



THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

P.O. BOX 5000 - CLEVELAND, OHIO 44101 - TELEPHONE (216) 622-9800 - ILLUMINATING BLDG. - 55 PUBLIC SQUARE

Serving The Best Location in the Nation

MURRAY R. EDELMAN

VICE PRESIDENT
NUCLEAR

May 17, 1983

PY-CEI/NRR-0041 L

Mr. B. J. Youngblood, Chief
Licensing Branch No. 1
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Perry Nuclear Power Plant
Docket Nos. 50-440; 50-441
Response to the EQB's Question
Nos. 270.1 - 270.13

Dear Mr. Youngblood:

This letter and its attachments are being provided in response to your letter dated March 23, 1983. In your letter, you requested additional information, for the Equipment Qualification Branch (EQB), pertaining to the Perry Nuclear Power Plant Environmental Equipment Qualification Program and plant readiness for audit.

We believe that this letter and its attachments will provide the pertinent information to answer the Equipment Qualification Branch Question Nos. 270.1 - 270.13.

Very truly yours,

Murray R. Edelman
Vice President
Nuclear Group

MRE:kh

cc: Jay Silberg, Esq.
John Stefano
Max Gildner
Max Yost, EG&G Idaho, Inc.
Attachments

8305230290 830517
PDR ADQCK 05000440
A PDR

Ad48

204.2.

Based on the information contained in Section 3.11 of your PSAR we are unable to determine if all essential systems and components have been identified and included in your harsh environment qualification program. Provide the following additional information for our review:

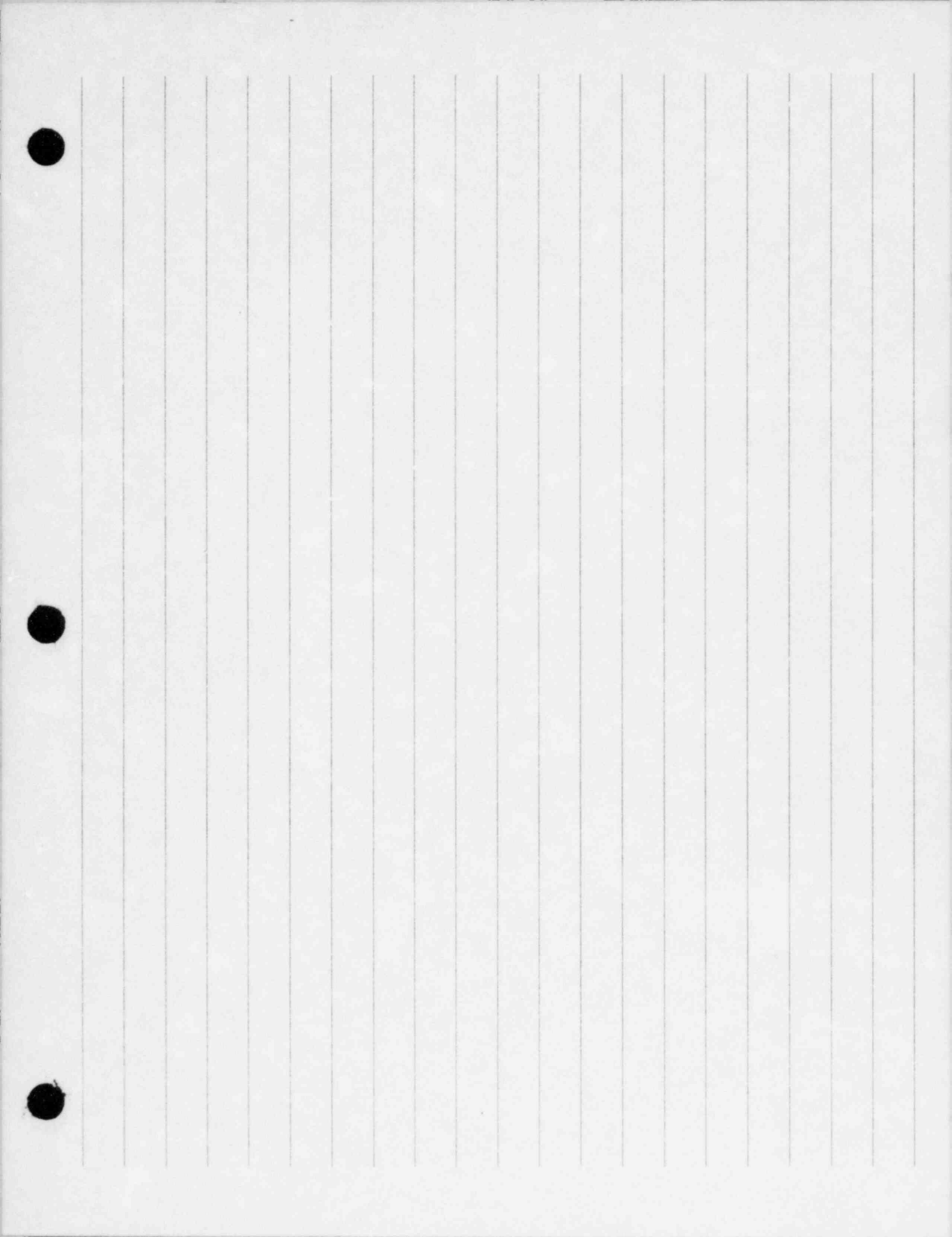
- a. A comparison of the systems in Table 3.2-1 of the PSAR with the systems included in your October 25, 1982 master list. Justification should be provided for the exclusion of any safety-related systems (e.g., all components of the system are located in a mild environment, system is not required for accident mitigation, etc.) Identify the class 1E function(s) performed by each system.
- b. A list of the TMI Action Plan equipment which you have previously committed to qualifying by fuel load in the format provided in your October 25, 1982 letter for safety-related equipment.
- c. A list of safety-related equipment located in a harsh environment which has been exempted from qualification for harsh environmental conditions. Individual components in exempted systems need not be identified.
- d. A list of all essential equipment in a harsh environment (i.e., NUREG-0588, Appendix E, categories 2a & 2b) in the format of your October 25, 1982 letter. Certain equipment, such as terminal blocks, splices, and cable, are not currently included in the master list of equipment.

Response

- a. As discussed in Section 3.11.1.1, Table 3.2-1 systems with components designated as safety class 1, 2, and 3 are the basis for the safety-related equipment listed in the Equipment Qualification Review List (EQRL). See Section 3.11.3. However, the October 23, 1982 master list only included safety-related equipment in a harsh environment and thus some systems did not appear because all their safety-related components are located in a mild environment. These items appear in the mild environment printout also dated October 23, 1982. The combination of these two printouts match system for system with Table 3.2-1 as discussed in Section 3.11.1.1.
- b. DRI Action Plan (see Appendix 1A) has been reviewed and the following is a list of safety-related equipment which will be added to the EQRL as information becomes available but prior to fuel load.

<u>App. 1A Item</u>	<u>Equipment Description</u>	<u>MPL Number</u>
II.D.3	SRV Position Indication	1B21-N410A thru V 1H22-P090
II.F.1	1. High Range Noble Gas Monitors	1D19-P300, 1D19-J300 1D19-P400, 1D19-J400 1D19-P500, 1D19-J500
	2. High Range Gamma Monitors	1D19-N100A,B, 1D19-J100 1D19-N200A,B, 1D19-J200
	3. Containment Pressure Monitors	1D23-N270A, B
	4. Suppression Pool Water Level Monitors	1G43-N090A, B
	5. Containment and Drywell Hydrogen Monitor	1H51-P022A, B

- c. No safety-related systems located in a harsh environment has been exempted from qualification. Justification for individual components in a harsh environment being exempted from qualification will be provided in the auditable file package.
- d. An updated EQRL for all essential equipment in a harsh environment is attached to the letter transmitting these responses. Equipment such as terminal blocks, splices, and cable are provided on a separate list which is also attached to the letter transmitting these responses.



SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY

AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

**** LINE 1 ****

EQUIPMENT NUMBER	THIS DATA ITEM IS A STRUCTURED CODE WHICH IS USED TO IDENTIFY A PARTICULAR SAFETY RELATED ELECTRICAL EQUIPMENT ITEM.
SERVICE DESCRIPTION	THIS FIELD DESCRIBES THE WAY IN WHICH THE EQUIPMENT ITEM IS USED. IT IS COMPOSED OF TWO 36 CHARACTER LINES - THE FIRST LINE CONTAINS THE STANDARD DESCRIPTION OF THE SYSTEM, THE SECOND CONTAINS MORE SPECIFIC DESCRIPTIVE DATA.
MANUFACTURER	THIS FIELD IDENTIFIES THE ACTUAL MANUFACTURER OF THE PIECE OF EQUIPMENT.
ENV ZONE	A CODE WHICH DEFINES THE EQUIPMENT LOCATION WITHIN THE PLANT IN TERMS OF ZONES RELATING TO THE ENVIRONMENTAL CONDITIONS LIKELY TO BE FOUND THERE.
ENV QUALFD	THIS FIELD IDENTIFIES WHETHER SUFFICIENT DOCUMENTATION HAS BEEN RECEIVED TO PROVE THAT THE DEVICE IS QUALIFIED TO OPERATE IN THE ZONE THAT IT WILL BE LOCATED IN. THE ONLY ALLOWABLE VALUES FOR THIS FIELD ARE: A - THE QUALIFICATION AND ASSOCIATED DOCUMENTATION IS COMPLETE B - THE QUALIFICATION TESTING IS FINISHED BUT ASSOCIATED DOCUMENTATION IS NOT YET SUBMITTED OR STILL IN REVIEW C - THE QUALIFICATION PLAN/PROCEDURE IS DOCUMENTED BUT TESTING HAS NOT YET BEGUN D - EQUIPMENT IS TO BE QUALIFIED (TEST PLAN NOT COMPLETE) E - EQUIPMENT IS JUDGED NOT QUALIFIABLE AND WILL BE REPLACED WITH QUALIFIED EQUIPMENT F - EQUIPMENT IS QUALIFIED FOR SEISMIC LOADING ONLY. REQUALIFICATION WILL BE PERFORMED TO ACCOUNT FOR HYDRODYNAMIC LOADS.

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

OP
ECA TWO POSITION CODE WHICH IDENTIFIES THE REQUIRED FUNCTIONING
OF THE DEVICE AS DEFINED IN NUREG 0588, APPENDIX E, ITEM 2.

ALLOWABLE CODE VALUES ARE:

BLANK = NOT REVIEWED AS YET

P = PASSIVE, ONLY REQUIRED TO MAINTAIN THE MECHANICAL
INTEGRITY OF THE PRESSURE BOUNDRYA1 = ACTIVE EQUIPMENT THAT WILL EXPERIENCE THE ENVIRON-
MENTAL CONDITIONS OF DESIGN BASIS ACCIDENTS FOR
WHICH IT MUST FUNCTION TO MITIGATE SAID ACCIDENTSA2 = ACTIVE EQUIPMENT THAT WILL EXPERIENCE ENVIRONMENTAL
CONDITIONS OF DESIGN BASIS ACCIDENTS THROUGH WHICH
IT NEED NOT FUNCTION FOR MITIGATION OF SAID ACCIDENTS,
BUT THROUGH WHICH IT MUST NOT FAIL IN A MANNER
DETRIMENTAL TO PLANT SAFETY OR ACCIDENT MITIGATIONA3 = ACTIVE EQUIPMENT THAT WILL EXPERIENCE ENVIRONMENTAL
CONDITIONS OF DESIGN BASIS ACCIDENTS THROUGH WHICH
IT NEED NOT FUNCTION FOR MITIGATION OF SAID ACCIDENTS,
AND WHOSE FAILURE IS DEEMED NOT DETRIMENTAL TO PLANT
SAFETY OR ACCIDENT MITIGATIONA4 = ACTIVE EQUIPMENT THAT WILL NOT EXPERIENCE ENVIRON-
MENTAL CONDITIONS OF DESIGN BASIS ACCIDENTSRQD
FTA ONE POSITION CODE WHICH DEFINES THE FUNCTION TIME OF THE
DEVICE. THE ALLOWABLE VALUES ARE:

A) 0 - 45 SECONDS G) TO 2 DAYS

B) TO 10 MINUTES H) TO 30 DAYS

C) TO 1 HOUR I) TO 100 DAYS

D) TO 6 HOURS J) ALWAYS AVAILABLE

E) TO 12 HOURS SPACE) NOT DEFINED AS YET

F) TO 24 HOURS

OPER
DEMOTHIS FIELD DEFINES WHETHER OR NOT DOCUMENTATION HAS BEEN RECEIVED
PROVING THAT THE DEVICE HAS MET ITS REQUIRED OPERABILITY
CONSTRAINTS.

ACC

ACCURACY AS REQUIRED BY THE PLANT TECHNICAL SPECIFICATION (IN
PERCENT OF FULL RANGE). THE VALUES ARE IN TERMS OF HUNDREDTHS
OF A PERCENT (.0100 MEANS 10%).ACC/RT
DEMOTHIS FIELD IDENTIFIES WHETHER OR NOT DOCUMENTATION HAS BEEN
RECEIVED SHOWING THAT THE DEVICE WILL PERFORM TO THE PROPER
ACCURACY AND RESPONSE TIME SPECIFICATIONS.

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY

AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

QUALIFICATION
(M)LF/MI SUMMARYTHIS IDENTIFIES THE WAY IN WHICH THE ITEM IS PROVEN TO BE
QUALIFIED ENVIRONMENTALLY.

THERE ARE ONLY FOUR ALLOWABLE WAYS:

ANALYSIS, (A)

EXPERIENCE, (E)

TESTING, (T)

OR COMBINATION (C).

