VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

October 1, 1980

Mr. James P. O'Reilly, Director
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Serial No. 801
NO/RGS:smv
Docket Nos: 50-280
50-281
License Nos: DPR-32
DPR-37

Dear Mr. O'Reilly:

IE BULLETIN 79-01B (90-DAY REPORT)
SURRY POWER STATION UNIT NOS. 1 AND 2

This is in response to IE Bulletin 79-01B: "Environmental Qualification of Class 1E Equipment".

In response to Bulletin 79-01B, we directed our architect-engineer (A-E) to review the environmental qualification of Class IE electrical equipment at our Surry Unit Nos. 1 and 2 facility to ensure that the equipment will function under postulated accident conditions.

The review by our A-E of action Items 1 through 5 of the subject Bulletin has been completed for our Surry Unit Nos. 1 and 2. The results of this review are provided in the enclosed reports:

VEPCO
SURRY POWER STATION
UNIT 1
IE BULLETIN 79-01B
90-DAY REVIEW

VEPCO
SURRY POWER STATION
UNIT 2
IE BULLETIN 79-01B
90-DAY REVIEW

NRC Request

"1. Provide a "master list" of all Engineered Safety Feature Systems (Plant Protection Systems) required to function under postulated accident conditions. Accident conditions are defined as the LOCA/HELB inside containment, and HELB outside containment. For each system within (including cables, EPA's terminal blocks,

etc.) the master list identify each Class 1E electrical equipment item that is required to function under accident conditions. Pages 1 and 2 of Enclosure 2 are standard formats to be used for the "master list" with typical information included.

Electrical equipment items, which are components of systems listed in Appendix A of Enclosure 4, which are assumed to operate in the FSAR safety analysis and are relied on to mitigate design basis events are considered within the scope of this Bulletin, regardless whether or not they were classified as part of the engineered safety features when the plant was originally licensed to operate. The necessity for further upgrading of nonsafety-related plant systems will be dependent on the outcome of the licensees and the NRC reviews subsequent to TMI/2."

Response

The "master list" of all Engineered Safety Feature Systems required to function under postulated accident conditions is provided in Section 5 of the Surry Power Station reports.

NRC Request

"2. For each Class 1E electrical equipment item identified in item 1, provide written evidence of its environmental qualification to support the capability of the item to function under postulated accident conditions. For those Class 1E electrical equipment items not having adequate qualification data available, identify your plans for determining qualifications of these items and your schedule for completing this action. Provide this in the format of Enclosure 3."

Response

Written evidence of environmental qualification of Class IE electrical equipment to support the capability of an item to function under postulated accident conditions is specified in Section 6 of the Surry Power Station reports. For those Class IE electrical equipment items for which we have not obtained adequate qualification data, further contact with the vendors has been made to obtain additional data. The final evaluation on the qualification of this equipment will be made and forwarded to you on or before November 1, 1980.

NRC Request

"3. For equipment identified in items 1 and 2 provide service condition profiles (i.e., temperature, pressure, etc., as a function of time). These data should be provided for design basis accident conditions and qualification tests performed. This data may be provided in profile or tabular form."

Response

The service condition profiles for equipment identified in Items 1 and 2 are provided in the system component evaluation Work Sheets in Section 6 of the Surry Power Station reports.

NRC Request

"4. Evaluate the qualification of your Class IE electrical equipment against the guidelines provided in Enclosure 4. Enclosure 5, "Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment", provides supplemental information to be used with these guidelines. For the equipment identified as having "Outstanding Items" by Enclosure 3, provide a detailed "Qualification Plan". Include in this plan specific actions which will be taken to determine equipment qualification and the schedule for completing the actions."

Response

The qualification of Class IE electrical equipment was evaluated against the guidelines in Enclosure 4 utilizing Enclosure 5 to provide supplemental information. The equipment identified as having Outstanding Items is specified in the system component evaluation Work Sheets in Section 6. The actions which will be taken to determine the qualification of this equipment will be completed by November 1, 1980, and are identified in the Conclusions Section 7.

NRC Request

"5. Identify the maximum expected flood level inside the primary containment resulting from posulated accidents. Specify this flood level by elevation such as the 620 foot elevation. Provide this information in the format of Enclosure 3."

Response

The maximum water level on the containment floor following a LOCA is at elevation -27' 11". The conservative elevation of -21 feet was used for the purposes of the equipment qualification review. This was determined by assuming that all water sources have been pumped into the containment and have drained to the floor. Equipment located below this level is identified on the system component evaluation Work Sheets in Section 6 and were reviewed for qualification in the submerged condition.

If you have any questions or require any additional information, please advise.

Very truly yours,

B. R. Sylvia
Manager - Nuclear Operations
and Maintenance

RGS/smv:SE4

Enclosures (16)

cc: Mr. Victor Stello, Director (Enclosures-4)
NRC Office of Inspection and Enforcement
Division of Reactor Operations Inspection
Washington, D. C. 20555

VEPCO

SURRY UNIT 1

IE BULLETIN 79-01B

90-DAY REVIEW

SEPTEMBER 1980

VIRGINIA ELECTRIC AND POWER COMPANY

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90-DAY REPORT

SURRY POWER STATION UNIT 1

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SECTION 1

INTRODUCTION

1.1 SCOPE AND HISTORY OF IE BULLETIN 79-01

In response to Bulletin 79-01, a program was established to review the environmental qualification of safety-related electrical equipment located inside the reactor containment. An earlier submittal under IE Bulletin 79-01 has been provided to the NRC by VEPCO letter dated June 25, 1979. Later, IE Bulletin 79-01B was issued, which further defined the scope and format for reporting this information to the NRC. Clarifications of the scope of work for 79-01B were developed during a meeting on February 1, 1980 at the Nuclear Regulatory Commission Regional Office in Atlanta, Georgia.

The review is not limited to equipment inside containment, but also includes equipment in areas of the plant where changing environmental conditions (temperature, pressure, humidity, radiation) occur during and as a result of the accident conditions being reviewed.

The IE Bulletin 79-01B review has been submitted in two separate parts, as requested in the Bulletin. The 45-Day Review, which was submitted via Surry letter Serial Number 527, dated June 16, 1980, reflected equipment qualifications to FSAR commitments. This 90-Day Review includes all electrical equipment required to mitigate an accident and/or safely shut down the plant, as discussed in Section 2.2. Further, only that equipment which is located in areas subject to changing environment due to the accidents is considered in this review.

This evaluation was made against the guideline requirements of Enclosure 4 of IE Bulletin 79-01B. All such equipment has been identified on the Master Lists and System Component Evaluation Work Sheets.

A detailed review of the Enclosure 4 guidelines is provided in following sections. Topical headings are provided for reference to the Enclosure 4 outline. Numbers in parentheses following the headings reference specific Enclosure 4 paragraphs.

Following a discussion of conditions, a Master List of equipment identifies location inside or outside containment, and references the System Component Evaluation Work Sheet page number. These work sheets form the body of the report; the sheets give the specifications and qualifications required under applicable service conditions, and reference documentation for qualification found in the References.

SECTION 2

EVALUATION OF EQUIPMENT FOR ENVIRONMENTAL QUALIFICATION

2.1 CLASSIFICATION OF EQUIPMENT QUALIFICATION STATUS

It was necessary to rely on numerous sources of information to provide written evidence of Class IE equipment qualification. There are gradations of qualification status due to the diversity of sources and brevity of some test summaries; thus, electrical equipment has been categorized based on the type of qualification data available, as listed below:

1. Qualified: Equipment or components qualified under test conditions which equal or exceed, in all parameters, the accident environment either through:

   a. Type testing of equal or equivalent equipment or components;

   b. Operating experience data applicable to the component; or

   c. Analytical methods.

2. Non-qualified: Equipment or components determined to be unacceptable for the environmental parameters specified for one or more of the following reasons:

   a. Equipment has failed under conditions which are equal to or less severe than those required.

   b. Equipment has failed under conditions which are sufficiently similar to accident conditions so that non-qualification is demonstrated.

   c. Equipment is sufficiently similar to equipment which has failed environment qualification so that non-qualification is demonstrated.

3. Insufficient Information: Equipment components for which the available information is not complete enough to determine the qualification of the item. In these cases, further contact with the vendor has been made to obtain additional data. Further evaluation on qualification of this equipment and corrective action is scheduled to be completed and forwarded to you on or before November 1, 1980.

2.2 EQUIPMENT IDENTIFICATION

Equipment addressed in this report includes all Class IE equipment affected by and required to mitigate an accident and/or safely shut down the plant, as defined by the guidelines of Enclosure 4 to IE Bulletin 79-01B, and as clarified by Answers 1 and 2 of NRC letter dated February 29, 1980. This encompasses equipment exposed to harsh environments including those where fluids are being recirculated from inside containment to accomplish long-term cooling following a loss-of-coolant accident (LOCA). Equipment required to maintain minimum boration capability has been addressed as to the effect of any high energy line break (HELB) to which it may be subjected, even though it is not required to mitigate the HELB accident. Equipment necessary to bring the plant from hot to cold shutdown, however, is not included, as it is not a licensing requirement to achieve cold shutdown for this plant. (Refer to NRC letter dated February 29, 1980, Generic Questions and Answers to IE Bulletin 79-01B, Answer 3, page 1.)

2.3 SERVICE CONDITIONS AS ADDRESSED IN ENCLOSURE 4 OF IE BULLETIN 79-01B

The remainder of this discussion is based on guidelines provided by Enclosure 4 of IE Bulletin 79-01B. The specific paragraphs of Enclosure 4 which concern each of the following sections are referenced in parentheses after the headings.

2.3.1 Service Conditions Inside Containment for a Loss of Coolant Accident (LOCA) (4.1)

Temperature and Pressure Steam Conditions (4.1.1)

The time dependent temperature and pressure established as a result of the low head safety injection and recirculation spray pumps net positive suction head modification are described in the attachments to VEPCO letter to NRC Serial No. 382A dated November 22, 1977.

Radiation (4.1.2)

The radiation environment for qualification of equipment and components is based on the design basis given in Section 11.3 of the FSAR over the life of the plant (40 years), plus that associated with the LOCA. Consideration was given to source strength, shielding source volume, and structural shielding arrangements.

The analysis to determine the LOCA radiation environment at Surry is based on the instantaneous release from the fuel to the containment atmosphere of 100 percent of the noble gases and 50 percent of the halogens.

Using the above LOCA source terms, the containment centerline 120-day integrated dose for LOCA is calculated to be 2.4×10^7 rads. When added to the 40-year normal operating dose of 1.3×10^7 rads, the total dose is 3.7×10^7 rads, which is the figure used in our review for components inside the cranewall. The analysis for the radiation environment assumed a release uniformly distributed in the containment, which is consistent with NUREG-0588, Appendix D, Page D-5, for a PWR.

The analysis for the LOCA radiation environment does not take into account the removal of airborne activity in the containment by the ESF systems or leakage. It does account for radioactivity decay. No plate-out for the iodines is assumed in the present analysis and the calculated dose is therefore conservative.

The present LOCA radiation environment is based on the dose and dose rate at the center point of the containment, and those values are used for unshielded equipment qualification. The dose rate for unshielded equipment is evaluated with respect to dose contribution of location dependent sources, such as the sump water. Integrated dose calculated for equipment qualification is based on a gamma source only.

Shielded components were reviewed based on a gamma source in accordance with NUREG-0588. IE Bulletin 79-01B, Section 4.1-2 states that "the conservative beta surface dose of 1.40×10^8 rads reported in Appendix D of NUREG-0588 would be reduced by approximately a factor of ten within 30 mils of the surface of electrical cable insulation of unit density. An additional 40 mils insulation (total of 70 mils) results in another factor of 10 reduction in dose. Any structures or other equipment in the vicinity of the equipment of interest would act as shielding to further reduce beta doses. If it can be shown, by assuming a conservative unshielded beta surface dose of 2.0×10^8 rads and considering the shielding factors discussed here, the beta dose to radiation sensitive equipment or component internals would be less than or equal to 10 percent of the total gamma dose to which an item of equipment has been qualified, then that equipment may be considered qualified for the total radiation environment (gamma plus beta)."

During the evaluation of NRC IE Bulletin 79-01B, a radiation "threshold" of 2,500 rads was used and all equipment exposed to less radiation was considered to be exempt from specific qualification requirements. This threshold value was based on an engineering review of material susceptibility to radiation damage as presented in existing literature[1,2]. We believe this threshold of 2,500 rads is reasonable and acceptable.

1. J. F. Kircher and R. E. Bowan, "Effects of Radiation on Materials and Components," Reinhold, 1964.

2. REIC Report No. 21, "The Effect of Nuclear Radiation in Elastomeric and Plastic Components and Materials," Battelle Memorial Institute, 1964.

Submergence (4.1.3)

The maximum water level on the containment floor following a LOCA is at elevation -21 feet 11 inches. This was determined by assuming that all water sources have been pumped into the containment and have drained to the floor.

Equipment located below this level is identified on the System Component Evaluation Work Sheets and has been reviewed for qualification in the submerged condition.

Chemical Sprays (4.1.4)

The caustic spray characteristics were addressed in VEPCO letter to NRC Serial No. 535 dated June 18, 1980. The most severe caustic spray environment was addressed and is reflected on the System Component Evaluation Work Sheets.

2.3.2 Service Conditions Inside Containment for a PWR Main Steam Line Break (MSLB) (4.2.1, 4.2.2, 4.2.3, 4.2.4)

The pressure and temperature transients for a main steam line break (MSLB), referenced in the Surry Units 1 and 2 45-Day Report, were taken from the plant specific analysis for North Anna Units 1 and 2. A plant specific MSLB analysis has not been performed for Surry Units 1 and 2. The North Anna transients are more severe than those that would result from a Surry plant specific analysis, due to a smaller break size and use of partial revaporization to model condensate behavior.

The main steam line flow restrictors for Surry Unit 2 are located in the steam generator (SG) nozzles; therefore the effective break diameter is 16 inches. These restrictors are located outside the steam generator in the main steam line at North Anna. Thus, at North Anna, a MSLB between the SG and the flow restrictor would have an effective break diameter of 30 inches. The smaller break size at Surry reduces the rate of steam release and would give lower containment pressure and temperature transients. The main steam flow restrictor modification is to be performed on Surry Unit 1 steam generator during the Surry Unit 1 steam generator replacement outage which is scheduled to start September 1980.

The North Anna MSLB analysis was performed with the then required conservative assumption of no condensate revaporization. As described in NUREG-0588, Section 1.2(2), a partial revaporization treatment of condensate is now acceptable. This effect significantly decreases the calculated containment temperature transient. Therefore, a Surry plant specific analysis performed

with current methods would yield a lower temperature transient than the North Anna transient.

After analyzing the thermal response of equipment inside containment to a MSLB temperature transient, the NRC staff developed the "best estimate" evaluation method for predicting the containment transients and the equipment temperature transient. This method is described in Appendix B to NUREG-0458. It recognizes the significant conservatisms in the analytical methods used to predict the containment temperature following a MSLB, and it considers the thermal capability of equipment exposed to the MSLB environment.

NUREG-0458, Section 4.1.2, describes a "best estimate" evaluation which indicates that the calculated MSLB thermal response of typical components will remain within the actual LOCA qualification temperature envelope. Based on this evaluation, Enclosure 4 to IE Bulletin 79-01B states that for a PWR MSLB inside containment, "equipment qualified for a LOCA environment is considered qualified for a MSLB accident environment in plants with automatic spray systems not subject to disabling single component failures." The Surry units meet this last condition.

The 45-Day Report included reference to the North Anna MSLB temperature and pressure profiles as conservative envelopes for equipment qualification in lieu of a plant specific Surry MSLB analysis. The 90-Day Report requires an evaluation of equipment qualification against the guidelines provided in Enclosure 4. The containment spray system is initiated automatically and is designed to meet single failure criteria. Therefore, the Surry 90-Day Report will use the guidelines of Enclosure 4, and the "best estimate" approach for MSLB service conditions. Therefore, equipment qualification for a MSLB inside containment will be based on the LOCA environment envelopes.

Radiation (4.2.2)

LOCA doses described in Paragraph 2.3.1 were used for MSLB equipment qualification within the containment. Using LOCA doses for radiation qualification for MSLB results in conservative doses for MSLB radiation qualification.

Submergence (4.2.3)

The maximum water level associated with an MSLB has been conservatively assumed to equal the LOCA level, as described in Paragraph 2.3.1.

Chemical Sprays (4.2.4)

The caustic spray characteristics for a LOCA, as specified in Paragraph 4.1.4, were used for MSLB equipment qualification. Using LOCA caustic spray characteristics is conservative for a MSLB accident. The most severe caustic spray environment was addressed and is reflected on the System Component Evaluation Work Sheets.

2.3.3 Service Conditions Outside Containment (4.3)

Areas Subject to a Severe Environment as a Result of a High Energy Line Break (HELB) (4.3.1)

HELB outside containment is addressed in FSAR Appendix D. Review of the postulated high energy line breaks has determined that electrical equipment required to mitigate each break is not physically affected by pipe whip or jet impingement. As part of the 90-Day Review this equipment has been reviewed against the environmental parameters listed in the System Component Evaluation Work Sheets.

An additional review was performed to identify equipment required to maintain a minimum charging and boration capability, to assure capability of adding borated water to the primary system. Therefore, portions of the Chemical and Volume Control Systems (CVCS) and supporting systems have been included in the qualification program and have been reviewed to the environmental parameters listed in the System Component Evaluation Work Sheets. The environmental qualification conditions within the auxiliary building, where the referenced CVCS equipment is located, are based on the worst case environment induced by potential HELBs in the area.

The breaks listed in Appendix D of the FSAR have been reanalyzed to produce temperature/pressure envelopes for equipment qualification review.

Areas Where Fluids are Recirculated from Inside Containment to Accomplish Long-Term Cooling Following a LOCA (4.3.2)

The areas through which fluids are recirculated from inside the containment following a LOCA for long-term cooling have been identified as the safeguards area, lower elevation of the containment spray pump area and main steam valve house, and the Auxiliary Building, particularly pipe penetration area and charging pump cubicles.

Temperature, Pressure, and Relative Humidity (4.3.2.1)

The systems recirculating fluids outside the containment have been designed to seismic Class I requirements. System components have been selected to minimize or eliminate leakage. An

augumented leak reduction program, as required in Paragraph 2.1.6a of NUREG-0578, is described in various submittals made by VEPCO to the NRC dated January 10, 1980 and April 1, 1980.

The areas through which recirculation piping is routed are all ventilated by equipment that is remotely located with respect to the piping and its environmental affects. Therefore, harsh temperature, pressure, and relative humidity conditions are not assumed to result from the recirculation of fluids from inside the containment.

Radiation (4.3.2.2)

Post-LOCA radiation dose rates for areas outside the containment have been determined based upon TID-14844 and RG 1.4 source terms as required from the NUREG-0578 Review as follows:

1. Release from the fuel to the containment atmosphere of 100 percent of the noble gases, 25 percent of the halogens and 0 percent of the remaining solid fission products.

2. Release from the fuel to the reactor coolant system (RCS) and RCS sample lines of 100 percent of the noble gases, 50 percent of the halogens, and 1 percent of the remaining solid fission products.

3. Release from the fuel to the containment sump (and recirculation spray and recirculation portion of the high and low head safety injection system) of 0 percent of the noble gases, 50 percent of the halogens and 1 percent of the remaining fission products.

Consideration was given to source strength, source volume, structural shielding arrangments, and piping locations. These dose rates are given on the System Component Evaluation Work Sheets for equipment which must operate after a LOCA.

Submergence (4.3.2.3)

There has been no mechanism identified that would produce a significant amount of flooding near safety-related equipment in the Auxiliary Building.

Chemical Sprays (4.3.2.4)

Not Applicable

Areas Normally Maintained at Room Conditions (4.3.3)

As noted in the answer to Question 1 of the Supplemental Information to IE Bulletin 79-01B, dated February 29, 1980

(reference NRC letter to VEPCO dated February 29, 1980), these areas need not be addressed as part of the IE Bulletin 79-01B review.

SECTION 3

QUALIFICATION METHODS AND MARGINS
(ENCLOSURE 4 GUIDELINES)

3.1 QUALIFICATION METHODS (5.0)

3.1.1 Selection of Qualification Method (5.1)

Testing is the primary method of qualification. Analysis has been used to verify or amplify test results. The 10°C rule was the primary means used to determine post-accident operability. (For every 10°C rise in temperature the rate of thermal aging is doubled. Ref. IEEE 117 and 275.)

A detailed discussion of analytical techniques and conclusions is presented in Appendix D of the FSAR.

The adequacy of the qualification methods used is reviewed on a case-by-case basis and any deficiencies are identified on the System Component Evaluation Work Sheets.

3.1.2 Qualification by Type Testing (5.2)

Simulated Service Conditions and Test Duration (5.2.1)

Service conditions simulated during the test were reviewed to ensure that they enveloped the accident environments. The test duration and environmental parameters utilized in the test were reviewed to ensure that they equaled or exceeded specified values. When tests were found to be less severe than specified, a determination of the adequacy of the test was made on a case-by-case basis.

Test Specimen (5.2.2)

The test specimen model, design, and material construction were reviewed against the equipment being qualified to verify applicability of test results. Deviations were evaluated as required.

To ensure the validity of the listed information an as-built QA test program (Ref. Special Test 104) has been developed to verify the required component identification information. This has been done to ensure the applicability of test documentation to installed equipment. To date a majority of the equipment outside the containment has been field verified in accordance with the above special test.

Equipment inside containment and unverified equipment outside containment on Unit 1 will be verified during the SG replacement outage now in progress. Equipment inside

containment and unverified equipment outside containment on Unit 2 will be verified by February 1981.

Test Sequence (5.2.3)

The test sequence selected has been reviewed and, when determined not to be in accordance with the guidelines of Enclosure 4, has been evaluated for adequacy. Where a single component was not subjected to all of the tests, it was addressed on the System Component Evaluation Work Sheets.

Test Specimen Aging (5.2.4)

Tests which were successful using components which had not been pre-aged are considered acceptable provided the components do not contain materials known to be susceptible to significant degradation due to thermal and radiation aging.

Equipment that has known aging mechanisms is addressed on the applicable System Component Evaluation Work Sheet. The exception to this concerns the aging of cable. Existing test data for cable is being reviewed utilizing the 10°C rule, as discussed in Section 3.1.1, and where required the cable manufacturers have been contacted to provide any additional information (such as test data on similar types of insulation) in an effort to develop and determine the qualified life of the cables.

All Class IE electrical equipment is assessed for operability at specified time intervals by systematic application of the plant periodic test program. When this program detects any inoperable equipment, the equipment or component is analyzed. A program will be developed by November 1, 1980, to determine whether equipment inoperability was caused by aging. Any equipment or component found to have aging characteristics will be reviewed to determine necessary action.

Equipment or component operability is defined as that condition which meets the requirements of the manufacturer's technical specification.

The use of the periodic test program, coupled with a detailed analysis of all Class IE inoperable equipment and other sources of information, should satisfy the aging requirement and provide assurance that Class IE equipment and components will perform when needed. The other sources of information would be derived principally from licensee event reports filed by other utilities, NRC Circulars and Bulletins, and Vendor-specific data reports.

Functional Testing and Failure Criteria (5.2.5)

Operational modes tested were reviewed to ensure that they were representative of the actual application requirements as defined in the procurement documents.

Any failures identified during the environmental qualification effort were reviewed and evaluated relative to their effect on the ability of the component to perform its required function. If a component failed any time during the test, the applicability of the test with regard to demonstrating the ability of the component to function for the entire period prior to the failure was considered on a case-by-case basis.

Installation Interfaces (5.2.6)

Where seals are included as part of the component, the qualification test results have qualified the seals. If the installed termination method and cable entry sealing are different from the tested methods, the as-built method will be reviewed. An inspection program will be implemented to identify cases where verification is required. This program will be completed on Surry Unit 1 during the SG replacement outage. Due to the operating status of Surry Unit 2 completion of the program will depend on the accessibility of equipment. Since the Surry units were constructed in basically the same time periods and to the same criteria, any potential problem identified on Unit 1 will be addressed in a timely manner on Unit 2.

3.1.3 Qualification by a Combination of Methods (Test, Evaluation, and Analysis) (5.3)

The method of qualification is identified on the System Component Evaluation Work Sheets. A determination of the adequacy of the qualification methods used is made on a case-by-case basis.

3.2 MARGINS (6.0)

The qualification program for the Surry units predated the IEEE 323-1974 suggested factors to be applied to the service conditions to assure adequate test margins. As indicated in Enclosure 4 to the IE Bulletin, conservatisms exist in the calculation of environmental envelopes. These conservatisms are discussed in Section 3.0 of this report.

In addition to the effort associated with IE Bulletin 79-01B, the review of equipment functional adequacy which is related to other efforts such as the post-TMI-2 retrofits (e.g., NUREG-0578) and other IE Bulletin-related efforts (e.g., IEB-79-27) give added assurance that the equipment required to function retains that capability with a large margin of safety.

3.3 AGING (7.0)

The area of aging is addressed as part of Section 3.1.2, "Test Specimen Aging."

SECTION 4

DOCUMENTATION (8.0)

During the review of submitted qualification documentation, when it is determined that actual test data was not submitted (i.e. test summaries and/or certificates of conformance only were submitted), actual test data has been requested. If such data cannot be submitted because it is considered proprietary by the manufacturer, an audit of this data will be made. Testing summaries and/or certificates of conformance will not be considered acceptable on their own merit. Where actual test data are not available, a summary of our vendor communication is supplied in the Conclusion Section (Section 7) of this report.

A final determination on the acceptability of qualification documentation for outstanding items will be made by November 1, 1980, based on the criteria that the documentation available should be sufficient to justify the conclusions reached.

Auditable records are being developed as our review proceeds.

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: CONDENSER AIR REMOVAL TO CONTAINMENT

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
SOV-SV-102A	6-1	Solenoid Operated Valve		x

		TITLE				
CHECKED		VIRGINIA ELECTRIC AND POWER COMPANY				
CORRECT		SURRY UNIT 1				
APPROVED						
REVISIONS		(2)	(3)	(4)	(5)	

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: CHEMICAL AND VOLUME CONTROL

Plant Identification Number	Worksheet Page No.	Generic Name	Location: Inside Containment	Location: Outside Containment
MOV-1275A	6-2	Motor Operated Valve		x
MOV-1275B	6-3	Motor Operated Valve		x
MOV-1275C	6-4	Motor Operated Valve		x
MOV-1373	6-5	Motor Operated Valve		x
MOV-1381	6-6	Motor Operated Valve		x
1-CH-P-1A	6-7	Pump Motor		x
1-CH-P-1B	6-8	Pump Motor		x
1-CH-P-1C	6-9	Pump Motor		x
FCV-1122	6-10	Flow Control Valve		x
FT-1122	6-11	Flow Transmitter		x
SOV-1311	6-12	Solenoid Operated Valve	x	

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: CHEMICAL AND VOLUME CONTROL

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
MOV-1115B	6-13	Motor Operated Valve		x
MOV-1115C	6-14	Motor Operated Valve		x
MOV-1115D	6-15	Motor Operated Valve		x
MOV-1115E	6-16	Motor Operated Valve		x
MOV-1289A	6-17	Motor Operated Valve		x
MOV-1289B	6-18	Motor Operated Valve		x
SOV-1204	6-19	Solenoid Operated Valve		x
SOV-1200A	6-20	Solenoid Operated Valve	x	
SOV-1200B	6-21	Solenoid Operated Valve	x	
SOV-1200C	6-22	Solenoid Operated Valve	x	

CHECKED		TITLE				
CORRECT		VIRGINIA ELECTRIC AND POWER COMPANY				
APPROVED		SURRY UNIT 1				
REVISIONS		(2)	(3)	(4)	(5)	

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: COMMON ELECTRICAL EQUIPMENT

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
1H1-2 South	6-23	480 V MCC		x
1H1-2 North	6-24	480 V MCC		x
1J1-2 West	6-25	480 V MCC		x
1J1-2 East	6-26	480 V MCC		x

		TITLE				
CHECKED		VIRGINIA ELECTRIC AND POWER COMPANY				
CORRECT		SURRY UNIT 1				
APPROVED						
REVISIONS		(2)	(3)	(4)	(5)	

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: COMMON ELECTRICAL EQUIPMENT/SPECIFICATION NO. 21

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
CONAX TYPE IC	6-27	Power Penetration	x	x
CONAX TYPE ID	6-28	Control Penetration	x	x
CONAX TYPE IIA	6-29	Power Penetration	x	x
CONAX TYPE IIB	6-30	Power Penetration	x	x
CONAX TYPE IIC	6-31	Power Penetration	x	x

		TITLE			
CHECKED		VIRGINIA ELECTRIC AND POWER COMPANY			
CORRECT		SURRY UNIT 1			
APPROVED					
REVISIONS		(2)	(3)	(4)	(5)

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: COMMON ELECTRICAL EQUIPMENT/600 V CONTROL CABLE

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
Spec. No. 120	6-32	600 V Control Cable	x	x
Spec. No. 3187	6-33	600 V Control Cable	x	x

		TITLE			
CHECKED		VIRGINIA ELECTRIC AND POWER COMPANY			
CORRECT		SURRY UNIT 1			
APPROVED					
REVISIONS	(2)	(3)	(4)	(5)	

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: COMMON ELECTRICAL EQUIPMENT/300 V INSTRUMENT CABLE

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
Spec. No. 128	6-34	300 V Instrument Cable	x	x
Spec. No. 430	6-35	300 V Instrument Cable	x	x
Spec. No. NAS-3190	6-36	300 V Instrument Cable	x	x

		TITLE							
CHECKED		VIRGINIA ELECTRIC AND POWER COMPANY							
CORRECT		SURRY UNIT 1							
APPROVED									
REVISIONS		(2)		(3)		(4)		(5)	

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: COMMON ELECTRICAL EQUIPMENT/1000 V CONTROL CABLE

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
Spec. No. NUS-325	6-37	1000 V Control Cable	x	x
Spec. No. NUS-381C	6-38	1000 V Control Cable	x	x
Spec. No. NUS-381E	6-39	1000 V Control Cable	x	x
Spec. No. NUS-381	6-40	1000 V Control Cable	x	x
Spec. No. NUS-410	6-41	1000 V Control Cable	x	x
Spec. No. NUS-420	6-42	1000 V Control Cable	x	x

		TITLE			
CHECKED		VIRGINIA ELECTRIC AND POWER COMPANY			
CORRECT		SURRY UNIT 1			
APPROVED					
REVISIONS	(2)	(3)	(4)	(5)	

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: COMMON ELECTRICAL EQUIPMENT/SPECIFICATION NO. 41

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
Amphenol Type IA	6-43	Instrument Penetration	x	x
Amphenol Type IB	6-44	Control Penetration	x	x
Amphenol Type IC	6-45	Power Penetration	x	x
Amphenol Type III	6-46	Triaxial Penetration	x	x
Amphenol Type IV	6-47	Thermocouple	x	x

CHECKED		TITLE			
CORRECT		VIRGINIA ELECTRIC AND POWER COMPANY			
APPROVED		SURRY UNIT 1			
REVISIONS	(2)	(3)	(4)	(5)	

