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SUBJECT: Forwards response to NRC 810608 safety evaluation for
 environ qualification of safety-related electrical
 equipment.

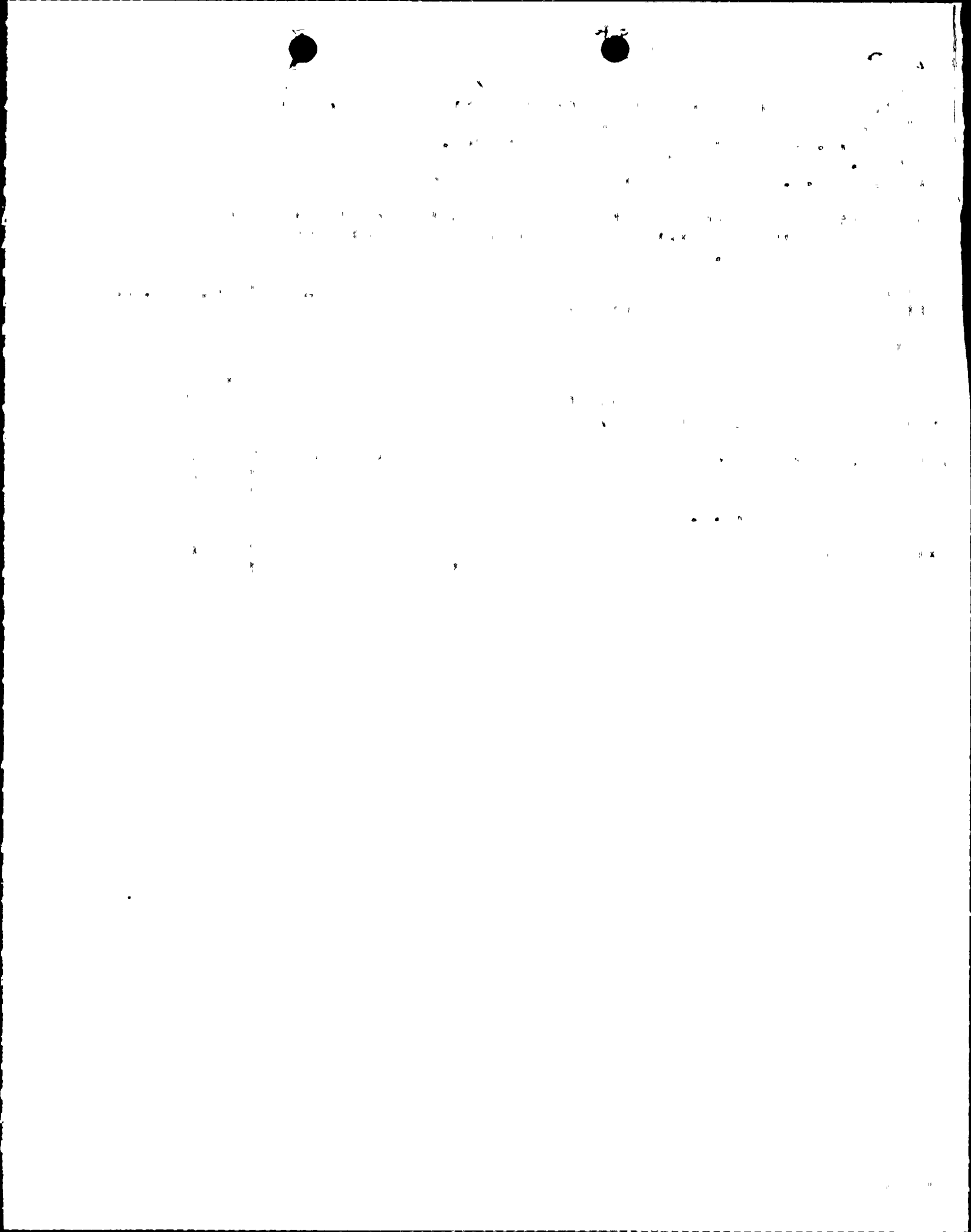
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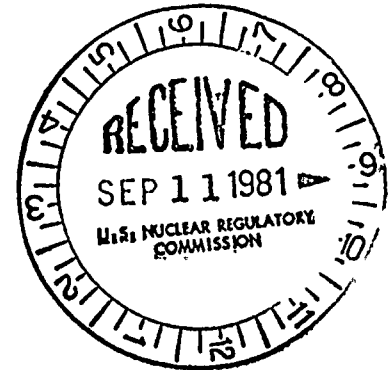
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	WILLIAMS, M. H.	22	1	1				
EXTERNAL:	ACRS	23	16	16	LPDR	03	1	1
	NRC PDR	02	1	1	NSIC	04	1	1
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SEP 16 1981



September 9, 1981

Mr. Thomas A. Ippolito, Chief
Operating Reactors Branch No. 2
Division of Licensing
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555



Re: Nine Mile Point Unit 1
Docket No. 50-220

Dear Mr. Ippolito:

Your June 8, 1981 letter transmitted the safety evaluation for the environmental qualification of safety related electrical equipment at Nine Mile Point Unit 1. It was requested therein that Niagara Mohawk provide the information identified in Sections 3 & 4 of the safety evaluation within 90 days.

Attached is a report which provides the requested information. Our response includes item by item justification for continued operation which supports our previous conclusion that the continued operation of Nine Mile Point Unit 1 does not present an undue safety hazard to the public.

Very truly yours,

Thomas E. Lempges

Thomas E. Lempges
Vice President - Nuclear Generation

DKG:bd
Attach.

As of 5/11
Limited Distribution

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NIAGARA MOHAWK POWER CORPORATION

RESPONSE TO

NUCLEAR REGULATORY COMMISSION
SAFETY EVALUATION REPORT OF JUNE 8, 1981

FOR

NINE MILE POINT - UNIT 1

SEPTEMBER 8, 1981

Control # 8109140221

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1.0

INTRODUCTION

Nine Mile Point - Unit One (NMP-1) is a 610 Mwe Boiling Water Reactor (BWR), owned and operated by the Niagara Mohawk Power Corporation (NMPC), located on Lake Ontario near Oswego, New York. The Nuclear Steam Supply System (NSSS) was designed by General Electric (GE) and NMPC acted as architect-engineer for the plant, using Stone and Webster as the constructor.

Initial application for a Construction Permit (CP) was made in April 1964 and a CP was issued by the AEC on April 12, 1965. An Operating License (OL) was granted on August 22, 1969 and the plant was placed in commercial operation late that year.

2.0

BACKGROUND

By an Order for Modification of License dated August 29, 1980, NMPC was required to submit, by November 1, 1980, all information to support a safety evaluation of the environmental qualification of safety related electrical equipment exposed to a harsh environment resulting from an accident. In response, NMPC submitted an assessment of NMP-1 electrical equipment environmental qualification by a letter dated November 3, 1980.

The NRC staff's Safety Evaluation Report (SER) on the environmental qualification of safety related electrical equipment at NMP-1 was transmitted by a letter dated June 8, 1981. The scope of the SER was limited to an evaluation of the equipment which must function in order to mitigate the consequences of a loss of coolant accident (LOCA) or a high energy line break (HELB) accident, inside or outside containment, while subjected to the hostile environments associated with these accidents.

The purpose of the SER was to identify equipment whose qualification program does not provide sufficient assurance that the equipment is capable of performing the design function in hostile environments. Accordingly, the SER identified specific information

and actions required by the staff to comply with plant technical specification environmental qualification requirements. The SER requests were clarified in a meeting with utilities on July 7-10, 1981.

NMPC was requested to provide a response to the SER within 90 days including additional information, corrective actions, and justification for continued operation.

3.0 RESPONSE TO STAFF'S EVALUATION

The staff evaluation addressed the areas outlined below. NMPC's response to requests for additional information is provided.

3.1 Completeness of Safety Related Equipment

A. Systems List

Based on the NMPC submittal (November 3, 1980 assessment), the staff concluded that the information on safety related systems was insufficient to verify that systems considered were all the systems required to achieve or support the following functions:

- 1) emergency reactor shutdown
- 2) containment isolation
- 3) reactor core cooling
- 4) containment heat removal
- 5) core residual heat removal
- 6) prevention of significant release radioactive material to the environment

The list of NMP-1 systems presented in the November 3, 1980 submittal included all systems, both inside and outside potentially harsh areas, necessary to provide the six functions listed above. The following systems list includes the safety functions provided by each system.

- o Common Electrical Equipment (CEE): includes electrical components common to all systems, e.g., cable, connectors, etc., and therefore supports all six functions
- o Reactor Isolation (RI): provides function 6
- o Automatic Depressurization System (ADS): provides functions 3 and 5
- o Containment Isolation - Drywell (CID): provides functions 2 and 6
- o Containment Isolation - Torus (CIT): provides functions 2 and 6
- o Core Spray (CS): provides functions 3 and 5
- o Reactor Vessel Instrumentation (RVI): initiates functions 1, 2, 3, 4 and 6
- o Additional Instrumentation (AI): initiates functions 1, 4 and 6
- o Reactor Building Closed Loop Cooling (RBCLC): supports functions 3 and 4
- o Control Rod Drive (CRD): provides function 1
- o MG Sets 162 and 172: support all 6 functions
- o Power Distribution (PD): supports all 6 functions
- o Containment Spray (CoS): provides functions 4 and 5

It should be noted that the systems list originally provided in the November 3, 1980 submittal has been revised.

The following six systems have been deleted for the reasons provided.

- o HPCI System

Reason - The HPCI system is not powered from emergency power supplies and is not taken credit for in safety analyses. Its safety-related function is duplicated by core spray in conjunction with ADS.

- o Emergency Condenser System

Reason - The main purpose of the emergency condenser system is to assure long term cooling during isolation events by maintaining coolant inventory. Credit is not taken for this system in LOCA/HELB safety analyses.

- o CAD and H₂O₂ Monitoring Systems

Reason - The purpose of the inerting systems is to provide an inert nitrogen atmosphere in the drywell and torus in case the core spray system does not function properly following a LOCA; i.e., these systems only serve as a backup to the core spray system. Possible use of the H₂O₂ monitoring system for radiation sampling of drywell air falls under the scope of R.G. 1.97, and the NRC has indicated that those items will be evaluated separately from the IEB 79-01B response.

- o Reactor Building Emergency Ventilation System

Reason - According to the NMP-1 FSAR, the reactor building emergency ventilation system is not a required engineered safeguard. A postulated 100% core meltdown without reactor building emergency ventilation will approach 10 CFR 100 limits only if the reactor building integrity

is such that it leaks 1800% of its volume per day at -0.25 inches of water differential pressure. The reactor building is designed for maximum leakage of 100% of building volume per day at a -0.25 inches of water differential pressure.

o MG Sets 162-172

Reason - The MG system has been removed from the 79-01B scope because it has been determined that its components are not subjected to harsh environments. Our definition of mild environment is discussed in Section 3.2.

Thus, with the exception of the MG sets, the systems list provided beforehand represents the 79-01B systems list for NMP-1.

B. Display Instrumentation

The staff requested that NMPC provide a complete list of display instrumentation mentioned in LOCA and HELB emergency procedures. Component evaluation worksheets were requested for all components of display instrumentation exposed to harsh environments with the exception of non-safety related equipment and post-accident sampling, monitoring and radiation monitoring equipment. Justification for considering an instrument as non-safety related and assurance that its subsequent failure will not mislead the operator or adversely affect accident mitigation are required. Post accident sampling and monitoring equipment will be reviewed in conjunction with TMI Lessons-Learned modifications.

Table 3-3 provides a listing of display instruments mentioned in the NMP-1 special operating procedures for LOCA and HELB. The table includes a column listing the associated instrument components currently within the 79-01B

workscope, i.e., in harsh environments. Component evaluation worksheets are provided for these items in Appendix A.

For the remaining display instruments NMPC will defer environmental qualification until these procedures have been revised using emergency procedure guidelines which are currently being reviewed by the staff. This deferment is considered justified in that the components being qualified now are considered sufficient to ensure safe handling of the plant by the operator.

C. Safety Related Electrical Components

A component-by-component review has been performed by NMPC to more closely define component safety-related functions and revise the master parts list presented in the previous (November 3, 1980 assessment) report.

Revision of the master parts list of the safety-related electrical components essential to LOCA/HELB mitigation is based on the following considerations:

- o Analysis of components safety-related functions and deletion of those components whose operations are not essential to LOCA/HELB mitigation
- o Review of accident environments and deletion of those components which are located in the mild environments.

A current listing of safety-related electrical components considered by NMPC to be necessary to mitigate the consequences of a LOCA/HELB is provided in Table 3-1. Display instruments located in the harsh environments are noted in Table 3-3 and included in Table 3-1.

A listing of the components previously considered in the scope of IEB 79-01B but now deleted based on the above reasons is provided in Table 3-2, and a component-by-component justification is provided in Appendix B.

3.2 Service Conditions

In the previous NMPC submittal (November 3, 1980 assessments), a detailed procedure for developing the environmental envelopes, relative to the temperature, pressure, and the containment spray, in accordance with the guidelines delineated in the IEB 79-01B and the NUREG-0588 "For Comment," was presented.

For the purpose of this report, a harsh environment is intended to represent those service conditions which result from a LOCA or HELB and are outside the equipment's specified operating band.

Mild environment qualification guidelines have not yet been issued. At the NRC staff meeting on July 7-10, 1981, one definition presented by the NRC staff indicated that the equipment would be considered in the mild environment category as long as the environmental conditions resulting from a LOCA/HELB do not exceed: (1) the range originally specified for the equipment, or (2) the design range specified by the manufacturer of the equipment. For the purpose of this report this definition has been applied to exempt the equipment now considered located in the mild environments from the current scope of IEB 79-01B.

In conjunction with the review of environmental conditions resulting from line breaks inside containment, the staff requested NMPC verify that the NMP-1 containment spray system is not subject to a disabling single-component failure. The NMP-1 FSAR states the containment spray system consists of two independent and separate full



capacity systems supplied by station reserve powers or from either of the two emergency diesel generators. One system will start automatically, the other is started by the operator in the control room.

Limiting service conditions have been determined for postulated accident conditions including LOCA/HELB inside containment, and HELB outside containment. These service conditions include pressure, temperature, humidity and radiation dose.

3.3 Temperature, Pressure, and Humidity Conditions Inside Containment

The limiting temperature/pressure versus time profiles submitted were different from the profiles in the FSAR. Consequently, the staff requested that the related analysis be provided.

In lieu of providing the analysis, NMPC has revised the limiting containment temperature/pressure profiles to those provided in the FSAR for recirculation line break, with 20°F added as margin to account for the possibility of local superheat. The FSAR curves were previously provided in the November 3, 1980 submittal, and are summarized in Table 4-1 and shown in Figures 4-12A and 4-12B of this report.

NMPC considers use of the FSAR curves plus 20°F appropriate for the following reasons:

- A) The FSAR states that the actuation of containment sprays would eliminate the possibility of superheat temperature in the bulk of the drywell.
- B) The NRC Guidelines, Section 4.2, allows that the LOCA environment envelopes main steamline break environments in plants with automatic containment spray systems not subject to disabling single failures.

3.4 Temperature, Pressure, and Humidity Conditions Outside Containment

The staff reviewed the service conditions defined for HELB's outside containment and verified that the parameters identified are acceptable. These service conditions are summarized in Table 4-1 and shown in Figures 4-1 through 4-11 of this report.

3.5 Submergence

The staff evaluation of the submergence service condition indicated that it was not evident that NMPC had considered the effects of all steamline breaks, both inside and outside containment.

The previous NMPC conclusion that accidental submergence of required Class 1E equipment in containment is not a concern was based on consideration of all line breaks in containment.

Consideration of submergence of equipment outside containment was not a requirement of I.E. Bulletin 79-01B. However, submergence outside containment does not appear to be a concern due to the limited amount of fluid discharged from postulated HELB's outside containment before break isolation, and because of equipment separation. For example, the lowest elevation in the NMP-1 reactor building is divided into four separate compartments; the safety related equipment at this elevation is redundant and located in separate compartments. NMPC will investigate the submergence service condition further and submit any new information as it becomes available.

3.6 Chemical Spray

The staff requested NMPC to address the effects of demineralized water spray in its equipment qualification efforts.



The NMP-1 containment spray system is the only source of spray. This spray is demineralized water taken from the torus. The spray header nozzles are arranged to minimize the impact on equipment and the nozzles produce fine spray droplets less than 1000 microns in size.

Various electrical components located inside containment were tested using various mixtures of chemical spray which, in fact, was a more severe simulation than the demineralized water spray. For example, boric acid and boron were used in the chemical spray/LOCA tests for Limitorque Valve Operators, Raychem cables and GE cables. Furthermore, various electrical components are sealed in NEMA 4 watertight enclosures which open from the bottom only; for example, the Dresser 1525VX relief valve and solenoid are contained in such enclosures. Therefore, spray could not affect operation of these components.

NMPC will consider the effects of demineralized water spray in its qualification of equipment located inside containment.

3.7 Aging

Section 7 of the DOR Guidelines does not require that a qualified life be established for all safety-related electrical equipment. However, as required by the NRC staff, the supplemental information to verify and identify the degree of conformance to the following requirements has been submitted.

1. NRC Requirement - Make a detailed comparison of existing equipment and the materials identified in Appendix C of the DOR Guidelines.

NMPC Action - NMPC has engaged NUS Corporation in an extensive qualification assessment program to collect environmental qualification data, and to determine the expected life of each safety-related electrical component. This qualification

assessment program has been implemented in the following manner:

A. Obtain Complete Equipment Description

The material receipt forms, purchase requisition forms, master parts lists, and various other documents were reviewed to identify proper model number, serial number and rating of each component. This information was used to obtain each component's materials data.

B. Contact Vendors to Obtain Materials, Design and Qualification Data

Each vendor was contacted to obtain the following information:

- o Bill of Material and Materials Designation Data - If the bill of materials could not be provided, then a list of age-sensitive (non-metallic) materials was requested.
- o Manufacturer catalogs and manuals.
- o Environmental Qualification Reports - If no qualification or materials data for the subject component could be provided, then complete qualification information (qualification data, materials/parts description, catalog and manuals) for a replacement model which is qualified or qualifiable was requested.

C. Perform a Study to Environmentally Qualify Equipment

Using the data obtained from the above tasks, an expected life analysis based upon the following applicable criteria was performed for each component.



- o Operational Cycling Effects - Wherever in-service operational cycling was identified, it was compared with the manufacturer's recommended cycles and with the actual operational cycling tests that were performed.
- o Time/Temperature Effects - The expected life was calculated based upon the time/temperature effects of the weakest material of the component using the Arrhenius Theory, as follows:

$$\ln(t) = \frac{E_a}{K_b} \left(\frac{1}{T} \right) + A \quad (1)$$

where,

\ln = Natural Logarithm

t = Expected Life (Hours)

E_a = Activation Energy (eV)

K_b = Boltzmann's Constant (8.617×10^{-5} eV/ $^{\circ}$ K)

T = Service Temperature ($^{\circ}$ K)

A = Constant

If an accelerated aging simulation test was performed, the equivalent life at the service temperature was calculated using the Arrhenius Theory as follows:

$$t_2 = t_1 \exp \left[\left(\frac{E_a}{K_b} \right) \left(\frac{1}{T_2} - \frac{1}{T_1} \right) \right] \quad (2)$$

where,

t_1 = Time at Aging Temperature (Hours)

t_2 = Time at Service Temperature (Hours)

E_a = Activation Energy (eV)

K_b = Boltzmann's Constant (eV/ $^{\circ}$ K)

T_1 = Aging Temperature ($^{\circ}$ K)

T_2 = Service Temperature ($^{\circ}$ K)

- o Humidity Effects - A literature search to evaluate the effects of relative humidity on the life of the subject component and its ability to perform its safety-related functions was performed.
- o Radiation Effects - Specified radiation dosage was compared with the assessed qualification test data and with the damage threshold level of each material in the subject component.
- o Harsh Environment Effects - Using the vendor design data, test data, aging analysis and the Arrhenius Theory, an evaluation was made to determine if the subject component can be safely operated under these conditions.

D. Qualification Assessment Summary Report

Based on the results of the above tasks, a report was prepared for each component where such an analysis was conducted. The expected life determined from the analysis has been noted on the component evaluation worksheets.

This effort is continuing for these components noted as "Assessment On-Going" in Table 3-1.

2. NRC Requirement - Establish an on-going program to review surveillance and maintenance records to identify age-related degradations.



NMPC Action - NMPC/NUS has established an on-going program to review surveillance and maintenance records of the safety related components. Primarily, this program has been exercised to more closely define the safety-related functions of the electrical components essential to LOCA/HELB mitigation. In the future, this program will be expanded to identify age-related degradations.

3. NRC Requirement - Establish component maintenance and replacement schedules which include considerations of aging characteristics of the installed components.

NMPC Action - Wherever practical, the maintenance records and replacement schedules will be modified to include the considerations of aging characteristics for the safety-related components.

3.8 Radiation (Inside and Outside Containment)

The staff evaluation stated that the integrated radiation dose values for inside and outside containment are acceptable. These values were determined in accordance with prescribed criteria in the DOR Guidelines and Supplement No. 2 to I.E. Bulletin 79-01B. Outside containment integrated radiation dose values include contributions from post-LOCA recirculating fluid lines.

4.0 QUALIFICATION OF EQUIPMENT

This section of the SER presented the staff's assessments based on the November 3, 1980 submittal of the qualification status of NMP-1 safety-related equipment. The staff separated the safety-related equipment into three categories: (1) equipment requiring immediate corrective action, (2) equipment requiring additional qualification information and/or corrective action, and, (3) equipment considered acceptable if the staff's concern identified in Section 3.7 is satisfactorily resolved.

The staff did not identify any equipment in the first category. That is, no equipment was determined to be unqualifiable or which have been found to fail under the test conditions which are less severe than the harsh environmental conditions specified. Therefore, no Licensee Event Report (LER) has been submitted in this report.

NMPC has taken the following actions and has provided the following information to resolve the deficiencies identified in the remaining two categories.

1. Since December 1980, NMPC/NUS has been engaged in an extensive qualification assessment program. The methodology employed to determine the qualified life, which goes far beyond the scope of the DOR guidelines, is described in Paragraph 3.7 of this report.

Equipment qualification data was obtained from the following sources:

- A. Test Reports - Identical equipment or generic equipment was environmentally qualified by type testing.
- B. Evaluation and Analysis - Equipment qualification by analysis (noted as NUS Reports in the worksheets) consists of:
 - o Similarity Analysis with qualified equipment
 - o Qualification Analysis in accordance with the procedures described in Paragraph 3.7.
 - o Qualification Analysis based on the effects of equipment degradation to its functional operability in the harsh environments.

- o Qualification Analysis based on the design specifications recommended by the vendor.
- 2. Component evaluation worksheets for the components located in the harsh environments have been revised and are presented in Appendix A. The specific harsh environmental conditions associated with component locations have been utilized rather than the worst case harsh environmental conditions which were used in the previous report. Components qualification data sources and their qualification status have also been noted on these worksheets.

A review of the component worksheets was performed to summarize the qualification status of the components located in the harsh environments. The results of this review are presented in Table 3-1. The following points regarding Table 3-1 should be noted:

- A. Equipment indicated as "Qualified" includes consideration of aging, radiation, and its ability to function in the specified harsh environments.
- B. Equipment indicated as "Qualification Assessment On-Going" has four parts:
 - o Equipment for which assessment is continuing with other utility subgroups, like BWR Owners' subgroups, GE subgroups, etc.
 - o Equipment for which the materials data is currently being evaluated.
 - o Equipment for which materials and qualification data has been requested but not yet received.



- o A determination has been made to qualify the equipment by type testing. Proposals for testing have been requested.
- C. Equipment indicated as "To Be Replaced by a Qualified Component" has two parts:
- o Equipment is obsolete; therefore, materials and qualification data can not be obtained.
 - o Assessed qualification data does not envelop the specified harsh environments.
3. As discussed in Paragraph 3.1, NMPC performed the systems review and component-by-component functional review to eliminate non-essential systems and electrical components from the scope of IEB 79-01B. Furthermore, various electrical components are eliminated because of their locations in the mild environments. These components are noted in Table 3-2, and justifications for elimination are provided in Appendix B of this report.

5.0 DEFERRED REQUIREMENTS

Mild environmental qualification guidelines have not yet been issued by the NRC. However, NMPC will continue its efforts to assess qualification data for those electrical components which were previously considered within the IEB 79-01B scope but now are considered located in the mild environments.

NMPC will take necessary actions after receiving supplemental safety evaluations addressing NMPC submission of the information associated with TMI lessons-learned modifications. Cold shutdown equipment was included in the November 3, 1980 NMPC submittal and is therefore addressed herein.

Information provided by NMPC in response to the NRC requirements identified in the NRC SER for NMP-1, dated June 8, 1981, can be summarized as follows:

- o The listing of essential systems and associated electrical components is provided in Table 3-1. The listing of electrical components deleted from the current scope of IEB 79-01B is provided in Table 3-2, and their justifications are provided in Appendix B. Display instrumentation is included in Table 3-3.
- o Component evaluation worksheets are revised and are presented in Appendix A. The specific harsh environmental conditions associated with component locations are utilized rather than the worst case harsh environmental conditions which were utilized in the previous report.
- o The methodology employed to assess qualification of equipment is provided in Sections 3 and 4 of this report. The component evaluation sheets are revised to include the assessed qualification data.
- o Resolutions of the component qualification deficiencies such as further assessment on-going, component to be tested, or to be replaced, have been properly identified in the component worksheets and are summarized in Table 3-1.
- o Item-by-item justification for continued operation of these components not completely qualified at this time is provided in Table 6-1.
- o NMPC has not found any outstanding item which would require immediate corrective action to insure the safety of plant operation.



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Based upon the above noted status and justifications noted in Table 6-1, NMPC concludes that there is a reasonable assurance of continued safe operation of NMP-1 pending completion of the corrective actions chosen.



TABLE 3-1

Master Parts List
and
Qualification Status Summary

TABLE 3-1

Page 1 of 2
 Revision 2
 September 1, 1981

SYSTEM ELECTRICAL EQUIPMENT COMMON TO ALL SYSTEMS

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	LOCATION		STATUS		
		Inside Primary Containment	Outside Primary Containment	Qualified	Qualification Assessment On-Going	To Be Replaced By a Qualified Component
Power Cable (5KV) Various Sizes	Kerite 5KV Quadruplex Ass'y.	X	X	X		
Power Cable 600V Various Sizes	G.E. Vulkene Quadruplex Ass'y.	x	x	x		
Control Cable (1000V) Various Multiple Makeup	G.E. Vulkene #12 Control Cable	x	x	x		
Coaxial Inst. Cable	Raychem Type RG59B/U	x	x	x		
El. Penet. Assemblies (Various Configurations)	D.G. O'Brien Elect. Connectors	x	x		X	
Multipoint Terminal Boards	G.E. Type EB-5 EB-25	X	X	X		
Ground Connector	Burndy, Type GABC-B	X	X	X		
Ground Connector	Burndy, Type GZ			X		
Control Cable Splices	AMP Pre-Ins. Butt Connectors	X	X	X		
Cable to Copper Bar Terminal	OZ Type XL		X	X		
Cable to Cable Connector	OZ Type XW		X	X		
Connection Terminal	Burndy, Type QA-B	X		X		



SYSTEM ELECTRICAL EQUIPMENT COMMON TO ALL SYSTEMS

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	LOCATION		STATUS		
		Inside Primary Containment	Outside Primary Containment	Qualified	Qualification Assessment On-Going	To Be Replaced By a Qualified Component
Cable Termination Insulating Tape	G.E. No. 8380 Tape		X		X	
Cable Termination Insulating Tape	No. 88 Scotch Brand Tape		X		X	
5KV Cable Termina- tion Insulation	Kerite Cement		X		X	
Undercoat for 5KV Term. Filler	3/4" Kerite Friction Tape		X		X	
Filler for 5KV Term.	G.E. #227 Filler Compound		X		X	
Filler for 5KV Term.	J-M Duxseal		X		X	
Part of 5KV Term. Insulation	Kerite Splicing Compound Tape		X		X	
Part of 5KV Term. Insulation	#1309 Black Ins. Varnish		X		X	
Ring Tongue Terminal	Amp. Inc. Ring Tongue Terminal		X	X		



TABLE 3-1

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Revision 2
September 1, 1981

SYSTEM

REACTOR ISOLATION

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	LOCATION		STATUS		
		Inside Primary Containment	Outside Primary Containment	Qualified	Qualification Assessment On-Going	To Be Replaced By a Qualified Component
01-01	Main Steam I.V. (In) Motor	X				X
01-02	Main Steam I.V. (In) Motor	X				X
01-03	Main Steam I.V. (Out) PoS		X	X		
01-04	Main Steam I.V. (Out) PoS		X	X		
01-05	Main Steam I.V. By-Pass I.V. PoS		X			X
01-05	Main Steam I.V. By-Pass I.V. SOVs(2)		X			X
01-06	Main Steam I.V. By-Pass I.V. PoS		X			X
01-06	Main Steam I.V. By-Pass I.V. SOVs(2)		X			X
39-07	Emerg. Cond. I.V. (Out) Motor-Oper.		X		X	
39-08	Emerg. Cond. I.V. (Out) Motor-Oper.		X		X	
39-09	Emerg. Cond. I.V. (In) Motor-Oper.		X		X	

SYSTEM

REACTOR ISOLATION

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	LOCATION		STATUS		
		Inside Primary Containment	Outside Primary Containment	Qualified	Qualification Assessment On-Going	To Be Replaced By a Qualified Component
39-10	Emerg. Cond. I.V. (In) Motor		X		X	
39-05	Emerg. Cond. I.V. (Return) PoS		X	X		
39-05	Emerg. Cond. I.V. (Return) SOVs		X			X
39-06	Emerg. Cond. I.V. (Return) PoS		X	X		
39-06	Emerg. Cond. I.V. (Return) SOVs		X			X
33-02	Reactor Clean-Up Outlet I.V. Motor- Oper.	X				X
33-04	Reactor Clean-Up Outlet I.V. Motor- Oper.		X		X	
33-01	Reactor Clean-Up Inlet I.V. Motor- Oper.	X				X
01-01 (MSIV)	Position Switch	X				X
01-02 (MSIV)	Position Switch	X				X



SYSTEM

ADS

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	LOCATION		STATUS		
		Inside Primary Containment	Outside Primary Containment	Qualified	Qualification Assessment On-Going	To Be Replaced By a Qualified Component
1D33A	F.W. Control Sys. Flow Transmitter		X	X		
1D33B	F.W. Control Sys. Flow Transmitter		X	X		
NR-108A	Main Steam - PSV Position Switch and SOV	X				X
NR-108B	Main Steam - PSV Position Switch and SOV	X				X
NR-108C	Main Steam - PSV Position Switch and SOV	X				X
NR-108D	Main Steam - PSV Position Switch and SOV	X				X
NR-108E	Main Steam - PSV Position Switch and SOV	X				X
NR-108F	Main Steam - PSV Position Switch and SOV	X				X



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SYSTEM

CONTAINMENT ISOLATION (DRYWELL)

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	LOCATION		STATUS		
		Inside Primary Containment	Outside Primary Containment	Qualified	Qualification Assessment On-Going	To Be Replaced By a Qualified Component
80-36	Cont. Sp. Inlet IV 112 SOVs (2)		X			X
201-09	Drywell Vent & Purge IV Motor-Oper.		X		X	
201-10	Drywell Vent & Purge IV PoS		X	X		
83.1-09	Drywell Equip. Dr. Pumps Disch. I.V. Motor - Oper.	X				X
83.1-11	Drywell Floor Dr. Pumps Disch. I.V. Motor - Oper.	X				X
83.1-10	Drywell Equip. Dr. Pumps Disch. I.V. PoS		X	X		
83.1-12	Drywell Floor Dr. Pumps Disch. I.V. PoS		X	X		
201-32	Drywell N ₂ Vent & Fill IV PoS		X			X
201-31	Drywell N ₂ Vent & Fill IV Motor Oper.		X		X	



SYSTEM CONTAINMENT ISOLATION (DRYWELL)

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	LOCATION		STATUS		
		Inside Primary Containment	Outside Primary Containment	Qualified	Qualification Assessment On-Going	To Be Replaced By a Qualified Component
201.2-03	Drywell N ₂ Make-up I.V. SOVs ² (2)		X			X
201.2-03	Drywell N ₂ Make-up I.V. PoS		X			X
201.2-32	Drywell N ₂ Make-up I.V. SOVs ² (2)		X			X
201.2-32	Drywell N ₂ Make-up I.V. PoS		X			X
80-15	Cont. Sp. Inlet IV 121 SOVs (2)		X			X
80-16	Cont. Sp. Inlet IV 111 SOVs (2)		X			X
80-16	Cont. Sp. Inlet IV 121 PoS		X	X		
80-35	Cont. Sp. Inlet IV 122 SOVs (2)		X			X
201.2-25	Drywell O ₂ Sample I.V. SOV Type		X		X	
201.2-27	Drywell O ₂ Sample I.V. SOV Type		X		X	
201.2-29	Drywell O ₂ Sample I.V. SOV Type		X		X	

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SYSTEM

CONTAINMENT ISOLATION (DRYWELL)

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	LOCATION		STATUS		
		Inside Primary Containment	Outside Primary Containment	Qualified	Qualification Assessment On-Going	To Be Replaced By a Qualified Component
201.2-28	Drywell O ₂ Sample I.V. SOV ² Type		X		X	
201.2-26	Drywell O ₂ Sample I.V. SOV ² Type		X		X	
201.2-30	Drywell O ₂ Sample I.V. SOV ² Type		X		X	