QUALIFICATION
M(LF)/MI SUMMARYTHIS FIELD IDENTIFIES THE LENGTH OF TIME THAT THE QUALIFICATION
IS GOOD FOR.QUALIFICATION
M LF/MI(SUMMARY)THIS FIELD IS A CODED NUMBER ASSIGNED TO EACH DOCUMENTATION
PACKAGE RECEIVED. IT IS ESSENTIALLY A FILE FOLDER NUMBER FOR
ENVIRONMENTAL QUALIFICATION REPORTS.

**** LINE 2 ****

MODEL

THIS FIELD CONTAINS THE MANUFACTURER'S MODEL NUMBER FOR THE
PIECE OF EQUIPMENT.NO HEADING
(WILL APPEAR BELOW
ENV ZONE FIELD)

THIS FIELD IDENTIFIES THE TYPE OF ENVIRONMENT ZONE.

RES TME

THE RESPONSE TIME AS REQUIRED BY THE PLANT TECHNICAL SPEC-
IFICATIONS. DEFINED AS A VALUE AND A TIME UNIT.QUALIFICATION
M LF/(MI)SUMMARYIF AN ITEM IS QUALIFIED FOR LESS THAN 40 YEARS (THE LIFE OF THE
PLANT) - THEN IT WILL HAVE A QUALIFICATION MAINTENANCE INTERVAL.

**** LINE 3 ****

SP NO 1

THE SPECIFICATION NUMBER THAT THE EQUIPMENT WAS PURCHASED UNDER,
AND THE SUB-SPEC WHICH IDENTIFIES THE PARTICULAR CONTRACT - IF
MORE THAN ONE IS LET FOR PARTS OF THE SAME WORK.

GE PURCH DWG

THIS FIELD IS APPLICABLE ONLY TO ITEMS PURCHASED FROM GE. IT
IDENTIFIES THE PURCHASE PART DRAWING THAT THE ITEM WAS PURCHASED
BY.

EQUIP. DESCRIPTION

THIS DATA ITEM CONTAINS A DESCRIPTION OF THE PIECE OF EQUIPMENT.

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION DEMO	M LF/MI	SUMMARY
OC41 F 0513A	STANDBY LIQUID CONTROL BACKFLOW CHECK 53104	KEROTEST D30516 2 INCH CHECK VALVE	FB-7 HARSH			A4	J	N/A N/A				
OC41 F 0513B	STANDBY LIQUID CONTROL BACKFLOW CHECK 53104	KEROTEST D30516 2 INCH CHECK VALVE	FB-7 HARSH			A4	J	N/A N/A				
OC41 F 0529A	STANDBY LIQ. CONTROL SYSTEM PREVENT PUMP FROM RUNNING AT SHUTOFF 523	TARGET ROCK CORP. 76H-016 1 INCH X 1 INCH	FB-7 HARSH RELIEF			A4	J	N/A N/A				
OC41 F 0529B	STANDBY LIQ. CONTROL SYSTEM PREVENT PUMP FROM RUNNING AT SHUTOFF 523	TARGET ROCK CORP. 76H-016 1 INCH X 1 INCH	FB-7 HARSH RELIEF			A4	J	N/A N/A				
1 OG41 F 0085	FUEL POOL COOL & CLEAN-UP SYSTEM RET. TO FUEL POOLS HDR. ISO 10 SEC CL 524	CONTROMATICS C-W2566-CC 10 INCH BUTTERFLY	FB-3 HARSH VALVE			A4	I	N/A 30.0 SEC				
OG41 F 0085	FUEL POOL COOL & CLEAN-UP SYSTEM RET. TO FUEL POOLS HDR. ISO 10 SEC CL 524	LIMITORQUE SMB-0002 MOTOR OPERATOR	FB-3 HARSH	A		A4	J	YES 30.0 SEC	N/A 30.0 SEC	YES	T 40Y 40Y	SP568-000-01
OG41 F 0545A	FUEL POOL COOL AND CLEAN-UP FUEL POOL CIRC. PUMP DISCH. 52101	TRW MISSION K15CPF-V79 10 INCH CHECK VALVE	FB-3 HARSH			A4	J	N/A N/A				
OG41 F 0545B	FUEL POOL COOL AND CLEAN-UP FUEL POOL CIRC. PUMP DISCH. 52101	TRW MISSION K15CPF-V79 10 INCH CHECK VALVE	FB-3 HARSH			A4	J	N/A N/A				
OG41 F 0597A	FUEL POOL COOL AND CLEAN-UP SYSTEM SURGE TK. IN. 52102	BORG WARNER 81450 3 INCH CHECK VALVE	FB-3 HARSH			A4	J	N/A N/A				
OG41 F 0597B	FUEL POOL COOL AND CLEAN-UP SYSTEM SURGE TK. IN. 52102	BORG WARNER 81450 3 INCH CHECK VALVE	FB-3 HARSH			A4	J	N/A N/A				
OG41 N 0369A		ITT BARTON 580-0 INDICATING DIFF PRESSURE SWITCH	FB-3 HARSH	C				LATER		LATER T		

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY

SELECT : 47EH

AS OF 00352 05/04/83

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
OG41 N 0369B		ITT BARTON 580-O INDICATING DIFF PRESSURE SWITCH	FB-3 HARSH	C			LATER		LATER T		
1 OM40 C 0001A	FUEL HANDLING AREA VENTILATION SYS CENTRIFUGAL FAN 645	WESTINGHOUSE CORP 3037 SUPPLY AIR FAN	FB-3 HARSH		A4	J		N/A N/A			
OM40 C 0001A	FUEL HANDLING BUILDING VENT SYSTEM SUPPLY FAN MOTOR 645	RELiance ELECTRIC AC POLYPHASE MOTOR	FB-3 HARSH	A	A4	J	YES	N/A N/A	YES	C 40Y 40Y	SP645-000-07
1 OM40 C 0001B	HANDLING AREA VENTILATION SYS CENTRIFUGAL FAN 645	WESTINGHOUSE CORP 3037 SUPPLY AIR FAN	FB-3 HARSH		A4	J		N/A N/A			
OM40 C 0001B	FUEL HANDLING BUILDING VENT SYSTEM SUPPLY FAN MOTOR 645	RELiance ELECTRIC AC POLYPHASE MOTOR	FB-3 HARSH	A	A4	J	YES	N/A N/A	YES	C 40Y 40Y	SP645-000-07
1 OM40 C 0002A	FUEL HANDLING AREA VENTILATION SYS CENTRIFUGAL FAN 645	WESTINGHOUSE CORP 3030 SUPPLY AIR FAN	FB-8 HARSH		A1	J		N/A N/A			
OM40 C 0002A	FUEL HANDLING BUILDING VENT SYSTEM EXHAUST FAN MOTOR 645	RELiance ELECTRIC AC POLYPHASE MOTOR	FB-8 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y 40Y	SP645-000-07
1 OM40 C 0002B	FUEL HANDLING AREA VENTILATION SYS CENTRIFUGAL FAN 645	WESTINGHOUSE CORP 3030 SUPPLY AIR FAN	FB-8 HARSH		A1	J		N/A N/A			
OM40 C 0002B	FUEL HANDLING BUILDING VENT SYSTEM EXHAUST FAN MOTOR 645	RELiance ELECTRIC AC POLYPHASE MOTOR	FB-8 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y 40Y	SP645-000-07
1 OM40 C 0002C	FUEL HANDLING AREA VENTILATION SYS CENTRIFUGAL FAN 645	WESTINGHOUSE CORP 3030 SUPPLY AIR FAN	FB-8 HARSH		A1	J		N/A N/A			
OM40 C 0002C	FUEL HANDLING BUILDING VENT SYSTEM EXHAUST FAN MOTOR 645	RELiance ELECTRIC AC POLYPHASE MOTOR	FB-8 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y 40Y	SP645-000-07

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
0M40 D 0001A	FUEL HANDLING BUILDING VENT SYSTEM 50KW HEATER - EXHAUST PLENUM 642	CVI PENWALT CORP N/A HEATING COIL	FB-8	D	A1	J		N/A N/A			
0M40 D 0001B	FUEL HANDLING BUILDING VENT SYSTEM 50KW HEATER - EXHAUST PLENUM 642	CVI PENWALT CORP N/A HEATING COIL	FB-8	D	A1	J		N/A N/A			
0M40 D 0001C	FUEL HANDLING BUILDING VENT SYSTEM 50KW HEATER - EXHAUST PLENUM 642	CVI PENWALT CORP N/A HEATING COIL	FB-8	D	A1	J		N/A N/A			
0M40 F 0550	FUEL HANDLING BUILDING VENTILATION FAN ISOLATION 091	TECHNO N/A CHECK DAMPER	FB-3		A4	J		N/A N/A			
1B13 D 0124A	ROD CONTROL AND INFORMATION SYSTEM POSITION INDICATING PROBE CHANNEL A 301 762E634	GE 762E634 PROBE	DW-3	C	A3			N/A N/A		A	SP301-S13-00
1B13 D 0124B	ROD CONTROL AND INFORMATION SYSTEM POSITION INDICATING PROBE CHANNEL B 301 762E634	GE 762E634 PROBE	DW-3	C	A3			N/A N/A		A	SP301-S13-00
1 1B21 F 0016	NUCLEAR BOILER SYSTEM FO22 ABC&D BEFORE SEAT DR. 52102	BORG WARNER 81180 3 INCH GATE VALVES	DW-1		A1	I		N/A 20.0 SEC			
1B21 F 0016	NUCLEAR BOILER SYSTEM FO22 ABC&D BEFORE SEAT DR. 52102	LIMITORQUE SMB-000-5 MOTOR OPERATOR	DW-1	A	A1	I	YES	N/A 20.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1B21 F 0019	NUCLEAR BOILER SYSTEM FO22 ABC&D BEFORE SEAT DR. 52102	BORG WARNER 81180 3 INCH GATE VALVES	AB-7		A4	I		N/A 20.0 SEC			
1B21 F 0019	NUCLEAR BOILER SYSTEM FO22 ABC&D BEFORE SEAT DR. 52102	LIMITORQUE SMB-000-5 MOTOR OPERATOR	AB-7	A	A4	I	YES	N/A 20.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1B21 F 0022A	NUCLEAR BOILER SYSTEM LIMIT SWITCH FOR VALVE 1B21FO22A 79305 22A6014	NATIONAL ACME EA74050100 LIMIT SWITCH	DW-1	C	A1	I	LATER	N/A N/A	LATER		