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: COMMON ELECTRICAL EQUIPMENT/600 V POWER CABLE

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
Spec. No. NUS-225	6-48	600 V Power Cable	x	x
Spec. No. NUS-365A	6-49	600 V Power Cable	x	x
Spec. No. NUS-365B	6-50	600 V Power Cable	x	x
Spec. No. NUS-365C	6-51	600 V Power Cable	x	x
Spec. No. NUS-365D	6-52	600 V Power Cable	x	x
Spec. No. NUS-374	6-53	600 V Power Cable	x	x
Spec. No. NUS-365E	6-54	600 V Power Cable	x	x
Spec. No. NUS-365F	6-55	600 V Power Cable	x	x
Spec. No. 116A	6-56	600 V Power Cable	x	x
P.O. No. NAS-3185	6-57	600 V Power Cable	x	x

CHECKED		TITLE			
CORRECT		VIRGINIA ELECTRIC AND POWER COMPANY			
APPROVED		SURRY UNIT 1			
REVISIONS	(2)	(3)	(4)	(5)	

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: COMMON ELECTRICAL EQUIPMENT/600 V INSTRUMENT CABLE

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
Spec. No. NUS-341	6-58	300 V Instrument Cable	x	x
Spec. No. NUS-411	6-59	300 V Instrument Cable	x	x

		TITLE						
CHECKED		VIRGINIA ELECTRIC AND POWER COMPANY						
CORRECT		SURRY UNIT 1						
APPROVED								
REVISIONS		(2)		(3)		(4)		(5)

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: COMMON ELECTRICAL EQUIPMENT/HIGH TEMPERATURE CABLE

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
Spec. No. NUS-326	6-60	Silicon Rubber	x	x

		TITLE							
CHECKED		VIRGINIA ELECTRIC AND POWER COMPANY							
CORRECT		SURRY UNIT 1							
APPROVED									
REVISIONS		(2)		(3)		(4)		(5)	

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: COMPONENT COOLING

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
1-CC-P-2A	6-61	Pump Motor		x
1-CC-P-2B	6-62	Pump Motor		x
SOV-CC-105A	6-63	Solenoid Operated Valve		x
SOV-CC-105B	6-64	Solenoid Operated Valve		x
SOV-CC-105C	6-65	Solenoid Operated Valve		x
SOV-CC-107	6-66	Solenoid Operated Valve		x
SOV-CC-109A	6-67	Solenoid Operated Valve		x
SOV-CC-109B	6-68	Solenoid Operated Valve		x
SOV-CC-110A	6-69	Solenoid Operated Valve		x
SOV-CC-110B	6-70	Solenoid Operated Valve		x
SOV-CC-110C	6-71	Solenoid Operated Valve		x

CHECKED		TITLE				
CORRECT		VIRGINIA ELECTRIC AND POWER COMPANY				
APPROVED		SURRY UNIT 1				
REVISIONS		(2)	(3)	(4)	(5)	

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: CONTAINMENT SPRAY

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
MOV-CS-101A	6-72	Motor Operated Valve		x
MOV-CS-101B	6-73	Motor Operated Valve		x
MOV-CS-101C	6-74	Motor Operated Valve		x
MOV-CS-101D	6-75	Motor Operated Valve		x
MOV-CS-102A	6-76	Motor Operated Valve		x
MOV-CS-102B	6-77	Motor Operated Valve		x

CHECKED		TITLE			
CORRECT		VIRGINIA ELECTRIC AND POWER COMPANY			
APPROVED		SURRY UNIT 1			
REVISIONS		(2)	(3)	(4)	(5)

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: CONTAINMENT VACUUM

Plant Identification Number	Worksheet Page No.	Generic Name	Location	
			Inside Containment	Outside Containment
1-CV-P-1A	6-78	Pump Motor		x
1-CV-P-1B	6-79	Pump Motor		x
SOV-CV-150A	6-80	Solenoid Operated Valve		x
SOV-CV-150B	6-81	Solenoid Operated Valve		x
SOV-CV-150C	6-82	Solenoid Operated Valve		x
SOV-CV-150D	6-83	Solenoid Operated Valve		x

CHECKED		TITLE			
CORRECT		VIRGINIA ELECTRIC AND POWER COMPANY			
APPROVED		SURRY UNIT 1			
REVISIONS	(2)	(3)	(4)	(5)	

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: FEEDWATER

Plant Identification Number	Worksheet Page No.	Generic Name	Location: Inside Containment	Location: Outside Containment
FT-FW-100A	6-84	Flow Transmitter	x	
FT-FW-100B	6-85	Flow Transmitter	x	
FT-FW-100C	6-86	Flow Transmitter	x	
LT-1474	6-87	Level Transmitter	x	
LT-1475	6-88	Level Transmitter	x	
LT-1476	6-89	Level Transmitter	x	
LT-1484	6-90	Level Transmitter	x	
LT-1485	6-91	Level Transmitter	x	
LT-1486	6-92	Level Transmitter	x	
LT-1494	6-93	Level Transmitter	x	
LT-1495	6-94	Level Transmitter	x	

CHECKED		TITLE			
CORRECT		VIRGINIA ELECTRIC AND POWER COMPANY			
APPROVED		SURRY UNIT 1			
REVISIONS	(2)	(3)	(4)	(5)	

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: FEEDWATER

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
LT-1496	6-95	Level Transmitter	x	
MOV-FW-151A	6-96	Motor Operated Valve	x	
MOV-FW-151B	6-97	Motor Operated Valve	x	
MOV-FW-151C	6-98	Motor Operated Valve	x	
MOV-FW-151D	6-99	Motor Operated Valve	x	
MOV-FW-151E	6-100	Motor Operated Valve	x	
MOV-FW-151F	6-101	Motor Operated Valve	x	

CHECKED		TITLE			
CORRECT		VIRGINIA ELECTRIC AND POWER COMPANY SURRY UNIT 1			
APPROVED					
REVISIONS	(2)	(3)	(4)	(5)	

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: GASEOUS WASTE

Plant Identification Number	Worksheet Page No.	Generic Name	Location: Inside Containment	Location: Outside Containment
1-GW-HC-2A	6-102	H_2 Recombiner Unit	x	
1-GW-HC-2B	6-103	H_2 Recombiner Unit	x	
1-GW-H_2A-103	6-104	H_2 Analyzer		x
Power Supply for 1-GW-HC-2A	6-105	Power Supply		x
Power Supply for 1-GW-HC-2B	6-106	Power Supply		x

CHECKED		TITLE			
CORRECT		VIRGINIA ELECTRIC AND POWER COMPANY			
APPROVED		SURRY UNIT 1			
REVISIONS	(2)	(3)	(4)	(5)	

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: HVAC/AUXILIARY BUILDING VENTILATION

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
1-VS-F-8A	6-107	Fan Motor		x
1-VS-F-8B	6-108	Fan Motor		x
DAMPER 3A	6-109	Damper		x
DAMPER 3B	6-110	Damper		x

		TITLE						
CHECKED		VIRGINIA ELECTRIC AND POWER COMPANY						
CORRECT		SURRY UNIT 1						
APPROVED								
REVISIONS		(2)		(3)		(4)		(5)

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: INSIDE RECIRCULATION SPRAY

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
1-RS-P-1A	6-111	Pump Motor	x	
1-RS-P-1B	6-112	Pump Motor	x	

CHECKED		TITLE				
CORRECT		VIRGINIA ELECTRIC AND POWER COMPANY				
APPROVED		SURRY UNIT 1				
REVISIONS		(2)	(3)	(4)	(5)	

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: INSTRUMENT AIR

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
SOV-IA-100	6-113	Solenoid Operated Valve		x
SOV-IA-101A	6-114	Solenoid Operated Valve	x	
SOV-IA-101B	6-115	Solenoid Operated Valve		x

		TITLE						
CHECKED		VIRGINIA ELECTRIC AND POWER COMPANY						
CORRECT		SURRY UNIT 1						
APPROVED								
REVISIONS		(2)		(3)		(4)		(5)

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: LEAKAGE MONITORING

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
PT-LM-100A	6-116	Pressure Transmitter		x
PT-LM-100B	6-117	Pressure Transmitter		x
PT-LM-100C	6-118	Pressure Transmitter		x
PT-LM-100D	6-119	Pressure Transmitter		x
SOV-LM-100A	6-120	Solenoid Operated Valve		x
SOV-LM-100B	6-121	Solenoid Operated Valve		x
SOV-LM-100C	6-122	Solenoid Operated Valve		x
SOV-LM-100D	6-123	Solenoid Operated Valve		x
SOV-LM-100E	6-124	Solenoid Operated Valve		x
SOV-LM-100F	6-125	Solenoid Operated Valve		x
SOV-LM-100G	6-126	Solenoid Operated Valve		x

		TITLE			
CHECKED		VIRGINIA ELECTRIC AND POWER COMPANY			
CORRECT		SURRY UNIT 1			
APPROVED					
REVISIONS		(2)	(3)	(4)	(5)

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: LEAKAGE MONITORING

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
SOV-LM-100H	6-127	Solenoid Operated Valve		x
SOV-LM-101A	6-128	Solenoid Operated Valve		x
SOV-LM-101B	6-129	Solenoid Operated Valve		x

		TITLE			
CHECKED		VIRGINIA ELECTRIC AND POWER COMPANY			
CORRECT		SURRY UNIT 1			
APPROVED					
REVISIONS	(2)	(3)	(4)	(5)	

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: MAIN STEAM

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
FT-1474	6-130	Flow Transmitter	x	
FT-1475	6-131	Flow Transmitter	x	
FT-1484	6-132	Flow Transmitter	x	
FT-1485	6-133	Flow Transmitter	x	
FT-1494	6-134	Flow Transmitter	x	
FT-1495	6-135	Flow Transmitter	x	
PT-1464	6-136	Pressure Transmitter		x
PT-1466	6-137	Pressure Transmitter		x
PT-1468	6-138	Pressure Transmitter		x
PT-1474	6-139	Pressure Transmitter		x
PT-1475	6-140	Pressure Transmitter		x

		TITLE			
CHECKED		VIRGINIA ELECTRIC AND POWER COMPANY			
CORRECT		SURRY UNIT 1			
APPROVED					
REVISIONS	(2)	(3)	(4)	(5)	

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: MAIN STEAM

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
PT-1476	6-141	Pressure Transmitter		x
PT-1484	6-142	Pressure Transmitter		x
PT-1485	6-143	Pressure Transmitter		x
PT-1486	6-144	Pressure Transmitter		x
PT-1494	6-145	Pressure Transmitter		x
PT-1495	6-146	Pressure Transmitter		x
PT-1496	6-147	Pressure Transmitter		x
SOV-MS-101AA	6-148	Solenoid Operated Valve		x
SOV-MS-101AB	6-149	Solenoid Operated Valve		x
SOV-MS-101BA	6-150	Solenoid Operated Valve		x
SOV-MS-101BB	6-151	Solenoid Operated Valve		x

		TITLE			
CHECKED		VIRGINIA ELECTRIC AND POWER COMPANY			
CORRECT		SURRY UNIT 1			
APPROVED					
REVISIONS	(2)	(3)	(4)	(5)	

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: MAIN STEAM

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
SOV-MS-101CA	6-152	Solenoid Operated Valve		x
SOV-MS-101CB	6-153	Solenoid Operated Valve		x
SOV-MS-109	6-154	Solenoid Operated Valve		x
SOV-MS-110	6-155	Solenoid Operated Valve		x

		TITLE				
CHECKED		VIRGINIA ELECTRIC AND POWER COMPANY				
CORRECT		SURRY UNIT 1				
APPROVED						
REVISIONS		(2)	(3)	(4)	(5)	

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: OUTSIDE RECIRCULATION SPRAY

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
1-RS-P-2A	6-156	Pump Motor		x
1-RS-P-2B	6-157	Pump Motor		x
MOV-RS-155A	6-158	Motor Operated Valve		x
MOV-RS-155B	6-159	Motor Operated Valve		x
MOV-RS-156A	6-160	Motor Operated Valve		x
MOV-RS-156B	6-161	Motor Operated Valve		x

		TITLE			
CHECKED		VIRGINIA ELECTRIC AND POWER COMPANY			
CORRECT		SURRY UNIT 1			
APPROVED					
REVISIONS	(2)	(3)	(4)	(5)	

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: PRIMARY PLANT VENT AND DRAINS

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
SOV-DA-100A	6-162	Solenoid Operated Valve	x	
SOV-DA-100B	6-163	Solenoid Operated Valve		x
SOV-DG-108A	6-164	Solenoid Operated Valve	x	
SOV-DG-108B	6-165	Solenoid Operated Valve		x
SOV-VG-109A	6-166	Solenoid Operated Valve	x	
SOV-VG-109B	6-167	Solenoid Operated Valve		x

		TITLE			
CHECKED		VIRGINIA ELECTRIC AND POWER COMPANY			
CORRECT		SURRY UNIT 1			
APPROVED					
REVISIONS		(2)	(3)	(4)	(5)

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: RADIATION MONITORING

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
SOV-RM-100B	6-168	Solenoid Operated Valve		x
SOV-RM-100C	6-169	Solenoid Operated Valve	x	
SOV-RM-100A	6-170	Solenoid Operated Valve		x

		TITLE				
CHECKED		VIRGINIA ELECTRIC AND POWER COMPANY				
CORRECT		SURRY UNIT 1				
APPROVED						
REVISIONS		(2)	(3)	(4)	(5)	

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: REACTOR COOLANT

Plant Identification Number	Worksheet Page No.	Generic Name	Location: Inside Containment	Location: Outside Containment
LT-1459	6-171	Level Transmitter	x	
LT-1460	6-172	Level Transmitter	x	
LT-1461	6-173	Level Transmitter	x	
PT-1455	6-174	Pressure Transmitter	x	
PT-1456	6-175	Pressure Transmitter	x	
PT-1457	6-176	Pressure Transmitter	x	
TE-1410	6-177	Temperature Element	x	
TE-1412B	6-178	Temperature Element	x	
TE-1412D	6-179	Temperature Element	x	
TE-1413	6-180	Temperature Element	x	
TE-1420	6-181	Temperature Element	x	

		TITLE			
CHECKED		VIRGINIA ELECTRIC AND POWER COMPANY			
CORRECT		SURRY UNIT 1			
APPROVED					
REVISIONS		(2)	(3)	(4)	(5)

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: REACTOR COOLANT

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
TE-1422B	6-182	Temperature Element	x	
TE-1422D	6-183	Temperature Element	x	
TE-1423	6-184	Temperature Element	x	
TE-1430	6-185	Temperature Element	x	
TE-1423B	6-186	Temperature Element	x	
TE-1432D	6-187	Temperature Element	x	
TE-1433	6-188	Temperature Element	x	
SOV-1519A	6-189	Solenoid Operated Valve		x
SOV-1455-1	6-190	Solenoid Operated Valve	x	
SOV-1455-2	6-191	Solenoid Operated Valve	x	
SOV-1455-3	6-192	Solenoid Operated Valve	x	

CHECKED		TITLE VIRGINIA ELECTRIC AND POWER COMPANY SURRY UNIT 1			
CORRECT					
APPROVED					
REVISIONS	(2)	(3)	(4)	(5)	

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: REACTOR COOLANT

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
SOV-1456-a	6-193	Solenoid Operated Valve	x	
SOV-1456-2	6-194	Solenoid Operated Valve	x	
SOV-1456-3	6-195	Solenoid Operated Valve	x	
MOV-1535	6-196	Motor Operated Valve	x	
MOV-1536	6-197	Motor Operated Valve	x	

		TITLE						
CHECKED		VIRGINIA ELECTRIC AND POWER COMPANY						
CORRECT		SURRY UNIT 1						
APPROVED								
REVISIONS		(2)		(3)		(4)		(5)

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: SAFETY INJECTION

	Plant Identification Number	Worksheet Page No.	Generic Name	Location: Inside Containment	Location: Outside Containment
	1-SI-P-1A	6-198	Pump Motor		x
	1-SI-P-1B	6-199	Pump Motor		x
	MOV-1842	6-200	Motor Operated Valve		x
	MOV-1860A	6-201	Motor Operated Valve		x
	MOV-1860B	6-202	Motor Operated Valve		x
	MOV-1862A	6-203	Motor Operated Valve		x
	MOV-1862B	6-204	Motor Operated Valve		x
	MOV-1863A	6-205	Motor Operated Valve		x
	MOV-1863B	6-206	Motor Operated Valve		x
Submerged	MOV-1865A	6-207	Motor Operated Valve	x	
Submerged	MOV-1865B	6-208	Motor Operated Valve	x	

CHECKED		TITLE			
CORRECT		VIRGINIA ELECTRIC AND POWER COMPANY SURRY UNIT 1			
APPROVED					
REVISIONS	(2)	(3)	(4)	(5)	

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: SAFETY INJECTION

	Plant Identification Number	Worksheet Page No.	Generic Name	Location: Inside Containment	Location: Outside Containment
*Submerged	MOV-1865C	6-209	Motor Operated Valve	x	
	MOV-1867A	6-210	Motor Operated Valve		x
	MOV-1867B	6-211	Motor Operated Valve		x
	MOV-1867C	6-212	Motor Operated Valve		x
	MOV-1867D	6-213	Motor Operated Valve		x
	MOV-1869A	6-214	Motor Operated Valve		x
	MOV-1890A	6-215	Motor Operated Valve		x
	MOV-1890B	6-216	Motor Operated Valve		x
	MOV-1890C	6-217	Motor Operated Valve		x
	SOV-SI-100	6-218	Solenoid Operated Valve		x
	SOV-SI-101A	6-219	Solenoid Operated Valve	x	

CHECKED		TITLE			
CORRECT		VIRGINIA ELECTRIC AND POWER COMPANY			
APPROVED		SURRY UNIT 1			
REVISIONS	(2)	(3)	(4)	(5)	

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: SAFETY INJECTION

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
SOV-SI-101B	6-220	Solenoid Operated Valve		x
SOV-SI-102A1	6-221	Solenoid Operated Valve		x
SOV-SI-102A2	6-222	Solenoid Operated Valve		x
SOV-SI-102B1	6-223	Solenoid Operated Valve		x
SOV-SI-102B2	6-224	Solenoid Operated Valve		x
SOV-1884A	6-225	Solenoid Operated Valve		x
SOV-1884B	6-226	Solenoid Operated Valve		x
SOV-1884C	6-227	Solenoid Operated Valve		x
MOV-1864A	6-228	Motor Operated Valve		x
MOV-1864B	6-229	Motor Operated Valve		x
MOV-1869B	6-230	Motor Operated Valve		x

		TITLE			
CHECKED		VIRGINIA ELECTRIC AND POWER COMPANY			
CORRECT		SURRY UNIT 1			
APPROVED					
REVISIONS		(2)	(3)	(4)	(5)

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: SAMPLING

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
SOV-SS-100A1	6-231	Solenoid Operated Valve	x	
SOV-SS-100B1	6-232	Solenoid Operated Valve		x
SOV-SS-101A1	6-233	Solenoid Operated Valve	x	
SOV-SS-101B1	6-234	Solenoid Operated Valve		x
SOV-SS-102A1	6-235	Solenoid Operated Valve	x	
SOV-SS-102B1	6-236	Solenoid Operated Valve		x
SOV-SS-103	6-237	Solenoid Operated Valve		x
SOV-SS-104A	6-238	Solenoid Operated Valve	x	
SOV-SS-104B	6-239	Solenoid Operated Valve		x
SOV-SS-106A	6-240	Solenoid Operated Valve	x	
SOV-SS-106B	6-241	Solenoid Operated Valve		x

CHECKED		TITLE			
CORRECT		VIRGINIA ELECTRIC AND POWER COMPANY SURRY UNIT 1			
APPROVED					
REVISIONS		(2)	(3)	(4)	(5)

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: SERVICE WATER

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
MOV-SW-104A	6-242	Motor Operated Valve		x
MOV-SW-104B	6-243	Motor Operated Valve		x
MOV-SW-104C	6-244	Motor Operated Valve		x
MOV-SW-104D	6-245	Motor Operated Valve		x
MOV-SW-105A	6-246	Motor Operated Valve		x
MOV-SW-105B	6-247	Motor Operated Valve		x
MOV-SW-105C	6-248	Motor Operated Valve		x
MOV-SW-105D	6-249	Motor Operated Valve		x
1-SW-P-5A	6-250	Pump Motor		x
1-SW-P-5B	6-251	Pump Motor		x
1-SW-P-5C	6-252	Pump Motor		x

		TITLE						
CHECKED		VIRGINIA ELECTRIC AND POWER COMPANY						
CORRECT		SURRY UNIT 1						
APPROVED								
REVISIONS		(2)		(3)		(4)		(5)

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: SERVICE WATER

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
1-SW-P-5D	6-253	Pump Motor		x

		TITLE							
CHECKED		VIRGINIA ELECTRIC AND POWER COMPANY							
CORRECT		SURRY UNIT 1							
APPROVED									
REVISIONS		(2)		(3)		(4)		(5)	

MASTER LIST

Class IE Electrical Equipment Required to Function

Under Postulated Accident Conditions

SYSTEM: STEAM GENERATOR BLOWDOWN

Plant Identification Number		Generic Name	Location	
			Inside Containment	Outside Containment
	Worksheet Page No.			
SOV-BD-100A	6-254	Solenoid Operated Valve	x	
SOV-BD-100B	6-255	Solenoid Operated Valve		x
SOV-BD-100C	6-256	Solenoid Operated Valve	x	
SOV-BD-100D	6-257	Solenoid Operated Valve		x
SOV-BD-100E	6-258	Solenoid Operated Valve	x	
SOV-BD-100F	6-259	Solenoid Operated Valve		x

CHECKED		TITLE			
CORRECT		VIRGINIA ELECTRIC AND POWER COMPANY			
APPROVED		SURRY UNIT 1			
REVISIONS	(2)	(3)	(4)	(5)	

SURRY UNIT 1

WORKSHEET NOTES

1 The worksheets for containment isolation valves (example page #1) identify the North Anna FSAR Section 6.2.4.2 in the Documentation Reference Specification column. Page 6.2-113 of Section 6.2.4.2 states:

"With the exception of the main steam isolation valves, which are required to close within 5 seconds, all containment isolation valves must be capable of closing within 60 seconds after receipt of a containment isolation Phase A signal.

The basis for the 60 second limit is that no fuel cladding is expected to melt or fail until after 60 seconds following a loss-of-coolant accident (LOCA). Thus, fission product release from the core to the containment atmosphere, or to other portions of the RCS could not occur until at least one minute after the event."

The above is our basis for using 60 seconds as the required operating time.The 60 second time was used as a conservative figure for MS isolation valves.

2 Note 1 on worksheet pages 41, 42, 50, 51, 52, 53, and 55 should read:

Manufacturer has been given information necessary to obtain qualification data.

3 The following page numbers require corrections to the Manufacturer's information:

Page 40 delete Continental Wire & Cable Co. and add General Electric Wire and Cable

Page 41 delete Continental Wire & Cable Co and add Okonite Co.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: CONDENSER AIR REMOVAL TO CONTAINMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	North Anna FSAR Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-SV-102A	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: Note 1	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: Note 1	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 1.7×10^4 40 Yr = 8.8×10^2	Note 1	S&W Calc. 12846.38-RP-031-0	Note 1	Note 1	Note 1
LOCATION: Main Steam Valve House	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Air Removal to Containment							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: CHEMICAL AND VOLUME CONTROL	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. MOV-1275A	TEMP °F	212F, 4Hr	Note 1	Preliminary S&W Calc. 12846.44-PE-046-0	Note 1	Note 1	Note 1
COMPONENT: Motor Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	15.2, 0-1 Min 14.8, 1 Min-4hr	Note 1	Prelininary S&W Calc. 12846.44-PE-046-0	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	Preliminary S&W Calc. 12846.44-PE-046-0	Note 1	Note 1	Note 1
FUNCTION: Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation, Emergency Core Cooling/ Core Heat Removal, Minimum Boration	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 8.0×10^6 40 Yr = 2.8×10^6	2×10^7	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building Charging Pump Cubicle SERVICE: Charging Pump 2-CH-P-1A Recirc. to RWST	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: CHEMICAL AND VOLUME CONTROL	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. MOV-1275B	TEMP °F	212F, 4 hr	Note 1	Preliminary S&W Calc. 12846.44-PE-046-0	Note 1	Note 1	Note 1
COMPONENT: Motor Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	15.2, 0-1 min 14.8, 1 min-4 hr	Note 1	Preliminary S&W Calc. 12846.44-PE-046-0	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	Preliminary S&W Calc. 12846.44-PE-046-0	Note 1	Note 1	Note 1
FUNCTION: Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation, Emergency Core Cooling/Core Heat Removal, Minimum Boration	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 8×10^6 40 Yr = 2.8×10^6	2×10^7	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building Charging Pump Cubicle SERVICE: Charging Pump 2-CH-P-1B Recirc. to RWST	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec. 3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Component model will be determined during present steam generator outage.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: CHEMICAL AND VOLUME CONTROL	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. MOV-1275C	TEMP °F	212F, 4 hr	Note 1	Preliminary S&W Calc. 12846.44-PE-046-0	Note 1	Note 1	Note 1
COMPONENT: Motor Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	15.2, 0-1 min 14.8, 1 min-4 hr	Note 1	Preliminary S&W Calc. 12846.44-PE-046-0	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	Note 1	100	Preliminary S&W Calc. 12846.44-PE-046-0	Note 1	Note 1	Note 1
FUNCTION: Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation, Emergency Core Cooling/Core Heat Removal, Minimum Boration	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 8×10^6 40 Yr = 2.8×10^6	2×10^7	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building Charging Pump Cubicle SERVICE: Charging Pump 2-CH-P-1C Recirc. to RWST	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec. 3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Component model will be determined during present steam generator outage.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: CHEMICAL AND VOLUME CONTROL	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. MOV-1373	TEMP °F	212F, 4 hr	Note 1	Preliminary S&W Calc. 12846.44-PE-046-0	Note 1	Note 1	Note 1
COMPONENT: Motor Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	15.2, 0-1 min 14.8, 1 min-4 hr	Note 1	Preliminary S&W Calc. 12846.44-PE-046-0	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	Preliminary S&W Calc. 12846.44-PE-046-0	Note 1	Note 1	Note 1
FUNCTION: Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation, Emergency Core Cooling/Core Heat Removal, Minimum Boration	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 8×10^6 40 Yr = 2.8×10^6	2×10^7	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building Charging Pump Cubicle SERVICE: Charging Pump Recirculation to RWST Header Isolation	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec. 3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-20

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: CHEMICAL AND VOLUME CONTROL	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. MOV-1381	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: Note 1	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation, Emergency Core Cooling/ Core Heat Removal, Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.5×10^6 40 Yr = 2.5×10^6	2×10^7	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building Penetration Area SERVICE: Reactor Cooling Pump Seal Water Return	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: CHEMICAL AND VOLUME CONTROL	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1,2	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1,2	Note 1,2	Note 1,2
PLANT ID NO. 1-CH-P-1A	TEMP °F	212F, 0-4 hr	Note 3	S&W Calc. 12846.44-PE-046-0	Note 3	Note 3	Note 3
COMPONENT: Pump Motor							
MANUFACTURER: Westinghouse	PRESS. psia	15.2, 0-1 min 14.8, 1 min-4 hr	Note 3	S&W Calc. 12846.44-PE-046-0	Note 3	Note 3	Note 3
MODEL NUMBER: 68659	REL. HUM. %	100	Note 3	S&W Calc. 12846.44-PE-046-0	Note 3	Note 3	Note 3
FUNCTION: Emergency Core Cooling/ Core Heat Removal, Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation, HELB Mitigation, Minimum Boration	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 8 x 10^6 40 Yr = 2.8 x 10^6	2 x 10^8	S&W Calc. 12846.38-RP-026-0	31, 32	Type Test	Note 1,2
LOCATION: Auxiliary Building Ch. PP. Cubicle	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec. 3.1.2 (Aging)	None
SERVICE: High Head Safety Injection/Normal Charging							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) We have contacted manufacturer fc. qualification data.

2) Class H insulation has been qualified to radiation.

NOTES: (Cont)

3) Based on a review of postulated HELB's, it was determined that safety related equipment required to mitigate the HELB and bring the plant to a safe shutdown is not affected by the break. However, this equipment is being reviewed against the effects of HELB to determine our ability to maintain minimum boration capability, to assure additional plant operation capacity.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: CHEMICAL AND VOLUME CONTROL	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1,2	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1,2	Note 1,2	Note 1,2
PLANT ID NO. 1-CH-P-1B	TEMP °F	212F, 0-4 hr	Note 3	S&W Calc. 12846.44-PE-046-0	Note 3	Note 3	Note 3
COMPONENT: Pump Motor							
MANUFACTURER: Westinghouse	PRESS. psia	15.2, 0-1 min 14.8, 1 min-4 hr	Note 3	S&W Calc. 12846.44-PE-046-0	Note 3	Note 3	Note 3
MODEL NUMBER: 68659	REL. HUM. %	100	Note 3	S&W Calc. 12846.44-PE-046-0	Note 3	Note 3	Note 3
FUNCTION: Emergency Core Cooling/ Core Heat Removal, Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation, HELB Mitigation, Minimum Boration	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 8 x 10^4 40 Yr = 2.8 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	31, 32	Type Test	Note 1,2
LOCATION: Auxiliary Building Ch. PP. Cubicle	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: High Head Safety Injection/Normal Charging							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) We have contacted manufacturer for qualification data.
2) Class H insulation has been qualified to radiation.

3) Based on a review of the postulated HELB's, it was determined that safety-related equipment required to mitigate the HELB and bring the plant to a safe shutdown is not affected by the break. However, this equipment is being reviewed against the effects of HELB to determine our ability to maintain minimum boration capability, to assure additional plant operations capability.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: CHEMICAL AND VOLUME CONTROL	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1,2	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1,2	Note 1,2	Note 1,2
PLANT ID NO. 1-CH-P-1C	TEMP °F	212F, 0-4 hr	Note 3	S&W Calc. 12846.44-PE-046-0	Note 3	Note 3	Note 3
COMPONENT: Pump Motor							
MANUFACTURER: Westinghouse	PRESS. psia	15.2, 0-1 min 14.8, 1 min-4 hr	Note 3	S&W Calc. 12846.44-PE-046-0	Note 3	Note 3	Note 3
MODEL NUMBER: 68659	REL. HUM. %	100	Note 3	S&W Calc. 12846.44-PE-046-0	Note 3	Note 3	Note 3
FUNCTION: Emergency Core Cooling/ Core Heat Removal, Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation, HELB Mitigation, Minimum Boration	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 8 x 10^6 40 Yr = 2.8 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	31,32	Type Test	Note 1,2
LOCATION: Auxiliary Building Ch. PP. Cubicle	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: High Head Safety Injection/Normal Charging							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) We have contacted manufacturer for qualification data. 2) Class H insulation has been qualified to radiation. 3) Based on a review of the postulated HELB's, it was determined that safety-related equipment required to mitigate

the HELB and bring the plant to a safe shutdown is not affected by the break. However, this equipment is being reviewed against the effects of HELB to determine our ability to maintain minimum boration capability, to assure additional plant operations capability.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: CHEMICAL AND VOLUME CONTROL	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. FCV-1122	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Flow Control Valve							
MANUFACTURER: Note 1	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: Note 1	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Minimum Boration	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR							
	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Charging Flow Control							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

Facility: VEPCO, SURRY
Unit: 7
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: CHEMICAL AND VOLUME CONTROL	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	6 min	Westinghouse Ref. Ltr. No. NS-SS-79287	1	Test Sequen-tial	Note 1
PLANT ID NO. FT-1122	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Flow Transmitter							
MANUFACTURER: Fischer-Porter	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 10B2496QB	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Minimum Boration	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR							
	RAD.	LOCA = 2.5×10^6 40 Yr = 2.5×10^6	4×10^4	S&W Calc. 12846.38-RP-026-0	1	Test Sequen-tial	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Charging Flow							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, transmitters will not be qualified to the requirements of IEEE-323-1974. JUSTIFICATION: The accuracy requirement given for trip function applies only until the containment pressure reaches the point at which safety injection is initiated by the containment pressure transmitter. Transmitters remained within the accuracy required for trip functions within the first 30 sec (Ref. WCAP-9157).