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SYSTEM

CONTAINMENT ISOLATION (TORUS)

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	LOCATION		STATUS		
		Inside Primary Containment	Outside Primary Containment	Qualified	Qualification Assessment On-Going	To Be Replaced By a Qualified Component
201-07	Vent & Purge I.V. Motor- Oper.		X		X	
201-08	Vent & Purge I.V. Position Switch		X	X		
201.2-06	N ₂ Make-up I.V. POS		X	X		
201.2-06	N ₂ Make-up I.V. SOVs (2)		X			X
201.2-33	N ₂ Make-up I.V. POS		X	X		
201.2-33	N ₂ Make-up I.V. SOVs (2)		X			X
201-16	Vent & Purge I.V. POS		X	X		
201-17	Vent & Purge I.V. Motor - Oper.		X		X	
201.2-23	O ₂ Sampling I.V. SOV		X		X	
201.2-24	O ₂ Sampling I.V. SOV		X		X	
68-08	Torus/Drywell Vac. Relief I.V.s - POS		X	X		
68-09	Torus/Drywell Vac. Relief I.V.s - POS		X	X		

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SYSTEM

CONTAINMENT ISOLATION (TORUS)

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	LOCATION		STATUS		
		Inside Primary Containment	Outside Primary Containment	Qualified	Qualification Assessment On-Going	To Be Replaced By a Qualified Component
68-10	Torus/Drywell Vac. Relief I.V.s - POS		X	X		
68-08C	Torus/Drywell Vac. Relief I.V.s - SOV (1)		X		X	
68-09C	Torus/Drywell Vac. Relief I.V.s - SOV (1)		X		X	
68-10C	Torus-Drywell Vac. Relief I.V. - SOV (1)		X		X	
68-11A	Torus Vac. Switch		X		X	
68-11B	Torus Vac. Switch		X		X	
68-12A	Torus Vac. Switch		X		X	
68-12B	Torus Vac. Switch		X		X	
68-13A	Torus Vac. Switch		X		X	
68-13B	Torus Vac. Switch		X		X	

SYSTEM

CORE SPRAY

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	LOCATION		STATUS		
		Inside Primary Containment	Outside Primary Containment	Qualified	Qualification Assessment On-Going	To Be Replaced By a Qualified Component
81-23	Pump #111 Motor		X		X	
81-50	Topping Pump #111 Motor		X		X	
RV-26A	Loop 11 Disch. Flow Transmitter		X	X		
40-06	Loop 11 Test Return I.V. Motor Operator		X		X	
40-11	Loop 11 Inlet Inside I.V. Motor Operator	X				X
40-10	Loop 11 Inlet Inside I.V. Motor Operator	X				X
40-80	C.S. Loop 12 Disch. Pressure Switch		X		X	
40-07	Loop 11 Disch. Pressure Switch		X		X	
58-05	Level Transmitter		X	X		
58-06	Level Transmitter		X	X		
81-04	C.S. Pump #122		X		X	
81-52	Topping Pump #122 Motor		X		X	



SYSTEM

CORE SPRAY

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	LOCATION		STATUS		
		Inside Primary Containment	Outside Primary Containment	Qualified	Qualification Assessment On-Going	To Be Replaced By a Qualified Component
81-03	Pump #121 Motor		X		X	
81-51	Topping Pump #121 Motor		X		X	
40-05	Loop 12 Test Return I.V. Motor Operator		X		X	
40-01	Loop 12 Inlet Inside I.V. Motor Operator	X				X
40-09	Loop 12 Inlet Inside I.V. Motor Operator	X				X
81-24	Pump #112 Motor		X		X	
81-49	Topping Pump #112 Motor		X		X	



SYSTEM REACTOR VESSEL INSTRUMENTATION

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	LOCATION		STATUS		
		Inside Primary Containment	Outside Primary Containment	Qualified	Qualification Assessment On-Going	To Be Replaced By a Qualified Component
1D46A	Rx Vessel Press. XMTR		X			X
ID46B	Rx Vessel Press. XMTR		X			X
ID45	Rx Vessel Press. XMTR		X			X
36-03A	Rx Vessel Level XMTR.		X	X		
36-03B	Rx Vessel Level XMTR.		X	X		
36-03C	Rx Vessel Level XMTR.		X	X		
36-03D	Rx Vessel Level XMTR.		X	X		
36-04A	Rx Vessel Level XMTR.		X	X		
36-04B	Rx Vessel Level XMTR.		X	X		
36-04C	Rx Vessel Level XMTR		X	X		
36-04D	Rx Vessel Level XMTR.		X	X		
36-05A	Rx Vessel Level XMTR.		X	X		
36-05B	Rx Vessel Level XMTR.		X	X		
36-05C	Rx Vessel Level XMTR.		X	X		
36-05D	Rx Vessel Level XMTR.		X	X		
1A12	Rx Vessel Level XMTR.		X			X



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SYSTEM REACTOR VESSEL INSTRUMENTATION

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	LOCATION		STATUS		
		Inside Primary Containment	Outside Primary Containment	Qualified	Qualification Assessment On-Going	To Be Replaced By a Qualified Component
36-03 A-D	Trip Units (4) Master		X	X		
36-03 A-D	Trip Units (4) Slave		X	X		
36-04 A-D (4)	Trip Unit (Master)		X	X		
36-08 A-D (4)	Trip Unit (Master)		X	X		
36-08 A-D (4)	Trip Unit (Slave)		X	X		
36-05 A-D	Trip Unit (Master)		X	X		
36-07 A-D (4)	Trip Unit (Master)		X	X		
36-07 A-D (4)	Trip Unit (Slave)		X	X		
36-07 A-D	Press. Trans.		X	X		
36-08A	Press. Trans.		X	X		
36-08B	Press. Trans.		X	X		
36-08C	Press. Trans.		X	X		
36-08D	Press. Trans.		X	X		

SYSTEM

ADDITIONAL INSTRUMENTATION

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	LOCATION		STATUS		
		Inside Primary Containment	Outside Primary Containment	Qualified	Qualification Assessment On-Going	To Be Replaced By a Qualified Component
1B10A	Temp. Switch		X	X		
1B10B	Temp. Switch		X	X		
1B10C	Temp. Switch		X	X		
1B10D	Temp. Switch		X	X		
1B10E	Temp. Switch		X	X		
1B10F	Temp. Switch		X	X		
1B10G	Temp. Switch		X	X		
1B10H	Temp. Switch		X	X		
1B10J	Temp. Switch		X	X		
1B10K	Temp. Switch		X	X		
1B10L	Temp. Switch		X	X		
1B10M	Temp. Switch		X	X		
1B10N	Temp. Switch		X	X		
1B10P	Temp. Switch		X	X		
1B10Q	Temp. Switch		X	X		
1B10R	Temp. Switch		X	X		



SYSTEM

ADDITIONAL INSTRUMENTATION

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	LOCATION		STATUS		
		Inside Primary Containment	Outside Primary Containment	Qualified	Qualification Assessment On-Going	To Be Replaced By a Qualified Component
201.2-476A-D (4)	Trip Unit (Master)		X	X		
36-06A-D (4)	Trip Unit (Master)		X	X		
01-26A-H (8)	Trip Unit (Master)		X	X		
01-26A-H (8)	D/Press. Transmitter		X	X		



SYSTEM

REACTOR BUILDING CLOSED LOOP COOLING

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	LOCATION		STATUS		
		Inside Primary Containment	Outside Primary Containment	Qualified	Qualification Assessment On-Going	To Be Replaced By a Qualified Component
70-01	Rx Cooling Water Pump #11 Motor		X		X	
70-02	Rx Cooling Water Pump #12 Motor		X		X	
70-03	Rx Cooling Water Pump #13 Motor		X		X	
70-137	E/P to TCV/70-137		X	X		
70-23	Temp. Element in Cool Water Line After Heat Exchange		X		X	

SYSTEM

CONTROL ROD DRIVE

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	LOCATION		STATUS		
		Inside Primary Containment	Outside Primary Containment	Qualified	Qualification Assessment On-Going	To Be Replaced By a Qualified Component
NC08A	CRD Pump #11 Motor		X		X	
NC08B	CRD Pump #12 Motor		X		X	
NC16A	CRD Scram SOV		X			X
NC16B	CRD Scram SOV		X			X
NC15A	CRD Scram SOV		X			X
NC15B	CRD Scram SOV		X			X



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SYSTEM

POWER DISTRIBUTION

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	LOCATION		STATUS		
		Inside Primary Containment	Outside Primary Containment	Qualified	Qualification Assessment On-Going	To Be Replaced By a Qualified Component
N/A	Power Board (PB) 16B		X		X	
N/A	PB 17B		X		X	
N/A	PB 167		X		X	
N/A	PB 161B		X		X	
N/A	PB 171B		X		X	
N/A	PB 1671		X		X	

SYSTEM

EMERGENCY CONDENSERS

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	LOCATION		STATUS		
		Inside Primary Containment	Outside Primary Containment	Qualified	Qualification Assessment On-Going	To Be Replaced By a Qualified Component
36-06 (A-D) (4)	PT (RPS)		X	X		
IB06-23	Emer. Conds. Area - TE		X		X	
IB06-24	Emer. Conds. Area - TE		X		X	
IB06-13	Emer. Conds. Area - TE		X		X	
IB-6-14	Emer. Conds. Area - TE		X		X	

SYSTEM

CONTAINMENT SPRAY

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	LOCATION		STATUS		
		Inside Primary Containment	Outside Primary Containment	Qualified	Qualification Assessment On-Going	To Be Replaced By a Qualified Component
80-47	Pump #111 Disch. Press. Transmitter		X			X
80-69	Pump #112 Disch. Press. Transmitter		X			X
80-54	Pump #121 Disch. Press. Transmitter		X			X
80-75	Pump #122 Disch. Press. Transmitter		X			X
80-04	Containment Spray Pump #111 Motor		X		X	
80-24	Containment Spray Pump #112 Motor		X		X	
80-03	Containment Spray Pump #121 Motor		X		X	
80-23	Containment Spray Pump #122 Motor		X		X	
80-61	Pump #112 Disch. Press. Switch		X		X	
80-60	Pump #121 Disch. Press. Switch		X		X	
93-25	R.W. Pump #111 Disch. B.V. Motor Operator		X		X	



SYSTEM

CONTAINMENT SPRAY

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	LOCATION		STATUS		
		Inside Primary Containment	Outside Primary Containment	Qualified	Qualification Assessment On-Going	To Be Replaced By a Qualified Component
93-50	R.W. Pump #112 Disch. B.V. Motor Operator		X		X	
93-28	R.W. Pump #112 Disch. B.V. Motor Operator		X		X	
93-49	R.W. Pump #121 Disch. B.V. Motor Operator		X		X	
93-26	R.W. Pump #121 Disch. B.V. Motor Operator		X		X	
93-27	R.W. Pump #122 Disch. B.V. Motor Operator		X		X	
201.2-476A	Drywell Press. Trans. (RPS)		X	X		
201.2-476B	Drywell Press. Trans. (RPS)		X	X		
201.2-476C	Drywell Press. Trans. (RPS)		X	X		
201.2-476D	Drywell Press. Trans. (RPS)		X	X		

TABLE 3-2

Items Deleted from the Current

79-01B Scope

TABLE 3-2

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ITEM: ELECTRICAL EQUIPMENT COMMON TO ALL SYSTEMS

NMP-1

COMPONENTS			
PLANT IDENTIFICATION NUMBER	GENERIC NAME	DELETED BASED ON	
		MILD ENVIRONMENT	SAFETY RELATED FUNCTION
Flexible Watertite Electrical Cond.	Sealtite Conduit Various Sizes		X (metallic)
Flex. Cond. Fittings	Sealtite Fittings Various Sizes		X (metallic)
J. B. #XXXXX-A Thru ZZZ	Junction Boxes Various Sizes		X (metallic)
Cope - Traymaster Cable Tray	Cable Trays Various Sizes		X (metallic)
Cope - Cable Tray Fittings	Cable Tray Fittings Various Sizes		X (metallic)
Thermocouple Cable (Single Pr.)	Cu-Cn Type T S.S. Sheath		X (metallic)
Rigid Elec. Conduit and Fittings	Galvanized Conduit		X (metallic)

TABLE 3-2

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SYSTEM: REACTOR ISOLATION

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	DELETED BASED ON	
		MILD ENVIRONMENT	SAFETY RELATED FUNCTION
01-03	Main Steam I.V. (Out) SOVs (2)		X
01-04	Main Steam I.V. (Out) SOVs (2)		X



TABLE 3-2

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STEM: CONTAINMENT ISOLATION (DRYWELL)

NMP-1

COMPONENTS			
PLANT IDENTIFICATION NUMBER	GENERIC NAME	DELETED BASED ON	
		MILD ENVIRONMENT	SAFETY RELATED FUNCTION
80-36	Cont. Sp. Inlet IV 112 PoS		X
201-10	Drywell Vent & Purge IV SOVs (2)		X
70-94	Drywell Cooling Out IV Motor - oper.		X
70-92	Recirc. Pump Cooling Outlet IV Motor-oper.		X
83.1-10	Drywell Equip. Dr. PoS Pumps Disch. I.V. SOV		X
83.1-12	Drywell Floor Dr. PoS Pumps Disch. I.V. SOV		X
201-32	Drywell N ₂ Vent & Fill IV SOVs (2)		X
80-15	Cont. Sp. Inlet IV 121 PoS		X
80-16	Cont. Sp. Inlet IV 111 PoS		X
80-35	Cont. Sp. Inlet IV 122 PoS		X

TABLE 3-2

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STEM: CONTAINMENT ISOLATION (TORUS)

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	DELETED BASED ON	
		MILD ENVIRONMENT	SAFETY RELATED FUNCTION
201-08	Vent & Purge I.V. SOVs (2)		X
58.1-01	Cond. Make-up I.V. POS		X
58.1-01	Cond. Make-up I.V. SOVs (2)		X
201-16	Vent & Purge I.V. SOVs (2)		X
68-01	Torus/Drywell Vac. Relief I.V.s - POS		X
68-02	Torus/Drywell Vac. Relief I.V.s - POS		X
68-03	Torus/Drywell Vac. Relief I.V.s - POS		X
68-04	Torus/Drywell Vac. Relief I.V.s - POS		X
68-05	Torus/Drywell Vac. Relief I.V.s - POS		X
68-06	Torus/Drywell Vac. Relief I.V.s - POS		X
68-07	Torus/Drywell Vac. Relief I.V.s - POS		X

TABLE 3-2

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STEM: CONTAINMENT ISOLATION (TORUS)

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	DELETED BASED ON	
		MILD ENVIRONMENT	SAFETY RELATED FUNCTION
68-01C	Torus/Drywell Vac. Relief I.V.s - SOV (1)		X
68-02C	Torus/Drywell Vac. Relief I.V.s - SOV (1)		X
68-03C	Torus/Drywell Vac. Relief I.V.s - SOV (1)		X
68-04C	Torus/Drywell Vac. Relief I.V.s - SOV (1)		X
68-05C	Torus/Drywell Vac. Relief I.V.s - SOV (1)		X
68-06C	Torus/Drywell Vac. Relief I.V.s - SOV (1)		X
68-07C	Torus/Drywell Vac. Relief I.V.s - SOV (1)		X

TABLE 3-2

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STEM: CORE SPRAY

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	DELETED BASED ON	
		MILD ENVIRONMENT	SAFETY RELATED FUNCTION
RV-03A	Loop 11 Disch. Press. Transmitter		X (RG1.97 item)
81-21	Pump 111 Suction I.V. Motor Operator		X
58-04	Level Transmitter		X (RG1.97 item)
93-51	Raw Water to Core Spray BV Motor -oper.		X
93-52	Raw Water to Core Spray BV Motor -oper.		X
81-02	C.S. Pump #122 Suction I.V. Motor Operator		X
RV-03B	C.S. Loop 12 Disch. Press. Transmitter		X (RG1.97 item)
81-01	Pump #121 Suction I.V. Motor Operator		X
RV-26B	Loop 12 Disch. Flow Transmitter		X (RG1.97 item)
81-22	Pump #112 Suction I.V. Motor Operator		X
201.2-07D	Level Switch -Elec. Torus Lvl Alarm		X

TABLE 3-2

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SYSTEM: REACTOR VESSEL INSTRUMENTATION

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	DELETED BASED ON	
		MILD ENVIRONMENT	SAFETY RELATED FUNCTION
P101	Rx Vessel Press. XM		X (RG1.97 item)
IA07	Rx Vessel D/Press. XM		X
1D13A	Level Transmitter		X
1D13B	Level Transmitter		X
RE16A	Pressure Indicating Switch		X
RE16B	Pressure Indicating Switch		X
RV-30	Rx Vessel D/Press. Indicating Switch		X



TABLE 3-2

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STEM: ADDITIONAL INSTRUMENTATION

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	DELETED BASED ON	
		MILD ENVIRONMENT	SAFETY RELATED FUNCTION
IJ-12	Clean-up System Flow Transmitter		X
IJ-90	Clean-up System Flow Switch		X
RN-05A through RN-05D	Main steam line radiation elements		X

TABLE 3-2

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ITEM: REACTOR BUILDING CLOSED LOOP COOLING

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	DELETED BASED ON	
		MILD ENVIRONMENT	SAFETY RELATED FUNCTION
70-19	Cooling Water Line Temp. Element		X
71-127A	C.L.C. Make-up Tank Level Switch		X

TABLE 3-2

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SYSTEM: FEEDWATER FLOW - HIGH PRESSURE (HPCI)

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	DELETED BASED ON	
		MILD ENVIRONMENT	SAFETY RELATED FUNCTION

TABLE 3-2

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STEM: FEED WATER FLOW - LOW PRESSURE (HPCI)

NMP-1

COMPONENTS

COMPONENTS			
PLANT IDENTIFICATION NUMBER	GENERIC NAME	DELETED BASED ON	
		MILD ENVIRONMENT	SAFETY RELATED FUNCTION



TABLE 3-2

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Revision 2
September 1, 1981

SYSTEM: FEED WATER FLOW (HPCI)

NMP-1

COMPONENTS			
PLANT IDENTIFICATION NUMBER	GENERIC NAME	DELETED BASED ON	
		MILD ENVIRONMENT	SAFETY RELATED FUNCTION
System deleted based on safety related functions			



TABLE 3-2

Page 13 of 22
Revision 2
September 1, 1981

ITEM: CONTROL ROD DRIVE

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	DELETED BASED ON	
		MILD ENVIRONMENT	SAFETY RELATED FUNCTION
RD68A	CRD Pump #11 Press. Switch		X
RD68B	CRD Pump #12 Press. Switch		X
55-05	Demin. Water Storage Tank SOV for BV/55-05		X
NC30A	CRD Water Position Switch for FCV/NC30A		X
NC30A	E/P for FCV/NC30A		X
NC30B	CRD Water Position Switch for FCV/NC30B		X
NC30B	E/P for FCN/NC30B		X
RD35	CRD Water - Flow Xm		X
NC22	Scram Discharge Volume SOV		X
55-05	Demin. Water Storage Tank Position Switch for BV/55-05		X

TABLE 3-2

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Revision 2
September 1, 1981

SYSTEM: RPS - UNINTERRUPTIBLE POWER SUPPLY
MG SET 162 & 172

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	DELETED BASED ON	
		MILD ENVIRONMENT	SAFETY RELATED FUNCTION
System deleted based on mild environment			

TABLE 3-2

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Revision 2
September 1, 1981

SYSTEM: POWER DISTRIBUTION

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	DELETED BASED ON	
		MILD ENVIRONMENT	SAFETY RELATED FUNCTION
N/A	PB 11	X	
N/A	PB 12	X	
N/A	PB 101	X	
N/A	PB 13	X	
N/A	PB 14	X	
N/A	PB 131	X	
N/A	PB 141	X	
N/A	RPS Bus 11, 12	X	

SYSTEM: REACTOR BUILDING
EMERGENCY VENTILATION

[illegible]

TABLE 3-2

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Revision 2
September 1, 1981

SYSTEM: EMERGENCY CONDENSERS

NMP-1

COMPONENTS			
PLANT IDENTIFICATION NUMBER	GENERIC NAME	DELETED BASED ON	
		MILD ENVIRONMENT	SAFETY RELATED FUNCTION
		System deleted based on safety related function except for Plant ID No. 36-06(A-D) , IB06-23, 24, 13, 14	



TABLE 3-2

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September 1, 1981

SYSTEM: CONTAINMENT SPRAY

NMP-1

COMPONENTS			
PLANT IDENTIFICATION NUMBER	GENERIC NAME	DELETED BASED ON	
		MILD ENVIRONMENT	SAFETY RELATED FUNCTION
80-49A	Pump #111 Disch. Flow Transmitter		X
80-50	Pump #111 Disch. Temp. Element		X
80-52	Pump #111 Disch. Temp. Element		X
80-71A	Pump #112 Disch. Flow Transmitter		X
80-56A	Pump #121 Disch. Flow Transmitter		X
80-76A	Pump #122 Disch. Flow Transmitter		X
80-62	Pump #121 Disch. D/P Switch		X
80-85	Pump #112 Disch. D/P Switch		X
93-30A	R.W. Pump #111 Disch. Flow Transmitter		X
RN-38A ₁	R.W. Pump #111 Disch. Radiation Element		X (RGL.97 item)
93-32A	R.W. Pump #112 Disch. Flow Transmitter		X



TABLE 3-2

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 Revision 2
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SYSTEM: CONTAINMENT SPRAY

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	DELETED BASED ON	
		MILD ENVIRONMENT	SAFETY RELATED FUNCTION
RN-38A ₂	R.W. Pump #112 Disch. Radiation Element		X (RG1.97 item)
93-33A	R.W. Pump #121 Disch. Flow Transmitter		X
RN-38B ₁	R.W. Pump #121 Disch. Radiation Element		X
93-34A	R.W. Pump #122 Disch. Flow Transmitter		X
RN38B ₂	R.W. Pump #122 Disch. Radiation Element		X
80-106	Torus Area - East Level Transmitter		X
80-109	Torus Area - West Level Transmitter		X
201.2-01	Drywell Press. Trans. (RPS)		X
201.2-13	Drywell Press. Trans. (RPS)		X

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NMP-1

[illegible]



TABLE 3-2

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SYSTEM: H₂ O₂ MONITORING SYSTEM #12

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	DELETED BASED ON	
		MILD ENVIRONMENT	SAFETY RELATED FUNCTION
System deleted based on safety related function			



TABLE 3-2

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SYSTEM: CAD

NMP-1

COMPONENTS

PLANT IDENTIFICATION NUMBER	GENERIC NAME	DELETED BASED ON	
		MILD ENVIRONMENT	SAFETY RELATED FUNCTION
System deleted based on safety related function			



TABLE 3-3

Display Instrumentation

TABLE 3-3
DISPLAY INSTRUMENTATION

<u>Items Listed in LOCA and/or HELB Procedures</u>	<u>Instrumentation Component in Harsh Environment - Evaluation Sheet Included in Appendix A</u>
Vessel level	36-03A-D, 36-04A-D, 36-05A-D, IA-12
Vessel pressure	ID46A, ID46B, ID45
High drywell pressure alarm	202.2-476 A-D
High drywell temperature	
High drywell radiation alarm	
Drywell leak detector	
Drywell high rate of rise	
Drywell sump pump excessive operation	
Steam flow/feed flow mismatch	
All rods in	
Neutron flux decreasing	
Containment isolation	Containment isol. systems list position switch
Vessel isolation	Reactor isol. system list position switch

Items Listed in
LOCA and/or HELB Procedures

Instrumentation Component
in Harsh Environment - Evaluation
Sheet Included in Appendix A

Stop, intercept valves closed

Containment and reactor isol.
systems position switch

DC oil pumps running

Emergency seal oil pump running

Breaker R-111 open

CRD pump running

Loss of 115KV

Breakers R-1012 and R-1013 open

Auto. depressurization

NR-10~~8~~ A-F position switches

Core spray running

40-80, 40-07 pressure
switches

Condensate pump running

Core spray flow

Feedwater flow

Torus water temperature

Containment O₂ and H₂

Condensate surge and storage
tank levels

Torus water level

58-05, 58-06

Items Listed in
LOCA and/or HELB Procedures

Instrumentation Component
in Harsh Environment - Evaluation
Sheet Included in Appendix A

Automatic actions

RVI and AI system trip
units and transmitter

Drywell pressure

201.2-476 A-D

Demin. water tank level

Emergency condenser makeup
tank level

Diesel generator start

Reactor bldg. emergency
ventilation operating

345KV power trip

Disconnect 18 open

Emergency condenser in service

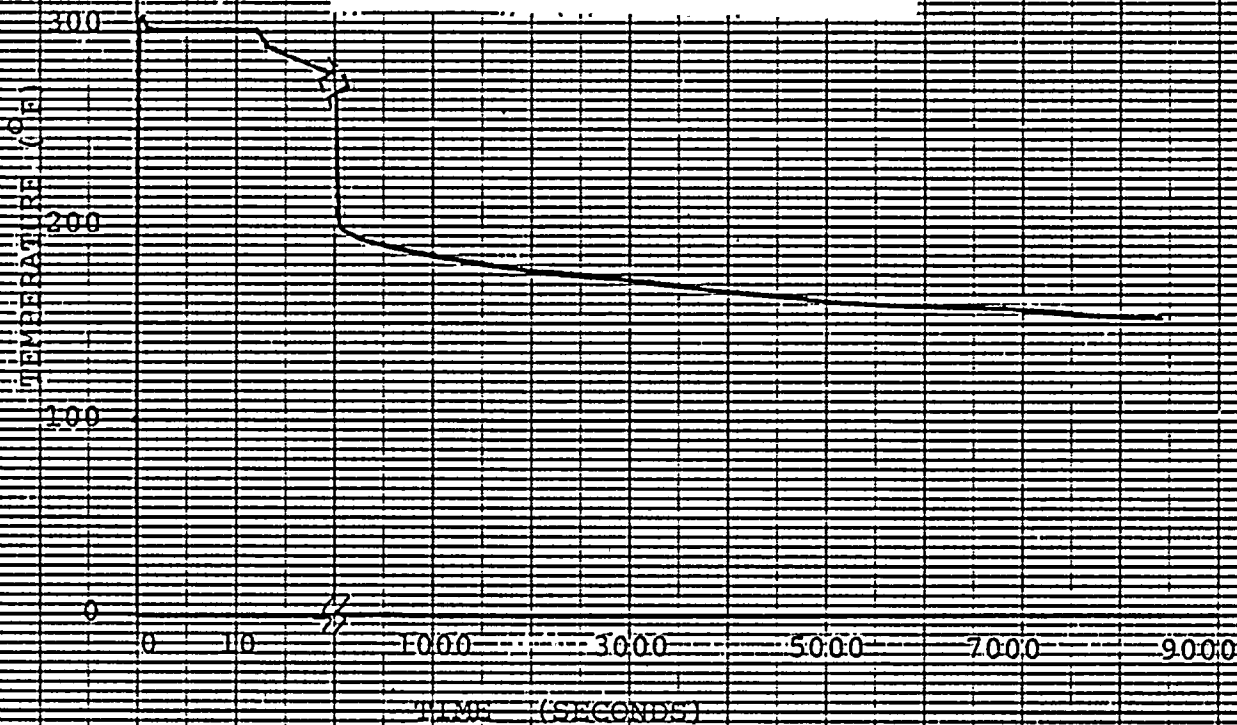
TABLE 4-1
Limiting Pressure and Temperature

TABLE 4-1
Limiting Pressure and Temperature

Location		Elev.	Peak Pressure (psig)	Peak Temperature (°F)	Profile
1.	Steam Tunnel	240	17.3	308	Fig. 4-1
2.	Condenser				
	Area of Turbine	243-	2.3	285	Fig. 4-2
	Building\	297			
3.	Remainder of Turbine	All	0.4	133	Fig. 4-3
	Building	Elev.			
4.	Emer. Cooling	340	0.5	307	Fig. 4-4
	Condenser Area				
5.	Containment Spray	318	5	305	Fig. 4-5
	Heat Exchanger Area				
6.	Emer. Cond. Iso.	298	9	305	Fig. 4-6
	Valve Cubicle				
7.	Emer. Cond. Return	281	9..	278	Fig. 4-7
	Valve Cubicle				
8.	Clean Up System	261	4	224	Fig. 4-8
	Cubicles				
9.	Floor-Area	340	0.4	205	Fig. 4-9
10.	Floor Area	318	1	300	Fig. 4-9
11.	Floor Area	298	1	300	Fig. 4-9
12.	Floor Area	281	1	212	Fig. 4-9
13.	Floor Area	261	1	202	Fig. 4-9
14.	East Instr. Rm.	281	1	212	Fig. 4-9
15.	West Instr. Rm.	281	1	212	Fig. 4-9
16.	Instr. Rm.	237	1	165	Fig. 4-10
17.	Floor Area	237	1	126	Fig. 4-11
18.	Floor Area	198	1	110	Fig. 4-11
19.	Inside Containment		35	301	Fig. 4-12A, 4-12B

FIG. 4-1

LIMITING TRANSIENT TEMPERATURE AND PRESSURE IN STEAM TUNNEL



NOTE CHANGE IN TIME SCALE

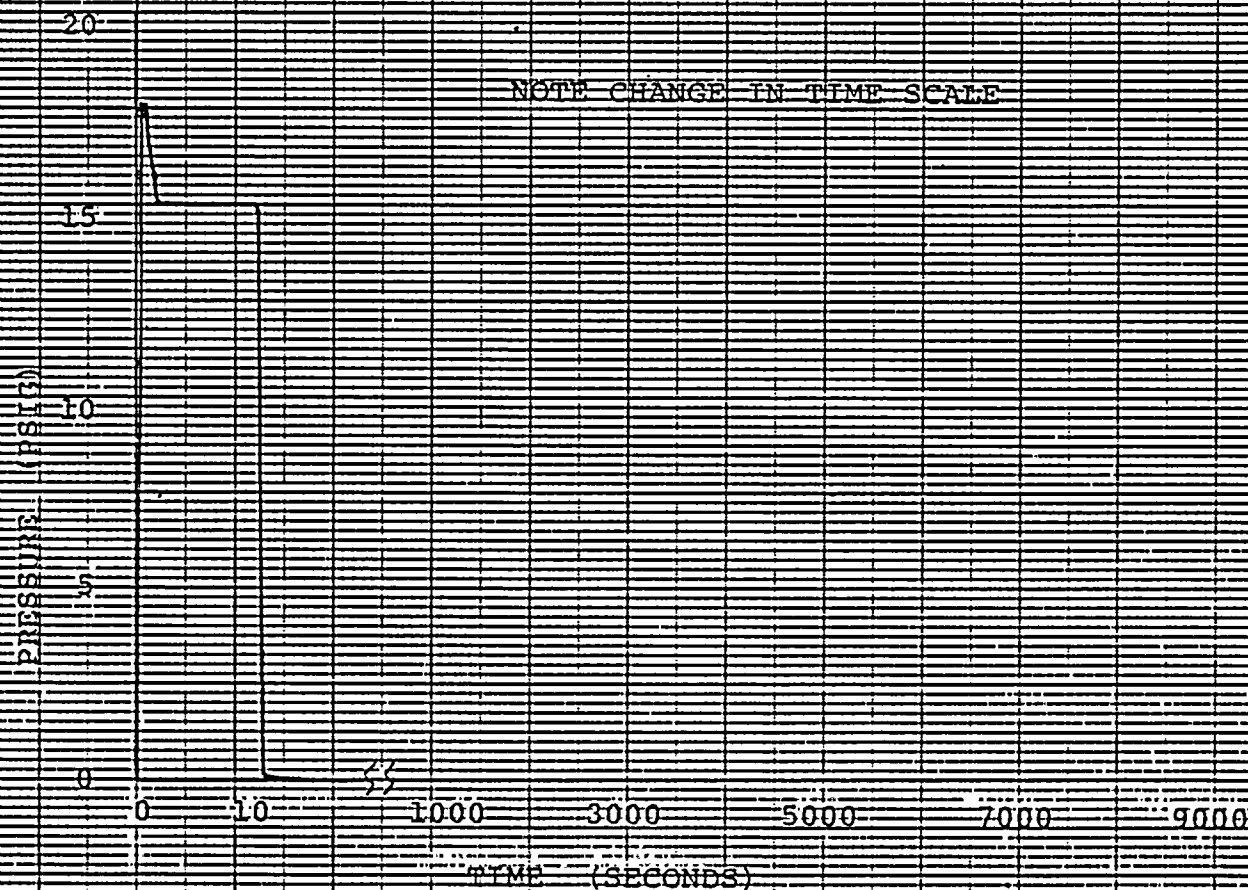
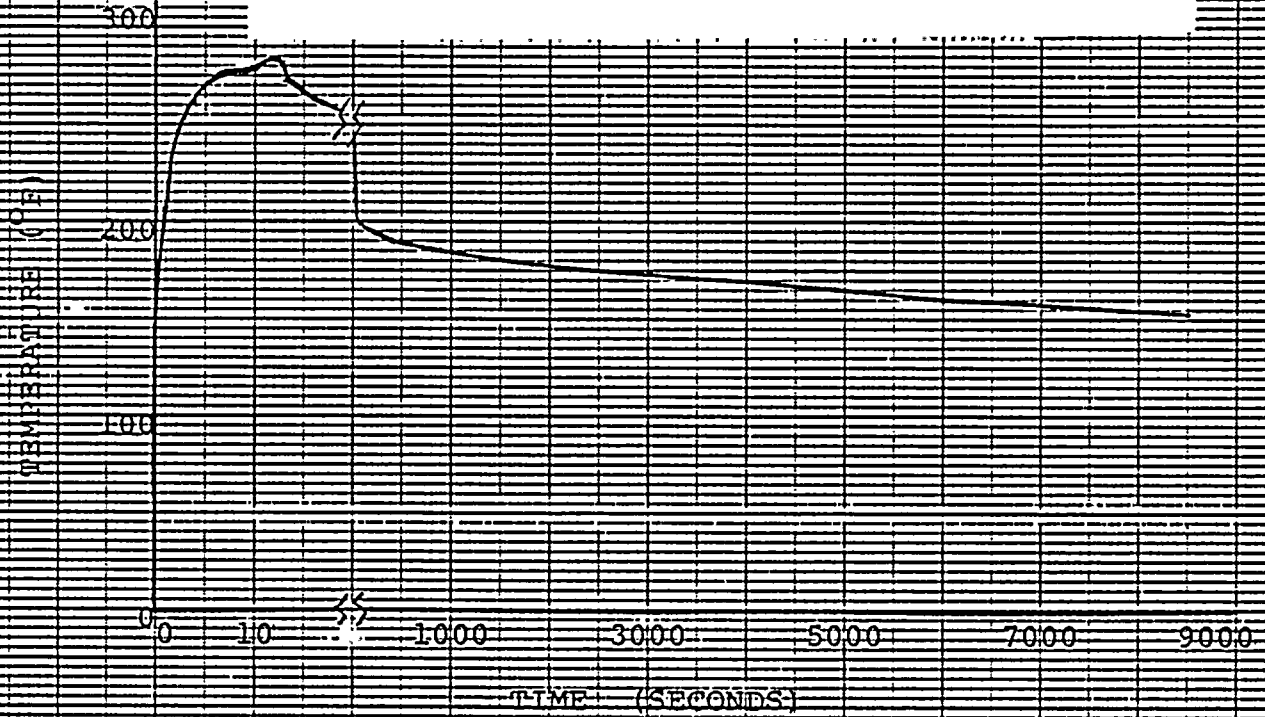




