. 8 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	24 Hours	7 Hrs - Test 24 Hrs - Anal.	22	7 (Fig 3-6) 36	Simultaneous Test & Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. TEST for Paint by Ameron	NONE
	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 3	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Device has age susceptible maintenance item (will be included in the maintenance schedule).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS.
 6. FISCHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-22-73.
 7. F&P TEST REPORT 2204-51-B-006.
 8. FISCHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN FEEDWATER PLANT ID NO.: LT-4-494 Component: LEVEL TRANSMITTER	Operating Time	24 Hours	7 Hrs - Test 24 Hrs - Anal.	22	7 (Fig 3-6) 36	Simultaneous Test & Mathematical Analysis	NONE
FUNCTION: MITIGATE LOCA/HELB (1/0) MONITOR LOCA/HELB (1/0)	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
MANUFACTURER: FISCHER & PORTER	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (½ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
MODEL NO: 13D2495KBBABBB-NS (HI-TEMP, HI-RAD) SR #6804A6257A 73	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
ACCURACY: Spec: Demon: SEE NOTE #2	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. TEST for Paint by Ameron	NONE
SERVICE: MONITOR STEAM GENERATOR WATER LEVEL AND PROVIDE ACCIDENT TRIP SIG.	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
LOCATION INSIDE CONTAINMENT 3'-2" ABOVE FLOOR	Aging	40 YEARS	40 YEARS SEE NOTE 3	SEE NOTE 1	53	Engineering Analysis	NONE
Area 12 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4062, Sht. 2, Rev. 3 Elect 5610-E-1111, Rev. 5	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	NOTES: 1) In the PSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Device has age susceptible maintenance item (will be included in the maintenance schedule).						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS.
 6. FISCHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-22-73.
 7. F&P TEST REPORT 2204-51-B-006.
 8. FISCHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 - 53 ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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Rev. 2

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MAIN FEEDWATER PLANT ID NO.: LT-4-495 Component: LEVEL TRANSMITTER FUNCTION: MITIGATE LOCA/HELB (I/O) MONITOR LOCA/HELB (I/O) MANUFACTURER: FISCHER & PORTER MODEL NO: 13D2495KBBABBB-NS (HI-TEMP, HI-RAD) SR #7110A5531A11 ACCURACY: Spec: Demon: SEE NOTE #2 SERVICE: MONITOR STEAM GENERATOR WATER LEVEL AND PROVIDE ACCIDENT TRIP SIG. LOCATION INSIDE CONTAINMENT 3'-2" ABOVE FLOOR Area 12 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-T-E-4062, Sht. 2, Rev. 3 Elect 5610-E-111, Rev. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	24 Hours	7 Hrs - Test 24 Hrs - Anal.	22	7 (Fig 3-6) 36	Simultaneous Test & Mathematical Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	320° (1 Hr) 293° (2 Hr) 227° (3½ Hr) 281° (¼ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	75 PSIG (1 Hr) 45 PSIG (2 Hr) 5 PSIG (3½ Hr) 35 PSIG (¼ Hr)	1	7 (Fig 3-6)	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100% Saturated Steam	ASSUMED	7 (Page 2)	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	15000 PPM Boric Acid Neutralized to pH 10.5	3	8	QUAL. TEST for Paint by Ameron	NONE
	Radiation	SEE ATTACHMENT #3	1.2 x 10 ⁸ R	2	6	Test on Similar Device	NONE
	Aging	40 YEARS	40 YEARS SEE NOTE 3	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) Device has age susceptible maintenance item(will be included in the maintenance schedule).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-7901B MASTER LIST.
 36. QUALIFICATION OF F&P TRANSMITTERS - ANALYSIS TO EXTRAPOLATE TEST RESULTS.
 6. FISCHER & PORTER REPORT #DP 2224-1 RPT-004 DATED 10-22-73.
 7. F&P TEST REPORT 2204-51-B-006.
 8. FISCHER & PORTER LETTER 3-6-75 WITH AMERON LAB REP #1550a of 3/23/72
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

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FACILITY: TURKEY POINT
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PAGE NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	REV	DATE	REMARKS
9-1	TE-3-3440	THERMOCOUPLE	<u>2</u>	<u>8/14/81</u>	
9-2	TE-3-3441	THERMOCOUPLE			
9-3	TE-3-3442	THERMOCOUPLE			
9-4	TE-3-3443	THERMOCOUPLE			
9-5	TE-3-3444	THERMOCOUPLE			
9-6	TE-3-3445	THERMOCOUPLE			
9-7	TE-3-3446	THERMOCOUPLE			
9-8	TE-3-3447	THERMOCOUPLE			
9-9	TE-3-3448	THERMOCOUPLE			
9-10	TE-3-3449	THERMOCOUPLE			
9-11	TE-3-3450	THERMOCOUPLE			
9-12	TE-3-3451	THERMOCOUPLE			
9-13	TE-3-3452	THERMOCOUPLE			
9-14	TE-3-3453	THERMOCOUPLE			
9-15	TE-3-3454	THERMOCOUPLE			
9-16	TE-3-3455	THERMOCOUPLE			
9-17	TE-3-3456	THERMOCOUPLE			
9-18	TE-3-3457	THERMOCOUPLE			
9-19	TE-3-3458	THERMOCOUPLE			
9-20	TE-3-3459	THERMOCOUPLE			

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SYSTEM: CONTAINMENT VENTILATION					
PAGE NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	REV	DATE	REMARKS
9-21	TE-3-3460	THERMOCOUPLE	<u>2</u>	<u>8/14/81</u>	
9-22	TE-3-3461	THERMOCOUPLE			
9-23	TE-3-3462	THERMOCOUPLE			
9-24	TE-3-3463	THERMOCOUPLE			
9-25	TE-4-3440	THERMOCOUPLE	<u>1</u>	<u>6/27/80</u>	
9-26	TE-4-3441	THERMOCOUPLE			
9-27	TE-4-3442	THERMOCOUPLE			
9-28	TE-4-3443	THERMOCOUPLE			
9-29	TE-4-3444	THERMOCOUPLE			
9-30	TE-4-3445	THERMOCOUPLE			
9-31	TE-4-3446	THERMOCOUPLE			
9-32	TE-4-3447	THERMOCOUPLE			
9-33	TE-4-3448	THERMOCOUPLE			
9-34	TE-4-3449	THERMOCOUPLE			
9-35	TE-4-3450	THERMOCOUPLE			
9-36	TE-4-3451	THERMOCOUPLE			
9-37	TE-4-3452	THERMOCOUPLE			
9-38	TE-4-3453	THERMOCOUPLE			
9-39	TE-4-3454	THERMOCOUPLE			
9-40	TE-4-3455	THERMOCOUPLE	Y	Y	

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SYSTEM: CONTAINMENT VENTILATION

PAGE NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	REV	DATE	REMARKS
9-41.	TE-4-3456	THERMOCOUPLE	<u>1</u>	<u>6/27/80</u>	
9-42	TE-4-3457	THERMOCOUPLE			
9-43	TE-4-3458	THERMOCOUPLE			
9-44	TE-4-3459	THERMOCOUPLE			
9-45	TE-4-3460	THERMOCOUPLE			
9-46	TE-4-3461	THERMOCOUPLE			
9-47	TE-4-3462	THERMOCOUPLE			
9-48	TE-4-3463	THERMOCOUPLE			
9-49	See TB3115	REFERENCE J-BOX	2	8/14/81	
9-50	See TB4115	REFERENCE J-BOX	2	8/14/81	
9-51	RD-3-11	RADIATION DETECTOR	<u>1</u>	<u>6/27/80</u>	
9-52	RD-3-12	RADIATION DETECTOR			
9-53	RD-4-11	RADIATION DETECTOR			
9-54	RD-4-12	RADIATION DETECTOR			
9-55	3V3A	FILTER FAN	<u>2</u>	<u>8/14/81</u>	
9-56	3V3B	FILTER FAN			
9-57	3V3C	FILTER FAN			
9-58	FS-3-1422	FLOW SWITCH			
9-59	FS-3-1423	FLOW SWITCH			
9-60	FS-3-1424	FLOW SWITCH	Y	Y	

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PAGE NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	REV	DATE	REMARKS
9-61	FS-3-1425	FLOW SWITCH	<u>2</u>	<u>8/14/81</u>	
9-62	FS-3-1426	FLOW SWITCH	↓	↓	
9-63	FS-3-1427	FLOW SWITCH	↓	↓	
9-64	FS-4-1422	FLOW SWITCH	<u>1</u>	<u>6/27/80</u>	
9-65	FS-4-1423	FLOW SWITCH	↓	↓	
9-66	FS-4-1424	FLOW SWITCH	↓	↓	
9-67	FS-4-1425	FLOW SWITCH	↓	↓	
9-68	FS-4-1426	FLOW SWITCH	↓	↓	
9-69	FS-4-1427	FLOW SWITCH	↓	↓	
9-70	4V3A	FILTER FAN	↓	↓	
9-71	4V3B	FILTER FAN	↓	↓	
9-72	4V3C	FILTER FAN	↓	↓	
9-73	SV-3-2905	SOLENOID VALVE	<u>2</u>	<u>8/14/81</u>	
9-74	SV-3-2906	SOLENOID VALVE	↓	↓	
9-75	SV-3-2907	SOLENOID VALVE	↓	↓	
9-76	SV-3-2908	SOLENOID VALVE	↓	↓	
9-77	SV-3-2909	SOLENOID VALVE	↓	↓	
9-78	SV-3-2910	SOLENOID VALVE	↓	↓	
9-79	SV-4-2905	SOLENOID VALVE	<u>1</u>	<u>6/27/80</u>	
9-80	SV-4-2906	SOLENOID VALVE	↓	↓	

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SYSTEM: CONTAINMENT VENTILATION					
PAGE NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	REV	DATE	REMARKS
9-81	SV-4-2907	SOLENOID VALVE	1	6/27/80	
9-82	SV-4-2908	SOLENOID VALVE			
9-83	SV-4-2909	SOLENOID VALVE			
9-84	SV-4-2910	SOLENOID VALVE			
9-85	3V30A	COOLING FAN	2	8/14/81	
9-86	3V30B	COOLING FAN	2	8/14/81	
9-87	3V30C	COOLING FAN	2	8/14/81	
9-88	4V30A	COOLING FAN	1	6/27/80	
9-89	4V30B	COOLING FAN			
9-90	4V30C	COOLING FAN			
9-91	PT-3-1622	PRESSURE TRANSMITTER			
9-92	PT-3-1623	PRESSURE TRANSMITTER			
9-93	PT-4-1622	PRESSURE TRANSMITTER			
9-94	PT-4-1623	PRESSURE TRANSMITTER			
9-95	PS-3-2007	PRESSURE SWITCH			
9-96	PS-3-2008	PRESSURE SWITCH			
9-97	PS-3-2009	PRESSURE SWITCH			
9-98	PS-4-2007	PRESSURE SWITCH			
9-99	PS-4-2008	PRESSURE SWITCH			
9-100	PS-4-2009	PRESSURE SWITCH	Y	Y	

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SYSTEM: CONTAINMENT VENTILATION

PAGE NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	REV	DATE	REMARKS
9-101	PS-3-2056	PRESSURE SWITCH	<u>1</u>	<u>6/27/80</u>	
9-102	PS-3-2057	PRESSURE SWITCH			
9-103	PS-3-2058	PRESSURE SWITCH			
9-104	PS-4-2056	PRESSURE SWITCH			
9-105	PS-4-2057	PRESSURE SWITCH			
9-106	PS-4-2058	PRESSURE SWITCH			
9-107	SV-3-2911	SOLENOID VALVE			
9-108	SV-3-2912	SOLENOID VALVE			
9-109	SV-3-2913	SOLENOID VALVE			
9-110	SV-4-2911	SOLENOID VALVE			
9-111	SV-4-2912	SOLENOID VALVE			
9-112	SV-4-2913	SOLENOID VALVE			
9-113	SV-3-2601	SOLENOID VALVE ASSOC. WITH POV-3-2601	<u>2</u>	<u>8/14/81</u>	
9-114	SV-3-2804	SOLENOID VALVE ASSOC. WITH POV-3-2601			
9-115	---	SOLENOID VALVE ASSOC. WITH POV-3-2601			
9-116	SV-3-2603	SOLENOID VALVE ASSOC. WITH POV-3-2603			
9-117	SV-3-2806	SOLENOID VALVE ASSOC. WITH POV-3-2603			
9-118	---	LIMIT SWITCHES ASSOC. WITH POV-3-2603			
9-119	SV-4-2601	SOLENOID VALVE ASSOC. WITH POV-4-2601	<u>1</u>	<u>6/27/80</u>	
9-120	SV-4-2804	SOLENOID VALVE ASSOC. WITH POV-4-2601	Y	Y	