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Unit: 1
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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: CHEMICAL AND VOLUME CONTROL	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Lt. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. SOV-1311	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Solenoid Operated Valve							
MANUFACTURER: ASCO	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: LB831654	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Minimum Boration	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.4 x 10^7 40 Yr = 1.3 x 10^7	Note 1	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Pressurizer Auxiliary Spray Isolation							
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required.

NOTES: 1) Replace, insufficient documentation. Previous testing on similar ASCO valves (Ref. Westinghouse Letter No. NS-SS-77060) indicates valves vent to perform their safety function for containment isolation.

Facility: VEPCO, SURRY
Unit: 1
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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: CHEMICAL AND VOLUME CONTROL	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Note 1	Note 1
PLANT ID NO. MOV-1115D	TEMP °F	212F, 4 hr	250F, 14 days	Preliminary S&W Calc. 12846.44-PE-046-0	6	Note 1	Note 1
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	15.2, 0-1 min 14.8, 1 min-4 hr	Note 1	Preliminary S&W Calc. 12846.44-PE-046-0	Note 1	Note 1	Note 1
MODEL NUMBER: SMB-00, Class B Insulation	REL. HUM. %	100	100	Preliminary S&W Calc. 12846.44-PE-046-0	6	Note 1	Note 1
FUNCTION: Emergency Core Cooling/ Core Heat Removal, Engineered Safety Feature, Minimum Boration, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 2.3×10^5 40 Yr = 4.0×10^2	2×10^7	S&W Calc. 12846.38-RP-026-0	6	Type Test	Note 1
LOCATION: Auxiliary Building SERVICE: Charging Pump Suction from Refueling Water Storage Tank	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

MOV-1115B

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: CHEMICAL AND VOLUME CONTROL	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Note 1	Note 1
PLANT ID NO. MOV-1115C	TEMP °F	212F, 4 hr	250F, 14 days	Preliminary S&W Calc. 12846.44-PE-046-0	6	Note 1	Note 1
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	15.2, 0-1 min 14.8, 1 min-4 hr	Note 1	Preliminary S&W Calc. 12846.44-PE-046-0	Note 1	Note 1	Note 1
MODEL NUMBER: SMB-000, Class B Insulation	REL. HUM. %	100	100	Preliminary S&W Calc. 12846.44-PE-046-0	6	Note 1	Note 1
FUNCTION: Emergency Core Cooling/ Core Heat Removal, Engineered Safety Feature, Minimum Boration, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.3×10^5 40 Yr = 4.0×10^2	2×10^7	S&W Calc. 12846.38-RP-026-0	6	Type Test	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Charging Pump Suction from Volume Control Tank							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: CHEMICAL AND VOLUME CONTROL	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Note 1	Note 1
PLANT ID NO. MOV-1115D	TEMP °F	212F, 4 hr	250F, 14 days	Preliminary S&W Calc. 12846.44-PE-046-0	6	Note 1	Note 1
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	15.2, 0-1 min 14.8, 1 min-4 hr	Note 1	Preliminary S&W Calc. 12846.44-PE-046-0	Note 1	Note 1	Note 1
MODEL NUMBER: SMB-00, Class B Insulation	REL. HUM. %	100	100	Preliminary S&W Calc. 12846.44-PE-046-0	6	Note 1	Note 1
FUNCTION: Emergency Core Cooling/ Core Heat Removal, Engineered Safety Feature, Minimum Boration, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.3×10^5 40 Yr = 4.0×10^2	2×10^7	S&W Calc. 12846.38-RP-026-0	6	Type Test	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Charging Pump Suction from Refueling Water Storage Tank							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: CHEMICAL AND VOLUME CONTROL	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Note 1	Note 1
PLANT ID NO. MOV-1115E	TEMP °F	212F, 4 hr	250F, 14 days	Preliminary S&W Calc. 12846.44-PE-046-0	6	Note 1	Note 1
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	15.2, 0-1 min 14.8, 1 min-4 hr	Note 1	Preliminary S&W Calc. 12846.44-PE-046-0	Note 1	Note 1	Note 1
MODEL NUMBER: SMB-000, Class B Insulation	REL. HUM. %	100	100	Preliminary S&W Calc. 12846.44-PE-046-0	6	Note 1	Note 1
FUNCTION: Emergency Core Cooling/ Core Heat Removal, Engineered Safety Feature, Minimum Boration, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.3×10^5 40 Yr = 4.0×10^2	2×10^7	S&W Calc. 12846.38-RP-026-0	6	Type Test	Note 1
LOCATION: Auxiliary Building SERVICE: Charging Pump Suction from Volume Control Tank	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: CHEMICAL AND VOLUME CONTROL	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-Standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. MOV-1289A	TEMP °F	212F, 4 hr	Note 1	Preliminary S&W Calc. 12846.44-PE-046-0	Note 1	Note 1	Note 1
COMPONENT: Motor Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	15.2, 0-1 min 14.8, 1 min-4 hr	Note 1	Preliminary S&W Calc. 12846.44-PE-046-0	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	Preliminary S&W Calc. 12846.44-PE-046-0	6	Note 1	Note 1
FUNCTION: Emergency Core Cooling/ Core Heat Removal, Engineered Safety Feature, Minimum Boration, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.3×10^5 40 Yr = 4.0×10^2	2×10^7	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Charging to Regenerative Heat Exchanger Stop Valve							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component Model will be determined during present steam generator outage.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: CHEMICAL AND VOLUME CONTROL	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional After Rad. Exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. MOV-1289B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: Note 1	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation, Emergency Core Cooling/ Core Heat Removal, Minimum Boration	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 2.5×10^6 40 Yr = 2.5×10^6	2×10^7	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building SERVICE: Charging Header Isolation Valve	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM: CHEMICAL AND VOLUME CONTROL	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	North Anna FSAR Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-1204	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 831654	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR							
	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^4	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Bldg.							
	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Letdown Inlet Non-Regenerative Heat Exchanger							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Replace, insufficient documentation. Previous testing on similar ASCO valves (Ref. Westinghouse Ltr. No. NS-SS-77060) indicatores valves vent to perform the safety function for containment isolation.

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SYSTEM: CHEMICAL AND VOLUME CONTROL	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. SOV-1200A	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Solenoid Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Containment Isolation, HELB Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	Note 1	S&W Calc 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: Chemical Volume Control System Isolation Valve for Letdown	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: CHEMICAL AND VOLUME CONTROL	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref.Lt. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. SOV-1200B	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Solenoid Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Containment Isolation, HELB Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	Note 1	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Chemical Volume Control System Isolation Valve for Letdown							
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: CHEMICAL AND VOLUME CONTROL	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Lt. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. SOV-1200C	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Solenoid Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Containment Isolation, HELB Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	Note 1	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: Chemical Volume Control System Isolation Valve for Letdown	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. 1H1-2 South	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: 480 V Motor Control Centers							
MANUFACTURER: Cutler - Hammer	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: Unitrol	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Supply Power to Safety Systems	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR							
	RAD.	LOCA = 9.23×10^3 40 Yr = 1.96×10^4	Note 1	S&W Calc. 12846.54-RP-035-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: NR							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Manufacturer has been given information necessary to obtain qualification data.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. 1H1-2 North	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: 480 V Motor Control Center							
MANUFACTURER: Cutler-Hammer	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: Unitrol	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Supply Power to Safety System	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR							
	RAD.	LOCA = 9.23×10^3 40 Yr = 1.96×10^4	Note 1	S&W Calc. 12846.54-RP-035-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: NR							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Manufacturer has been given information necessary to obtain qualification data.

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SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. 1J1-2 West	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: 480 V Motor Control Centers							
MANUFACTURER: Cutler-Hammer	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: Unitrol	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Supply Power to Safety System	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 9.23×10^3 40 Yr = 1.96×10^4	Note 1	S&W Calc. 12846.54-RP-035-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: NR							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Manufacturer has been given information necessary to obtain qualification data.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. 1J1-2 East	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: 480 V Motor Control Centers							
MANUFACTURER: Cutler-Hammer	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: Unitrol	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Supply Power to Safety System	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 9.23×10^3 40 Yr = 1.96×10^4	Note 1	S&W Calc. 12846.54-RP-035-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: NR							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Manufacturer has been given information necessary to obtain qualification data.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 3	Westinghouse	Note 3	Note 3	Note 3
PLANT ID NO. Spec. No. 21 P.O. No. NA-313/1313 Conax Type IC	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	280F, 0-30 min 280-245F, 30-60 min 150-+20F,-4F,1 hr-10 days	VEPCO-NRC 11-22-77 No. 382A/092477	21, 22	Prototype test	Note 2
COMPONENT: Power Penetration							
MANUFACTURER: Conax Corp.	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	59.7, 0-30 min 59.7-14.7, 0-30 min 14.7, 1 hr-10 days	VEPCO-NRC 11-22-77 No. 382A/092477	21, 22	Prototype test	None
MODEL NUMBER: NR	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	21, 22	Prototype test	None
FUNCTION: Supplies Power to Safety System	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	Boron content was 0.23 molar as H_3BO_3 NaOH = 5.0-8.0	VEPCO-NRC 6-80 No. 535	21, 22	Prototype test	Note 1
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 7.4 x 10^6 40 Yr = 3.5 x 10^4	1 x 10^8	S&W Calc. 12846.54-RP-038-0	21, 22	Prototype test	None
LOCATION: Inside and Outside Containment Outside Cranewell	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE:							
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: LOCA - DEFICIENCIES 1) pH of chemical spray was 5-8 for duration, not 8.5-11.0 for first 4 hr or 7-9 for remainder. 2) Temperature range was 146°-170°F from 1 hr to end. JUSTIFICATION: 1) Electric penetrations assemblies are fabricated from the following nonmetallic material: polymides and polysulfone. These materials have been shown to be resistant to all diluted alkaline solutions. Since the LOCA spray is in the range of a diluted alkaline solution, it should have no significant effect on the penetration assemblies. 2) Very short duration of temperature below 150°F

NOTES: (Cont)

when compared to total test duration makes this item acceptable. 3) Conax has been contacted to compile additional data. Estimate reply by November 1, 1980.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	Note 3	Note 3	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 3	Note 3	Note 3
PLANT ID NO. Spec. No. 21 P.O. No. NA-313/1313 Conax Type ID	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	280F, 0-30 min 280-245F, 30-60 min 150-120F, 1 hr-10 days	VEPCO-NRC 11-22-77 No. 382A/092477	21, 22	Prototype Test	Note 2
COMPONENT: Power Penetration							
MANUFACTURER: Conax Corp.	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	59.7, 0-30 min 59.7-14.7, 0-30 min 14.7, 1 hr-10 days	VEPCO-NRC 11-22-77 No. 382A/092477	21, 22	Prototype Test	None
MODEL NUMBER: NR	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	21, 22	Prototype Test	None
FUNCTION: Supplies Power to Safety System	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	Boron content was 0.23 molar as H_3BO_3 NaOH = 5.0-8.0	VEPCO-NRC 6-80 No. 535	21, 22	Prototype Test	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 7.4×10^6 40 Yr = 3.5×10^4	1×10^8	S&W Calc. 12846.54-RP-038-0	21, 22	Prototype Test	None
LOCATION: Inside and Outside Containment Outside Cranewell SERVICE:	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: LOCA - DEFICIENCIES 1) pH of chemical spray was 5-8 for duration, not 8.5-11.0 for first 4 hr or 7-9 for remainder. 2) Temperature range was 146°-170°F from 1 hr to end. JUSTIFICATION: 1) Electric penetrations assemblies are fabricated from the following nonmetallic material: polymides and polysulfone. These materials have been shown to be resistant to all diluted alkaline solutions. Since the LOCA spray is in the range of a diluted alkaline solution, it should have no significant effect on the penetration assemblies. 2) Very short duration of temperature below 150°F

when compared to total test duration makes this item acceptable. 3) Conax has been contacted to compile additional data. Estimate reply by November 1, 1980.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	Note 3	Note 3	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 3	Note 3	Note 3
PLANT ID NO. Spec. No. 21 P.O. No. NA-313/1313 Conax Type IIA	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	280F, 0-30 min 280-245F, 30-60 min 150-120F, 1 hr-10 days	VEPCO-NRC 11-22-77 No. 382A/092477	21, 22	Prototype Test	Note 2
COMPONENT: Power Penetration							
MANUFACTURER: Conax Corp.	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	59.7, 0-30 min 59.7-14.7, 0-30 min 14.7, 1 hr-10 days	VEPCO-NRC 11-22-77 No. 382A/092477	21, 22	Prototype Test	None
MODEL NUMBER: NR	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	21, 22	Prototype Test	None
FUNCTION: Supplies Power to Safety System	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	Boron content was 0.23 molar as H_3BO_3 NaOH = 5.0-8.0	VEPCO-NRC 6-80 No. 535	21, 22	Prototype Test	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 7.4×10^6 40 Yr = 3.5×10^4	1×10^8	S&W Calc. 12846.54-RP-038-0	21, 22	Prototype Test	None
LOCATION: Inside and Outside Containment Outside Cranewell SERVICE:	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: LOCA - DEFICIENCIES 1) pH of chemical spray was 5-8 for duration, not 8.5-11.0 for first 4 hr or 7-9 for remainder. 2) Temperature range was 146°-170°F from 1 hr to end. JUSTIFICATION: 1) Electric penetrations assemblies are fabricated from the following nonmetallic material: polymides and polysulfone. These materials have been shown to be resistant to all diluted alkaline solutions. Since the LOCA spray is in the range of a diluted alkaline solution, it should have no significant effect on the penetration assemblies. 2) Very short duration of temperature below 150°F

when compared to total test duration makes this item acceptable. 3) Conax has been contacted to compile additional data. Estimate reply by November 1, 1980.

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SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	Note 3	Note 3	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 3	Note 3	Note 3
PLANT ID NO. Spec. No. 21 P.O. No. NA-313/1313 Conax Type IIB	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	280F, 0-30 min 280-245F, 30-60 min 150-+20F, 1 hr-10 days	VEPCO-NRC 11-22-77 No. 382A/092477	21,22	Prototype Test	Note 2
COMPONENT: Power Penetration							
MANUFACTURER: Conax Corp.	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	59.7, 0-30 min 59.7-14.7, 0-30 min 14.7, 1 hr-10 days	VEPCO-NRC 11-22-77 No. 382A/092477	21,22	Prototype Test	None
MODEL NUMBER: NR	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	21,22	Prototype Test	None
FUNCTION: Supplies Power to Safety System	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	Boron content was 0.23 molar as H_3BO_3 NaOH = 5.0-8.0	VEPCO-NRC 6-80 No. 535	21,22	Prototype Test	Note 1
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 7.4 x 10^6 40 Yr = 3.5 x 10^4	1 x 10^6	S&W Calc. 12846.54-RP-038-0	21,22	Prototype Test	None
LOCATION: Inside and Outside Containment Outside Cranewell SERVICE:	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: LOCA - DEFICIENCIES 1) pH of chemical spray was 5-8 for duration, not 8.5-11.0 for first 4 hr or 7-9 for remainder. 2) Temperature range was 146°-170°F from 1 hr to end. JUSTIFICATION: 1) Electric penetrations assemblies are fabricated from the following nonmetallic material: polymides and polysulfone. These materials have been shown to be resistant to all diluted alkaline solutions. Since the LOCA spray is in the range of a diluted alkaline solution, it should have no significant effect on the penetration assemblies. 2) Very short duration of temperature below 150°F

when compared to total test duration makes this item acceptable. 3) Conax has been contacted to compile additional data. Estimate reply by November 1, 1980.

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SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	Note 3	Note 3	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 3	Note 3	Note 3
PLANT ID NO. Spec. No. 21 P.O. No. NA-313/1313 Conac Type IIC	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	280F, 0-30 min 280-245F, 30-60 min 150-+20F, 1 hr-10 days	VEPCO-NRC 11-22-77 No. 382A/092477	21, 22	Prototype Test	Note 2
COMPONENT: Power Penetration							
MANUFACTURER: Conax Corp.	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	59.7, 0-30 min 59.7-14.7, 0-30 min 14.7, 1 hr-10 days	VEPCO-NRC 11-22-77 No. 382A/092477	21, 22	Prototype Test	None
MODEL NUMBER: NR	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	21, 22	Prototype Test	None
FUNCTION: Supplies Power to Safety System	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	Boron content was 0.23 molar as H_3BO_3 NaOH = 5.0-8.0	VEPCO-NRC 6-80 No. 535	21, 22	Prototype Test	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 7.4 x 10^6 40 Yr = 3.5 x 10^4	1 x 10^8	S&W Calc. 12846.54-RP-038-0	21, 22	Prototype Test	None
LOCATION: Inside and Outside Containment Outside Cranewell	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE:							
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: LOCA - DEFICIENCIES 1) pH of chemical spray was 5-8 for duration, not 8.5-11.0 for first 4 hr or 7-9 for remainder. 2) Temperature range was 146°-170°F from 1 hr to end. JUSTIFICATION: 1) Electric penetrations assemblies are fabricated from the following nonmetallic material: polymides and polysulfone. These materials have been shown to be resistant to all diluted alkaline solutions. Since the LOCA spray is in the range of a diluted alkaline solution, it should have no significant effect on the penetration assemblies. 2) Very short duration of temperature below 150°F

when compared to total test duration makes this item acceptable. 3) Conax has been contacted to compile additional data. Estimate reply by November 1, 1980.

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SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	>180 days	Westinghouse Ref. Lt. No. NS-SS-79287	11, 12, 13, 14	Analysis 10°C Rule	None
PLANT ID NO. Spec. No. 120 P.O. No. NA-312/1312	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	276F, 12 hr 160F, 6.5 days	VEPCO-NRC 11-22-77 No. 382A/092477	11, 12, 13, 14	Sequen-tial Type Test	None
COMPONENT: 600V Control Cable							
MANUFACTURER: Cerro Wire and Cable Co.	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	64.7, 12 hr 19.7, 6.5 days	VEPCO-NRC 11-22-77 No. 382A/092477	11, 12, 13, 14	Sequen-tial Type Test	None
MODEL NUMBER: Jacket: Neoprene Insulation: Cross-linked Polyethylene	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	11, 12, 13, 14	Sequen-tial Type Test	None
FUNCTION: Supplies Power to Safety Systems	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	1,720 ppm B as H_3BO_3 for 2 hr	VEPCO-NRC 6-80 No. 535	11, 12, 13, 14	Sequen-tial Type Test	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	2×10^8	S&W Calc. 12846.54-RP-038-0	11, 12, 13, 14	Sequen-tial Type Test	None
LOCATION: Inside Containment Inside Cranewall SERVICE: NR	AGING	Enclosure 4 Guidelines Section 7.0	Thermally aged 1,300 hr at 150°C	-	11, 12, 13, 14,	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	>120 days	Westinghouse Ref. Ltr. No. NS-SS-79287	37	Analysis Basic 10°C Rule	Note 1
PLANT ID NO. Spec. No. NAS-3187 P.O. No. NA-3187/4187	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	346F, 0-3 hr, 346-150F, 3-5 hr, 150-346F, 5-5+ hr, 346F, 5+-8 hr, 335F, 8-11 hr, 315F, 11-15 hr, 265F, 15 hr-4 days 212F, 4-30 days	VEPCO-NRC 11-22-77 No. 382A/092477	37	Type Test	None
COMPONENT: 600 V Control Cable							
MANUFACTURER: Cerro Wire and Cable Co. (Rockbestos)	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 2	VEPCO-NRC 11-22-77 No. 382A/092477	37	Type Test	None
MODEL NUMBER: Insulation: Firewall III (Cross-linked Polyethylene) Jacket: Neoprene	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	37	Type Test	None
FUNCTION: Supply Power to Safety Systems	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	H_3BO_3 (3,000 ppm B) buffered to pH 9-11, 30 days	VEPCO-NRC 6-80 No. 535	37	Type Test	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	2×10^8	S&W Calc. 12846.54-RP-038-0	37	Type Test	None
LOCATION: Inside Containment Inside Cranewall SERVICE: 600 V Control Cable	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Sending letter to manufacturer asking for extrapolation by analysis to show that the 30-day test is equivalent to specification profile for 120 days.

2) Pressure (psia)

84.7, 0-10 sec
127.7, 10 sec-4 hr
84.7, 4-6 hr
127.7, 6-8 hr
107.7, 8-11 hr
83.7, 11-15 hr
42.7, 15 hr-4 days
14.7, 4-30 days

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	>140 days	Westinghouse Ref. Lt. No. NS-SS-79287	5, 8	Analysis 10° Rule	None
PLANT ID NO. Spec. No. 128 P.O. No. NA-265/1265	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	280F, 60 min 250F, 24 hr	VEPCO-NRC 11-22-77 No. 382A/092477	5, 8	Sequential Type Test	None
COMPONENT: 300V Instrument Cable							
MANUFACTURER: Boston Insulated Wire and Cable	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	59.4, 60 min 14.7, 24 hr	VEPCO-NRC 11-22-77 No. 382A/092477	5, 8	Sequential Type Test	None
MODEL NUMBER: Jacket: Neoprene Insulation: Cross-linked Polyethylene	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	5, 8	Sequential Type Test	None
FUNCTION: Supplies Signal	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	0.2 molar B as H_3BO_3 with pH of 8-8.5 for 25 hr	VEPCO-NRC 6-80 No. 535	5, 8	Sequential Type Test	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	1×10^8	S&W Calc. 12846.54-RP-038-0	5, 8	Sequential Type Test	None
LOCATION: Inside Containment Inside Cranewall SERVICE: NR	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) The cable jacket is of a neoprene material which was shown to be resistant to all diluted alkaline solutions. The LOCA spray is in the range of a diluted alkaline solution. Therefore, we believe it should have no significant effect on the cable.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	30 days at 212°C	Westinghouse Ref. Lt. No. NS-SS-79287	27	Analysis 10°C Rule	None
PLANT ID NO. Spec. No. 430 P.O. No. NA-392/1392	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	280F, 0-10 sec 280-346F, 10 sec-5 min 346-140F, 5-180 min	VEPCO-NRC 11-22-77 No. 382A/092477	27	Sequen-tial Type Test	None
COMPONENT: 300V Instrument Cable							
MANUFACTURER: Cerro Wire & Cable Co.	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	84.7, 0-10 sec 84.7-127.7, 10 sec-5 min 127.7-84.7, 5-180 min	VEPCO-NRC 11-22-77 No. 382A/092477	27	Sequen-tial Type Test	None
MODEL NUMBER: Jacket: Neoprene Insulation: Cross-linked Polyethylene	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	27	Sequen-tial Type Test	None
FUNCTION: Supply Signal	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	First 24 hr of 30 days 0.28 molar H_3BO_3, 0.64 molar $Na_2S_2O_3$ pH of 9-11	VEPCO-NRC 6-80 No. 535	27	Sequen-tial Type Test	None
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	2×10^8	S&W Calc. 12846.54-RP-038-0	27	Sequen-tial Type Test	None
LOCATION: Inside Containment Inside Cranewall SERVICE: NR	AGING	Enclosure 4 Guidelines Section 7.0	1300 hr at 150°C	-	27	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMMON ELECTRICAL SYSTEM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	120 days	Westinghouse Ref. Ltr. No. NS-SS-79287	17	Analysis Basic 10°C Rule	Note 1
PLANT ID NO. Spec. No. NAS-3190 P.O. No. 3190/4190 COMPONENT: 300 V Instrument Cable	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	0-357F, 0-5 min 357F, 5 min-10 hr 275F, 10 hr-4 days 212F, 4-30 days	VEPCO-NRC 11-22-77 No. 382A/092477	17	Type Test	Note 1
MANUFACTURER: Raychem Corp.	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	84.7, 0-5 min 84.7, 5 min-10 hr 45.7, 10 hr-4 days 24.7, 4 days-30 days	VEPCO-NRC 11-22-77 No. 382A/092477	17	Type Test	Note 1
MODEL NUMBER: Insulation & Jacket: Flamtrol (Cross-linked Polyolefin)	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	17	Type Test	None
FUNCTION: Supply power to safety systems ACCURACY: Spec: Demo: NR	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	H_3BO_3 (3000 ppm B) buffered to pH 10.5, 30 days	VEPCO-NRC 6-80 No. 535	17	Type Test	None
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	2×10^8	S&W Calc. 12846.54-RP-038-0	17	Type Test	None
LOCATION: Inside Containment Inside Cranewall SERVICE: 300 V Instrument	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Sending letter to manufacturer asking for extrapolation by analysis to show that the 30-day test is equivalent to specification profile for 120 days. Also the manufacturer will be requested to verify the applicability of the referenced Franklin Report.

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SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	45 min	Westinghouse Ref. Lt. No. NS-SS-79287	16	Type Test	Note 1
PLANT ID NO. Spec No. NUS-325 P.O. No. SN-246	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	150F at 45 min	VEPCO-NRC 11-22-77 No. 382A/092477	16	Type Test	Note 1
COMPONENT: 1000 V Control Cable							
MANUFACTURER: Cerro Wire & Cable Co. (Rockbestos)	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	74.7, 0-15 min 74.7-14.7 15-45 min	VEPCO-NRC 11-22-77 No. 382A/092477	16	Type Test	Note 1
MODEL NUMBER: Insulation: Pyro-Trol III (Cross-linked Polyethylene) Jacket: Neoprene	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	16	Type Test	Note 1
FUNCTION: Supplies power to safety system	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	2.5×10^7 (Total)	S&W Calc. 12846.54-RP-038-0	16	Type Test	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: 1000 V Control Cable	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec. 3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Manufacturer has been given information necessary to obtain qualification data.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	45 min	Westinghouse Ref. Lt. No. NS-SS-79287	16	Type Test	Note 1
PLANT ID NO. Spec No. NUS-381C P.O. No. SN-446 COMPONENT: 1000 V Control Cable	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	150F at 45 min	VEPCO-NRC 11-22-77 No. 382A/092477	16	Type Test	Note 1
MANUFACTURER: Cerro Wire & Cable Co. (Rockbestos)	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	74.7, 0-15 min 74.7-14.7 15-45 min	VEPCO-NRC 11-22-77 No. 382A/092477	16	Type Test	Note 1
MODEL NUMBER: Insulation: Pyro-Trol III (Cross-linked Polyethylene) Jacket: Neoprene	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	16	Type Test	Note 1
FUNCTION: Supplies power to safety system	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	2.5×10^7 (Total)	S&W Calc. 12846.54-RP-038-0	16	Type Test	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: 1000 V Control Cable	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec. 3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Manufacturer has been given information necessary to obtain qualification data.

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SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	45 min	Westinghouse Ref. Lt. No. NS-SS-79287	16	Type Test	Note 1
PLANT ID NO. Spec No. NUS-381E P.O. No. SN-1447	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	150F at 45 min	VEPCO-NRC 11-22-77 No. 382A/092477	16	Type Test	Note 1
COMPONENT: 1000 V Control Cable							
MANUFACTURER: Cerro Wire & Cable Co. (Rockbestos)	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	74.7, 0-15 min 74.7-14.7 15-45 min	VEPCO-NRC 11-22-77 No. 382A/092477	16	Type Test	Note 1
MODEL NUMBER: Insulation: Pyro-Trol III (Cross-linked Polyethylene) Jacket: Neoprene	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	16	Type Test	Note 1
FUNCTION: Supplies power to safety system	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	2.5×10^7 (Total)	S&W Calc. 12846.54-RP-038-0	16	Type Test	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: 1000 V Control Cable	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec. 3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Manufacturer has been given information necessary to obtain qualification data.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. Spec. No. NUS-381 P.O. No. SN-398	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	376F, 0-15 min 366F, 15-20 min 337F, 20-25 min 337-242F, 25 min-3.6 hr	VEPCO-NRC 11-22-77 No. 382A/092477	5,6	Type Test	Note 1
COMPONENT: 1000 V Control Cable							
MANUFACTURER: Continental Wire and Cable Corp.	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	72.7, 0-13 min 76.7, 13-20 min 74.7-14.7, 20 min-3.6 hr	VEPCO-NRC 11-22-77 No. 382A/092477	5,6	Type Test	Note 1
MODEL NUMBER: Insulation: Cross-linked Polyethylene Jacket: Neoprene	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	5,6	Type Test	Note 1
FUNCTION: Supply power to safety system	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	6200 ppm Boron and Hydrazine solution pH of between 8.6-10 for 399 hr	VEPCO-NRC 6-80 No. 535	5,6	Type Test	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	2×10^8	S&W Calc. 12846.54-RP-038-0	5,6	Type Test	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: 1000 V Control Cable	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) The qualification data is taken from a test performed on a generically similar construction of cable supplied by a different vendor. We will undertake a program of testing to determine the qualification of the actual installed cable.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. Spec. No. NUS-410 P.O. No. SN-1446	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	376F, 0-15 min 366F, 15-20 min 337F, 20-25 min 337-242F, 25 min-3.6 hr	VEPCO-NRC 11-22-77 No. 382A/092477	5,6	Type Test	Note 1
COMPONENT: 1000 V Control Cable							
MANUFACTURER: Continental Wire and Cable Corp.	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	72.7, 0-13 min 76.7, 13-20 min 74.7-14.7, 20 min-3.6 hr	VEPCO-NRC 11-22-77 No. 382A/092477	5,6	Type Test	Note 1
MODEL NUMBER: Insulation: Cross-linked Polyethylene Jacket: Neoprene	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	5,6	Type Test	Note 1
FUNCTION: Supply power to safety system	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	6200 ppm Boron and Hydrazine solution pH of between 8.6-10 for 399 hr	VEPCO-NRC 6-80 No. 535	5,6	Type Test	Note 1
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 2.4 x 10^7 40 Yr = 1.3 x 10^7	2 x 10^8	S&W Calc. 12846.54-RP-038-0	5,6	Type Test	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: 1000 V Control Cable	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) The qualification data is taken from a test performed on a generically similar construction of cable supplied by a different vendor. We will undertake a program of testing to determine the qualification of the actual installed cable.