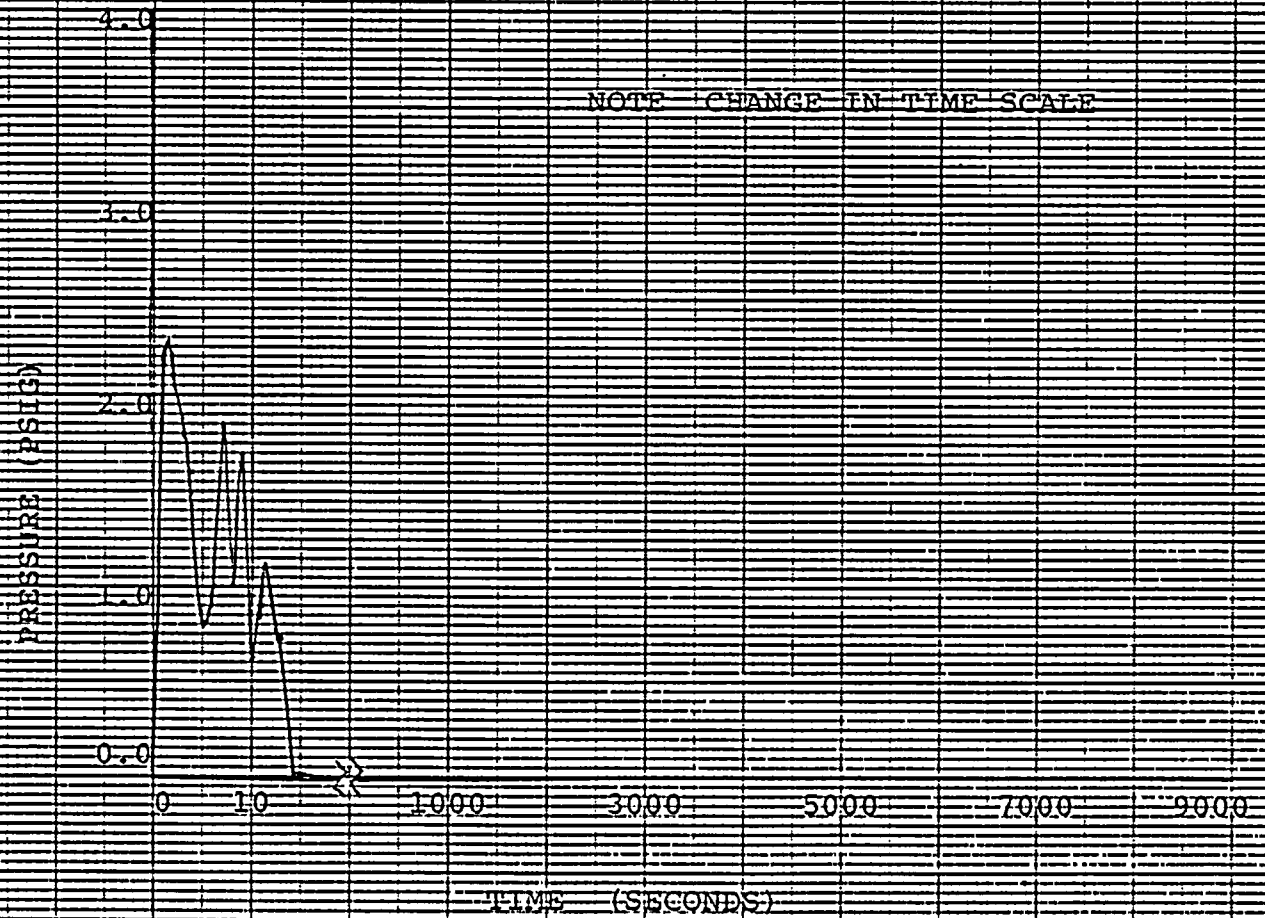
Fig. 2

LIMITING TRANSIENT TEMPERATURE AND PRESSURE IN CONDENSATE AREA OF TURBINE BUILDING



TIME (SECONDS)

NOTE CHANGE IN TIME SCALE



TIME (SECONDS)



Fig. 4-3

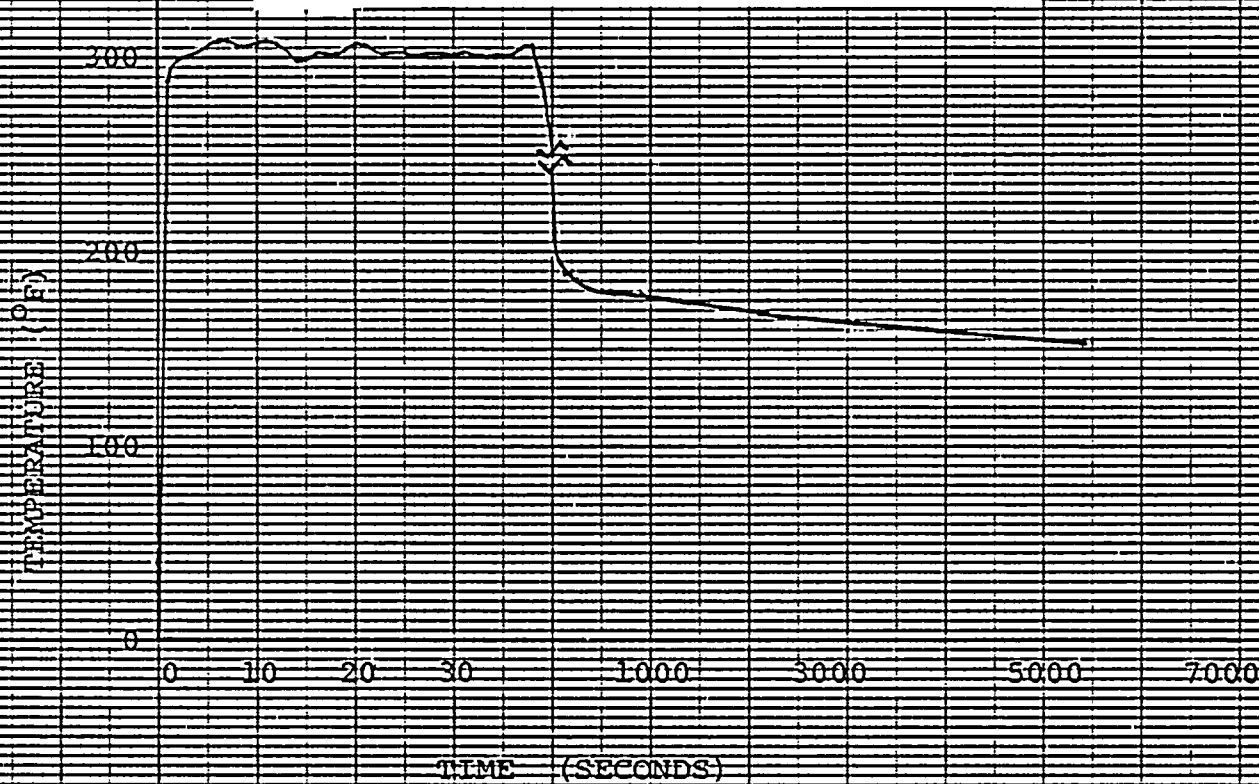
LIMITING TRANSIENT TEMPERATURE AND PRESSURE IN THE TURBINE BUILDING





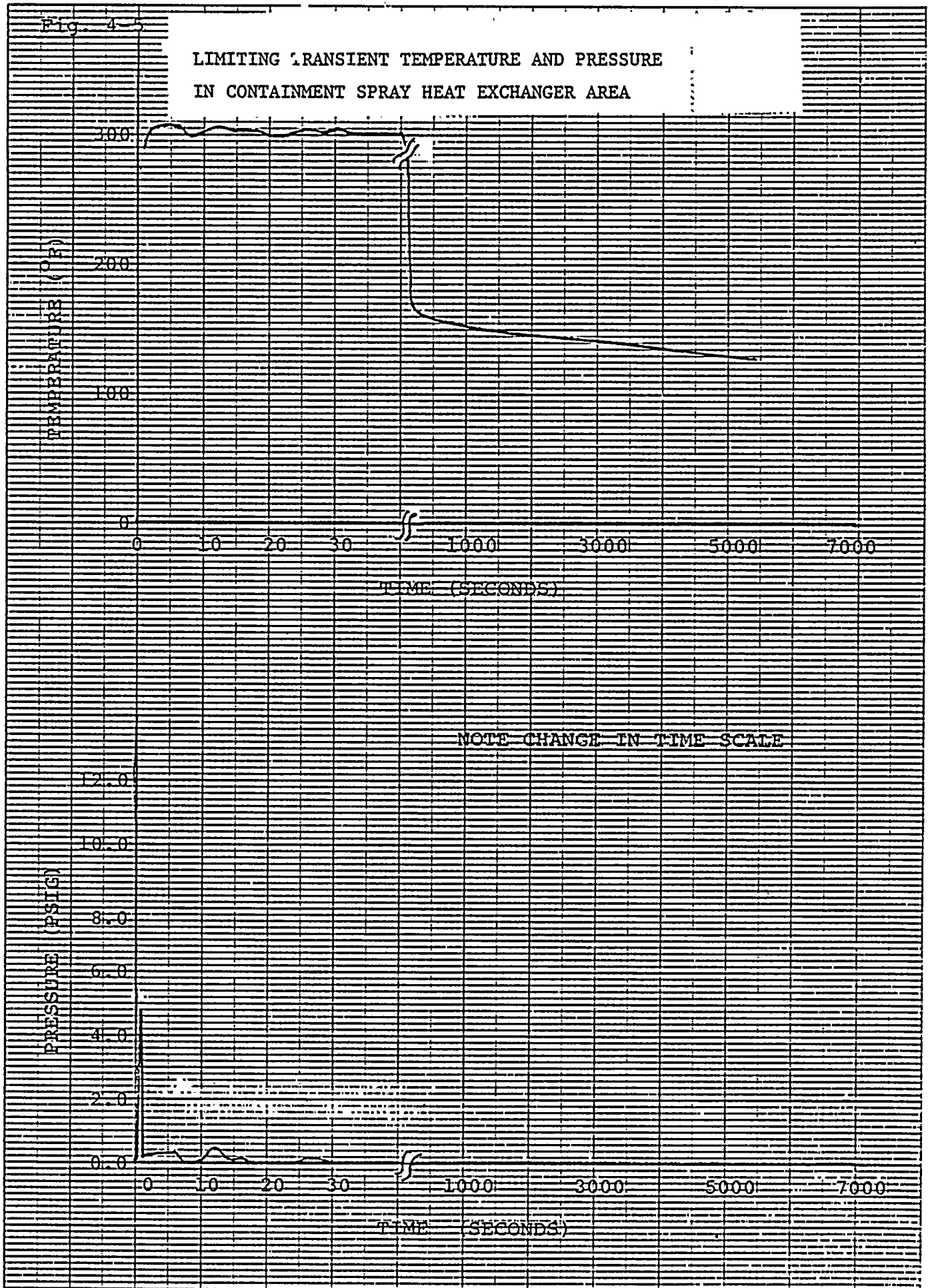
Fig. 4-4

LIMITING TEMPERATURE AND PRESSURE IN EMERGENCY COOLING CONDENSER AREA



NOTE CHANGE IN TIME SCALE







46 1320

K&E 10 X 10 TO 1 1/2 INCH 7 X 10 INCHES
KEUFEL & ESSER CO. MADE IN U.S.A.

Fig. 4-6

LIMITING TRANSIENT TEMPERATURE AND PRESSURE
IN EMERGENCY CONDENSER ISOLATION VALVE
CUBICLE



NOTE CHANGE IN TIME SCALE

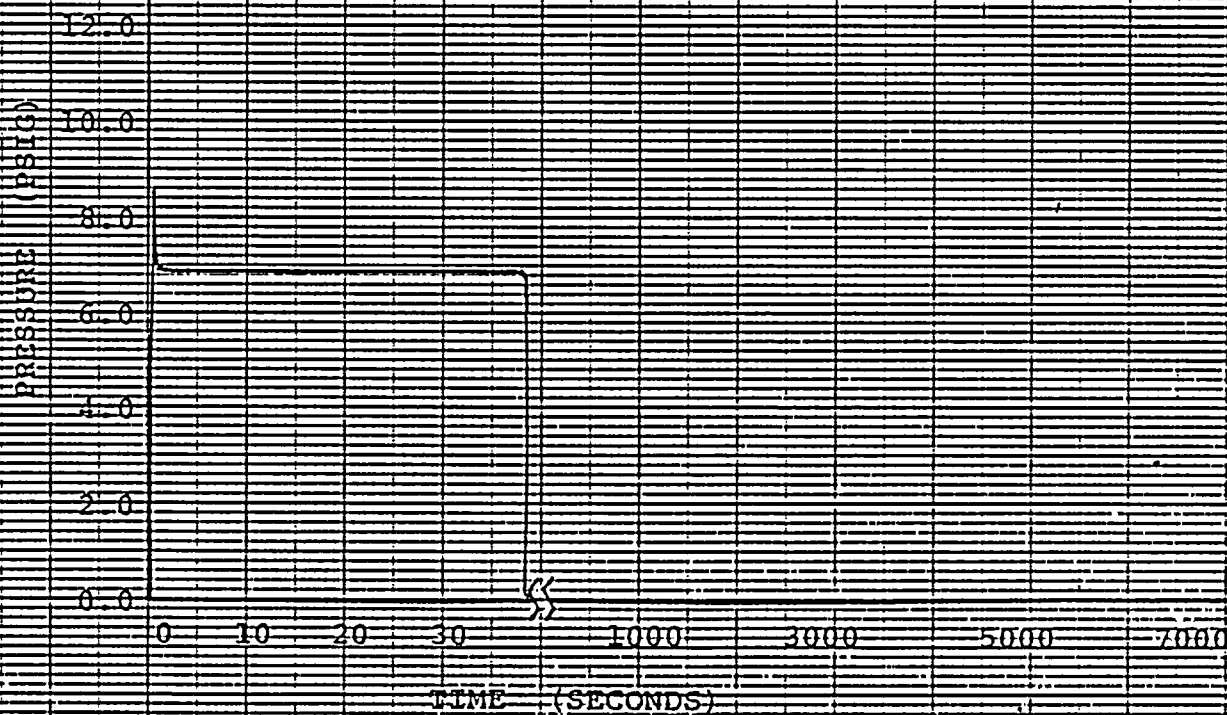




Fig. 4-7

LIMITING TRANSIENT TEMPERATURE AND PRESSURE IN EMERGENCY CONDENSER RETURN VALVE CUBICLE



NOTE CHANGE IN TIME SCALE

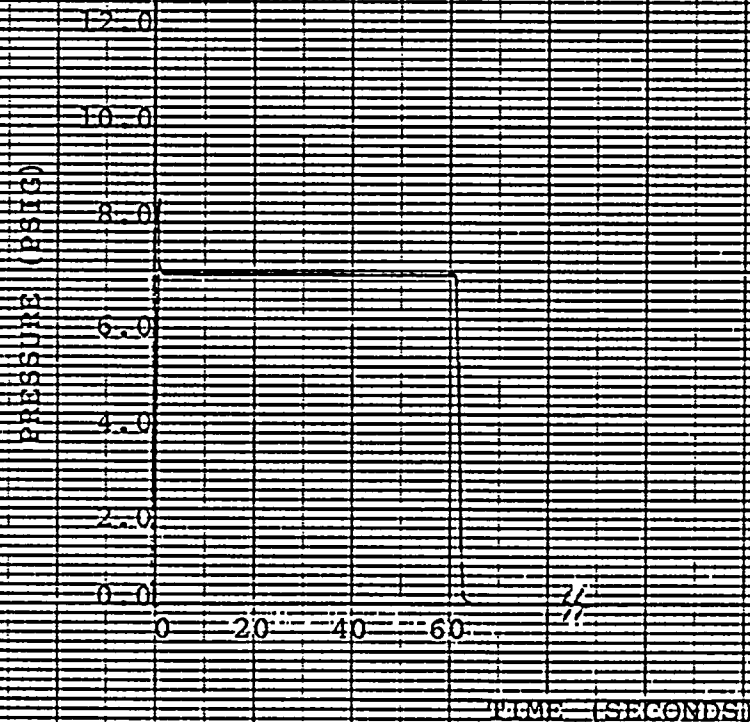
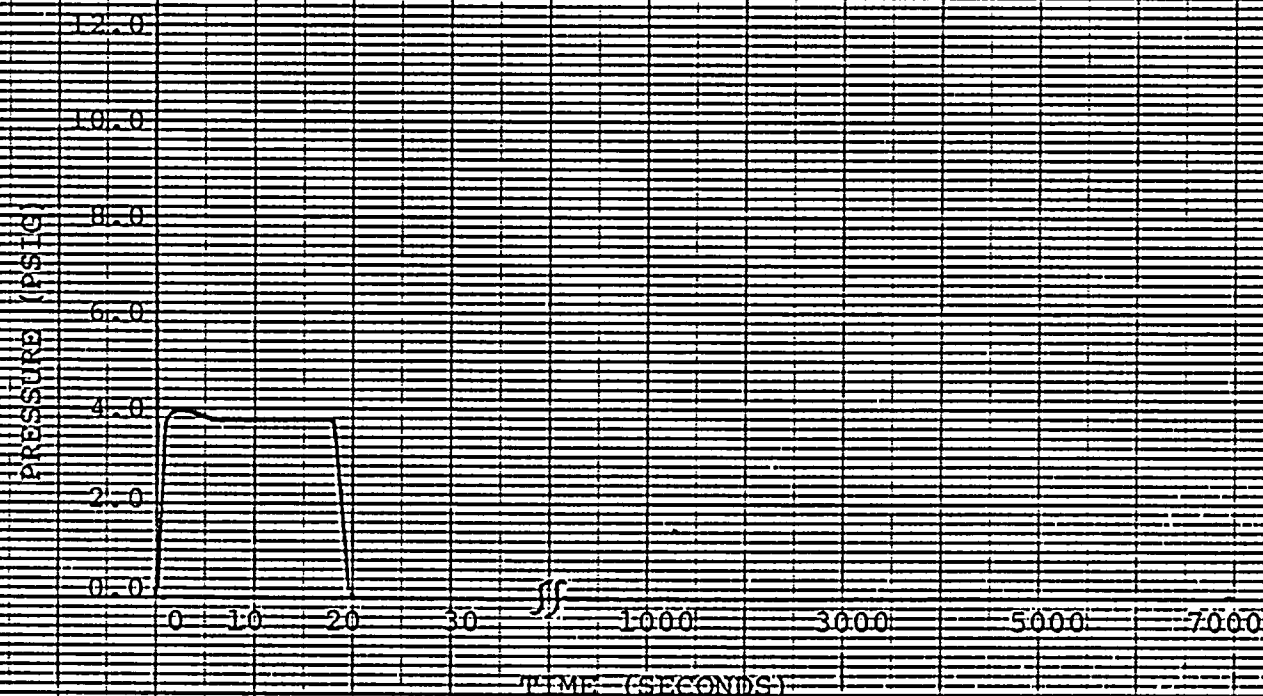
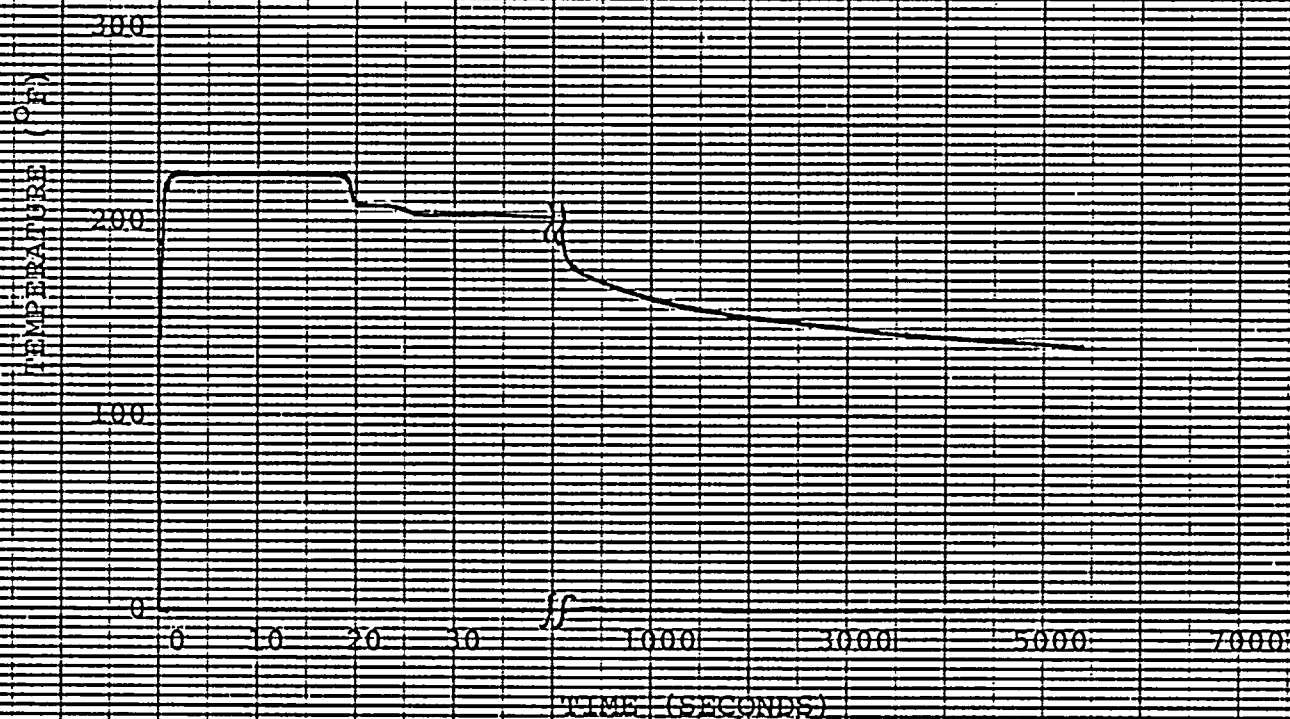


Fig. 4-8

LIMITING TRANSIENT TEMPERATURE AND PRESSURE IN CLEAN-UP SYSTEM CUBICLE

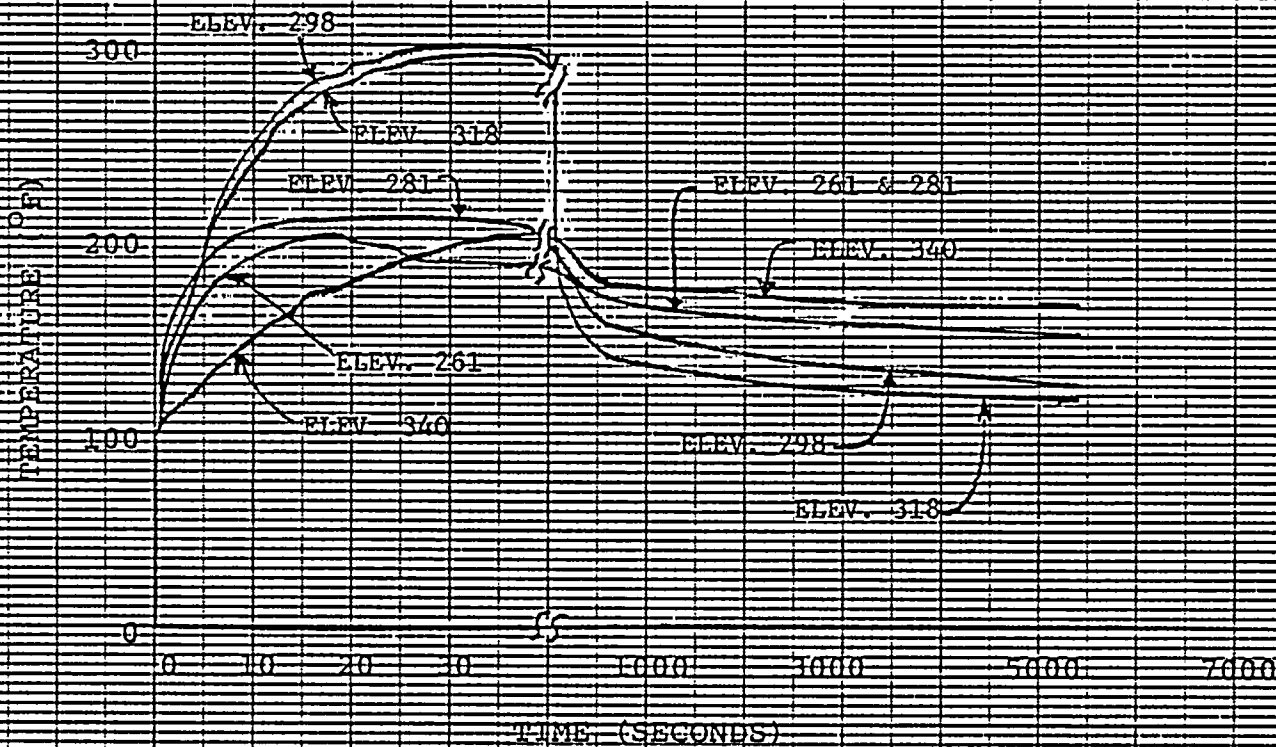


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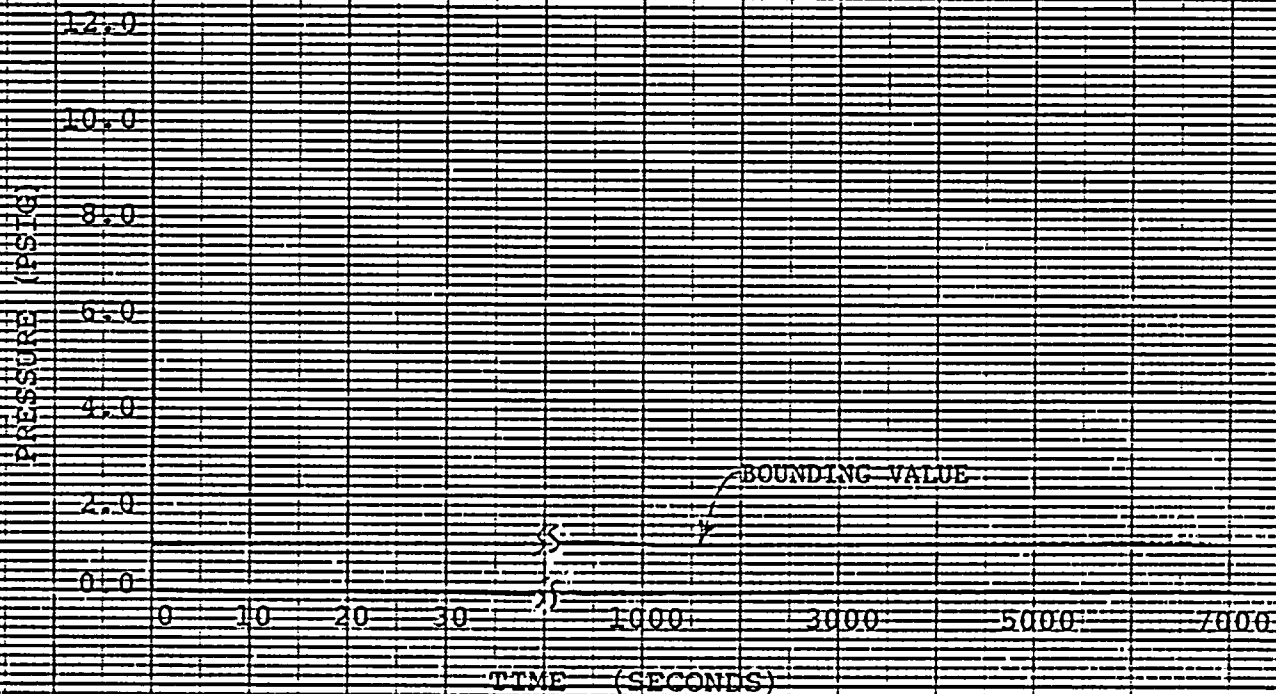
46 1320

K&E 10 X 10 TO 1/2 INCH 7 X 10 INCHES
KLUFFEL & LESSER CO. MADE IN U.S.A.

LIMITING TEMPERATURE AND PRESSURE IN OPEN FLOOR AREAS NOT NEAR BREAK LOCATIONS



NOTE CHANGE IN TIME SCALE



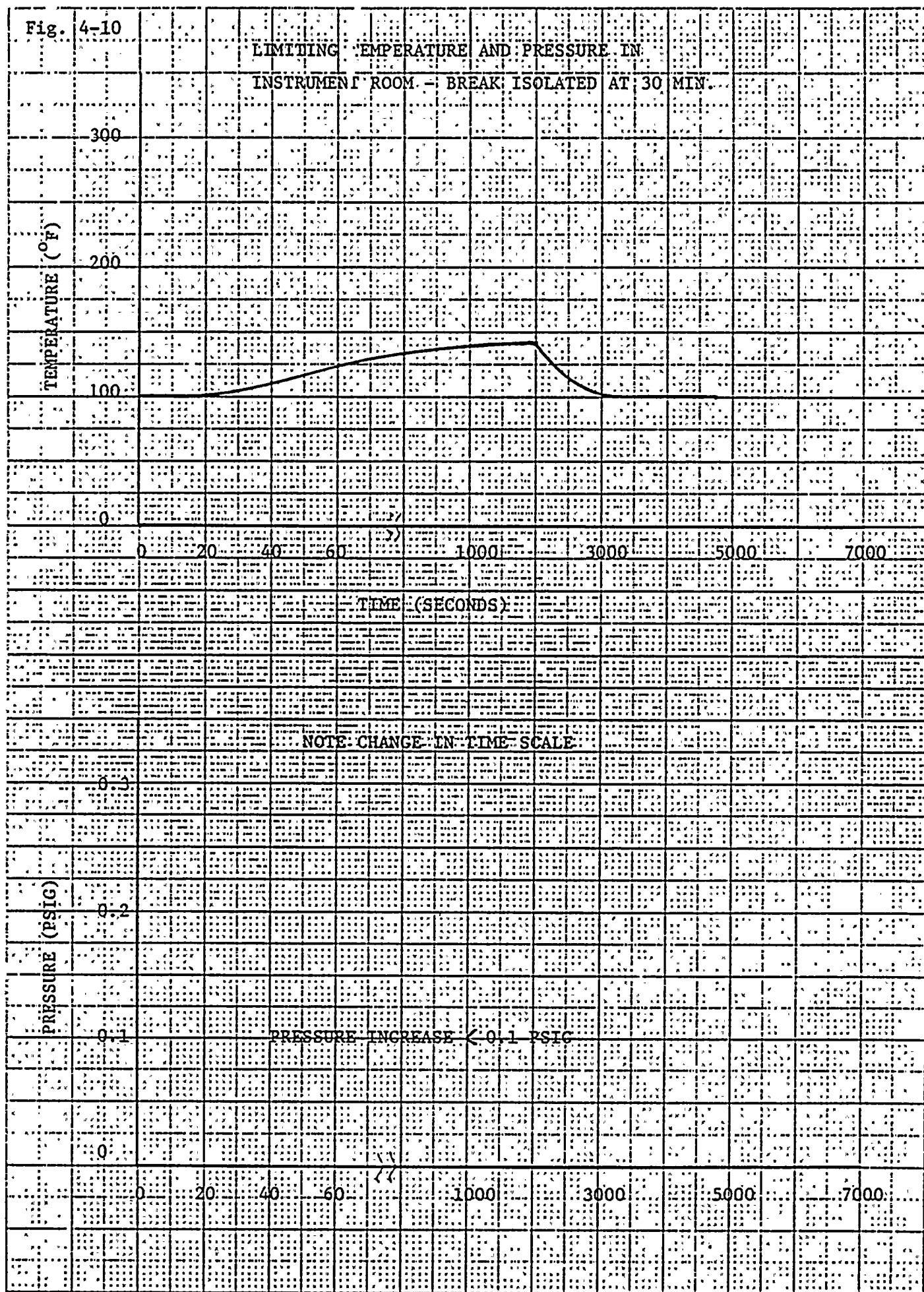
BOUNDING VALUE



Fig. 4-10

LIMITING TEMPERATURE AND PRESSURE IN

INSTRUMENT ROOM - BREAK ISOLATED AT 30 MIN.