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY

AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1B21 F 0022A	NSSS SYSTEM FIRST MSIV 301 105D4935	ATWOOD & MORRILL NA AIR OPERATED VALVE	DW-1 HARSH		A1	I		N/A 0003 SEC			
1 1B21 F 0022B	NUCLEAR BOILER SYSTEM LIMIT SWITCH FOR VALVE 1B21F022B 79305 22A6014	NATIONAL ACME EA74050100 LIMIT SWITCH	DW-1 HARSH	C	A1	I	LATER	N/A N/A	LATER T		
1B21 F 0022B	NSSS SYSTEM FIRST MSIV 301 105D4935	ATWOOD & MORRILL NA AIR OPERATED VALVE	DW-1 HARSH		A1	I		N/A 0003 SEC			
1 1B21 F 0022C	NUCLEAR BOILER SYSTEM LIMIT SWITCH FOR VALVE 1B21F022C 79305 22A6014	NATIONAL ACME EA74050100 LIMIT SWITCH	DW-1 HARSH	C	A1	I	LATER	N/A N/A	LATER T		
1B21 F 0022C	NSSS SYSTEM FIRST MSIV 301 105D4935	ATWOOD & MORRILL NA AIR OPERATED VALVE	DW-1 HARSH		A1	I		N/A 0003 SEC			
1 1B21 F 0022D	NUCLEAR BOILER SYSTEM LIMIT SWITCH FOR VALVE 1B21F022D 79305 22A6014	NATIONAL ACME EA74050100 LIMIT SWITCH	DW-1 HARSH	C	A1	I	LATER	N/A N/A	LATER T		
1B21 F 0022D	NSSS SYSTEM FIRST MSIV 301 105D4935	ATWOOD & MORRILL NA AIR OPERATED VALVE	DW-1 HARSH		A1	I		N/A 0003 SEC			
1B21 F 0024A	NUCLEAR BOILER SYSTEM FIRST MSIV ACCUM. SUPPLY 53104	KEROTEST PP30508GV 1 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0024B	NUCLEAR BOILER SYSTEM FIRST MSIV ACCUM. SUPPLY 53104	KEROTEST PP30508GV 1 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0024C	NUCLEAR BOILER SYSTEM FIRST MSIV ACCUM. SUPPLY 53104	KEROTEST PP30508GV 1 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0024D	NUCLEAR BOILER SYSTEM FIRST MSIV ACCUM. SUPPLY 53104	KEROTEST PP30508GV 1 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1 1B21 F 0028A	NUCLEAR BOILER SYSTEM LIMIT SWITCH FOR VALVE 1B21F028A 79305	NATIONAL ACME EA74050100 LIMIT SWITCH	AB-7 HARSH	C	A1	H	LATER	N/A N/A	LATER T		
1B21 F 0028A	NSSS SYSTEM SECOND MSIV 301 105D4935AE	ATWOOD & MORRILL NA AIR OPERATED VALVE	AB-7 HARSH		A1	H		N/A 0003 SEC			
1 1B21 F 0028B	NUCLEAR BOILER SYSTEM LIMIT SWITCH FOR VALVE 1B21F028B 79305	NATIONAL ACME EA74050100 LIMIT SWITCH	AB-7 HARSH	C	A1	H	LATER	N/A N/A	LATER T		
1B21 F 0028B	NSSS SYSTEM SECOND MSIV 301 105D4935AE	ATWOOD & MORRILL NA AIR OPERATED VALVE	AB-7 HARSH		A1	H		N/A 0003 SEC			
1 1B21 F 0028C	NUCLEAR BOILER SYSTEM LIMIT SWITCH FOR VALVE 1B21F028C 79305	NATIONAL ACME EA74050100 LIMIT SWITCH	AB-7 HARSH	C	A1	H	LATER	N/A N/A	LATER T		
1B21 F 0028C	NSSS SYSTEM SECOND MSIV 301 105D4935AE	ATWOOD & MORRILL NA AIR OPERATED VALVE	AB-7 HARSH		A1	H		N/A 0003 SEC			
1 1B21 F 0028D	NUCLEAR BOILER SYSTEM LIMIT SWITCH FOR VALVE 1B21F028D 79305	NATIONAL ACME EA74050100 LIMIT SWITCH	AB-7 HARSH	C	A1	H	LATER	N/A N/A	LATER T		
1B21 F 0028D	NSSS SYSTEM SECOND MSIV 301 105D4935AE	ATWOOD & MORRILL NA AIR OPERATED VALVE	AB-7 HARSH		A1	H		N/A 0003 SEC			
1B21 F 0029A	NUCLEAR BOILER SYSTEM SECOND MSIV ACCUM. SUPPLY 53104	KEROTEST PP30508GV 1 INCH CHECK VALVE	AB-7 HARSH		A4	J		N/A N/A			
1B21 F 0029B	NUCLEAR BOILER SYSTEM SECOND MSIV ACCUM. SUPPLY 53104	KEROTEST PP30508GV 1 INCH CHECK VALVE	AB-7 HARSH		A4	J		N/A N/A			
1B21 F 0029C	NUCLEAR BOILER SYSTEM SECOND MSIV ACCUM. SUPPLY 53104	KEROTEST PP30508GV 1 INCH CHECK VALVE	AB-7 HARSH		A4	J		N/A N/A			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1B21 F 0029D	NUCLEAR BOILER SYSTEM SECOND MSIV ACCUM. SUPPLY 53104	KEROTEST PP30508GV 1 INCH CHECK VALVE	AB-7 HARSH				A4 J	N/A N/A			
1B21 F 0032A	NUCLEAR BOILER SYSTEM RX. FEED TESTABLE CHK 52103	ROCKWELL 7592 (WCC) JNQTY 20 INCH CHECK VALVE	AB-7 HARSH				A4 J	N/A N/A			
1B21 F 0032B	NUCLEAR BOILER SYSTEM RX. FEED TESTABLE CHK 52103	ROCKWELL 7592 (WCC) JNQTY 20 INCH CHECK VALVE	AB-7 HARSH				A4 J	N/A N/A			
1B21 F 0036C	NUCLEAR BOILER SYSTEM INST. AIR TO RELIEF VALVE 53104	KEROTEST PP30508GV 1 INCH CHECK VALVE	DW-1 HARSH				A1 J	N/A N/A			
1B21 F 0036D	NUCLEAR BOILER SYSTEM INST. AIR TO RELIEF VALVE 53104	KEROTEST PP30508GV 1 INCH CHECK VALVE	DW-1 HARSH				A1 J	N/A N/A			
1B21 F 0036G	NUCLEAR BOILER SYSTEM INST. AIR TO RELIEF VALVE 53104	KEROTEST PP30508GV 1 INCH CHECK VALVE	DW-1 HARSH				A1 J	N/A N/A			
1B21 F 0036H	NUCLEAR BOILER SYSTEM INST. AIR TO RELIEF VALVE 53104	KEROTEST PP30508GV 1 INCH CHECK VALVE	DW-1 HARSH				A1 J	N/A N/A			
1B21 F 0036J	NUCLEAR BOILER SYSTEM INST. AIR TO RELIEF VALVE 53104	KEROTEST PP30508GV 1 INCH CHECK VALVE	DW-1 HARSH				A1 J	N/A N/A			
1B21 F 0036K	NUCLEAR BOILER SYSTEM INST. AIR TO RELIEF VALVE 53104	KEROTEST PP30508GV 1 INCH CHECK VALVE	DW-1 HARSH				A1 J	N/A N/A			
1B21 F 0036M	NUCLEAR BOILER SYSTEM INST. AIR TO RELIEF VALVE 53104	KEROTEST PP30508GV 1 INCH CHECK VALVE	DW-1 HARSH				A1 J	N/A N/A			
1B21 F 0036N	NUCLEAR BOILER SYSTEM INST. AIR TO RELIEF VALVE 53104	KEROTEST PP30508GV 1 INCH CHECK VALVE	DW-1 HARSH				A1 J	N/A N/A			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1B21 F 0036R	NUCLEAR BOILER SYSTEM INST. AIR TO RELIEF VALVE 53104	KEROTEST PP30508GV 1 INCH CHECK VALVE	DW-1 HARSH		A1	J		N/A N/A			
1B21 F 0036S	NUCLEAR BOILER SYSTEM INST. AIR TO RELIEF VALVE 53104	KEROTEST PP30508GV 1 INCH CHECK VALVE	DW-1 HARSH		A1	J		N/A N/A			
1B21 F 0036U	NUCLEAR BOILER SYSTEM INST. AIR TO RELIEF VALVE 53104	KEROTEST PP30508GV 1 INCH CHECK VALVE	DW-1 HARSH		A1	J		N/A N/A			
1B21 F 0037A	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0037B	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0037C	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0037D	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0037E	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0037F	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0037G	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0037H	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY

AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/M1	SUMMARY
1B21 F 0037J	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0037K	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0037L	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0037M	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0037N	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0037P	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0037R	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0037S	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0037T	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0037U	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0037V	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1B21 F 0039A	NUCLEAR BOILER SYSTEM P57AIR TO RELIEF VALVE 53104	KEROTEST PP30508GV 1 INCH CHECK VALVE	DW-1 HARSH		A1	J		N/A N/A			
1B21 F 0039B	NUCLEAR BOILER SYSTEM P57AIR TO RELIEF VALVE 53104	KEROTEST PP30508GV 1 INCH CHECK VALVE	DW-1 HARSH		A1	J		N/A N/A			
1B21 F 0039E	NUCLEAR BOILER SYSTEM P57AIR TO RELIEF VALVE 53104	KEROTEST PP30508GV 1 INCH CHECK VALVE	DW-1 HARSH		A1	J		N/A N/A			
1B21 F 0039F	NUCLEAR BOILER SYSTEM P57AIR TO RELIEF VALVE 53104	KEROTEST PP30508GV 1 INCH CHECK VALVE	DW-1 HARSH		A1	J		N/A N/A			
1B21 F 0039L	NUCLEAR BOILER SYSTEM P57AIR TO RELIEF VALVE 53104	KEROTEST PP30508GV 1 INCH CHECK VALVE	DW-1 HARSH		A1	J		N/A N/A			
1B21 F 0039P	NUCLEAR BOILER SYSTEM P57AIR TO RELIEF VALVE 53104	KEROTEST PP30508GV 1 INCH CHECK VALVE	DW-1 HARSH		A1	J		N/A N/A			
1B21 F 0039T	NUCLEAR BOILER SYSTEM P57AIR TO RELIEF VALVE 53104	KEROTEST PP30508GV 1 INCH CHECK VALVE	DW-1 HARSH		A1	J		N/A N/A			
1B21 F 0039V	NUCLEAR BOILER SYSTEM ACCUM. DR. 53104	KEROTEST PP30508GV 1 INCH CHECK VALVE	DW-1 HARSH		A1	J		N/A N/A			
1B21 F 0040	NUCLEAR BOILER SYSTEM DR. TO DW.EQPT.DR.SUMP VAC BKR. 53104	KEROTEST D30616 2 INCH CHECK VALVE	DW-1 HARSH		A1	J		N/A N/A			
1B21 F 0041A	AUTOMATIC DEPRESSURIZATION SYSTEM MAIN STEAM RELIEF VALVE 301 768E584	DIKKERS G471-6/125.04 AIR OPERATED VALVE	DW-2 HARSH		A1	I					
1B21 F 0041B	AUTOMATIC DEPRESSURIZATION SYSTEM MAIN STEAM RELIEF VALVE 301 768E584	DIKKERS G471-6/125.04 AIR OPERATED VALVE	DW-2 HARSH		A1	I					

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1B21 F 0041C	AUTOMATIC DEPRESSURIZATION SYSTEM MAIN STEAM RELIEF VALVE 301 768E584	DIKKERS G471-6/125.04 AIR OPERATED VALVE	DW-2				A1 I				
1B21 F 0041D	AUTOMATIC DEPRESSURIZATION SYSTEM MAIN STEAM RELIEF VALVE 301 768E584	DIKKERS G471-6/125.04 AIR OPERATED VALVE	DW-2				A1 I				
1B21 F 0041E	AUTOMATIC DEPRESSURIZATION SYSTEM MAIN STEAM RELIEF VALVE 301 768E584	DIKKERS G471-6/125.04 AIR OPERATED VALVE	DW-2				A1 I				
1B21 F 0041F	AUTOMATIC DEPRESSURIZATION SYSTEM MAIN STEAM RELIEF VALVE 301 768E584	DIKKERS G471-6/125.04 AIR OPERATED VALVE	DW-2				A1 I				
1B21 F 0041G	AUTOMATIC DEPRESSURIZATION SYSTEM MAIN STEAM RELIEF VALVE 301 768E584	DIKKERS G471-6/125.04 AIR OPERATED VALVE	DW-2				A1 I				
1B21 F 0041K	AUTOMATIC DEPRESSURIZATION SYSTEM MAIN STEAM RELIEF VALVE 301 768E584	DIKKERS G471-6/125.04 AIR OPERATED VALVE	DW-2				A1 I				
1B21 F 0047B	AUTOMATIC DEPRESSURIZATION SYSTEM MAIN STEAM RELIEF VALVE 301 768E584	DIKKERS G471-6/125.04 AIR OPERATED VALVE	DW-2				A1 I				
1B21 F 0047C	AUTOMATIC DEPRESSURIZATION SYSTEM MAIN STEAM RELIEF VALVE 301 768E584	DIKKERS G471-6/125.04 AIR OPERATED VALVE	DW-2				A1 I				
1B21 F 0047D	AUTOMATIC DEPRESSURIZATION SYSTEM MAIN STEAM RELIEF VALVE 301 768E584	DIKKERS G471-6/125.04 AIR OPERATED VALVE	DW-2				A1 I				
1B21 F 0047F	AUTOMATIC DEPRESSURIZATION SYSTEM MAIN STEAM RELIEF VALVE 301 768E584	DIKKERS G471-6/125.04 AIR OPERATED VALVE	DW-2				A1 I				
1B21 F 0047G	AUTOMATIC DEPRESSURIZATION SYSTEM MAIN STEAM RELIEF VALVE 301 768E584	DIKKERS G471-6/125.04 AIR OPERATED VALVE	DW-2				A1 I				

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION DEMO	M LF/MI	SUMMARY
1B21 F 0047H	AUTOMATIC DEPRESSURIZATION SYSTEM MAIN STEAM RELIEF VALVE 301 768E584	DIKKERS G471-6/125.04 AIR OPERATED VALVE	DW-2 HARSH				A1 I					
1B21 F 0051A	AUTOMATIC DEPRESSURIZATION SYSTEM MAIN STEAM RELIEF VALVE 301 768E584	DIKKERS G471-6/125.04 AIR OPERATED VALVE	DW-2 HARSH				A1 I					
1B21 F 0051B	AUTOMATIC DEPRESSURIZATION SYSTEM MAIN STEAM RELIEF VALVE 301 768E584	DIKKERS G471-6/125.04 AIR OPERATED VALVE	DW-2 HARSH				A1 I					
1B21 F 0051C	AUTOMATIC DEPRESSURIZATION SYSTEM MAIN STEAM RELIEF VALVE 301 768E584	DIKKERS G471-6/125.04 AIR OPERATED VALVE	DW-2 HARSH				A1 I					
1B21 F 0051D	AUTOMATIC DEPRESSURIZATION SYSTEM MAIN STEAM RELIEF VALVE 301 768E584	DIKKERS G471-6/125.04 AIR OPERATED VALVE	DW-2 HARSH				A1 I					
1B21 F 0051G	AUTOMATIC DEPRESSURIZATION SYSTEM MAIN STEAM RELIEF VALVE 301 768E584	DIKKERS G471-6/125.04 AIR OPERATED VALVE	DW-2 HARSH				A1 I					
1 1B21 F 0065A	NUCLEAR BOILER SYSTEM RX. FEEDWATER ISO. 52102	BORG WARNER 81160-1 20 INCH GATE VALVES	AB-7 HARSH				A4 I	N/A 84.0 SEC				
1B21 F 0065A	NUCLEAR BOILER SYSTEM RX. FEED WATER ISO. 52102	LIMITORQUE SMB-4-100 MOTOR OPERATOR	AB-7 HARSH	A		A4 I	YES	N/A 84.0 SEC	YES	T 40Y 40Y		SP568-000-01
1 1B21 F 0065B	NUCLEAR BOILER SYSTEM RX. FEEDWATER ISO. 52102	BORG WARNER 81160 20 INCH GATE VALVES	AB-7 HARSH				A4 I	N/A 90.0 SEC				
1B21 F 0065B	NUCLEAR BOILER SYSTEM RX. FEED WATER ISO. 52102	LIMITORQUE SMB-4-100 MOTOR OPERATOR	AB-7 HARSH	A		A4 I	YES	N/A 90.0 SEC	YES	T 40Y 40Y		SP568-000-01
1 1B21 F 0067A	NUCLEAR BOILER SYSTEM OUTBRD. MSIV BEFORE SEAT DR. 53106	ROCKWELL 15004MPRT1 1-1/2 INCH GLOBE VALVES	AB-7 HARSH VALVES				A4 I	N/A N/A				