(cont)

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SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. Spec. No. NUS-420 P.O. No. SN-1463	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	376F, 0-15 min 366F, 15-20 min 337F, 20-25 min 337-242F, 25 min-3.6 hr	VEPCO-NRC 11-22-77 No. 382A/092477	5,6	Type Test	Note 1
COMPONENT: 1000 V Control Cable							
MANUFACTURER: Continental Wire and Cable Corp.	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	72.7, 0-13 min 76.7, 13-20 min 74.7-14.7, 20 min-3.6 hr	VEPCO-NRC 11-22-77 No. 382A/092477	5,6	Type Test	Note 1
MODEL NUMBER: Insulation: Cross-linked Polyethylene Jacket: Neoprene	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	5,6	Type Test	Note 1
FUNCTION: Supply power to safety system	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	6200 ppm Boron and Hydrazine solution pH of between 8.6-10 for 399 hr	VEPCO-NRC 6-80 No. 535	5,6	Type Test	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	2×10^8	S&W Calc. 12846.54-RP-038-0	5,6	Type Test	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: 1000 V Control Cable	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) The qualification data is taken from a test performed on a generically similar construction of cable supplied by a different vendor. We will undertake a program of testing to determine the qualification of the actual installed cable.

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SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after testing	Westinghouse Ref. Lt. No. NS-SS-79287	18	Sequential Test	None
PLANT ID NO. Spec No. 41 P.O. No. SN-65/1065 Amphenol Type IA COMPONENT: Instrument Penetration	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	208-150F, 0-3 hr 150F±15F, 24 hr	VEPCO-NRC 11-22-77 No. 382A/092477	18	Sequential Test	None
MANUFACTURER: Amphenol	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	60.7-0, 0-1 hr	VEPCO-NRC 11-22-77 No. 382A/092477	18	Sequential Test	None
MODEL NUMBER:	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	18	Sequential Test	None
FUNCTION:	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 7.4 x 10^6 40 Yr = 3.5 x 10^4	Note 1	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: NR	AGING	Enclosure 4 Guidelines Section 7.0	-	- NR	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Manufacturer has been supplied with information necessary to obtain qualification data.

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SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Lt. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. Spec. No. 41 P.O. No. SN-65/1065 Amphenol Type IB	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Instrument Penetration							
MANUFACTURER: Amphenol	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER:	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Supplies power to safety systems	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: Demo: NR							
	RAD.	LOCA =7.4 x 10^6 40 yr = 3.5 x 10^4	Note 1	_____	Note 1	Note 1	Note 1
LOCATION: Inside and Outside Containment Outside Cranewall SERVICE: NR	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Manufacturer has been contacted and supplied with information necessary to obtain qualification data.

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SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Lt. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. Spec No. 41 P.O. No. SN-65/1065 Amphenol Type IC COMPONENT: Power Penetration	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MANUFACTURER: Amphenol	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER:	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Supplies power to safety system ACCURACY: Spec: NR Demo:	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
	RAD.	LOCA = 7.4×10^6 40 Yr = 3.5×10^4	Note 1		Note 1	Note 1	Note 1
LOCATION: Inside and Outside Containment Outside Cranewall SERVICE: NR	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'-1" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Manufacturer has been contacted and supplied with information necessary to obtain qualification data.

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SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Lt. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. Spec. No. 41 P.O. No. SN-65/1065 Amphenol Type III	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Triaxial Penetration							
MANUFACTURER: Amphenol	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER:	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Supplies service to supply system	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 7.4 x 10^6 40 Yr = 3.5 x 10^4	Note 1	_____	Note 1	Note 1	Note 1
LOCATION: Inside and Outside Containment Outside Cranewall SERVICE: NR	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Manufacturer has been contacted and supplied with information necessary to obtain qualification data.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Lt. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. Spec No. 41 P.O. No. SN-65/1065 Amphenol Type IV COMPONENT: Thermocouples	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MANUFACTURER: Amphenol	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER:	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Supplies power to safety system	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 7.4×10^6 40 Yr = 3.5×10^4	Note 1		Note 1	Note 1	Note 1
LOCATION: Inside and Outside Containment Outside Cranewall SERVICE: NR	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Manufacturer has been contacted and supplied with information necessary to obtain qualification data.

Facility: VEPCO, SURRY
Unit: 1
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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. Spec. No. NUS-225 P.O. No. SN-251	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	376F, 0-15 min 366F, 15-20 min 337F, 20-25 min 337-242F, 25 min-3.6 hr	VEPCO-NRC 11-22-77 No. 382A/092477	5,6	Type Test	Note 1
COMPONENT: 600 V Power Cable							
MANUFACTURER: Kaiser Aluminum & Chemical Sales, Inc.	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	72.7, 0-13 min 76.7, 13-20 min 74.7-14.7, 20 min-3.6 hr	VEPCO-NRC 11-22-77 No. 382A/092477	5,6	Type Test	Note 1
MODEL NUMBER: Insulation: Cross-linked Polyethylene Jacket: Neoprene	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	5,6	Type Test	Note 1
FUNCTION: Supply power to safety system	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	6200 ppm Boron and Hydrazine solution pH of between 8.6-10 for 399 hr	VEPCO-NRC 6-80 No. 535	5,6	Type Test	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	2×10^8	S&W Calc. 12846.54-RP-038-0	5,6	Type Test	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: 600 V Power Cable	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) The qualification data is taken from a test performed on a generically similar construction of cable supplied by a different vendor. We will undertake a program of testing to determine the qualification of the actual installed cable.

Facility: VEPCO, SURRY
Unit: 1
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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. Spec. No. NUS-365A P.O. No. SN-1251	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	376F, 0-15 min 366F, 15-20 min 337F, 20-25 min 337-242F, 25 min-3.6 hr	VEPCO-NRC 11-22-77 No. 382A/092477	5,6	Type Test	Note 1
COMPONENT: 600 V Power Cable							
MANUFACTURER: Kaiser Aluminum & Chemical Sales, Inc.	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	72.7, 0-13 min 76.7, 13-20 min 74.7-14.7, 20 min-3.6 hr	VEPCO-NRC 11-22-77 No. 382A/092477	5,6	Type Test	Note 1
MODEL NUMBER: Insulation: Cross-linked Polyethylene Jacket: Neoprene Armor	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	5,6	Type Test	Note 1
FUNCTION: Supply power to safety system	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	6200 ppm Boron and Hydrazine solution pH of between 8.6-10 for 399 hr	VEPCO-NRC 6-80 No. 535	5,6	Type Test	Note 1
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	2×10^8	S&W Calc. 12846.54-RP-038-0	5,6	Type Test	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: 600 V Power Cable	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) The qualification data is taken from a test performed on a generically similar construction of cable supplied by a different vendor. We will undertake a program of testing to determine the qualification of the actual installed cable.

Facility: VEPCO, SURRY
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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. Spec. No. NUS-365B P.O. No. SN-1380	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	376F, 0-15 min 366F, 15-20 min 337F, 20-25 min 337-242F, 25 min-3.6 hr	VEPCO-NRC 11-22-77 No. 382A/092477	5,6	Type Test	Note 1
COMPONENT: 600 V Power Cable							
MANUFACTURER: Okonite Co.	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	72.7, 0-13 min 76.7, 13-20 min 74.7-14.7, 20 min-3.6 hr	VEPCO-NRC 11-22-77 No. 382A/092477	5,6	Type Test	Note 1
MODEL NUMBER: Insulation: Cross-linked Polyethylene Jacket: Neoprene	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	5,6	Type Test	Note 1
FUNCTION: Supply power to safety system	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	6200 ppm Boron and Hydrazine solution pH of between 8.6-10 for 399 hr	VEPCO-NRC 6-80 No. 535	5,6	Type Test	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	2×10^8	S&W Calc. 12846.54-RP-038-0	5,6	Type Test	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: 600 V Power Cable	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) The qualification data is taken from a test performed on a generically similar construction of cable supplied by a different vendor. We will undertake a program of testing to determine the qualification of the actual installed cable.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. Spec. No. NUS-365C P.O. No. SN-1392	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	376F, 0-15 min 366F, 15-20 min 337F, 20-25 min 337-242F, 25 min-3.6 hr	VEPCO-NRC 11-22-77 No. 382A/092477	5,6	Type Test	Note 1
COMPONENT: 600 V Power Cable							
MANUFACTURER: Okonite Co.	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	72.7, 0-13 min 76.7, 13-20 min 74.7-14.7, 20 min-3.6 hr	VEPCO-NRC 11-22-77 No. 382A/092477	5,6	Type Test	Note 1
MODEL NUMBER: Insulation: Cross-linked Polyethylene Jacket: Neoprene	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	5,6	Type Test	Note 1
FUNCTION: Supply power to safety system	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	6200 ppm Boron and Hydrazine solution pH of between 8.6-10 for 399 hr	VEPCO-NRC 6-80 No. 535	5,6	Type Test	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	2×10^8	S&W Calc. 12846.54-RP-038-0	5,6	Type Test	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: 600 V Power Cable	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) The qualification data is taken from a test performed on a generically similar construction of cable supplied by a different vendor. We will undertake a program of testing to determine the qualification of the actual installed cable.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. Spec. No. NUS-365D P.O. No. SN-417	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	376F, 0-15 min 366F, 15-20 min 337F, 20-25 min 337-242F, 25 min-3.6 hr	VEPCO-NRC 11-22-77 No. 382A/092477	5,6	Type Test	Note 1
COMPONENT: 600 V Power Cable							
MANUFACTURER: Okonite Co.	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	72.7, 0-13 min 76.7, 13-20 min 74.7-14.7, 20 min-3.6 hr	VEPCO-NRC 11-22-77 No. 382A/092477	5,6	Type Test	Note 1
MODEL NUMBER: Insulation: Cross-linked Polyethylene Jacket: Neoprene	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	5,6	Type Test	Note 1
FUNCTION: Supply power to safety system	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	6200 ppm Boron and Hydrazine solution pH of between 8.6-10 for 399 hr	VEPCO-NRC 6-80 No. 535	5,6	Type Test	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	2×10^8	S&W Calc. 12846.54-RP-038-0	5,6	Type Test	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: 600 V Power Cable	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES:

OPEN (OUTSTANDING) ITEMS (Cont)

NOTES: 1) The qualification data is taken from a test performed on a generically similar construction of cable supplied by a different vendor. We will undertake a program of testing to determine the qualification of the actual installed cable.

Facility: VEPCO, SURRY
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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. Spec. No. NUS-374 P.O. No. SN-375	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	376F, 0-15 min 366F, 15-20 min 337F, 20-25 min 337-242F, 25 min-3.6 hr	VEPCO-NRC 11-22-77 No. 382A/092477	5,6	Type Test	Note 1
COMPONENT: Triplex Nos. 2, 210, 410 AWG, 250 MCM, 350, 500 and 750 MCM							
MANUFACTURER: Okonite Co.	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	72.7, 0-13 min 76.7, 13-20 min 74.7-14.7, 20 min-3.6 hr	VEPCO-NRC 11-22-77 No. 382A/092477	5,6	Type Test	Note 1
MODEL NUMBER: Insulation: Cross-linked Polyethylene Jacket: Neoprene	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	5,6	Type Test	Note 1
FUNCTION: Supply power to safety system	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	6200 ppm Boron and Hydrazine solution pH of between 8.6-10 for 399 hr	VEPCO-NRC 6-80 No. 535	5,6	Type Test	Note 1
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 2.4 x 10^7 40 Yr = 1.3 x 10^7	2 x 10^8	S&W Calc. 12846.54-RP-038-0	5,6	Type Test	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: 600 V Aluminum Power Cable	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) The qualification data is taken from a test performed on a generically similar construction of cable supplied by a different vendor. We will undertake a program of testing to determine the qualification of the actual installed cable.

Facility: VEPCO, SURRY
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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. Spec. No. NUS-365E P.O. No. SN-457	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	376F, 0-15 min 366F, 15-20 min 337F, 20-25 min 337-242F, 25 min-3.6 hr	VEPCO-NRC 11-22-77 No. 382A/092477	5,6	Type Test	Note 1
COMPONENT: 600 V Power Cable							
MANUFACTURER: Collyer Insulated Wire Co.	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	72.7, 0-13 min 76.7, 13-20 min 74.7-14.7, 20 min-3.6 hr	VEPCO-NRC 11-22-77 No. 382A/092477	5,6	Type Test	Note 1
MODEL NUMBER: Insulation: Cross-linked Polyethylene Jacket: Neoprene	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	5,6	Type Test	Note 1
FUNCTION: Supply power to safety system ACCURACY: Spec: NR Demo:	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	6200 ppm Boron and Hydrazine solution pH of between 8.6-10 for 399 hr	VEPCO-NRC 6-80 No. 535	5,6	Type Test	Note 1
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	2×10^8	S&W Calc. 12846.54-RP-038-0	5,6	Type Test	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: 600 V Power Cable	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES:

OPEN (OUTSTANDING) ITEMS (Cont)

NOTES: 1) The qualification data is taken from a test performed on a generically similar construction of cable supplied by a different vendor. We will undertake a program of testing to determine the qualification of the actual installed cable.

Facility: VEPCO, SURRY
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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. Spec. No. NUS-365F P.O. No. SN-462	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	376F, 0-15 min 366F, 15-20 min 337F, 20-25 min 337-242F, 25 min-3.6 hr	VEPCO-NRC 11-22-77 No. 382A/092477	5,6	Type Test	Note 1
COMPONENT: 600 V Power Cable							
MANUFACTURER: Anaconda Wire and Cable Co.	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	72.7, 0-13 min 76.7, 13-20 min 74.7-14.7, 20 min-3.6 hr	VEPCO-NRC 11-22-77 No. 382A/092477	5,6	Type Test	Note 1
MODEL NUMBER: Insulation: Cross-linked Polyethylene - Propylene Rubber Jacket: Neoprene	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	5,6	Type Test	Note 1
FUNCTION: Supply power to safety system	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	6200 ppm Boron and Hydrazine solution pH of between 8.6-10 for 399 hr	VEPCO-NRC 6-80 No. 535	5,6	Type Test	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	2×10^8		5,6	Type Test	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: 600 V Power Cable	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES:

OPEN (OUTSTANDING) ITEMS (Cont)

NOTES: 1) The qualification data is taken from a test performed on a generically similar construction of cable supplied by a different vendor. We will undertake a program of testing to determine the qualification of the actual installed cable.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	>120 days	Westinghouse Ref. Lt. No. NS-SS-79287	3,4,12	Analysis 10°C Rule	None
PLANT ID NO. Spec No. 116A P.O. No. NA-128/1128	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	324F, 4 hr 252F, 7 days	VEPCO-NRC 11-22-77 No. 382A/092477	3,4,12	Type Test	None
COMPONENT: 600 V Cu Power Cable							
MANUFACTURER: Okonite	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	94.7, 4 hr 30.7, 7 days	VEPCO-NRC 11-22-77 No. 382A/092477	3,4,12	Type Test	None
MODEL NUMBER: Jacket: Neoprene Insulation:	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	3,4,12	Type Test	None
FUNCTION: Supply Power to Safety Systems	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	10K ppm H_3BO_3 buffered with NaOH to pH of 10.5 through PWR exposure period	VEPCO-NRC 6-80 No. 535	3,4,12	Type Test	None
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	2×10^6	S&W Calc. 12846.54-RP-038-0	3,4,12	Type Test	None
LOCATION: Inside Containment Inside Cranewall SERVICE: NR	AGING	Enclosure 4 Guidelines Section 7.0	Thermally aged 168 hr at 121°C	-	3,4,12	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

Facility: VEPCO, SURRY
Unit: 1
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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	120 days	Westinghouse Ref. Lt. No. NS-SS-79287	Report 3,4,12 from NA	Sequen-tial Test	None
PLANT ID NO. P.O. NAS-3185 COMPONENT: Triplex, various sizes, #12 AWG, 560 MEM	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	304F, 200 min 346F, 267 min 256F, 1 day 212F, 100 days 259F, 10 hr 324F, 4 hr 252F, 7 days	VEPCO-NRC 11-22-77 No. 382A/092477	Report 3,4,12 from NA	Sequen-tial Test	None
MANUFACTURER: Okonite Co.	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	94.7, 0-4 hr 30.7, 7 days	VEPCO-NRC 11-22-77 No. 382A/092477	Report 3,4,12 from NA	Sequen-tial Test	None
MODEL NUMBER: Insulation: Okonite (Ethylene-propylene Rubber) Jacket: Okoprene (Neoprene)	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	Report 3,4,12 from NA	Sequen-tial Test	None
FUNCTION: Supply power to safety systems ACCURACY: Spec: Demo: NR	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	H_3BO_3 with NaOH to 10.5	VEPCO-NRC 6-80 No. 535	Report 3,4,12 from NA	Sequen-tial Test	None
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	2×10^8	S&W Calc. 12846.54-RP-038-0	Report 3,4,12 from NA	Sequen-tial Test	None
LOCATION: Inside Containment Inside Cranewall SERVICE: 600 V Power Cable	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

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SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	38	Note 1	Note 1
PLANT ID NO. Spec. No. NUS-341 P.O. No. SN-285	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	150-300F, 0-20 sec 300F, 20 sec-30 min 300-150F, 30-70 min 150F, 70 min-78 hr	VEPCO-NRC 11-22-77 No. 382A/092477	38	Note 1	Note 1
COMPONENT: 600 V Instrument Cable							
MANUFACTURER: Continental Wire and Cable Co.	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Not Specified	VEPCO-NRC 11-22-77 No. 382A/092477	38	Note 1	Note 1
MODEL NUMBER: Insulation: Cross-linked Polyethylene Jacket: Hypalon	REL. HUM. %	100	Not Specified	VEPCO-NRC 6-80 No. 535	38	Note 1	Note 1
FUNCTION: Supplies power to safety systems	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	Not Specified	VEPCO-NRC 6-80 No. 535	38	Note 1	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	2×10^7	S&W Calc. 12846.54-RP-038-0	38	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: 600 V Instrument Cable	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Manufacturer has been contacted and given information necessary to obtain qualification data.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	38	Note 1	Note 1
PLANT ID NO. Spec. No. NUS-411 P.O. No. SN-1458	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	150-300F, 0-20 sec 300F, 20 sec-30 min 300-150F, 30-70 min 150F, 70 min-78 hr	VEPCO-NRC 11-22-77 No. 382A/092477	38	Note 1	Note 1
COMPONENT: 600 V Instrument Cable							
MANUFACTURER: Continental Wire and Cable Co.	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Not Specified	VEPCO-NRC 11-22-77 No. 382A/092477	38	Note 1	Note 1
MODEL NUMBER: Insulation: Cross-linked Polyethylene Jacket: Hypalon	REL. HUM. %	100	Not Specified	VEPCO-NRC 6-80 No. 535	38	Note 1	Note 1
FUNCTION: Supplies power to safety systems	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	Not Specified	VEPCO-NRC 6-80 No. 535	38	Note 1	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	2×10^7	S&W Calc. 12846.54-RP-038-0	38	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: 600 V Instrument Cable							
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Manufacturer has been contacted and given information necessary to obtain qualification data.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMMON ELECTRICAL EQUIPMENT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Analysis 10°C Rule	Note 1
PLANT ID NO. Spec. No. NUS-326 P.O. No. 330	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	276F, 12 hr 276-164F, 12 hr-7 days	VEPCO-NRC 11-22-77 No. NUS-382A/092477	11, 12 35, 36	Type Test	Note 1
COMPONENT: High Temperature Cable							
MANUFACTURER: Continental Wire and Cable Company	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	64.7, 12 hr 64.7-19.7, 12 hr-7 days	VEPCO-NRC 11-22-77 No. 382A/092477	11, 12 35, 36	Type Test	Note 1
MODEL NUMBER: Silicon Rubber	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	11, 12 35, 36	Type Test	Note 1
FUNCTION: Supply power to safety system	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	1720 ppm Boron as H_3BO_3	VEPCO-NRC 6-80 No. 535	11, 12 35, 36	Type Test	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	2×10^8	S&W Calc. 12846.54-RP-038-0	11, 12 35, 36	Type Test	Note 1
LOCATION: Inside Containment Inside Cranewall	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE:							
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) The qualification data is taken from a test performed on a generically similar construction of cable supplied by a different vendor. We will undertake a program of testing to determine the qualification of the actual installed cable.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMPONENT COOLING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. 2-CC-P-2A	TEMP °F	212F, 0-4 hr	Note 1	S&W Calc. 12846.44-PE-046-0	Note 1	Note 1	Note 1
COMPONENT: Pump Motor							
MANUFACTURER: Note 1	PRESS. psia	15.2, 0-1 min 14.8, 1 min-4 hr	Note 1	S&W Calc. 12846.44-PE-046-0	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	S&W Calc. 12846.44-PE-046-0	Note 1	Note 1	Note 1
FUNCTION: Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation, Minimum Boration, Emergency Core Cooling/ Core Heat Removal	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.5×10^6 40 Yr = 2.5×10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building SERVICE: Charging Pump Cooling	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component Model will be determined during present steam generator outage.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMPONENT COOLING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. 1-CC-P-2B	TEMP °F	212F, 0-4 hr	Note 1	S&W Calc. 12846.44-PE-046-0	Note 1	Note 1	Note 1
COMPONENT: Pump Motor							
MANUFACTURER: Note 1	PRESS. psia	15.2, 0-1 min 14.8, 1 min-4 hr	Note 1	S&W Calc. 12846.44-PE-046-0	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	S&W Calc. 12846.44-PE-046-0	Note 1	Note 1	Note 1
FUNCTION: Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation, Minimum Boration, Emergency Core Cooling/ Core Heat Removal	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building SERVICE: Charging Pump Cooling	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMPONENT COOLING		Environment		Documentation Reference			Out-standing Items
	Units	Specification	Qualification	Specification	Qualif.	Method	
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Sec.6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-CC-105A	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 8320A12	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Reactor Containment Pump Coolant H_2O Isolation							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Replace, insufficient information. Previous testing on similar ASCO valves (Ref. Westinghouse Letter No. NS-SS-77060) indicates valves vent to perform the safety function for containment isolation.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMPONENT COOLING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-CC-105B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 8320A12	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Reactor Containment Pump Coolant H_2O Isolation							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Replace, insufficient information. Previous testing on similar ASCO valves (Ref. Westinghouse Letter No. NS-SS-77060) indicates valves vent to perform the safety function for containment isolation.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMPONENT COOLING		Environment		Documentation Reference			Out-standing
	Units	Specification	Qualification	Specification	Qualif.	Method	Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-CC-105C	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 8320A12	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Reactor Containment Pump Coolant H_2O Isolation							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Replace, insufficient information. Previous testing on similar ASCO valves (Ref. Westinghouse Letter No. NS-SS-77060) indicates valves vent to perform the safety function for containment isolation.

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SYSTEM: COMPONENT COOLING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-CC-107	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 8320A12	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building SERVICE: R.C. Pump Thermal Barrier Isolation	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Replace, insufficient information. Previous testing on similar ASCO valves (Ref. Westinghouse Letter No. NS-SS-77060) indicates valves vent to perform the safety function for containment isolation.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMPONENT COOLING		Environment		Documentation Reference			Out-standing Items
	Units	Specification	Qualification	Specification	Qualif.	Method	
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-CC-109A	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 8320A12	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Cooling Water Return From Residual Heat Exchanger Isolation							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, insufficient information. Previous testing on similar ASCO valves (Ref. Westinghouse Letter No. NS-SS-77060) indicates valves vent to perform the safety function for containment isolation.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMPONENT COOLING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Sec.6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-CC-109B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 8320A12	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Cooling Water Return from Residual Heat Exchanger Isolation							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required.

NOTES: 1) Replace, insufficient documentation. Previous testing on similar ASCO valves (Ref. Westinghouse Ltr. No. NS-SS-77060) indicates valves vent to perform the safety function for containment isolation.

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SYSTEM SCHEMATIC EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMPONENT COOLING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Sec.6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-CC-110A	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: HBX8320A12	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	5 x 10^7	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Component Cooling Return From Containment Cooler 2-VS-E-2A Isolation							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) HBX8320A12 solenoid valves contain metal parts in lieu of plastic. This design is shown by the "X". Due to lack of documentation they will be replaced.

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Unit: 1
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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMPONENT COOLING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Section 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-CC-110B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: HBX8320A12	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Component Cooling Return From Cooler Containment 2-VS-E-2B Isolation							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) The HBX8320A12 solenoid valve contains metal parts in lieu of plastic. The design is shown by the "X". Due to lack of documentation they will be replaced.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: COMPONENT COOLING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Section 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-CC-110C	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: HBX8320A12	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Component Cooling From Containment Cooler 2-VS-E-2C Isolation							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) HBX8320A12 solenoid valves contain metal parts in lieu of plastic. The design is shown by the "X". Due to lack of documentation they will be replaced.

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SYSTEM: CONTAINMENT SPRAY	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-CS-101A	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-000, Class B Insulation	REL.	NR HUM. %	NR	NR	NR	NR	None
FUNCTION: Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR							
	RAD.	LOCA = 8×10^6 40 Yr = 8.8×10^2	2×10^7	S&W Calc. 12846.54-RP-37-0	6	Type Test	Note 1
LOCATION: Safeguard VV House	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Spray Pump Discharge Isolation							
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: CONTAINMENT SPRAY		Environment		Documentation Reference			Out-standing
	Units	Specification	Qualification	Specification	Qualif.	Method	Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-CS-101B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-000, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR							
	RAD.	LOCA = 8×10^4 40 Yr = 8.8×10^2	2×10^7	S&W Calc. 12846.54-RP-37-0	6	Type Test	Note 1
LOCATION: Safeguard Area	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Spray Pump Discharge Isolation							
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM: CONTAINMENT SPRAY	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-CS-101C	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-000, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR							
	RAD.	LOCA = 8×10^6 40 Yr = 8.8×10^2	2×10^7	S&W Calc. 12846.54-RP-37-0	6	Type Test	Note 1
LOCATION: Safeguard Area	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Spray Pump Discharge Isolation							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers and information necessary to obtain qualification data.

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SYSTEM: CONTAINMENT SPRAY	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-CS-101D	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-000, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR							
	RAD.	LOCA = 8×10^6 40 Yr = 8.8×10^6	2×10^7	S&W Calc. 12846.54-RP-37-0	6	Type Test	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Air to Blowdown Trip Valve							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: CONTAINMENT SPRAY		Environment		Documentation Reference			Out-standing Items
	Units	Specification	Qualification	Specification	Qualif.	Method	
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-CS-102A	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-000, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Engineered Safety Features, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 5.9×10^6 40 Yr = 8.8×10^2	2×10^7	S&W Calc. 12846.38-RP-031-0	6	Type Test	Note 1
LOCATION: Containment Spray Pump House Below El.27'6" SERVICE: Chemical Addition	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM: CONTAINMENT SPRAY	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-CS-102B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-000, Class B Insulation	REL.	NR HUM. %	NR	NR	NR	NR	None
FUNCTION: Engineered Safety Features, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 5.9×10^6 40 Yr = 8.8×10^2	2×10^7	S&W Calc. 12846.38-RP-031-0	6	Type Test	Note 1
LOCATION: Containment Spray Pump House Below El. 27'6"	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Chemical Addition Tank Isolation							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM: CONTAINMENT VACUUM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. 1-CV-P-1A	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Pump Motor							
MANUFACTURER: Note 1	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: Note 1	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 7.95×10^2 40 Yr = 5.26×10^3	Note 1	S&W Calc. 12846.54-035-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Containment Vacuum Pump							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM: CONTAINMENT VACUUM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. 1-CV-P-1B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Pump Motor							
MANUFACTURER: Note 1	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: Note 1	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 7.95×10^2 40 Yr = 5.26×10^3	Note 1	S&W Calc. 12846.54-035-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Containment Vacuum Pump							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM: CONTAINMENT VACUUM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. SOV-CV-150A	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: HBX8320A12	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation, Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Containment Vacuum Pump Trip Valve							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) HBX8320A12 solenoid valves contain metal parts in lieu of plastic. This design is shown by the "X". Due to lack of documentation they will be replaced.

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SYSTEM: CONTAINMENT VACUUM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. SOV-CV-150B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 8320A12	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation, Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA =2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.30-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Bldg.	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Containment Vacuum Pump Trip Valve							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Replace, insufficient documentation. Previous testing on similiar ASCO valves (Ref. Westinghouse Ltr. No. NS-SS-77060) indicates valves vent to perform the safety function for containment isolation.

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SYSTEM: CONTAINMENT VACUUM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. SOV-CV-150C	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: HBX8320A12	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation, Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.5×10^6 40 Yr = 2.5×10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Containment Vacuum Pump Trip Valve							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) HBX8320A12 solenoid valves contain metal parts in lieu of plastic. This design is shown by the "X". Due to lack of documentation they will be replaced.

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SYSTEM: CONTAINMENT VACUUM		Environment		Documentation Reference			Out-standing Items
	Units	Specification	Qualification	Specification	Qualif.	Method	
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. SOV-CV-150D	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 8320A12	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation, Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.5×10^6 40 Yr = 2.5×10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Bldg.	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Containment Vacuum Pump Trip Valve							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, insufficient documentation. Previous testing on similiar ASCO valves (Ref. Westinghouse Ltr. No. NS-SS-77060) indicates valves vent to perform the safety function for containment isolation.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: FEEDWATER	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	6 min	Westinghouse Ref. Ltr. No. NS-SS-79287	1,33	Sequen-tial Test	Note 1
PLANT ID NO. FT-FW-100A	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	>350F	VEPCO-NRC 11-22-77 No. 382A/092477	1,33	Sequen-tial Test	Note 1
COMPONENT: Flow Transmitter							
MANUFACTURER: Fischer-Porter	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	80.7	VEPCO-NRC 11-22-77 No. 382A/092477	1,33	Sequen-tial Test	Note 1
MODEL NUMBER: 10B2496PB NS	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	1,33	Sequen-tial Test	Note 1
FUNCTION: HELB Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	1.14 Wt % H_3BO_3 0.17 Wt % NaOH dissolved in H_2O	VEPCO-NRC 6-80 No. 535	1,33	Sequen-tial Test	Note 1
ACCURACY: Spec: ±10% Demo: Max. Error -2.1% +1.9%	RAD.	LOCA = 7.4×10^6 40 Yr = 3.5×10^4	4×10^4	S&W Calc. 12846.54-RP-038-0	1,33	Sequen-tial Test	Note 1
LOCATION: Inside Containment Outside Cranewall SERVICE: SG1A Auxiliary Feedwater Flow	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, transmitters will not be qualified to requirements of IEEE 323-1974. JUSTIFICATION: The accuracy requirement given for trip function applies only until the containment pressure reaches the point at which safety injection is initiated by the containment pressure transmitter. Transmitters remained within the accuracy required for trip functions within the first 30 seconds (Ref. WCAP-9157).