46 1320

K&S 10 X 10 TO 1 1/2 INCH 7 X 10 INCHES
NEUFFEL & ESSER CO. MADE IN U.S.A.

Fig. 4-11

LIMITING TEMPERATURE AND PRESSURE IN OPEN FLOOR AREAS NOT NEAR BREAK LOCATIONS

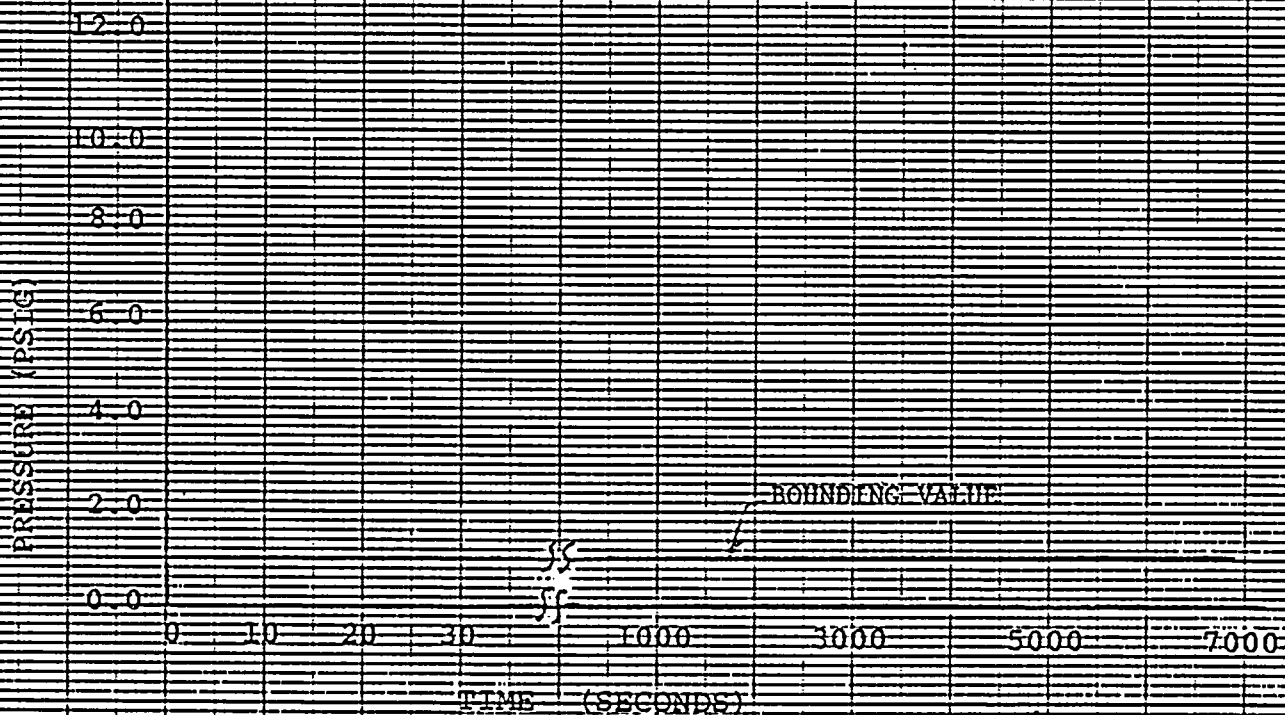
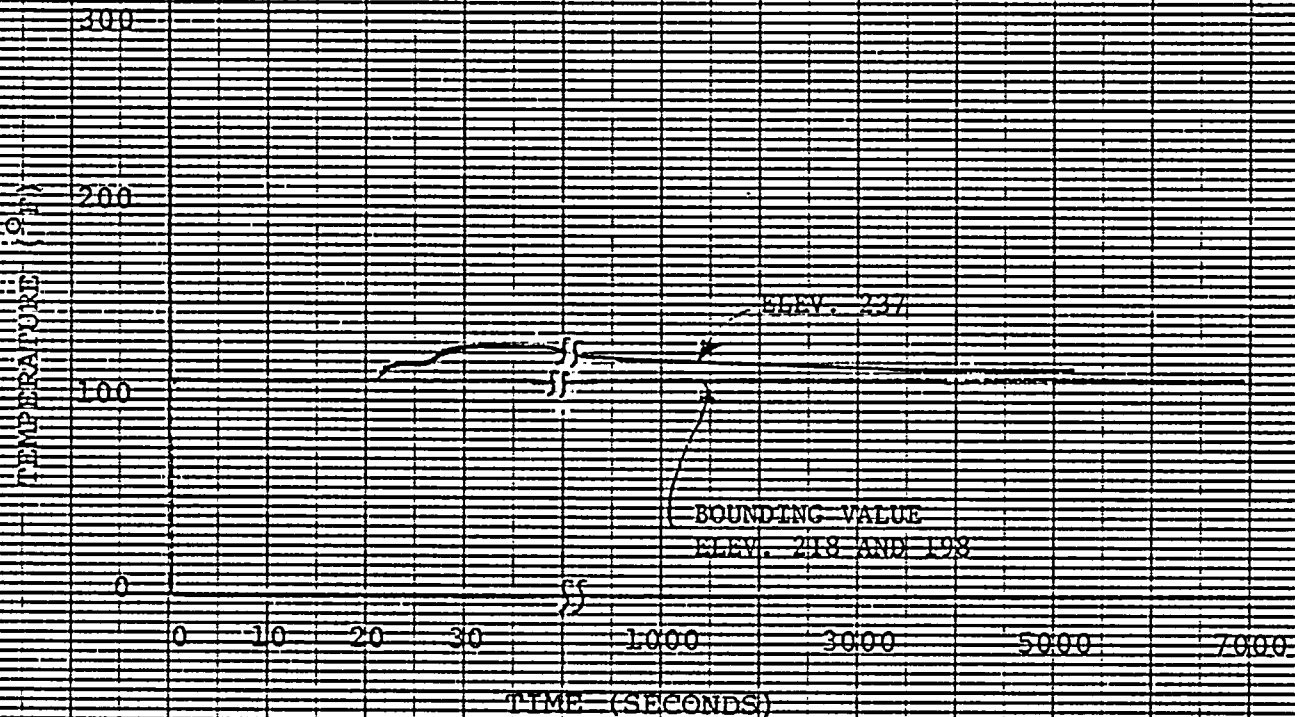


FIGURE 4-12A
LOSS OF COOLANT ACCIDENT
CONTAINMENT TEMPERATURE - WITH CORE SPRAY
STRETCH POWER

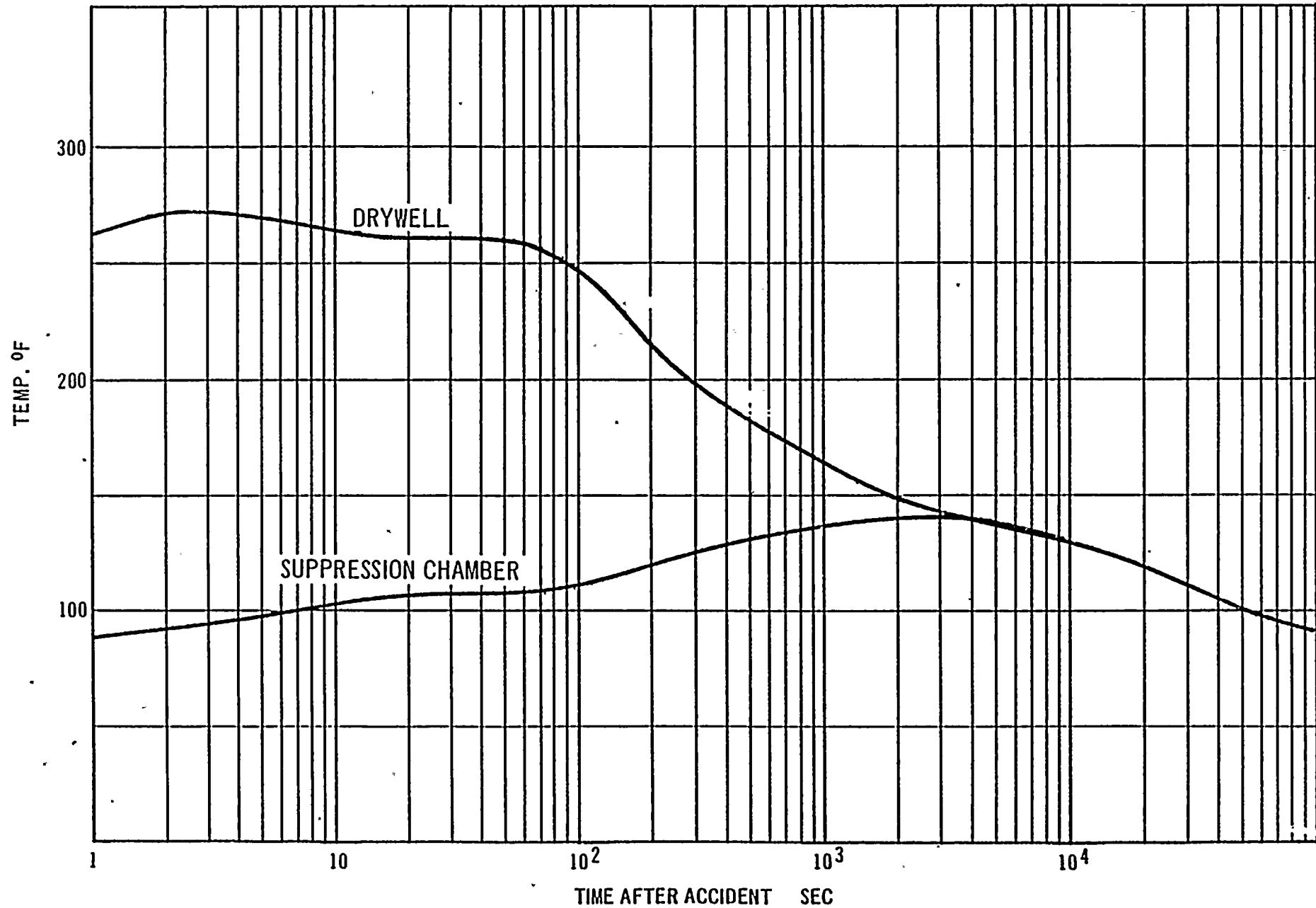


FIGURE 4-12B
LOSS OF COOLANT ACCIDENT
DRYWELL PRESSURE
STRETCH POWER

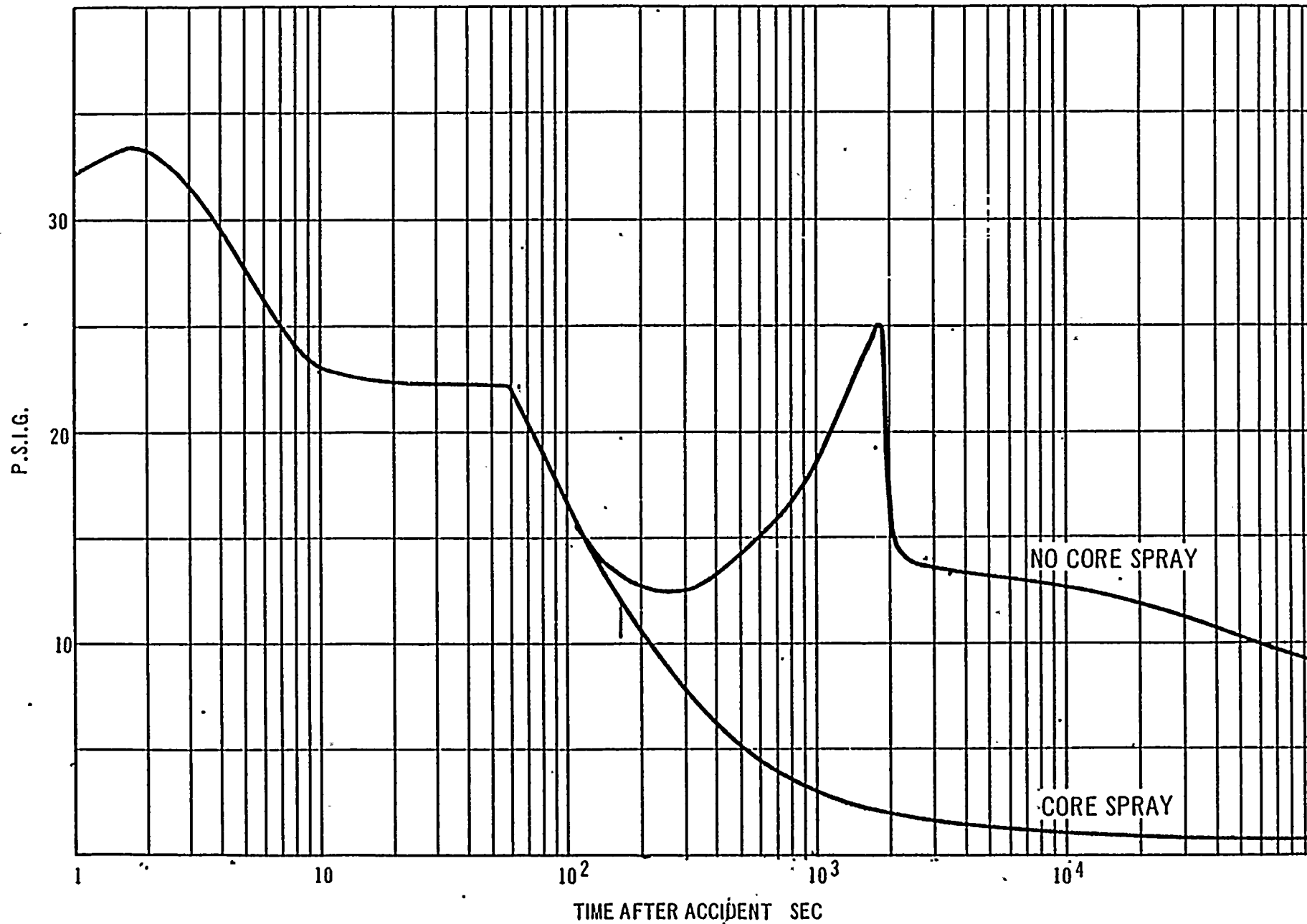




TABLE 6-1

Justification
for
Continued Operation



TABLE 6-1

JUSTIFICATION FOR CONTINUED OPERATION

<u>Component ID</u>	<u>Function/Justification for Continued Operation</u>
201-32, 201.2-03, 201.2-32, 01-05, 01-06, 01-01, 01-02, 39-05, 39-06	Position switches on containment and reactor isolation valves; valve position can be deduced from other indications, accident mitigation is not directly affected by component failure.
201.2-33, 201.2-06 (ASCO), 01-05, 01-06 (Decco)	Solenoid operated containment isol. valves are normally closed and fail closed on loss of power, normally deenergized; if open, RPS contacts in mild environment deenergize the coil and close the valve; coil isolated from RPS by fuses.
68-08C, 68-09C, 68-10C	Solenoid operated (ASCO) butterfly valve in torus to atmosphere vacuum breaker line; normally closed, fails open, containment isolation provided by check valves.
39-05, 39-06	Solenoid operated (ASCO) emergency condenser return isol. valves, normally closed, fail open, backup reactor isolation provided by check valves.

Component ID

Function/Justification
for Continued Operation

201.2-23, 201.2-24,
201.2-25, 201.2-26
201.2-27, 201.2-28,
201.2-29, 201.2-30

Containment solenoid operated isol. valves on sample lines; normally open, RPS signal to close, likely will close before harsh environment.

80-15, 80-16, 80-35
80-36

CoS system inlet solenoid operated isol. valves; normally open, key operated, no RPS signal.

80-03, 80-04, 80-23,
80-24, 81-03, 81-04,
81-23, 81-24, 81-50,
81-49, 81-51, 81-52,
70-01, 70-02, 70-03

CoS, CS and RBCLC systems' pump motors; CS pump motor insulation system is qualified; CoS pump motors are similar to qualified motors; RBCLC pump motors are not directly required for mitigation; also, CS and CoS pump motors experience relatively mild service conditions, i.e., less than 150°F.

ID45, ID46A, ID46B,
IA-12, 80-47, 80-54,
80-75, 80-69, 80-60,
80-61, IB06-23, -24,
-13, -14

Various indication-only components (Pump disch. pressure switches, vessel pressure, area temp. elements), not directly needed for accident mitigation.



<u>Component ID</u>	<u>Function/Justification for Continued Operation</u>
01-01, 01-02, 33-01 33-02, 83.1-09, 83.1- 11, 40-01, 40-09, 40- 10, 40-11	Limitorque motor operated valves; will likely operate before harsh environment, once operated fail as is on loss of power.
PB16B, PB17B, PB167, PB161B, PB1671, PB171	Motor control centers and switchgear in reactor building; equipment is enclosed and HELB temperature peaks (maximum 212°F) are of short duration (less than 1 minute); therefore, expect little heat-up of components.
NR-108A through NR-108F	ADS electromatic relief valve solenoids and position switches; enclosed in NEMA 4 enclosures and will likely operate before harsh environment.
68-11A, 68-11B, 68-12A, 68-12B, 68-13A, 68-13B	Vacuum switches actuating blocking valve between torus and atmosphere for vacuum relief; fails open for vacuum relief, containment isol. provided by check valve.
70-23	Temperature element signaling controller for RBCLC heat exchanger bypass flow; RBCLC not directly used for accident mitigation.

<u>Component ID</u>	<u>Function/Justification for Continued Operation</u>
Splicing compound, filler #227, insu- lating tape #8380, friction tape, cement, splicing tape	Common electrical equipment used for splice and terminations; materials known to be capable of withstanding accident temperature; also, enclosed and peak temperatures are of short dur- ation.
DG O'Brien Connectors	Connectors have been tested; only out- standing items are aging and radiation.
Rosemount trip units	Qualified except for radiation; will function before harsh environment.
39-07, 39-08, 39-09, 39-10, 201-31, 93-25, 93-26, 93-27, 93-28, 93-49, 93-50	Limitorque Valve Operators qualified for radiation; tested for aging and harsh environment; assessment on-going for determining the expected life; thermal degradation resulting from the harsh environment test (250°F for 24 hours) is more severe than the in- service harsh environment (305°F for 40 seconds).
33-04, 201-09, 40-05, 40-06, 201-17, 201-07	Limitorque Valve Operators qualified for harsh environments and radiation; tested for thermal aging; however, assessment on-going for determining the expected life.

APPENDIX A

Component Evaluation Worksheets

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>COMMON ELECTRIC EQUIPMENT</u>	IDENTIFICATION NO. <u>N/A</u>
	<u>X</u> IN CONTAINMENT <u> </u> OUT OF CONTAINMENT	P&ID <u> </u>	COMPONENT <u>POWER CABLE (5kv) VARIOUS SIZES</u>

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT- STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
KERITE	OPERATING TIME	28 Hrs.	720 Hrs.		Ref. 2	Simultaneous Test	None
MODEL <u>X</u> OR TYPE QUADRAPLEX ASSEMBLY 5kv	TEMPERATURE (°F)	301°F . Peak	322°F Peak		Ref. 2	Simultaneous Test	None
FUNCTION: POWER CABLE	PRESSURE (PSIG)	35 PSIG Peak	109.7 PSIG Peak		Ref. 2	Simultaneous Test	None
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	None
SERVICE: VARIOUS	CHEMICAL SPRAY	N/A				Simultaneous Test	N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	$< 5 \times 10^7$ RAD	3.4×10^8 RAD	Ref. 1	Ref. 2	Sequential Test	None
OTHER: <u> </u>	AGING	40 yrs.	40 yrs.		Note 1	Analysis	None
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NRC IE Bulletin 79-01B App. B, 1/14/80
2 F.I.R.L. Report F-C2770

NOTE 1: Letter: Kerite to Bechtel, Job #7749
Dated 12/1/75.



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>COMMON ELECTRICAL EQUIPMENT</u>	IDENTIFICATION NO. <u>N/A</u>
	<u>X</u> IN CONTAINMENT <u> </u> OUT OF CONTAINMENT	P&ID <u> </u>	COMPONENT <u>VULKENE CABLES</u>

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT- STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
GENERAL ELECTRIC	OPERATING TIME	28 Hrs.	28 Hrs.		Ref. 2	Simultaneous Test	None
MODEL <u> </u> OR TYPE <u>X</u> VULKENE CABLE	TEMPERATURE (°F)	301°F Peak	346°F Peak		Ref. 2	Simultaneous Test	None
FUNCTION: POWER AND CONTROL 600 V and 1000 V	PRESSURE (PSIG)	35 PSIG Peak	128 PSIG Peak		Ref. 2	Simultaneous Test	None
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	None
SERVICE: CONTAINMENT ISOLATION	CHEMICAL SPRAY	N/A	Na ₂ Cr ₂ O ₇		Ref. 2	Simultaneous Test	N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	5 x 10 ⁷ RAD	2.2 x 10 ⁸ RAD	Ref. 1	Ref. 2	Sequential Test	None
OTHER: <u> </u>	AGING	40 yrs.	40 yrs.			Sequential Test	None
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NRC IE Bulletin 79-01B, App. B, 1/14/80
2 F.I.R.L. Test Report F-C4497-2, 3/77

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 <u>X</u> IN CONTAINMENT OUT OF CONTAINMENT		SYSTEM <u>COMMON ELECTRIC EQUIPMENT</u> P&ID _____		IDENTIFICATION NO. <u>N/A</u> COMPONENT <u>COAXIAL INSTRUMENT CABLE</u>	
DATA		ENVIRONMENT		DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER: RAYCHEM		PARAMETER	SPEC.	QUALIF.	SPEC.		
		OPERATING TIME	28 Hrs.	3 Hrs. Peak		Ref. 2	Simultaneous Test None
MODEL <u>X</u> OR TYPE RG 59B/U		TEMPERATURE (°F)	301°F Peak	343°F Peak		Ref. 2	Simultaneous Test None
FUNCTION: INSTRUMENT CABLE		PRESSURE (PSIG)	35 PSIG Peak	113 PSIG Peak		Ref. 2	Simultaneous Test None
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>		RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test None
SERVICE: VARIOUS		CHEMICAL SPRAY	N/A				N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW		RADIATION (RAD)	< 5 x 10 ⁷ RAD	2 x 10 ⁸ RAD	Ref. 1	Ref. 2	Test None
OTHER: _____		AGING	40 yrs.	40 yrs.		Ref. 2	Test & Analysis None
		SUBMERGENCE	N/A				N/A

REFERENCE: 1 NRC IE Bulletin 79-01B App. B, 1/14/80
2 Rockbestos Qualification of Firewall III
Class IE electrical cables, DTD, 2/1/77

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 <u>X</u> IN CONTAINMENT OUT OF CONTAINMENT		SYSTEM <u>COMMON ELECTRICAL EQUIPMENT</u> P&ID _____		IDENTIFICATION NO. <u>N/A</u> COMPONENT <u>CONNECTORS</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
D. G. O'BRIEN	OPERATING TIME	28 Hrs.	> 28 Hrs.		Ref. 2	Simultaneous Test	None
MODEL <u>X</u> OR TYPE 19 Pin #16, 5 pin #16, 4 pin #8, 28 pin #16	TEMPERATURE (°F)	301°F . Peak	300°F Peak		Ref. 2	Simultaneous Test	None
FUNCTION: ELECTRICAL PENETRATION ASSEMBLY CONNECTIONS	PRESSURE (PSIG)	35 PSIG Peak	72 PSIG Peak		Ref. 2	Simultaneous Test	None
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	None
SERVICE: CONTAINMENT ISOLATION	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE ____ BELOW	RADIATION (RAD)	5×10^7 RAD	2.6×10^7 RAD	Ref. 1	Ref. 2	Sequential Test	Note 1
OTHER:	AGING	40 yrs.	40 yrs.		Ref. 2	Sequential Test	None
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NRC IE Bulletin 79-01B, App. B, 1/14/80
2 NUS Report 1961 - 0005

NOTE 1: Efforts to obtain qualification on-going.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>COMMON ELECTRICAL EQUIPMENT</u>	IDENTIFICATION NO. <u>N/A</u>
	<u>X</u> IN CONTAINMENT OUT OF CONTAINMENT	P&ID _____	COMPONENT <u>TERMINAL BOARDS</u>

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT- STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
GENERAL ELECTRIC	OPERATING TIME	28 Hrs.	28 Hrs.		Ref. 2,3	Simultaneous Test	None
MODEL <u>X</u> OR TYPE EB 5 EB 25	TEMPERATURE (°F)	301°F Peak	340°F Peak		Ref. 2,3	Simultaneous Test	None
FUNCTION: TERMINAL BOARDS	PRESSURE (PSIG)	35 PSIG Peak	118 PSIG Peak		Ref. 2,3	Simultaneous Test	None
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 3	Simultaneous Test	None
SERVICE: VARIOUS	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE ___ BELOW	RADIATION (RAD)	5 x 10 ⁷ RAD	5 x 10 ⁷ RAD	Ref. 1	Ref. 3	Analysis	None
OTHER: _____	AGING	40 yrs.	40 yrs.		Ref. 3	Sequential Test & Analysis	None
	SUBMERGENCE	N/A					

REFERENCE: 1 NRC IE Bulletin 79-01B App. B, 1/14/80
2 BWR Equipment Qualification Summary 010-A01. Data obtained from Franklin
Report No. DOCKET 50-213, 3/28/78
3 NUS Report 1961 - G080-001, Includes General Electric letter #G-EN-8-18,
Dated: 2/24/78

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 <u>X</u> IN CONTAINMENT OUT OF CONTAINMENT		SYSTEM <u>COMMON ELECTRIC EQUIPMENT</u> P&ID _____		IDENTIFICATION NO. <u>N/A</u> COMPONENT <u>GROUND CONNECTOR</u>	
DATA		ENVIRONMENT		DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
		PARAMETER	SPEC.	QUALIF.	SPEC.		
MANUFACTURER: BURNDY		OPERATING TIME	28 Hrs. 220 Sec. at Peak	2750 Hrs. 64 Min. at Peak			Simultaneous Test Note 1
MODEL OR TYPE <u>X</u> GABC-B		TEMPERATURE (°F)	301° F Peak	385° F Peak		Ref. 1	Simultaneous Test Note 1
FUNCTION: Ground Connector		PRESSURE (PSIG)	35 PSIG Peak	66 PSIG Peak		Ref. 1.	Simultaneous Test Note 1
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>		RELATIVE HUMIDITY (%)	100%	100%		Ref. 1	Simultaneous Test Note 1
SERVICE: To Equipment Frame		CHEMICAL SPRAY	N/A				N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW		RADIATION (RAD)	5×10^7 RAD	2.24×10^8 RAD		Ref. 1	Separate Test
OTHER: _____		AGING	N/A	N/A		Note 1	Note 1
		SUBMERGENCE	N/A				N/A

REFERENCE: 1 Burndy letter from N. Schwartz to K. Pounders (NUS), dated 10/16/80 and associated test reports.

NOTE 1: All metallic components not subject to thermal aging.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>COMMON ELECTRIC EQUIPMENT</u>	IDENTIFICATION NO. <u>N/A</u>
	<u>X</u> IN CONTAINMENT OUT OF CONTAINMENT	P&ID _____	COMPONENT <u>GROUND CONNECTOR</u>

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
BURNDY	OPERATING TIME	28 Hrs. 220 Sec. at Peak	2750 Hrs. 64 min. at Peak		Ref. 2	Simultaneous Test	None
MODEL <u> </u> OR TYPE <u>X</u> GZ	TEMPERATURE (°F)	301°F Peak	380°F Peak		Ref. 2	Simultaneous Test	None
FUNCTION: Ground Connector	PRESSURE (PSIG)	35 PSIG Peak	66 PSIG Peak		Ref. 2	Simultaneous Test	None
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	None
SERVICE: To Equipment Frame	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	5×10^7 RAD	2.24×10^8 RAD	Ref. 1	Ref. 2	Separate Test	None
OTHER: _____	AGING	N/A	N/A		Note 1		None
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NRC IE Bulletin 79-01B App B, 1/14/80
2 Burndy Test Report TD 78-595-A

NOTE 1: All metallic components not subject to thermal aging.



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>COMMON ELECTRIC EQUIPMENT</u>	IDENTIFICATION NO. <u>N/A</u>
	<u> </u> IN CONTAINMENT	P&ID <u> </u>	COMPONENT <u>CONTROL CABLE SPLICES</u>
	<u>X</u> OUT OF CONTAINMENT		

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT- STANDING ITEMS
MANUFACTURER: AMP INCORPORATED	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
	OPERATING TIME	28 Hrs.	28 Hrs.		Ref. 2		None
MODEL <u>X</u> OR TYPE PRE-INS	TEMPERATURE (°F)	301°F Peak	301°F Peak		Ref. 2		None
FUNCTION: BUTT CONNECTOR	PRESSURE (PSIG)	35 PSIG Peak	35 PSIG Peak		Ref. 2		None
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2		None
SERVICE: VARIOUS	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	< 10 ⁶ RAD	10 ⁶ RAD	Ref. 1	Ref. 2		None
OTHER: <u> </u>	AGING		40 yrs.		Ref. 2		None
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A-0636 Rev. 0, 7/15/80 and
 NES Letter 5152-008, 7/18/80
 2 NUS Report 1961 - A383



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 ___ IN CONTAINMENT <input checked="" type="checkbox"/> OUT OF CONTAINMENT		SYSTEM <u>COMMON ELECTRIC EQUIPMENT</u> P&ID _____		IDENTIFICATION NO. <u>N/A</u> COMPONENT <u>CONNECTION TERMINAL</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
GZ GEDNEY	OPERATING TIME	28 Hrs. 40 Sec. Peak	28 Hrs.		Ref. 2	Analysis	Note 1
MODEL ___ OR TYPE <input checked="" type="checkbox"/> XL	TEMPERATURE (°F)	305° F Peak	305° F Peak		Ref. 2	Analysis	Note 1
FUNCTION: Connector	PRESSURE (PSIG)	9 PSIG Peak	9 PSIG Peak		Ref. 2	Analysis	Note 1
ACCURACY: (1) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (1)	100%	100%		Ref. 2	Analysis	Note 1
SERVICE: Cable to Copper Bar Terminal	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <input checked="" type="checkbox"/> ABOVE ___ BELOW	RADIATION (RAD)	< 10 ⁶ RAD	10 ⁶ RAD	Ref. 1	Ref. 2	Analysis	Note 1
OTHER:	AGING	N/A	N/A		Ref. 2	Analysis	Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80

2 NUS Report 1961 - G049

NOTE 1: All metallic components not subject to thermal aging.

REV. 2 9/1/81



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 ___ IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT		SYSTEM <u>COMMON ELECTRIC EQUIPMENT</u> P&ID _____		IDENTIFICATION NO. <u>N/A</u> COMPONENT <u>CONNECTION TERMINAL</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
OZ GEDNEY	OPERATING TIME	28 Hrs. 40 Sec. Peak	28 Hrs.		Ref. 2	Analysis	Note 1
MODEL ___ OR TYPE <u>X</u> XW	TEMPERATURE (°F)	305° F Peak	305° F Peak		Ref. 2	Analysis	Note 1
FUNCTION: Connector	PRESSURE (PSIG)	9 PSIG Peak	9 PSIG Peak		Ref. 2	Analysis	Note 1
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Analysis	Note 1
SERVICE: Cable to Cable Terminal	CHEMICAL SPRAY	N/A				Analysis	Note 1
FLOOD LEVEL: <u>X</u> ABOVE ___ BELOW	RADIATION (RAD)	< 10 ⁶ RAD	10 ⁶ RAD	Ref. 1	Ref. 2	Analysis	Note 1
OTHER: _____	AGING	N/A	N/A		Ref. 2	Analysis	Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80
2 NUS Report 1961 - G049

NOTE 1: All metallic components not
subject to thermal aging.



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>COMMON ELECTRIC EQUIPMENT</u>	IDENTIFICATION NO. <u>N/A</u>
	<u> </u> IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT	P&ID <u> </u>	COMPONENT <u>CONNECTION TERMINAL</u>

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
BURNDY	OPERATING TIME	28 Hrs. 10 Sec. Peak	2750 Hrs. 64 min. Peak			Simultaneous Test	None
MODEL <u> </u> OR TYPE <u>X</u> QA-B	TEMPERATURE (°F)	308° F Peak	385° F Peak		Ref. 2	Simultaneous Test	None
FUNCTION: Terminal	PRESSURE (PSIG)	17.3 PSIG Peak	66 PSIG Peak		Ref. 2	Simultaneous Test	None
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	None
SERVICE: Cable to Terminal Connection Terminal	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	< 10 ⁶ RAD	2.24 x 10 ⁸ RAD	Ref. 1	Ref. 2	Separate Test	None
OTHER: <u> </u>	AGING	N/A	N/A		Note 1		None
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80

NOTE 1: All metallic components not
subject to thermal aging.