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

AS OF 00352 05/04/83

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC,RT TME	QUALIFICATION M LF/MI	SUMMARY
1B21 F 0067A	NUCLEAR BOILER SYSTEM OUTBRD. MSIV BEFORE SEAT DR. 53106	LIMITORQUE SMB-000-2 MOTOR OPERATOR	AB-7 HARSH	A	A4	I	YES	N/A N/A	YES	T 40Y 40Y	SP568-000-01
1 1B21 F 0067B	NUCLEAR BOILER SYSTEM OUTBRD. MSIV BEFORE SEAT DR. 53106	ROCKWELL 15004MPRT1 1-1/2 INCH GLOBE	AB-7 HARSH VALVES		A4	I		N/A N/A			
1B21 F 0067B	NUCLEAR BOILER SYSTEM OUTBRD. MSIV BEFORE SEAT DR. 53106	LIMITORQUE SMB-000-2 MOTOR OPERATOR	AB-7 HARSH	A	A4	I	YES	N/A N/A	YES	T 40Y 40Y	SP568-000-01
1 1B21 F 0067C	NUCLEAR BOILER SYSTEM OUTBRD. MSIV BEFORE SEAT DR. 53106	ROCKWELL 15004MPRT1 1-1/2 INCH GLOBE	AB-7 HARSH VALVES		A4	I		N/A N/A			
1B21 F 0067C	NUCLEAR BOILER SYSTEM OUTBRD. MSIV BEFORE SEAT DR. 53106	LIMITORQUE SMB-000-2 MOTOR OPERATOR	AB-7 HARSH	A	A4	I	YES	N/A N/A	YES	T 40Y 40Y	SP568-000-01
1 1B21 F 0067D	NUCLEAR BOILER SYSTEM OUTBRD. MSIV BEFORE SEAT DR. 53106	ROCKWELL 15004MPRT1 1-1/2 INCH GLOBE	AB-7 HARSH VALVE		A4	I		N/A N/A			
1B21 F 0067D	NUCLEAR BOILER SYSTEM OUTBRD. MSIV BEFORE SEAT DR. 53106	LIMITORQUE SMB-000-2 MOTOR OPERATOR	AB-7 HARSH	A	A4	I	YES	N/A N/A	YES	T 40Y 40Y	SP568-000-01
1B21 F 0069	NUCLEAR BOILER SYSTEM F028ABC&D BEFORE SEAT DRAIN ISOL VA 60701	FISHER CONTROLS 1DBQNS-667NS(45) CONTROL VALVE	AB-7 HARSH ON-OFF SERVICE	A	A1	A	YES	N/A 10.0 SEC	YES	E 40Y 04Y	SP607-001-01
1B21 F 0078A	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD N04-2217-530 6 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0078B	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD N04-2217-530 6 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0078C	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD N04-2217-530 6 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1B21 F 0078D	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH				A1 J	N/A N/A			
1B21 F 0078E	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH				A1 J	N/A N/A			
1B21 F 0078F	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH				A1 J	N/A N/A			
1B21 F 0078G	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH				A1 J	N/A N/A			
1B21 F 0078H	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH				A1 J	N/A N/A			
1B21 F 0078J	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH				A1 J	N/A N/A			
1B21 F 0078K	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH				A1 J	N/A N/A			
1B21 F 0078L	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH				A1 J	N/A N/A			
1B21 F 0078M	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH				A1 J	N/A N/A			
1B21 F 0078N	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH				A1 J	N/A N/A			
1B21 F 0078P	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH				A1 J	N/A N/A			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1B21 F 0078R	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0078S	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0078T	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0078U	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0078V	NUCLEAR BOILER SYSTEM MAIN STEAM RELIEF VACUUM BKR. 639	ANDERSON-GREENWOOD NO4-2217-530 6 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0100A	NUCLEAR BOILER SYSTEM RELIEF VALVE VACUUM BREAK 53104	KEROTEST D30616 2 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0100B	NUCLEAR BOILER SYSTEM RELIEF VALVE VACUUM BREAK 53104	KEROTEST D30616 2 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0100C	NUCLEAR BOILER SYSTEM RELIEF VALVE VACUUM BREAK 53104	KEROTEST D30616 2 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0100D	NUCLEAR BOILER SYSTEM RELIEF VALVE VACUUM BREAK 53104	KEROTEST D30616 2 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0100E	NUCLEAR BOILER SYSTEM RELIEF VALVE VACUUM BREAK 53104	KEROTEST D31606 2 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0100F	NUCLEAR BOILER SYSTEM RELIEF VALVE VACUUM BREAK 53104	KEROTEST D30616 2 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1B21 F 0100G	NUCLEAR BOILER SYSTEM RELIEF VALVE VACUUM BREAK 53104	KEROTEST D30616 2 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0100H	NUCLEAR BOILER SYSTEM RELIEF VALVE VACUUM BREAK 53104	KEROTEST D30616 2 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0100J	NUCLEAR BOILER SYSTEM RELIEF VALVE VACUUM BREAK 53104	KEROTEST D30616 2 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0100K	NUCLEAR BOILER SYSTEM RELIEF VALVE VACUUM BREAK 53104	KEROTEST D30616 2 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0100L	NUCLEAR BOILER SYSTEM RELIEF VALVE VACUUM BREAK 53104	KEROTEST D31606 2 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0100M	NUCLEAR BOILER SYSTEM RELIEF VALVE VACUUM BREAK 53104	KEROTEST D31606 2 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0100N	NUCLEAR BOILER SYSTEM RELIEF VALVE VACUUM BREAK 53104	KEROTEST D30616 2 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0100P	NUCLEAR BOILER SYSTEM RELIEF VALVE VACUUM BREAK 53104	KEROTEST D30616 2 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0100R	NUCLEAR BOILER SYSTEM RELIEF VALVE VACUUM BREAK 53104	KEROTEST D30616 2 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0100S	NUCLEAR BOILER SYSTEM RELIEF VALVE VACUUM BREAK 53104	KEROTEST D30616 2 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1B21 F 0100T	NUCLEAR BOILER SYSTEM RELIEF VALVE VACUUM BREAK 53104	KEROTEST D30616 2 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY

AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION DEMO	M LF/MI	SUMMARY
1B21 F 0100U	NUCLEAR BOILER SYSTEM RELIEF VALVE VACUUM BREAK 53101	DRESSER 5580W 2 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A				
1B21 F 0100V	NUCLEAR BOILER SYSTEM RELIEF VALVE VACUUM BREAK 53101	DRESSER 5580W 2 INCH CHECK VALVE	CT-1 HARSH		A1	J		N/A N/A				
1B21 F 0410A	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO41A 301	SEITZ 6A33 SOLENOID	DW-2 HARSH	C	A1	E					T	SP301-S02-00
1B21 F 0410B	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO41A 301	SEITZ 6A33 SOLENOID	DW-2 HARSH	C	A1	I					T	SP301-S02-00
1B21 F 0411A	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO41B 301	SEITZ 6A33 SOLENOID	DW-2 HARSH	C	A1	E					T	SP301-S02-00
1B21 F 0411B	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO41B 301	SEITZ 6A33 SOLENOID	DW-2 HARSH	C	A1	E					T	SP301-S02-00
1B21 F 0412A	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO41C 301	SEITZ 6A33 SOLENOID	DW-2 HARSH	C	A1	E					T	SP301-S02-00
1B21 F 0412B	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO41C 301	SEITZ 6A33 SOLENOID	DW-2 HARSH	C	A1	E					T	SP301-S02-00
1B21 F 0413A	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO41D 301	SEITZ 6A33 SOLENOID	DW-2 HARSH	C	A1	E					T	SP301-S02-00
1B21 F 0413B	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO41D 301	SEITZ 6A33 SOLENOID	DW-2 HARSH	C	A1	E					T	SP301-S02-00
1B21 F 0414A	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO41E 301	SEITZ 6A33 SOLENOID	DW-2 HARSH	C	A1	E					T	SP301-S02-00

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH I :	MANUFACTURER MODEL EQUIP DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION M LF/MI	SUMMARY
1B21 F 0414B	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO41E 301	SEITZ 6A33 SOLENOID	DW-2 HARSH	C	A1	E				T	SP301-S02-00
1B21 F 0415A	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO41F 301	SEITZ 6A33 SOLENOID	DW-2 HARSH	C	A1	E				T	SP301-S02-00
1B21 F 0415B	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO41F 301	SEITZ 6A33 SOLENOID	DW-2 HARSH	C	A1	E				T	SP301-S02-00
1B21 F 0416A	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO41G 301	SEITZ 6A33 SOLENOID	DW-2 HARSH	C	A1	E				T	SP301-S02-00
1B21 F 0416B	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO41G 301	SEITZ 6A33 SOLENOID	DW-2 HARSH	C	A1	E				T	SP301-S02-00
1B21 F 0417A	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO41K 301	SEITZ 6A33 SOLENOID	DW-2 HARSH	C	A1	E				T	SP301-S02-00
1B21 F 0417B	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO41K 301	SEITZ 6A33 SOLENOID	DW-2 HARSH	C	A1	E				T	SP301-S02-00
1B21 F 0420A	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO47B 301	SEITZ 6A33 SOLENOID	DW-2 HARSH	C	A1	E				T	SP301-S02-00
1B21 F 0420B	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO47B 301	SEITZ 6A33 SOLENOID	DW-2 HARSH	C	A1	E				T	SP301-S02-00
1B21 F 0421A	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO47C 301	SEITZ 6A33 SOLENOID	DW-2 HARSH	C	A1	E				T	SP301-S02-00
1B21 F 0421B	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO47C 301	SEITZ 6A33 SOLENOID	DW-2 HARSH	C	A1	E				T	SP301-S02-00

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1B21 F 0422A	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO47D 301	SEITZ 6A33 SOLENOID	DW-2	C	A1	E				T	SP301-S02-00
1B21 F 0422B	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO47D 301	SEITZ 6A33 SOLENOID	DW-2	C	A1	E				T	SP301-S02-00
1B21 F 0423A	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO47F 301	SEITZ 6A33 SOLENOID	DW-2	C	A1	E				T	SP301-S02-00
1B21 F 0423B	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO47F 301	SEITZ 6A33 SOLENOID	DW-2	C	A1	E				T	SP301-S02-00
1B21 F 0424A	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO47G 301	SEITZ 6A33 SOLENOID	DW-2	C	A1	E				T	SP301-S02-00
1B21 F 0424B	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO47G 301	SEITZ 6A33 SOLENOID	DW-2	C	A1	E				T	SP301-S02-00
1B21 F 0425A	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO47H 301	SEITZ 6A33 SOLENOID	DW-2	C	A1	E				T	SP301-S02-00
1B21 F 0425B	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO47H 301	SEITZ 6A33 SOLENOID	DW-2	C	A1	E				T	SP301-S02-00
1B21 F 0440A	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO51A 301	SEITZ 6A33 SOLENOID	DW-2	C	A1	E				T	SP301-S02-00
1B21 F 0440B	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO51A 301	SEITZ 6A33 SOLENOID	DW-2	C	A1	E				T	SP301-S02-00
1B21 F 0441A	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO FO51B 301	SEITZ 6A33 SOLENOID	DW-2	C	A1	E				T	SP301-S02-00

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION M LF/MI	SUMMARY
1B21 F 0441B	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO F051B 301	SEITZ 6A33 SOLENOID	DW-2 HARSH	C	A1	E				T	SP301-S02-00
1B21 F 0442A	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO F051C 301	SEITZ 6A33 SOLENOID	DW-2 HARSH	C	A1	E				T	SP301-S02-00
1B21 F 0442B	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO F051C 301	SEITZ 6A33 SOLENOID	DW-2 HARSH	C	A1	E				T	SP301-S02-00
1B21 F 0443A	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO F051D 301	SEITZ 6A33 SOLENOID	DW-2 HARSH	C	A1	E				T	SP301-S02-00
1B21 F 0443B	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO F051D 301	SEITZ 6A33 SOLENOID	DW-2 HARSH	C	A1	E				T	SP301-S02-00
1B21 F 0444A	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO F051G 301	SEITZ 6A33 SOLENOID	DW-2 HARSH	C	A1	E				T	SP301-S02-00
1B21 F 0444B	AUTOMATIC DEPRESSURIZATION SYSTEM OP AIR TO F051G 301	SEITZ 6A33 SOLENOID	DW-2 HARSH	C	A1	E				T	SP301-S02-00
1B21 F 0451	NUCLEAR BOILER SYSTEM SOLENOID FOR VALVE F069 607	SOLENOID	AB-7 HARSH								
1B21 F 0460	NSSS SYSTEM OP AIR TO F022A 301	ASCO SOLENOIDS	DW-1 HARSH	C	A1	I		N/A N/A		T	SP301-S05-00
1B21 F 0461	NSSS SYSTEM OP AIR TO F022B 301	ASCO SOLENOIDS	DW-1 HARSH	C	A1			N/A N/A		T	SP301-S05-00
1B21 F 0462	NSSS SYSTEM OP AIR TO F022C 301	ASCO SOLENOIDS	DW-1 HARSH	C	A1			N/A N/A		T	SP301-S05-00