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: FEEDWATER	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualit.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	6 min	Westinghouse Ref. Ltr. No. NS-SS-79287	1,33	Sequen-tial Test	Note 1
PLANT ID NO. FT-FW-100B	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	>350F	VEPCO-NRC 11-22-77 No. 382A/092477	1,33	Sequen-tial Test	Note 1
COMPONENT: Flow Transmitter							
MANUFACTURER: Fischer-Porter	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	80.7	VEPCO-NRC 11-22-77 No. 382A/092477	1,33	Sequen-tial Test	Note 1
MODEL NUMBER: 10B2496PB NS	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	1,33	Sequen-tial Test	Note 1
FUNCTION: HELB Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	1.14 Wt % H_3BO_3 0.17 Wt % NaOH dissolved in H_2O	VEPCO-NRC 6-80 No. 535	1,33	Sequen-tial Test	Note 1
ACCURACY: Spec: ±10% Demo: Max. Error -2.1% +1.9%	RAD.	LOCA = 7.4×10^6 40 Yr = 3.5×10^4	4×10^4	S&W Calc. 12846.38-RP-038-0	1,33	Sequen-tial Test	Note 1
LOCATION: Inside Containment Outside Cranewall SERVICE: SG1B Auxiliary Feedwater Flow	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, transmitters will not be qualified to requirements of IEEE 323-1974. JUSTIFICATION: The accuracy requirement given for trip function applies only until the containment pressure reaches the point at which safety injection is initiated by the containment pressure transmitter. Transmitters remained within the accuracy required for trip functions within the first 30 seconds (Ref. WCAP-9157).

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: FEEDWATER	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	6 min	Westinghouse Ref. Ltr. No. NS-SS-79287	1,33	Sequential Test	Note 1
PLANT ID NO. FT-FW-100C	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	>350F	VEPCO-NRC 11-22-77 No. 382A/092477	1,33	Sequential Test	Note 1
COMPONENT: Flow Transmitter							
MANUFACTURER: Fischer-Porter	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	80.7	VEPCO-NRC 11-22-77 No. 382A/092477	1,33	Sequential Test	Note 1
MODEL NUMBER: 10B2496PB NS	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	1,33	Sequential Test	Note 1
FUNCTION: HELB Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	1.14 Wt % H_3BO_3 0.17 Wt % NaOH dissolved in H_2O	VEPCO-NRC 6-80 No. 535	1,33	Sequential Test	Note 1
ACCURACY: Spec: ±10% Demo: Max. Error -2.1% +1.9%	RAD.	LOCA = 7.4×10^6 40 Yr = 3.5×10^4	4×10^4	S&W Calc. 12846.38-RP-038-0	1,33	Sequential Test	Note 1
LOCATION: Inside Containment Outside Cranewall SERVICE: SGIC Auxiliary Feedwater Flow	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, transmitters will not be qualified to requirements of IEEE 323-1974. JUSTIFICATION: The accuracy requirement given for trip function applies only until the containment pressure reaches the point at which safety injection is initiated by the containment pressure transmitter. Transmitters remained within the accuracy required for trip functions within the first 30 seconds (Ref. WCAP-9157).

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: FEEDWATER	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after testing	Westinghouse Ref. Lt. No. NS-SS-79287	15	Sequential Test	None
PLANT ID NO. LT-1474	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	350F, 10 min cool down, 350F, 10 min 303F, 4 hr 250F, 48 hr	VEPCO-NRC 11-22-77 No. 382A/092477	15	Sequential Test	None
COMPONENT: Level Transmitter							
MANUFACTURER: Rosemount	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	134.7, 20 min 69.7, 8 hr 29.7, 48 hr	VEPCO-NRC 11-22-77 No. 382A/092477	15	Sequential Test	None
MODEL NUMBER: 1153DA4	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	15	Sequential Test	None
FUNCTION: DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	Tested with spray of H_3BO_3 (15,000 ppm B) buffered to pH of 10.5 at 77F NaOH, 24 hr	VEPCO-NRC 6-80 No. 535	15	Sequential Test	None
ACCURACY: Spec: ±8% Demo: +6.95%							
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	4.4×10^7	S&W Calc. 12846.54-RP-038-0	15	Sequential Test	None
LOCATION: Inside Containment Inside Cranewall SERVICE: Steam Generator 1 Narrow Range Level	AGING	Enclosure 4 Guidelines Section 7.0	-		-	Refer to Report Sec. 3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'-11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: FEEDWATER	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	>120 days	Westinghouse Ref. Lt. No. NS-SS-79287	7,9,10	Sequential Test	Note 1
PLANT ID NO. LT-1475 COMPONENT: Level Transmitter	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	0-280,0-3 sec 280, 3-1200 sec 280-220, 20 min-24 hrs 222, 1-15 days	VEPCO-NRC 11-22-77 No. 382A/092477	7,9,10	Sequential Test 1-15 days	Note 1
MANUFACTURER: Barton	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	89.7, 3-1200 sec	VEPCO-NRC 11-22-77 No. 382A/092477	7,9,10	Sequential Test	Note 1
MODEL NUMBER: 386	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	7,9,10	Sequential Test	Note 1
FUNCTION: DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	1.14 wt% H_3BO_3 0.17 wt% NaOH	VEPCO-NRC 6-80 No. 535	7,9,10	Sequential Test	Note 1
ACCURACY: Spec: ±10% 5 min Demo: 0-5 min 5% max error 5 min-17 months 17%	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	5×10^7	S&W Calc. 12846.54-RP-038-0	7,9,10	Sequential Test	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: Steam Generator 1 Narrow Range Level	AGING	Enclosure 4 Guidelines Section 7.0	-		-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTE: 1) As previously committed, component will be replaced during third refueling.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: FEEDWATER	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	>120 days	Westinghouse Ref. Lt. No. NS-SS-79287	7,9,10	Sequential Test	Note 1
PLANT ID NO. LT-1476	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	0-280, 0-3 sec 280, 3-1200 sec 280-220, 20 min-24 hr 222, 1-15 days	VEPCO-NRC 11-22-77 No. 382A/092477	7,9,10	Sequential Test	Note 1
COMPONENT: Level Transmitter							
MANUFACTURER: Barton	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	89.7, 3-1200 sec	VEPCO-NRC 11-22-77 No. 382A/092477	7,9,10	Sequential Test	Note 1
MODEL NUMBER: 386	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	7,9,10	Sequential Test	Note 1
FUNCTION: DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	1.14 wt% H_3BO_3 0.17 wt% NaOH	VEPCO-NRC 6-80 No. 535	7,9,10	Sequential Test	Note 1
ACCURACY: Spec: ±10% 5 min Demo: 0-5 min 5% max error 5 min-17 hours 17%	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	5×10^7	S&W Calc. 12846.54-RP-038-0	7,9,10	Sequential Test	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: Steam Generator 1 Narrow Range Level	AGING	Enclosure 4 Guidelines Section 7.0	-		-	Refer to Report Sec. 3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTE: 1) As previously committed, component will be replaced during third refueling.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: FEEDWATER	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	>120 days testing	Westinghouse Ref. Lt. No. NS-SS-79287	7,9,10	Sequential Test	Note 1
PLANT ID NO. LT-1484	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	0-280, 0-3 sec 280, 3-1200 sec 280-220, 20 min-24 hrs 222, 1-15 days	VEPCO-NRC 11-22-77 No. 382A/092477	7,9,10	Sequential Test	Note 1
COMPONENT: Level Transmitter							
MANUFACTURER: Barton	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	89.7, 3-1200 sec	VEPCO-NRC 11-22-77 No. 382A/092477	7,9,10	Sequential Test	Note 1
MODEL NUMBER: 386	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	7,9,10	Sequential Test	Note 1
FUNCTION: DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	1.14 wt% H_3BO_3 0.17 wt% NaOH	VEPCO-NRC 6-80 No. 535	7,9,10	Sequential Test	Note 1
ACCURACY: Spec: ±10% 5 min Demo: 0-5 min 5% max error 5 min-17 hours 17%	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	5×10^7	S&W Calc. 12846.54-RP-038-0	7,9,10	Sequential Test	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: Steam Generator 2 Narrow Range Level	AGING	Enclosure 4 Guidelines Section 7.0	-		-	Refer to Report Sec. 3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTE: 1) As previously committed, component will be replaced during third refueling.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: FEEDWATER	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	>120 days	Westinghouse Ref. Lt. No. NS-SS-79287	7,9,10	Sequen-Sequen-Test	Note 1
PLANT ID NO. LT-1485	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	0-280, 0-3 sec 280, 3-1200 sec 280-220, 20 min-24 hrs 222, 1-15 days	VEPCO-NRC 11-22-77 No. 382A/092477	9,7,10	Sequen-Sequen-Test	Note 1
COMPONENT: Level Transmitter							
MANUFACTURER: Barton	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	89.7, 3-1200 sec	VEPCO-NRC 11-22-77 No. 382A/092477	7,9,10	Sequen-tial Test	Note 1
MODEL NUMBER: 386	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	7,9,10	Sequen-tial Test	Note 1
FUNCTION: DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	1.14 wt% H_3BO_3 0.17 wt% NaOH	VEPCO-NRC 6-80 No. 535	7,9,10	Sequen-tial Test	Note 1
ACCURACY: Spec: ±10% 5 min Demo: 0-5 min 5% max error 5 min-17 months 17%	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	5×10^7	S&W Calc. 12846.54-RP-038-0	7,9,10	Sequen-tial Test	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: Steam Generator 2 Narrow Range Level	AGING	Enclosure 4 Guidelines Section 7.0	-		-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTE: 1) As previously committed, component will be replaced during third refeuling.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: FEEDWATER	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	>120 days	Westinghouse Ref. Lt. No. NS-SS-79287	7,9,10	Sequential Test	Note 1
PLANT ID NO. LT-1486	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	0-280, 0-3 sec 280, 3-1200 sec 280-220, 20 min 24 hrs 222 1-15 days	VEPCO-NRC 11-22-77 No. 382A/092477	7,9,10	Sequential Test	Note 1
COMPONENT: Level Transmitter							
MANUFACTURER: Barton	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	89.7, 1-1200 sec	VEPCO-NRC 11-22-77 No. 382A/092477	7,9,10	Sequential Test	Note 1
MODEL NUMBER: 386	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	7,9,10	Sequential Test	Note 1
FUNCTION: DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	1.14 wt% H_3BO_3 0.17 wt% NaOH	VEPCO-NRC 6-80 No. 535	7,9,10	Sequential Test	Note 1
ACCURACY: Spec: ±10% 5 min Demo: 0-5 min 5% max error 5 min-4 months 17%	RAD.	LOCA = 2.4 x 10^7 40 Yr = 1.3 x 10^7	5 x 10^7	S&W Calc. 12846.54-RP-038-0	7,9,10	Sequential Test	None
LOCATION: Inside Containment Inside Cranewall SERVICE: Steam Generator 2 Narrow Range Level	AGING	Enclosure 4 Guidelines Section 7.0	-		-	Refer to Report Sec. 3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTE: 1) As previously committed, component will be replaced during third refueling.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: FEEDWATER	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	120 days	Westinghouse Ref. Lt. No. NS-SS-79287	7,9,10	Sequen-tial Test	Note 1
PLANT ID NO. LT-1494	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	0-28, 0-03 sec 280, 3-1200 sec 280-220, 20 min-24 hrs 222, 1-15 days	VEPCO-NRC 11-22-77 No. 382A/092477	7,9,10	Sequen-tial Test	Note 1
COMPONENT: Level Transmitter							
MANUFACTURER: Barton	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	89.7, 3-1200 sec	VEPCO-NRC 11-22-77 No. 382A/092477	7,9,10	Sequen-tial Test	Note 1
MODEL NUMBER: 386	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	7,9,10	Sequen-tial Test	Note 1
FUNCTION: DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	1.14 wt% H_3BO_3 0.17 wt% NaOH	VEPCO-NRC 6-80 No. 535	7,9,10	Sequen-tial Test	Note 1
ACCURACY: Spec: ±10% 5 min Demo: 0-5 min 5% max error 5 min-4 months 17%	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	5×10^7	S&W Calc. 12846.54-RP-038-0	7,9,10	Sequen-tial Test	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: Steam Generator 3 Narrow Range Level	AGING	Enclosure 4 Guidelines Section 7.0	-		-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) As previously committed, component will be replaced during third refueling.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: FEEDWATER	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	>120 days	Westinghouse Ref. Lt. No. NS-SS-79287	7,9,10	Sequen-tial Test	Note 1
PLANT ID NO. LT-1495	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	0-280, 0-3 sec 280, 3-1200 sec 280-220, 20 min-24 hrs 222, 1-15 days	VEPCO-NRC 11-22-77 No. 382A/092477	7,9,10	Sequen-tial Test	Note 1
COMPONENT: Level Transmitter							
MANUFACTURER: Barton	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	89.7, 3-1200 sec	VEPCO-NRC 11-22-77 No. 382A/092477	7,9,10	Sequen-tial Test	Note 1
MODEL NUMBER: 386	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	7,9,10	Sequen-tial Test	Note 1
FUNCTION: DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	1.14 wt% H_3BO_3 0.17 wt% NaOH	VEPCO-NRC 6-80 No. 535	7,9,10	Sequen-tial Test	Note 1
ACCURACY: Spec: ±10% 5 min Demo: 0-5 min 5% max error 5 min-4months 17%	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	5×10^7	S&W Calc. 12846.54-RP-038-0	7,9,10	Sequen-tial Test	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: Steam Generator 3 Narrow Range Level	AGING	Enclosure 4 Guidelines Section 7.0	-		-	Refer to Report Sec. 3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) As previously committed, component will be replaced during third refueling.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: FEEDWATER	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	>120 days	Westinghouse Ref. Lt. No. NS-SS-79287	7,9,10	Sequential Test	Note 1
PLANT ID NO. LT-1496	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	0-280 0-3sec 280, 3-1200sec 280-220, 20 min-24 hr 222, 1-15 days	VEPCO-NRC 11-22-77 No. 382A/092477	7,9,10	Sequential Test	Note 1
COMPONENT: Level Transmitter							
MANUFACTURER: Barton	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	89.7,3-1200 sec	VEPCO-NRC 11-22-77 No. 382A/092477	15	Sequential Test	Note 1
MODEL NUMBER: 386	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	7,9,10	Sequential Test	Note 1
FUNCTION: DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	1.14 wt % H_3BO_3 0.17 wt % NaOH	VEPCO-NRC 6-80 No. 535	7,9,10	Sequential Test	Note 1
ACCURACY: Spec: ±10% 5 min Demo: 0-5 min 5% Max error 5 min-4 months 17%							
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	5×10^7	S&W Calc. 12846.54-RP-038-0	7,9,10	Sequential Test	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: Steam Generator 3 Narrow Range Level	AGING	Enclosure 4 Guidelines Section 7.0	-		-	Refer to Report Sec. 3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
Note: 1) As previously committed, component will be replaced during third refueling.

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Unit: 1
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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: FEEDWATER		Environment		Documentation Reference			Out-standing Items
	Units	Specification	Qualification	Specification	Qualif.	Method	
EQUIPMENT DESCRIPTION	OPER. TIME	Perform their function within 1 hr of accident	Functional after testing	Westinghouse Ref. Lt. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. MOV-FW-151A	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Motor Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: HELB Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 7.4×10^6 40 Yr = 3.5×10^4	2×10^7	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Outside Cranewall SERVICE: Aux. Feedwater	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: FEEDWATER	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	Perform their function within 1 hr of accident	Functional after testing	Westinghouse Ref. Lt. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. MOV-FW-151B	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Motor Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: HELB Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 7.4×10^6 40 Yr = 3.5×10^4	2×10^7	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Outside Cranewall SERVICE: Aux. Feedwater	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: FEEDWATER	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	Perform their function within 1 hr of accident	Functional after testing	Westinghouse Ref. Lt. No. NS-SS-79267	Note 1	Note 1	Note 1
PLANT ID NO. MOV-FW-151C	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Motor Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: HELB Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 7.4×10^6 40 Yr = 3.5×10^4	2×10^7	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Outside Cranewall SERVICE: Aux. Feedwater	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determin. l during present steam generator outage.

Facility: VEPCO, SURRY
Unit: 1
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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: FEEDWATER	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	Perform their function within 1 hr of accident	Functional after testing	Westinghouse Ref. Lt. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. MOV-FW-151D	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Motor Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: HELB Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 7.4×10^6 40 Yr = 3.5×10^4	2×10^7	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Outside Cranewall SERVICE: Aux. Feedwater	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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Unit: 1
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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: FEEDWATER	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	Perform their function within 1 hr of accident	Functional after testing	Westinghouse Ref. Lt. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. MOV-FW-151E	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Motor Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: HELB Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 7.4×10^6 40 Yr = 3.5×10^4	2×10^7	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Outside Cranewall SERVICE: Aux. Feedwater	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: FEEDWATER	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	Perform their function within 1 hr of accident	Functional after testingd	Westinghouse Ref. Lt. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. MOV-FW-151F	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Motor Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: HELB Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 7.4×10^6 40 Yr = 3.5×10^4	2×10^7	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Outside Cranewall SERVICE: Aux. Feedwater	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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Unit: 1
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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: GASEOUS WASTE	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Lt. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. 1-GW-HC-2A	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Hydrogen Recombiner							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: NR	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Engineered Safety Feature DBS (LOCA and MSLB) Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: Demo: NR							
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	Note 1	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: H_2 Recombiner	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification Column are identifed in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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Unit: 1
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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: GASEOUS WASTE	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Lt. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. 1-GW-HC-2B	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Hydrogen Recombiner							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: NR	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	2×10^8	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: H_2 Recombiner	AGING	Enclosure 4 Guidelines Section 7.0	40 yr	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: GASEOUS WASTE	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. 1-GW-H_2A-103	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Hydrogen Analyzer							
MANUFACTURER: Note 1	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: Note 1	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Post-Accident Monitoring	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: ±2% Demo:							
	RAD.	LOCA = 1.7 x 10^4 40 Yr = 1.8 x 10^3	Note 1	S&W Calc. 12846.38-RP-026	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building 13'0" Level	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Radioactive Waste Gas							
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	NR	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage

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Unit: 1
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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: GASEOUS WASTE		Environment		Documentation Reference			Out-standing Items
	Units	Specification	Qualification	Specification	Qualif.	Method	
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. Power Supply for 1-GW-HC-2A	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Power Panel							
MANUFACTURER: Note 1	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: Note 1	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 9.23×10^3 40 Yr = 1.96×10^4	Note 1	S&W Calc. 12846.54-RP-035-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Supply Power H_2 Recombiner Units							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: GASEOUS WASTE		Environment		Documentation Reference			Out-standing
	Units	Specification	Qualification	Specification	Qualif.	Method	Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. Power Supply for 1-GW-HC-2B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Power Panel							
MANUFACTURER: Note 1	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: Note 1	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 9.23×10^3 40 Yr = 1.96×10^4	Note 1	S&W Calc. 12846.54-RP-035-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Supply Power H_2 Recombiner Units							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

Facility: VEPCO, SURRY
Unit: 2
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: HVAC/AUXILIARY BUILDING VENTILATION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualit.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. 1-VS-F-8A	TEMP °F	212F, 0-4 hr	Note 2	S&W Calc. 12846.44-PE-046-0	Note 2	Note 2	Note 2
COMPONENT: Fan Motor							
MANUFACTURER: Allis Chalmers	PRESS psia	15.2, 0-1 min 14.8, 1 min-4 hr	Note 2	S&W Calc. 12846.44-PE-046-0	Note 2	Note 2	Note 2
MODEL NUMBER: 022	REL. HUM. %	100	Note 2	S&W Calc. 12846.44-PE-046-0	Note 2	Note 2	Note 2
FUNCTION: Engineered Safety Features, DBA (LOCA and MSLB) Mitigation Emergency Core Cooling/ Core Heat Removal, Minimum Boration, HELB Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 5.3×10^1 40 Yr = 8.76×10^2	Note 1	S&W Calc. 12846.54-RP-035-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building SERVICE: Auxiliary Building Control Area Exhaust Fan	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Manufacturer has been given information necessary to obtain qualification data.

2) Based on a review of the postulated HELB's, it was determined that safety-related equipment required to mitigate the HELB and bring the plant to a safe shutdown is not affected by the break. However, this equipment is being reviewed against the affects of HELB to determine our ability to maintain minimum boration capability, to assure additional plant operations capability.

(cont)

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: HVAC/AUXILIARY BUILDING VENTILATION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. 1-VS-F-8B	TEMP °F	212F, 0-4 hr	Note 2	S&W Calc. 12846.44-PE-046-0	Note 2	Note 2	Note 2
COMPONENT: Fan Motor							
MANUFACTURER: Allis Chalmers	PRESS. psia	15.2, 0-1 min 14.8, 1 min - 4 hr	Note 2	S&W Calc. 12846.44-PE-046-0	Note 2	Note 2	Note 2
MODEL NUMBER: 022	REL. HUM. %	100	Note 2	S&W Calc. 28846.44-PE-046-0	Note 2	Note 2	Note 2
FUNCTION: Engineered Safety Features, Emergency Core Cooling/Core Heat Removal, DBA (LOCA and MSLB) Mitigation, HELB Mitigation, Minimum Boration	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 5.3×10^1 40 Yr = 8.76×10^2	Note 1	S&W Calc. 12846.54 RP-035-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building SERVICE: Auxiliary Building Control Exhaust Fan	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Manufacturer has been given information necessary to obtain qualification data.

2) Based on a review of the postulated HELB's, it was determined that safety-related equipment required to mitigate the HELB and bring the plant to a safe shutdown is not affected by the break. However, this equipment is being reviewed against the effects of HELB to maintain minimum boration capability, to assure additional plant operations capability.

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Unit: 1
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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: HVAC/AUXILIARY BUILDING VENTILATION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER.	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
	TIME						
PLANT ID NO. Damper 3A (2)	TEMP °F	212F, 0-4 hr	Note 1	NR	NR	NR	None
COMPONENT: Damper							
MANUFACTURER: Note 1	PRESS. psia	15.2, 0-1 min 14.8, 1 min-4 hr	Note 1	NR	NR	NR	None
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	NR	NR	NR	None
FUNCTION: Emergency Core Cooling/ Core Heat Removal, Engineered Safety Feature, DBA (Loca and MSLB) Mitigation, Safeguards Ventilation, Minimum Boration	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:	RAD.	NR	NR	NR	NR	NR	None
LOCATION: Auxiliary Building Ventilation SERVICE: Damper for Charcoal Filtration System	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model cannot be determined due to plant's present operating status. It will be verified at first opportunity.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: HVAC/AUXILIARY BUILDING VENTILATION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. Damper 3B (2)	TEMP °F	212F, 0-4 hr	Note 1	NR	NR	NR	None
COMPONENT: Damper							
MANUFACTURER: Note 1	PRESS. psia	15.2, 0-1 min 14.8, 1 min-4 hr	Note 1	NR	NR	NR	None
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	NR	NR	NR	None
FUNCTION: Emergency Core Cooling/ Core Heat Removal, Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation, Safeguards Ventilation, Minimum Boration	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:	RAD.	NR	NR	NR	NR	NR	None
LOCATION: Auxiliary Building Ventilation SERVICE: Damper for Charcoal Filtration System	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model cannot be determined due to plant's present operating status. It will be verified at first opportunity.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: INSIDE RECIRCULATION SPRAY	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	>120 days	Westinghouse Ref. Lt. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. 1-RS-P-1A	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Pump Motor							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Containment Temp. Control of Airborne Iodine Adsorption, Emergency Core Cooling/ Core Heat Removal	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: Demo: NR							
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	2×10^8	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Outside Cranewall SERVICE: Recirculation Spray Pump Motor	AGING	Enclosure 4 Guidelines Section 7.0	Thermally aged equivalent of 40 yrs	-	Note 1	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: INSIDE RECIRCULATION SPRAY	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	>120 days	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. 1-RS-P-1B	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Pump Motor							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL.	100	Note 1	VEPCO-NRC 6-80	Note 1	Note 1	Note 1
	HUM. %			No. 535			
FUNCTION: Containment Temp. Control of Airborne Iodine Adsorption Emergency Core Cooling/Core Heat Removal	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: Demo: NR							
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	2×10^8	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Outside Cranewall SERVICE: Recirculation Spray Pump Motor	AGING	Enclosure 4 Guidelines Section 7.0	Thermally aged equivalent of 40 yrs	-	23, 24	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Component model will be determined during present steam generator outage.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: INSTRUMENT AIR	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	North Anna FSAR Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-IA-100	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: HBX8320A26	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Containment Instrument Air Compressor Discharge							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) ASCO valve HBX8230A26 contains metal parts in lieu of plastic. This design is shown by the "X". Due to lack of documentation, they will be replaced.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: INSTRUMENT AIR	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items	
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Functional after testing	FSAR North Anna Sec. 6.2.4.2	Note 1	Note 1		Note 1
PLANT ID NO. SOV-IA-101A	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1	
COMPONENT: Solenoid Valve								
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1	
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1	
FUNCTION: Containment Isolation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1	
ACCURACY: Spec: NR Demo:								
	RAD.	LOCA = 7.4×10^6 40 Yr = 3.5×10^4	5×10^7	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1	
LOCATION: Inside Containment Outside Cranewall SERVICE: Containment Inst. Air Compressor Suction	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None	
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None	

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: INSTRUMENT AIR	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	North Anna FSAR Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-IA-101B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: HBX8320A26	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Containment Instrument Air Compressor Suction							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) The ASCO HBX8320A26 solenoid valve contains metal parts in lieu of plastic. This design is shown by the "X". Due to lack of documentation they will be replaced.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: LEAKAGE MONITORING		Environment		Documentation Reference			Out-standing Items
	Units	Specification	Qualification	Specification	Qualif.	Method	
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	2 hr	Westinghouse Ref. Ltr. No. NS-SS-79287	4, 34	Sequen-tial Test	Note 1
PLANT ID NO. PT-LM-100A	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Pressure Transmitter							
MANUFACTURER: Fischer-Porter	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 50EN1071BCXA	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Post-Accident Monitoring, Engineered Safety Feature, Containment Isolation, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: ±0.5% Demo:							
	RAD.	LOCA = 1×10^6 40 Yr = 4.87×10^3	3.7×10^7	S&W Calc. 12846.54-035-0	4, 34	Sequen-tial Test	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Reactor Containment Pressure							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, transmitters will not be qualified to the requirements of IEEE 323-1974. JUSTIFICATION: Transmitter is used to provide pressurizer and steam generator pressure trip signals. Units were satisfactory for 120 min (Ref. Wyle Laboratories Test Report 26304PP 13 and 128).

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: LEAKAGE MONITORING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	2 hr	Westinghouse Ref. Ltr. No. NS-SS-79287	4, 34	Sequential Test	Note 1
PLANT ID NO. PT-LM-100B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Pressure Transmitter							
MANUFACTURER: Fischer-Porter	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 50EN1071BCXA	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Post-Accident Monitoring, Engineered Safety Feature, Containment Isolation, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: ±0.5% Demo:							
	RAD.	LOCA = 1×10^6 40 Yr = 4.87×10^3	3.7×10^7	S&W Calc. 12846.54-035-0	4, 34	Sequential Test	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Reactor Containment Pressure							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, transmitters will not be qualified to the requirements of IEEE 323-1974. JUSTIFICATION: Transmitter is used to provide pressurizer and steam generator pressure trip signals. Units were satisfactory for 120 min (Ref. Wyle Laboratories Test Report 26304 Pages 13 and 128).

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: LEAKAGE MONITORING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	2 hr	Westinghouse Ref. Ltr. No. NS-SS-79287	4, 34	Sequential Test	Note 1
PLANT ID NO. PT-LM-200C	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Pressure Transmitter							
MANUFACTURER: Fischer-Porter	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 50EN1071BCXA	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Post-Accident Monitoring, Engineered Safety Feature, Containment Isolation, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: ±0.5% Demo:							
	RAD.	LOCA = 1×10^6 40 Yr = 4.87×10^3	3.7×10^7	S&W Calc. 12846.54-035-0	4, 34	Sequential Test	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Reactor Containment Pressure							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes NO	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, transmitters will not be qualified to the requirements of IEEE 323-1974. JUSTIFICATION: Transmitter is used to provide pressurizer and steam generator pressure trip signals. Units were satisfactory for 120 min (Ref. Wyle Laboratories Test Report 26304 Pages 13 and 128).

Facility: VEPCO, SURRY
Unit: 2
Docket: 50-281

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: LEAKAGE MONITORING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	2 hr	Westinghouse Ref. Ltr. No. NS-SS-79287	4, 34	Sequen-tial Test	Note 1
PLANT ID NO. PT-LM-100D	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Pressure Transmitter							
MANUFACTURER: Fischer-Porter	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 50EN1071BCXA	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Post-Accident Monitoring, Engineered Safety Feature, Containment Isolation, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: ±0.5% Demo:							
	RAD.	LOCA = 1×10^6 40 Yr = 4.87×10^3	3.7×10^7	S&W Calc. 12846.54-035-0	4, 34	Sequen-tial Test	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Reactor Containment Pressure							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, transmitters will not be qualified to the requirements of IEEE 323-1974. JUSTIFICATION: Transmitter is used to provide pressurizer and steam generator pressure trip signals. Units were satisfactory for 120 min (Ref. Wyle Laboratories Test Report 26304 Pages 13 and 128).