2 Burndy Test Report TD 78-595-A

REV. 2 9/1/81

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>COMMON ELECTRIC EQUIPMENT</u>	IDENTIFICATION NO. <u>N/A</u>
	<u> </u> IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT	P&ID <u> </u>	COMPONENT <u>INSULATING TAPE</u>

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
GENERAL ELECTRIC	OPERATING TIME	28 Hrs.					Note 1
MODEL <u> </u> OR TYPE <u>X</u> NO. 8380	TEMPERATURE (°F)	307°F Peak					Note 1
FUNCTION: CABLE TERMINATION INSULATING TAPE	PRESSURE (PSIG)	9 PSIG Peak					Note 1
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%					Note 1
SERVICE: VARIOUS	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	5×10^7 RAD		Ref. 1			Note 1
OTHER: <u> </u>	AGING						
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NRC IE Bulletin 79-01B App. B, 1/14/80

NOTE 1: Assessment on-going; proposals for testing requested.



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 ___ IN CONTAINMENT <input checked="" type="checkbox"/> OUT OF CONTAINMENT		SYSTEM <u>COMMON ELECTRIC EQUIPMENT</u> P&ID _____		IDENTIFICATION NO. <u>N/A</u> COMPONENT <u>INSULATING TAPE</u>	
DATA		ENVIRONMENT		DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
		PARAMETER	SPEC.	QUALIF.	SPEC.		
MANUFACTURER: SCOTCH BRAND		OPERATING TIME	28 Hrs.				Note 1
MODEL ___ OR TYPE <input checked="" type="checkbox"/> NO. 88		TEMPERATURE (°F)	307°F Peak				Note 1
FUNCTION: CABLE TERMINATION INSULATING TAPE		PRESSURE (PSIG)	9 PSIG Peak				Note 1
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>		RELATIVE HUMIDITY (%)	100%				Note 1
SERVICE: VARIOUS		CHEMICAL SPRAY	N/A				N/A
FLOOD LEVEL: <input checked="" type="checkbox"/> ABOVE ___ BELOW		RADIATION (RAD)	<10 ⁶ RAD		Ref. 1		Note 1
OTHER: _____		AGING					Note 1
		SUBMERGENCE	N/A				Note 1

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152, 7/18/80

NOTE 1: Assessment on-going; proposals for testing requested.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 ____ IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT		SYSTEM <u>COMMON ELECTRIC EQUIPMENT</u> P&ID _____		IDENTIFICATION NO. <u>N/A</u> COMPONENT <u>CABLE TERMINATION INSULATION</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
KERITE	OPERATING TIME	28 Hrs.					Note 1
MODEL ____ OR TYPE <u>X</u> CEMENT	TEMPERATURE (°F)	305°F Peak					Note 1
FUNCTION: 5KV CABLE TERMINATION INSULATION	PRESSURE (PSIG)	9 PSIG Peak					Note 1
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%					Note 1
SERVICE: VARIOUS	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE ____ BELOW	RADIATION (RAD)	< 10 ⁶ RAD		Ref. 1			Note 1
OTHER: _____	AGING						Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80

NOTE 1: Assessment on-going; proposals for testing requested.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1 ___ IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT		SYSTEM <u>COMMON ELECTRIC EQUIPMENT</u> P&ID _____		IDENTIFICATION NO. <u>N/A</u> COMPONENT <u>UNDERCOAT FOR 5KV TERMINAL FILLER</u>		
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MANUFACTURER: KERITE	OPERATING TIME	28 Hrs.					Note 1
MODEL ___ OR TYPE <u>X</u> 3/4" FRICTION TAPE	TEMPERATURE (°F)	305°F Peak					Note 1
FUNCTION: UNDERCOAT FOR 5KV TERMINAL FILLER	PRESSURE (PSIG)	9 PSIG Peak					Note 1
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%					Note 1
SERVICE: VARIOUS 5KV TERMINALS	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE ___ BELOW	RADIATION (RAD)	<10 ⁶ RAD		Ref. 1			Note 1
OTHER: _____	AGING						Note 1
	SUBMERGENCE	N/A					N/A
REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and NES Letter 5152-008, 7/18/80				NOTE 1: Assessment on-going; proposals for testing requested.			

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 ___ IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT		SYSTEM <u>COMMON ELECTRIC EQUIPMENT</u> P&ID _____		IDENTIFICATION NO. <u>N/A</u> COMPONENT <u>FILLER FOR 5KV TERMINAL</u>	
DATA		ENVIRONMENT		DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
		PARAMETER	SPEC.	QUALIF.	SPEC.		
MANUFACTURER: GENERAL ELECTRIC		OPERATING TIME	28 Hrs.				Note 1
MODEL ___ OR TYPE <u>X</u> NO. 227		TEMPERATURE (°F)	307°F Peak				Note 1
FUNCTION: FILLER FOR 5KV TERMINAL		PRESSURE (PSIG)	9 PSIG Peak				Note 1
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>		RELATIVE HUMIDITY (%)	100%				Note 1
SERVICE: VARIOUS 5KV TERMINALS		CHEMICAL SPRAY	N/A				N/A
FLOOD LEVEL: <u>X</u> ABOVE ___ BELOW		RADIATION (RAD)	5×10^7 RAD		Ref. 1		Note 1
OTHER: _____		AGING					Note 1
		SUBMERGENCE	N/A				N/A

REFERENCE: 1 NRC IE Bulletin 79-01B - App. B, 1/14/80

NOTE 1: Assessment on-going; proposals for testing requested.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 ____ IN CONTAINMENT <input checked="" type="checkbox"/> OUT OF CONTAINMENT		SYSTEM <u>COMMON ELECTRIC EQUIPMENT</u> P&ID _____		IDENTIFICATION NO. <u>N/A</u> COMPONENT <u>FILLER FOR 5KV TERMINAL</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
J-M	OPERATING TIME	28 Hrs.					Note 1
MODEL ____ OR TYPE <input checked="" type="checkbox"/> DUXSEAL	TEMPERATURE (°F)	301°F Peak					Note 1
FUNCTION: FILLER FOR 5KV TERMINAL	PRESSURE (PSIG)	35 PSIG Peak					Note 1
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%					Note 1
SERVICE: VARIOUS 5KV TERMINALS	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <input checked="" type="checkbox"/> ABOVE ____ BELOW	RADIATION (RAD)	5×10^7 RAD		Ref. 1			Note 1
OTHER: _____	AGING						
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80

NOTE 1: Assessment on-going; proposals for testing requested.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 <input type="checkbox"/> IN CONTAINMENT <input checked="" type="checkbox"/> OUT OF CONTAINMENT		SYSTEM <u>COMMON ELECTRIC EQUIPMENT</u> P&ID _____		IDENTIFICATION NO. <u>N/A</u> COMPONENT <u>5KV CABLE TERMINAL INSULATION</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
KERITE	OPERATING TIME	28 Hrs.					Note 1
MODEL <u> </u> OR TYPE <u>X</u> SPlicing COMPOUND TAPE	TEMPERATURE (°F)	305°F Peak					Note 1
FUNCTION: PART OF 5KV CABLE TERMINAL INSULATION	PRESSURE (PSIG)	9 PSIG Peak					Note 1
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%					Note 1
SERVICE: VARIOUS 5KV CABLE TERMINALS	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	<10 ⁶ RAD		Ref. 1			Note 1
OTHER:	AGING						Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80

NOTE 1: Assessment on-going; proposals for testing requested.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 _____ IN CONTAINMENT <input checked="" type="checkbox"/> OUT OF CONTAINMENT		SYSTEM <u>COMMON ELECTRIC EQUIPMENT</u> P&ID _____		IDENTIFICATION NO. <u>N/A</u> COMPONENT _____	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
GENERAL ELECTRIC	OPERATING TIME	28 Hrs.					Note 1
MODEL _____ OR TYPE <input checked="" type="checkbox"/> NO. 1309 BLACK INSULATING VARNISH	TEMPERATURE (°F)	307°F Peak					Note 1
FUNCTION: PART OF 5KV CABLE TERMINAL INSULATION	PRESSURE (PSIG)	9 PSIG Peak					Note 1
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%					Note 1
SERVICE: VARIOUS 5KV CABLE TERMINALS	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <input checked="" type="checkbox"/> ABOVE _____ BELOW	RADIATION (RAD)	<10 ⁶ RAD		Ref. 1			Note 1
OTHER: _____	AGING						Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80

NOTE 1: Assessment on-going; proposals for testing requested.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>COMMON ELECTRICAL EQUIPMENT</u>	IDENTIFICATION NO. <u>N/A</u>
	X IN CONTAINMENT	P&ID _____	COMPONENT _____
	OUT OF CONTAINMENT		

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT- STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
AMP INCORPORATED	OPERATING TIME	28 Hrs.	28 Hrs.		Ref. 2	Analysis	None
MODEL <u>X</u> OR TYPE RING TONGUE TERMINAL	TEMPERATURE (°F)	301°F Peak	301°F Peak		Ref. 2	Analysis	None
FUNCTION:	PRESSURE (PSIG)	35 PSIG Peak	35 PSIG Peak		Ref. 2	Analysis	None
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Analysis	None
SERVICE:	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	< 10 ⁶ RAD	10 ⁶ RAD	Ref. 1	Ref. 2	Analysis	None
OTHER:	AGING	40 years	40 yrs.		Ref. 2	Analysis	None
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
 NES Letter 5152-008, 7/18/80
 2 NUS Report 1961 - A382

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 <u>X</u> IN CONTAINMENT OUT OF CONTAINMENT		SYSTEM <u>REACTOR ISOLATION</u> P&ID _____		IDENTIFICATION NO. <u>01-01</u> COMPONENT <u>VALVE OPERATOR</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER: RELiance/LIMITORQUE	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
	OPERATING TIME	Approx. 1 Hr.	Approx. 6 Hrs. at Peak		Ref. 2	Simultaneous Test	Note 1
MODEL <u> </u> OR TYPE <u>X</u> SB-4 Model #52230A	TEMPERATURE (°F)	301°F Peak	340°F Peak		Ref. 2	Simultaneous Test	Note 1
FUNCTION: VALVE OPERATION	PRESSURE (PSIG)	35 PSIG Peak	150 PSIG Peak		Ref. 2	Simultaneous Test	Note 1
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	Note 1
SERVICE: MAIN STEAM ISOLATION VALVE	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	5×10^7 RAD	2.04×10^8 RAD	Ref. 1	Ref. 2	Sequential Test	Note 1
OTHER: <u> </u>	AGING	40 years	40 yrs.			Test / Analysis	Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NRC IE Bulletin 79-01B App. B, 1/14/80
2 Limitorque Test Reports 600376A, dated 5/13/76 and Addendum A, Rev. B, dated 1/23/79

NOTE 1: To be replaced



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>REACTOR ISOLATION</u>	IDENTIFICATION NO. <u>01-02</u>
	<u>X</u> IN CONTAINMENT OUT OF CONTAINMENT	P&ID _____	COMPONENT <u>VALVE OPERATOR</u>

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT- STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
RELIANCE/LIMITORQUE	OPERATING TIME	Approx. 1 Hr.	Approx. 6 Hrs. at Peak		Ref. 2	Simultaneous Test	Note 1
MODEL <u> </u> OR TYPE <u>X</u> SB-4 Model #52231A	TEMPERATURE (°F)	301°F Peak	340°F Peak		Ref. 2	Simultaneous Test	Note 1
FUNCTION: VALVE OPERATION	PRESSURE (PSIG)	35 PSIG Peak	150 PSIG Peak		Ref. 2	Simultaneous Test	Note 1
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	Note 1
SERVICE: MAIN STEAM ISOLATION VALVE	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	5×10^7 RAD	2.04×10^8 RAD	Ref. 1	Ref. 2	Simultaneous Test	Note 1
OTHER: _____	AGING	40 years	40 yrs.			Test/ Analysis	Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NRC IE Bulletin 79001B, App. B. 1/14/80
2 Limitorque Test Reports 600376A, dated 5/13/76 and
Addendum A, Rev. B, dated 1/23/79

NOTE 1: To be replaced



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 IN CONTAINMENT <input checked="" type="checkbox"/> OUT OF CONTAINMENT		SYSTEM <u>REACTOR ISOLATION</u> P&ID <u> </u>		IDENTIFICATION NO. <u>SEE ATTACHED LIST</u> COMPONENT <u>LIMIT SWITCH</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
NAMCO	OPERATING TIME	Approx. 1 Hr. 1 Sec. Peak	24 Hrs. 3 Hrs. Peak		Ref. 2	Simultaneous Test	None
MODEL <u>X</u> OR TYPE SL3-C-58T-W	TEMPERATURE (°F)	308°F Peak	340°F Peak		Ref. 2	Simultaneous Test	None
FUNCTION: Indicates Valve Position	PRESSURE (PSIG)	17.3 PSIG	103 PSIG Peak		Ref. 2	Simultaneous Test	None
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	None
SERVICE: Various Valves	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	<1.6 X 10 ⁶ RAD	6.7 X 10 ⁶ RAD	Ref. 1	Ref 2	Analysis	None
OTHER:	AGING	40 yrs.	40 yrs.		Ref. 2	Analysis	None
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev.0, 7/15/80
and NES Letter 5152-008, 7/18/80

2 NUS Report 1961 - N007

NAMCO SL 3

SYSTEM

IDENT. NO.

RI

01 - 03

01 - 04



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1		SYSTEM <u>REACTOR ISOLATION</u>		IDENTIFICATION NO. <u>SEE ATTACHED LIST</u>	
	<u> </u> IN CONTAINMENT		P&ID <u> </u>		COMPONENT <u>LIMIT SWITCH</u>	
<u>X</u> OUT OF CONTAINMENT						

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MANUFACTURER: NAMCO	OPERATING TIME	Approx. 1 Hr.					Note 1
MODEL <u>X</u> OR TYPE D2400X	TEMPERATURE (°F)	308° F					Note 1
FUNCTION: Indicates valve position	PRESSURE (PSIG)	17.3 PSIG					Note 1
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%					Note 1
SERVICE: Various Valves	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	<10 ⁶ RAD	6.7 x 10 ⁶ RAD	Ref. 1	Ref. 2	Analysis	None
OTHER: _____	AGING	40 yrs.	40 yrs.		Ref. 2	Analysis	None
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document, 81A0636 Rev. 0, 7/15/80
and NES Letter 5152-008, 7/18/80

Note 1: Replacement will be made with a qualified NAMCO Limit Switch.



NAMCO D2400X

SYSTEM

IDENT. NO.

RI

01 - 05

01 - 06

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>REACTOR ISOLATION</u>	IDENTIFICATION NO. <u>01-05</u>
	<u> </u> IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT	P&ID <u> </u>	COMPONENT <u>SOLENOID OPERATED VALVE</u>

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT- STANDING ITEMS
	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MANUFACTURER: DECCO	OPERATING TIME	Approx. 1 Hr.					Note 1
MODEL <u>X</u> OR TYPE 24-166	TEMPERATURE (°F)	308°F Peak					Note 1
FUNCTION: ISOLATION VALVE	PRESSURE (PSIG)	17.3 PSIG Peak					Note 1
ACCURACY: (%) SPEC. <u> </u> DEMO. <u> </u>	RELATIVE HUMIDITY (%)	100%					Note 1
SERVICE: MAIN STEAM BYPASS	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	< 1 x 10 ⁶ RAD		Ref. 1			Note 1
OTHER: <u> </u>	AGING						Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80

NOTE 1: To be replaced with qualified
equipment.



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 IN CONTAINMENT <input checked="" type="checkbox"/> OUT OF CONTAINMENT		SYSTEM <u>REACTOR ISOLATION</u> P&ID _____		IDENTIFICATION NO. <u>01-06</u> COMPONENT <u>SOLENOID OPERATED VALVE</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
DECCO	OPERATING TIME	Approx. 1 Hr.					Note 1
MODEL <u>X</u> OR TYPE _____ 24-166	TEMPERATURE (°F)	308°F Peak					Note 1
FUNCTION: ISOLATION VALVE	PRESSURE (PSIG)	17.3 PSIG Peak					Note 1
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%					Note 1
SERVICE: MAIN STEAM BYPASS	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE _____ BELOW	RADIATION (RAD)	< 1 × 10 ⁶ RAD		Ref. 1			Note 1
OTHER: _____	AGING						Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80

NOTE 1: To be replaced with qualified equipment

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1 _____ IN CONTAINMENT <u> X </u> OUT OF CONTAINMENT	SYSTEM <u> RI </u> IDENTIFICATION NO. <u> 39-07 </u> P&ID _____ COMPONENT <u> VALVE OPERATOR </u>
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DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MANUFACTURER:							
LIMITORQUE	OPERATING TIME	Approx. 1 Hr. 40 Sec. . Peak	Approx. 24 Hrs. Peak		Ref. 2	Simultaneous Test	None
MODEL <u> X </u> OR TYPE _____ SMB-2 125V DC	TEMPERATURE (°F)	305°F Peak	250°F Peak		Ref. 2	Simultaneous Test	Note 1
FUNCTION: VALVE OPERATION	PRESSURE (PSIG)	9 PSIG Peak	25 PSIG Peak		Ref. 2	Simultaneous Test	None
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	None
SERVICE: EMERGENCY CONDENSOR ISOLATION VALVE	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u> X </u> ABOVE <u> </u> BELOW	RADIATION (RAD)	< 1 x 10 ⁶ RAD	1x10 ⁷ RAD	Ref. 1	Ref. 2	Analysis	None
OTHER: _____	AGING	40 yrs.	199 Hrs at 165° F		Ref. 2	Test	Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and NES Letter 5152-008, 7/18/80
 2 Limitorque Test Report B0003, as delineated in Ltr Limitorque/NUS dtd 8/28/81.

NOTE 1 - Assessment On-Going

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1 _____ IN CONTAINMENT <input checked="" type="checkbox"/> OUT OF CONTAINMENT	SYSTEM _____ RI _____ P&ID _____	IDENTIFICATION NO. 39-08 COMPONENT VALVE OPERATOR _____			
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DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MANUFACTURER:							
LIMITORQUE	OPERATING TIME	Approx. 1 Hr. 40 Sec. Peak	Approx. 24 Hrs. Peak		Ref. 2	Simultaneous Test	None
MODEL <u>X</u> OR TYPE _____ SMB-2 125V DC	TEMPERATURE (°F)	305°F Peak	250°F Peak		Ref. 2	Simultaneous Test	Note 1
FUNCTION: VALVE OPERATION	PRESSURE (PSIG)	9 PSIG Peak	25 PSIG Peak		Ref. 2	Simultaneous Test	None
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	None
SERVICE: EMERGENCY CONDENSOR ISOLATION VALVE	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE _____ BELOW _____	RADIATION (RAD)	< 1 x 10 ⁶ RAD	1x10 ⁷ RAD	Ref. 1	Ref. 2	Analysis	None
OTHER:	AGING	40 yrs.	199 Hrs @ 165°F			Test	Note 1
_____	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and NES Letter 5152-008, 7/18/80
 2 Limitorque Test Report R0003 as delineated in Ltr Limitorque/NUS dtd 8/28/81.

NOTE 1: Assessment On-Going



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 _____ IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT		SYSTEM _____ RI _____ P&ID _____		IDENTIFICATION NO. _____ 39-09 COMPONENT _____ VALVE OPERATOR _____	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
LIMITORQUE	OPERATING TIME	Approx. 1 Hr. 40 Sec. Peak	Approx. 24 Hrs Peak		Ref. 2	Simultaneous Test	None
MODEL <u>X</u> OR TYPE _____ SMB-2 550V AC	TEMPERATURE (°F)	305°F Peak	250°F Peak		Ref. 2	Simultaneous Test	Note 1
FUNCTION: VALVE OPERATION	PRESSURE (PSIG)	9 PSIG Peak	25 PSIG Peak		Ref. 2	Simultaneous Test	None
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	None
SERVICE: EMERGENCY CONDENSOR ISOLATION VALVE	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE _____ BELOW	RADIATION (RAD)	1 x 10 ⁶ RAD	1 x 10 ⁷ RAD	Ref. 1	Ref. 2	Analysis	None
OTHER: _____	AGING	40 yrs.	199 Hrs at 165°F			Test	Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
 NES Letter 5152-008, 7/18/80
 2 Limitorque Test Report. B0003 as delineated in Ltr
 Limitorque/NUS dtd 8/28/81.

Note 1: Assessment On-Going



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1 _____ IN CONTAINMENT <input checked="" type="checkbox"/> OUT OF CONTAINMENT	SYSTEM _____ RI _____ P&ID _____	IDENTIFICATION NO. 39-10 COMPONENT VALVE OPERATOR
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DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MANUFACTURER: LIMITORQUE	OPERATING TIME	Approx. 1 Hr. 40 Sec. Peak	Approx. 24 Hrs at Peak		Ref. 2	Simultaneous Test	None
MODEL <u>X</u> OR TYPE SMB-2 550V AC	TEMPERATURE (°F)	305°F Peak	250°F Peak		Ref. 2	Simultaneous Test	Note 1
FUNCTION: Valve Operation	PRESSURE (PSIG)	9 PSIG Peak	25 PSIG Peak		Ref. 2	Simultaneous Test	None
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	None
SERVICE: EMERGENCY CONDENSOR ISOLATION VALVE	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE ____ BELOW	RADIATION (RAD)	< 1 x 10 ⁶ RAD	1 x 10 ⁷ RAD	Ref. 1	Ref. 2	Analysis	None
OTHER: _____	AGING	40 yrs.	199 Hrs at 165°F		Ref. 2	Test	Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
 NES Letter 5152-008, 7/18/80.
 2 Limitorque Test Report B0003 as delineated in
 Ltr Limitorque/NUS dtd 8/28/81.

Note 1: Assessment On-Going



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1		SYSTEM <u>REACTOR ISOLATION</u>		IDENTIFICATION NO. <u>SEE ATTACHED LIST</u>	
	<u> </u> IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT		P&ID <u> </u>		COMPONENT <u>LIMIT SWITCH</u>	

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT- STANDING ITEMS
	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MANUFACTURER: NAMCO	OPERATING TIME	Approx. 1 Hr. 61 Sec. Peak	24 Hrs. 3 Hrs. Peak		Ref. 2	Simultaneous Test	None
MODEL <u>X</u> OR TYPE SL3-L	TEMPERATURE (°F)	278° F Peak	340° F Peak		Ref. 2	Simultaneous Test	None
FUNCTION: Indicates Valve Position	PRESSURE (PSIG)	8.5 PSIG (1 Sec. Peak)	103 PSIG Peak		Ref. 2	Simultaneous Test	None
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	None
SERVICE: Various Valves	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	<1.6 x 10 ⁶ RAD	6.7 x 10 ⁶ RAD	Ref. 1	Ref. 2	Analysis	None
OTHER: _____	AGING	40 yrs.	40 yrs.		Ref 2	Analysis	None
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev.0, 7/15/80
and NES Letter 5152-008, 7/18/80

2 NUS Report 1961 - N007

REV. 2 9/1/81

NAMCO SL3

SYSTEM

IDENT. NO.

RI

39 - 05

39 - 06

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 ___ IN CONTAINMENT <input checked="" type="checkbox"/> OUT OF CONTAINMENT		SYSTEM <u>REACTOR ISOLATION</u> P&ID _____		IDENTIFICATION NO. <u>SEE ATTACHED LIST</u> COMPONENT <u>SOLENOID VALVE</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER: ASCO 8300 Series See Attached List	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
	OPERATING TIME	Approx. 1 Hr.	23 Hrs.		Ref. 2,3	Simultaneous Test	Note 1, 2
MODEL <u>X</u> OR TYPE _____ 8300 Series See Attached List	TEMPERATURE (°F)	278°F at Peak	340°F at Peak		Ref. 2	Simultaneous Test	Note 1, 2
FUNCTION: FLUID CONTROL	PRESSURE (PSIG)	9 PSIG Peak	65 PSIG Peak		Ref. 2	Simultaneous Test	Note 1, 2
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	Note 1, 2
SERVICE: VARIOUS SYSTEMS	CHEMICAL SPRAY	N/A	6% Boric Acid by weight		Ref. 3	Separate Test	
FLOOD LEVEL: <u>X</u> ABOVE ___ BELOW	RADIATION (RAD)	<10 ⁶ RAD	3 x 10 ⁷ RAD	Ref. 1	Ref. 2	Sequential Test	Note 1, 2
OTHER: _____	AGING	40 yrs.	200 Cycle				Note 1, 2
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and NES Letter 5152-008, 7/18/80
2 General Electric Report PED 126-62, 1/15/75
3 BWR Equipment Qualification Summary 96-A-03, 10/16/80

NOTE 1: The test specimens in Ref. 2 & 3 were ASCO Model #8300B64F and WPHT8300B61YF, respectively.
NOTE 2: Equipment to be modified to same integrity as test specimen, or to be replaced.



ASCO

8300 Valve

SYSTEM	IDENT. NO.	MODEL #
RI	39 - 05 (2)	HT8300B58RU
	39 - 06 (2)	HT8300B58RU



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 <input checked="" type="checkbox"/> IN CONTAINMENT <input type="checkbox"/> OUT OF CONTAINMENT		SYSTEM <u>REACTOR ISOLATION</u> P&ID _____		IDENTIFICATION NO. <u>33-02</u> COMPONENT <u>VALVE OPERATOR</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
RELIANCE/LIMITORQUE	OPERATING TIME	Approx. 1 Hr.	Approx. 6 Hrs. ~ Peak		Ref. 2	Simultaneous Test	Note 1
MODEL <u> </u> OR TYPE <u>X</u> SB-0 Model #60928A	TEMPERATURE (°F)	301°F Peak	340°F Peak		Ref. 2	Simultaneous Test	Note 1
FUNCTION: VALVE OPERATION	PRESSURE (PSIG)	35 PSIG Peak	150 PSIG Peak		Ref. 2	Simultaneous Test	Note 1
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	Note 1
SERVICE: REACTOR CLEANUP OUTLET ISOLATION VALVE	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	5×10^7 RAD	2.04×10^8 RAD	Ref. 1	Ref. 2	Sequential Test	Note 1
OTHER: _____	AGING	40 yrs.	40 yrs.			Test Analysis	Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NRC IE Bulletin 79-01B, App. B, 1/14/80
2 Limitorque Test Reports 600376A, dated 5/13/76 and addendum a, Rev. B, dated 1/23/79

NOTE 1: To be replaced

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 ___ IN CONTAINMENT <input checked="" type="checkbox"/> OUT OF CONTAINMENT		SYSTEM <u>RI</u> P&ID _____		IDENTIFICATION NO. <u>33-04</u> COMPONENT <u>VALVE OPERATOR</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
LIMITORQUE	OPERATING TIME	Approx. 1 Hr. 20 Sec. at Peak	Approx. 24 Hrs. at Peak		Ref. 2	Simultaneous Test	None
MODEL ___ OR TYPE <input checked="" type="checkbox"/> SB-1	TEMPERATURE (°F)	224°F at Peak	250°F at Peak		Ref. 2	Simultaneous Test	None
FUNCTION: VALVE OPERATION	PRESSURE (PSIG)	4 PSIG Peak	25 PSIG Peak		Ref. 2	Simultaneous Test	None
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	None
SERVICE: REACTOR CLEANUP OUTLET ISOLATION VALVE	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <input checked="" type="checkbox"/> ABOVE ___ BELOW	RADIATION (RAD)	< 10 ⁶ RAD	2X10 ⁷ RAD	Ref. 1	Ref. 2	Sequential Test	None
OTHER: _____	AGING	40 yrs.	199 Hrs @ 165°F		Ref. 2	Test	Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80.
2 Limitorque Test Report B0003 as delineated in
Ltr Limitorque/NUS dtd 8/28/81.

Note 1: Assessment On-Going
To Determine Expected Life.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 <input checked="" type="checkbox"/> IN CONTAINMENT <input type="checkbox"/> OUT OF CONTAINMENT		SYSTEM <u>REACTOR ISOLATION</u> P&ID _____		IDENTIFICATION NO. <u>33-01</u> COMPONENT <u>VALVE OPERATOR</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
RELIANCE/LIMITORQUE	OPERATING TIME	Approx. 1 Hr.	Approx. 6 Hrs. at Peak		Ref. 2	Simultaneous Test	Note 1
MODEL <u> </u> OR TYPE <u>X</u> SB-0 Model #60929A	TEMPERATURE (°F)	301°F at Peak	340°F at Peak		Ref. 2	Simultaneous Test	Note 1
FUNCTION: VALVE OPERATION	PRESSURE (PSIG)	35 PSIG Peak	150 PSIG Peak		Ref. 2	Simultaneous Test	Note 1
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	Note 1
SERVICE: REACTOR CLEANUP INLET ISOLATION VALVE	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	5 x 10 ⁷ RAD	2.04 x 10 ⁸ RAD	Ref. 1	Ref. 2	Sequential Test	Note 1
OTHER: _____	AGING	40 yrs.	40 yrs.			Test/Analysis	Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NRC IE Bulletin 79-01B, App. B, 1/14/80
 2 Limitorque Test Reports 600376A, dated 5/13/76 and Addendum A, Rev. B, dated 1/23/79

NOTE 1: To be replaced

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1		SYSTEM <u>REACTOR ISOLATION</u>		IDENTIFICATION NO. <u>01-01 & 02</u>	
	<u>X</u> IN CONTAINMENT OUT OF CONTAINMENT		P&ID _____		COMPONENT <u>LIMIT SWITCH</u>	

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MANUFACTURER: NAMCO	OPERATING TIME	Approx. 1 hr. 220 Sec. at Peak	24 Hrs. 3 Hrs. at Peak		Ref. 2	Simultaneous Test	None
MODEL <u>X</u> OR TYPE _____ SL3 C58TW	TEMPERATURE (°F)	301° F Peak	340° F Peak		Ref. 2	Simultaneous Test	None
FUNCTION:	PRESSURE (PSIG)	35 PSIG	103 PSIG Peak		Ref. 2	Simultaneous Test	None
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	None
SERVICE: Main Steam IV Pos	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE _____ BELOW	RADIATION (RAD)	5×10^7 RAD	6.7×10^6 RAD	Ref. 1	Ref. 2		Note 1
OTHER: _____	AGING	40 yrs.	40 yrs.		Ref. 2	Analysis	None
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80

2 NUS Report 1961 - N007

Note 1: Replacement will be made with a qualified
NAMCO Limit Switch.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 _____ IN CONTAINMENT X OUT OF CONTAINMENT		SYSTEM <u>AUTOMATIC DEPRESSURIZATION</u> PID <u>SYSTEM</u>		IDENTIFICATION NO. <u>SEE ATTACHED LIST</u> COMPONENT <u>DIFFERENTIAL PRESSURE TRANSMITTER</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT- STANDING ITEMS
	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MANUFACTURER: ROSEMOUNT	OPERATING TIME	Approx. 1 Hr. 10 min. Peak	7 Hrs. Peak		Ref. 2	Simultaneous Test	None
MODEL <u>X</u> OR TYPE 1151DP 6B22LMMB	TEMPERATURE (°F)	165°F Peak	303°F Peak		Ref. 2	Simultaneous Test	None
FUNCTION: FLOW MEASUREMENTS	PRESSURE (PSIG)	1 PSIG Peak	55.4 PSIG Peak		Ref. 2	Simultaneous Test	None
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	None
SERVICE: VARIOUS FLOW SYSTEMS	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: X ABOVE _____ BELOW	RADIATION (RAD)	< 1 x 10 ⁶ RAD	2 x 10 ⁶ RAD	Ref. 1	Ref. 2	Analysis	None
OTHER: _____	AGING	40 yrs.	40 yrs.		Ref. 2	Analysis	None
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and NES Letter 5152-008, 7/18/80

2 NUS Report 1961 - R369-001

ROSEMOUNT

1151 DP

SYSTEM

IDENT. NO.

ADS

ID - 33A

ID - 33B



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>AUTOMATIC DEPRESSURIZATION</u>	IDENTIFICATION NO. <u>NR-108 A-F</u>
	<u>X</u> IN CONTAINMENT <u> </u> OUT OF CONTAINMENT	P&ID <u>SYSTEM</u>	COMPONENT <u>VALVE POSITION SWITCH & SOLENOID</u>

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT- STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
GENERAL ELECTRIC	OPERATING TIME	Approx. 1 Hr.	11 Hrs.		Ref. 2		Note 1
MODEL <u> </u> OR TYPE <u>X</u> 1525VX Serial #BK3331 & #BK3336	TEMPERATURE (°F)	301°F Peak	308°F Peak		Ref. 2		Note 1
FUNCTION: RELIEF VALVE	PRESSURE (PSIG)	35 PSIG Peak	76.7 PSIG Peak		Ref. 2		Note 1
ACCURACY: (%) SPEC. <u> </u> DEMO. <u> </u>	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2		Note 1
SERVICE:	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	5 x 10 ⁷ RAD		Ref. 1			Note 1
OTHER: <u> </u>	AGING	40 yrs.					Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NRC IE Bulletin 79-01B App. B, 1/19-80
2 PEP Report 42963, 5/68. (Report not available at the time of this preparation.)