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY

AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1B21 F 0463	NSSS SYSTEM OP AIR TO FO22D 301	ASCO SOLENOIDS	DW-1 HARSH	C	A1			N/A N/A		T	SP301-S05-00
1B21 F 0480	NSSS SYSTEM OP AIR TO FO28A 301	ASCO SOLENOIDS	AB-7 HARSH	C	A1	H		N/A N/A		T	SP301-S05-00
1B21 F 0481	NSSS SYSTEM OP AIR TO FO28B 301	ASCO SOLENOIDS	AB-7 HARSH	C	A1	H		N/A N/A		T	SP301-S05-00
1B21 F 0482	NSSS SYSTEM OP AIR TO FO28C 301	ASCO SOLENOIDS	AB-7 HARSH	C	A1	H		N/A N/A		T	SP301-S05-00
1B21 F 0483	NSSS SYSTEM OP AIR TO FO28D 301	ASCO SOLENOIDS	AB-7 HARSH	C	A1	H		N/A N/A		T	SP301-S05-00
1B21 N 0062A	NUCLEAR BOILER SYSTEM REACTOR PRESSURE 301 169C8394	ROSEMOUNT 1152GP9E PRESSURE TRANSMITTER	CT-3 HARSH	C	A1	I		.050		T	SP301-C01-00
1B21 N 0062B	NUCLEAR BOILER SYSTEM REACTOR PRESSURE 301 169C8394	ROSEMOUNT 1152GP9E PRESSURE TRANSMITTER	CT-3 HARSH	C	A1	I		.050		T	SP301-C01-00
1B21 N 0067C	NUCLEAR BOILER SYSTEM DRYWELL PRESS 301 169C8968	ROSEMOUNT 1152AP5A PRESSURE TRANSMITTER	CT-3 HARSH	C	A1	I		.050		T	SP301-C01-00
1B21 N 0067G	NUCLEAR BOILER SYSTEM DRYWELL PRESS 301 169C8968	ROSEMOUNT 1152AP5A PRESSURE TRANSMITTER	CT-3 HARSH	C	A1	I		.050		T	SP301-C01-00
1B21 N 0067L	NUCLEAR BOILER SYSTEM DRYWELL PRESS 301 169C8968	ROSEMOUNT 1152AP5A PRESSURE TRANSMITTER	CT-3 HARSH	C	A1	I		.050		T	SP301-C01-00
1B21 N 0067R	NUCLEAR BOILER SYSTEM DRYWELL PRESS 301 169C8968	ROSEMOUNT 1152AP5A PRESSURE TRANSMITTER	CT-3 HARSH	C	A1	I		.050		T	SP301-C01-00

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1B21 N 0068A	NUCLEAR BOILER SYSTEM REACTOR PRESS 301 169C8393	ROSEMOUNT 1152GP9 PRESSURE TRANSMITTER	CT-3	C	A1	D		.050	T	SP301-C01-00	
1B21 N 0068B	NUCLEAR BOILER SYSTEM REACTOR PRESS 301 169C8393	ROSEMOUNT 1152GP9 PRESSURE TRANSMITTER	CT-3	C	A1	D		.050	T	SP301-C01-00	
1B21 N 0068E	NUCLEAR BOILER SYSTEM REACTOR PRESS 301 169C8393	ROSEMOUNT 1152GP9 PRESSURE TRANSMITTER	CT-3	C	A1	D		.050	T	SP301-C01-00	
1B21 N 0068F	NUCLEAR BOILER SYSTEM REACTOR PRESS 301 169C8393	ROSEMOUNT 1152GP9 PRESSURE TRANSMITTER	CT-3	C	A1	D		.050	T	SP301-C01-00	
1B21 N 0073C	NUCLEAR BOILER SYSTEM REACTOR VESSEL LEVEL 301 169C8391	ROSEMOUNT 1152DP4D LEVEL TRANSMITTER	CT-3	C	A1	I		.050	T	SP301-C01-00	
1B21 N 0073G	NUCLEAR BOILER SYSTEM REACTOR VESSEL LEVEL 301 169C8391	ROSEMOUNT 1152DP4D LEVEL TRANSMITTER	CT-3	C	A1	I		.050	T	SP301-C01-00	
1B21 N 0073L	NUCLEAR BOILER SYSTEM REACTOR VESSEL LEVEL 301 169C8391	ROSEMOUNT 1152DP4D LEVEL TRANSMITTER	CT-3	C	A1	I		.050	T	SP301-C01-00	
1B21 N 0073R	NUCLEAR BOILER SYSTEM REACTOR VESSEL LEVEL 301 169C8391	ROSEMOUNT 1152DP4D LEVEL TRANSMITTER	CT-3	C	A1	I		.050	T	SP301-C01-00	
1B21 N 0075A	NSSS SYSTEM MAIN TURB CONDENSER VACUUM 604	ROSEMOUNT 1153AB5PAN0016 PRESSURE TRANSMITTER	TB-2		A1	C					
1B21 N 0075B	NSSS SYSTEM MAIN TURB CONDENSER VACUUM 604	ROSEMOUNT 1153AB5PAN0016 PRESSURE TRANSMITTER	TB-2		A1	C					
1B21 N 0075C	NSSS SYSTEM MAIN TURB CONDENSER VACUUM 604	ROSEMOUNT 1153AB5PAN0016 PRESSURE TRANSMITTER	TB-2		A1	C					

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION M LF/MI	SUMMARY
1B21 N 0075D	NSSS SYSTEM MAIN TURB CONDENSER VACUUM 604	ROSEMOUNT 1153AB5PAN0016 PRESSURE TRANSMITTER	TB-2				A1 C				
1B21 N 0076A	NSSS SYSTEM TURB STEAM LINE PRESSURE 604	ROSEMOUNT 1153GB9PAN0016 PRESSURE TRANSMITTER	TB-2				A1 C				
1B21 N 0076B	NSSS SYSTEM TURB STEAM LINE PRESSURE 604	ROSEMOUNT 1153GB9PAN0016 PRESSURE TRANSMITTER	TB-2				A1 C				
1B21 N 0076C	NSSS SYSTEM TURB STEAM LINE PRESSURE 604	ROSEMOUNT 1153GB9PAN0016 PRESSURE TRANSMITTER	TB-2				A1 C				
1B21 N 0076D	NSSS SYSTEM TURB STEAM LINE PRESSURE 604	ROSEMOUNT 1153GB9PAN0016 PRESSURE TRANSMITTER	TB-2				A1 C				
1B21 N 0078A	NUCLEAR BOILER SYSTEM PRESS TRANSMITTER-REACTOR 604	ROSEMOUNT 1153GB9PAN0016 PRESSURE TRANSMITTER	CT-3				I				
1B21 N 0078B	NUCLEAR BOILER SYSTEM PRESS TRANSMITTER-REACTOR 604	ROSEMOUNT 1153GB9PAN0016 PRESSURE TRANSMITTER	CT-3				I				
1B21 N 0078C	NUCLEAR BOILER SYSTEM PRESS TRANSMITTER-REACTOR 604	ROSEMOUNT 1153GB9PAN0016 PRESSURE TRANSMITTER	CT-3				I				
1B21 N 0078D	NUCLEAR BOILER SYSTEM PRESS TRANSMITTER-REACTOR 604	ROSEMOUNT 1153GB9PAN0016 PRESSURE TRANSMITTER	CT-3				I				
1B21 N 0080A	NUCLEAR BOILER SYSTEM LEVEL TRANSMITTER-REACTOR 301 169C8392	ROSEMOUNT 1152DP5E LEVEL TRANSMITTER	CT-3	C		A1	I	.050		T	SP301-C01-00
1B21 N 0080B	NUCLEAR BOILER SYSTEM LEVEL TRANSMITTER-REACTOR 301 169C8392	ROSEMOUNT 1152DP5E LEVEL TRANSMITTER	CT-3	C		A1	I	.050		T	SP301-C01-00

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1B21 N 0080C	NUCLEAR BOILER SYSTEM LEVEL TRANSMITTER-REACTOR 301 169C8392	ROSEMOUNT 1152DP5E LEVEL TRANSMITTER	CT-3 HARSH	C	A1	I		.050	T		SP301-C01-00
1B21 N 0080D	NUCLEAR BOILER SYSTEM LEVEL TRANSMITTER-REACTOR 301 169C8392	ROSEMOUNT 1152DP5E LEVEL TRANSMITTER	CT-3 HARSH	C	A1	I		.050	T		SP301-C01-00
1B21 N 0081A	NSSS SYSTEM REACTOR WATER LEVEL 604	ROSEMOUNT 1153DB5PANCO16 DIFFERENTIAL PRESS	CT-3 HARSH		A1	C					
1B21 N 0081B	NSSS SYSTEM REACTOR WATER LEVEL 604	ROSEMOUNT 1153DB5PANCO16 DIFFERENTIAL PRESS	CT-3 HARSH		A1	C					
1B21 N 0081C	NSSS SYSTEM REACTOR WATER LEVEL 604	ROSEMOUNT 1153DB5PANCO16 DIFFERENTIAL PRESS	CT-3 HARSH		A1	C					
1B21 N 0081D	NSSS SYSTEM REACTOR WATER LEVEL 604	ROSEMOUNT 1153DB5PANCO16 DIFFERENTIAL PRESS	CT-3 HARSH		A1	C					
1B21 N 0091A	NUCLEAR BOILER SYSTEM REACTOR VESSEL LEVEL FOR RCIC 301 169C8392	ROSEMOUNT 1152DP5E LEVEL TRANSMITTER	CT-3 HARSH	C	A1	I		.050	T		SP301-C01-00
1B21 N 0091B	NUCLEAR BOILER SYSTEM REACTOR VESSEL LEVEL FOR RCIC 301 169C8392	ROSEMOUNT 1152DP5E LEVEL TRANSMITTER	CT-3 HARSH	C	A1	I		.050	T		SP301-C01-00
1B21 N 0091E	NUCLEAR BOILER SYSTEM REACTOR VESSEL LEVEL FOR RCIC 301 169C8392	ROSEMOUNT 1152DP5E LEVEL TRANSMITTER	CT-3 HARSH	C	A1	I		.050	T		SP301-C01-00
1B21 N 0091F	NUCLEAR BOILER SYSTEM REACTOR VESSEL LEVEL FOR RCIC 301 169C8392	ROSEMOUNT 1152DP5E LEVEL TRANSMITTER	CT-3 HARSH	C	A1	I		.050	T		SP301-C01-00
1B21 N 0094A	NUCLEAR BOILER SYSTEM DRYWELL PRESSURE 301 169C8969	ROSEMOUNT 1152AP5E PRESSURE TRANSMITTER	CT-3 HARSH	C	A1	I		.050	T		SP301-C01-00

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY

AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION M LF/MI	SUMMARY
1B21 N 0094B	NUCLEAR BOILER SYSTEM DRYWELL PRESSURE 301 169C8969	ROSEMOUNT 1152AP5E PRESSURE TRANSMITTER	CT-3 HARSH	C	A1	I		.050		T	SP301-C01-00
1B21 N 0094E	NUCLEAR BOILER SYSTEM DRYWELL PRESSURE 301 169C8969	ROSEMOUNT 1152AP5E PRESSURE TRANSMITTER	CT-3 HARSH	C	A1	I		.050		T	SP301-C01-00
1B21 N 0094F	NUCLEAR BOILER SYSTEM DRYWELL PRESSURE 301 169C8969	ROSEMOUNT 1152AP5E PRESSURE TRANSMITTER	CT-3 HARSH	C	A1	I		.050		T	SP301-C01-00
1B21 N 0095A	NUCLEAR BOILER SYSTEM REACTOR WATER LEVEL 301 169C8391	ROSEMOUNT 1152DP4A DIFFERENTIAL	CT-3 HARSH	C	A1	I		.050		T	SP301-C01-00
1B21 N 0095B	NUCLEAR BOILER SYSTEM REACTOR WATER LEVEL 301 169C8391	ROSEMOUNT 1152DP4A DIFFERENTIAL	CT-3 HARSH	C	A1	I		.050		T	SP301-C01-00
1B21 N 0402A	REDUNDANT REACTIVITY CONTROL SYSTEM REACTOR LOW WATER LEVEL 2 TRIP 301 188C7360	ROSEMOUNT LEVEL TRANSMITTER	CT-3 HARSH								
1B21 N 0402B	REDUNDANT REACTIVITY CONTROL SYSTEM REACTOR LOW WATER LEVEL 2 TRIP 301 188C7360	ROSEMOUNT LEVEL TRANSMITTER	CT-3 HARSH								
1B21 N 0402E	REDUNDANT REACTIVITY CONTROL SYSTEM REACTOR LOW WATER LEVEL 2 TRIP 301 188C7360	ROSEMOUNT LEVEL TRANSMITTER	CT-3 HARSH								
1B21 N 0402F	REDUNDANT REACTIVITY CONTROL SYSTEM REACTOR LOW WATER LEVEL 2 TRIP 301 188C7360	ROSEMOUNT LEVEL TRANSMITTER	CT-3 HARSH								
1B21 N 0403A	REDUNDANT REACTIVITY CONTROL SYSTEM REACTOR HIGH DOME PRESSURE 301 188C7360	ROSEMOUNT 1153GB PRESSURE TRANSMITTER	CT-3 HARSH								
1B21 N 0403B	REDUNDANT REACTIVITY CONTROL SYSTEM REACTOR HIGH DOME PRESSURE 301 188C7360	ROSEMOUNT 1153GB PRESSURE TRANSMITTER	CT-3 HARSH								