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: LEAKAGE MONITORING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	North Anna FSAR Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-LM-100A	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 8320A102	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR							
	RAD.	LOCA = 1×10^6 40 Yr = 4.87×10^3	Note 1	S&W Calc. 12846.54-035-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Containment Leakage Monitoring							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, insufficient information. Previous testing on similar ASCO valves (Ref. Westinghouse Letter No. NS-SS-77060) indicates valves vent to perform their safety function for containment isolation.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: LEAKAGE MONITORING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	North Anna FSAR Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-LM-100B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 8320A102	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 1×10^6 40 Yr = 4.87×10^3	Note 1	S&W Calc. 12846.54-035-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Containment Leakage Monitoring							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Replace, insufficient information. Previous testing on similar ASCO valves (Ref. Westinghouse Letter No. NS-SS-77060) indicates valves vent to perform their safety function for containment isolation.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: LEAKAGE MONITORING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	North Anna FSAR Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-LM-100C	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 8320A102	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 1×10^6 40 Yr = 4.87×10^3	Note 1	S&W Calc. 12846.54-035-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Containment Leakage Monitoring							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, insufficient information. Previous testing on similar ASCO valves (Ref. Westinghouse Letter No. NS-SS-77060) indicates valves vent to perform their safety function for containment isolation.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: LEAKAGE MONITORING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	North Anna FSAR Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-LM-100D	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 8320A102	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 1 x 10^6 40 Yr = 4.87 x 10^3	Note 1	S&W Calc. 12846.54-035-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Containment Leakage Monitoring							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, insufficient information. Previous testing on similar ASCO valves (Ref. Westinghouse Letter No. NS-SS-77060) indicates valves vent to perform their safety function for containment isolation.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: LEAKAGE MONITORING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualit.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	North Anna FSAR Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-LM-100E	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 8320A102	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 1×10^6 40 Yr = 4.87×10^3	Note 1	S&W Calc. 12846.54-035-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Containment Leakage Monitoring							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, insufficient information. Previous testing on similar ASCO valves (Ref. Westinghouse Letter No. NS-SS-77060) indicates valves vent to perform their safety function for containment isolation.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: LEAKAGE MONITORING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-LM-100F	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 8320A102	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 1×10^6 40 Yr = 4.87×10^3	Note 1	S&W Calc. 12846.54-035-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Containment Leakage Monitoring							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, insufficient information. Previous testing on similar ASCO valves (Ref. Westinghouse Letter No. NS-SS-77060) indicates valves vent to perform the safety function for containment isolation.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: LEAKAGE MONITORING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	North Anna FSAR Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-LM-100G	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 8320A102	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 1 x 10^4 40 Yr = 4.87 x 10^3	Note 1	S&W Calc. 12846.54-035-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Containment Leakage Monitoring							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, insufficient information. Previous testing on similar ASCO valves (Ref. Westinghouse Letter No. NS-SS-77060) indicates valves vent to perform their safety function for containment isolation.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: LEAKAGE MONITORING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	North Anna FSAR Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-LM-100H	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Operated Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 8320A102	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 1 x 10^6 40 Yr = 4.87 x 10^6	Note 1	S&W Calc. 12846.54-035-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building SERVICE Containment Pressure	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No		SUB.	NR	NR	NR	NR	NR

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Replace, insufficient information. Previous testing on similar ASCO valves (ref. Westinghouse Letter No. NS-SS-77060) indicates valves vent to perform the safety function for containment isolation.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: LEAKAGE MONITORING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	North Anna FSAR Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-LM-101A	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 8320A102	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 1×10^6 40 Yr = 4.87×10^3	Note 1	S&W Calc. 12846.54-035-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Containment Leakage Monitoring							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, insufficient information. Previous testing of ASCO valves (ref. Westinghouse Letter No. NS-SS-77060) indicates valves vent to perform safety function for containment isolation.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: LEAKAGE MONITORING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	North Anna FSAR Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-LM-101B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 8320A12	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 1×10^6 40 Yr = 4.87×10^6	Note 1	S&W Calc. 12846.54-035-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Containment Leakage Monitoring							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, insufficient information. Previous testing of ASCO valves (ref. Westinghouse Letter No. NS-SS-77060) indicates valves vent to perform safety function for containment isolation.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: MAIN STEAM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	6 min	Westinghouse Ref. Ltr. No. NS-SS-79287	1,33	Sequential Test	Note 1
PLANT ID NO. FT-1474	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	>350F	VEPCO-NRC 11-22-77 No. 382A/092477	1,33	Sequential Test	Note 1
COMPONENT: Flow Transmitter							
MANUFACTURER: Fischer-Porter	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	80.7	VEPCO-NRC 11-22-77 No. 382A/092477	1,33	Sequential Test	Note 1
MODEL NUMBER: 10B2496QB	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	1,33	Sequential Test	Note 1
FUNCTION: Emergency Core Cooling /Core Heat Removal, Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	1.14 Wt % H_3BO_3 0.17 Wt % NaOH dissolved in H_2O	VEPCO-NRC 6-80 No. 535	1,33	Sequential Test	Note 1
ACCURACY: Spec: ±10% Demo: Max. Error -2.1% +1.9%	RAD.	LOCA = 7.4×10^6 40 Yr = 3.5×10^4	4×10^4	S&W Calc. 12846.54-RP-038-0	1,33	Sequential Test	Note 1
LOCATION: Inside Containment Outside Cranewall SERVICE: Steam-Flow Transmitter	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, transmitters will not be qualified to requirements of IEEE 323-1974. JUSTIFICATION: The accuracy requirement given for trip function applies only until the containment pressure reaches the point at which safety injection is initiated by the containment pressure transmitter. Transmitters remained within the accuracy required for trip functions within the first 30 seconds (Ref. WCAP-9157).

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: MAIN STEAM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	6 min	Westinghouse Ref. Ltr. No. NS-SS-79287	1,33	Sequential Test	Note 1
PLANT ID NO. FT-1475	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	>350F	VEPCO-NRC 11-22-77 No. 382A/092477	1,33	Sequential Test	Note 1
COMPONENT: Flow Transmitter							
MANUFACTURER: Fischer-Porter	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	80.7	VEPCO-NRC 11-22-77 No. 382A/092477	1,33	Sequential Test	Note 1
MODEL NUMBER: 10B2496QB	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	1,33	Sequential Test	Note 1
FUNCTION: Emergency Core Cooling /Core Heat Removal, Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	1.14 Wt % H_3BO_3 0.17 Wt % NaOH dissolved in H_2O	VEPCO-NRC 6-80 No. 535	1,33	Sequential Test	Note 1
ACCURACY: Spec: ±10% Demo: Max. Error -2.1% +1.9%	RAD.	LOCA = 7.4×10^6 40 Yr = 3.5×10^4	4×10^4	S&W Calc. 12846.54-RP-038-0	1,33	Sequential Test	Note 1
LOCATION: Inside Containment Outside Cranewall SERVICE: Steam-Flow Transmitter	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, transmitters will not be qualified to requirements of IEEE 323-1974. JUSTIFICATION: The accuracy requirement given for trip function applies only until the containment pressure reaches the point at which safety injection is initiated by the containment pressure transmitter. Transmitters remained within the accuracy required for trip functions within the first 30 seconds (Ref. WCAP-9157).

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SYSTEM: MAIN STEAM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	6 min	Westinghouse Ref. Ltr. No. NS-SS-79287	1,33	Sequential Test	Note 1
PLANT ID NO. FT-1484	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	>350F	VEPCO-NRC 11-22-77 No. 382A/092477	1,33	Sequential Test	Note 1
COMPONENT: Flow Transmitter							
MANUFACTURER: Fischer-Porter	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	80.7	VEPCO-NRC 11-22-77 No. 382A/092477	1,33	Sequential Test	Note 1
MODEL NUMBER: 10B2496QB	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	1,33	Sequential Test	Note 1
FUNCTION: Emergency Core Cooling /Core Heat Removal, Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	1.14 Wt % H_3BO_3 0.17 Wt % NaOH dissolved in H_2O	VEPCO-NRC 6-80 No. 535	1,33	Sequential Test	Note 1
ACCURACY: Spec: ±10% Demo: Max. Error -2.1% +1.9%	RAD.	LOCA = 7.4×10^6 40 Yr = 3.5×10^4	4×10^4	S&W Calc. 12846.54-RP-038-0	1,33	Sequential Test	Note 1
LOCATION: Inside Containment Outside Cranewall SERVICE: Steam-Flow Transmitter	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, transmitters will not be qualified to requirements of IEEE 323-1974. JUSTIFICATION: The accuracy requirement given for trip function applies only until the containment pressure reaches the point at which safety injection is initiated by the containment pressure transmitter. Transmitters remained within the accuracy required for trip functions within the first 30 seconds (Ref. WCAP-9157).

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: MAIN STEAM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	6 min	Westinghouse Ref. Ltr. No. NS-SS-79287	1,33	Sequential Test	Note 1
PLANT ID NO. FT-1485	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	>350F	VEPCO-NRC 11-22-77 No. 362A/092477	1,33	Sequential Test	Note 1
COMPONENT: Flow Transmitter							
MANUFACTURER: Fischer-Porter	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	80.7	VEPCO-NRC 11-22-77 No. 382A/092477	1,33	Sequential Test	Note 1
MODEL NUMBER: 10B2496QB	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	1,33	Sequential Test	Note 1
FUNCTION: Emergency Core Cooling /Core Heat Removal, Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	1.14 Wt % H_3BO_3 0.17 Wt % NaOH dissolved in H_2O	VEPCO-NRC 6-80 No. 535	1,33	Sequential Test	Note 1
ACCURACY: Spec: ±10% Demo: Max. Error -2.1% +1.9%	RAD.	LOCA = 7.4 x 10^6 40 Yr = 3.5 x 10^4	4 x 10^4	S&W Calc. 12846.54-RP-038-0	1,33	Sequential Test	Note 1
LOCATION: Inside Containment Outside Cranewall SERVICE: Steam-Flow Transmitter	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, transmitters will not be qualified to requirements of IEEE 323-1974. JUSTIFICATION: The accuracy requirement given for trip function applies only until the containment pressure reaches the point at which safety injection is initiated by the containment pressure transmitter. Transmitters remained within the accuracy required for trip functions within the first 30 seconds (Ref. WCAP-9157).

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SYSTEM: MAIN STEAM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	6 min	Westinghouse Ref. Ltr. No. NS-SS-79287	1,33	Sequential Test	Note 1
PLANT ID NO. FT-1494	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	>350F	VEPCO-NRC 11-22-77 No. 382A/092477	1,33	Sequential Test	Note 1
COMPONENT: Flow Transmitter							
MANUFACTURER: Fischer-Porter	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	80.7	VEPCO-NRC 11-22-77 No. 382A/092477	1,33	Sequential Test	Note 1
MODEL NUMBER: 10B2496QB	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	1,33	Sequential Test	Note 1
FUNCTION: Emergency Core Cooling /Core Heat Removal, Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	1.14 Wt % H_3BO_3 0.17 Wt % NaOH dissolved in H_2O	VEPCO-NRC 6-80 No. 535	1,33	Sequential Test	Note 1
ACCURACY: Spec: ±10% Demo: Max. Error -2.1% +1.9%	RAD.	LOCA = 7.4×10^6 40 Yr = 3.5×10^4	4×10^4	S&W Calc. 12846.54-RP-038-0	1,33	Sequential Test	Note 1
LOCATION: Inside Containment Outside Cranewall SERVICE: Steam-Flow Transmitter	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, transmitters will not be qualified to requirements of IEEE 323-1974. JUSTIFICATION: The accuracy requirement given for trip function applies only until the containment pressure reaches the point at which safety injection is initiated by the containment pressure transmitter. Transmitters remained within the accuracy required for trip functions within the first 30 seconds (Ref. WCAP-9157).

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: MAIN STEAM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	6 min	Westinghouse Ref. Ltr. No. NS-SS-79267	1,33	Sequential Test	Note 1
PLANT ID NO. FT-1495	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	>350F	VEPCO-NRC 11-22-77 No. 382A/092477	1,33	Sequential Test	Note 1
COMPONENT: Flow Transmitter							
MANUFACTURER: Fischer-Porter	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	80.7	VEPCO-NRC 11-22-77 No. 382A/092477	1,33	Sequential Test	Note 1
MODEL NUMBER: 10B2496QB	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	1,33	Sequential Test	Note 1
FUNCTION: Emergency Core Cooling /Core Heat Removal, Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	1.14 Wt % H_3BO_3 0.17 Wt % NaOH dissolved in H_2O	VEPCO-NRC 6-80 No. 535	1,33	Sequential Test	Note 1
ACCURACY: Spec: ±10% Demo: Max. Error -2.1% +1.9%	RAD.	LOCA = 7.4×10^6 40 Yr = 3.5×10^4	4×10^4	S&W Calc. 12846.54-RP-038-0	1,33	Sequential Test	Note 1
LOCATION: Inside Containment Outside Cranewall SERVICE: Steam-Flow Transmitter	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, transmitters will not be qualified to requirements of IEEE 323-1974. JUSTIFICATION: The accuracy requirement given for trip function applies only until the containment pressure reaches the point at which safety injection is initiated by the containment pressure transmitter. Transmitters remained within the accuracy required for trip functions within the first 30 seconds (Ref. WCAP-9157).

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SYSTEM: MAIN STEAM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	2 hr	Westinghouse Ref. Ltr. No. NS-SS-79287	4	Sequential Test	Note 1
PLANT ID NO. PT-1464	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Pressure Transmitter							
MANUFACTURER: Fischer-Porter	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 50EP1041BCXA-NS	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: HELB Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: ±0.5% Demo:							
	RAD.	LOCA = 1.7×10^4 40 Yr = 8.8×10^2	3.7×10^7	S&W Calc. 12846.38-RP-031-0	4	Sequential Test	Note 1
LOCATION: Turbine Building MSVH SERVICE: Steam Header Pressure	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, transmitters will not be qualified to the requirements of IEEE 323-1974. JUSTIFICATION: Transmitters used to provide pressurizer and steam generator pressure trip signals. Units were tested satisfactorily for 120 minutes (Ref. Wyle Laboratories Test Report 26304 PP 13 and 128).

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SYSTEM: MAIN STEAM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	2 hr	Westinghouse Ref. Ltr. No. NS-SS-79287	4	Sequential Test	Note 1
PLANT ID NO. PT-1466	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Pressure Transmitter							
MANUFACTURER: Fischer-Porter	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 50EP1041BCXA-NS	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: HELB Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: ±0.5% Demo:							
	RAD.	LOCA = 1.7×10^4 40 Yr = 8.8×10^2	3.7×10^7	S&W Calc. 12846.38-RP-031-0	4	Sequential Test	Note 1
LOCATION: Turbine Building MSVH SERVICE: Steam Header Pressure	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Replace, transmitters will not be qualified to the requirements of IEEE 323-1974. JUSTIFICATION: Transmitters used to provide pressurizer and steam generator pressure trip signals. Units were tested satisfactorily for 120 minutes (Ref. Wyle Laboratories Test Report 26304 PP 13 and 128).

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SYSTEM: MAIN STEAM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	2 hr	Westinghouse Ref. Ltr. No. NS-SS-79287	4	Sequential Test	Note 1
PLANT ID NO. PT-1468	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Pressure Transmitter							
MANUFACTURER: Fischer-Porter	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 50EP1041BCXA-NS	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: HELB Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: ±0.5% Demo:							
	RAD.	LOCA = 1.7×10^4 40 Yr = 8.8×10^2	3.7×10^7	S&W Calc. 12846.38-RP-031-0	4	Sequential Test	Note 1
LOCATION: Turbine Building MSVH SERVICE: Steam Header Pressure	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, transmitters will not be qualified to the requirements of IEEE 323-1974. JUSTIFICATION: Transmitters used to provide pressurizer and steam generator pressure trip signals. Units were tested satisfactorily for 120 minutes (Ref. Wyle Laboratories Test Report 26304 PP 13 and 128).

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: MAIN STEAM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	2 hr	Westinghouse Ref. Ltr. No. NS-SS-79287	4	Sequential Test	Note 1
PLANT ID NO. PT-1474	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Pressure Transmitter							
MANUFACTURER: Fischer-Porter	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 50EP1041BCXA-NS	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: HELB Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: ±0.5% Demo:							
	RAD.	LOCA = 1.7×10^4 40 Yr = 8.8×10^2	3.7×10^7	S&W Calc. 12846.38-RP-031-0	4	Sequential Test	Note 1
LOCATION: Sateguards Building MSVH	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Steam Generator 1 Steam Pressure							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, transmitters will not be qualified to the requirements of IEEE 323-1974. JUSTIFICATION: Transmitters used to provide pressurizer and steam generator pressure trip signals. Units were tested satisfactorily for 120 minutes (Ref. Wyle Laboratories Test Report 26304 PP 13 and 128).

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SYSTEM: MAIN STEAM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	2 hr	Westinghouse Ref. Ltr. No. NS-SS-79287	4	Sequential Test	Note 1
PLANT ID NO. PT-1475	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Pressure Transmitter							
MANUFACTURER: Fischer-Porter	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 50EP1041BCXA-NS	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: HELB Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: ±0.5% Demo:							
	RAD.	LOCA = 1.7×10^4 40 Yr = 8.8×10^2	3.7×10^7	S&W Calc. 12846.38-RP-031-0	4	Sequential Test	Note 1
LOCATION: Safeguards Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Steam Generator 1 Steam Pressure							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, transmitters will not be qualified to the requirements of IEEE 323-1974. JUSTIFICATION: Transmitters used to provide pressurizer and steam generator pressure trip signals. Units were tested satisfactorily for 120 minutes (Ref. Wyle Laboratories Test Report 26304 PP 13 and 128).

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SYSTEM: MAIN STEAM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	2 hr	Westinghouse Ref. Ltr. No. NS-SS-79287	4	Sequential Test	Note 1
PLANT ID NO. PT-1476	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Pressure Transmitter							
MANUFACTURER: Fischer-Porter	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 50EP1041BCXA-NS	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: HELB Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: ±0.5% Demo:							
	RAD.	LOCA = 1.7×10^4 40 Yr = 8.8×10^2	3.7×10^7	S&W Calc. 12846.38-RP-031-0	4	Sequential Test	Note 1
LOCATION: Turbine Building MSVH SERVICE: Steam Generator Pressure	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, transmitters will not be qualified to the requirements of IEEE 323-1974. JUSTIFICATION: Transmitters used to provide pressurizer and steam generator pressure trip signals. Units were tested satisfactorily for 120 minutes (Ref. Wyle Laboratories Test Report 26304 PP 13 and 128).

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SYSTEM: MAIN STEAM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	2 hr	Westinghouse Ref. Ltr. No. NS-SS-79287	4	Sequential Test	Note 1
PLANT ID NO. PT-1484	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Pressure Transmitter							
MANUFACTURER: Fischer-Porter	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 50EP1041BCXA-NS	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: HELB Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: ±0.5% Demo:							
	RAD.	LOCA = 1.7×10^4 40 Yr = 8.8×10^2	3.7×10^7	S&W Calc. 12846.38-RP-031-0	4	Sequential Test	Note 1
LOCATION: Safeguards Building MSVH SERVICE: Steam Generator 2 Steam Pressure	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, transmitters will not be qualified to the requirements of IEEE 323-1974. JUSTIFICATION: Transmitters used to provide pressurizer and steam generator pressure trip signals. Units were tested satisfactorily for 120 minutes (Ref. Wyle Laboratories Test Report 26304 PP 13 and 128).

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SYSTEM: MAIN STEAM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	2 hr	Westinghouse Ref. Ltr. No. NS-SS-79287	4	Sequen-tial Test	Note 1
PLANT ID NO. PT-1485	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Pressure Transmitter							
MANUFACTURER: Fischer-Porter	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 50EP1041BCXA-NS	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: HELB Mitigation ACCURACY: Spec: ±0.5% Demo:	CHEM. SPRAY	NR	NR	NR	NR	NR	None
	RAD.	LOCA = 1.7×10^4 40 Yr = 8.8×10^2	3.7×10^7	S&W Calc. 12846.38-RP-031-0	4	Sequen-tial Test	Note 1
LOCATION: Safeguards Building MSVH SERVICE: Steam Generator 2 Steam Pressure	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, transmitters will not be qualified to the requirements of IEEE 323-1974. JUSTIFICATION: Transmitter is used to provide pressureizer and steam generator trip signals. Units were tested satisfactorily for 120 minutes (Ref. Wyle Laboratories Test Report 26304 PP 13 and 128)

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SYSTEM: MAIN STEAM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	2 hr	Westinghouse Ref. Ltr. No. NS-SS-79287	4	Sequential Test	Note 1
PLANT ID NO. PT-1486	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Pressure Transmitter							
MANUFACTURER: Fischer-Porter	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 50EP1041BCXA-NS	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: HELB Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: ±0.5% Demo:							
	RAD.	LOCA = 1.7×10^4 40 Yr = 8.8×10^2	3.7×10^7	S&W Calc. 12846.38-RP-031-0	4	Sequential Test	Note 1
LOCATION: Safeguard Area	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Steam Generator 2 Steam Pressure							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, transmitters will not be qualified to the requirements of IEEE 323-1974. JUSTIFICATION: Transmitters used to provide pressurizer and steam generator pressure trip signals. Units were tested satisfactorily for 120 minutes (Ref. Wyle Laboratories Test Report 26304 PP 13 and 128).

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SYSTEM: MAIN STEAM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	2 hr	Westinghouse Ref. Ltr. No. NS-SS-79287	4	Sequential Test	Note 1
PLANT ID NO. PT-1494	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Pressure Transmitter							
MANUFACTURER: Fischer-Porter	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 50EP1041BCXA-NS	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: HELB Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: ±0.5% Demo:							
	RAD.	LOCA = 1.7×10^4 40 Yr = 8.8×10^2	3.7×10^7	S&W Calc. 12846.38-RP-031-0	4	Sequential Test	Note 1
LOCATION: MSVH	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Steam Generator 3 Steam Pressure							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Replace, transmitters will not be qualified to the requirements of IEEE 323-1974. JUSTIFICATION: Transmitters used to provide pressurizer and steam generator pressure trip signals. Units were tested satisfactorily for 120 minutes (Ref. Wyle Laboratories Test Report 26304 PP 13 and 128).

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SYSTEM: MAIN STEAM		Environment		Documentation Reference			Out-standing
	Units	Specification	Qualification	Specification	Qualif.	Method	Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	2 hr	Westinghouse Ref. Ltr. No. NS-SS-79287	4	Sequen-tial Test	Note 1
PLANT ID NO. PT-1495	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Pressure Transmitter							
MANUFACTURER: Fischer-Porter	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 50EP1041BCXA-NS	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: HELB Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: ±0.5% Demo:							
	RAD.	LOCA = 1.7×10^4 40 Yr = 8.8×10^2	3.7×10^7	S&W Calc. 12846.38-RP-031-0	4	Sequen-tial Test	Note 1
LOCATION: Safeguards Building MSVH SERVICE: Steam Generator 3 Steam Pressure	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, transmitters will not be qualified to the requirements of IEEE 323-1974. JUSTIFICATION: Transmitters used to provide pressurizer and steam generator pressure trip signals. Units were tested satisfactorily for 120 minutes (Ref. Wyle Laboratories Test Report 26304 PP 13 and 128).

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SYSTEM: MAIN STEAM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	2 hr	Westinghouse Ref. Ltr. No. NS-SS-79287	4	Sequential Test	Note 1
PLANT ID NO. PT-1496	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Pressure Transmitter							
MANUFACTURER: Fischer-Porter	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 50EP1041BCXA-NS	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: HELB Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: ±0.5% Demo:							
	RAD.	LOCA = 1.7×10^4 40 Yr = 8.8×10^2	3.7×10^7	S&W Calc. 12846.38-RP-031-0	4	Sequential Test	Note 1
LOCATION: Safeguard Area	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Steam Generator 3 Steam Pressure							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, transmitters will not be qualified to the requirements of IEEE 323-1974. JUSTIFICATION: Transmitters used to provide pressurizer and steam generator pressure trip signals. Units were tested satisfactorily for 120 minutes (Ref. Wyle Laboratories Test Report 26304 PP 13 and 128).

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SYSTEM: MAIN STEAM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	North Anna FSAR Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-MS-101AA	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: HT8316C47E	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Bldg.	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Main Steam Trip Valve							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Replace insufficient documentation. Previous testing on similar ASCO valves (Ref. Westinghouse Ltr. No. NS-SS-77060) indicates valves vent to perform the safety function for containment isolation.

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SYSTEM: MAIN STEAM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	North Anna FSAR Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-MS-101AB	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: HT8316C47E	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	Note 1	Note 1	Note 1	Note 1
LOCATION: Auxiliary Bldg.	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Main Steam Trip Valve							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace insufficient documentation. Previous testing on similar ASCO valves (Ref. Westinghouse Ltr. No. NS-SS-77060) indicates valves vent to perform the safety function for containment isolation.

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SYSTEM: MAIN STEAM		Environment		Documentation Reference			Out-standing Items
	Units	Specification	Qualification	Specification	Qualif.	Method	
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	North Anna FSAR Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-MS-101BA	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: HT8316C47E	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Main Steam Trip Valve							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Replace, insufficient documentation. Previous testing on similar ASCO valves (Ref. Westinghouse Letter No. NS-55-77060) indicates valves vent to perform the safety function for containment isolation.

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SYSTEM: MAIN STEAM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	North Anna FSAR Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-MS-101BB	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: HT8316C47E	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Main Steam Trip Valve							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, insufficient information. Previous testing on similar ASCO valves (Ref. Westinghouse Ltr. No. NS-SS-77060) indicates valves vent to perform for containment isolation.

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SYSTEM: MAIN STEAM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-MS-101CA	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: HT8316C47E	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR							
	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Main Steam Trip Valve							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Replace, insufficient documentation. Previous testing on similar ASCO valves (Ref. Westinghouse Ltr. No. NS-SS-77060) indicate valves vent to perform the safety function for containment isolation.

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SYSTEM: MAIN STEAM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	North Anna FSAR Sec.6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-MS-101CB	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: HT8316C47E	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Main Steam Trip Valve							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Replace, insufficient information. Previous testing on similar ASCO valves (Ref. Westinghouse letter No. NS-SS-77060) indicates valves vent to perform the safety function for containment isolation.

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SYSTEM: MAIN STEAM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-Standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	North Anna FSAR Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-MS-109	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 80174	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 1.7×10^4 40 Yr = 8.8×10^2	Note 1	S&W Calc. 12846.38-RP-031-0	Note 1	Note 1	Note 1
LOCATION: Safeguards Building MSVH	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Main Steam Line Drains to Condenser							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, insufficient information. Previous testing of ASCO valves (ref. Westinghouse Letter No. NS-SS-77060) indicates valves vent to perform safety function for containment isolation.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: MAIN STEAM	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-MS-110	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: Note 1	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: Note 1	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR							
	RAD.	LOCA = 1.7 x 10^4 40 Yr = 8.8 x 10^4	Note 1	S&W Calc. 12846.38-RP-031-0	Note 1	Note 1	Note 1
LOCATION: Main Steam Valve House	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Main Steam Line Drains to Condenser							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required.
NOTES: 1) Component model number will be determined during present steam generator outage.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: OUTSIDE RECIRCULATION SPRAY	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. 1-RS-P-2A	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Pump Motor							
MANUFACTURER: Note 1	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: Note 1	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Temperature Control of Airborne Iodine Removal	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 8 x 10^6 40 Yr = 8.8 x 10^2	Note 1	S&W Calc. 12846.54-RP-37-0	Note 1	Note 1	Note 1
LOCATION: Safeguards Area	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE:							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: OUTSIDE RECIRCULATION SPRAY	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1		Note 1	Note 1	Note 1
PLANT ID NO. 1-RS-P-2B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Pump Motor							
MANUFACTURER: Note 1	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: Note 1	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Temperature Control of Airborne Iodine Absorption	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 8×10^6 40 Yr = 8.8×10^2	Note 1	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Safeguards Area	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Recirculation Spray Pump Motor							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: OUTSIDE RECIRCULATION SPRAY	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-RS-155A	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-00, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 8×10^6 40 Yr = 8.8×10^2	2×10^7	S&W Calc. 12846.54-RP-37-0	6	Type Test	Note 1
LOCATION: Safeguards	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Recirculation Spray Pump Suction							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: OUTSIDE RECIRCULATION SPRAY	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-RS-155B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-00, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Engineered Safety Feature DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 8×10^6 40 Yr = 8.8×10^6	2×10^7	S&W Calc. 12846.54-RP-37-0	6	Type test	Note 1
LOCATION: Safeguards	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Recirculation Spray Pump Suction							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: OUTSIDE RECIRCULATION SPRAY	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-RS-156A	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-000, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 8×10^6 40 Yr = 8.8×10^2	2×10^7	S&W Calc. 12846.54-RP-37-0	6	Type Test	Note 1
LOCATION: Safeguards	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Recirculation Spray Pump Discharge							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-260

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: OUTSIDE RECIRCULATION SPRAY	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-RS-156B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-000, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 8×10^6 40 Yr = 8.8×10^2	2×10^7	S&W Calc. 12846.54-RP-37-0	6	Type Test	Note 1
LOCATION: Safeguards	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Recirculation Spray Pump Discharge							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR		NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-281

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: PRIMARY PLANT VENT AND DRAINS	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna	Note 1	Note 1	Note 1
PLANT ID NO. SOV-DA-100A	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: 8320A12	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Containment Isolation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 7.4 x 10^6 40 Yr = 3.5 x 10^4	Note 1	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Outside Cranewall SERVICE: Reactor Containment Pump Discharge	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec. 3.1.2 (Aging)	Note 1
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Replace insufficient documentation previous testing on similar ASCO valves (Ref: Westinghouse Let. No. NS-SS-77060). Indicate valves vent to preform the safety function for containment insulation.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: PRIMARY PLANT VENT AND DRAINS	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	North Anna FSAR Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-DA-100B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: HBX8320A12	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Reactor Containment Sump Pump Discharge							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) The ASCO HBX8320A12 Solenoid Valves contain metal parts in lieu of plastic. This design is shown by the X. Due to lack of documentation they will be replaced.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: PRIMARY PLANT VENT AND DRAINS	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-DG-108A	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: HBX8320A12	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Containment Isolation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 7.4×10^6 40 Yr = 3.5×10^4	Note 1	S&W Calc. No. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Outside Cranewall SERVICE: Nitrogen Supply Line	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) HBX8320A12 solenoid valves contains metal parts in lieu of plastic. This design is shown by the "X". Due to lack of documentation, they will be replaced.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: PRIMARY PLANT VENT AND DRAINS	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	North Anna FSAR Section 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-DG-108B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 830281RF	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Primary Drain Trans. Pump							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) The 8302 Series ASCO Solenoid Valve (HB830281V) was tested in accordance with Westinghouse Ref. Let. No. NS-SS-77060 for North Anna 1 and 2 for radiation and found acceptable. Since the exact model number match cannot be made to this test report, the difference in the model number and the reason for their acceptability is explained. The "HB" is the coil design and since the doil is de-energized for the accident, a coil failure is of no consequence.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: PRIMARY PLANT VENT AND DRAINS	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-VG-109A	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: HBX8320A12	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Containment Isolation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 7.4×10^6 40 Yr = 3.5×10^4	Note 1	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Outside Cranewall SERVICE: Primary Drain Trans. Tank Vent	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec. 3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required.

NOTES: 1) The ASCO HBX8320A12 solenoid valve contains metal parts in lieu of plastic. This design is shown by the "x". Due to lack of documentation, they will be replaced.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: PRIMARY PLANT VENT AND DRAINS	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	North Anna FSAR Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-VG-109B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 8320A12	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Primary Drain Trans. Tank Vent							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, insufficient information. Previous testing of ASCO valves (ref. Westinghouse Letter No. NS-SS-77060) indicates valves vent to perform safety function for containment isolation.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: RADIATION MONITORING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-RM-100B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 8320A12	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Radiation Monitoring Trip Valve							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Replace, insufficient information. Previous testing on similar ASCO valves (Ref. Westinghouse Letter No. NS-SS-77060) indicates valves vent to perform the safety function for containment isolation.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: RADIATION MONITORING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-RM-100C	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: HBX8320A12	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Containment Isolation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 7.4 x 10^6 40 Yr = 3.5 x 10^4		S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Outside Cranewall SERVICE: Radiation Monitoring Trip Valve	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec. 3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTE: 1) The HBX8320A12 Asco solenoid valves contain metal parts in lieu of plastic. This design is shown by the "X" due to lack of documentation they will be replaced

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: RADIATION MONITORING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-RM-100A	TEMP °F	NR	Note 1	NR	Note 1	Note 1	Note 1
COMPONENT: Solenoid Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	NR	Note 1	NR	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	NR	Note 1	NR	Note 1	Note 1	Note 1
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 2.5×10^6 40 Yr = 2.5×10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Radiation Monitoring Trip Valve							
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	NR	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: REACTOR COOLANT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	>120 days	Westinghouse Ref. Lt. No. NS-SS-79287	7,9,10	Test results used applying 10°C rule	Note 1
PLANT ID NO. LT-1459	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	0-280F, 0-3 sec 280F, 3-120 sec 280-220F, 20 min-24 hr 222F, 1-15 days	VEPCO-NRC 11-22-77 No. 382A/092477	7,9,10	Sequen-tial Test	Note 1
COMPONENT: Level Transmitter							
MANUFACTURER: Barton	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	89.7, 3-120 sec	VEPCO-NRC 11-22-77 No. 382A/092477	7,9,10	Sequen-tial Test	Note 1
MODEL NUMBER: 386 Prototype of 764	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	7,9,10	Sequen-tial Test	Note 1
FUNCTION: Pressurizer Level Indication Control and Protection	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	1.14 wt % H_3BO_3 0.17 wt % NaOH	VEPCO-NRC 6-80 No. 535	7,9,10	Sequen-tial Test	Note 1
ACCURACY: Spec: ±10%, 5 min Demo: 0-5%, 0-5 min Max. error 5 min to 4 mo, 17%	RAD.,	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	5×10^7	S&W Calc. 12846.54-RP-038-0	7,9,10	Sequen-tial Test	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: RC Pressurizer Level Protection	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) As previously committed, this component will be replaced during third refueling.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: REACTOR COOLANT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	>120 days	Westinghouse Ref. Lt. No. NS-SS-79287	7,9,10	Test results used applying 10°C rule	Note 1
PLANT ID NO. LT-1460	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	0-280F, 0-3 sec 280F, 3-120 sec 280-220F, 20 min-24 hr 222F, 1-15 days	VEPCO-NRC 11-22-77 No. 382A/092477	7,9,10	Sequential Test	Note 1
COMPONENT: Level Transmitter							
MANUFACTURER: Barton	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	89.7, 3-120 sec	VEPCO-NRC 11-22-77 No. 382A/092477	7,9,10	Sequential Test	Note 1
MODEL NUMBER: 386 Prototype of 764	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	7,9,10	Sequential Test	Note 1
FUNCTION: Pressurizer Level Indication Control and Protection	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	1.14 wt % H_3BO_3 0.17 wt % NaOH	VEPCO-NRC 6-80 No. 535	7,9,10	Sequential Test	Note 1
ACCURACY: Spec: ±10%, 5 min Demo: 0-5%, 0-5 min Max. error 5 min to 4 mo, 17%	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	5×10^7	S&W Calc. 12846.54-RP-038-0	7,9,10	Sequential Test	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: RC Pressurizer Level Protection	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) As previously committed, this component will be replaced during third refueling.