NOTE 1: To be replaced with qualified equipment



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 ___ IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT		SYSTEM <u>CONTAINMENT ISOLATION</u> P&ID <u>(DRYWELL)</u>		IDENTIFICATION NO. <u>80-36</u> COMPONENT <u>SOLENOID OPERATED VALVE</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER: DECCO	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
	OPERATING TIME	Approx. 1 Hr.					Note 1
MODEL <u>X</u> OR TYPE 24-166	TEMPERATURE (°F)	212°F . Peak					Note 1
FUNCTION: ISOLATION VALVE	PRESSURE (PSIG)	1 PSIG Peak					Note 1
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%					Note 1
SERVICE: CONTAINMENT SPRAY INLET	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE ___ BELOW	RADIATION (RAD)	< 10 ⁶ RAD		Ref. 1		Analysis	Note 1
OTHER: _____	AGING	40 years					Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80

NOTE 1: To be replaced with qualified equipment

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 IN CONTAINMENT <input checked="" type="checkbox"/> OUT OF CONTAINMENT		SYSTEM _____ CID _____ P&ID _____		IDENTIFICATION NO. 201-09 COMPONENT VALVE OPERATOR	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
LIMITORQUE	OPERATING TIME	Approx. 1 Hr. 10 Sec. Peak	Approx. 24 Hrs. Peak		Ref. 2	Simultaneous Test	None
MODEL__ OR TYPE X SMB-000-5 Serial #FU66T42	TEMPERATURE (°F)	126°F Peak	250°F Peak		Ref. 2	Simultaneous Test	None
FUNCTION: VALVE OPERATION	PRESSURE (PSIG)	1 PSIG Peak	25 PSIG Peak		Ref. 2	Simultaneous Test	None
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	None
SERVICE: DRYWELL VENT & PURGE ISOLATION VALVE	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: X ABOVE ____ BELOW	RADIATION (RAD)	$< 1 \times 10^6$ RAD	2×10^7 RAD	Ref. 1	Ref. 2	Sequential Test	None
OTHER: _____	AGING	40 yrs.	199 Hrs @ 165°F		Ref. 2	Test	Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80
2 Limitorque Test Report B0003 as delineated in
Ltr Limitorque/NWS dtd 8/29/81.

Note 1: Assessment On-Going To
Determine Expected Life.

REV. 2 9/1/81



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>CONTAINMENT ISOLATION</u>	IDENTIFICATION NO. <u>SEE ATTACHED LIST</u>
	<u> </u> IN CONTAINMENT	P&ID <u>(DRYWELL)</u>	COMPONENT <u>LIMIT SWITCH</u>
	<u>X</u> OUT OF CONTAINMENT		

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MANUFACTURER:							
NAMCO	OPERATING TIME	Approx. 1 Hr.	24 Hrs.		Ref. 2	Analysis	None
MODEL <u>X</u> OR TYPE <u> </u>	TEMPERATURE (°F)	126° F	126° F		Ref. 2	Analysis	None
D2400X							
FUNCTION: Indicates valve position	PRESSURE (PSIG)	1 PSIG	1 PSIG		Ref. 2	Analysis	None
ACCURACY: (1) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (1)	100%	100%		Ref. 2	Analysis	None
SERVICE: Various Valves	CHEMICAL SPRAY	N/A					None
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	< 10 ⁶ RAD	1 x 10 ⁶ RAD	Ref. 1	Ref. 2	Analysis	None
OTHER:	AGING	40 yrs.	40 yrs.		Ref. 2	Analysis	None
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document, 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80

2 NUS Report 1961 - N007

REV. 2 9/1/81



NAMCO D2400X

SYSTEM

IDENT. NO.

CID

201 - 10

83.1 - 10

83.1 - 12

80 - 16



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>CONTAINMENT ISOLATION</u>	IDENTIFICATION NO. <u>83.1-09</u>
	<u>X</u> IN CONTAINMENT <u> </u> OUT OF CONTAINMENT	P&ID <u>(DRYWELL)</u>	COMPONENT <u>VALVE OPERATOR</u>

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT- STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
LIMITORQUE	OPERATING TIME	Approx. 1 Hr.					Note 1
MODEL <u> </u> OR TYPE <u>X</u> HK MOTOR, LIMITORQUE SHB-000-2 MODEL #67019A	TEMPERATURE (°F)	301°F at Peak					Note 1
FUNCTION: VALVE OPERATION	PRESSURE (PSIG)	35 PSIG Peak					Note 1
ACCURACY: (%) SPEC. <u> </u> DEMO. <u> </u>	RELATIVE HUMIDITY (%)	100%					Note 1
SERVICE: Drywell Equipment Drain Pumps Discharge Isolation Valve	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	5×10^7 RAD		Ref. 1			Note 1
OTHER: <u> </u>	AGING	40 yrs.					Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NRC IE Bulletin 79001B, App. B. 1/14/80

NOTE 1: To be replaced with a qualified
limitorque valve operator.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>CONTAINMENT ISOLATION</u>	IDENTIFICATION NO. <u>83.1-11</u>
	<u>X</u> IN CONTAINMENT	P&ID <u>(DRYWELL)</u>	COMPONENT <u>VALVE OPERATOR</u>
	OUT OF CONTAINMENT		

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
LIMITORQUE	OPERATING TIME	Approx. 1 Hr.					Note 1
MODEL <u> </u> OR TYPE <u>X</u> HH MOTOR, LIMITORQUE SMB000 MODEL #67020A	TEMPERATURE (°F)	301°F Peak					Note 1
FUNCTION: VALVE OPERATION	PRESSURE (PSIG)	35 PSIG Peak					Note 1
ACCURACY: (%) SPEC. <u> </u> DEMO. <u> </u>	RELATIVE HUMIDITY (%)	100%					Note 1
SERVICE: DRYWELL FLOOR DRAIN PUMPS DISCHARGE ISOLATION VALVE	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u> </u> ABOVE <u> </u> BELOW	RADIATION (RAD)	5 x 10 ⁷ RAD		Ref. 1			Note 1
OTHER: <u> </u>	AGING	40 years	40 yrs.			Test / Analysis	Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NRC IE Bulletin 79-01B, App. B, 1/14/80

NOTE 1: To be replaced with a qualified limitorque valve operator.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 ___ IN CONTAINMENT <input checked="" type="checkbox"/> OUT OF CONTAINMENT		SYSTEM <u>CONTAINMENT ISOLATION</u> P&ID <u>(DRYWELL)</u>		IDENTIFICATION NO. <u>SEE ATTACHED LIST</u> COMPONENT <u>LIMIT SWITCH</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER: NAMCO	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
	OPERATING TIME	Approx. 1 Hr.					Note 1
MODEL <u>X</u> OR TYPE D2400X	TEMPERATURE (°F)	305° F					Note 1
FUNCTION: Indicates valve position	PRESSURE (PSIG)	9 PSIG					Note 1
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%					Note 1
SERVICE: Various Valves	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE ___ BELOW	RADIATION (RAD)	<10 ⁶ RAD		Ref. 1			Note 1
OTHER: _____	AGING						Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document, 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80

Note 1: Replacement will be made with a qualified
NAMCO Limit Switch.



NAMCO D2400X

SYSTEM

IDENT. NO.

CID

201 - 32
201.2 - 03
201.2 - 32

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 _____ IN CONTAINMENT X OUT OF CONTAINMENT		SYSTEM _____ CID _____ P&ID _____		IDENTIFICATION NO. 201-31 COMPONENT VALVE OPERATOR	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
LIMITORQUE	OPERATING TIME	Approx. 1 Hr. Peak	Approx. 24 Hrs. Peak		Ref. 2	Simultaneous Test	None
MODEL _____ OR TYPE X SMB-000-5 Serial #FU66741	TEMPERATURE (°F)	305°F Peak	250°F Peak		Ref. 2	Simultaneous Test	None
FUNCTION: VALVE OPERATION	PRESSURE (PSIG)	9 PSIG Peak	25 PSIG Peak		Ref. 2	Simultaneous Test	None
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	None
SERVICE: DRYWELL N ₂ VENT & FILL ISOLATION VALVE	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: X ABOVE _____ BELOW	RADIATION (RAD)	< 1 x 10 ⁶ RAD	2 x 10 ⁷ RAD	Ref. 1	Ref. 2	Sequential Test	None
OTHER: _____	AGING	40 yrs.	199 Hrs @ 165°F		Ref. 2	Test	Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and NES Letter 5152-008, 7/18/80
 2 Limitorque Test Report B0003 as delineated in Ltr Limitorque/NUS dtd 8/28/81.

Note 1: Assessment On-Going
 To Determine Expected Life.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 ___ IN CONTAINMENT <input checked="" type="checkbox"/> OUT OF CONTAINMENT		SYSTEM <u>CONTAINMENT ISOLATION</u> P&ID <u>(DRYWELL)</u>		IDENTIFICATION NO. <u>SEE ATTACHED LIST</u> COMPONENT <u>SOLENOID VALVE</u>	
DATA		ENVIRONMENT		DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
		PARAMETER	SPEC.	QUALIF.	SPEC.		
MANUFACTURER: ASCO		OPERATING TIME	Approx. 1 Hr. 40 Sec. . Peak	23 Hrs. 2 Min. . Peak		Ref. 2	Simultaneous Test None Note 1,2
MODEL <u>X</u> OR TYPE WPLB8300B72F		TEMPERATURE (°F)	305°F Peak	340°F Peak		Ref. 2	Simultaneous Test None Note 1,2
FUNCTION: FLUID CONTROL		PRESSURE (PSIG)	9 PSIG Peak	65 PSIG Peak		Ref. 2	Simultaneous Test None Note 1,2
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>		RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test None Note 1,2
SERVICE: VARIOUS SYSTEMS		CHEMICAL SPRAY	N/A	6% Boric Acid by Weight		Ref. 3	Separate Test N/A
FLOOD LEVEL: <u>X</u> ABOVE ___ BELOW		RADIATION (RAD)	< 10 ⁶ RAD	4 x 10 ⁶ RAD	Ref. 1		Sequential Test None
OTHER: _____		AGING	40 yrs.	40 yrs.	Ref. 1		Analysis Note 2
		SUBMERGENCE	N/A				N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
 NES Letter 5152-008 7/18/80
 2 NUS Report 1961 - A499-001
 3 BWR Equipment Qualification Summary 96-A-03, 10/16/80

NOTE 1: The test specimens in Ref. 2 & 3 were
 ASCO Model #8300B68F and WPH8300B61YF,
 respectively.
 NOTE 2: Existing coils will be replaced with qualified Class "H" coils.



ASCO 8300 VALVE

SYSTEM	IDENT. NO.	MODEL #
CID	201.2 - 03 (2)	WPLB8300B72F
	201.2 - 32 (2)	"



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>CONTAINMENT ISOLATION</u>	IDENTIFICATION NO. <u>80-15</u>
	<u> </u> IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT	P&ID <u>(DRYWELL)</u>	COMPONENT <u>SOLENOID OPERATED VALVE</u>

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT- STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
DECCO	OPERATING TIME	Approx. 1 Hr.					Note 1
MODEL <u>X</u> OR TYPE 24-166	TEMPERATURE (°F)	212°F Peak					Note 1
FUNCTION: ISOLATION VALVE	PRESSURE (PSIG)	1 PSIG Peak					Note 1
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%					Note 1
SERVICE: CONTAINMENT SPRAY IN INLET	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	< 10 ⁶ RAD		Ref. 1		Analysis	Note 1
OTHER: _____	AGING						Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80

NOTE 1: To be replaced with qualified equipment



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT		SYSTEM <u>CONTAINMENT ISOLATION</u> P&ID <u>(DRYWELL)</u>		IDENTIFICATION NO. <u>80-16</u> COMPONENT <u>SOLENOID OPERATED VALVE</u>	
DATA		ENVIRONMENT		DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:		PARAMETER	SPEC.	QUALIF.	SPEC.		
DECCO		OPERATING TIME	Approx. 1 Hr.				Note 1
MODEL <u>X</u> OR TYPE 24-166		TEMPERATURE (°F)	212°F Peak				Note 1
FUNCTION: ISOLATION VALVE		PRESSURE (PSIG)	1 PSIG Peak				Note 1
ACCURACY: (3) SPEC. _____ DEMO. _____		RELATIVE HUMIDITY (3)	100%				Note 1
SERVICE: CONTAINMENT SPRAY INLET		CHEMICAL SPRAY	N/A				N/A
FLOOD LEVEL: <u>X</u> ABOVE ___ BELOW		RADIATION (RAD)	< 10 ⁶ RAD		Ref. 1	Analysis	Note 1
OTHER:		AGING					Note 1
		SUBMERGENCE	N/A				N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80

NOTE 1: To be replaced with qualified equipment



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 ___ IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT		SYSTEM <u>CONTAINMENT ISOLATION</u> P&ID <u>(DRYWELL)</u>		IDENTIFICATION NO. <u>80-35</u> COMPONENT <u>SOLENOID OPERATED VALVE</u>	
DATA		ENVIRONMENT		DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
		PARAMETER	SPEC.	QUALIF.	SPEC.		
MANUFACTURER: DECCO		OPERATING TIME	Approx. 1 Hr.				Note 1
MODEL <u>X</u> OR TYPE 24-166		TEMPERATURE (°F)	212°F Peak				Note 1
FUNCTION: ISOLATION VALVE		PRESSURE (PSIG)	1 PSIG Peak				Note 1
ACCURACY: (%) SPEC. _____ DEMO. _____		RELATIVE HUMIDITY (%)	100%				Note 1
SERVICE: CONTAINMENT SPRAY INLET		CHEMICAL SPRAY	N/A				N/A
FLOOD LEVEL: <u>X</u> ABOVE ___ BELOW		RADIATION (RAD)	< 10 ⁶ RAD		Ref. 1	Analysis	Note 1
OTHER: _____		AGING					Note 1
		SUBMERGENCE	N/A				N/A

REFERENCE: NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80

NOTE 1: To be replaced with qualified equipment



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1		SYSTEM <u>CONTAINMENT ISOLATION</u>		IDENTIFICATION NO. <u>201.2-25</u>	
	<u> </u> IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT		P&ID <u>(DRYWELL)</u>		COMPONENT <u>SOLENOID OPERATED VALVE</u>	

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT- STANDING ITEMS
	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MANUFACTURER: LAURENCE	OPERATING TIME	Approx. 1 Hr.	1 Hr.		Ref. 2	Analysis Note 1	None
MODEL <u>X</u> OR TYPE CAT. No. 506 WA 26 DC-SW-PS Ser. No. 20012	TEMPERATURE (°F)	165°F Peak	165°F Peak		Ref. 2	Analysis Note 1	None
FUNCTION: Isolation Valve	PRESSURE (PSIG)	1 PSIG Peak	1 PSIG Peak		Ref. 2	Analysis Note 1	None
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Analysis Note 1	None
SERVICE: Drywell O ₂ Sample	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	< 10 ⁶ RAD		Ref. 1	Ref. 2		Note 1
OTHER: _____	AGING	40 yrs.			Ref. 2		Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80
2 Laurence Bulletin for Series 500 & 500HP two-way rotary shaft type
solenoid valves, Issue 5; and Drawing #2600E

NOTE 1: Assessment on-going

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 ___ IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT		SYSTEM <u>CONTAINMENT ISOLATION</u> P&ID <u>(DRYWELL)</u>		IDENTIFICATION NO. <u>201.2-27</u> COMPONENT <u>SOLENOID OPERATED VALVE</u>	
DATA		ENVIRONMENT		DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
		PARAMETER	SPEC.	QUALIF.	SPEC.		
MANUFACTURER: LAURENCE		OPERATING TIME	Approx. 1 Hr.	1 Hr.		Ref. 2	Analysis Note 1 None
MODEL <u>X</u> OR TYPE Cat. No. 506 WA 26DC-SW-PS Ser. No. 20012		TEMPERATURE (°F)	165° F Peak	165°F Peak		Ref. 2	Analysis Note 1 None
FUNCTION: Isolation Valve		PRESSURE (PSIG)	1 PSIG Peak	1 PSIG Peak		Ref. 2	Analysis Note 1 None
ACCURACY: (%) SPEC. _____ DEMO. _____		RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Analysis Note 1 None
SERVICE: Drywell O ₂ Sample		CHEMICAL SPRAY	N/A				N/A
FLOOD LEVEL: <u>X</u> ABOVE ___ BELOW		RADIATION (RAD)	<10 ⁶ RAD		Ref. 1	Ref. 2	Note 1
OTHER: _____		AGING	40 yrs.			Ref. 2	Note 1
		SUBMERGENCE	N/A				N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7-18/80
2 Laurence Bulletin for Series 500 & 500HP two-way rotary shaft type
solenoid valves, Issue 5; and Drawing #2600E

NOTE 1: Assessment on-going

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 ___ IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT		SYSTEM <u>CONTAINMENT ISOLATION</u> P&ID <u>(DRYWELL)</u>		IDENTIFICATION NO. <u>201.2-29</u> COMPONENT <u>SOLENOID OPERATED VALVE</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER: LAURENCE	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
	OPERATING TIME	Approx. 1 Hr.	1 Hr.		Ref. 2	Analysis Note 1	None
MODEL <u>X</u> OR TYPE CAT. NO. 506 WA 26 DC-SW-PS Ser. No. 20012	TEMPERATURE (°F)	165° F Peak	165°F Peak		Ref. 2	Analysis Note 1	None
FUNCTION: Isolation Valve	PRESSURE (PSIG)	1 PSIG Peak	1 PSIG Peak		Ref. 2	Analysis Note 1	None
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Analysis Note 1	None
SERVICE: Drywell O ₂ Sample	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE ___ BELOW	RADIATION (RAD)	< 10 ⁶ RAD		Ref. 1	Ref. 2		Note 1
OTHER: _____	AGING	40 yrs.			Ref. 2		Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80
2 Laurence Bulletin for Series 500 & 500HP two-way rotary shaft type
solenoid valves, Issue 5; and Drawing #2600E

NOTE 1: Assessment on-going



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 ___ IN CONTAINMENT <input checked="" type="checkbox"/> OUT OF CONTAINMENT		SYSTEM <u>CONTAINMENT ISOLATION</u> P&ID <u>(DRYWELL)</u>		IDENTIFICATION NO. <u>201.2-28</u> COMPONENT <u>SOLENOID OPERATED VALVE</u>	
DATA		ENVIRONMENT		DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
		PARAMETER	SPEC.	QUALIF.	SPEC.		
MANUFACTURER: LAURENCE		OPERATING TIME	Approx. 1 Hr.	1 Hr.		Ref. 2	Analysis Note 1 None
MODEL <u>X</u> OR TYPE CAT. No. 506 WA 26 DC-SW-PS Ser. No. 20012		TEMPERATURE (°F)	165° F Peak	165°F Peak		Ref. 2	Analysis Note 1 None
FUNCTION: Isolation Valve		PRESSURE (PSIG)	1 PSIG Peak	1 PSIG Peak		Ref. 2	Analysis Note 1 None
ACCURACY: (%) SPEC. _____ DEMO. _____		RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Analysis Note 1 None
SERVICE: Drywell O ₂ Sample		CHEMICAL SPRAY	N/A				N/A
FLOOD LEVEL: <u>X</u> ABOVE ___ BELOW		RADIATION (RAD)	< 10 ⁶ RAD		Ref. 1	Ref. 2	Note 1
OTHER: _____		AGING	40 yrs.			Ref. 2	Note 1
		SUBMERGENCE	N/A				N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80

2 Laurence Bulletin for Series 500 & 500HP two-way rotary shaft type
solenoid valves, Issue 5; and Drawing #2600E

NOTE 1: Assessment on-going



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1		SYSTEM <u>CONTAINMENT ISOLATION</u>		IDENTIFICATION NO. <u>201.2-26</u>	
	<u> </u> IN CONTAINMENT <u> X </u> OUT OF CONTAINMENT		P&ID <u>(DRYWELL)</u>		COMPONENT <u>SOLENOID OPERATED VALVE</u>	

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT- STANDING ITEMS
	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MANUFACTURER: LAURENCE	OPERATING TIME	Approx. 1 Hr.	1 Hr.		Ref. 2	Analysis Note 1	None
MODEL <u> X </u> OR TYPE CAT. No. 506 WA 26 DC-SW-PS Ser. No. 20012	TEMPERATURE (°F)	165° F Peak	165° F Peak		Ref. 2	Analysis Note 1	None
FUNCTION: Isolation Valve	PRESSURE (PSIG)	1 PSIG Peak	1 PSIG Peak		Ref. 2	Analysis Note 1	None
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Analysis Note 1	None
SERVICE: Drywell O ₂ Sample	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: ___ ABOVE ___ BELOW	RADIATION (RAD)	< 10 ⁶ RAD		Ref. 1	Ref. 2		Note 1
OTHER: _____	AGING	40 yrs.			Ref. 2		Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80
2 Laurence Bulletin for Series 500 & 500HP two-way rotary shaft type
solenoid valves, Issue 5; and Drawing #2600E

NOTE 1: Assessment on-going

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 ____ IN CONTAINMENT <input checked="" type="checkbox"/> OUT OF CONTAINMENT		SYSTEM <u>CONTAINMENT ISOLATION</u> P&ID <u>(DRYWELL)</u>		IDENTIFICATION NO. <u>201.2-30</u> COMPONENT <u>SOLENOID OPERATED VALVE</u>	
DATA		ENVIRONMENT		DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
		PARAMETER	SPEC.	QUALIF.	SPEC.		
MANUFACTURER: LAURENCE		OPERATING TIME	Approx. 1 Hr.	1 Hr.		Ref. 2	Analysis Note 1 None
MODEL <u>X</u> OR TYPE _____ ____ NO. 506 WA 26 DC-SW-PS Ser. No. 20012		TEMPERATURE (°F)	165° F Peak	165° F Peak		Ref. 2	Analysis Note 1 None
FUNCTION: Isolation Valve		PRESSURE (PSIG)	1 PSIG Peak	1 PSIG Peak		Ref. 2	Analysis Note 1 None
ACCURACY: (%) SPEC. _____ DEMO. _____		RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Analysis Note 1 None
SERVICE: Drywell O ₂ Sample		CHEMICAL SPRAY	N/A				N/A
FLOOD LEVEL: ____ ABOVE ____ BELOW		RADIATION (RAD)	< 10 ⁶ RAD	10 ⁶ RAD	Ref. 1	Ref. 2	Analysis Note 1 Note 1
OTHER: _____		AGING	40 yrs.	40 yrs.		Ref. 2	Note 1
		SUBMERGENCE	N/A				N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80
2 Laurence Bulletin for Series 500 & 500HP two-way rotary shaft type
solenoid valves, Issue 5; and Drawing #2600E.

NOTE 1: Assessment on-going

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 ___ IN CONTAINMENT <input checked="" type="checkbox"/> OUT OF CONTAINMENT		SYSTEM <u>CONTAINMENT ISOLATION</u> P&ID <u>(DRYWELL)</u>		IDENTIFICATION NO. <u>201-2-30</u> COMPONENT <u>SOLENOID OPERATED VALVE</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
LAURENCE	OPERATING TIME	Approx. 1 Hr.	1 Hr.		Ref. 2	Analysis Note 1	None
MODEL <u>X</u> OR TYPE CAT. NO. 506 WA 26 DC-SW-PS Ser. No. 20012	TEMPERATURE (°F)	165° F Peak	165° F Peak		Ref. 2	Analysis Note 1	None
FUNCTION: Isolation Valve	PRESSURE (PSIG)	1 PSIG Peak	1 PSIG Peak		Ref. 2	Analysis Note 1	None
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Analysis Note 1	None
SERVICE: Drywell O ₂ Sample	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: ___ ABOVE ___ BELOW	RADIATION (RAD)	< 10 ⁶ RAD	10 ⁶ RAD	Ref. 1	Ref. 2	Analysis Note 1	None
OTHER: _____	AGING	40 yrs.	40 yrs.		Ref. 2		None
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and NES Letter 5152-008, 7/18/80
2 Laurence Bulletin for Series 500 & 500HP two-way rotary shaft type solenoid valves, Issue 5; and Drawing #2600E.

NOTE 1: System environmental conditions are below those specified in Ref. 1. Therefore, the valves are considered to be in a mild environment.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYS' _____	IDENTIFICATION NO. 201-07
	IN CONTAINMENT	P&ID _____	COMPONENT VALVE OPERATOR
	X OUT OF CONTAINMENT		

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT- STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
LIMITORQUE	OPERATING TIME	Approx. 1 Hr. 10 Sec. Peak	Approx. 24 Hrs. Peak		Ref. 2	Simultaneous Test	None
MODEL OR TYPE X SMB-000-2 550V AC	TEMPERATURE (°F)	126°F Peak	250°F Peak		Ref. 2	Simultaneous Test	None
FUNCTION: VALVE OPERATION	PRESSURE (PSIG)	1 PSIG Peak	25 PSIG Peak		Ref. 2	Simultaneous Test	None
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	None
SERVICE: VENT & PURGE ISOLATION VALVE	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: X ABOVE _____ BELOW	RADIATION (RAD)	< 1 x 10 ⁶ RAD	2 x 10 ⁷ RAD	Ref. 1	Ref. 2	Sequential Test	None
OTHER:	AGING	40 yrs.	199 Hrs @ 165°F		Ref. 2	Test	Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80
2 Limitorque Test Report B0003 as delineated
in Ltr Limitorque/NUS dtd 8/28/81.

Note 1: Assessment On-Going
to Determine Expected Life.



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 _____ IN CONTAINMENT - X OUT OF CONTAINMENT		SYSTEM <u>CONTAINMENT ISOLATION</u> P&ID <u>(TORUS)</u>		IDENTIFICATION NO. <u>SEE ATTACHED LIST</u> COMPONENT <u>LIMIT SWITCH</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
NAMCO	OPERATING TIME	Approx. 1 Hr.	24 Hrs.		Ref. 2	Analysis	None
MODEL <u>X</u> OR TYPE D2400X	TEMPERATURE (°F)	126° F	126° F		Ref. 2	Analysis	None
FUNCTION: Indicates valve position	PRESSURE (PSIG)	1 PSIG	1 PSIG		Ref. 2	Analysis	None
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Analysis	None
SERVICE: Various Valves	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE ___ BELOW	RADIATION (RAD)	<10 ⁶ RAD	1 x 10 ⁶ RAD	Ref. 1	Ref. 2	Analysis	None
OTHER: _____	AGING	40 yrs.	40 yrs.		Ref. 2	Analysis	None
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document, 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80

2 NUS Report 1961-N007

NAMCO D2400X

SYSTEM

IDENT. NO.

CIT

201 - 08
201.2 - 06
201.2 - 33
201 - 16

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 ___ IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT		SYSTEM <u>CONTAINMENT ISOLATION</u> P&ID <u>(TORUS)</u>		IDENTIFICATION NO. <u>SEE ATTACHED LIST</u> COMPONENT <u>SOLENOID VALVE</u>	
DATA		ENVIRONMENT		DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
		PARAMETER	SPEC.	QUALIF.	SPEC.		
MANUFACTURER: ASCO		OPERATING TIME	Approx. 1 Hr. 10 Sec. at Peak	23 Hrs. 2 Min. at Peak		Ref. 2	Simultaneous Test None Note 1, 2
MODEL <u>X</u> OR TYPE 8300B61RU		TEMPERATURE (°F)	126°F at Peak	221°F at Peak		Ref. 2	Simultaneous Test None Note 1, 2
FUNCTION: FLUID CONTROL		PRESSURE (PSIG)	1 PSIG Peak	65 PSIG Peak		Ref. 2	Simultaneous Test None Note 1, 2
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>		RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test None Note 1, 2
SERVICE: VARIOUS SYSTEMS		CHEMICAL SPRAY	N/A	6% Boric Acid by Weight		Ref. 3	Separate Test N/A
FLOOD LEVEL: <u>X</u> ABOVE ___ BELOW		RADIATION (RAD)	< 10 ⁶ RAD	4 x 10 ⁶ RAD GAMMA	Ref. 1		Sequential Test None Note 1, 2
OTHER: _____		AGING	40 yrs.				Analysis Note 2
		SUBMERGENCE	N/A				N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and NES Letter 5152-008, 7/18/80
 2 NUS Report 1961 - A499-001
 3 BWR Equipment Qualification Summary 96-A-03, 10/16/80

NOTE 1: The test specimens in Ref. 2 & 3 were ASCO Model #8300B68F and WPHT8300B61VF, respectively.
 NOTE 2: To be replaced with qualified equipment.

REV. 9/1/81

ASCO 8300 VALVE

SYSTEM	IDENT. NO.	MODEL No.
CIT	201.2 - 06 (2)	8300B61RU
	201.2 - 33 (2)	"

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1 _____ IN CONTAINMENT <input checked="" type="checkbox"/> OUT OF CONTAINMENT	SYSTEM <u>CONTAINMENT ISOLATION</u> P&ID <u>(TORUS)</u>	IDENTIFICATION NO. <u>201-17</u> COMPONENT <u>VALVE OPERATOR</u>
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DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MANUFACTURER:							
LIMITORQUE	OPERATING TIME	Approx. 1 Hr. 10 Sec. Peak	Approx. 24 Hrs Peak		Ref. 2	Simultaneous Test	None
MODEL _____ OR TYPE <u>X</u> SMB-000-2 550V AC	TEMPERATURE (°F)	126°F Peak	250°F Peak		Ref. 2	Simultaneous Test	None
FUNCTION: VALVE OPERATION	PRESSURE (PSIG)	1 PSIG Peak	25 PSIG Peak		Ref. 2	Simultaneous Test	None
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	None
SERVICE: VENT & PURGE ISOLATION VALVE	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE _____ BELOW	RADIATION (RAD)	< 1 x 10 ⁶ RAD	2 x 10 ⁷ RAD	Ref. 1	Ref. 2	Sequential Test	None
OTHER: _____	AGING	40 yrs.	199 Hrs at 165°F		Ref. 2	Test	Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
 NES Letter 5152-008, 7/18/80

2 Limitorque Test Report B0003 as delineated in Ltr
 Limitorque/NUS dtd 8/28/81.

Note 1: Assessment On-Going to
 Determine Expected Life.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 IN CONTAINMENT <input checked="" type="checkbox"/> OUT OF CONTAINMENT		SYSTEM <u>CONTAINMENT ISOLATION</u> P&ID <u>(TORUS)</u>		IDENTIFICATION NO. <u>201.2-23</u> COMPONENT <u>SOLENOID OPERATED VALVE</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER: Laurence	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
	OPERATING TIME	Approx. 1 Hr.	1 Hr.		Ref. 2		None
MODEL <u>X</u> OR TYPE Cat. No. 506WA SW-PS Ser. No. 20012	TEMPERATURE (°F)	165°F at Peak	165°F		Ref. 2		None
FUNCTION: ISOLATION VALVE	PRESSURE (PSIG)	1 PSIG Peak	1 PSIG		Ref. 2		None
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2		None
SERVICE: O ₂ SAMPLING	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE ___ BELOW	RADIATION (RAD)	< 1 x 10 ⁶ RAD					Note 1
OTHER: _____	AGING	40 Yrs.		Ref. 1			Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80
2 Laurence Bulletin for Series 500 + Hp. two-way rotary
shaft type Solenoid Valves, Issue 5, and Drawing #2600E

NOTE 1: Assessment on-going

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 IN CONTAINMENT <input checked="" type="checkbox"/> OUT OF CONTAINMENT		SYSTEM <u>CONTAINMENT ISOLATION</u> P&ID <u>(TORUS)</u>		IDENTIFICATION NO. <u>201.2-24</u> COMPONENT <u>SOLENOID OPERATED VALVE</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
Laurence	OPERATING TIME	Approx. 1 Hr.	1 Hr.		Ref. 2		None
MODEL <u>X</u> OR TYPE Cat. No. 506 WA 26 DC-SW-PS Serial No. 20012	TEMPERATURE (°F)	165°F at Peak	165°F		Ref. 2		None
FUNCTION: ISOLATION VALVE	PRESSURE (PSIG)	1 PSIG Peak	1 PSIG		Ref. 2		None
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2		None
SERVICE: O ₂ SAMPLING	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE ___ BELOW	RADIATION (RAD)	<1 x 10 ⁶ RAD		Ref. 1			Note 1
OTHER: _____	AGING	40 Yrs.					Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80

2 Laurence Bulletin for Series 500 + 500 Hp. two-way
rotary shaft type Solenoid Valves, Issue 5, and
Drawing #2600E

NOTE 1: Assessment on-going

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>CONTAINMENT ISOLATION</u>	IDENTIFICATION NO. <u>68-08</u>
	<u> </u> IN CONTAINMENT	P&ID <u>(TORUS)</u>	COMPONENT <u>VALVE POSITION SWITCH</u>
	<u>X</u> OUT OF CONTAINMENT		

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT- STANDING ITEMS
MANUFACTURER: MICRO SWITCH	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
	OPERATING TIME	Approx. 1 Hr.	741 Hrs. Peak		Ref. 2 Ref. 3	Simultaneous Test	None
MODEL <u>X</u> OR TYPE 11 LSI See Note 1	TEMPERATURE (°F)	126° F Peak	257° F Peak		Ref. 2 Ref. 3	Simultaneous Test	None
FUNCTION: Isolation Valve Position Switch	PRESSURE (PSIG)	1 PSIG Peak	Atmospheric		Ref. 2 Ref. 3	Simultaneous Test	None
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	95% to 100%		Ref. 2 Ref. 3	Separate Test	None
SERVICE: Torus/Drywell Vacuum Relief	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	< 10 ⁶ RAD	1 x 10 ⁶ RAD	Ref. 1	Ref. 3	Analysis	None
OTHER: _____	AGING	40 yrs.	40 yrs.		Ref. 3	Analysis	None
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80
2 Micro Switch Test Report LTR-24407, 2/24/77
3 NUS Report 1961 - M302

NOTE 1: Test specimen in Ref. 2 was micro-
switch Type LSA2B-1D which is generic
to Type 11 LSI



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>CONTAINMENT ISOLATION</u>	IDENTIFICATION NO. <u>68-09</u>
	<u> </u> IN CONTAINMENT	P&ID <u>(TORUS)</u>	COMPONENT <u>VALVE POSITION SWITCH</u>
	<u>X</u> OUT OF CONTAINMENT		

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT- STANDING ITEMS
	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MANUFACTURER: MICRO SWITCH	OPERATING TIME	Approx. 1 Hr. 15 Sec. Peak	741 Hrs. Peak		Ref. 2 Ref. 3	Simultaneous Test	None
MODEL <u>X</u> OR TYPE 11 LSI See Note 1	TEMPERATURE (°F)	126° F Peak	257° F Peak		Ref. 2 Ref. 3	Simultaneous Test	None
FUNCTION: Isolation Valve Position Switch	PRESSURE (PSIG)	1 PSIG Peak	Atmospheric		Ref. 2 Ref. 3	Simultaneous Test	None
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	95% to 100%		Ref. 2 Ref. 3	Separate Test	None
SERVICE: Torus/Drywell Vacuum Relief	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	< 10 ⁶ RAD	1 x 10 ⁶ RAD	Ref. 1	Ref. 3	Analysis	None
OTHER: _____	AGING	40 yrs.	40 yrs.		Ref. 3	Analysis	None
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80
2 Micro Switch Test Report LTR-24407, 2/24/77
3 NUS Report 1961 - M302

NOTE 1: Test specimen in Ref. 2 was micro-
switch Type LSA2B-1D which is generic
to Type 11 LSI

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 IN CONTAINMENT <input checked="" type="checkbox"/> OUT OF CONTAINMENT		SYSTEM CONTAINMENT ISOLATION P&ID (TORUS)		IDENTIFICATION NO. 68-10 COMPONENT VALVE POSITION SWITCH	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MANUFACTURER: MICRO SWITCH	OPERATING TIME	Approx. 1 Hr. 15 Sec. Peak	741 Hrs. Peak		Ref. 2 Ref. 3	Simultaneous Test	None
MODEL <u>X</u> OR TYPE 11 LSI See Note 1	TEMPERATURE (°F)	126° F Peak	257° F Peak		Ref. 2 Ref. 3	Simultaneous Test	None
FUNCTION: Isolation Valve Position Switch	PRESSURE (PSIG)	1 PSIG Peak	Atmospheric		Ref. 2 Ref. 3	Simultaneous Test	None
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	95% to 100%		Ref. 2 Ref. 3	Separate Test	None
SERVICE: Torus/Drywell Vacuum Relief	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE _____ BELOW	RADIATION (RAD)	< 10 ⁶ RAD	1 x 10 ⁶ RAD	Ref. 1	Ref. 3	Analysis	None
OTHER: _____	AGING	40 yrs.	40 yrs.		Ref. 3	Analysis	None
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
 NES Letter 5152-008, 7/18/80
 2 Micro Switch Test Report LTR-24407, 2/24/77
 3 NUS Report 1961 - M302

NOTE 1: Test specimen in Ref. 2 was micro-switch Type LSA2B-1D which is generic to Type 11 LST

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1 ___ IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT		SYSTEM <u>CONTAINMENT ISOLATION</u> P&ID <u>(TORUS)</u>		IDENTIFICATION NO. <u>SEE ATTACHED LIST</u> COMPONENT <u>SOLENOID VALVE</u>		
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MANUFACTURER: ASCO	OPERATING TIME	Approx. 1 Hr. 10 Sec. at Peak	23 Hrs. 2 Min. at Peak		Ref. 2	Simultaneous Test	None Note 1
MODEL <u>X</u> OR TYPE WPLB8300B68F	TEMPERATURE (°F)	126°F at Peak	266°F at Peak		Ref. 2	Analysis	None Note 1
FUNCTION: FLUID CONTROL	PRESSURE (PSIG)	1 PSIG Peak	65 PSIG Peak		Ref. 2	Simultaneous Test	None Note 1
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	None Note 1
SERVICE: VARIOUS SYSTEMS	CHEMICAL SPRAY	N/A	6% Boric Acid by Weight		Ref. 3	Separate Test	N/A
FLOOD LEVEL: <u>X</u> ABOVE ___ BELOW	RADIATION (RAD)	< 10 ⁶ RAD	4 x 10 ⁶ RAD GAMMA	Ref. 1		Sequential Test	None Note 1
OTHER: _____	AGING	40 yrs.				Analysis	Note 2
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80
2 NUS Report 1961 - A499-001
3 BWR Equipment Qualification Summary 96-A-03, 10/16/80

NOTE 1: The test specimens in Ref. 2 & 3 were
ASCO Model 8300B68F and WPH8300B61YF,
respectively

NOTE 2: Assessment on-going

REV. 2 /1/81

ASCO 8300 VALVE

SYSTEM

IDENT. NO.