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION DEMO M LF/MI	SUMMARY
1B21 N 0403E	REDUNDANT REACTIVITY CONTROL SYSTEM REACTOR HIGH DOME PRESSURE 301 188C7360	ROSEMOUNT 1153GB PRESSURE TRANSMITTER	CT-3	HARSH							
1B21 N 0403F	REDUNDANT REACTIVITY CONTROL SYSTEM REACTOR HIGH DOME PRESSURE 301 188C7360	ROSEMOUNT 1153GB PRESSURE TRANSMITTER	CT-3	HARSH							
1B21 N 0410A	AUTOMATIC DEPRESSURIZATION SYSTEM SRV HI DISCHARGE PRESSURE-F041A 301 219B4684	PCI OZONE CORP PRESSURE SWITCH	CT-3	HARSH							
1B21 N 0410B	AUTOMATIC DEPRESSURIZATION SYSTEM SRV HI DISCHARGE PRESSURE-F041B 301 219B4684	PCI OZONE CORP PRESSURE SWITCH	CT-3	HARSH							
1B21 N 0410C	AUTOMATIC DEPRESSURIZATION SYSTEM SRV HI DISCHARGE PRESSURE-F041C 301 219B4684	PCI OZONE CORP PRESSURE SWITCH	CT-3	HARSH							
1B21 N 0410D	AUTOMATIC DEPRESSURIZATION SYSTEM SRV HI DISCHARGE PRESSURE-F041D 301 219B4684	PCI OZONE CORP PRESSURE SWITCH	CT-3	HARSH							
1B21 N 0410E	AUTOMATIC DEPRESSURIZATION SYSTEM SRV HI DISCHARGE PRESSURE-F041E 301 219B4684	PCI OZONE CORP PRESSURE SWITCH	CT-3	HARSH							
1B21 N 0410F	AUTOMATIC DEPRESSURIZATION SYSTEM SRV HI DISCHARGE PRESSURE-F041F 301 219B4684	PCI OZONE CORP PRESSURE SWITCH	CT-3	HARSH							
1B21 N 0410G	AUTOMATIC DEPRESSURIZATION SYSTEM SRV HI DISCHARGE PRESSURE-F041G 301 219B4684	PCI OZONE CORP PRESSURE SWITCH	CT-3	HARSH							
1B21 N 0410H	AUTOMATIC DEPRESSURIZATION SYSTEM SRV HI DISCHARGE PRESSURE-F041K 301 219B4684	PCI OZONE CORP PRESSURE SWITCH	CT-3	HARSH							
1B21 N 0410J	AUTOMATIC DEPRESSURIZATION SYSTEM SRV HI DISCHARGE PRESSURE-F047B 301 219B4684	PCI OZONE CORP PRESSURE SWITCH	CT-3	HARSH							

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION DEMO	M LF/MI	SUMMARY
1B21 N 0410K	AUTOMATIC DEPRESSURIZATION SYSTEM SRV HI DISCHARGE PRESSURE-FO47C 301 219B4684	PCI OZONE CORP PRESSURE SWITCH	CT-3 HARSH									
1B21 N 0410L	AUTOMATIC DEPRESSURIZATION SYSTEM SRV HI DISCHARGE PRESSURE-FO47D 301 219B4684	PCI OZONE CORP PRESSURE SWITCH	CT-3 HARSH									
1B21 N 0410M	AUTOMATIC DEPRESSURIZATION SYSTEM SRV HI DISCHARGE PRESSURE-FO47F 301 219B4684	PCI OZONE CORP PRESSURE SWITCH	CT-3 HARSH									
1B21 N 0410N	AUTOMATIC DEPRESSURIZATION SYSTEM SRV HI DISCHARGE PRESSURE-FO47G 301 219B4684	PCI OZONE CORP PRESSURE SWITCH	CT-3 HARSH									
1B21 N 0410P	AUTOMATIC DEPRESSURIZATION SYSTEM SRV HI DISCHARGE PRESSURE-FO47H 301 219B4684	PCI OZONE CORP PRESSURE SWITCH	CT-3 HARSH									
1B21 N 0410R	AUTOMATIC DEPRESSURIZATION SYSTEM SRV HI DISCHARGE PRESSURE-FO51A 301 219B4684	PCI OZONE CORP PRESSURE SWITCH	CT-3 HARSH									
1B21 N 0410S	AUTOMATIC DEPRESSURIZATION SYSTEM SRV HI DISCHARGE PRESSURE-FO51B 301 219B4684	PCI OZONE CORP PRESSURE SWITCH	CT-3 HARSH									
1B21 N 0410T	AUTOMATIC DEPRESSURIZATION SYSTEM SRV HI DISCHARGE PRESSURE-FO51C 301 219B4684	PCI OZONE CORP PRESSURE SWITCH	CT-3 HARSH									
1B21 N 0410U	AUTOMATIC DEPRESSURIZATION SYSTEM SRV HI DISCHARGE PRESSURE-FO51D 301 219B4684	PCI OZONE CORP PRESSURE SWITCH	CT-3 HARSH									
1B21 N 0410V	AUTOMATIC DEPRESSURIZATION SYSTEM SRV HI DISCHARGE PRESSURE-FO51G 301 219B4684	PCI OZONE CORP PRESSURE SWITCH	CT-3 HARSH									
1B33 F 0013A	REACTOR RECIRC VALVE FLOW CONTROL RECIRC PUMP SEAL PURGE SUPPLY 53101	DRESSER 7440W 3/4 INCH CHECK	DW-1 HARSH VALVES		A1	J		N/A N/A				

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION DEMO	M	LF/MI	SUMMARY
1B33 F 0013B	REACTOR RECIRC VALVE FLOW CONTROL RECIRC PUMP SEAL PURGE SUPPLY 53101	DRESSER 7440W 3/4 INCH CHECK VALVE	DW-1 HARSH		A1	J		N/A N/A					
1B33 F 0017A	REACTOR RECIRC VALVE FLOW CONTROL RECIRC PUMP SEAL PURGE SUPPLY 53101	DRESSER 7440W 3/4 INCH CHECK VALVE	CT-3 HARSH		A1	J		N/A N/A					
1B33 F 0017B	REACTOR RECIRC VALVE FLOW CONTROL RECIRC PUMP SEAL PURGE SUPPLY 53101	DRESSER 7440W 3/4 INCH CHECK VALVE	CT-3 HARSH		A1	J		N/A N/A					
1B33 F 0019	REACTOR RECIRCULATION SYSTEM REACTOR WATER SAMPLE LINE ISOLATION 60701	FISHER CONTROLS 1DBQNS667NS(40) CONTROL VALVE	DW-1 HARSH	A	A1	A	YES ON-OFF SERVICE	N/A 5.00 SEC	YES	E 40Y 02Y			SP607-001-01
1B33 F 0020	REACTOR RECIRCULATION SYSTEM REACTOR WATER SAMPLE LINE ISOLATION 60701	FISHER CONTROLS 1DBQNS667NS(40) CONTROL VALVE	CT-3 HARSH	A	A1	A	YES ON-OFF SERVICE	N/A 5.00 SEC	YES	E 40Y 04Y			SP607-001-01
1B33 F 0419	REACTOR RECIRCULATION SYSTEM CONTROLS OPERATING AIR TO FO19 60701	ASCO NP832094E SOLENOID VALVE	DW-1 HARSH	A	A1	A	YES	N/A 0.15 SEC	YES	T 40Y 08Y			SP641-000-04
1B33 F 0420	REACTOR RECIRCULATION SYSTEM CONTROLS OPERATING AIR TO FO20 60701	ASCO NP832094E SOLENOID	CT-3 HARSH	A	A1	A	YES	N/A 0.15 SEC	YES	T 40Y 40Y			SP641-000-04
1B33 N 0014A	REACTOR RECIRC VALVE FLOW CONTROL RECIRC A FLOW LOOP 301 169C8391	ROSEMOUNT 1152DP5D DIFFERENTIAL	CT-3 HARSH	C	A1	A		.050		T			SP301-C01-00
1B33 N 0014B	REACTOR RECIRC VALVE FLOW CONTROL RECIRC A FLOW LOOP 301 169C8391	ROSEMOUNT 1152DP5D DIFFERENTIAL	CT-3 HARSH	C	A1	A		.050		T			SP301-C01-00
1B33 N 0014C	REACTOR RECIRC VALVE FLOW CONTROL RECIRC A FLOW LOOP 301 169C8391	ROSEMOUNT 1152 DIFFERENTIAL	CT-3 HARSH	C	A1	A		.050		T			SP301-C01-00
1B33 N 0014D	REACTOR RECIRC VALVE FLOW CONTROL RECIRC A FLOW LOOP 301 169C8391	ROSEMOUNT 1152 DIFFERENTIAL	CT-3 HARSH	C	A1	A		.050		T			SP301-C01-00

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	ROD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1B33 N 0024A	REACTOR RECIRC VALVE FLOW CONTROL RECIRC B FLOW LOOP 301 169C8391	ROSEMOUNT 1152DP5D DIFFERENTIAL	CT-3	C	A1	A		.050		T	SP301-C01-00
			HARSH								
			PRESSURE TRANSMITTER								
1B33 N 0024B	REACTOR RECIRC VALVE FLOW CONTROL RECIRC B FLOW LOOP 301 169C8391	ROSEMOUNT 1152DP5D DIFFERENTIAL	CT-3	C	A1	A		.050		T	SP301-C01-00
			HARSH								
			PRESSURE TRANSMITTER								
1B33 N 0024C	REACTOR RECIRC VALVE FLOW CONTROL RECIRC B FLOW LOOP 301 169C8391	ROSEMOUNT- 1152DP5D DIFFERENTIAL	CT-3	C	A1	A		.050		T	SP301-C01-00
			HARSH								
			PRESSURE TRANSMITTER								
1B33 N 0024D	REACTOR RECIRC VALVE FLOW CONTROL RECIRC B FLOW LOOP 301 169C8391	ROSEMOUNT 1152DP5D DIFFERENTIAL	CT-3	C	A1	A		.050		T	SP301-C01-00
			HARSH								
			PRESSURE TRANSMITTER								
1B33 N 0419	REACTOR RECIRC VALVE FLOW CONTROL LIMIT SWITCH FOR VLV FO19 79305	NATIONAL ACME EA18031302 LIMIT SWITCH	DW-1	C	A1	A	LATER	N/A	LATER	T	
			HARSH					N/A			
1B33 N 0420	REACTOR RECIRC VALVE FLOW CONTROL LIMIT SWITCH FOR VLV FO20 79305	NATIONAL ACME EA18031302 LIMIT SWITCH	CT-3	C	A1	A	LATER	N/A	LATER	T	
			HARSH					N/A			
1C11 D 0001	REACTOR PROTECTION SYSTEM CRD - HYD CONT UNIT PILOT SCRAM VLV 301 922D138	GE 105D4988 SOLENOID (TYPICAL - 177)	CT-3	C	A1	B		N/A		T	SP301-S12-00
			HARSH								
1C11 F 0009A	CONTROL ROD DRIVE HYDRAULIC SYSTEM SCRAM DISCH VOL VENT/DRAIN PILOT VLV 301 21A9318AV	VALCOR VPF6289-2-2 SOLENOID	CT-3	C	A1	B		N/A		T	SP301-S16-00
			HARSH					N/A			
1C11 F 0009B	CONTROL ROD DRIVE HYDRAULIC SYSTEM SCRAM DISCH VOL VENT/DRAIN PILOT VLV 301 21A9318AV	VALCOR VPF6289-2-2 SOLENOID	CT-3	C	A1	B		N/A		T	SP301-S16-00
			HARSH					N/A			
1 1C11 F 0010	CONTROL ROD DRIVE HYDRAULIC CONTROL LIMIT SWITCH FOR VALVE 1C11FO10 79305	NATIONAL ACME EA18011302 LIMIT SWITCH	CT-3	C	A1	B	LATER	N/A	LATER	T	
			HARSH					N/A			
1C11 F 0010	CONTROL ROD DRIVE HYDRAULIC SYSTEM SCRAM DISCH VOLUME VENT 301 22A6924AA	HAMMER DAHL AIR OPERATED VALVE	CT-4	C	A1	B		N/A		T	
			HARSH					N/A			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : C1