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SYSTEM: REACTOR COOLANT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	>120 days	Westinghouse Ref. Lt. No. NS-SS-79287	7,9,10	Test results used applying 10°C rule	Note 1
PLANT ID NO. LT-1461	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	0-280F, 0-3 sec 280F, 3-120 sec 280-220F, 20 min-24 hr 222F, 1-15 days	VEPCO-NRC 11-22-77 No. 382A/092477	7,9,10	Test Sequential	Note 1
COMPONENT: Level Transmitter							
MANUFACTURER: Barton	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	89.7, 3-120 sec	VEPCO-NRC 11-22-77 No. 382A/092477	7,9,10	Test Sequential	Note 1
MODEL NUMBER: 386 Prototype of 764	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	7,9,10	Test Sequential	Note 1
FUNCTION: Pressurizer Level Indication Control and Protection	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	1.14 wt % H_3BO_3 0.17 wt % NaOH	VEPCO-NRC 6-80 No. 535	7,9,10	Test Sequential	Note 1
ACCURACY: Spec: ±10%, 5 min Demo: 0-5%, 0-5 min Max. error 5 min to 4 mo, 17%	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	5×10^7	S&W Calc. 12846.54-RP-038-0	7,9,10	Test Sequential	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: RC Pressurizer Level Protection	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) As previously committed, this component will be replaced during third refueling.

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SYSTEM: REACTOR COOLANT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	6 min	Westinghouse Ref. Lt. No. NS-SS-79287	1,33	Sequential Test	Note 1
PLANT ID NO. PT-1455	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	>350	VEPCO-NRC 11-22-77 No. 382A/092477	1,33	Sequential Test	Note 1
COMPONENT: Pressure Transmitter							
MANUFACTURER: Fischer-Porter	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	80.7	VEPCO-NRC 11-22-77 No. 382A/092477	1,33	Sequential Test	Note 1
MODEL NUMBER: 10B2496QBXA-NS	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	1,33	Sequential Test	Note 1
FUNCTION: Pressurizer Pressure Indication and High/Low Protection, Emergency Core Cooling, Core Heat Removal, Engineered Safety Feature	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	1.14 wt % H_3BO_3 0.17 wt % NaOH	VEPCO-NRC 6-80 No. 535	1,33	Sequential Test	Note 1
ACCURACY: Spec: ±0.5% Demo:							
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	4×10^4	S&W Calc. 12846.54-RP-038-0	1,33	Sequential Test	Note 1
LOCATION: Inside Containment Inside Cranewall	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Pressurizer Pressure Protection							
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, transmitter will not be qualified to the requirements of IEEE 323-1974. JUSTIFICATION: The accuracy requirement given for trip function applies only until the containment pressure reaches the point at which safety

injection is initiated by the containment pressure transmitter. Transmitter remained within the accuracy required for trip functions within the first 30 seconds (Ref: WCAP-9157).

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SYSTEM: REACTOR COOLANT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	6 min	Westinghouse Ref. Ltr. No. NS-SS-79287	1,33	Sequential Test	Note 1
PLANT ID NO. PT-1456	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	>350°	VEPCO-NRC 11-22-77 No. 382A/092477	1,33	Sequential Test	Note 1
COMPONENT: Pressure Transmitter							
MANUFACTURER: Fischer-Porter	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	80.7	VEPCO-NRC 11-22-77 No. 382A/092477	1,33	Sequential Test	Note 1
MODEL NUMBER: 10B2496QBXA-NS	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	1,33	Sequential Test	Note 1
FUNCTION: Pressurizer Pressure Indication and High/Low Protection	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	1.14 wt % H_3BO_3 0.17 wt % NaOH	VEPCO-NRC 6-80 No. 535	1,33	Sequential Test	Note 1
ACCURACY: Spec: ±0.5% Demo:							
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	4×10^4	S&W Calc. 12846.54-RP-038-0	1,33	Sequential Test	Note 1
LOCATION: Inside Containment Inside Cranewall	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Pressurizer Pressure Protection							
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, transmitter will not be qualified to the requirements of IEEE 323-1974. JUSTIFICATION: The accuracy requirement given for trip function applies only until the containment pressure reaches the point at which safety injection is initiated by the containment pressure transmitter. Transmitters remained within the accuracy required for the first 30 seconds (Ref. WCAP-9157).

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SYSTEM: REACTOR COOLANT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	6 min	Westinghouse Ref. Ltr. No. NS-SS-79287	1,33	Sequential Test	Note 1
PLANT ID NO. PT-1457	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	>350	VEPCO-NRC 11-22-77 No. 382A/092477	1,33	Sequential Test	Note 1
COMPONENT: Pressure Transmitter							
MANUFACTURER: Fischer-Porter	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	80.7	VEPCO-NRC 11-22-77 No. 382A/092477	1,33	Sequential Test	Note 1
MODEL NUMBER: 10B2496QBXA-NS	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	1,33	Sequential Test	Note 1
FUNCTION: Pressurizer Pressure Indication and High/Low Protection, Emergency Core Cooling/Core Heat Removal, Engineered Safety Feature	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	1.14 wt % NaOH	VEPCO-NRC 6-80 No. 535	1,33	Sequential Test	Note 1
ACCURACY: Spec: ±0.5% Demo:							
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	4×10^4	S&W Calc. 12846.54-RP-038-0	1,33	Sequential Test	Note 1
LOCATION: Inside Containment Inside Cranewall	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Pressurizer Pressure Protection							
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Replace, transmitter will not be qualified to the requirements of IEEE 323-1974. JUSTIFICATION: The accuracy requirement given for trip function applies only until the containment pressure reaches the point at which safety

injection is initiated by the containment pressure transmitter. Transmitters remained within the accuracy required for the first 30 seconds (Ref. WCAP-9157).

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SYSTEM: REACTOR COOLANT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Two weeks	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. TE-1410	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Temperature Element							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Post-Accident Monitoring of Loop Temperature	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	NR	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: ± 0.2% Demo: ± 0.2%							
	RAD.	Located in reactor coolant piping	1 x 10^8	North Anna 79-01B 90 Day Report	Note 1	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: RCS Temperature Element (Wide-Range)	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM: REACTOR COOLANT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Two weeks	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. TE-1412B	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Temperature Element							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Post-Accident Monitoring of Loop Temperature	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	NR	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: ± 0.2% Demo: ± 0.2%							
	RAD.	Located in reactor coolant piping	1×10^8	North Anna 79-01B 90 Day Report	Note 1	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: RC Delta T/TAVG Protection System Loop 1	AGING	Enclosure 4 Guidelines Section 7.0	-	-	- (Aging)	Refer to Report Sec.3.1.2	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM: REACTOR COOLANT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Two weeks	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. TE-1412D	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Temperature Element							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Post-Accident Monitoring of Loop Temperature	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	NR	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: ± 0.2% Demo: ± 0.2%							
	RAD.	Located in reactor coolant piping	1 x 10^6	North Anna 79-01B 90 Day Report	Note 1	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall	AGING	Enclosure 4 Guidelines	-	-	-	Refer to Report	None
SERVICE: RC Delta T/TAVG Protection System Loop 1		Section 7.0				Sec.3.1.2 (Aging)	
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM: REACTOR COOLANT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Two weeks	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. TE-1413	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Temperature Element							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Post-Accident Monitoring of Loop Temperature	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	NR	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: ± 0.2% Demo: ± 0.2%							
	RAD.	Located in reactor coolant piping	1 x 10^8	North Anna 79-01B 90 Day Report	Note 1	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: RCS Temperature Element Hot Leg Loop 1							
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM: REACTOR COOLANT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Two weeks	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. TE-1420	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Temperature Element							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Post-Accident Monitoring of Loop Temperature	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	NR	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: ± 0.2% Demo: ± 0.2%							
	RAD.	Located in reactor coolant piping	1 x 10^8	North Anna 79-01B 90 Day Report	Note 1	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: RCS Temperature Element Cold Leg Loop 2							
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM: REACTOR COOLANT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Two weeks	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. TE-1422B	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Temperature Element							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Post-Accident Monitoring of Loop Temperature	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	NR	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: ± 0.2% Demo: ± 0.2%							
	RAD.	Located in reactor coolant piping	1 x 10^8	North Anna 79-01B 90 Day Report	Note 1	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: RC Delta T/TAVG Protective System Loop 2							
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM: REACTOR COOLANT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Two weeks	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. TE-1422D COMPONENT: Temperature Element	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Post-Accident Monitoring of Loop Temperature ACCURACY: Spec: ± 0.2% Demo: ± 0.2%	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	NR	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
	RAD.	Located in reactor coolant piping	1 x 10^8	North Anna 79-01B 90 Day Report	Note 1	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: RC Delta T/TAVG Protection System Loop 2	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM: REACTOR COOLANT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Two weeks	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. TE-1423	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Temperature Element							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Post-Accident Monitoring of Loop Temperature	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	NR	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: ± 0.2% Demo: ± 0.2%							
	RAD.	Located in reactor coolant piping	1×10^8	North Anna 79-01B 90 Day Report	Note 1	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: RCS Temperature Element Hot Leg Loop 2	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM: REACTOR COOLANT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Two weeks	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. TE-1430	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Temperature Element							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Post Accident Monitoring of Loop Temperature	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	NR	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: ± 0.2% Demo: ± 0.2%							
	RAD.	Located in reactor coolant piping	1×10^8	North Anna 79-01B 90 Day Report	Note 1	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: RCS Temperature Element Cold Leg Loop 3	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM: REACTOR COOLANT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Two weeks	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. TE-1432B	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Temperature Element							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Post Accident-Monitoring or Loop Temperature	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	NR	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: ± 0.2% Demo: ± 0.2%							
	RAD.	Located in reactor coolant piping	1 x 10^8	North Anna 79-01B 90 Day Report	Note 1	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: RC Delta T/TAVG Protection System Loop 3	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM: REACTOR COOLANT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Two weeks	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. TE-1432D	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Temperature Element							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Post-Accident Monitoring of Loop Temperature	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	NR	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: ± 0.2% Demo: ± 0.2%							
	RAD.	Located in reactor coolant piping	1×10^8	North Anna 79-01B 90 Day Report	Note 1	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: RC Delta T/TAVG Protection System Loop 3							
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM: REACTOR COOLANT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualit.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Two weeks	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. TE-1433	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Temperature Element							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Post-Accident Monitoring of Loop Temperature	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	NR	VEPCO-NRC 6-80 No. 535	Note 1	Sequen-tial Test	Note 1
ACCURACY: Spec: ± 0.2% Demo: ± 0.2%							
	RAD.	Located in reactor coolant piping	1 x 10^8	North Anna 79-01B 90 Day Report	Note 1	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: RCS Temperature Element Hot Leg Loop 3	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM: REACTOR COOLANT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Functional after testing	FSAR North Anna Sec. 6.2.4.2	Note 1	Note 1	None
PLANT ID NO. SOV-1519A	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: Note 1	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR							
	RAD.	LOCA = 2.5×10^6 40 Yr = 2.5×10^6	5×10^7	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	None
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Primary Grade Water to Pressurizer Relief Tank							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
Note: 1) Component model number will be determined during the steam generator outage.

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SYSTEM: REACTOR COOLANT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. SOV-1455-1	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Solenoid Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	Note 1	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: Pressurizer Power Operated Relief	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model number will be determined during the steam generator outage.

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SYSTEM: REACTOR COOLANT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. SOV-1455-2	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Solenoid Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: Demo: NR							
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	Note 1	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: Pressurizer Power Operated Relief	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model number will be determined during the steam generator outage.

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SYSTEM: REACTOR COOLANT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. SOV-1455-3	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Solenoid Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: Demo: NR							
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	Note 1	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Pressurizer Power Operated Relief							
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model number will be determined during the steam generator outage.

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SYSTEM: REACTOR COOLANT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. SOV-1456-1	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Solenoid Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: DBA (LOCA And MSLB) Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: Demo: NR							
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	Note 1	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Pressurizer Power Operated Relief							
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during the steam generator outage.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: REACTOR COOLANT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. SOV-1456-2	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Solenoid Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	Note 1	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: Pressurizer Power Operated Relief	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during the steam generator outage.

Facility: VEPCO, SURRY
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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: REACTOR COOLANT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. SOV-1456-2	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Solenoid Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	Note 1	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Pressurizer Power Operated Relief							
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during the steam generator outage.

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Unit: 1
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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: REACTOR COOLANT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. SOV-1456-3	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Solenoid Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	Note 1	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: Pressurizer Power Operated Relief	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during the steam generator outage.

Facility: VEPCO, SURRY
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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: REACTOR COOLANT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. MOV-1535	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	NR	NR	NR	None
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	NR	NR	NR	None
FUNCTION: DBA (LOCA and MSLB) Mitigation, Minimum Boration	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	Note 1	NR	NR	NR	None
ACCURACY: Spec: Demo: NR							
	RAD.	LOCA = 2.4 x 10^7 40 Yr = 1.3 x 10^7	Note 1	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall SERVICE: Pressurizer Relief Block Valve	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	NR	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: REACTOR COOLANT	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. MOV-1536	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7 30 min-48 hr 12.7, 2-120 days	Note 1	NR	NR	NR	None
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	NR	NR	NR	None
FUNCTION: DBA (LOCA and MSLB) Mitigation, Minimum Boration	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	Note 1	NR	NR	NR	None
ACCURACY: Spec: Demo: NR							
	RAD.	LOCA = 2.4×10^7 40 Yr = 1.3×10^7	Note 1	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Inside Cranewall	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Pressurizer Relief Block Valve							
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	NR	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: SAFETY INJECTION		Environment		Documentation Reference			
	Units	Specification	Qualification	Specification	Qualif.	Method	Out standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. 1-SI-P-1A	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Pump Motor							
MANUFACTURER: Westinghouse	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: ABDP	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Emergency Core Cooling/ Core Heat Removal, Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 8×10^6 40 Yr = 8.8×10^2	2×10^8	S&W Calc. 12846.54-RP-37-0	31, 32	Note 2	Note 2
LOCATION: Safeguard Area	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Low Head Safety Injection Pump Motor							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required.

NOTES: 1) Manufacturer has been contacted for qualification data.

2) Class H Insulation has been qualified to radiation.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: SAFETY INJECTION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1		Note 1	Note 1	Note 1
PLANT ID NO. 1-SI-P-1B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Pump Motor							
MANUFACTURER: Westinghouse	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: ABDP	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Emergency Core Cooling/ Core Heat Removal, Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR							
	RAD.	LOCA = 8×10^6 40 Yr = 8.8×10^2	2×10^8	S&W Calc. 12846.54-RP-37-0	31, 32	Note 2	Note 2
LOCATION: Safeguard Area SERVICE: Low Head Safety Injection Pump Motor	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec. 3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) We have contacted manufacturer for qualification data.

2) Class H Insulation has been qualified to radiation.

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Unit: 1
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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: SAFETY INJECTION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-1842	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-0, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Emergency Core Cooling/ Core Heat Removal, Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.5×10^6 40 Yr = 2.5×10^6	2×10^7	S&W Calc. 12846.38-RP-026-0	6	Type Test	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Boric Acid Injection Tank Outlet Valve							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: SAFETY INJECTION		Environment		Documentation Reference			Out-standing
	Units	Specification	Qualification	Specification	Qualif.	Method	Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-1860A	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-000, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Emergency Core Cooling/ Core Heat Removal, Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 8×10^6 40 Yr = 8.8×10^2	2×10^7	S&W Calc. 12846.54-RP-37-0	6	Type Test	Note 1
LOCATION: Safeguards	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Low Head Safety Injection Recirculation Valve							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: SAFETY INJECTION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-1860B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-000, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: DBA (LOCA and MSLB) Mitigation Emergency Core Cooling/ Core Heat Removal, Engineered Safety Feature	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 8×10^6 40 Yr = 8.8×10^2	2×10^7	S&W Calc. 12846.54-RP-37-0	6	Type Test	Note 1
LOCATION: Safeguards	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Low Head Safety Injection Recirculation Water							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: SAFETY INJECTION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-1862A	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-00, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Emergency Core Cooling/ Core Heat Removal, Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 8×10^6 40 Yr = 8.8×10^2	2×10^7	S&W Calc. 12846.54-RP-37-0	6	Type Test	Note 1
LOCATION: Safeguard Area	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Low Head Safety Injection Suction from RWST							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

Facility: VEPCO, SURRY
Unit: 1
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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: SAFETY INJECTION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-1862B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-00, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Engineered Safety Feature, Emergency Core Cooling/Core Heat Removal, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 8×10^6 40 Yr = 8.8×10^2	2×10^7	S&W Calc. 12846.54-RP-37-0	6	Type Test	Note 1
LOCATION: Safeguards	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Low Head Safety Injection Suction							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: SAFETY INJECTION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-1863A	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-00, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Emergency Core Cooling/ Core Heat Removal, Engineered Safety Features) DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.3×10^5 40 Yr = 4.0×10^2	2×10^7	S&W Calc. 12846.38-RP-026-0	6	Type Test	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec. 3.1.2 (Aging)	None
SERVICE: Low Head Safety Injection Discharge							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: SAFETY INJECTION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-1863B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-00, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Emergency Core Cooling/ Core Heat Removal, Engineered Safety Features DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.3×10^5 40 Yr = 4.0×10^2	2×10^7	S&W Calc. 12846.38-RP-026-0	6	Type Test	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Low Head Safety Injection Discharge							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM: SAFETY INJECTION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after testing	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. MOV-1865A	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1 Test	Note 1
COMPONENT: Motor Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Engineered Safety Feature, Emergency Core Cooling/Core Heat Removal, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 1.2×10^7 40 Yr = 3.4×10^4	2.04×10^8	S&W Calc. 12846.54-RP-038-0 Test	Note 1	Type	Note 1
LOCATION: Inside Containment Inside Cranewall Submerged	AGING	Enclosure 4 Guidelines	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Accumulator Isolation		Section 7.0					
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: Yes X No	SUB.	-21'11"	Note 2	S&W Calc. 12846-01-PE-036-0	Note 2	Note 2	Note 2

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Component model will be determined during present steam generator outage.
2) Equipment will have completed its function prior to becoming submerged.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: SAFETY INJECTION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after testing	Westinghouse Ref. Lt. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. MOV-1865B	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Motor Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Engineered Safety Feature, Emergency Core Cooling/Core Heat Removal, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 1.2×10^7 40 Yr = 3.4×10^9	2.04×10^8	S&W Calc. 12846.54-RP-038-0	Note 1	Type Test	Note 1
LOCATION: Inside Containment Inside Cranewall Submerged	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Accumulator Isolation							
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: Yes X No	SUB.	-21'-11"	Note 2	S&W Calc. 12846-01-PE-036-0	Note 2	Note 2	Note 2

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

2) Equipment will have completed its function prior to becoming submerged.

Facility: VEPCO, SURRY
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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM:
SAFETY INJECTION

		Environment		Documentation Reference			Out-standing Items
	Units	Specification	Qualification	Specification	Qualif.	Method	
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after testing	Westinghouse Ref. Lt. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. MOV-1865C	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Motor Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Engineered Safety Feature, Emergency Core Cooling/Core Heat Removal, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 1.2×10^7 40 Yr = 3.4×10^4	2.04×10^8	S&W Calc. 12846.54-RP-038-0	6	Type Test	Note 1
LOCATION: Inside Containment Inside Cranewall Submerged	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Accumulator Isolation							
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: Yes X No	SUB.	-21'11"	Note 2	S&W Calc. 12846-01-PE-036-0	Note 2	Note 2	Note 2

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Component model will be determined during present steam generator outage.
2) Equipment will have completed its function prior to becoming submerged.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: SAFETY INJECTION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-1867A	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-000, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Emergency Core Cooling/ Core Heat Removal, Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation, Minimum Boration	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.5×10^6 40 Yr = 2.5×10^6	2×10^7	S&W Calc. 12846.38-RP-026-0	6	Type Test	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Boric Acid Injection Tank Valve							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR		NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: SAFETY INJECTION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-1867B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-000, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Emergency Core Cooling/ Core Heat Removal, Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation, Minimum Boration	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.5×10^6 40 Yr = 2.5×10^6	2×10^7	S&W Calc. 12846.38-RP-026-0	6	Type Test	Note 1
LOCATION: Auxiliary Bldg.	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Boric Acid Injection Tank Inlet Valve							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: SAFETY INJECTION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-1867C	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-00, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Emergency Core Cooling/ Core Heat Removal, Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation, Minimum Boration	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 2.5×10^6 40 Yr = 2.5×10^6	2×10^7	12846.38-RP-026-0	6	Type Test	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec. 3.1.2 (Aging)	None
SERVICE: Boric Acid Injection Tank Outlet Valve							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: SAFETY INJECTION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after Rad. Exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-1867D	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-00, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Engineered Safety Feature DBA (LOCA and MSLB) Mitigation, Emergency Core Cooling/Core Heat Removal, Minimum Boration	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 2.5×10^6 40 Yr = 2.5×10^6	2×10^7	S&W Calc. 12846.38-RP-026-0	6	Type Test	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Boron Injection Tank Outlet Isolation							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM: SAFETY INJECTION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-1869A	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-00, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation, Emergency Core Cooling/Core Heat Removal	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.5×10^6 40 Yr = 2.5×10^6	2×10^7	S&W Calc. 12846.38-RP-026-0	6	Type Test	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Safety Injection to Reactor Hot Legs Isolation							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM: SAFETY INJECTION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 day	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-1890A	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-2, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Emergency Core Cooling/ Core Heat Removal, Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 8×10^6 40 Yr = 8.8×10^2	2×10^7	S&W Calc. 12846.54-RP-37-0	6	Type Test	Note 1
LOCATION: Safeguard Area	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Low Head Safety Injection Stop VV							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM: SAFETY INJECTION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 day	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-1890B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-2, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Engineered Safety Feature, Emergency Core Cooling/Core Heat Removal DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 8×10^6 40 Yr = 8.8×10^6	2×10^7	S&W Calc. 12846.54-RP-37-0	6	Type Test	Note 1
LOCATION: Safeguards	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec 3.1.2 (Aging)	None
SERVICE: Low Head Safety Injection Stop VV							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM: SAFETY INJECTION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-1890C	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-2, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Emergency Core Cooling/ Core Heat Removal, Engineering Safety Features, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 8×10^6 40 Yr = 8.8×10^2	2×10^7	S&W Calc. 12846.54-RP-37-0	6	Type Test	Note 1
LOCATION: Safeguard Area	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Low Head Safety Injection Stop VV							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM: SAFETY INJECTION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-SI-100	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 8320A12	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Nitrogen Supply							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Replace, insufficient information. Previous testing on similar ASCO valves (Ref. Westinghouse Letter No. NS-SS-77060) indicates valves vent to perform the safety function for containment isolation.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: SAFETY INJECTION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Functional after testing	FSAR North Anna Sec. 6.2.4.2	19,25	Sequen-tial Test	None
PLANT ID NO. SOV-SI-101A	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	346F, 0-3 hrs cool down, 3-5 hr 346F, 5-8 hr 346-320F, 8-11 hr 320-250F, 11 hr-4 days 250-200F, 4-30 days	VEPCO-NRC 11-22-77 No. 382A/092477	19,25	Sequen-tial Test	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	19,25	Sequen-tial Test	None
MODEL NUMBER: NP8320179E	REL. HUM. %	100	100	VEPCO-NRC 6-80 No. 535	19,25	Sequen-tial Test	None
FUNCTION: Containment Isolation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	H_3BO_3 (3000 ppm B) with .0064 molar $Na_2S_2O_3$ buffered to a pH of 9.5-10.5 NaOH	VEPCO-NRC 6-80 No. 535	19,25	Sequen-tial Test	None
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 7.4×10^6 40 Yr = 3.5×10^4	5×10^7	S&W Calc. 12846.54-RP-038-0	19,25	Sequen-tial Test	None
LOCATION: Inside Containment Outside Cranewall SERVICE: Nitrogen Relief	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Pressure (psia)
124.7, 0-3 hr
cool down, 5-8 hr
124.7, 5-8 hr
124.7-89.7, 8-11 hr
89.7-29.7, 11 hr-4 days
29.7-24.7, 4-30 days

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: SAFETY INJECTION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-SI-101B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 8320A12	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^4	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Nitrogen Relief							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Replace, insufficient information. Previous testing on similar ASCO valves (Ref. Westinghouse Letter No. NS-SS-77060) indicates valves vent to perform the safety function for containment isolation.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: SAFETY INJECTION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1,2	North Anna FSAR Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-SI-102A1	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 830282G	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 8.0×10^6 40 Yr = 2.8×10^6	Note 1,2	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building Charging Pump Cubicle SERVICE: Primary Coolant Cold Leg	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) The 8302 series ASCO SOV (HB8302810) was tested per Westinghouse Letter No. NS-SS-77060 for North Anna 1&2 for radiation and was found acceptable. Since the exact Model Number match cannot be made to this test report, the difference in the Model Number and the reason for value acceptability is explained: The "HB" is the coil design and since the coil is deenergized for an accident, a coil failure is of no consequence. The remaining Model Number difference is the internal part size and does not alter the radiation testing.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: SAFETY INJECTION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. SOV-SI-102A2	TEMP °F	NR	Note 1	NR	Note 1	Note 1	Note 1
COMPONENT: Solenoid Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	NR	Note 1	NR	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	NR	Note 1	NR	Note 1	Note 1	Note 1
FUNCTION: HELB Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 8.0×10^6 40 Yr = 2.8×10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building Charging Pump Cubicle SERVICE: Refueling Water Storage Tank Cross Connect	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM: SAFETY INJECTION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-SI-102B1	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 830282G	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: HELB Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 8.0×10^6 40 Yr = 2.8×10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Primary Coolant Cold Leg							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.,	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) The 8302 series, ASCO SOV, was tested (HB830281U) per Westinghouse Letter No. NS-SS-77060 for North Anna 1&2 for radiation and found acceptable. Since the exact Model Number match cannot be made to this test report, the difference in the Model Number and the reason for value acceptability is explained: The "HB" is the coil design and since the coil is deenergized for an accident, a coil failure is of no consequence. The remaining Model Number difference is the internal part size and does not alter the radiation testing.

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SYSTEM: SAFETY INJECTION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. SOV-SI-102B2	TEMP °F	NR	Note 1	NR	Note 1	Note 1	Note 1
COMPONENT: Solenoid Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	NR	Note 1	NR	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	NR	Note 1	NR	Note 1	Note 1	Note 1
FUNCTION: HELB Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 8.0×10^6 40 Yr = 2.8×10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building Charging Pump Cubicle SERVICE: Refueling Water Storage Tank Cross Connect	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	NR	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: SAFETY INJECTION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. SOV-1884A	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: Note 1	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Emergency Core Cooling/ Core Heat Removal, Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation, Minimum Boration	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR							
	RAD.	LOCA = 2.5×10^6 40 Yr = 2.5×10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building SERVICE Boron Injection Tank Recirculation	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM: SAFETY INJECTION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. SOV-1884B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: Note 1	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Emergency Core Cooling/ Core Heat Removal, Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation, Minimum Boration	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR							
	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building SERVICE Boron Injection Tank Recirculation	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: SAFETY INJECTION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-Standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after testing	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. SOV-1884C	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: Note 1	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: Note 1	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Emergency Core Cooling/ Core Heat Removal, Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation, Minimum Boration	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 2.5×10^6 40 Yr = 2.5×10^6	5×10^7	S&W Calc. 12846.54-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building SERVICE: Boron Injection Tank Recirculation	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM: SAFETY INJECTION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. MOV-1864A	TEMP °F	NR	Note 1	NR	Note 1	Note 1	Note 1
COMPONENT: Motor Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	NR	Note 1	NR	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	NR	Note 1	NR	Note 1	Note 1	Note 1
FUNCTION: Emergency Core Cooling/ Core Heat Removal, Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 8×10^6 40 Yr = 8.8×10^2	Note 1	S&W Calc. 12846.54-RP-37-0	Note 1	Note 1	Note 1
LOCATION: Safeguards	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Low Head Safety Injection Discharge Valve							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM: SAFETY INJECTION	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. MOV-1864B	TEMP °F	NR	Note 1	NR	Note 1	Note 1	Note 1
COMPONENT: Motor Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	NR	Note 1	NR	Note 1	Note 1	Note 1
MODEL NUMBER: Note 1	REL. HUM. %	NR	Note 1	NR	Note 1	Note 1	Note 1
FUNCTION: Emergency Core Cooling/ Core Heat Removal, Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 8×10^6 40 Yr = 8.8×10^2	Note 1	S&W Calc. 12846.54-RP-37-0	Note 1	Note 1	Note 1
LOCATION: Safeguards	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Low Head Safety Injection Discharge Valve							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM:		Environment		Documentation Reference			Out-standing
SAFETY INJECTION	Units	Specification	Qualification	Specification	Qualif.	Method	Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. MOV-1869B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Note 1	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: Note 1	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation, Emergency Core Cooling/ Core Heat Removal	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo:	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec. 3.1.2 (Aging)	None
SERVICE: Boron Injection Tank Bypass							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

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SYSTEM: SAMPLING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Functional	FSAR North Anna Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-SS-100A1	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: 830281R	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Containment Isolation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 7.4 x 10^6 40 Yr = 3.5 x 10^4	Note 1	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Outside Cranewall	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Press. Liquid Space Sample							
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) The 8302 Series ASCO SOV, (HB830281V) was tested in accordance with Westinghouse Ref. Ltr. NS-SS-77060 for North Anna 1 and 2 for radiation and found acceptable. Since the exact model number match cannot be made to this test report, the difference in the model number and the reason for this valve acceptability is explained: The "HB" is the coil design and since the coil is de-energized for the accident. A coil failure is of no consequence.