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3440 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 21'-2" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV 12 Elect 5610-E-105, REV5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment. 3) See discussion of component evaluation sheets (Sec. C.1.17).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3441 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 17'-0" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11-REV-12 Elect 5610-E-105,REV5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment. 3) See discussion of component evaluation sheets (Sec. C.1.17).						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master list.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3442 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: NOTE 3 SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 16'-0" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11-REV-12 Elect 5610-E-105,REV 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PFM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment.
 3) See discussion of component evaluation sheets (Sec. C.1.17).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3443 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 12'-1" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV-12 Elect 5610-E-105, REV 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment. 3) See discussion of component evaluation sheets (Sec. C.1.17).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3444 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELS (INSIDE) MITIGATE MANUFACTURER: Consx Corp. MODEL NO: 3000-E-SS12-C-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 10'-0" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV-12 Elect 5610-E-105, REV 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment. 3) See discussion of component evaluation sheets (Sec. C.1.17).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. EPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3445 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-C-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 7'-2" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV-12 Elect 5610-E-105, REV 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment.
 3) See discussion of component evaluation sheets (Sec. C.1.17).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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SYSTEM COMPONENT EVALUATION WORK SHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3446 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 14'-1" ABOVE FLOOR Area Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV 12 Elect 5610-E-105, REV 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSURED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years; 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment. 3) See discussion of component evaluation sheets (Sec. C.1.17).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3447 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 12'-8" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV 12 Elect 5610-E-105, REV 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment. 3) See discussion of component evaluation sheets (Sec. C.1.17).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3448 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: Demon: NOTE 3 SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 21'-5" ABOVE FLOOR Area 3 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV 12 Elect 5610-E-102, REV. 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE-1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment. 3) See discussion of component evaluation sheets (Sec. C. 1.17).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3449 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 17'-2" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11-REV 12 Elect 5610-E-1C2, REV 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSURED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment. 3) See discussion of component evaluation sheets (Sec. C.1.17).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3450 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: NOTE 3 SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 16'-4" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11,REV-12 Elect 5610-E-102,REV 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment.
 3) See discussion of component evaluation sheets (Sec. C.1.17).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3451 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 12'-2" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV 12 Elect 5610-E-102, REV 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID.	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment.
 3) See discussion of component evaluation sheets (Sec. C.1.17)

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3452 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demos: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 14'-1" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV 12 Elect 5610-E-102-REV 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment. 3) See discussion of component evaluation sheets (Sec. C. 1.17).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master list.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3453 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 12'-7" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV 12 Elect 5610-E-102-REV 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment. 3) See discussion of component evaluation sheets (Sec. C.1.17).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3454 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 10'-0" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV-12 Elect 5610-E-102, REV.7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment.
 3) See discussion of component evaluation sheets (Sec. C.1.17).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification - Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3455 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-C-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 7'-2" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV-12 Elect 5610-E-102, REV 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID.	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment.
 3) See discussion of component evaluation sheets (Sec. C.1.17).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. EPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master list.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3456 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 21'-7" ABOVE FLOOR Area 6, Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV-12 Elect 5610-E-105, REV 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORTIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment.
 3) See discussion of component evaluation sheets (Sec. C.1.17).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3457 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-C-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 17'-0" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV 12 Elect 5610-E-105, REV 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment.
3) See discussion of component evaluation sheets (Sec. C.1.17).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 32. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3458 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 16'-3" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11,REV-12 Elect 5610-E-105,REV5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment. 3) See discussion of component evaluation sheets (Sec. C.1.17).						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3459 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 12'-0" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV 12 Elect 5610-E-105-REV 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2. Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment. 3) See discussion of component evaluation sheets (Sec. C.1.17)							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3460 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 10'-0" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV 12 Elect 5610-E-105, REV 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis.	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment. 3) See discussion of component evaluation sheets (Sec. C.1.17).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. EPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3462 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT Area 14'-1" ABOVE FLOOR Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV-12 Elect 5610-E-105, REV 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment.
 3) See discussion of component evaluation sheets (Sec. C.1.17).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. TE-3-3463 Component: Temp. Element-Thermocouple FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: Conax Corp. MODEL NO: 3000-E-SS12-G-T4 ACCURACY: Spec: NOTE 3 Demon: SERVICE: Cont. Vent. Sys. Charcoal filter temp. LOCATION INSIDE CONTAINMENT 12'-6" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV-12 Elect 5610-E-105, REV 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	72 HRS.	22	32	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	32	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	32	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	32	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	32	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) No qualification tests were done by vendor. The engineering analysis (ref.#32) confirms the adequacy of the device for the environment. 3) See discussion of component evaluation sheets (Sec. C.1.17)							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. Analysis of operating times for devices covered in IEB-79-01B master List.
 32. Charcoal filter temperature elements-environmental qualification analysis.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENTILATION PLANT ID NO. SEE TB 3115 Component: REFERENCE JUNCTION FUNCTION: LOCA/HELB (INSIDE) MITIGATE & MONITOR MANUFACTURER: CONSOLIDATED OHMIC DEVICES INC. MODEL NO: EZT 213 ACCURACY: Spec: NOTE 2 Demon: NOTE 2 SERVICE: TO PROVIDE REFERENCE JUNCTION POINTS FOR THERMOCOUPLES TC 3440-3463. LOCATION INSIDE CONTAINMENT 6"-5" ABOVE FLOOR Area 5 Elev 14' Ref Dwg No. Mech N/A Elect 5610-E-100 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u>X</u> No _____	Operating Time	72 Hrs.	None	22	None	None	See Note 3
	Temperature (°F)	SEE ATTACHMENT #1	None	1	None	None	See Note 3
	Pressure (PSIA)	SEE ATTACHMENT #2	None	1	None	None	See Note 3
	Relative Humidity (%)	100 %	None	ASSUMED	None	None	See Note 3
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	None	3	None	None	See Note 3
	Radiation	SEE ATTACHMENT #3	None	2	None	None	See Note 3
	Aging	40 YEARS	None	SEE NOTE 1	SEE NOTE 4	N/A	See Note 4
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years.
 2) See discussion of component evaluation sheets (Sec. C.1.17).
 3) No qualification data available. Qualified replacements will be installed during unit refueling outage after procurement.
 4) Aging analysis not done as device will be replaced per note 3.

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENTILATION PLANT ID NO. SEE TB 4115 Component: REFERENCE JUNCTION FUNCTION: LOCA/HELB (INSIDE) MITIGATE & MONITOR MANUFACTURER: CONSOLIDATED OHMIC DEVICES INC. MODEL NO: EZT 213 ACCURACY: Spec: NOTE 2 Demon: SERVICE: TO PROVIDE REFERENCE JUNCTION POINTS FOR THERMOCOUPLES (TC 4440-4463) LOCATION: INSIDE CONTAINMENT 4'-4" ABOVE FLOOR Area 11 Elev 30'-6" Ref Dwg No. Mech N/A Elect 5610-E-108, REV. 8 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	72 Hrs.	None	22	None	None	See Note 3
	Temperature (°F)	SEE ATTACHMENT #1	None	1	None	None	See Note 3
	Pressure (PSIA)	SEE ATTACHMENT #2	None	1	None	None	See Note 3
	Relative Humidity (%)		None	ASSUMED	None	None	See Note 3
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	None	3	None	None	See Note 3
	Radiation	SEE ATTACHMENT #3	None	2	None	None	See Note 3
	Aging	40 YEARS	None	See Note 1	See Note 4	N/A	See Note 4
	Submergence	N/A	N/A	N/A	N/A	N/A	None
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) See discussion of component evaluation sheets (Sec. C.1.17). 3) No qualification data available. Qualified replacements will be installed during unit refueling outage after procurement 4) Aging analysis not done as device will be replaced per note 3.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. EPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENT PLANT ID NO. 3V3A. Component: CNMT EMERG FILTER FAN MOTOR FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: JOY ENGINEERING MODEL NO: 46-26-1200 SERIES 2000(N) ACCURACY: Spec: } N/A Demon: } SERVICE: TO REMOVE PARTICULATE & IODINE FROM POST LOCA CONTINM ATMOSPHERE LOCATION INSIDE CONTAINMENT 21'-8" ABOVE FLOOR Area 6 Elev 58' (floor) Ref Dwg No. Mech 5610-M-11, Rev. 12 Elect 5610-E-105, Rev. 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	72 HRS ..	190 HRS	22	10	Simultaneous Test	None
	Temperature (°F)	SEE ATTACHMENT #1	See P #3 of Attachment #8	1	10 (G1 Thru G5)	Simultaneous Test	None
	Pressure (PSIA)	SEE ATTACHMENT #2	See P #3 of Attachment #8	1	10 (G1 Thru G5)	Simultaneous Test	None
	Relative Humidity (%)	100%	100%	ASSUMED	10	Simultaneous Test	None
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	10000 PPM Boron Neutralized to PH 6.8	3	10	Simultaneous Test	None
	Radiation	SEE ATTACHMENT #3	1 X 10 ⁹ R	2	10 (R-1 Thru R-4)	Engg. Analysis	None
	Aging	40 Years	40 Years	See Note 1.	53	Engg. Analysis	None
	Submergence	N/A	N/A	N/A	N/A	N/A	None
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN 1EB-79-01B MASTER LIST
 10. JOY ENGINEERING TEST REPORT 1969, VENDOR PRINT (VP) 5610-M-39-41-1
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN 1E BULLETIN 79-01B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENT PLANT ID NO. 3V3B Component: CNMT EMERG FILTER FAN MOTOR FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: JOY ENGINEERING MODEL NO: 46-26-1200 SERIES 2000(N) ACCURACY: Spec: } N/A Demon: } SERVICE: TO REMOVE PARTICULATE & IODINE FROM POST LOCA CONTMNT ATMOSPHERE LOCATION INSIDE CONTAINMENT 21'-8" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, Rev. 12 Elect 5610-E-102, Rev. 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	..72 HRS. ..	190 HRS	22	10	Simultaneous Test	None
	Temperature (°F)	SEE ATTACHMENT #1	See P #3 of Attachment #8	1	10 (G1 Thru G5)	Simultaneous Test	None
	Pressure (PSIA)	SEE ATTACHMENT #2	See P #3 of Attachment #8	1	10 (G1 Thru G5)	Simultaneous Test	None
	Relative Humidity (%)	100%	100%	ASSUMED	10	Simultaneous Test	None
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	10000 PPM Boron Neutralized to PH 6.8	3	10	Simultaneous Test	None
	Radiation	SEE ATTACHMENT #3	1 X 10 ⁹ R	2	10 (R-1 Thru R-4)	Engg. Analysis	None
	Aging	40 Years	40 Years	SEE NOTE 1	53	Engg. Analysis	None
	Submergence	N/A	N/A	N/A	N/A	N/A	None
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging is required and assumed to be 40 years.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. PPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-79-01B MASTER LIST
 10. JOY ENGINEERING TEST REPORT 1969, VENDOR PRINT (VP) 5610-M-39-41-1
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification	Outstanding
	Parameter	Specification	Qualification	Specification	Qualification	Method	Items
SYSTEM: CONTAINMENT VENT PLANT ID NO. 3V3C Component: CNMT EMERG FILTER FAN MOTOR FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: JOY ENGINEERING MODEL NO: 46-26-1200 SERIES 2000(N) ACCURACY: Spec: } N/A Demo: } SERVICE: TO REMOVE PARTICULATE & IODINE FROM POST LOCA CONTMNT ATMOSPHERE LOCATION INSIDE CONTAINMENT 21'-8" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, Rev. 12 Elect 5610-E-105, Rev. 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	72 HRS	190 HRS	22	10	Simultaneous Test	None
	Temperature (°F)	SEE ATTACHMENT #1	See P #3 of Attachment #8	1	10 (G1 Thru G5)	Simultaneous Test	None
	Pressure (PSIA)	SEE ATTACHMENT #2	See P #3 of Attachment #8	1	10 (G1 Thru G5)	Simultaneous Test	None
	Relative Humidity (%)	100%	100%	ASSUMED	10	Simultaneous Test	None
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	10000 PPM Boron - Neutralized to PH 6.8	3	10	Simultaneous Test	None
	Radiation	SEE ATTACHMENT #3	1 X 10 ⁹ R	2	10 (B-1 Thru B-4)	Engg. Analysis	None
	Aging	40 Years	40 Years	SEE NOTE 1	53	Engineering Analysis	None
	Submergence	N/A	N/A	N/A	N/A	N/A	None
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging is required and assumed to be 40 years.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-79-01B MASTER LIST
 10. JOY ENGINEERING TEST REPORT 1969, VENDOR PRINT (VP) 5610-M-39-41-1
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SURF LEVEL