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1 1C11 F 0011	CONTROL ROD DRIVE HYDRAULIC CONTROL LIMIT SWITCH FOR VALVE 1C11F011 79305	NATIONAL ACME EA18011302 LIMIT SWITCH	CT-4 HARSH	C	A1	B	LATER	N/A N/A	LATER T		
1C11 F 0011	CONTROL ROD DRIVE HYDRAULIC SYSTEM SCRAM DISCH VOLUME DRAIN 301 22A6924AB	HAMMER DAHL AIR OPERATED VALVE	CT-3 HARSH	C	A1	B		N/A N/A	T		
1 1C11 F 0083	CONT ROD DRIVE HYDRAULIC CONT SYSTEM PEN 204 OUTBOARD ISO 52102	BORG WARNER 85110 2-1/2 INCH GATE	FB-3 HARSH VALVES		A4	A		N/A 12.0 SEC			
1C11 F 0110A	CONTROL ROD DRIVE HYDRAULIC SYSTEM BACKUP SCRAM VALVE "A" 301 21A9317AL	VALCOR V70900-43 SOLENOID VALVE	CT-3 HARSH	C	A1			N/A N/A	T	SP301-S16-00	
1C11 F 0110B	CONTROL ROD DRIVE HYDRAULIC SYSTEM BACKUP SCRAM VALVE "B" 301 21A9317AL	VALCOR V70900-43 SOLENOID VALVE	CT-3 HARSH	C	A1			N/A N/A	T	SP301-S16-00	
1C11 F 0122	CONTROL ROD DRIVE HYDRAULIC CONTROL PEN P204 INBOARD ISO 52102	BORG WARNER 82530 2-1/2 INCH CHECK	CT-3 HARSH VALVE		A1	J		N/A N/A			
1C11 F 0160A	REDUNDANT REACTIVITY CONTROL SYSTEM SOLENOID AND LIMIT SW FOR ARI VALVE 301	VALCOR V70900-43 SOLENOID AND LIMIT	CT-3 HARSH SWITCH	C	A1			N/A N/A	T		
1C11 F 0160B	REDUNDANT REACTIVITY CONTROL SYSTEM SOLENOID AND LIMIT SW FOR ARI VALVE 301	VALCOR V70900-43 SOLENOID AND LIMIT	CT-3 HARSH SWITCH	C	A1			N/A N/A	T		
1C11 F 0162A	REDUNDANT REACTIVITY CONTROL SYSTEM SOLENOID AND LIMIT SW FOR ARI VALVE 301 21A9317AW	VALCOR V70900-46 SOLENOID AND LIMIT	CT-3 HARSH SWITCH	C	A1			N/A N/A	T		
1C11 F 0162B	REDUNDANT REACTIVITY CONTROL SYSTEM SOLENOID AND LIMIT SW FOR ARI VALVE 301 21A9317AW	VALCOR V70900-46 SOLENOID AND LIMIT	CT-3 HARSH SWITCH	C	A1			N/A N/A	T		
1C11 F 0162C	REDUNDANT REACTIVITY CONTROL SYSTEM SOLENOID AND LIMIT SW FOR ARI VALVE 301 21A9317AW	VALCOR V70900-46 SOLENOID AND LIMIT	CT-3 HARSH SWITCH	C	A1			N/A N/A	T		

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	ROD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1C11 F 0162D	REDUNDANT REACTIVITY CONTROL SYSTEM SOLENOID AND LIMIT SW FOR ARI VALVE 301 21A9317AW	VALCOR V70900-46 SOLENOID AND LIMIT	CT-3 HARSH	C	A1			N/A N/A		T	
1C11 F 0163A	REDUNDANT REACTIVITY CONTROL SYSTEM SOLENOID AND LIMIT SW FOR ARI VALVE 301 21A9317AW	VALCOR V70900-4C SOLENOID AND LIMIT	CT-3 HARSH	C	A1			N/A N/A		T	
1C11 F 0163B	REDUNDANT REACTIVITY CONTROL SYSTEM SOLENOID AND LIMIT SW FOR ARI VALVE 301 21A9317AW	VALCOR V70900-46 SOLENOID AND LIMIT	CT-3 HARSH	C	A1			N/A N/A		T	
1 1C11 F 0180	CONTROL ROD DRIVE HYDRAULIC SYSTEM LIMIT SWITCH FOR VALVE 1C11F180 79305	NAMCO EA-180 LIMIT SWITCH	CT-4 HARSH	C	A1			N/A N/A		T	
1C11 F 0180	CONTROL ROD DRIVE HYDRAULIC SYSTEM SCRAM DISCH VOLUME VENT 301 22A6924AA	HAMMER DAHL AIR OPERATED VALVE	CT-4 HARSH	C	A1			N/A N/A		T	
1 1C11 F 0181	CONTROL ROD DRIVE HYDRAULIC SYSTEM LIMIT SWITCH FOR VALVE 1C11F181 79305	NAMCO EA-180 LIMIT SWITCH	CT-3 HARSH	C	A1			N/A N/A		T	
1C11 F 0181	CONTROL ROD DRIVE HYDRAULIC SYSTEM SCRAM DISCH VOLUME DRAIN 301 22A6924AB	HAMMER DAHL AIR OPERATED VALVE	CT-3 HARSH	C	A1			N/A N/A		T	
1C11 F 0182A	CONTROL ROD DRIVE HYDRAULIC SYSTEM SCRAM DISCH VOL VENT/DRAIN PILOT VLV 301 21A9318AV	VALCOR VPF6289-2-2 SOLENOID	CT-3 HARSH	C	A1			N/A N/A		T	
1C11 F 0182B	CONTROL ROD DRIVE HYDRAULIC SYSTEM SCRAM DISCH VOL VENT/DRAIN PILOT VLV 301 21A9318AV	VALCOR VPF6289-2-2 SOLENOID	CT-3 HARSH	C	A1			N/A N/A		T	
1C11 N 0012A	CONTROL ROD DRIVE HYDRAULIC CONTROL SCRAM DISCH VOL PIPING 301 163C1973P4	GOULD PD3018 LEVEL TRANSMITTER	CT-3 HARSH	C	A1	B		.050 00.8 SEC		T	SP301-C02-00
1C11 N 0012B	CONTROL ROD DRIVE HYDRAULIC CONTROL SCRAM DISCH VOL PIPING 301 163C1973P4	GOULD PD3018 LEVEL TRANSMITTER	CT-3 HARSH	C	A1	B		.050 00.8 SEC		T	SP301-C02-00

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWJ	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION M LF/MI	SUMMARY
1C11 N 0012C	CONTROL ROD DRIVE HYDRAULIC CONTROL SCRAM DISCH VOL PIPING 301 163C1973P4	GOULD PD3018 LEVEL TRANSMITTER	CT-3 HARSH	C	A1	B		.050 00.8 SEC	T		SP301-C02-00
1C11 N 0012D	CONTROL ROD DRIVE HYDRAULIC CONTROL SCRAM DISCH VOL PIPING 301 163C1973P4	GOULD PD3018 LEVEL TRANSMITTER	CT-3 HARSH	C	A1	B		.050 00.8 SEC	T		SP301-C02-00
1C11 N 0013A	CONTROL ROD DRIVE HYDRAULIC CONTROL SCRAM DISCHARGE VOLUM LEVEL 301 184C4776	LEVEL SWITCH	CT-3 HARSH								
1C11 N 0013B	CONTROL ROD DRIVE HYDRAULIC CONTROL SCRAM DISCHARGE VOLUME LEVEL 301 184C4776	LEVEL SWITCH	CT-3 HARSH								
1C11 N 0013C	CONTROL ROD DRIVE HYDRAULIC CONTROL SCRAM DISCHARGE VOLUME LEVEL 301 184C4776	LEVEL SWITCH	CT-3 HARSH								
1C11 N 0013D	CONTROL ROD DRIVE HYDRAULIC CONTROL SCRAM DISCHARGE VOLUME LEVEL 301 184C4776	LEVEL SWITCH	CT-3 HARSH								
1C11 N 0017A	ROD CONTROL AND INFORMATION SYSTEM SCRAM DISCH VOLUME LEVEL 301 163C1973P4	GOULD PD3018 LEVEL TRANSMITTER	CT-3 HARSH	C	A1	J		.050 00.8 SEC	T		SP301-C02-00
1C11 N 0017C	ROD CONTROL AND INFORMATION SYSTEM SCRAM DISCH VOLUME LEVEL 301 163C1973P4	GOULD PD3018 LEVEL TRANSMITTER	CT-3 HARSH	C	A1	J		.050 00.8 SEC	T		SP301-C02-00
1C11 N 0054A	ROD CONTROL AND INFORMATION SYSTEM FIRST STAGE TURBINE PRESSURE 604	ROSEMOUNT 1153GB7PAN0016 PRESSURE TRANSMITTER	TB-2 HARSH		A1	J					
1C11 N 0054B	ROD CONTROL AND INFORMATION SYSTEM FIRST STAGE TURBINE PRESSURE 604	ROSEMOUNT 1153GB7PAN0016 PRESSURE TRANSMITTER	TB-2 HARSH		A1	J					
1C11 N 0054C	ROD CONTROL AND INFORMATION SYSTEM FIRST STAGE TURBINE PRESSURE 604	ROSEMOUNT 1153GB8PAN0016 PRESSURE TRANSMITTER	TB-2 HARSH		A1	J					

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY

SELECT : 47EH

AS OF 00352 05/04/83

SELECT :

SGRT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1C41 F 0006	STANDBY LIQUID LEVEL CONTROL SLC TO RPV DW ISO. OUTSIDE 53101	DRESSER 7440W 1-1/2 INCH CHECK	CT-4 HARSH VALVE		A1	J		N/A N/A			
1C41 F 0007	STANDBY LIQUID LEVEL CONTROL SLC TO RPV DW ISO. INSIDE 53101	DRESSER 7440W 1-1/2 INCH CHECK	DW-1 HARSH VALVE		A1	J		N/A N/A			
1C41 F 0008	STANDBY LIQUID LEVEL CONTROL SLC TO HPCS ISO. 79305	NATIONAL ACME EA74080100 LIMIT SWITCH	DW-1 HARSH	C	A1	J	LATER	N/A N/A	LATER T		
1C41 F 0029A	STANDBY LIQUID LEVEL CONTROL PUMP A DISCH. RLF 523	TARGET ROCK CORP. 76H-012 1-1/2 INCH X 2 INCH RELIEF VALVE	CT-4 HARSH		A1	J		N/A N/A			
1C41 F 0029B	STANDBY LIQUID LEVEL CONTROL PUMP B DISCH. RLF 523	TARGET ROCK CORP. 76H-012 1-1/2 INCH X 2 INCH RELIEF VALVE	CT-4 HARSH		A1	J		N/A N/A			
1C41 F 0031	STANDBY LIQUID LEVEL CONTROL TEST TNK SUPPLY 79305	NATIONAL ACME EA74020000/20001 LIMIT SWITCH	CT-4 HARSH	C	A1	J	LATER	N/A N/A	LATER T		
1C41 F 0033A	STANDBY LIQUID LEVEL CONTROL SLC PUMP DISCH. 53101	DRESSER 7440W 1-1/2 INCH CHECK	CT-3 HARSH VALVE		A1	J		N/A N/A			
1C41 F 0033B	STANDBY LIQUID LEVEL CONTROL SLC PUMP DISCH. 53101	DRESSER 7440W 1-1/2 INCH CHECK	CT-3 HARSH VALVE		A1	J		N/A N/A			
1C41 F 0520	STANDBY LIQUID LEVEL CONTROL CONTAINMENT ISOLATION 53104	KEROTEST D30516 2 INCH CHECK VALVE	CT-4 HARSH		A1	J		N/A N/A			
1C41 N 0001	STANDBY LIQUID CONTROL SYSTEM STORAGE TANK LEVEL 301 163C1559	ROSEMOUNT 1151 LEVEL TRANSMITTER	CT-4 HARSH			I					
1C41 N 0004A	STANDBY LIQUID CONTROL SYSTEM PUMP DISCH PRESSURE 301 188C7360	ROSEMOUNT 1151 PRESSURE TRANSMITTER	CT-4 HARSH								

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY

AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	ROD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION DEMO	M LF/MI	SUMMARY
1C41 N 0004B	STANDBY LIQUID CONTROL SYSTEM PUMP DISCH PRESSURE 301 188C7360	ROSEMOUNT 1151 PRESSURE TRANSMITTER	CT-4 HARSH									
1C41 N 0010A	REDUNDANT REACTIVITY CONTROL SYSTEM RRCS TROUBLE SLCS TANK LEVEL 301 184C4775	GOULD LEVEL TRANSMITTER	CT-4 HARSH									
1C41 N 0010B	REDUNDANT REACTIVITY CONTROL SYSTEM RRCS TROUBLE SLCS TANK LEVEL 301 184C4775	GOULD LEVEL TRANSMITTER	CT-4 HARSH									
1C41 N 0010C	REDUNDANT REACTIVITY CONTROL SYSTEM RRCS TROUBLE SLCS TANK LEVEL 301 184C4775	GOULD LEVEL TRANSMITTER	CT-4 HARSH									
1C41 N 0010D	REDUNDANT REACTIVITY CONTROL SYSTEM RRCS TROUBLE SLCS TANK LEVEL 301 184C4775	GOULD LEVEL TRANSMITTER	CT-4 HARSH									
1C41AS 0003A	STANDBY LIQUID CONTROL SYSTEM STORAGE TANK OUTLET VALVE CONT 301 145C3040	GE CR2940 CONTROL SWITCH	CT-4 HARSH				I		N/A N/A			
1C41AS 0003B	STANDBY LIQUID CONTROL SYSTEM STORAGE TANK OUTLET VALVE CONT 301 145C3040	GE CR2940 CONTROL SWITCH	CT-4 HARSH				I		N/A N/A			
1C41AS 0004A	STANDBY LIQUID CONTROL SYSTEM STBY LIQUID CONT PUMP COO1A CONTROL 301 145C3040	GE CR2940 CONTROL SWITCH	CT-4 HARSH	C		A1			N/A N/A	T		SP301-C12-00
1C41AS 0004B	STANDBY LIQUID CONTROL SYSTEM STBY LIQUID CONT PUMP COO1B CONTROL 301 145C3040	GE CR2940 CONTROL SWITCH	CT-4 HARSH	C		A1			N/A N/A	T		SP301-C12-00
1C51 N 0001A	START-UP RANGE NEUTRON MON. SYSTEM NEUTRON DETECTOR SRM 301 112C3144	GE N/A SRM DETECTOR	DW-3 HARSH	C		A3				A		SP301-C41-00
1C51 N 0001B	START-UP RANGE NEUTRON MON. SYSTEM NEUTRON DETECTOR SRM 301 112C3144	GE N/A SRM DETECTOR	DW-3 HARSH	C		A3				A		SP301-C41-00