MODEL #

CIT

68 - 08C
68 - 09C
68 - 10C

WPLB8300B68F
"
"

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 <input type="checkbox"/> IN CONTAINMENT <input checked="" type="checkbox"/> OUT OF CONTAINMENT		SYSTEM <u>CONTAINMENT ISOLATION</u> P&ID <u>(TORUS)</u>		IDENTIFICATION NO. <u>68-11 A & B</u> COMPONENT <u>TORUS VACUUM SWITCH</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MANUFACTURER:							
MERCOID	OPERATING TIME	Approx. 1 Hr.					Note 1
MODEL <u>OR TYPE X</u>							
CP 4122	TEMPERATURE (°F)	126°F Peak					Note 1
FUNCTION:							
TORUS VACUUM SWITCH	PRESSURE (PSIG)	1 PSIG Peak					Note 1
ACCURACY: (%)							
SPEC. _____	RELATIVE HUMIDITY (%)	100%					Note 1
DEMO. _____							
SERVICE:							
TORUS VACUUM RELIEF	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL:							
<u>X</u> ABOVE <u>BELOW</u>	RADIATION (RAD)	< 10 ⁶ RAD		Ref. 1		Analysis	Note 1
OTHER:							
	AGING						Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
 NES Letter 5152-008, 7/18/80

NOTE 1: Efforts to obtain qualification on-going.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 ____ IN CONTAINMENT <input checked="" type="checkbox"/> OUT OF CONTAINMENT		SYSTEM <u>CONTAINMENT ISOLATION</u> P&ID <u>(TORUS)</u>		IDENTIFICATION NO. <u>68-12 A & B</u> COMPONENT <u>TORUS VACUUM SWITCH</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MERCOID	OPERATING TIME	Approx. 1 Hr.					Note 1
MODEL ____ OR TYPE <input checked="" type="checkbox"/> CP 4122	TEMPERATURE (°F)	126°F Peak					Note 1
FUNCTION: TORUS VACUUM SWITCH	PRESSURE (PSIG)	1 PSIG Peak					Note 1
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%					Note 1
SERVICE: TORUS VACUUM RELIEF	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <input checked="" type="checkbox"/> ABOVE ____ BELOW	RADIATION (RAD)	< 10 ⁶ RAD		Ref. 1		Analysis	Note 1
OTHER: _____	AGING						Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80

NOTE 1: Efforts to obtain qualification on-going.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1		SYSTEM <u>CONTAINMENT ISOLATION</u>		IDENTIFICATION NO. <u>68-13 A & B</u>	
	<u> </u> IN CONTAINMENT		P&ID <u>(TORUS)</u>		COMPONENT <u>TORUS VACUUM SWITCH</u>	
<u>X</u> OUT OF CONTAINMENT						

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT- STANDING ITEMS
	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MANUFACTURER: MERCROID	OPERATING TIME	Approx. 1 Hr.					Note 1
MODEL <u> </u> OR TYPE <u>X</u> CP 4122	TEMPERATURE (°F)	126° F Peak					Note 1
FUNCTION: TORUS VACUUM SWITCH	PRESSURE (PSIG)	1 PSIG Peak					Note 1
ACCURACY: (%) SPEC. <u> </u> DEMO. <u> </u>	RELATIVE HUMIDITY (%)	100%					Note 1
SERVICE: TORUS VACUUM RELIEF	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	< 10 ⁶ RAD		Ref. 1		Analysis	Note 1
OTHER: <u> </u>	AGING						Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80

NOTE 1: Efforts to obtain qualification
on-going.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM _____ CORE SPRAY	IDENTIFICATION NO. SEE ATTACHED LIST
	___ IN CONTAINMENT X OUT OF CONTAINMENT	P&ID _____	COMPONENT _____ MOTOR

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
GENERAL ELECTRIC	OPERATING TIME	28 Hrs.	175 Hrs.		Ref. 2	Simultaneous Test	Note 1
MODEL <u>X</u> OR TYPE 5K6336XC166A	TEMPERATURE (°F)	110°F Peak	383°F Peak		Ref. 2	Simultaneous Test	Note 1
FUNCTION: OPERATE VARIOUS PUMPS	PRESSURE (PSIG)	1 PSIG Peak	< 1 PSIG Peak		Ref. 2	Simultaneous Test	Note 1
ACCURACY: (1) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (1)	100%	100%		Ref. 2	Simultaneous Test	Note 1
SERVICE: VARIOUS PUMPS	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE ___ BELOW	RADIATION (RAD)	< 1.6 x 10 ⁶ RAD	5.5 x 10 ⁶ RAD	Ref. 1	Ref. 2	Sequential Test	Note 1
OTHER: _____	AGING	40 years	40 yrs.		Ref. 2	Sequential Test	Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and NES Letter 5152-008, 7/18/80
2 BWR Equipment Qualification Summary 111-A-01, 10/14/80. Data obtained from WYLE Test Report 58455, 5/6/80 on General Electric 5K6 Motors.

Note 1. Insulation system qualified per Ref. 2, for further assessment; awaiting proposal from G.E.



GENERAL ELECTRIC

TYPE K

SYSTEM	IDENT. NO.	MODEL NO.
CS	81 - 04	5K6336XC166A, HP 450,
		1775RPM, 4000V, 30
	81 - 23	"
	81 - 03	"
	81 - 24	"

Per Comments From WYLE/NUTECH. The 5K6 Series Motors are Generic.



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 _____ IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT		SYSTEM <u>CORE SPRAY</u> P&ID _____		IDENTIFICATION NO. <u>81-50</u> COMPONENT <u>PUMP MOTOR</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
GENERAL ELECTRIC	OPERATING TIME	28 Hrs.	28 Hrs.		Ref. 2		Note 1
MODEL <u>X</u> OR TYPE #5K828837C7 Serial #HC8365171 #HC8365172	TEMPERATURE (°F)	126°F Peak	150°F Peak		Ref. 2		Note 1
FUNCTION: TOPPING PUMP MOTOR	PRESSURE (PSIG)	1 PSIG Peak	1 PSIG Peak		Ref. 2		Note 1
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2		Note 1
SERVICE: CORE SPRAY	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE _____ BELOW _____	RADIATION (RAD)	< 1 x 10 ⁶ RAD	10 ⁶ RAD	Ref. 1	Ref. 2		Note 1
OTHER: _____	AGING	40 yrs.	40 yrs.		Ref. 2		Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
 NES Letter 5152-008, 7/18/80
 2 General Electric Letter G-EN-0-164, dated 10/16/80

NOTE 1: Insulation system qualified per Ref. 2
 for further assessment; awaiting proposal
 from General Electric.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 _____ IN CONTAINMENT <input checked="" type="checkbox"/> OUT OF CONTAINMENT		SYSTEM _____ CORE SPRAY P&ID _____		IDENTIFICATION NO. <u>SEE ATTACHED LIST</u> COMPONENT <u>DIFFERENTIAL PRESSURE TRANSMITTER</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
ROSEMOUNT	OPERATING TIME	28 Hrs. 10 Sec. at Peak	7 Hrs. Peak		Ref. 2	Simultaneous Tests	None
MODEL <u>X</u> OR TYPE 1151DP	TEMPERATURE (°F)	110°F Peak	303°F Peak		Ref. 2	Simultaneous Test	None
FUNCTION: FLOW MEASUREMENTS	PRESSURE (PSIG)	1 PSIG Peak	55.4 PSIG Peak		Ref. 2	Simultaneous Test	None
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	None
SERVICE: VARIOUS FLOW SYSTEM	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE _____ BELOW	RADIATION (RAD)	$< 1 \times 10^6$ RAD	2×10^6 RAD	Ref. 1	Ref. 2	Analysis	None
OTHER: _____	AGING	40 yrs.	40 yrs.		Ref. 2	Analysis	None
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and NES Letter 5152-008, 7/18/80

2 NUS Report 1961 - R369-001

ROSEMOUNT

1151 DP

SYSTEM

IDENT. NO.

MODEL NO. . .

CS

58 - 05

1151DP4B22RLMME

58 - 06

1151DP4B22RLMME

RV - 26

1151DPSB22MBGE-1

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 IN CONTAINMENT <input checked="" type="checkbox"/> OUT OF CONTAINMENT		SYSTEM _____ CS _____ P&ID _____		IDENTIFICATION NO. <u>SEE ATTACHED LIST</u> COMPONENT <u>VALVE OPERATOR</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
LIMITORQUE	OPERATING TIME	28 Hrs. 10 Sec. at Peak	Approx. 24 Hrs at Peak		Ref. 2	Simultaneous Test	None
MODEL _____ OR TYPE <input checked="" type="checkbox"/> SMB-00	TEMPERATURE (°F)	126°F Peak.	250°F Peak		Ref. 2	Simultaneous Test	None
FUNCTION: VALVE OPERATION	PRESSURE (PSIG)	1 PSIG Peak	25 PSIG Peak		Ref. 2	Simultaneous Test	None
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	None
SERVICE: VARIOUS VALVES	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <input checked="" type="checkbox"/> ABOVE _____ BELOW	RADIATION (RAD)	< 1 x 10 ⁶ RAD	2 x 10 ⁷	Ref 1	Ref. 2	Sequential Test	None
OTHER:	AGING	40 yrs.	199 Hrs at 165°F		Ref. 2	Test	Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80
2 Limitorque Test Report R0003 as delineated in
Ltr Limitorque/NUS dtd 8/28/81

Note 1: Assessment On-Going
to Determine Expected Life.

LIMITORQUE

SMB

SYSTEM

IDENT. NO.

CS

40 - 05

40 - 06

100



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 <input checked="" type="checkbox"/> IN CONTAINMENT <input type="checkbox"/> OUT OF CONTAINMENT		SYSTEM <u>CORE SPRAY</u> P&ID _____		IDENTIFICATION NO. <u>40-11</u> COMPONENT <u>VALVE OPERATOR</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER: PORTER PEERLESS/ LIMITORQUE	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
	OPERATING TIME	28 Hrs.	Approx. 6 Hrs. at Peak		Ref. 2	Simultaneous Test	Note 1
MODEL <u> </u> OR TYPE <u>X</u> SMB-3 Model 64404A	TEMPERATURE (°F)	301 °F	340 °F Peak		Ref. 2	Simultaneous Test	Note 1
FUNCTION: VALVE OPERATION	PRESSURE (PSIG)	35 PSIG	150 PSIG Peak		Ref. 2	Simultaneous Test	Note 1
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	Note 1
SERVICE: LOOP 11 INLET ISOLATION VALVE	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	5 x 10 ⁷ RAD	2.04 x 10 ⁸ RAD	Ref. 1	Ref. 2	Sequential Test	Note 1
OTHER: _____	AGING	40 yrs.	40 yrs.		Ref. 2	Test / Analysis	Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NRC IE Bulletin 79-01B App. B, 1/14/80
2 Limitorque Test Reports 600376A, dated 5/13/76 and Addendum A, Rev. B, dated 1/23/79

NOTE 1: To be replaced

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 <input checked="" type="checkbox"/> IN CONTAINMENT <input type="checkbox"/> OUT OF CONTAINMENT		SYSTEM <u>CORE SPRAY</u> P&ID _____		IDENTIFICATION NO. <u>40-10</u> COMPONENT <u>VALVE OPERATOR</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MANUFACTURER: PORTER PEERLESS/ LIMITORQUE	OPERATING TIME	28 Hrs.	Approx. 6 Hrs. At Peak		Ref. 2	Simultaneous Test	Note 1
MODEL <u> </u> OR TYPE <u>X</u> SMB-3 Model 64403A	TEMPERATURE (°F)	301°F Peak	340°F Peak		Ref. 2	Simultaneous Test	Note 1
FUNCTION: VALVE OPERATION	PRESSURE (PSIG)	35 PSIG Peak	150 PSIG Peak		Ref. 2	Simultaneous Test	Note 1
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	Note 1
SERVICE: LOOP 11 INLET ISOLATION VALVE	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	5×10^7 RAD	2.04×10^8 RAD	Ref. 1	Ref. 2	Sequential Test	Note 1
OTHER: _____	AGING	40 yrs.	40 yrs.		Ref. 2	Test / Analysis	Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NRC IE Bulletin 79-01B App. B, 1/14/80
 2 Limitorque Test Reports 600376A, dated 5/13/76 and
 Addendum A, Rev. B, dated 1/23/79

NOTE 1: To be replaced



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 ___ IN CONTAINMENT X OUT OF CONTAINMENT		SYSTEM _____ CORE SPRAY _____ P&ID _____		IDENTIFICATION NO. _____ 40-80 COMPONENT _____ PRESSURE SWITCH _____	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MERCROID	OPERATING TIME	28 Hrs.					Note 1
MODEL X OR TYPE DA 543-2	TEMPERATURE (°F)	212°F Peak	150°F		Ref. 2		Note 1
FUNCTION: LOOP 12 DISCHARGE PRESSURE SWITCH	PRESSURE (PSIG)	1 PSIG Peak					Note 1
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2		Note 1
SERVICE: CORE SPRAY (LOOP 12)	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: X ABOVE ___ BELOW	RADIATION (RAD)	< 10 ⁶ RAD		Ref. 1		Analysis	Note 1
OTHER:	AGING	40 yrs.					Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and NES Letter 5152-008, 7/18/80
 2 Niagara Mohawk Power Corporation Letter, Philip D. Raymond NMPC to A. Giambusso, Deputy Director for Reactor Projects, USNRC Date: 6/29/73

NOTE 1: Qualification assessment on-going.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>CORE SPRAY</u>	IDENTIFICATION NO. <u>40-07</u>
	IN CONTAINMENT	P&ID _____	COMPONENT <u>PRESSURE SWITCH</u>
	X OUT OF CONTAINMENT		

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MERCROID	OPERATING TIME	28 Hrs.					Note 1
MODEL X OR TYPE DA 543-2 Serial #SD8135	TEMPERATURE (°F)	212°F at Peak	150°F		Ref. 2		Note 1
FUNCTION: LOOP 11 DISCHARGE PRESSURE SWITCH	PRESSURE (PSIG)	1 PSIG Peak					Note 1
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2		Note 1
SERVICE: CORE SPRAY (LOOP 11)	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: X ABOVE ____ BELOW	RADIATION (RAD)	< 10 ⁶ RAD		Ref. 1		Analysis	Note 1
OTHER: _____	AGING	40 yrs.					Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev.-0, 7/15/80 and
NES Letter 5152-008, 7/18/80
2 Niagara Mohawk Power Corporation Letter, Philip D. Raymond NMPC to A.
Giambusso, Deputy Director for Reactor Projects, USNRC Date: 6/29/73

NOTE 1: Qualification assessment on-going.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 ___ IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT		SYSTEM <u>CORE SPRAY</u> P&ID _____		IDENTIFICATION NO. <u>81-52</u> COMPONENT <u>PUMP MOTOR</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF:		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
GENERAL ELECTRIC	OPERATING TIME	28 Hrs.	28 Hrs.		Ref. 2	Testing	Note 1
MODEL <u>X</u> OR TYPE #5K828837C7 Serial #HC8365174 #HC8365173	TEMPERATURE (°F)	126°F Peak	126°F Peak		Ref. 2	Testing	Note 1
FUNCTION: TOPPING PUMP MOTOR	PRESSURE (PSIG)	1 PSIG Peak	1 PSIG Peak		Ref. 2	Testing	Note 1
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Testing	Note 1
SERVICE: CORE SPRAY	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE ___ BELOW	RADIATION (RAD)	< 1 x 10 ⁶ RAD	10 ⁶ RAD	Ref. 1	Ref. 2	Testing	Note 1
OTHER: _____	AGING	40 yrs.	40 yrs.		Ref. 2	Analysis	Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80
2 General Electric Letter G-EN-0-164, dated 10/16/80

NOTE 1: Insulation system qualified per
ref. 2 for further assessment; await-
ing proposal from General Electric.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>CORE SPRAY</u>	IDENTIFICATION NO. <u>81-51</u>
	<u> </u> IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT	P&ID <u> </u>	COMPONENT <u>PUMP MOTOR</u>

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
GENERAL ELECTRIC	OPERATING TIME	28 Hrs.	28 Hrs.		Ref. 2		Note 1
MODEL X OR TYPE #5K828837C7 Serial #HC8365174 #HC8365173	TEMPERATURE (°F)	126°F Peak	126°F Peak		Ref. 2		Note 1
FUNCTION: TOPPING PUMP MOTOR	PRESSURE (PSIG)	1 PSIG Peak	1 PSIG Peak		Ref. 2		Note 1
ACCURACY: (%) SPEC. <u> </u> DEMO. <u> </u>	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2		Note 1
SERVICE: CORE SPRAY	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	< 1 x 10 ⁶ RAD	10 ⁶ RAD	Ref. 1	Ref. 2		Note 1
OTHER: <u> </u>	AGING	40 yrs.	40 yrs.		Ref. 2		Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80
2 General Electric Document Letter G-EN-0-164, dated 10/16/80

NOTE 1: Insulation system qualified per Ref. 2 for further assessment; awaiting proposal from General Electric.



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>CORE SPRAY</u>	IDENTIFICATION NO. <u>40-01</u>
	<u>X</u> IN CONTAINMENT	P&ID _____	COMPONENT <u>VALVE OPERATOR</u>
	OUT OF CONTAINMENT		

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT- STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
PORTER PEERLESS/ LIMITORQUE	OPERATING TIME	28 Hrs.	Approx. 6 Hrs. Peak		Ref. 2	Simultaneous Test	Note 1
MODEL__ OR TYPE <u>X</u> SMB 3 Model 63185A	TEMPERATURE (°F)	301°F Peak	340°F Peak		Ref. 2	Simultaneous Test	Note 1
FUNCTION: VALVE OPERATION	PRESSURE (PSIG)	35 PSIG Peak	150 PSIG Peak		Ref. 2	Simultaneous Test	Note 1
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	Note 1
SERVICE: LOOP 12 INLET ISOLATION VALVE	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE ____ BELOW	RADIATION (RAD)	5 x 10 ⁷ RAD	2.04 x 10 ⁸ RAD	Ref. 1	Ref. 2	Sequential Test	Note 1
OTHER: _____	AGING	40 yrs.	40 yrs.		Ref. 2	Test / Analysis	Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NRC IE Bulletin 79-01B App. B, 1/14/80
2 Limitorque Test Reports 600376A, dated 5/13/76 and
Addendum A, Rev. B, dated 1/23/79

NOTE 1: To be replaced with qualified limitorque
valve operators.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 <input checked="" type="checkbox"/> IN CONTAINMENT <input type="checkbox"/> OUT OF CONTAINMENT		SYSTEM <u>CORE SPRAY</u> P&ID _____		IDENTIFICATION NO. <u>40-09</u> COMPONENT <u>VALVE OPERATOR</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
PORTER PEERLESS/ LIMITORQUE	OPERATING TIME	28 Hrs.	Approx. 6 Hrs. at Peak		Ref. 2	Simultaneous Test	Note 1
MODEL <u> </u> OR TYPE <u>X</u> SMB 3 Model 63186A	TEMPERATURE (°F)	301°F Peak	340°F Peak		Ref. 2	Simultaneous Test	Note 1
FUNCTION: VALVE OPERATION	PRESSURE (PSIG)	35 PSIG Peak	150 PSIG Peak		Ref. 2	Simultaneous Test	Note 1
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	Note 1
SERVICE: LOOP 12 INLET ISOLATION VALVE	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	5×10^7 RAD	2.04×10^8 RAD	Ref. 1	Ref. 2	Sequential Test	Note 1
OTHER:	AGING	40 yrs.	40 yrs.		Ref. 2	Test / Analysis	Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NRC IE Bulletin 79-01B App. B, 1/14/80
 2 Limitorque Test Reports 600376A, dated 5/13/76 and Addendum A, Rev. B, dated 1/23/79

NOTE 1: To be replaced

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 ___ IN CONTAINMENT <input checked="" type="checkbox"/> OUT OF CONTAINMENT		SYSTEM <u>CORE SPRAY</u> P&ID _____		IDENTIFICATION NO. <u>81-49</u> COMPONENT <u>PUMP MOTOR</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
GENERAL ELECTRIC	OPERATING TIME	28 Hrs.	28 Hrs.		Ref. 2		Note 1
MODEL <u>X</u> OR TYPE #5K828837C7 Serial #HC8365171 #HC8365172	TEMPERATURE (°F)	126°F Peak	150°F Peak		Ref. 2	Analysis	Note 1
FUNCTION: TOPPING PUMP MOTOR	PRESSURE (PSIG)	1 PSIG Peak	1 PSIG Peak		Ref. 2		Note 1
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Analysis	Note 1
SERVICE: CORE SPRAY	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE ___ BELOW	RADIATION (RAD)	< 1 x 10 ⁶ RAD	10 ⁶ RAD	Ref. 1	Ref. 2		Note 1
OTHER: _____	AGING	40 yrs.	40 yrs.		Ref. 2		Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80
2 General Electric Letter G-EN-0-164, dated 10/16/80

NOTE 1: Insulation system qualified per Ref. 2
for further assessment; awaiting proposal
from General Electric.



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 _____ IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT		SYSTEM <u>REACTOR VESSEL INSTRUMENTATION</u> IDENTIFICATION NO. <u>SEE ATTACHED LIST</u> P&ID _____ COMPONENT <u>FLOW/PRESS/DP</u>			
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MANUFACTURER: GENERAL ELECTRIC & GENERAL/MAC	OPERATING TIME	Approx. 1 Hr.				Simultaneous Test	Note 1
MODEL <u>X</u> OR TYPE _____ 551	TEMPERATURE (°F)	212°F Peak	150° Peak		Ref. 2	Simultaneous Test	Note 1
FUNCTION:	PRESSURE (PSIG)	5 PSIG Peak					Note 1
ACCURACY; (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2		Note 1
SERVICE:	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE _____ BELOW	RADIATION (RAD)	< 10 ⁶ RAD		Ref. 1			Note 1
OTHER: _____	AGING	N/A					N/A
	SUBMERGENCE						

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and NES Letter 5152-008, 7/18/80
 2 Niagara Mohawk Power Corporation letter, Philip D. Raymond NMPC to A. Giambusso, Deputy Director for Reactor Projects, USNRC Date: 6/29/73

NOTE 1: To be replaced with qualified equipment.

GENERAL ELECTRIC &
GENERAL/MAC
551

SYSTEM

IDENT. NO.

RVI

ID - 45
ID - 46A
ID - 46B

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>REACTOR VESSEL INSTRUMENTATION</u>	IDENTIFICATION NO. <u>SEE ATTACHED LIST</u>
	<u> </u> IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT	P&ID <u> </u>	COMPONENT <u>DIFFERENTIAL PRESSURE TRANSMITTER</u>

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT- STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
ROSEMOUNT	OPERATING TIME	Approx. 1 Hr. 20 Sec. at Peak	7 Hrs.		Ref. 2	Simultaneous Test	None
MODEL <u>X</u> OR TYPE 1151 DP	TEMPERATURE (°F)	212°F Peak	303°F Peak		Ref. 2	Simultaneous Test	None
FUNCTION: FLOW MEASUREMENTS	PRESSURE (PSIG)	1 PSIG Peak	55.4 PSIG Peak		Ref. 2	Simultaneous Test	None
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	None
SERVICE: VARIOUS FLOW SYSTEMS	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: X ABOVE <u> </u> BELOW	RADIATION (RAD)	< 1 x 10 ⁶ RAD	2 x 10 ⁶ RAD	Ref. 1	Ref. 2	Test & Analysis	None
OTHER: <u> </u>	AGING	40 yrs.	40 yrs.		Ref. 2	Analysis	None
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80
2 NUS Report 1961 - R369-001

ROSEMOUNT

1151 DP

<u>SYSTEM</u>	<u>IDENT. NO.</u>	<u>MODEL NO.</u>
RVI	36 - 03A	4E22T0003PB
	36 - 03B	"
	36 - 03C	"
	36 - 03D	"
	36 - 04A	"
	36 - 04B	"
	36 - 04C	"
	36 - 04D	"
	36 - 05A	5E22T0003PB
	36 - 05B	"
	36 - 05C	"
	36 - 05D	"
	36 - 07A	9E22T0003PB
	36 - 07B	"
	36 - 07C	"
	36 - 07D	"
	36 - 08A	"
	36 - 08B	"
	36 - 08C	"
	36 - 08D	"

GE & GE/MAC

553

SYSTEM

IDENT. NO.

RVI

IA 12

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1 ____ IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT		SYSTEM <u>REACTOR VESSEL INSTRUMENTATION</u> IDENTIFICATION NO. <u>SEE ATTACHED LIST</u> P&ID _____ COMPONENT _____ TRIP UNIT _____				
	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
DATA	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MANUFACTURER: . ROSEMOUNT	OPERATING TIME	Approx. 1 Hr. 20 Sec. Peak	3124 Hrs. Peak		Ref. 2	Simultaneous Test	None
MODEL <u>X</u> OR TYPE _____ 510 DU 165C150 Series	TEMPERATURE (°F)	212°F Peak	212°F Peak		Ref. 2	Simultaneous Test	None
FUNCTION: PROVIDES OVERCURRENT PROTECTION	PRESSURE (PSIG)	1 PSIG Peak	Note 1		Note 1		None
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%	99%		Ref. 2	Simultaneous Test	None
SERVICE: Various Transmitters	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE ____ BELOW	RADIATION (RAD)	< 1.6 x 10 ⁶ RAD	1.9 x 10 ⁵ RAD	Ref. 1	Ref. 2 Note 2	Sequential Test	None Note 2
OTHER: _____	AGING	40 yrs.	40 yrs.		Ref. 2	Analysis	None
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80.
2 NUS Report 1961 - R369-002

NOTE 1: The 510 DU Trip/Calibration System is insensitive to pressure changes and a pressure qualification test is not considered necessary (RMT RPT 127770 Rev. A).

NOTE 2: 510 DU units will have to be shielded to meet radiation requirements.

ROSEMOUNT

510 DU

SYSTEM	IDENT. NO.	DESCRIPTION
RVI	36-03 (A-D)	Master
	36-03 (A-D)	Slave
	36-04 (A-D)	Master
	36-08 (A-D)	Master
	36-08 (A-D)	Slave
	36-05 (A-D)	Master
	36-07 (A-D)	Master
	36-07 (A-D)	Slave



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1 ___ IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT			SYSTEM <u>ADDITIONAL INSTRUMENTATION</u> P&ID _____		IDENTIFICATION NO. <u>SEE ATTACHED LIST</u> COMPONENT <u>TEMP SWITCH</u>	
	DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
FENWAL	OPERATING TIME	Approx. 1 Hr. 1 Sec. Peak	24 Hrs. 5 Min Peak		Ref. 2	Simultaneous Test	None
MODEL <u>X</u> OR TYPE 17002 - 40	TEMPERATURE (°F)	308° F Peak	322° F Peak		Ref. 2	Simultaneous Test	None
FUNCTION:	PRESSURE (PSIG)	17.3 PSIG Peak	78 PSIG Peak		Ref. 2	Simultaneous Test	None
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100% Peak	100%		Ref. 2	Simultaneous Test	None
SERVICE: Temperature Indicating Switch	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE ___ BELOW	RADIATION (RAD)	<1 X 10 ⁶ RAD	1.0 X 10 ⁶ RAD	Ref. 1	Ref. 2	Analysis	None
OTHER:	AGING	40 yrs.	40 yrs.		Ref. 2	Analysis	None
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80
and NES Letter 5152-008, 7/18/80

2 NUS Report 1961 - F080

FENWAL 17002 - 40

SYSTEM	IDENT NO.
AI	1B 10 A
	1B 10 B
	1B 10 C
	1B 10 D
	1B 10 E
	1B 10 F
	1B 10 G
	1B 10 H
	1B 10 J
	1B 10 K
	1B 10 L
	1B 10 M
	1B 10 N
	1B 10 P
	1B 10 Q
	1B 10 R



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>ADDITIONAL INSTRUMENTATION</u>	IDENTIFICATION NO. <u>SEE ATTACHED LIST</u>
	<u> </u> IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT	P&ID <u> </u>	COMPONENT <u> </u> TRIP UNIT <u> </u>

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT- STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
ROSEMOUNT	OPERATING TIME	Approx. 1 Hr. 20 Sec. Peak	3124 Hrs. Peak		Ref. 2	Simultaneous Test	None
MODEL <u>X</u> OR TYPE 510 DU 164C5150P Series	TEMPERATURE (°F)	212°F Peak	212°F Peak		Ref. 2	Simultaneous Test	None
FUNCTION: PROVIDES OVERCURRENT PROTECTION	PRESSURE (PSIG)	1 PSIG Peak	Note 1		Note 1		None Note 1
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%	99%		Ref. 2	Simultaneous Test	None
SERVICE: VARIOUS TRANSMITTERS	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	<1.6 x 10 ⁶ RAD	1.9 x 10 ⁵ RAD	Ref. 1	Ref. 2 Note 2	Sequential Test	None Note 2
OTHER: <u> </u>	AGING	40 yrs.	40 yrs.		Ref. 2	Test and Analysis	None
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80
2 NUS Report 1961 - R369-002

NOTE 1: The 510 DU Trip/Calibration System is insensitive to pressure changes and a pressure qualification test is not not considered necessary (RMT RPT 12777 Rev. A)
NOTE 2: 510 DU will have to be shielded to meet radiation requirements.