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. FS-3-1422 Component: Air Flow Switch FUNCTION: Monitor Air Flow MANUFACTURER: Ball Engineering Co. MODEL NO: Series "p" Model 3500S-S SER #2671 ACCURACY: Spec: NOTE 4 Demon: SERVICE: Alarm Loss of Air Flow LOCATION INSIDE CONTAINMENT 27' - 8" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, Rev 12 Elect 5610-E-105 Rev. 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u> x </u> No <u> </u>	Operating Time	72 HOURS	72 HOURS	22	33	Engineering Analysis	See Note 2 NONE
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	33	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	33	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	33	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	33	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	33	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required. Assumed to be 40 yrs. 2) No qualification tests were done by vendor. The engineering analysis (ref. #33) confirms the adequacy of the device for the environment. 4) See discussion of component evaluation sheets (Sec. C 1.17)							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIMES FOR DEVICES COVERED IN 1E8-079-01B MASTER LIST.
 33. CONTAINMENT VENT AIRFLOW SWITCHES - ENVIRONMENTAL QUALIFICATION ANALYSIS.
 32. CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN 1E BULLETIN 79-01 B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. FS-3-1423 Component: Air Flow Switch FUNCTION: Monitor Air Flow MANUFACTURER: Ball Engineering Co. MODEL NO: Series "D" Model 3500S-S SER #2672 ACCURACY: Spec: NOTE 4 Demon: SERVICE: Alarm Loss of Air Flow LOCATION INSIDE CONTAINMENT 27' - 8" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, Rev 12 Elect 5610-E-105 Rev.5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HOURS	72 HOURS	22	33	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	33	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	33	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	33	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	33	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	33	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required. Assumed to be 40 yrs. 2) No qualification tests were done by vendor. The engineering analysis (ref. #33) confirms the adequacy of the device for the environment. 4) See discussion of component evaluation sheets (sec.C 1-17).						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIMES FOR DEVICES COVERED IN 1 EB-79-01B MASTER LIST.
 33. CONTAINMENT VENT AIRFLOW SWITCHES - ENVIRONMENTAL QUALIFICATION ANALYSIS.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. FS-3-1424 Component: Air Flow Switch FUNCTION: Monitor Air Flow MANUFACTURER: Ball Engineering Co. MODEL NO: Series "D" Model 3500S-S SER #2673 ACCURACY: Spec: NOTE 4 Demos: SERVICE: Alarm Loss of Air Flow LOCATION INSIDE CONTAINMENT 27' - 8" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, Rev 12 Elect 5610-E-102, Rev. 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HOURS	72 HOURS	22	33	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	33	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	33	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	33	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	33	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	33	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required. Assumed to be 40 yrs. 2) No qualification tests were done by vendor. The engineering analysis (ref. #33) confirms the adequacy of the device for the environment. 3) Assumed to be located at same elevation as unit 4 counterpart.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIMES FOR DEVICES COVERED IN IEB-79-01B MASTER LIST.
 33. CONTAINMENT VENT AIRFLOW SWITCHES - ENVIRONMENTAL QUALIFICATION ANALYSIS.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. FS-3-1425 Component: Air Flow Switch FUNCTION: Monitor Air Flow MANUFACTURER: Ball Engineering Co. MODEL NO: Series "D" Model 3500S-S SER #2674 ACCURACY: Spec: NOTE 4 Demon: SERVICE: Alarm Loss of Air Flow LOCATION INSIDE CONTAINMENT 27' - 8" ABOVE FLOOR Area 5 (FLOOR) Elev 58 Ref Dwg No. Mech 5610-M-11, Rev 12 Elect 5610-E-102, Rev. 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u> Y </u> No <u> </u>	Operating Time	72 HOURS	72 HOURS	22	33	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	33	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	33	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	33	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	33	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	33	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required. Assumed to be 40 yrs. 2) No qualification tests were done by vendor. The engineering analysis (ref. #33) confirms the adequacy of the device for the environment. 4) See discussion of component evaluation sheets (sec. C.1.17).						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIMES FOR DEVICES COVERED IN 1EB-79-01B MASTER LIST.
 33. CONTAINMENT VENT AIRFLOW SWITCHES - ENVIRONMENTAL QUALIFICATION ANALYSIS.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. FS-3-1426 Component: Air Flow Switch FUNCTION: Monitor Air Flow MANUFACTURER: Ball Engineering Co. MODEL NO: Series "D" Model 3500S-S SER #2675 ACCURACY: Spec: NOTE 4 Demon: SERVICE: Alarm Loss of Air Flow LOCATION INSIDE CONTAINMENT 27' - 8" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, Rev 12 Elect 5610-E-105 Rev. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HOURS	72 HOURS	22	33	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	33	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	33	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	33	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	33	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	33	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required. Assumed to be 40 years.
2) No qualification tests were done by vendor. The engineering analysis (ref. #33) confirms the adequacy of the device for the environment.
4) See discussion of component evaluation sheets (Sect. C 1-17).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIMES FOR DEVICES COVERED IN 1 EB-79-01B MASTER LIST.
 33. CONTAINMENT VENT AIRFLOW SWITCHES - ENVIRONMENTAL QUALIFICATION ANALYSIS.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: Containment Vent PLANT ID NO. FS-3-1427 Component: Air Flow Switch FUNCTION: Monitor Air Flow MANUFACTURER: Ball Engineering Co. MODEL NO: Series "D" Model 3500S-S SER #2676 ACCURACY: Spec: NOTE 4 Demon: SERVICE: Alarm Loss of Air Flow LOCATION INSIDE CONTAINMENT 27' - 8" ABOVE FLOOR Area 6 Elev 58 (FLOOR) Ref Dwg No. Mech 5610-M-11, Rev 12 Elect 5610-E-105 Rev.5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u> x </u> No <u> </u>	Operating Time	72 HOURS	72 HOURS	22	33	Engineering Analysis	NONE See Note 2
	Temperature (°F)	SEE ATTACHMENT #1	See Note 2	1	33	Engineering Analysis	NONE See Note 2
	Pressure (PSIA)	SEE ATTACHMENT #2	See Note 2	1	33	Engineering Analysis	NONE See Note 2
	Relative Humidity (%)	100%	See Note 2	ASSUMED	33	Engineering Analysis	NONE See Note 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	See Note 2	3	33	Engineering Analysis	NONE See Note 2
	Radiation	SEE ATTACHMENT #3	See Note 2	2	33	Engineering Analysis	NONE See Note 2
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required, Assumed to be 40 years. 2) No qualification tests were done by vendor. The engineering analysis (ref. #33) confirms the adequacy of the device for the environment. 4) See discussion of component evaluation sheets (sec.C. 1. 17).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIMES FOR DEVICES COVERED IN 1EB-79-01B MASTER LIST.
 33. CONTAINMENT VENT AIRFLOW SWITCHES - ENVIRONMENTAL QUALIFICATION ANALYSIS.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENTILATION PLANT ID NO. SV-3-2905 Component: Solenoid Valves FUNCTION: LOCA/HELB (inside) MITIGATE MANUFACTURER: Automatic Switch Company MODEL NO: 8211C46 SER #S47989 ACCURACY: Spec: N/A Demon: N/A SERVICE: Charcoal Filter Spray Dousing Valves LOCATION INSIDE CONTAINMENT 4'-1" ABOVE FLOOR Area 6 Elev. 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV. 12 Elect 5610-E-105, REV. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	72 HRS	11 DAYS	22	21	Simultaneous Test and Math. Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	311 F	1	21	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	60 PSIG	1	21	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100%	ASSUMED	21	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	3000 PPM Boron Sol as Boric Acid	3	21	Prototype Test & Engineering Analysis	NONE
	Radiation	SEE ATTACHMENT #3	4 X 10 ⁴ RADS	2	21	Engineering Analysis	NONE
	Aging	40 YEARS	< 40 YEARS	SEE NOTE 1	53	Engineering Analysis	SEE NOTE 3
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.						

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
21. ENGINEERING ANALYSIS OF DOUSING VALVES.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENTILATION PLANT ID NO. SV-3-2906 Component: Solenoid Valves FUNCTION: LOCA/HELB (inside) MITIGATE MANUFACTURER: Automatic Switch Company MODEL NO: X8211-B46-SW HV-164196 SER # 59279T2 ACCURACY: Spec: N/A Demon: N/A SERVICE: Charcoal Filter Spray Dousing Valves LOCATION INSIDE CONTAINMENT 4'-1" ABOVE FLOOR Area 6 Elev. 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV. 12 Elect 5610-E-105 REV. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	72 HRS	11 DAYS	22	21	Simultaneous Test and Math. Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	311 F	1	21	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	60 PSIG	1	21	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100%	ASSUMED	21	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	3000 PPM Boron Sol as Boric Acid	3	21	Prototype Test & Engineering Analysis	NONE
	Radiation	SEE ATTACHMENT #3	4 X 10 ⁷ RADS	2	21	Engineering Analysis	NONE
	Aging	40 YEARS	< 40 YEARS	SEE NOTE 1	53	Engineering Analysis	SEE NOTE 3
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.						

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. EPL LETTER TO USNRC L-75-210 DATED 4/30/75.
21. ENGINEERING ANALYSIS OF DOUSING VALVES.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENTILATION PLANT ID NO. SV-3-2907 Component: Solenoid Valves FUNCTION: LOCA/HELB (inside) MITIGATE MANUFACTURER: Automatic Switch Company MODEL NO: X8211-B46-SW HV-164196 SER #5927974 ACCURACY: Spec: N/A Demon: N/A SERVICE: Charcoal Filter Spray Dousing Valves LOCATION INSIDE CONTAINMENT 9'-6" ABOVE PER. HATCH PLAT. Area 5 Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-M-11, REV. 12 Elect 5610-E-101 REV. 8 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	72 HRS	11 DAYS	22	21	Simultaneous Test and Math. Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	311 F	1	21	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	60 PSIG	1	21	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100%	ASSUMED	21	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	3000 PPM Boron Sol as Boric Acid	3	21	Prototype Test & Engineering Analysis	NONE
	Radiation	SEE ATTACHMENT #3	4 X 10 RADS	2	21	Engineering Analysis	NONE
	Aging	40 YEARS	< 40 YEARS	SEE NOTE 1	53	Engineering Analysis	SEE NOTE 3
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 21. ENGINEERING ANALYSIS OF DOUSING VALVES.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENTILATION PLANT ID NO. SV-3-2908 Component: Solenoid Valves FUNCTION: LOCA/HELB (inside) MITIGATE MANUFACTURER: Automatic Switch Company MODEL NO: X8211-B46-SW HV-164196 ACCURACY: Spec: N/A Demon: N/A SERVICE: Charcoal Filter Spray Dousing Valves LOCATION INSIDE CONTAINMENT 9'-6" ABOVE PLAT. Area Elev 30'-6" (FLOOR) Ref Dwg No. Mech 5610-M-11, REV. 12 Elect 5610-E-101 REV. 8 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	72 HRS	11 DAYS	22	21	Simultaneous Test and Math. Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	311 F	1	21	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	60 PSIG	1	21	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100%	ASSUMED	21	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	3000 PPM Boron Sol as Boric Acid	3	21	Prototype Test & Engineering Analysis	NONE
	Radiation	SEE ATTACHMENT #3	4 X 10 ⁴ RADS	2	21	Engineering Analysis	NONE
	Aging	40 YEARS	< 40 YEARS	SEE NOTE 1	53	Engineering Analysis	SEE NOTE 3
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 21. ENGINEERING ANALYSIS OF DOUSING VALVES.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENTILATION PLANT ID NO. SV-3-2909 Component: Solenoid Valves FUNCTION: LOCA/HELB (inside) MITIGATE MANUFACTURER: Automatic Switch Company MODEL NO: X8211-B46-SW HV-164196 SER #59279T5 ACCURACY: Spec: N/A Demon: N/A SERVICE: Charcoal Filter Spray Dousing Valves LOCATION INSIDE CONTAINMENT 4'-0" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV. 12 Elect 5610-E-105 REV. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 HRS	11 DAYS	22	21	Simultaneous Test and Math. Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	311 F	1	21	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	60 PSIG	1	21	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100%	ASSUMED	21	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	3000 PPM Boron Sol as Boric Acid	3	21	Prototype Test & Engineering Analysis	NONE
	Radiation	SEE ATTACHMENT #3	4 X 10 RADS	2	21	Engineering Analysis	NONE
	Aging	40 YEARS	< 40 YEARS	SEE NOTE 1	53	Engineering Analysis	SEE NOTE 3
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 21. ENGINEERING ANALYSIS OF DOUSING VALVES.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENTILATION PLANT ID NO. SV-3-2910 Component: Solenoid Valves FUNCTION: LOCA/HELB (inside) MITIGATE MANUFACTURER: Automatic Switch Company MODEL NO: X8211-B46-SW HV-164196 SER #59279T8 ACCURACY: Spec: N/A Demon: N/A SERVICE: Charcoal Filter Spray Dousing Valves LOCATION INSIDE CONTAINMENT 4'-0" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, REV. 12 Elect 5610-E-105-REV. 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	72 HRS	11 DAYS	22	21	Simultaneous Test and Math. Analysis	NONE
	Temperature (°F)	SEE ATTACHMENT #1	311 F	1	21	Simultaneous Test	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	60 PSIG	1	21	Simultaneous Test	NONE
	Relative Humidity (%)	100%	100%	ASSUMED	21	Simultaneous Test	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	3000 PPM Boron Sol as Boric Acid	3	21	Prototype Test & Engineering Analysis	NONE
	Radiation	SEE ATTACHMENT #3	4 X 10 ⁴ RADS	2	21	Engineering Analysis	NONE
	Aging	40 YEARS	< 40 YEARS	SEE NOTE 1	53	Engineering Analysis	SEE NOTE 3
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 3) Device has age susceptible components. Maintenance schedule will be developed after completion of test/replacement analysis.						

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
21. ENGINEERING ANALYSIS OF DOUSING VALVES.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENT PLANT ID NO. 3V30A Component: CNMI EMERG COOLER FAN MOTOR FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: JOY ENGINEERING MODEL NO: 38-26-1200 SERIES 2000(N) ACCURACY: Spec: } N/A Demon: } SERVICE: PROVIDE EMERGENCY COOLING OF POST LOCA CONTM ATMOSPHERE LOCATION INSIDE CONTAINMENT 21'-4" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, Rev. 12 Elect 5610-E-105, Rev. 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes X No	Operating Time	.72 HRS	190 HRS	22	10	Simultaneous Test	None
	Temperature (°F)	SEE ATTACHMENT #1	See P #3 of Attachment #8	1	10 (G1 Thru G5)	Simultaneous Test	None
	Pressure (PSIA)	SEE ATTACHMENT #2	See P #3 of Attachment #8	1	10 (G1 Thru G5)	Simultaneous Test	None
	Relative Humidity (%)	100%	100%	ASSUMED	10	Simultaneous Test	None
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	10000 PPM Boron Neutralized to PH 6.8	3	10	Simultaneous Test	None
	Radiation	SEE ATTACHMENT #3	1 X 10 ⁹ R	2	10 (R-1 Thru R-4)	Engg. Analysis	None
	Aging	40 Years	40 Years	SEE NOTE 1	53	Engineering Analysis	None
	Submergence	N/A	N/A	N/A	N/A	N/A	None

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging is required and assumed to be 40 years.