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SYSTEM: SAMPLING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-SS-100B1	TEMP °F	NR	Note 1	NR	Note 1	Note 1	Note 1
COMPONENT: Solenoid Operated Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	Note 1	NR	Note 1	Note 1	Note 1
MODEL NUMBER: 83021RF	REL. HUM. %	NR	Note 1	NR	Note 1	Note 1	Note 1
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR							
	RAD.	LOCA = 2.5×10^6 40 Yr = 2.5×10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Press. Liquid Space Space Sample							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) The 8302 ASCO SOV, (HB83028 1V) was tested per Westinghouse Ref. No. NS-SS-77060 for North Anna 1 and 2 for radiation and was found acceptable. Since the exact model number match cannot be made to this test report, the difference in the model number and the reason for the valve acceptability is explained: The "NB" is the coil design and since the coil is de-energized for the accident, a coil failure is of no consequence.

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SYSTEM: SAMPLING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-SS-101A1	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: 830281R	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Containment Isolation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:	RAD.	LOCA = 7.4 x 10^6 40 Yr = 3.5 x 10^4	Note 1	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Outside Cranewall SERVICE: Pressure Liquid Space Sample	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec. 3.1.2 (Aging)	Note 1
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	Note 1

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) The 8320 Series ASCO Solenoid Valve (HB830281U) was tested for North Anna 1 and 2 for radiation and was found acceptable. Since the exact model match cannot be made to this test report, the difference in the model number and the reason for the valve acceptability is explained. The "HB" is the coil design and since the coil is de-energized for the accident, a coil failuire is of no consequence.

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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: SAMPLING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-SS-101B1	TEMP °F	NR	NR	NR	NR	NR	NR
COMPONENT: Solenoid Operated Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	NR
MODEL NUMBER: 830281RF	REL. HUM. %	NR	NR	NR	NR	NR	NR
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR							
	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Press. Vapor Space							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) The 8302 Series ASCO Solenoid Valve HB830281V) was tested in accordance with Westinghouse Ref. Letter No. NS-SS-77060 for North Anna 1 and 2 for radiation and was found acceptable. Since the exact model number match cannot be made to this test report, the difference in the model number and the reason for the valve acceptability is explained. The "NB" is the coil design and since the coil is de-energized for the accident, a coil failure is of no consequence.

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SYSTEM: SAMPLING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-SS-102A1	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: 830281R	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Containment Isolation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 7.4 x 10^6 40 Yr = 3.5 x 10^4	Note 1	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Outside Cranewall	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec. 3.1.2 (Aging)	None
SERVICE: Primary Coolant Cold Leg Sample							
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) The 8302 Series SOV (HB8302B1V) was tested in accordance with Westinghouse Ref. Ltr. No. NS-SS-77060 for North Anna B2 for radiation and found acceptable. Since the extract model number cannot be made to this test report, the difference in the model number and the reason for the valve acceptability is explained: The "HB" is the coil design and since the coil is de-energized for the accident a coil failure is of no consequence.

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SYSTEM: SAMPLING		Environment		Documentation Reference			Out-standing
	Units	Specification	Qualification	Specification	Qualif.	Method	Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	North Anna FSAR Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-SS-102B1	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 830281R	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Primary Coolant Cold Leg Sample							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) The 8302 series ASCO Solenoid Operated Valve (HB830281U) was tested per Westinghouse Letter NS-SS-77060 for North Anna 1&2 for radiation and found acceptable. Since the exact model number match cannot be made to this test report, the difference in the model number and the reason for the valve acceptability is explained: The "HB" is the coil design and since the coil is de-energized for this accident, a coil failure is of no consequence.

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SYSTEM: SAMPLING		Environment		Documentation Reference			Out-standing Items
	Units	Specification	Qualification	Specification	Qualit.	Method	
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	North Anna FSAR Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-SS-103	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 830281RF	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Residual Heat Removal Sample							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) The 8302 series ASCO Solenoid Operated Valve (HB830281U) was tested per Westinghouse Letter NS-SS-77060 for North Anna 1&2 for radiation and found acceptable. Since the exact model number match cannot be made to this test report, the difference in the model number and the reason for the valve acceptability is explained: The "HB" is the coil design and since the coil is de-energized for this accident, a coil failure is of no consequence.

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SYSTEM: SAMPLING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-SS-104A	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days		VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: HXB232081RF	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Containment Isolation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 7.4 x 10^6 40 Yr = 3.5 x 10^4	Note 1	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Outside Cranewall SERVICE: Press. Relief Tank Sample	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec. 3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Replace, insufficient documentation. Previous testing on similar ASCO valves (Ref.: Westinghouse Ltr. No. NS-SS-77060) indicate valves vent to perform the safety function for containment isolation.

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SYSTEM: SAMPLING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	North Anna FSAR Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-SS-104B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 830281RF	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^4	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Presssure Relief Tank Sample							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) The 8302 series ASCO Solenoid Operated Valve (HB830281U) was tested per Westinghouse Letter NS-SS-77060 for North Anna 1&2 for radiation and found acceptable. Since the exact model number match cannot be made to this test report, the difference in the model number and the reason for the valve acceptability is explained: The "HB" is the coil design and since the coil is de-energized for this accident, a coil failure is of no consequence.

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SYSTEM: SAMPLING		Environment		Documentation Reference			Out-standing Items
	Units	Specification	Qualification	Specification	Qualif.	Method	
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-SS-106A	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: HXB2320 81RF	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Containment Isolation, Post-Accident Monitoring	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH, 4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 7.4×10^6 40 Yr = 3.5×10^4	Note 1	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Outside Cranewall	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec. 3.1.2 (Aging)	None
SERVICE: Primary Cool. Hot Leg Sample							
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, insufficient documentation. Previous testing on similar ASCO valves (Ref.: Westinghouse Ltr. No. NS-SS-77060) indicate valves vent to perform the safety function for containment isolation.

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SYSTEM: SAMPLING	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	(PAM) 120 days	Note 1	NUREG-0578	Note 1	Note 1	Note 1
PLANT ID NO. SOV-SS-106B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 830281RF	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation, Post-Accident Monitoring	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Primary Coolant Hot Leg Sample							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) The 8302 series ASCO Solenoid Operated Valve (HB830281U) was tested per Westinghouse Letter NS-SS-77060 for North Anna 1&2 for radiation and found acceptable. Since the exact model number match cannot be made to this test report, the difference in the model number and the reason for the valve acceptability is explained: The "HB" is the coil design and since the coil is de-energized for this accident, a coil failure is of no consequence.

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SYSTEM: SERVICE WATER	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 day	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-SW-104A	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-000, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 5.9×10^6 40 Yr = 8.8×10^2	2×10^7	S&W Calc. 12846.38-RP-031-0	6	Type Test	Note 1
LOCATION: Main Steam Valve House	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Recirculation Spray Heat Exchanger Service Water Supply							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM: SERVICE WATER	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 day	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-SW-104B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-000, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 5.9×10^6 40 Yr = 8.8×10^2	2×10^7	S&W Calc. 12846.38-RP-031-0	6	Type Test	Note 1
LOCATION: Main Steam Valve House	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Recirculation Spray Heat Exchanger Service Water Supply							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM: SERVICE WATER	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-792827	6	Type Test	Note 1
PLANT ID NO. MOV-SW-104C	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-000, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 5.9×10^6 40 Yr = 8.8×10^2	2×10^7	S&W Calc. 12846.38-RP-031-0	6	Type Test	Note 1
LOCATION: Main Steam Valve House	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec. 3.1.2 (Aging)	None
SERVICE: Recirculation Spray Heat Exchanger Service Water Supply							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM: SERVICE WATER	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 day	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-SW-104D	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-000, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 5.9×10^6 40 Yr = 8.8×10^2	2×10^7	S&W Calc. 12846.38-RP-031-0	6	Type Test	Note 1
LOCATION: Main Steam Valve House	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Recirculation Spray Heat Exchanger Service Water Supply							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

		Environment		Documentation Reference			Out-standing
WATER	Units	Specification	Qualification	Specification	Qualif.	Method	Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NSS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-SW-105A	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-000, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Engineered Safety Feature, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 5.9×10^6 40 Yr = 8.8×10^2	2×10^7	S&W Calc. 12846.38-KP-031-0	6	Type Test	Note 1
LOCATION: Valve House	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Recirculation Spray Heat Exchanger Service Water Return							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM: SERVICE WATER	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 day	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-SW-105B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-000, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Engineered Safety Features, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 5.9×10^6 40 Yr = 8.8×10^2	2×10^7	S&W Calc. 12846.38-RP-031-0	6	Type Test	Note 1
LOCATION: Main Steam Valve House	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Service Water Outlet Recirculation Spray Heat Exchanger 2-RS-E-1B							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM: SERVICE WATER	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-SW-105C	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-000, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Engineered Safety Features, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 5.9×10^6 40 Yr = 8.8×10^2	2×10^7	S&W Calc. 12846.38-RP-031-0	6	Type Test	Note 1
LOCATION: Main Steam Valve House	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Recirculation Spray Heat Exchanger							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM: SERVICE WATER		Environment		Documentation Reference			Out-standing Items
	Units	Specification	Qualification	Specification	Qualif.	Method	
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Functional after rad. exposure	Westinghouse Ref. Ltr. No. NS-SS-79287	6	Type Test	Note 1
PLANT ID NO. MOV-SW-105D	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Motor Operated Valve							
MANUFACTURER: Limitorque	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: SMB-000, Class B Insulation	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Engineered Safety Features, DBA (LOCA and MSLB) Mitigation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 5.9×10^6 40 Yr = 8.8×10^2	2×10^3	S&W Calc. 12846.38-RP-031-0	6	Type Test	Note 1
LOCATION: Main Steam Valve House	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Recirculation Spray Heat Exchanger							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Limitorque has been given the purchase orders, serial numbers, and information necessary to obtain qualification data.

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SYSTEM: SERVICE WATER	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. 1-SW-P-5A	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Pump Motor							
MANUFACTURER: Note 1	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: Note 1	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Post Accident Monitoring	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 5.9×10^6 40 Yr = 8.8×10^2	Note 1	S&W Calc. 12846.38-RP-031-0	Note 1	Note 1	Note 1
LOCATION: Main Steam Valve House	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Service Water Return From Recirc. Spray Heat Exchanger Rad. Monitor							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outrage.

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SYSTEM: SERVICE WATER	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. 1-SW-P-5B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Pump Motor							
MANUFACTURER: Note 1	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: Note 1	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Post Accident Monitoring	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 5.9×10^6 40 Yr = 8.8×10^2	Note 1	S&W Calc. 12846.38-RP-031-0	Note 1	Note 1	Note 1
LOCATION: Main Steam Valve House	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Service Water Return From Recirc. Spray Heat Exchanger Rad. Monitor							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: SERVICE WATER	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. 1-SW-P-5C	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Pump Motor							
MANUFACTURER: Note 1	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: Note 1	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Post Accident Monitoring	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 5.9×10^6 40 Yr = 8.8×10^2	Note 1	S&W Calc. 12846.38-RP-031-0	Note 1	Note 1	Note 1
LOCATION: Main Steam Valve House	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Service Water Return From Recirc. Spray Heat Exchanger Rad. Monitor							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

Facility: VEPCO, SURRY
Unit: 1
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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: SERVICE WATER	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	120 days	Note 1	Westinghouse Ref. Ltr. No. NS-SS-79287	Note 1	Note 1	Note 1
PLANT ID NO. 1-SW-P-5D	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Pump Motor							
MANUFACTURER: Note 1	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: Note 1	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Post Accident Monitoring	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 5.9×10^6 40 Yr = 8.8×10^2	Note 1	S&W Calc. 12846.38-RP-031-0	Note 1	Note 1	Note 1
LOCATION: Main Steam Valve House	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Service Water Return From Recirc. Spray Heat Exchanger Rad. Monitor							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Component model will be determined during present steam generator outage.

Facility: VEPCO, SURRY
Unit: 1
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SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: STEAM GENERATOR BLOWDOWN	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-BD-100A	TEMP °F	275F, 0-30 min 275-150F, 30-60 min	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: LB8345C11	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Containment Isolation, HELB Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 7.4 x 10^6 40 Yr = 3.5 x 10^4	Note 1	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Outside Cranewall SERVICE: Outside Blowdown Trip Valve	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Replace, insufficient documentation. Previous testing on similar ASCO valves (Ref.: Westinghouse Ltr. No. NS-SS-7706) indicate valves vent to perform the safety function for containment isolation.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: STEAM GENERATOR BLOWDOWN	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Outstanding Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-BD-100A	TEMP °F	275F, 0-30 min 275-150F, 30-60 min	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: LB8345C11	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Containment Isolation, HELB Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 7.4×10^6 40 Yr = 3.5×10^4	Note 1	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Outside Cranewall SERVICE: Outside Blowdown Trip Valve	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Replace, insufficient documentation. Previous testing on similar ASCO valves (Ref.: Westinghouse Ltr. No. NS-SS-7706) indicate valves vent to perform the safety function for containment isolation.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: STEAM GENERATOR BLOWDOWN		Environment		Documentation Reference			Out-standing
	Units	Specification	Qualification	Specification	Qualif.	Method	Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-BD-100B	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 8320A102	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR							
	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Air to Blowdown Trip Valve							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTE: 1) Replace, insufficient documentation. Previous testing on similar ASCO valves (Ref. Westinghouse Letter No. NS-SS-77080) indicates valves vent to perform the safety function for containment isolation.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: STEAM GENERATOR BLOWDOWN	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-BD-100C	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1 tial Test	Note 1
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: LB8345C11	REL. HUM. %	Note 1	100	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Containment Isolation, HELB Mitigation	CHEM. SPRAY	Note 1 ppm B) buffered to pH of 8.5-11 NaOH,4hr	VEPCO-NRC 6-80 Note 1	Note No. 535	Note 1	Note 1	
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 7.4 x 10^6 40 Yr = 3.5 x 10^4	Note 1	S&W Calc. 12846.54-RP-038-0	Note 1	Sequen-tial Test	Note 1
LOCATION: Inside Containment Outside Cranewall	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec. 3.1.2 (Aging)	None
SERVICE: Air to Blowdown Trip Valve							
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Replace, insufficent documentation. Previous testing on similar ASCO valves (Ref. Westinghouse Ref Ltr No. NS-SS-77060) indicate valves vent to perform the safety function for containment isolation.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: STEAM GENERATOR BLOWDOWN	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	North Anna FSAR Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-BD-100D	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 8320A102	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Air to Blowdown Trip Valve							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Replace, insufficient information. Previous testing on similar ASCO valves (Ref. Westinghouse Letter No. NS-SS-77060) indicates valves perform the safety function for containment isolation.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: STEAM GENERATOR BLOWDOWN	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Documentation Reference: Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	FSAR North Anna Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-BD-100E	TEMP °F	275F, 0-30 min 275-150F, 30-60 min 150-120F, 1-48 hr 120F, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	58.7, 0-30 min 58.7-12.7, 30 min-48 hr 12.7, 2-120 days	Note 1	VEPCO-NRC 11-22-77 No. 382A/092477	Note 1	Note 1	Note 1
MODEL NUMBER: LB8345C11	REL. HUM. %	100	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
FUNCTION: Containment Isolation, HELB Mitigation	CHEM. SPRAY	H_3BO_3 (2,000-2,200 ppm B) buffered to pH of 8.5-11 NaOH,4hr	Note 1	VEPCO-NRC 6-80 No. 535	Note 1	Note 1	Note 1
ACCURACY: Spec: NR Demo:							
	RAD.	LOCA = 7.4 x 10^6 40 Yr = 3.5 x 10^4	Note 1	S&W Calc. 12846.54-RP-038-0	Note 1	Note 1	Note 1
LOCATION: Inside Containment Outside Cranewall	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec. 3.1.2 (Aging)	None
SERVICE: Containment Inst. Air Compressor Suction							
FLOOD LEVEL ELEV: -21'11" ABOVE FLOOD LEVEL: X Yes No	SUB.	-21'11"	NR	S&W Calc. 12846-01-PE-036-0	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.

NOTES: 1) Replace, insufficient documentation. Previous testing on similar ASCO valves (Ref. Westinghouse Letter No. NS-SS-77060) indicates valves vent to perform the safety function for containment isolation.

Facility: VEPCO, SURRY
Unit: 1
Docket: 50-280

SYSTEM COMPONENT EVALUATION WORK SHEET - 90 DAY REVIEW

SYSTEM: STEAM GENERATOR BLOWDOWN	Units	Environment: Specification	Environment: Qualification	Documentation Reference: Specification	Documentation Reference: Qualif.	Method	Out-standing Items
EQUIPMENT DESCRIPTION	OPER. TIME	60 sec	Note 1	North Anna FSAR Sec. 6.2.4.2	Note 1	Note 1	Note 1
PLANT ID NO. SOV-BD-100F	TEMP °F	NR	NR	NR	NR	NR	None
COMPONENT: Solenoid Valve							
MANUFACTURER: ASCO	PRESS. psia	NR	NR	NR	NR	NR	None
MODEL NUMBER: 8320A102	REL. HUM. %	NR	NR	NR	NR	NR	None
FUNCTION: Containment Isolation	CHEM. SPRAY	NR	NR	NR	NR	NR	None
ACCURACY: Spec: Demo: NR	RAD.	LOCA = 2.5 x 10^6 40 Yr = 2.5 x 10^6	Note 1	S&W Calc. 12846.38-RP-026-0	Note 1	Note 1	Note 1
LOCATION: Auxiliary Building	AGING	Enclosure 4 Guidelines Section 7.0	-	-	-	Refer to Report Sec.3.1.2 (Aging)	None
SERVICE: Air to Blowdown Trip Valve							
FLOOD LEVEL ELEV: NR ABOVE FLOOD LEVEL: Yes No	SUB.	NR	NR	NR	NR	NR	None

NR = Not required. All numbers written in Documentation Reference Qualification column are identified in Section 8.
NOTES: 1) Replace, insufficient information. Previous testing on similar ASCO valves (Ref. Westinghouse Letter No. NS-SS-77060) indicates valves vent to perform the safety function for containment isolation.

SECTION 7

CONCLUSIONS

7.1 Components Requiring Corroborating Information

As a result of our IE Bulletin 79-01B 90 Day Review for Surry Unit 1, we have determined that the majority of components have environmental qualification data requiring further corroborating information from the manufacturers before final judgement can be made.

1. Limitorque motor operated valves have generic qualification data for Class B and Class H Motors. This data was utilized for qualification but it was noted that additional clarification is required to tie the testing results to operators existing at Surry Power Station. In order to obtain the necessary information, we have placed a purchase order with Limitorque Corp. (date 8-15-80) and are in the process of supplying operator serial and shop order numbers. We expect to have completed this task by November 1, 1980. (Ref. IE Bulletin 79-01B 90 Day Review Evaluation Work Sheets 207, 208, and 209 for Class H Insulation. All other motor operated valves are of the B Class Insulation).

2. Westinghouse Electric Corp. pump motors supplied as part of the NSSS equipment have been determined to have Class H Insulation which is qualified by WCAP-8754 and WCAP-7879. We have requested Westinghouse to supply qualification data for the remaining motor components. In the area of high temperature due to HELB, we are analyzing the effect on the High Head Safety Injection Pump Motor (Charging Pump). We are scheduled to complete this task by November 1, 1980. (Ref. IE Bulletin 79-01B 90 Day Review Evaluation Work Sheets 7, 8, 9, 198, and 199.)

3. Cable which has been utilized as part of the safety systems is from three sources.

   A. Cable supplied as part of Surry's original purchasing effort.

      The original Surry purchased cables are classified into two groups.

      Group I is cable that the vendors have informed us that data is available. We are obtaining the required test reports and a final judgement will be made by November 1, 1980. (Ref. IE Bulletin 79-01B 90 Day Review Evaluation Work Sheets 37 through 39, 41, 42, 50 through 53, and 55 through 59.)

      Group II is cable which the vendors have identified as lacking actual test data. In these cases, we have utilized test data on cables of a similar generic construction as an interim justification for qualification of these cables.

Furthermore, we will initiate a testing program to determine actual cable qualification for those cables listed in group II. The schedule for the testing will be forwarded to you on or before November 1, 1980. The following cables fall into this group:

1. Collyer Insulated Wire Co. type cross linked polyethylene with neoprene jacket. Status, no environmental testing was conducted on this cable. (Ref. IE Bulletin 79-01B, 90 Day Review Evaluation Work Sheet 54.)

2. General Electric Wire and Cable, type cross linked polyethylene with neoprene jacket. Status, compound formulation were undocumented and enviromental testing is unavailable. (Ref. IE Bulletin 79-01B, 90 Day Review Evaluation Work Sheet 40.)

3. Kaiser Aluminum and Chemical Sales, Inc. type cross linked polyethylene with neoprene jacket. Status, Kaiser is no longer in the nuclear supply business and has no environmental data available. (Ref. IE Bulletin 79-01B, 90 Day Review Evaluation Work Sheets 48 and 49.)

4. Continental Wire & Cable Co., temperature silicone rubber cable. Status, no environmental testing data available. (Ref. IE Bulletin 79-01B, 90 Day Review Evaluation Work Sheet 60.)

B. Cable obtained from North Anna Units 1 & 2 stock.

The cable obtained from North Anna Units 1 & 2 supply were originally qualified as part of the North Anna Unit 1 IE Bulletin 79-01B 90 Day Review and North Anna Unit 2, NUREG-0588 Review. This data has been included as part of our review. (Ref. IE Bulletin 79-01B 90 Day Review Evaluation Work Sheet 56.)

C. Cable originally purchased for use on North Anna 3 & 4.

The North Anna Units 3 & 4 cable qualification data indicate that they are qualified. We have contacted the vendor to determine applicability of the tested report and extrapolation made on this cable. (Ref. IE Bulletin 79-01B 90 Day Review Evaluation Work Sheets 33, 36 and 57.)

4. Electrical Penetrations, Amphenol. We are in contact with the vendor and will make determination on the qualification or before November 1, 1980. (Ref. IE Bulletin 79-01B 90 Day Review Evaluation Work Sheets page 43 through 47.)

5. 480V Motor Control Center supplied by Cutler-Hammer. No radiation data is available. We are in the process of doing point radiation calculations and determining the possibility of shielding these units. Determination will be made by November 1, 1980 on qualification. (Ref. IE Bulletin 79-01B 90 Day Review Evaluation Work Sheets 23 through 26.)

6. H_2 Recombiner Units. We utilized qualification data listed in the Units Technical Manual. This information appears to qualify the units located inside the Reactor Containment. We have contacted Westinghouse Electric Corp. to obtain actual test documentation.

   The power supply of H_2 Recombiner Units, located outside the containment, did not have radiation qualification addressed in the Units Technical Manual, and we have contacted the vendor on this matter. (Ref. IE Bulletin 79-01B 90 Day Review Evaluation Work Sheets 102, 103, 105, 106.)

7. Charging Pump Cooling Water Pumps (1-CC-P-2A & B), supplied by General Electric. A letter has been written to the pump motor vendor requesting qualification documents. As of this time no documents have been received. We hope to resolve this problem by November 1, 1980. (Ref. IE Bulletin 79-01B 90 Day Review Evaluation Work Sheets pages 61 & 62.)

8. Outside Recirculation Spray Pump Motors (1-RS-P-2A & B) supplied by General Electric. A letter has been written to the pump motor vendor requesting qualification documents. As of this time no documents have been received. We will resolve this problem by November 1, 1980. (Ref. IE Bulletin 79-01B 90 Day Review Evaluation Work Sheets 156 & 157.)

9. General Electric topical report dated June 12, 1973, tested the Inside Recirculation Spray Pump to a pH level between 5.5 to 6.5, and the environment the equipment will see is in a pH range of 7 thru 11. We have contacted the manufacturer for additional data to cover the higher pH level during the first hour of the DBA. (Ref. IE Bulletin 90 Day Review Evaluation Work Sheets 111 & 112.)

7.2 Components to be Replaced

1. Radiation monitoring sampling pump motors are being replaced with qualified units. In the event of a failure of these units sampling can be accomplished by taking grab samples. (Ref. IE Bulletin 79-01B 90 Day Review Evaluation Work Sheets 252 through 255).

2. ASCO solenoid valves with model numbers listed below will require replacement due to lack of documentation. The referenced ASCO solenoid valves are not required to function under the worst case environment, since the valves protective actions are performed prior to exposure to this environment. The proposed solution of replacement is based on providing valves that are qualified to the worst case conditions and the cost and extended time required to test the existing valves. Also ASCO does not plan any further testing on the existing valves to the requirements of IEEE-323-1974. The replacement solenoid will be qualified to the worst case environment and the requirements of IEEE-323-1974.

   (Ref. IE Bulletin 79-01B 90 Day Review Evaluation Work Sheets)

ASCO Model	Work Sheets
8320A12	63-68, 81, 83, 129, 162, 167, 168, 218 & 220
HBX8320A12	69-71, 80, 82, 163, 164, 166 & 169
8320A102	120-128, 255, 257, 259
HBX8320A26	113, 115
80174	154
HT8316C47E	148-153
LB 831654	12
831654	19
LB8345C11	254, 256, 258
HXB232081RF	238, 240

3. As a result of TMI-2 NUREG-0578 section 2.1.6.B and 2.1.9, containment Hydrogen Analyzers are required to be qualified nuclear safety-related Category 1 and Seismic Class 1. Existing hydrogen analyzers are not fully qualified to the above requirements and no further testing is planned. An order for new Hydrogen Analyzers has been placed with the Delphi Corp. Delphi Corp. is in the process of testing the Analyzers per the requirements of IEEE-323-1974. The installation of the new Hydrogen Analyzers was originally scheduled to be completed by January 1981. However, this schedule is presently being reviewed relative to the NRC clarifications of TMI requirements. (Ref. Sept. 5, 1980 letter from NRC entitled "Preliminary Clarification of TMI Action Plan Requirements".) Applicable Model Number: Thermatron T-3. (Ref. IE Bulletin 79-01B 90 Day Review Evaluation Work Sheet 104).

4. Fischer-Porter transmitters with model numbers listed below will be replaced due to lack of documentation. Existing test documentation is referenced to justify usage for continued plant operation. The Fischer-Porter transmitters referenced are not required to function under the worst case environment, since the protective action is performed prior to exposure to this environment. The proposed solution of replacement is based on providing transmitters that are qualified to the worst case environment and the cost and extended time required to test the existing referenced Fischer-Porter transmitters. Special tests would require testing the transmitter to actual postulated accident conditions. The vendor, Fischer-Porter, plans no further testing of any transmitter.

The Westinghouse Owners Group in cooperation with Rosemount Engineering Co. and the Foxboro Co. are testing their transmitters in accordance with a two-phase test plan. The first phase is intended to meet the requirements of IEEE-323-1971. Subsequently, the second phase will be to test these transmitters to the requirements of IEEE-323-1974. These are the transmitters that we are expecting to use to replace the existing Fischer-Porter transmitters.

(Ref: IE Bulletin 79-01B, 90 Day Evaluation Work Sheets)

Model No.	Work Sheet
10B2496QB	11, 130-135
50EN1071BCXA	116-119
50EP1041BCXA-NS	136-147, 174-176
10B2496PBNS	84, 85, 86
10B2496QBXA-NS	174-176

5. Barton level transmitters, Model 386, listed below, will require replacement due to lack of complete documentation. Existing test documentation is referenced to justify usage for plant operation. The Westinghouse Owners Group in cooperation with Rosemount Engineering Co. and the Foxboro Co. are testing their transmitters in accordance with a two-phase test plan.

   The first phase is intended to meet the requirements of IEEE-323-1971. Subsequently, the second phase will be to test the transmitters to the requirements of IEEE-323-1974. These are the transmitters we are expecting to use to replace the existing Barton transmitters.

   (Ref. IE Bulletin 79-01B, 90 Day Review Evaluation Work Sheets 88-95, 171, 172, 173.)

7.3 Components Deleted from Master List

The following components were originally listed on the Surry IE Bulletin 79-01B 45 Day Review Master List and have been removed during the 90 Day Review.

Solenoid Operated Valves
(Component Cooling System)

SOV-CC-101B
SOV-CC-102B

These valves transfer flow between the chilled water and normal component cooling water supply. They do not receive an accident mitigation signal (consequence limiting safeguard), and are not required to function for LOCA or MSLB.

Pressure Transmitters
(Inside Recirculation Spray System)

PT-RS152A
PT-RS152B

This equipment is not required to mitigate the consequences of a LOCA or MSLB.
Transmitters are used to send a signal to pressure indicators located on the main control board for parameter indication only and do not provide an input for accident mitigation logic.
These transmitters are presently under review based on the requirements of NUREG-0578 and NUREG 0660 and may be included on the master list based on the results of this review.

Level Transmitters
(Inside Recirculation Spray System)

LT-RS151A
LT-RS151B

This equipment is not required to mitigate the consequences of a LOCA or MSLB.
Transmitters are used to monitor containment sump level and send a signal to level indicators located on the main control board for parameter indication only and do not provide an input for accident mitigation logic.
These transmitters are presently under review based on the requirements of NUREG-0578 and NUREG-0660, and may be included on the master list based on the results of this review.

Level Transmitters
(Reactor Coolant System)

LT-1477
LT-1487
LT-1497

This equipment is not required to mitigate the consequences of a LOCA or MSLB.
These transmitters are wide range level (differential pressure) transmitters used for parameter indication only and do not provide an input for accident mitigation logic. These transmitters are presently under review based on the requirements of NUREG-0578 and NUREG-0660, and may be included on the master list based on the results of this review.

Pressure Transmitters
(Reactor Coolant System)

PT-1458B

This equipment is not required to mitigate the consequences of a LOCA or MSLB.
This transmitter is used for calibration of the differential pressure transmitter which is used for parameter indication only and does not provide an input for accident mitigation logic.
This transmitter is presently under review based on the requirements of NUREG-0578 and NUREG-0660, and may be included on the master list based on the results of this review.

Temperature Elements
(Reactor Coolant System)

TE-1411B	TE-1431B
TE-1411C	TE-1431C
TE-1411D	TE-1431D
TE-1412C	TE-1432C
TE-1421B	
TE-1421C	
TE-1421D	
TE-1422C	

The temperature elements (1411B & C, 1421B & C and 1431B & C) provide RCS indication and input to RCS control. They do not provide inputs to accident mitigation logic and are not required to function for LOCA or MSLB.

The temperature elements (1411D, 1412C, 1422C, 1431D, & 1432C) are installed spares and do not provide inputs to accident mitigation logic.
Therefore, they are not required to function for LOCA or MSLB.

Solenoid Operated Valves
(Component Cooling System)

SOV-CC-102D
SOV-CC-102F

These valves are not installed at the Surry Power Station. Components were taken from the North Anna master list and erroneously placed on the Surry master list.

Solenoid Operated Valves
(Reactor Coolant System)

LCV-1460A
LCV-1460B

These valves do not receive an accident mitigation signal (consequence limiting safeguard), and are not required to function for LOCA or MSLB.

SECTION 8

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