ROSEMOUNT

510 DU

SYSTEM	IDENT. NO.	DESCRIPTION
AI	201.2-476 (A-D)	Master
	36-06 (A-D)	Master
	01-26 (A-H)	

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 ____ IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT		SYSTEM <u>ADDITIONAL INSTRUMENTATION</u> P&ID _____		IDENTIFICATION NO. <u>SEE ATTACHED LIST</u> COMPONENT <u>DIFFERENTIAL PRESSURE TRANSMITTER</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER: ROSEMOUNT	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
	OPERATING TIME	Approx. 1 Hr. 20 Sec. Peak	7 Hrs.		Ref. 2	Simultaneous Test	None
MODEL <u>X</u> OR TYPE 1151 DP 7E22T0003PB	TEMPERATURE (°F)	212°F Peak	303°F Peak		Ref. 2	Simultaneous Test	None
FUNCTION: FLOW MEASUREMENTS	PRESSURE (PSIG)	1 PSIG Peak	55.4 PSIG Peak		Ref. 2	Simultaneous Test	None
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	None
SERVICE: VARIOUS FLOW SYSTEMS	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE ____ BELOW	RADIATION (RAD)	< 1 x 10 ⁶ RAD	2 x 10 ⁶ RAD	Ref. 1		Test & Analysis	None
OTHER: _____	AGING	40 yrs.	40 yrs.			Analysis	None
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, July 18, 1980
2 NUS Report 1961 - R369-001

ROSEMOUNT

1151 DP

SYSTEM

IDENT. NO.

AI

01 - 26A
01 - 26B
01 - 26C
01 - 26D
01 - 26E
01 - 26F
01 - 26G
01 - 26H

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>REACTOR BUILDING CLOSED</u>	IDENTIFICATION NO. <u>70-01</u>
	<u> </u> IN CONTAINMENT	P&ID <u>LOOP COOLING</u>	COMPONENT <u>PUMP MOTOR</u>
	<u>X</u> OUT OF CONTAINMENT		

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT- STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
GENERAL ELECTRIC	OPERATING TIME	28 Hrs.					Note 1
MODEL <u>X</u> OR TYPE #5K445AK 249A Serial #CB161090	TEMPERATURE (°F)	300°F Peak					Note 1
FUNCTION: CLOSED LOOP COOLING PUMP MOTOR	PRESSURE (PSIG)	1 PSIG Peak					Note 1
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%					Note 1
SERVICE: REACTOR BUILDING CLOSED LOOP COOLING	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	< 10 ⁶ RAD		Ref. 1		Analysis	Note 1
OTHER: _____	AGING	40 yrs.					Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80

NOTE 1: No qualification data exists; awaiting
proposal from General Electric.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 ___ IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT		SYSTEM <u>REACTOR BUILDING CLOSED</u> P&ID <u>LOOP COOLING</u>		IDENTIFICATION NO. <u>70-02</u> COMPONENT <u>PUMP MOTOR</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MANUFACTURER: GENERAL ELECTRIC	OPERATING TIME	28 Hrs.					Note 1
MODEL <u>X</u> OR TYPE #5K445AK 249A Serial #CB161089	TEMPERATURE (°F)	300°F Peak					Note 1
FUNCTION: CLOSED LOOP COOLING PUMP MOTOR	PRESSURE (PSIG)	1 PSIG Peak					Note 1
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%					Note 1
SERVICE: REACTOR BUILDING CLOSED LOOP COOLING	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE ___ BELOW	RADIATION (RAD)	< 10 ⁶ RAD		Ref. 1		Analysis	Note 1
OTHER: _____	AGING	40 yrs.					
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80

NOTE 1: No qualification data exists; awaiting
proposal from General Electric.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 ___ IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT		SYSTEM <u>REACTOR BUILDING CLOSED LOOP</u> P&ID <u>COOLING</u>		IDENTIFICATION NO. <u>70-03</u> COMPONENT <u>PUMP MOTOR</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
GENERAL ELECTRIC	OPERATING TIME	28 Hrs.					Note 1
MODEL <u>X</u> OR TYPE #5K445AK 249A Serial #CB161088	TEMPERATURE (°F)	300°F Peak					Note 1
FUNCTION: CLOSED LOOP COOLING PUMP MOTOR	PRESSURE (PSIG)	1 PSIG Peak					Note 1
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%					Note 1
SERVICE: REACTOR BUILDING CLOSED LOOP COOLING	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE ___ BELOW	RADIATION (RAD)	< 10 ⁶ RAD		Ref. 1		Analysis	Note 1
OTHER: _____	AGING	40 yrs.					
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5151-008, 7/18/80

NOTE 1: No qualification data exists; awaiting proposal from General Electric.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>REACTOR BUILDING CLOSED LOOP</u>	IDENTIFICATION NO. <u>70-137</u>
	<u> </u> IN CONTAINMENT	P&ID <u>COOLING</u>	COMPONENT <u> </u>
	<u>X</u> OUT OF CONTAINMENT		

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
FISHER CONTROLS	OPERATING TIME	28 Hrs. 15 Sec. Peak	13 Hrs. 1 Hr. Peak		Ref. 2	Simultaneous Test	None
MODEL <u> </u> OR TYPE <u>X</u> 546 Serial # 4154882	TEMPERATURE (°F)	300°F Peak	320°F Peak		Ref. 2	Simultaneous Test	None
FUNCTION: E/P	PRESSURE (PSIG)	1 PSIG Peak	75.3 PSIG Peak		Ref. 2	Simultaneous Test	None
ACCURACY: (%) SPEC. <u> </u> DEMO. <u> </u>	RELATIVE HUMIDITY (%)	100Z	100Z		Ref. 2	Simultaneous Test	None
SERVICE: TCV	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	< 10 ⁶ RAD	1.05 x 10 ⁷ RAD	Ref. 1	Ref. 2	Sequential Test	None
OTHER: <u> </u>	AGING	40yrs.	32 yrs.		Ref. 2	Test & Analysis	None
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80
2 NUS Report 1961 - F130



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 _____ IN CONTAINMENT X OUT OF CONTAINMENT		SYSTEM <u>REACTOR BUILDING CLOSED LOOP</u> P&ID <u>COOLING</u>		IDENTIFICATION NO. <u>70-23</u> COMPONENT <u>THERMOCOUPLE</u>	
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DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MANUFACTURER: PALL TRINITY	OPERATING TIME	28 Hrs.					Note 1,2
MODEL <u>X</u> OR TYPE _____ Cu/C	TEMPERATURE (°F)	301°F at Peak					Note 1,2
FUNCTION: TEMPERATURE INDICATION	PRESSURE (PSIG)	35 PSIG Peak					Note 1,2
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%					Note 1,2
SERVICE: REACTOR BUILDING CLOSED LOOP COOLING HEAT EXCHANGER OUTLET	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE _____ BELOW	RADIATION (RAD)	< 10 ⁶ RAD		Ref. 1		Analysis	Note 1,2
OTHER: _____	AGING	40 yrs.					Note 1,2
	SUBMERGENCE	N/A					N/A

REFERENCE: 1	NES Document 81A0636 Rev. 0, 7/15/80 and NES Letter 5152-008, 7/18/80	NOTE 1: Efforts to obtain qualification on-going. NOTE 2: Data has been requested from General Electric, assessment on-going.
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SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>CONTROL ROD DRIVE</u>	IDENTIFICATION NO. <u>NC08A& R</u>
	<u> </u> IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT	P&ID <u> </u>	COMPONENT <u>PUMP MOTOR</u>

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT- STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
GENERAL ELECTRIC	OPERATING TIME	28 Hrs.	28 Hrs.		Ref. 2		Note 1
MODEL <u>X</u> OR TYPE 5K814316 A73 Serial #LP8358284	TEMPERATURE (°F)	<126°F at Peak	150°F at Peak		Ref. 2		Note 1
FUNCTION: CONTROL ROD DRIVE PUMP	PRESSURE (PSIG)	1 PSIG Peak	1 PSIG Peak		Ref. 2		Note 1
ACCURACY: (%) SPEC. <u> </u> DEMO. <u> </u>	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2		Note 1
SERVICE: CONTROL ROD DRIVE	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	< 10 ⁶ RAD	10 ⁶ RAD	Ref. 1	Ref. 2	Analysis	Note 1
OTHER: <u> </u>	AGING	40 yrs.	40 yrs.		Ref. 2		Note 1
	SUBMERGENCE						

REFERENCE: 1 NES Document 81A0636, Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80
2 General Electric Letter G-EN-0-164, dated 10/16/80

NOTE 1: Insulation system qualified per Ref. 2; for
further assessment, awaiting proposal from
General Electric.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 ___ IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT		SYSTEM <u>CONTROL ROD DRIVE</u> P&ID _____		IDENTIFICATION NO. <u>SEE ATTACHED LIST</u> COMPONENT <u>VALVE</u>	
DATA		ENVIRONMENT		DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
		PARAMETER	SPEC.	QUALIF.	SPEC.		
MANUFACTURER: ASCO		OPERATING TIME	28 Hrs. 10 Sec. Peak	6 Hrs. Peak		Ref. 2	Engineering Analysis None
MODEL <u>X</u> OR TYPE HVA-90-405-2A		TEMPERATURE (°F)	126°F Peak	212°F Peak		Ref. 2	Engineering Analysis None
FUNCTION: VALVE OPERATION		PRESSURE (PSIG)	.4 PSIG Peak	0 PSIG		Ref. 2	Simultaneous Test None
ACCURACY: (%) SPEC. _____ DEMO. _____		RELATIVE HUMIDITY (%)	100%	100%		Ref. 2 Ref. 3	Simultaneous Test None
SERVICE: BLOCK VALVE		CHEMICAL SPRAY	N/A				Engineering Analysis N/A
FLOOD LEVEL: <u>X</u> ABOVE ___ BELOW		RADIATION (RAD)	< 10 ⁶ RAD	4 x 10 ⁶ RAD	Ref. 1	Ref. 3	Engineering Analysis None
OTHER: _____		AGING	40 yrs.	40 yrs.		Ref. 3 Ref. 2	Engineering Analysis None
		SUBMERGENCE	N/A				N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80
2 NUS Report 1961 - A499-002
3 Letter & Questionnaire to Phil. Elect. from ASCO, 6/6/80

ASCO HVA-90-405-2A

SYSTEM	IDENT. NO.
CRD SCRAM	NC - 16A
	NC - 16B**
	NC - 15A
	NC - 15B**

** This item is Model #HVA-90-405-8A, which is generic to the Model HVA-90-405-2A.



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1		SYSTEM <u>POWER DISTRIBUTION</u>		IDENTIFICATION NO. <u>SEE ATTACHED LIST</u>	
	<u> </u> IN CONTAINMENT <u> X </u> OUT OF CONTAINMENT		P&ID <u> </u>		COMPONENT <u>CIRCUIT BREAKER</u>	

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MANUFACTURER: GENERAL ELECTRIC	OPERATING TIME	28 Hrs.					Note 1
MODEL <u> X </u> OR TYPE <u> </u> AKD - 5	TEMPERATURE (°F)	212°F Peak	150°F Peak		Ref. 2		Note 1
FUNCTION: CIRCUIT BREAKER (600V)	PRESSURE (PSIG)	1 PSIG Peak					Note 1
ACCURACY: (%) SPEC. <u> </u> DEMO. <u> </u>	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2		Note 1
SERVICE:	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u> X </u> ABOVE <u> </u> BELOW	RADIATION (RAD)	<1 x 10 ⁶ RAD	4.3 x 10 ⁵ RAD	Ref. 1	Ref. 3	Sequential	None
OTHER: <u> </u>	AGING	40 yrs.					Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. o, 7/15/80 and
NES Letter 5152-008, 7/18/80

- 2 Niagara Mohawk Power Corporation letter, Philip D. Raymond NMPC to A. Giambusso,
Deputy Director for Reactor Projects, USNRC Date: 6/29/73
- 3 Bechtel Power Corporation File No. 10855-E117 (9) - 42-1

NOTE 1: Assessment to be continued with BWR Owners Group.

GE ADK - 5

CIRCUIT BREAKER

SYSTEM

IDENT. NO.

PD

16B Power Board
17B

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 ___ IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT		SYSTEM _____ PD _____ P&ID _____		IDENTIFICATION NO. <u>SEE ATTACHED LIST</u> COMPONENT <u>MOTOR CONTROL CENTER</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
GENERAL ELECTRIC	OPERATING TIME	28 Hrs.					Note 1
MODEL <u>X</u> OR TYPE IC - 7700	TEMPERATURE (°F)	212°F Peak	150°F Peak		Ref. 2		Note 1
FUNCTION: CONTROLS OPERATION OF MOTORS	PRESSURE (PSIG)	1 PSIG Peak					Note 1
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2		Note 1
SERVICE: VARIOUS MOTORS	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE ___ BELOW	RADIATION (RAD)	1 x 10 ⁶ RAD		Ref. 1			Note 1
OTHER: _____	AGING	40 yrs.					Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and NES Letter 5152-008, 7/18/80
2 Niagara Mohawk Power Corporation letter, Philip D. Raymond NMPC to A. Giambusso, Deputy Director for Reactor Projects, USNRC Date: 6/29/73

NOTE 1: To be tested with BWR Owners group, assessment on-going.

G.E. IC-7700 MOTOR CONTROL CENTER

SYSTEM

IDENT. NO.

PD

POWER BD. 161B
171B
1671
167

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 ___ IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT		SYSTEM <u>EMERGENCY CONDENSERS</u> P&ID _____		IDENTIFICATION NO. <u>SEE ATTACHED LIST</u> COMPONENT <u>DIFFERENTIAL PRESSURE TRANSMITTER</u>	
DATA		ENVIRONMENT		DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:		PARAMETER	SPEC.	QUALIF.	SPEC.		
ROSEMOUNT		OPERATING TIME	28 Hrs. 20 Sec. . Peak	7 Hrs.		Ref. 2	Simultaneous Test None
MODEL <u>X</u> OR TYPE _____ 1151 DP 7E22T0003PB		TEMPERATURE (°F)	212°F Peak	303°F Peak		Ref. 2	Simultaneous Test None
FUNCTION: FLOW MEASUREMENTS		PRESSURE (PSIG)	1 PSIG Peak	55.4 PSIG Peak		Ref. 2	Simultaneous Test None
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>		RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test None
SERVICE: VARIOUS FLOW SYSTEMS		CHEMICAL SPRAY	N/A				N/A
FLOOD LEVEL: <u>X</u> ABOVE ___ BELOW		RADIATION (RAD)	< 1 x 10 ⁶ RAD	2 x 10 ⁶ RAD	Ref. 1	Ref. 2	Test & Analysis None
OTHER: _____		AGING	40 yrs.	40 yrs.		Ref. 2	Analysis None
		SUBMERGENCE	N/A				N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80
2 NUS Report 1961 - R369-001

ROSEMOUNT

1151 DP

SYSTEM

IDENT. NO.

EC

36 - 06A

36 - 06B

36 - 06C

36 - 06D



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>EMERGENCY CONDENSERS</u>	IDENTIFICATION NO. <u>IB06-24</u>
	<u> </u> IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT	P&ID <u> </u>	COMPONENT <u>EMERGENCY CONDENSER AREA TE</u> (RTD)

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT- STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MINCO NICKEL	OPERATING TIME	28 Hrs.					Note 1
MODEL <u> </u> OR TYPE <u> </u> NONE DEFINED	TEMPERATURE (°F)	305°F Peak					Note 1
FUNCTION: MEASURES TEMPERATURE	PRESSURE (PSIG)	9 PSIG Peak					Note 1
ACCURACY: (%) SPEC. <u> N/A </u> DEMO. <u> N/A </u>	RELATIVE HUMIDITY (%)	100%					Note 1
SERVICE: EMERGENCY CONDENSER AREA	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u> X </u> ABOVE <u> </u> BELOW	RADIATION (RAD)	5 x 10 ⁷ RAD		Ref. 1			Note 1
OTHER: <u> </u>	AGING	40 yrs.					Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80

NOTE 1: Qualification assessment on-going.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1 _____ IN CONTAINMENT <input checked="" type="checkbox"/> OUT OF CONTAINMENT	SYSTEM <u>EMERGENCY CONDENSERS</u> P&ID _____	IDENTIFICATION NO. <u>IB06-13</u> COMPONENT <u>EMERGENCY CONDENSER AREA TE (RTD)</u>				
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER: MINCO NICKEL	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
	OPERATING TIME	28 Hrs.					Note 1
MODEL _____ OR TYPE _____ NONE EDIFIED	TEMPERATURE (°F)	305°F Peak					Note 1
FUNCTION: MEASURES TEMPERATURE	PRESSURE (PSIG)	9 PSIG Peak					Note 1
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%					Note 1
SERVICE: EMERGENCY CONDENSER AREA	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <input checked="" type="checkbox"/> ABOVE _____ BELOW	RADIATION (RAD)	5×10^7 RAD		Ref. 1			Note 1
OTHER: _____	AGING	40 yrs.					Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
 NES Letter 5152-008, 7/18/80

NOTE 1: Qualification assessment on-going.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>EMERGENCY CONDENSERS</u>	IDENTIFICATION NO. <u>IB06-14</u>
	<u> </u> IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT	P&ID <u> </u>	COMPONENT <u>EMERGENCY CONDENSER AREA TE</u> (RTD)

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT- STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MINCO-NICKEL	OPERATING TIME	28 Hrs.					Note 1
MODEL <u> </u> OR TYPE <u> </u> NONE DEFINED	TEMPERATURE (°F)	305°F Peak					Note 1
FUNCTION: MEASURES TEMPERATURE	PRESSURE (PSIG)	9 PSIG Peak					Note 1
ACCURACY: (%) SPEC. <u> N/A </u> DEMO. <u> N/A </u>	RELATIVE HUMIDITY (%)	100%					Note 1
SERVICE: EMERGENCY CONDENSER AREA	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	5 x 10 ⁷ RAD		Ref. 1			Note 1
OTHER: <u> </u>	AGING	40 yrs.					Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NFS Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80

NOTE 1: Qualification assessment on-going.



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>CONTAINMENT SPRAY</u>	IDENTIFICATION NO. <u>SEE ATTACHED LIST</u>
	<u> </u> IN CONTAINMENT	P&ID <u> </u>	COMPONENT <u>FLOW/PRESS/DP</u>
	<u>X</u> OUT OF CONTAINMENT		

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
GENERAL ELECTRIC & GENERAL ELECTRIC/MAC	OPERATING TIME	Approx. 1 Hr.	5 Hrs.		Ref. 2	Simultaneous Test	Note 1
MODEL <u>X</u> OR TYPE <u> </u> 551	TEMPERATURE (°F)	110°F Peak	150°F Peak		Ref. 3	Simultaneous Test	Note 1
FUNCTION:	PRESSURE (PSIG)	1 PSIG Peak					Note 1
ACCURACY: (%) SPEC. <u> </u> DEMO. <u> </u>	RELATIVE HUMIDITY (%)	100%	100%		Ref. 3		Note 1
SERVICE:	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	< 10 ⁶ RAD		Ref. 1			Note 1
OTHER: <u> </u>	AGING	40 yrs.					Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008 7/18/80

- 2 BWR Equipment Qualification Summary. 44-E-01. Data obtained from
General Electric Report #228/241. File # DV145C3006, 6/8/69
- 3 Niagara Mohawk Power Corporation letter, Philip D. Raymond NMPC to A. Giambusso,
Deputy Director for Reactor Projects, USNRC Date: 6/29/73

NOTE 1: To be replaced by qualified equipment

GE & GE/MAC

551

SYSTEM

IDENT. NO.

COS

80 - 47

80 - 69

80 - 54

80 - 75

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 IN CONTAINMENT <input checked="" type="checkbox"/> OUT OF CONTAINMENT		SYSTEM <u>CONTAINMENT SPRAY</u> P&ID _____		IDENTIFICATION NO. <u>SEE ATTACHED LIST</u> COMPONENT <u>MOTOR</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
GENERAL ELECTRIC	OPERATING TIME	Approx. 1 Hr.	175 Hrs.		Ref. 2	Simultaneous Test	None
MODEL <u>X</u> OR TYPE SK6328XC136A	TEMPERATURE (°F)	133° Peak	383°F Peak		Ref. 2	Simultaneous Test	None
FUNCTION: OPERATE VARIOUS PUMPS	PRESSURE (PSIG)	1 PSIG Peak	1 PSIG Peak		Ref. 2	Simultaneous Test	None
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	None
SERVICE: VARIOUS PUMPS	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE ___ BELOW	RADIATION (RAD)	< 1.6 x 10 ⁶ RAD	5.5 x 10 ⁶ RAD	Ref. 1	Ref. 2	Sequential Test	None
OTHER: _____	AGING	40 yrs.	40 yrs.		Ref. 2	Sequential Test	Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and NES Letter 5152-008, 7/18/80
2 BWR Equipment Qualification Summary 111-A-01, 10/14/80. Data obtained from Wyle Test Report 58455, 5/6/80. General Electric SK6 Motor.

NOTE 1: Similar motor qualified per Ref. 2 for similarity analysis; awaiting proposal from General Electric.

REV. 2 9/1/81

GENERAL ELECTRIC

TYPE K

SYSTEM	IDENT. NO.	MODEL NO.
COS	80 - 04	5K6328XC136A, 4000V, 30 1775RPM
	80 - 24	"
	80 - 03	"
	80 - 23	"

Per Comments Fro WYLE/NUTECH. The 5K6 Series Motors are Generic.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 IN CONTAINMENT <input checked="" type="checkbox"/> OUT OF CONTAINMENT		SYSTEM <u>CONTAINMENT SPRAY</u> P&ID _____		IDENTIFICATION NO. <u>80-61</u> COMPONENT <u>PUMP DISCHARGE PRESSURE SWITCH</u>	
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MERCROID	OPERATING TIME	Approx. 1 Hr.					Note 1
MODEL <u> </u> OR TYPE <u>X</u> Series #SD8136 L543-2R21E	TEMPERATURE (°F)	212°F Peak	150°F Peak		Ref. 2		Note 1
FUNCTION: INDICATES ΔP	PRESSURE (PSIG)	1 PSIG Peak					Note 1
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2		Note 1
SERVICE: PUMP DISCHARGE	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	< 10 ⁶ RAD		Ref. 1		Analysis	Note 1
OTHER:	AGING	40 yrs.					Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80
2 Niagara Mohawk Power Corporation Letter, Philip D. Raymond NMPC to
A. Giambusso, Deputy Director for Reactor Projects, USNRC Dated: 6/29/73

NOTE 1: Qualification assessment on-going.

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>CONTAINMENT SPRAY</u>	IDENTIFICATION NO. <u>80-60</u>
	<u> </u> IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT	P&ID <u> </u>	COMPONENT <u>PUMP DISCHARGE SWITCH</u>

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT- STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MERCROID	OPERATING TIME	Approx. 1 Hr.					Note 1
MODEL <u> </u> CR TYPE <u>X</u> Series #DA-543	TEMPERATURE (°F)	212°F Peak	150°F Peak		Ref. 2		Note 1
FUNCTION: INDICATES ΔP	PRESSURE (PSIG)	1 PSIG Peak					Note 1
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2		Note 1
SERVICE:	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	< 10 ⁶ RAD		Ref. 1		Analysis	Note 1
OTHER:	AGING	40 yrs.					Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
 NES Letter 5152-008, 7/18/80
 2 Niagara Mohawk Power Corporation Letter, Philip D. Raymond
 NMPC to A. Giambusso, Deputy Director for Reactor Projects
 USNRC Date: 6/29/73

NOTE 1: Qualification assessment on-going.



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1 ____ IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT		SYSTEM _____ COS _____ P&ID _____	IDENTIFICATION NO. <u>SEE ATTACHED LIST</u> COMPONENT <u>VALVE OPERATOR</u>			
DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
MANUFACTURER:							
LIMITORQUE	OPERATING TIME	Approx. 1 Hr. 40 Sec. Peak	Approx. 24 Hrs Peak		Ref. 2	Simultaneous Test	None
MODEL <u>X</u> OR TYPE _____ SMB-0	TEMPERATURE (°F)	305°F Peak	250°F Peak		Ref. 2	Simultaneous Test	Note 1
FUNCTION: VALVE OPERATOR	PRESSURE (PSIG)	5 PSIG Peak	25 PSIG Peak		Ref. 2	Simultaneous Test	None
ACCURACY: (%) SPEC. _____ DEMO. _____	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	None
SERVICE: OUTSIDE CONTAINMENT	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u> </u> ABOVE <u> </u> BELOW	RADIATION (RAD)	1.3 x 10 ⁷ RAD	2 x 10 ⁷ RAD	Ref. 1	Ref. 2	Analysis	None
OTHER: _____	AGING	40 yrs.	199 Hrs at 165°F		Ref. 2	Test	Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80
2 Limitorque Test Report B0003 as delineated in Ltr
Limitorque/NUS dtd 8/28/81

Note 1: Assessment On-Going



LIMITORQUE

SMB

SYSTEM

IDENT. NO.

COS

93 - 25
50
28
49
26

SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B	NMP UNIT 1	SYSTEM <u>COS</u>	IDENTIFICATION NO. <u>93-27</u>
	<u> </u> IN CONTAINMENT	P&ID <u> </u>	COMPONENT <u>VALVE OPERATOR</u>
	<u>X</u> OUT OF CONTAINMENT		

DATA	ENVIRONMENT			DOCUMENTATION REF.		QUALIF. METHOD	OUT- STANDING ITEMS
MANUFACTURER:	PARAMETER	SPEC.	QUALIF.	SPEC.	QUALIF.		
LIMITORQUE	OPERATING TIME	Approx. 1 Hr. 40 Sec. at Peak	Approx. 24 Hrs at Peak		Ref. 2	Simultaneous Test	None
MODEL <u>X</u> OR TYPE <u> </u> SMB Serial #59235A	TEMPERATURE (°F)	305°F Peak	250°F Peak		Ref. 2	Simultaneous Test	Note 1
FUNCTION: VALVE OPERATOR	PRESSURE (PSIG)	5 PSIG Peak	25 PSIG Peak		Ref. 2	Simultaneous Test	None
ACCURACY: (%) SPEC. <u> </u> DEMO. <u> </u>	RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test	None
SERVICE: OUTSIDE CONTAINMENT	CHEMICAL SPRAY	N/A					N/A
FLOOD LEVEL: <u>X</u> ABOVE <u> </u> BELOW	RADIATION (RAD)	1.3 x 10 ⁷ RAD	2 x 10 ⁷ RAD	Ref. 1	Ref. 2	Analysis	None
OTHER: <u> </u>	AGING	40 yrs.	199 Hrs at 165°F		Ref. 2	Test	Note 1
	SUBMERGENCE	N/A					N/A

REFERENCE: 1 NES Document 81A0636 Rev. 0, 7/15/80 and
NES Letter 5152-008, 7/18/80
2 Limitorque Test Report B0003 as delineated in
Ltr Limitorque/NUS dtd 8/28/81

Note 1: Assessment On-Going



SYSTEM COMPONENT EVALUATION WORKSHEET I&E B. 79-01B		NMP UNIT 1 ___ IN CONTAINMENT <u>X</u> OUT OF CONTAINMENT		SYSTEM <u>CONTAINMENT SPRAY</u> P&ID _____		IDENTIFICATION NO. <u>SEE ATTACHED LIST</u> COMPONENT <u>DIFFERENTIAL PRESSURE TRANSMITTER</u>	
DATA		ENVIRONMENT		DOCUMENTATION REF.		QUALIF. METHOD	OUT-STANDING ITEMS
		PARAMETER	SPEC.	QUALIF.	SPEC.		
MANUFACTURER: ROSEMOUNT		OPERATING TIME	Approx. 1 Hr. 20 Sec. . Peak	7 Hrs.		Ref. 2	Simultaneous Test None
MODEL <u>X</u> OR TYPE _____ 1151 DP		TEMPERATURE (°F)	212°F Peak	303°F . Peak		Ref. 2	Simultaneous Test None
FUNCTION: FLOW MEASUREMENTS		PRESSURE (PSIG)	1 PSIG Peak	55.4 PSIG Peak		Ref. 2	Simultaneous Test None
ACCURACY: (%) SPEC. <u>N/A</u> DEMO. <u>N/A</u>		RELATIVE HUMIDITY (%)	100%	100%		Ref. 2	Simultaneous Test None
SERVICE: VARIOUS FLOW SYSTEMS		CHEMICAL SPRAY	N/A				N/A
FLOOD LEVEL: <u>X</u> ABOVE, ___ BELOW		RADIATION (RAD)	$< 1 \times 10^6$ RAD	2×10^6 RAD	Ref. 1	Ref. 2	Test & Analysis None
OTHER: _____		AGING	. 40 yrs.	40 yrs.		Ref. 2	Analysis None
		SUBMERGENCE	N/A				N/A

REFERENCE: 1 NES Document 81A0636 Rev. o, 7/15/80 and
NES Letter 5152-008, 7/18/80
NUS Report 1961-R369-001

ROSEMOUNT

1151 DP

SYSTEM

IDENT. NO.

COS

201.2 - 476A

201.2 - 476B

201.2 - 476C

201.2 - 476D

APPENDIX B

Component Deletion Justification Summary



Equipment items deleted from the NMP-1 master parts list and the associated basis for exemption from qualification are provided below.

<u>Component No.</u>	<u>Function/Basis for Exemption</u>
80-15, 80-16, 80-35, 80-36	Position indication for CoS isolation valves which are normally open (NO), manually operated by key (KO), and receive no signal from reactor protection system (RPS)
58.1-01 (incorrectly noted as 58.1-08 in SER Appendix B)	Position indication for condensate makeup to torus block valve (BV), valve is normally closed (NC), fails closed (FC) and receives no RPS signal.
68-01, 68-02, 68-03, 68-04, 68-05, 68-06, 68-07	Position indication for air operated stop check valves on torus vacuum breaker system, NO, no RPS signal
83.1-10, 83.1-12	Drywell isolation, solenoid operated valve (SOV), NO, deenergized to close by RPS, isolation from RPS by fuses, closes before harsh environment, FC, isol. backed up by motor operated valve to be qualified
201-10, 210-32, 201-08, 201-16	Containment isol., SOV, NC, FC, deenergized to close by RPS, isol. backed up by motor operated valve (MOV) to be qualified

<u>Component No.</u>	<u>Function/Basis for Exemption</u>
68-01c thru 68-07c	SOV controlling air operated stop check valve for torus vacuum relief, NO, normally deenergized, no RPS signal
58.1-01	Condensate makeup to torus SOV, backed up by check valve, NC, FC, no RPS signal
01-03, 01-04	Main steam isolation, SOV's, NO, FC, deenergize to close by RPS, isolated from RPS by fuses, isol. is backed up by MOV to be qualified
55-05	Demineralized water to CRD system SOV, NC, non-scram function
80-85	Strainer differential pressure switch, non-safety related function
RV-30	Core spray line break inside reactor vessel indication; also, modification planned for non-qualification reasons
Burndy GZ,GA-B, GABC-B connectors	All metallic construction
NC-30A, NC-30B	Position indicators and electro-pneumatic converters for CRD system flow control valve, non-scram function
Fittings Cable Tray	All metallic construction
58-04	Level transmitter for torus level alarm, not referenced in LOCA/HELB procedures

<u>Component No.</u>	<u>Function/Basis for Exemption</u>
RE-16A, RE-16B	Pressure switch which bypasses low condenser vacuum and mainsteam IV closure scrams at less than 600 psig, non-safety related
RN-38A ₁ , RN-38A ₂	Radiation monitoring of CoS raw water system, R.G. 1.97 item
NC-08A, NC-08B	CRD pump motors, non-scam function
RV-03A, RV-03B	CS pump discharge pressure indication, function duplicated by vessel level instrumentation
RV-26B, RV-26A	CS flow transmitter, function duplicated by vessel level inst.
P-101	Pressure transmitter feeding process computer, R.G. 1.97 item
IA-07	Core differential pressure, non-safety related
ID-13A, ID-13B	Level transmitter for feedwater control, non-safety related
80-49A, 80-71A, 80-56A, 80-76A	CoS flow transmitters, function duplicated by pump discharge pressure transmitter to be qualified
93-32A, 93-30A, 93-33A, 93-34A	CoS raw water flow transmitters, not referenced in emergency procedures
80-106, 80-109	Level transmitters for tripping sump pumps, non-safety related

<u>Component No.</u>	<u>Function/Basis for Exemption</u>
201.2-01, 201.2-13	Containment pressure transmitters feeding CAD system, indication function duplicated by RPS containment pressure transmitters
IJ-12	Reactor water cleanup system flow transmitter, function backed up for isol. valve position indication
RD-35	CRD system flow transmitter, non-scam, function
ISA Thermocouple Sheaths	All metallic construction
70-92, 70-94	Drywell cooling closed loop motor operated isol. valves, NO, no RPS signal
81-01, 81-02, 81-21, 81-22	Core spray pump suction isol. valves, NO, fail as is, no RPS signal
93-51, 93-52	Raw water to core spray block valve, NC, fail as is, no RPS signal
71-127A	Level switch on makeup tank to RBCLC, feeds level control valve, check valve prevents backflow from RBCLC system
RD-68A, RD-68B	CRD pump pressure switches, non-scam function
80-62	CoS strainer differential pressure switch

<u>Component No.</u>	<u>Function/Basis for Exemption</u>
55-05	Demineralized water to CRD system block valve position switch, non-scrum function
70-19	RBCLC pump disch. temp. element, backed up by element to be qualified
Sealtite conduit	All metallic construction
MG Set 162-172 Switchgear PB-11, 12, 13, Switchboard RPS Buss No. 11, 12 Motor Control Center Power Master PB-16, 17, 13, 14	Deleted based on mild environment; manufacturer specification envelopes specified temperature of 133°F for 12 sec. requirement. Radiation is specified but negligible.
NC-22	CRD SOV used to isolate scram discharge volume used for testing only.
Junction Boxes	All metallic construction.
RN-05A through RN-05D	Main steam line radiation elements; not used to detect or mitigate LOCA/HELB