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-79-01B MASTER LIST
 10. JOY ENGINEERING TEST REPORT 1969, VENDOR PRINT (VP) 5610-M-39-41-1
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL

FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENT PLANT ID NO. 3V308 Component: CNMT EMERG COOLER FAN MOTOR FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: JOY ENGINEERING MODEL NO: 38-26-1200 SERIES 2000(N) ACCURACY: Spec: } N/A Demon: } SERVICE: PROVIDE EMERGENCY COOLING OF POST LOCA CONTMT ATMOSPHERE LOCATION INSIDE CONTAINMENT 12'-8" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, Rev. 12 Elect 5610-E-102, Rev. 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	72 HRS	190_HRS	22	10	Simultaneous Test	None
	Temperature (°F)	SEE ATTACHMENT #1	See P #3 of Attachment #8	1	10 (G1 Thru G5)	Simultaneous Test	None
	Pressure (PSIA)	SEE ATTACHMENT #2	See P #3 of Attachment #8	1	10 (G1 Thru G5)	Simultaneous Test	None
	Relative Humidity (%)	100%	100%	ASSUMED	10	Simultaneous Test	None
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	10000 PPM Boron Neutralized to PH 6.8	3	10	Simultaneous Test	None
	Radiation	SEE ATTACHMENT #3	1 X 10 ⁹ R	2	10 (R-1 Thru R-4)	Engg. Analysis	None
	Aging	40 Years	40 Years	SEE NOTE 1	53	Engineering Analysis	None
	Submergence	N/A	N/A	N/A	N/A	N/A	None
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging is required and assumed to be 40 years.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-79-01B MASTER LIST
 10. JOY ENGINEERING TEST REPORT 1969, VENDOR PRINT (VP) 5610-M-39-41-1
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENT PLANT ID NO. 3V30C Component: CNMT EMERG COOLER FAN MOTOR FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: JOY ENGINEERING MODEL NO: 38-26-1200 SERIES 2000(N) ACCURACY: Spec: } N/A Demon: } SERVICE: PROVIDE EMERGENCY COOLING OF POST LOCA CONTINUT ATMOSPHERE LOCATION INSIDE CONTAINMENT 21'-4" ABOVE FLOOR Area 6 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, Rev. 12 Elect 5610-E-105, Rev. 5 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	72 HRS	190 HRS	22	10	Simultaneous Test	None
	Temperature (°F)	SEE ATTACHMENT #1	See P #3 of Attachment #8	1	10 (G1 Thru G5)	Simultaneous Test	None
	Pressure (PSIA)	SEE ATTACHMENT #2	See P #3 of Attachment #8	1	10 (G1 Thru G5)	Simultaneous Test	None
	Relative Humidity (%)	100%	100%	ASSUMED	10	Simultaneous Test	None
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	10000 PPM Boron Neutralized to PH 6.8	3	10	Simultaneous Test	None
	Radiation	SEE ATTACHMENT #3	1 X 10 ⁹ R	2	10 (B-1 Thru B-4)	Engg. Analysis	None
	Aging	40 Years	40 Years	SEE NOTE 1	53	Engineering Analysis	None
	Submergence	N/A	N/A	N/A	N/A	N/A	None
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging is required and assumed to be 40 years.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IEB-79-01B MASTER LIST
 10. JOY ENGINEERING TEST REPORT 1969, VENDOR PRINT (VP) 5610-M-39-41-1
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENTILATION PLANT ID NO. SV-3-2601 Component: SOLENOID VALVE FUNCTION: LOCA/HELB (INSIDE) MITIGATION MANUFACTURER: AUTOMATIC SWITCH COMPANY MODEL NO: CAT. NO. LB831665 SER #49792A ACCURACY: Spec: N/A Demon: N/A SERVICE: SOLENOID VALVE FOR POV-3-2601 LOCATION INSIDE CONTAINMENT 27'-10" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, Rev. 12 Elect 5610-E-102, Rev. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	1/2 HOUR	NONE	22	NONE	NONE	SEE NOTE 2
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	NONE	SEE NOTE 2
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	NONE	SEE NOTE 2
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	NONE	SEE NOTE 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	NONE	SEE NOTE 2
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	NONE	SEE NOTE 2
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 4	---	SEE NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging is required. Assumed to be 40 years. 2) There is no data available for accident environment qualification. As previously indicated in response to IE Bulletin 79-01, it has been decided to replace this solenoid with a qualified one. Procurement action has been completed, and the installation will be done during the refueling outage after the satisfactory qualification test of the conduit seal material. See generic component evaluation sheet (Section 10) for the qualified replacement. 4) Aging analysis not done as device will be replaced per note 2.							

- DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. EPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENTILATION PLANT ID NO. SV-3-2804 Component: SOLENOID VALVE FUNCTION: LOCA/HELB (INSIDE) MITIGATION MANUFACTURER: AUTOMATIC SWITCH COMPANY MODEL NO: CAT. NO. LB831665 ACCURACY: Spec: N/A Demon: N/A SERVICE: SOLENOID VALVE FOR POV-3-2601 LOCATION INSIDE CONTAINMENT 27'-10" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, Rev. 12 Elect 5610-E-102, Rev. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	1/2 HOUR	NONE	22	NONE	NONE	SEE NOTE 2
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	NONE	SEE NOTE 2
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	NONE	SEE NOTE 2
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	NONE	SEE NOTE 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	NONE	SEE NOTE 2
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	NONE	SEE NOTE 2
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 4	---	SEE NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required. Assumed to be 40 years. 2) There is no data available for accident environment qualification. As previously indicated in response to IE Bulletin 79-01, it has been decided to replace this solenoid with a qualified one. Procurement action has been completed, and the installation will be done during the refueling outage after the satisfactory qualification test of the conduit-seal material. See generic component evaluation sheet (Section 10) for the qualified replacement. 4) Aging analysis not done as device will be replaced per note 2.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CMT. VENTIL. PLANT ID NO. No Tag. No. (Assoc. w/POV-3-2601) Component: 2 LIMIT SWITCHES FUNCTION: LOCA/HELB (IN & OUT) MONITOR MANUFACTURER: NAMCO MODEL NO: LIM. SW. 1-D1200G LIM. SW. 2-D1200G ACCURACY: Spec: N/A Demon: N/A SERVICE: POSITION INDICATION ASSOCIATED WITH POV-3-2601 LOCATION INSIDE CONTAINMENT 27'-10" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. N/A Mech Elect 5610-E-102 (Rev. 7) Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u>X</u> No _____	Operating Time	1/2 HOUR	NONE	SEE NOTE 2	NONE	---	SEE NOTE 3
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	---	SEE NOTE 3
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	---	SEE NOTE 3
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	---	SEE NOTE 3
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	---	SEE NOTE 3
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	---	SEE NOTE 3
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 5	---	SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1. IN THE FSAR AGING & SUBMERGENCE WERE NOT CONSIDERED ENVIRONMENTAL PARAMETERS. AGING REQUIRED ASSUMED TO BE 40 YEARS. 2. OPERATING TIME OF ASSOCIATED SOLENOID VALVE. 3. NO QUALIFICATION DOCUMENTS AVAILABLE ON THESE LIMIT SWITCHES. QUALIFIED REPLACEMENTS WILL BE INSTALLED DURING NEXT REFUELING OUTAGE AFTER SATISFACTORY COMPLETION OF QUALIFICATION TEST ON CONDUIT SEAL MATERIAL. 5. AGING ANALYSIS NOT DONE AS DEVICE WILL BE REPLACED PER NOTE 3.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENTILATION PLANT ID NO. SV-3-2603 Component: SOLENOID VALVE FUNCTION: LOCA/HELB (INSIDE) MITIGATION MANUFACTURER: AUTOMATIC SWITCH COMPANY MODEL NO: CAT. NO. LB831665 SER #49792A ACCURACY: Spec: N/A Demon: N/A SERVICE: CONTAINMENT PURGE VALVE LOCATION: INSIDE CONTAINMENT 15'-6" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, Rev. 12 Elect 5610-E-102, Rev. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	1/2 HOUR	NONE	22	NONE	NONE	SEE NOTE 2
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	NONE	SEE NOTE 2
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	NONE	SEE NOTE 2
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	NONE	SEE NOTE 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	NONE	SEE NOTE 2
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	NONE	SEE NOTE 2
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 4	N/A	SEE SEE NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required: Assumed to be 40 years. 2) There is no data available for accident environment qualification. As previously indicated in response to IE Bulletin 79-01, it has been decided to replace this solenoid with a qualified one. Procurement action has been completed, and the installation will be done during the refueling outage after the satisfactory qualification test of the conduit seal material. See generic component evaluation sheet (Section 10) for the qualified replacement. 4) Aging analysis not done as devices will be replaced per note 2.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENTILATION PLANT ID NO. SY-3-2806 Component: SOLENOID VALVE FUNCTION: LOCA/HELB (INSIDE) MITIGATION MANUFACTURER: AUTOMATIC SWITCH COMPANY MODEL NO: CAT. NO. LB831665 SER #49792A ACCURACY: Spec: N/A Demon: N/A SERVICE: CONTAINMENT PURGE VALVE LOCATION: INSIDE CONTAINMENT 15' - 6" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech 5610-M-11, Rev. 12 Elect 5610-E-102, Rev. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	1/2 HOUR	NONE	22	NONE	NONE	SEE NOTE 2
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	NONE	SEE NOTE 2
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	NONE	SEE NOTE 2
	Relative Humidity (%)	100%	NONE	ASSURED	NONE	NONE	SEE NOTE 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	NONE	SEE NOTE 2
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	NONE	SEE NOTE 2
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 4	---	SEE NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required. Assumed to be 40 years. 2) There is no data available for accident environment qualification. As previously indicated in response to IE Bulletin 79-01, it has been decided to replace this solenoid with a qualified one. Procurement action has been completed, and the installation will be done during the refueling outage after the satisfactory qualification test of the conduit seal material. See generic component evaluation sheet (Section 10) for the qualified replacement. 4) Aging analysis not done as device will be replaced per note 2.						

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. EPL LETTER TO USNRC L-75-210 DATED 4/30/75.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
- 3.2 - CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CMT. VENTIL. PLANT ID NO. No Tag. No. (Assoc. w/ POV-3-2603) Component: 2 LIMIT SWITCHES FUNCTION: LOCA/HELS (IN & OUT) MONITOR MANUFACTURER: NAMCO MODEL NO: LIM. SW. 1-D1200G-2 LIM. SW. 2-D1200G-2SR ACCURACY: Spec: N/A Demo: N/A SERVICE: POSITION INDICATION ASSOCIATED WITH POV-3-2603 LOCATION INSIDE CONTAINMENT, 15'-6" ABOVE FLOOR Area 5 Elev 58' (FLOOR) Ref Dwg No. Mech N/A Elect 5610-E-102 (Rev. 7) Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	1/2 HOUR	NONE	SEE NOTE 2	NONE	---	SEE NOTE 3
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	---	SEE NOTE 3
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	---	SEE NOTE 3
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	---	SEE NOTE 3
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	---	SEE NOTE 3
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	---	SEE NOTE 3
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 5	---	SEE NOTE 5
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1. IN THE FSAR AGING & SUBMERGENCE WERE NOT CONSIDERED ENVIRONMENTAL PARAMETERS. AGING REQUIRED ASSUMED TO BE 40 YEARS. 2. OPERATING TIME OF ASSOCIATED SOLENOID VALVE. 3. NO QUALIFICATION DOCUMENTS AVAILABLE ON THESE LIMIT SWITCHES. QUALIFIED REPLACEMENTS WILL BE INSTALLED DURING NEXT REFUELING OUTAGE AFTER SATISFACTORY COMPLETION OF QUALIFICATION TEST ON CONDUIT SEAL MATERIAL. 5. AGING ANALYSIS NOT DONE AS DEVICE WILL BE REPLACED PER NOTE 3.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CONTAINMENT VENTILATION PLANT ID NO. SV-3-2819 Component: SOLENOID VALVE FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: AUTOMATIC SWITCH COMPANY MODEL NO: Cat. No. 8316C14 ACCURACY: SER #21258D Spec: N/A Demon: N/A SERVICE: SOLENOID VALVE FOR CONTROL VALVE CV-3-2819 LOCATION: INSIDE CONTAINMENT 11'-3" ABOVE FLOOR Area 5 Elev 14' (FLOOR) Ref Dwg No. Mech 5610-M-11, Rev. 12 Elect 5610-E-100, Rev. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	1/2 HOUR	NONE	22	NONE	NONE	SEE NOTE 2
	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	NONE	SEE NOTE 2
	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	NONE	SEE NOTE 2
	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	NONE	SEE NOTE 2
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	NONE	SEE NOTE 2
	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	NONE	SEE NOTE 2
	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 4	---	SEE NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required. Assumed to be 40 years. 2) There is no data available for accident environment qualification. As previously indicated in response to IE Bulletin 79-01, it has been decided to replace this solenoid with a qualified one. Procurement action has been completed, and the installation will be done during the refueling outage after the satisfactory qualification test of the conduit seal material. See generic component evaluation sheet (Section 10) for the qualified replacement. 4) Aging analysis not done as device will be replaced per note 2.							

*DOCUMENT REFERENCES:

1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CMT. VENTIL. PLANT ID NO. No Tag. No. (Assoc. w/ CV-3-2819) Component: 2 LIMIT SWITCHES	Operating Time	1/2 HOUR	NONE	SEE NOTE 2	NONE	---	SEE NOTE 3
FUNCTION: LOCA/HELB (IN & OUT) MONITOR	Temperature (°F)	SEE ATTACHMENT #1	NONE	1	NONE	---	SEE NOTE 3
MANUFACTURER: NAMCO	Pressure (PSIA)	SEE ATTACHMENT #2	NONE	1	NONE	---	SEE NOTE 3
MODEL NO: LIM. SW. 1-D2400X LIM. SW. 2-D2400X	Relative Humidity (%)	100%	NONE	ASSUMED	NONE	---	SEE NOTE 3
ACCURACY: Spec: N/A Demon: N/A	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NONE	3	NONE	---	SEE NOTE 3
SERVICE: POSITION INDICATION ASSOCIATED WITH CV-3- 2819	Radiation	SEE ATTACHMENT #3	NONE	2	NONE	---	SEE NOTE 3
LOCATION INSIDE CONTAINMENT 10'-6" & 10'-9" ABOVE FLOOR	Aging	40 YEARS	NONE	SEE NOTE 1	SEE NOTE 5	---	SEE NOTE 5
Area 5 Elev 14' (FLOOR) Ref Dwg No. Mech N/A Elect 5610-E-100 (Rev. 7)	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1. IN THE FSAR AGING & SUBMERGENCE WERE NOT CONSIDERED ENVIRONMENTAL PARAMETERS. AGING REQUIRED ASSUMED TO BE 40 YEARS. 2. OPERATING TIME OF ASSOCIATED SOLENOID VALVE. 3. NO QUALIFICATION DOCUMENTS AVAILABLE ON THESE LIMIT SWITCHES. QUALIFIED REPLACEMENTS WILL BE INSTALLED DURING NEXT REFUELING OUTAGE AFTER SATISFACTORY COMPLETION OF QUALIFICATION TEST ON CONDUIT SEAL MATERIAL. 5. AGING ANALYSIS NOT DONE AS DEVICE WILL BE REPLACED PER NOTE 3.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.

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TO COMPONENT EVALUATION
WORK SHEETS

DOCKET NO:
UNIT 3 - 50-250
UNIT 4 - 50-251

[illegible]

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO. CABLE CODE LT1 Component: 3/C #16 CABLE W/CROSS-LINKED EPR INSUL. AND HYPALON JACKET FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: ANACONDA MODEL NO: FLAME-GUARD (FR-EP) ACCURACY: Spec: N/A Demon: N/A SERVICE: 600V INSTRUMENT CABLE LOCATION: INSIDE CONTAINMENT AND OUTSIDE CONTAINMENT Area VARIOUS Elev. VARIOUS Ref. Dwg. No. Mech. N/A Elect. M/R 5177-105-E-862.1 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS	NOTE 2	62 (page 3-9 and analysis)	SIMULTANEOUS TEST AND ENGINEERING ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	385	1	62 (page 3-9)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	80.7	1	62 (page 3-9)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	62 (page 3-2)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	6200 PPM BORON AS H ₃ BO ₃ BUFFERED TO A pH of 8.6-10.0	3	62 (page 3-9)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	62 (page 3-1)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	62 (page 3-1)	SEQUENTIAL TEST	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This time is based on the longest operating time of the devices served by this cable. (Associated Device: TE-413A)							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FFL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 62. QUALIFICATION TEST REPORT #F-C4836-2 FOR ANACONDA FLAME-GUARD (FR-EP) 1E CABLES, AND TEMPERATURE EXTRAPOLATION.

FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO. CABLE CODE LP1 Component: 2/C #16 CABLE W/CROSS-LINKED EPR INSUL. AND HYPALON JACKET FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: ANACONDA MODEL NO: FLAME-GUARD (FR-EP) ACCURACY: Spec: N/A Demon: N/A SERVICE: 600V INSTRUMENT CABLE LOCATION: INSIDE CONTAINMENT AND OUTSIDE CONTAINMENT Area VARIOUS Elev. VARIOUS Ref. Dwg. No. Mech. N/A Elect. M/R 5177-105-E-862.1 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS	NOTE 2	62 (page 3-9 and analysis)	SIMULTANEOUS TEST AND ENGINEERING ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	385	1	62 (page 3-9)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	80.7	1	62 (page 3-9)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	62 (page 3-2)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	6200 PPM BORON AS H ₃ BO ₃ BUFFERED TO A pH of 8.6-10.0	3	62 (page 3-9)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	62 (page 3-1)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	62 (page 3-1)	SEQUENTIAL TEST	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This time is based on the longest operating time of the devices served by this cable.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 62. QUALIFICATION TEST REPORT #F-C4836-2 FOR ANACONDA FLAME-GUARD (FR-EP) 1E CABLES, AND TEMPERATURE EXTRAPOLATION.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: CABLE CODE LT1 Component: 3/C #16 CABLE W/CROSS-LINKED POLYETHYLENE INSUL. AND NEOPRENE JACKET FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: ROCKBESTOS MODEL NO: FIREWALL III ACCURACY: Spec: N/A Demon: N/A SERVICE: 600V INSTRUMENTATION CABLE LOCATION: INSIDE CONTAINMENT Area VARIOUS Elev. VARIOUS Ref. Dwg. No. Mech. N/A Elect. M/R 5177-105-E-857 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	NOTE 2	63 (page 8)	SIMULTANEOUS TEST AND ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	63 (page 8)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2.	127.7	1	63 (page 8)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	63 (page 8)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	3000 PPM BORON BUFFERED W/NaOH to pH 9.0-11.0	3	63 (page 8)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	63 (page 9)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	63 (page 2)	SEQUENTIAL TEST	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This time is based on the longest operating time of the devices served by this cable. (Associated device: TE-413A) 3) Actual test duration was 30 days, however the test profile envelopes the actual profile throughout test.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 63. ROCKBESTOS QUALIFICATION TEST REPORT OF 6/7/78 FOR FIREWALL III CLASS 1E ELECTRIC CABLES.

FACILITY: 10000 POINT
 SIT: 3 & 4
 LOCKIT: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO. VENDOR SUPPLIED CABLE Component: COAXIAL CABLE WITH XLPE INSUL. AND HYPALON JACKET FUNCTION: LOCA/HELB (in & out) MONITOR MANUFACTURER: BRAND-REX COMPANY MODEL NO: CS-75146 NUCLEAR GRADE CABLES ACCURACY: Spec: N/A Demon: N/A SERVICE: SAFETY VALVE ACOUSTIC MONITORING SYSTEM LOCATION: INSIDE CONTAINMENT Area VARIOUS Elev. VARIOUS Ref. Dwg. No. Mech. N/A Elect. M/R 5177-105-J-720 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	> 31 DAYS NOTE 4	NOTE 2	65 (page 4-3)	SIMULTANEOUS TEST	NONE
	Temperature (°F)	SEE ATTACHMENT #1	385°F	1	65 (page 4-3)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127	1	65 (page 4-3)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	65 (page 4-2)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	6200 PPM BORON AS BORIC ACID WITH pH of 10.0	3	65 (page 4-2)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	64 Appendix C 65 Appendix B	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	12.4 YEARS	SEE NOTE 1	64 (Appendix A, pg.1)	SEQUENTIAL TEST	SEE NOTE 3
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This time is based on the longest operating time of the devices served by this cable. (Associated device: ZS-6303A) 3) The cable was aged for 600 hr. at 125° C. A maintenance schedule will be developed to periodically replace the cable. 4) The actual test was conducted for 30 days. The test profile envelopes the actual profile throughout the test.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 64. QUALIFICATION TEST REPORT (TEC #517-TR-03) FOR ENVIRONMENTAL AND SEISMIC TESTING.
 65. QUALIFICATION TESTS OF BRAND-REX COAXIAL TYPE CABLES. FIRM FINAL REPORT #F-C5120-2.

SECTION C2-14FACILITY: TURKEY POINT
UNIT: 3 & 4INDEX
TO COMPONENT EVALUATION
WORK SHEETS

DOCKET NO:

UNIT 3 - 50-250

UNIT 4 - 50-251

SYSTEM: MISCELLANEOUS - TERMINAL BOXES

PAGE NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	REV	DATE	REMARKS
14-1	TB 3044	TERMINAL BOX	<u>1</u>	<u>6/27/80</u>	
14-2	TB 3065	TERMINAL BOX	↓	↓	
14-3	TB 3067	TERMINAL BOX	↓	↓	
14-4	TB 3122	TERMINAL BOX	<u>2</u>	<u>8/14/81</u>	
14-5	TB 3123	TERMINAL BOX	↓	↓	
14-6	TB 3124	TERMINAL BOX	↓	↓	
14-7	TB 3125	TERMINAL BOX	↓	↓	
14-8	TB 3126	TERMINAL BOX	↓	↓	
14-9	TB 3127	TERMINAL BOX	↓	↓	
14-10	TB 3115	TERMINAL BOX	↓	↓	
14-11	TB 3134	TERMINAL BOX	<u>1</u>	<u>6/27/80</u>	
14-12	TB 3135	TERMINAL BOX	↓	↓	
14-13	TB 3143	TERMINAL BOX	<u>2</u>	<u>8/14/81</u>	
14-14	TB 3144	TERMINAL BOX	↓	↓	
14-15	TB 3145	TERMINAL BOX	↓	↓	
14-16	TB 3150	TERMINAL BOX	<u>1</u>	<u>6/27/80</u>	
14-17	TB 3208	TERMINAL BOX	↓	↓	
14-18	TB 3213	TERMINAL BOX	↓	↓	
14-19	TB 3301	TERMINAL BOX	<u>2</u>	<u>8/14/81</u>	
14-20	TB 3303	TERMINAL BOX	↓	↓	

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MISCELLANEOUS PLANT ID NO. TB 3122 Component: TERMINAL BOX (SEE MASTER LIST FOR ASSOC. DEVICES) FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: FIELD FABRICATED PER BECHTEL DRAWING 5610-E-308 MODEL NO: N/A ACCURACY: Spec: N/A Demon: N/A SERVICE: TO PROVIDE LOCAL INTERCONNECT FACILITY LOCATION INSIDE CONTAINMENT 4'-10" ABOVE FLOOR Area 5 Elev 58'-0" (FLOOR) Ref Dwg No. Mech N/A Elect 5610-E-102 REV 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	72 Hrs.	SEE ATTACHMENT # 7	See Note 2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Temperature (°F)	See Attachment #1	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Pressure (PSIA)	See Attachment #2	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Relative Humidity (%)	100%	SEE ATTACHMENT # 7	Assumed	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE ATTACHMENT # 7	3	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Radiation	SEE ATTACHMENT #3	SEE ATTACHMENT # 7	2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Aging	40 YEARS	> 40 YEARS	SEE NOTE 1	53	Engineering ANALYSIS	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the PSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
2) Operating time indicated reflects the longest time of devices catered by this box (see Evaluation for SV-3-2908).

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MISCELLANEOUS PLANT ID NO. TB 3123 Component: TERMINAL BOX (SEE MASTER LIST FUNCTION: FOR ASSOC. DEVICES) LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: FIELD FABRICATED PER BECHTEL DRAWING 5610-E-308 MODEL NO: N/A ACCURACY: Spec: N/A Demon: N/A SERVICE: TO PROVIDE LOCAL INTERCONNECT FACILITY LOCATION INSIDE CONTAINMENT Area 6 Elev. 58'-0" (FLOOR) Ref Dwg No. Mech N/A Elect 5610-E-105 Rev 5 Flood Level Elev: 19'-0" Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 Hrs	SEE ATTACHMENT # 7	See Note 2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Temperature (°F)	See Attachment #1	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Pressure (PSIA)	See Attachment #2	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Relative Humidity (%)	100%	SEE ATTACHMENT # 7	Assumed	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE ATTACHMENT # 7	3	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Radiation	SEE ATTACHMENT #3	SEE ATTACHMENT # 7	2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Aging	40 YEARS	> 40 YEARS	SEE NOTE 1	53	Engineering ANALYSIS	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) Operating time indicated reflects the longest time of devices catered by this box (see Evaluation for SV-3-2906).						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. EPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MISCELLANEOUS PLANT ID NO. TB 3124 Component: TERMINAL BOX (SEE MASTER LIST FOR ASSOC. DEVICES) FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: FIELD FABRICATED PER BECHTEL DRAWING 5610-E-308 MODEL NO: N/A ACCURACY: Spec: N/A Demon: N/A SERVICE: TO PROVIDE LOCAL INTERCONNECT FACILITY LOCATION INSIDE CONTAINMENT 4'-10" ABOVE FLOOR Area 5 Elev. 58'-0" (FLOOR) Ref Dwg No. Mech N/A Elect 5610-E-102 REV 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	72 Hrs.	SEE ATTACHMENT # 7	See Note 2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Temperature (°F)	See Attachment #1	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Pressure (PSIA)	See Attachment #2	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Relative Humidity (%)	100%	SEE ATTACHMENT # 7	Assumed	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE ATTACHMENT # 7	3	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Radiation	SEE ATTACHMENT #3	SEE ATTACHMENT # 7	2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Aging	40 YEARS	> 40 YEARS	SEE NOTE 1	53	Engineering ANALYSIS	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) Operating time indicated reflects the longest time of devices catered by this box (see Evaluation for SV-3-2907).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MISCELLANEOUS PLANT ID NO. TB 3125 Component: TERMINAL BOX (SEE MASTER LIST FOR ASSOC. DEVICES) FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: FIELD FABRICATED PER BECHTEL DRAWING 5610-E-308 MODEL NO: N/A ACCURACY: Spec: N/A Demon: N/A SERVICE: TO PROVIDE LOCAL INTERCONNECT FACILITY LOCATION INSIDE CONTAINMENT 4'-9" ABOVE FLOOR Area 6 Elev. 58'-0" (FLOOR) Ref Dwg No. Mech N/A Elect 5610-E-105 REV 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	72 Hrs.	SEE ATTACHMENT # 7	See Note 2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Temperature (°F)	See Attachment #1	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Pressure (PSIA)	See Attachment #2	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Relative Humidity (%)	100%	SEE ATTACHMENT # 7	Assumed	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Chemical Spray	2030 PPM BORON SQL AS BORIC ACID	SEE ATTACHMENT # 7	3	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Radiation	SEE ATTACHMENT # 3	SEE ATTACHMENT # 7	2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Aging	40 YEARS	>40 YEARS	See Note 1	53	ENGINEERING ANALYSIS	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) Operating time indicated reflects the longest time of devices catered by this box (see Evaluation for SV-3-2905).							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 - 53 ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MISCELLANEOUS PLANT ID NO. TB 3126 Component: TERMINAL BOX (SEE MASTER LIST FOR ASSOC. DEVICES) FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: FIELD FABRICATED PER BECHTEL DRAWING 5610-E-308 MODEL NO: N/A ACCURACY: Spec: N/A Demon: N/A SERVICE: TO PROVIDE LOCAL INTERCONNECT FACILITY LOCATION: INSIDE CONTAINMENT 4'-10" ABOVE FLOOR Area 6 Elev. 58'-0" (FLOOR) Ref Dwg No. Mech N/A Elect 5610-E-105 REV 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	72 Hrs.	SEE ATTACHMENT # 7	See Note 2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Temperature (°F)	See Attachment #1	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Pressure (PSIA)	See Attachment #2	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Relative Humidity (%)	100%	SEE ATTACHMENT # 7	Assumed	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE ATTACHMENT # 7	3	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Radiation	SEE ATTACHMENT #3	SEE ATTACHMENT # 7	2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Aging	40 YEARS	>40 YEARS	See Note 1	53	ENGINEERING ANALYSIS	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) Operating time indicated reflects the longest time of devices catered by this box (see Evaluation for SV-3-2909)						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETION 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MISCELLANEOUS PLANT ID NO. TB 3127 Component: TERMINAL BOX (SEE MASTER LIST FOR ASSOC. DEVICES) FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: FIELD FABRICATED PER BECHTEL DRAWING 5610-E-308 MODEL NO: N/A ACCURACY: Spec: N/A Demon: N/A SERVICE: TO PROVIDE LOCAL INTERCONNECT FACILITY LOCATION INSIDE CONTAINMENT 4'-10" ABOVE FLOOR Area 6 Elev. 58'-0" (FLOOR) Ref Dwg No. Mech N/A Elect 5610-E-105 REV 5 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	72 Hrs.	SEE ATTACHMENT # 7	See Note 2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Temperature (°F)	See Attachment #1	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Pressure (PSIA)	See Attachment #2	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Relative Humidity (%)	100%	SEE ATTACHMENT # 7	Assumed	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE ATTACHMENT # 7	3	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Radiation	SEE ATTACHMENT #3	SEE ATTACHMENT # 7	2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Aging	40 YEARS	> 40 YEARS	See Note 1	53	ENGINEERING ANALYSIS	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) Operating time indicated reflects the longest time of devices catered by this box (see Evaluation for SV-3-2910).						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 - 53: ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: CMT. VENTILATION PLANT ID NO. TB 3115 Component: TERMINAL BOX (SEE MASTER LIST FOR ASSOC. DEVICES) FUNCTION: LOCA/HELB (INSIDE) MITIGATE & MONITOR MANUFACTURER: FIELD FABRICATED PER BECHTEL DRAWING 5610-E-308 MODEL NO: N/A ACCURACY: Spec: N/A Demon: N/A SERVICE: TO PROVIDE LOCAL INTERCONNECT FACILITY LOCATION INSIDE CONTAINMENT 6'-5" ABOVE FLOOR Area 5 Elev. 14' (FLOOR) Ref Dwg No. Mech N/A Elect 5610-E-100, REV. 7 Flood Level Elev: 19'-0" Doc. Ref. 3.2 Above Flood Level: Yes <u>X</u> No _____	Operating Time	72 HOURS	SEE ATTACHMENT #7	SEE NOTE 2	SEE ATTACHMENT #7	ENGINEERING ANALYSIS -	NONE
	Temperature (°F)	SEE ATTACHMENT #1	SEE ATTACHMENT #7	1	SEE ATTACHMENT #7	ENGINEERING ANALYSIS	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	SEE ATTACHMENT #7	1	SEE ATTACHMENT #7	ENGINEERING ANALYSIS	NONE
	Relative Humidity (%)	100%	SEE ATTACHMENT #7	ASSUMED	SEE ATTACHMENT #7	ENGINEERING ANALYSIS	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE ATTACHMENT #7	3	SEE ATTACHMENT #7	ENGINEERING ANALYSIS	NONE
	Radiation	SEE ATTACHMENT #3	SEE ATTACHMENT #7	2	SEE ATTACHMENT #7	ENGINEERING ANALYSIS	NONE
	Aging	40 YEARS	> 40 YEARS	SEE NOTE 1	53	ENGINEERING ANALYSIS	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
2) Operating time indicated reflects the longest time of devices catered by this box (see Evaluation for TE-3-3440)..

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MISCELLANEOUS PLANT ID NO. TB-3143 Component: TERMINAL BOX (SEE MASTER LIST FOR ASSOC. DEVICES) FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: FIELD FABRICATED PER BECHTEL DRAWING 5610-E-308 MODEL NO: N/A ACCURACY: Spec: N/A Demon: N/A SERVICE: TO PROVIDE LOCAL INTERCONNECT FACILITY LOCATION INSIDE CONTAINMENT ABOVE EL. 19'-0" Area 5 Elev. 14'-0" Ref Dwg No. Mech N/A Elect 5610-E-100 REV 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	190 Hrs.	SEE ATTACHMENT # 7	See Note 2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Temperature (°F)	See Attachment #1	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Pressure (PSIA)	See Attachment #2	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Relative Humidity (%)	100%	SEE ATTACHMENT # 7	Assumed	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE ATTACHMENT # 7	3	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Radiation	SEE ATTACHMENT #3	SEE ATTACHMENT # 7	2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Aging	40 YEARS	> 40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) Operating time indicated reflects the longest time of devices catered by this box (see Evaluation for SV-3-310A).						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MISCELLANEOUS PLANT ID NO. TB 3144 Component: TERMINAL BOX (SEE MASTER LIST FOR ASSOC. DEVICES) FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: FIELD FABRICATED PER BECHTEL DRAWING 5610-E-308 MODEL NO: N/A ACCURACY: Spec: N/A Demon: N/A SERVICE: TO PROVIDE LOCAL INTERCONNECT FACILITY LOCATION: INSIDE CONTAINMENT 2'-0" ABOVE FLOOR Area 5 Elev. 14'-0" Ref Dwg No. Mech N/A Elect 5610-E-100 REV 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes _____ No <u> X </u>	Operating Time	1/2 hr.	SEE ATTACHMENT # 7	See Note 2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Temperature (°F)	See Attachment #1	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Pressure (PSIA)	See Attachment #2	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Relative Humidity (%)	100%	SEE ATTACHMENT # 7	Assumed	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE ATTACHMENT # 7	3	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Radiation	SEE ATTACHMENT #3	SEE ATTACHMENT # 7	2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Aging	40 YEARS	> 40 YEARS	SEE NOTE 1	53	Engineering Analysis	NONE
	Submergence	ABOVE 19'-0"	NONE	3.2	NONE	NONE	NONE SEE NOTE #4

NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years.
 2) Operating time indicated reflects the longest time of devices catered by this box (see Evaluation for SV-3-2601).
 4) Device will have performed intended function before becoming submerged.

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

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SYSTEM COMPONENT EVALUATION WORK SHEET

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MISCELLANEOUS PLANT ID NO. TB 3145 Component: TERMINAL BOX (SEE MASTER LIST FOR ASSOC. DEVICES) FUNCTION: LOCA/HELB (INSIDE) MITIGATE MANUFACTURER: FIELD FABRICATED PER BECHTEL DRAWING 5610-E-308 MODEL NO: N/A ACCURACY: Spec: N/A Demon: N/A SERVICE: TO PROVIDE LOCAL INTERCONNECT FACILITY LOCATION INSIDE CONTAINMENT 8'-8" ABOVE FLOOR Area 5 Elev. 14'-0" Ref Dwg No. Mech N/A Elect 5610-E-100 REV 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: NOTE 3 Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	190 Hrs.	SEE ATTACHMENT # 7	See Note 2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Temperature (°F)	See Attachment #1	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Pressure (PSIA)	See Attachment #2	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Relative Humidity (%)	100%	SEE ATTACHMENT # 7	Assumed	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE ATTACHMENT # 7	3	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Radiation	SEE ATTACHMENT #3	SEE ATTACHMENT # 7	2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Aging	40 YEARS	> 40 YEARS	See Note 1	53	ENGINEERING ANALYSIS	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	NONE
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) Operating time indicated reflects the longest time of devices catered by this box (see Evaluation for SV -3-310B).						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

PAGE 14-19

Rev. 2

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MISCELLANEOUS PLANT ID NO. TB 3301 Component: TERMINAL BOX (SEE MASTER LIST FOR ASSOC. DEVICES) FUNCTION: LOCA/HELB (INSIDE & OUTSIDE) MITIGATE MANUFACTURER: FIELD FABRICATED PER BECHTEL DRAWING 5610-E-308 MODEL NO: N/A ACCURACY: Spec: N/A Demon: N/A SERVICE: TO PROVIDE LOCAL INTERCONNECT FACILITY LOCATION INSIDE CONTAINMENT 5'-7" ABOVE FLOOR Area 5 Elev. 14'-0" Ref Dwg No. Mech N/A Elect 5610-E-100, Rev. 7 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u> X </u> No <u> </u>	Operating Time	31 days	SEE ATTACHMENT # 7	See Note 2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Temperature (°F)	See Attachment #1	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Pressure (PSIA)	See Attachment #2	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Relative Humidity (%)	100%	SEE ATTACHMENT #7	Assumed	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE ATTACHMENT #7	3	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Radiation	SEE ATTACHMENT #3	SEE ATTACHMENT # 7	2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Aging	40 YEARS	> 40 YEARS	See Note 1	53	Engineering ANALYSIS	NONE
	Submergence	ABOVE 19'-0"	SEE NOTE 3	3.2	SEE NOTE 3	NONE	SEE NOTE 3
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) Operating time indicated reflects the longest time of devices catered by this box (see Evaluation for LT-3-459).						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

PAGE 14-20

Rev. 2

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: MISCELLANEOUS PLANT ID NO. TB 3303 Component: TERMINAL BOX (SEE MASTER LIST FOR ASSOC. DEVICES) FUNCTION: LOCA/HELB(INSIDE & OUTSIDE)MITIGATE & MONITOR MANUFACTURER: FIELD FABRICATED PER BECHTEL DRAWING 5610-E-308 MODEL NO: N/A ACCURACY: Spec: N/A Demon: N/A SERVICE: TO PROVIDE LOCAL INTERCONNECT FACILITY LOCATION INSIDE CONTAINMENT 6'-6" ABOVE FLOOR Area 6 Elev. 14'-0" Ref Dwg No. Mech N/A Elect 5610-E-103, Rev. 6 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	24 Hrs.	SEE ATTACHMENT # 7	See Note 2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Temperature (°F)	See Attachment #1	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Pressure (PSIA)	See Attachment #2	SEE ATTACHMENT # 7	1	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Relative Humidity (%)	100%	SEE ATTACHMENT #7	Assumed	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	SEE ATTACHMENT #7	3	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Radiation	SEE ATTACHMENT #3	SEE ATTACHMENT # 7	2	SEE ATTACHMENT # 7	Engineering ANALYSIS	NONE
	Aging	40 YEARS	> 40 YEARS	See Note 1	53	Engineering ANALYSIS	NONE
	Submergence	ABOVE 19'-0"	SEE NOTE 3	3.2	SEE NOTE 3	NONE	SEE NOTE 3
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging req'd. assumed to be 40 years. 2) Operating time indicated reflects the longest time of devices catered by this box (see Evaluation for LT-3-474).						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE & TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.

42. ENGINEERING ANALYSIS ON QUALIFICATION OF MOTOROLA PRESSURE TRANSMITTERS
43. QUALIFICATION TYPE TEST REPORT NO. B0003 LIMITORQUE VALVE ACTUATORS OUTSIDE PRIMARY CONTAINMENT
44. QUALIFICATION TEST REPORT FOR ROSEMOUNT PRESSURE TRANSMITTER RMT REPORT NO. 3788 REV. A
45. ENGINEERING ANALYSIS OF RCS TO RHR INLET ISOLATION VALVES
46. ENVIRONMENTAL QUALIFICATION/ANALYSIS OF UNITED ELECTRIC PRESSURE AND LEVEL CONTROLLERS
47. ENVIRONMENTAL QUALIFICATION OF CLASS 1E MOTORS FOR NUCLEAR OUT-OF-CONTAINMENT USE WESTINGHOUSE WCAP-8754 (PAGES 4-1 & 5-1)
48. ENGINEERING ANALYSIS - QUALIFICATION OF SOLENOID VALVE IN AUXILIARY BUILDING AND STEAM LINE BREAK AREAS
49. ENGINEERING ANALYSIS CHARCOAL FILTER DOUSING VALVES
50. QUALIFICATION ANALYSIS FOR NAMCO LIMIT SWITCHES
51. ISOMEDIX TEST REPORT FOR INSTRUMENT CABLE FOR PT-406 AND PT-407 RCS PRESSURE TRANSMITTERS
52. QUALIFICATION OF REPLACEMENT NAMCO CONTROLS LIMIT SWITCH MODEL EA-180-11302
53. ENGINEERING ANALYSIS FOR AGING OF DEVICES COVERED IN IEB-7901B MASTER LIST
54. GENERAL ELECTRIC LETTER TO BECHTEL DATED MAY 16, 1980
55. ENGINEERING ANALYSIS OF ITT BARTON PRESSURE CONTROLLERS & DIFFERENTIAL PRESSURE SWITCHES
56. CHEMPUMP LETTER TO BECHTEL DATED JUNE 10, 1980
57. FISHER CONTROLS LETTER TO FPL DATED MAY 2, 1980 AND TYPE 546 BULLETIN
58. ENGINEERING ANALYSIS-RADIATION DETECTORS RD-11, RD-12
59. ENGINEERING ANALYSIS OF DAYTON MOTORS
60. ENGINEERING ANALYSIS AND PRODUCT SPECIFICATIONS FOR FOXBORO INSTRUMENTS
61. QUALIFICATION TEST REPORT NO. 770831 FOR PYCO TEMPERATURE DETECTORS
62. QUALIFICATION TEST REPORT NO. F-C4836-2 FOR ANACONDA FLAME GUARD (FR-EP) 1E CABLES AND TEMPERATURE EXTRAPOLATION
63. ROCKBESTOS QUALIFICATION TEST REPORT OF JUNE 7, 1978 FOR FIREWALL III CLASS 1E ELECTRIC CABLES
64. QUALIFICATION TEST REPORT (T.E.C. NO. 517-TR-03) FOR ENVIRONMENTAL AND SEISMIC TESTING
65. QUALIFICATION TESTS OF BRAND-REX COAXIAL TYPE CABLES. FIRL FINAL REPORT NO. F-C5120-2

FLORIDA POWER AND LIGHT COMPANY
TURKEY POINT UNITS 3 AND 4
NUCLEAR CHEMISTRY PROCEDURE NC-2
JULY 30, 1981

1.0 Title:

SCHEDULE FOR PERIODIC TESTS

2.0 Approval and List of Effective Pages:

2.1 Approval:

Change Dated 7/30/81 Reviewed by Plant Nuclear Safety Committee: 81-53

and Approved by Plant Manager - Nuclear: 7/30/81

2.2 List of Effective Pages:

<u>Page</u>	<u>Date</u>	<u>Page</u>	<u>Date</u>	<u>Page</u>	<u>Date</u>
1	7/30/81	3	7/30/81	5	7/30/81
2	7/30/81	4	7/30/81		

3.0 Scope:

3.1 Requirements:

Items denoted as Technical Specification items on the schedule are required for compliance with Technical Specifications and shall take precedence over all other items on the schedule.

3.2 Purpose:

This procedure provides a schedule for periodic and routine sampling frequency for the various systems associated with the operation of Units 3 and 4.

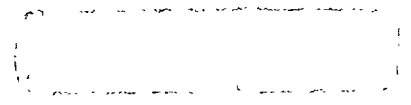
4.0 Instructions:

4.1 Sampling and testing of systems in service shall be scheduled in accordance with the periodic test schedule, Table I.

4.2 Except for Technical Specification requirements, deviations from this schedule may be made when authorized by the Nuclear Chemistry Supervisor and/or the Radiochemist.

REGULATORY DOCKET FILE COPY

(continued)

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NUCLEAR CHEMISTRY PROCEDURE NC-2, PAGE 2
SCHEDULE FOR PERIODIC TESTS

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TABLE I
PERIODIC TEST SCHEDULE (NORMAL OPERATION)

SYSTEM	TEST	pH	Cat- ion Cond	Na ⁺	Cl ⁻	SiO ₂	Free OH ⁻	NH ₃	O ₂	Susp. Solids	N ₂ H ₄	Cond	Fe	Cu	O-PO ₄	T-PO ₄	CrO ₄
Steam Generators		D	D	D	D	D	AN	AN	2M	M	AN						
Feedwater		D						AN	D		D	D	D	D			
Condensate		D			D				D			D					
Condensate Storage Tank		W	W	W		W	AN			M							
Main Steam																	
Air Ejector Vent																	
Turbine Plant Cooling Water		W										W			W	W	W
Emergency Diesel		M															M
Condensate Recovery Tank																	
Sanitary Tank																	
Potable Water																	
Storm Drains																	
S/G Draindown Releases																	
WTP - Coagulator		D															
WTP - Anion and Mix Beds		D				D						D					
WTP - Carbon Filters																	

LEGEND:

D: Daily W: Weekly 2Y: 2 times/year
 5W: 5 times/week 2M: 2 times/month AN: As necessary
 3W: 3 times/week M: Monthly *: Tech. Spec. Items
 2W: 2 times/week Q: Quarterly

Note: Number - Letter designations outside of parentheses indicate Tech. Spec. requirement for minimum sampling frequency;
 Number - Letter designations inside of parentheses indicate recommended minimum sampling frequency.

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NUCLEAR CHEMISTRY PROCEDURE NC-2, PAGE 3
SCHEDULE FOR PERIODIC TESTS

7/81

TABLE I (Cont'd)
PERIODIC TEST SCHEDULE (NORMAL OPERATION)

SYSTEM \ TEST	Gross β-γ	H-3	I-131	γ Spec		Gross α	Sr-89 Sr-90 Sep'n	PA	TA	Hard ness	Turb- idity	Cl ₂	Fuel Oil Inventory		
Steam Generators	D	W	W*	3W											
Feedwater															
Condensate															
Condensate Storage Tank															
Main Steam		W		AN											
Air Ejector Vent				AN											
Turbine Plant Cooling Water	AN														
Emergency Diesel													W*		
Condensate Recovery Tank	D														
Sanitary Tank	M														
Potable Water	M														
Storm Drains				M											
S/G Draindown Releases		AN		AN		AN	AN								
WTP - Coagulator								D	D	D	D				
WTP - Anion and Mix Beds															
WTP - Carbon Filters												D			

LEGEND:

D: Daily	W: Weekly	2Y: 2 times/year
5W: 5 times/week	2M: 2 times/month	AN: As necessary
3W: 3 times/week	M: Monthly	*: Tech. Spec. Items
2W: 2 times/week	Q: Quarterly	

Note: Number - Letter designations outside of parentheses indicate Tech. Spec. requirement for minimum sampling frequency; Number - Letter designations inside of parentheses indicate recommended minimum sampling frequency.

NUCLEAR CHEMISTRY PROCEDURE NC-2, PAGE 4
SCHEDULE FOR PERIODIC TESTS

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TABLE I (Cont'd)
PERIODIC TEST SCHEDULE (NORMAL OPERATION)

SYSTEM	TEST	pH	Cond	B	Cl ⁻	F ⁻	O ₂	H ₂	N ₂	Li	Cation Cond.	Total Solids	Susp. Solids or Crud	SiO ₂	CrO ₄	Zeolites
Reactor Coolant		D	D	2W*(D)	5W*(D)	5W*(D)	5W*(D)	3W		2W			2M	M		M
Pressurizer Liquid		D	D	D	2W	2W	2W	2W		2W						
RCS Demin-Outlet		W		AN	W	W				W						
RHR (when in service)		D	D	2W*(D)	5W*(D)	5W*(D)	5W*(D)						2M		W	
PWST		3W			3W	3W	3W				3W	3W	M	3W		M
RWST		W	W	W*	W	W							M	M		M
SFP		W	W	W*	W	W										M
SFP Demin. Inlet				W	W	W										
SFP Demin. Outlet					W	W										
Pressurizer Relief Tank							W	W	W							
VCT Gas Space							W	W	W							
Gas Decay Tank																
Accumulators				M*(2M)	2M	2M										
Boric Acid Storage Tanks				2W*(3W)	W	W								M		M
Boron Injection Tank				M*(2M)												
Component Cooling Water		W	W		W	W									W	
Containment Atmos. (Gas)																
Cont. Atmos. (Char/Part Filt.)																
Plant Vent Charcoal Filter																
Plant Vent Part. Filter																
SFP Charcoal Filter																
SFP Part. Filter																
Liquid Release Weekly Comp.																
Liquid Release Monthly Comp.				M												
Typical Liquid Release (Gas)																
Emer. Cont. Char. Surv. Spec.																

LEGEND:

D: Daily W: Weekly 2Y: 2 times/year
 5W: 5 times/week 2M: 2 times/month AN: As necessary
 3W: 3 times/week M: Monthly *: Tech. Spec. Items
 2W: 2 times/week Q: Quarterly

Note: Number - Letter designations outside of parentheses indicate Tech. Spec. requirement for minimum sampling frequency;
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7/5/81

NUCLEAR CHEMISTRY PROCEDURE NC-2, PAGE 5
SCHEDULE FOR PERIODIC TESTS

TABLE I (Cont'd)
PERIODIC TEST SCHEDULE (NORMAL OPERATION)

SYSTEM \ TEST	Gross β - γ	H-3	Rad Chem	\bar{E}	γ Spec	7-Day Gross β - γ	7-Day Gross α	Crud Gross α	Ex- Change Filter	I-131 and Part.	Sr-89 and Sr-90 Sep'n	Gross α	Iodine Removal	
Reactor Coolant	5W*(D)	W*	M*	2Y*		D		2M						
Pressurizer Liquid														
RCS Demin-Outlet	W													
RHR (when in service)	5W*(D)	W*	M*	2Y*				2M						
PWST	W	W												
RWST	W	W												
SFP	W				W									
SFP Demin. Inlet	W													
SFP Demin. Outlet	W													
Pressurizer Relief Tank														
VCT Gas Space					M									
Gas Decay Tank		AN*			AN*					AN*				
Accumulators														
Boric Acid Storage Tanks	W													
Boron Injection Tank														
Component Cooling Water	W	W												
Containment Atmos. (Gas)		W			AN*(W)									
Cont. Atmos. (Char/Part. Filt.)										AN*				
Plant Vent Charcoal Filter					W*				W*					
Plant Vent Part. Filter					W*	W	W		W*		Q*(M)			
SFP Charcoal Filter					W*				W*					
SFP Part. Filter					W*	W	W		W*		Q*			
Liquid Release Weekly Comp.		W			W*									
Liquid Release Monthly Comp.	M*	M*									M*	M*		
Typical Liquid Release (Gas)					M*									
Emer. Cont. Char. Surv. Spec.													Q*	

LEGEND:

D: Daily W: Weekly 2Y: 2 times/year
 5W: 5 times/week 2M: 2 times/month AN: As necessary
 3W: 3 times/week M: Monthly *: Tech. Spec. Items
 2W: 2 times/week Q: Quarterly

Note: Number - Letter designations outside of parentheses indicate Tech. Spec. requirement for minimum sampling frequency; Number - Letter designations inside of parentheses indicate recommended minimum sampling frequency.

Nuclear Chemistry Department Instruction

Plant Cold Shutdown - Secondary Systems

1. Verify:

- a. A sufficient amount of hydrazine and ammonium hydroxide is on hand to place steam generators in wet layup.
- b. Chemical feed isolation valves to feedwater (steam generators) are open - valve numbers 134, 234, 334.
- c. Chemical addition tank supply water is lined up to the unaffected unit.

NOTE: With both units shut down, fill water can be obtained by lining up to #3 CST.

2. Prior to shutdown, isolate a hydrazine tank and add approximately 15 gallons of approximately 35% hydrazine to the isolated tank.
3. When load reduction is commenced:
 - a. Increase stroke on feedwater hydrazine pump to approximately double the concentration.
 - b. The hotwell pumps should be stopped and isolated.
 - c. Secure the hydrazine analyzer.
4. When the main feedwater pumps have been secured:
 - a. Secure feedwater hydrazine and ammonium hydroxide chemical feed pumps.
 - b. Begin pumping dilute concentration of hydrazine into the steam generators using the steam generator chemical feed pumps.
 - c. Isolate condensate and steam generator cation resin columns.
5. Whenever possible, a steam generator blowdown should be maintained throughout the cooldown.
6. Monitor steam generators periodically to determine the effectiveness of hydrazine addition.
7. When RHR is placed in service, approximately 350° primary system temperature, secure pumping dilute hydrazine to the steam generators and commence pumping the concentrated hydrazine equally to each of the steam generators.
 - a. When the tank is nearly empty, refill and pump again.
8. Secure steam generator chemical feed pumps and isolate.
9. If the steam generator recirculation system is available:
 - a. Further addition of chemicals may be deferred until addition can be made

with the steam generator recirculation system.

- b. Once the steam generators have been filled, have the steam generator recirculation system placed in service.
 1. Add 15 gallons of hydrazine plus 3 gallons of ammonium hydroxide to each steam generator during recirculation.
 2. Allow a recirculation time of one hour following chemical addition.
 - c. Following chemical addition to all steam generators in wet layup:
 1. The steam generator recirculation system should be placed in continuous service.
 2. Recirculate each steam generator for one shift (8 hours) alternating between each steam generator in wet layup every 8 hours.
 3. A sample from each steam generator that has had chemicals added should be collected and analyzed near the end of its first 8 hour recirculation period.
 - a. Additional chemicals should be added as necessary.
 4. Following the initial sample, steam generators in wet layup should be sampled at least weekly. Samples should be collected near the end of a recirculation period.
10. If the steam generator recirculation system is unavailable:
- a. Chemicals should be added via the condensate transfer pump during fill.
 - b. Sample for all steam generators placed in wet layup should be collected and analyzed as soon as practicable following layup of the steam generator and at least weekly thereafter.

Discussion: Plant Cold Shutdown - Secondary Systems.

1. Whenever possible, advance preparations for an evolution can be the means to avoid unnecessary aggravation.
2. Concentrated hydrazine is pumped to the steam generators as a means of scavenging oxygen. Preparing for the addition of hydrazine before shutdown will allow more time for other evolutions of the shutdown where time is a factor.
3. The stroke on the feedwater hydrazine pump is increased so that as load is decreased, the corresponding load following signal will not result in a complete loss of hydrazine being pumped to the steam generators. The hydrazine analyzer and hotwell sampling pumps are secured and isolated at this time from a convenience standpoint since waiting until a later time could result in forgetting to properly secure these systems.

4. When the main feed pump is secured, feed to the steam generators is supplied from one of two possible sources.

- a. Supply from 3 and 4 condensate storage tank - This supply of water consists of secondary side quality makeup water that is air saturated. Use of this as a supply source requires the use of auxiliary feed water pumps in order to boost the pressure to that of the steam generators.
- b. Supply from Units 1 and 2 - This supply is fed from the feedwater pump casing on Unit 2 through cross ties to the steam generators of Unit 3 or 4. This water is treated chemically with hydrazine by 1 and 2 Results.

Normally, for a cold shutdown process, water will be supplied from the condensate storage tank (feed from 1 and 2 is supplied at approximately 500°F). Therefore, a dilute concentration of hydrazine is fed to each steam generator to scavenge oxygen that can enter the steam generators from the makeup source.

Flow to the steam generator cation conductivity columns is secured to avoid passing hydrazine through them.

5. A steam generator blowdown is desirable at this time because solids that are in the steam generators will begin to reappear. However, the question of the blowdown is also dependent upon other factors. For instance, if there is a primary to secondary leak in a steam generator, the desirability of a continuous blowdown for that steam generator should be dependent upon the radioactivity considerations.
6. Samples for hydrazine and oxygen should be collected.
7. Concentrated hydrazine is pumped to the steam generators in preparation for filling near the wet layup level from the oxygenated source. This addition is made at approximately 350° so that oxygen scavenging will be efficient.
8. The steam generator recirculation system is the preferred method for chemical addition due to the availability of chemical mixing.

Plant Heatup from Cold Shutdown - Secondary System

1. Prior to fill and vent of primary system, individual hot well pumps should be checked to insure proper operation. During pump checks, samples of the individual hot wells should be drawn. These samples should be checked for chlorides and visible crud. If detectable chlorides or excessive crud occurs, notify chemistry supervisor and shift supervisor.
2. As the primary side heatup commences, blowdowns will be initiated. Note time and total blowdown rate for the radiochemist. Insure the R-19 process radiation monitor is in service.
3. As heatup continues, feed to the generators will be established. Determine the source of feedwater. If the feed is from 1 and 2, the water is chemically treated and no chemical addition is necessary. If the source is the CST (aux feed pumps will be used) it will be necessary to feed hydrazine to the generators using the Yarway pumps. Check generators for Cl^- and hydrazine during this period.
4. When a condensate pump is started, the condensate cation conductivity header should be aligned and started. Check the conductivity on the control room conductivity chart.
5. As heatup continues, check the generators for hydrazine. When the concentrations are low (≈ 300 ppb) initiate flow through individual steam generator cation conductivity cells. Monitor the conductivity chart in the control room.
6. When a vacuum is drawn on the condenser, place the individual hot well pumps in service and monitor the conductivity chart in the control room. This is the critical time for detection of tube leaks; frequent monitoring is a necessity. High or increasing conductivities should be checked out thoroughly and reported to the chemistry supervisor and the shift supervisor. If a leak is present, monitor steam generator chorides as well.
7. When a normal feed train is established, begin chemical feed with the Lapp pumps. Pump at maximum stroke. As power is increased, reduce pump stroke to prevent pump damage. Monitor feedwater and steam generator chemistry.
8. Start hydrazine analyzer.
9. Monitor oxygen in condensate. If greater than 5ppb after 24 hours, an air leak is present, notify chemistry supervisor.
10. When the second condensate pump is put in service, establish flow through the second condensate conductivity cell.

Discussion

1. Anytime the condenser undergoes a thermal change, there is a chance for tube damage to occur. The earlier a chloride problem is detected, the easier it is to correct. For prolonged outages such as refueling and when the condensate side is open to atmosphere, chances for crud due to oxidation of the metals is likely. Should excessive crud or chlorides be detected, corrective measures may need to be taken. These may include searching for tube leaks and draining of the condenser boxes (24 hours). Most condenser leaks are not detected, however, until a vacuum is drawn. (See step 6).

2. The initiation time and total blowdown are required by the radiochemist to account for blowdown activity. Should the startup come after a primary to secondary leak, isotopic activities are requested. These isotopic activities can usually be gotten from the liquid releases used to bring generators to operating level. If, however, no previous samples were taken, they should be run.
3. To pump hydrazine, start 1, 2 or 3 pumps as necessary and pump to the individual generators. Pump with normal concentrations, do not isolate the tanks. Refer to appropriate diagrams for line ups. If pressure indicated =1500 psi on gage, chemical feed isolation valves to feedwater 134, 234, 334 are secured, ask the watch engineer to have them opened. Because of uneven flow paths and only periodic injection, it may be necessary to adjust flows and throttle injection to individual generators.
4. When the condensate pump is started, conductivities will increase. If excessive, monitor closely.
5. Excess hydrazine will damage resin. High hydrazine concentrations may occur because the steam generators were in wet lay up. Check for hydrazine before putting the steam generator cation conductivity system in service.
6. Normally a vacuum is drawn sometime after the steamlines have begun heating (usually between 400°F and 550°F.) When the vacuum is drawn on the condenser, the pressure on the seawater side becomes considerably larger than on the condensate side. If any tube leaks are present, seawater will be forced into the condensate side. A tube leak is indicated if one of the four individual wells shows a higher conductivity than the rest. Insure the problem is not due to bad resin or to a bad conductivity cell before reporting that a leak is present.
7. Pumps follow the power load, at zero power the chemical addition is small. It is normally difficult to elevate pH to proper level and to obtain a detectable hydrazine concentration. Do not "worry" as power is ramped, pH and hydrazine levels should rise. If they don't, you should increase the doping concentration or try using two pumps.
9. Many times after the unit has been shutdown and work is done on the condenser, drain lines etc, are opened. If these are not all secured prior to startup, they are an easy source of air leaks. Many other sources also exist.

FLORIDA POWER & LIGHT COMPANY
NUCLEAR PLANT CHEMISTRY SPECIFICATIONS

Plant - Turkey Point, Unit 3

System - Condensate

I. Chemistry Specification

pH	9.0 - 9.6 @ 25°C
Total	3.0 - 11.0 μ mhos/cm @ 25°C
Chloride	<0.15 ppm
Oxygen	<0.010 ppm

II. Chemistry Control Additives

Ammonium Hydroxide - Specification PRN78 NUC-AMM, Rev. 0

Catalyzed Hydrazine - Specification PRN78 NUC-HYDRA, Rev. 0

III. Bases

A. Specification

1. pH - The specification for pH is based on corrosion curves for a ferrous feedwater system.
2. Total Conductivity - This specification is derived from theoretical curves of pH vs. conductivity from ammonia solutions.
3. Chloride - The specification for chloride is based on providing adequate corrosion protection to insure the structural integrity of the steam generator.
4. Oxygen - The specification for oxygen is based upon its known effects to corrode metal by means of oxidation. In many instances the corrosivity of known deleterious materials is increased due to the presence of oxygen.

B. Control Chemicals

1. Ammonium Hydroxide - A volatile additive used for pH control. Ammonium hydroxide is carried over in the steam, maintaining an alkaline pH throughout the system.
2. Catalyzed Hydrazine - A strong reducing agent added to the system to scavenge oxygen. It also contributes to the NH_3 inventory due to thermal degradation.

FLORIDA POWER & LIGHT COMPANY
NUCLEAR PLANT CHEMISTRY SPECIFICATIONS

Plant - Turkey Point, Unit 3

System - Feedwater

I. Chemistry Specification

pH	9.0 - 9.6 @ 25°C
Total Conductivity	3.0 - 11.0 μ mhos/cm @ 25°C
Ammonia	Consistent with pH
Hydrazine	[O ₂] + \geq 0.010 ppm
Oxygen	\leq 0.005 ppm
Iron	\leq 0.010 ppm

II. Chemistry Control Additives

Ammonium Hydroxide - Specification PRN78 NUC-AMM, Rev. 0

Catalyzed Hydrazine - Specification PRN78 NUC-HYDRA, REV. 0

III. Bases

A. Specifications

1. pH-The specification is based on corrosion curves for a ferrous feedwater system.
2. Total Conductivity - This specification is derived from theoretical curves of pH vs. conductivity for ammonia solutions.
3. Ammonia - The specification for ammonia is to insure that pH is consistent with the value that is expected based upon the concentration of ammonia.
4. Catalyzed Hydrazine - For power operation it is recommended that a hydrazine residual of \geq 0.010 ppm in excess of the feedwater oxygen be maintained down stream of the highest pressure feedwater heater.
5. Oxygen - The specification for oxygen is based upon its known effects to corrode metal by means of oxidation. In many instances the corrositivity of known deleterious materials is increased due to the presence of oxygen.
6. Iron - The specification is not intended as a control value, but is intended to indicate a point above which some system abnormality may exist.

B. Control Chemicals

1. Ammonium Hydroxide - A volatile additive used for pH control. Ammonium hydroxide is carried over in the steam, maintaining an alkaline pH throughout the system.
2. Catalyzed Hydrazine - A strong reducing agent added to the system to scavenge oxygen. It also contributes to the NH_3 inventory due to thermal degradation.

FLORIDA POWER & LIGHT COMPANY
NUCLEAR PLANT CHEMISTRY SPECIFICATIONS

Plant - Turkey Point, Unit 3

System - Steam Generator - Hot Steaming

I. Chemistry Specifications

pH	8.5 - 9.6 @ 25°C
Cation Conductivity	<2.0 μ mhos/cm @ 25°C
Sodium	<0.10 ppm
Chloride	<0.15 ppm
Free Hydroxide	<0.15 ppm
Ammonia	Consistent with pH
Oxygen	<0.005 ppm
Silica	<1.0 ppm
Suspended Solids	<1.0 ppm (.45 micron filter)
Gross	Monitor
Tritium	Monitor

II. Chemical Control Additives

Ammonium Hydroxide - Specification PRN78 NUC-AMM, Rev. 0

Catalyzed Hydrazine - Specification PRN78 NUC-HYDRA, Rev. 0

III. Bases

A. Specification

1. pH - The specification for the pH range is based on minimizing corrosion of the steam generators materials and turbine cycle and providing a means whereby perturbation to the steam generator chemistry from sources such as condenser leakage can be recognized.
2. Cation Conductivity - The specification is based on being able to detect low level contaminants concentrating in the steam generator which are acid forming in nature.
3. Sodium - The chemistry specification for sodium is based on reducing the susceptibility of causing caustic stress assisted corrosion cracking.
4. Silica - The chemistry specification for silica is based on limiting its concentration in the steam and avoiding silica deposits on turbine blades and valves.



5. Chloride - The specification for chloride is based on providing adequate corrosion protection to insure the structural integrity of the steam generator since AVT control provides no buffering protection from acid chloride attack.
6. Free Hydroxide - The specification is based on the potential for caustic stress assisted corrosion cracking of the Inconel 600 steam generator tubes.
7. Ammonia - The specification for ammonia is to insure that the pH in the steam generator is consistent with the value that is expected based upon the concentration of ammonia.
8. Oxygen - The specification is based upon its known effects to corrode metal by means of oxidation. In many instances the corrosivity of known deleterious material is increased due to the presence of oxygen.

FLORIDA POWER & LIGHT COMPANY
NUCLEAR PLANT CHEMISTRY SPECIFICATIONS

Plant - Turkey Point, Units 3 & 4

System - Steam Generators - Wet Lay Up

I. Chemistry Specification

pH	10.0 - 10.5 @ 25°C
Chloride	<0.5 ppm
Hydrazine	75 - 150 ppm
Free Hydroxide	Not Detectable

II. Chemistry Control Additives

Ammonium Hydroxide - Specification PRN78 NUC-AMM, Rev. 0
Catalyzed Hydrazine - Specification PRN78 NUC-HYDRA, Rev. 0

III. Bases

A. Specification

1. pH - The specification for pH under wet lay up condition is based on minimizing corrosion to the metal content of the steam generators.
2. Chloride - The specification for chloride is based on providing adequate corrosion protection to insure the structural integrity of the steam generator.
3. Catalyzed Hydrazine - The specification for hydrazine is based on the exclusion of oxygen from the steam generators internals to prevent corrosive attack.
4. Free Hydroxide - The specification is based on the potential for caustic stress assisted corrosion cracking of Inconel 600 steam generator tubes.

B. Control Chemicals

1. Ammonium Hydroxide - A volatile additive used for pH control. Ammonium hydroxide is carried over in the steam, maintaining an alkaline pH throughout the system.
2. Catalyzed Hydrazine - A strong reducing agent added to the system to scavenge oxygen. It also contributes to the NH_3 inventory due to thermal degradation.