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION S/ NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1C51 N 0001C	START-UP RANGE NEUTRON MON. SYSTEM NEUTRON DETECTOR SRM 301 112C3144	GE N/A SRM DETECTOR	DW-3	C	A3					A	SP301-C41-00
1C51 N 0001D	START-UP RANGE NEUTRON MON. SYSTEM NEUTRON DETECTOR SRM 301 112C3144	GE N/A SRM DETECTOR	DW-3	C	A3					A	SP301-C41-00
1C51 N 0002A	START-UP RANGE NEUTRON MON. SYSTEM NEUTRON DETECTOR SRM 301 112C3144	GE N/A IRM DETECTOR	DW-3	C	A3					A	SP301-C24-00
1C51 N 0002B	START-UP RANGE NEUTRON MON. SYSTEM NEUTRON DETECTOR SRM 301 112C3144	GE N/A IRM DETECTOR	DW-3	C	A3					A	SP301-C24-00
1C51 N 0002C	START-UP RANGE NEUTRON MON. SYSTEM NEUTRON DETECTOR SRM 301 112C3144	GE N/A IRM DETECTOR	DW-3	C	A3					A	SP301-C24-00
1C51 N 0002D	START-UP RANGE NEUTRON MON. SYSTEM NEUTRON DETECTOR SRM 301 112C3144	GE N/A IRM DETECTOR	DW-3	C	A3					A	SP301-C24-00
1C51 N 0002E	START-UP RANGE NEUTRON MON. SYSTEM NEUTRON DETECTOR SRM 301 112C3144	GE N/A IRM DETECTOR	DW-3	C	A3					A	SP301-C24-00
1C51 N 0002F	START-UP RANGE NEUTRON MON. SYSTEM NEUTRON DETECTOR SRM 301 112C3144	GE N/A IRM DETECTOR	DW-3	C	A3					A	SP301-C24-00
1C51 N 0002G	START-UP RANGE NEUTRON MON. SYSTEM NEUTRON DETECTOR SRM 301 112C3144	GE N/A IRM DETECTOR	DW-3	C	A3					A	SP301-C24-00
1C51 N 0002H	START-UP RANGE NEUTRON MON. SYSTEM NEUTRON DETECTOR SRM 301 112C3144	GE N/A IRM DETECTOR	DW-3	C	A3					A	SP301-C24-00
1C51 N 0011	PWR RANGE NEUTRON MONITORING SYSTEM POWER RANGE DETECTOR (TYP OF 41) 301 133D9868	GE 169C8116 LPRM DETECTOR	DW-3	C	A3			N/A N/A		A	SP301-C23-00

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	GP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1C51 N 0012	PWR RANGE NEUTRON MONITORING SYSTEM POWER RANGE DETECTOR (TYP OF 41) 301 133D9868	GE 169C8116 LPRM DETECTOR	DW-3 HARSH	C	A3			N/A N/A		A	SP301-C23-00
1C51 N 0013	PWR RANGE NEUTRON MONITORING SYSTEM POWER RANGE DETECTOR (TYP OF 41) 301 133D9868	GE 169C8116 LPRM DETECTOR	DW-3 HARSH	C	A3			N/A N/A		A	SP301-C23-00
1C51 N 0014	PWR RANGE NEUTRON MONITORING SYSTEM POWER RANGE DETECTOR (TYP OF 41) 301 133D9868	GE 169C8116 LPRM DETECTOR	DW-3 HARSH	C	A3			N/A N/A		A	SP301-C23-00
1C51 N 0020	NEUTRON MONITORING SYSTEM UNDER VESSEL PLATFORM POSITION 79305	NATIONAL ACME EA74080100 LIMIT SWITCH	DW-3 HARSH	C	A2	J	LATER	N/A N/A	LATER T		
1 1C51 S 0001A	NEUTRON MONITORING SYSTEM SRM/IRM MOTOR MODULE LIMIT SWITCHES 301 204B6261	LIMIT SWITCH	DW-1 HARSH		A3						
1 1C51 S 0001B	NEUTRON MONITORING SYSTEM SRM/IRM MOTOR MODULE LIMIT SWITCHES 301 204B6261	LIMIT SWITCH	DW-1 HARSH		A3						
1 1C51 S 0001C	NEUTRON MONITORING SYSTEM SRM/IRM MOTOR MODULE LIMIT SWITCHES 301 204B6261	LIMIT SWITCH	DW-1 HARSH		A3						
1 1C51 S 0001D	NEUTRON MONITORING SYSTEM SRM/IRM MOTOR MODULE LIMIT SWITCHES 301 204B6261	LIMIT SWITCH	DW-1 HARSH		A3						
1 1C51 S 0001E	NEUTRON MONITORING SYSTEM SRM/IRM MOTOR MODULE LIMIT SWITCHES 301 204B6261	LIMIT SWITCH	DW-1 HARSH		A3						
1 1C51 S 0001F	NEUTRON MONITORING SYSTEM SRM/IRM MOTOR MODULE LIMIT SWITCHES 301 204B6261	LIMIT SWITCH	DW-1 HARSH		A3						
1 1C51 S 0001G	NEUTRON MONITORING SYSTEM SRM/IRM MOTOR MODULE LIMIT SWITCHES 301 204B6261	LIMIT SWITCH	DW-1 HARSH		A3						

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1 1C51 S 0001H	NEUTRON MONITORING SYSTEM SRM/IRM MOTOR MODULE LIMIT SWITCHES 301 204B6261	LIMIT SWITCH	DW-1 HARSH				A3				
1 1C51 S 0001J	NEUTRON MONITORING SYSTEM SRM/IRM MOTOR MODULE LIMIT SWITCHES 301 204B6261	LIMIT SWITCH	DW-1 HARSH				A3				
1 1C51 S 0001K	NEUTRON MONITORING SYSTEM SRM/IRM MOTOR MODULE LIMIT SWITCHES 301 204B6261	LIMIT SWITCH	DW-1 HARSH				A3				
1 1C51 S 0001L	NEUTRON MONITORING SYSTEM SRM/IRM MOTOR MODULE LIMIT SWITCHES 301 204B6261	LIMIT SWITCH	DW-1 HARSH				A3				
1 1C51 S 0001M	NEUTRON MONITORING SYSTEM SRM/IRM MOTOR MODULE LIMIT SWITCHES 301 204B6261	LIMIT SWITCH	DW-1 HARSH				A3				
1C61 N 0006	REMOTE SHUTDOWN SYSTEM REACTOR PRESS 604	ROSEMOUNT 1153 PRESSURE TRANSMITTER	CT-3 HARSH				H				
1C61 N 0010	REMOTE SHUTDOWN SYSTEM REACTOR LEVEL 604	ROSEMOUNT 1153 LEVEL TRANSMITTER	CT-3 HARSH								
1C71 N 0005A	REACTOR PROTECTION SYSTEM TURB CONT VLV FAST CLOS PR SW 301 163C1090	BARKSDALE TC9622-3 PRESSURE SWITCH	TB-1 HARSH	C		A3		.020 0.05 SEC		A	SP301-C09-00
1C71 N 0005B	REACTOR PROTECTION SYSTEM TURB CONT VLV FAST CLOS PR SW 301 163C1090	BARKSDALE TC9622-3 PRESSURE SWITCH	TB-1 HARSH	C		A3		.020 0.05 SEC		A	SP301-C09-00
1C71 N 0005C	REACTOR PROTECTION SYSTEM TURB CONT VLV FAST CLOS PR SW 301 163C1090	BARKSDALE TC9622-3 PRESSURE SWITCH	TB-1 HARSH	C		A3		.020 0.05 SEC		A	SP301-C09-00
1C71 N 0005D	REACTOR PROTECTION SYSTEM TURB CONT VLV FAST CLOS PR SW 301 163C1090	BARKSDALE TC9622-3 PRESSURE SWITCH	TB-1 HARSH	C		A3		.020 0.05 SEC		A	SP301-C09-00

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1C71 N 0006A	REACTOR PROTECTION SYSTEM LIMIT SWITCH FOR VALVE 1N11F200C 79305 163C1303	NATIONAL ACME EA17051302 LIMIT SWITCH	TB-1 HARSH	C	A1	A	LATER	N/A N/A	LATER T		
1C71 N 0006B	REACTOR PROTECTION SYSTEM LIMIT SWITCH FOR VALVE 1N11F200C 79305 163C1303	NATIONAL ACME EA17051302 LIMIT SWITCH	TB-1 HARSH	C	A1	A	LATER	N/A N/A	LATER T		
1C71 N 0006C	REACTOR PROTECTION SYSTEM LIMIT SWITCH FOR VALVE 1N11F200D 79305 163C1303	NATIONAL ACME EA17051302 LIMIT SWITCH	TB-1 HARSH	C	A1	A	LATER	N/A N/A	LATER T		
1C71 N 0006D	REACTOR PROTECTION SYSTEM LIMIT SWITCH FOR VALVE 1N11F200B 79305 163C1303	NATIONAL ACME EA17051302 LIMIT SWITCH	TB-1 HARSH	C	A1	A	LATER	N/A N/A	LATER T		
1C71 N 0006E	REACTOR PROTECTION SYSTEM LIMIT SWITCH FOR VALVE 1N11F200A 79305 163C1303	NATIONAL ACME EA17051302 LIMIT SWITCH	TB-1 HARSH	C	A1	C	LATER	N/A N/A	LATER T		
1C71 N 0006F	REACTOR PROTECTION SYSTEM LIMIT SWITCH FOR VALVE 1N11F200D 79305 163C1303	NATIONAL ACME EA17051302 LIMIT SWITCH	TB-1 HARSH	C	A1	C	LATER	N/A N/A	LATER T		
1C71 N 0006G	REACTOR PROTECTION SYSTEM LIMIT SWITCH FOR VALVE 1N11F200B 79305 163C1303	NATIONAL ACME EA17051302 LIMIT SWITCH	TB-1 HARSH	C	A1	A	LATER	N/A N/A	LATER T		
1C71 N 0006H	REACTOR PROTECTION SYSTEM LIMIT SWITCH FOR VALVE 1N11F200A 79305 163C1303	NATIONAL ACME EA17051302 LIMIT SWITCH	TB-1 HARSH	C	A1	A	LATER	N/A N/A	LATER T		
1C71 N 0050A	REACTOR PROTECTION SYSTEM DRYWELL PRESS XMTR 604	ROSEMOUNT 1153AB5PAN0016 PRESSURE TRANSMITTER	CT-3 HARSH				A				
1C71 N 0050B	REACTOR PROTECTION SYSTEM DRYWELL PRESS XMTR 604	ROSEMOUNT 1153AB5PAN0016 PRESSURE TRANSMITTER	CT-3 HARSH				A				
1C71 N 0050C	REACTOR PROTECTION SYSTEM DRYWELL PRESS XMTR 604	ROSEMOUNT 1153AB5PAN0016 PRESSURE TRANSMITTER	CT-3 HARSH				A				

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	ROD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION DEMO	M	LF/MI	SUMMARY
1C71 N 0050D	REACTOR PROTECTION SYSTEM DRYWELL PRESS XMTR 604	ROSEMOUNT 1153AB5PAN0016 PRESSURE TRANSMITTER	CT-3				A						
1C71 N 0052A	REACTOR PROTECTION SYSTEM TURB 1ST STAGE PRESS XMTR 604	ROSEMOUNT 1153GB9PAN0016 PRESSURE TRANSMITTER	TB-2				A						
1C71 N 0052B	REACTOR PROTECTION SYSTEM TURB 1ST STAGE PRESS XMTR 604	ROSEMOUNT 1153GB9PAN0016 PRESSURE TRANSMITTER	TB-2				A						
1C71 N 0052C	REACTOR PROTECTION SYST. M TURB 1ST STAGE PRESS XMTR 604	ROSEMOUNT 1153GB9PAN0016 PRESSURE TRANSMITTER	TB-2				A						
1C71 N 0052D	REACTOR PROTECTION SYSTEM TURB 1ST STAGE PRESS XMTR 604	ROSEMOUNT 1153GB9PAN0016 PRESSURE TRANSMITTER	TB-2				A						
1D17 F 0071B	PLANT RADIATION MONITORING SYSTEM DW ATMOS MONITORING INBD 524	ITT GENERAL CONTROLS NH-95 MOTOR OPERATOR	CT-3				A1 J			N/A			
1 1D17 F 0071B	PLANT RADIATION MONITORING SYSTEM DW ATMOS MONITORING INBD 524	CONTROMATICS C-9922-CC 1 INCH BALL VALVES	CT-3				A1 J			N/A			
1D17 F 0079B	PLANT RADIATION MONITORING SYSTEM INBOARD ISOLATION VLV 597	TARGET ROCK 77JJ-004 SOLENOID VALVE	CT-3	A		A1 J	YES		N/A	YES	C 40Y	SP597-000-02	
1 1D17 F 0081B	PLANT RADIATION MONITORING SYSTEM CNT ATMOS MONITORING INBD 524	CONTROMATICS C-9922-CC 1 INCH BALL VALVES	CT-7				A1 J			N/A			
1D17 F 0081B	PLANT RADIATION MONITORING SYSTEM CNT ATMOS MONITORING INBD 524	ITT GENERAL CONTROLS NH-95 MOTOR OPERATOR	CT-7				A1 J			N/A			
1D17 F 0089B	PLANT RADIATION MONITORING SYSTEM INBOARD ISOLATION VLV 597	TARGET ROCK 77JJ-004 SOLENOID VALVE	CT-7	A		A1 J	YES		N/A	YES	C 40Y	SP597-000-02	

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY

AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD F1	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M Lc/MI	SUMMARY
1D17 N 0003A	PROCESS RADIATION MONITORING SYSTEM MAIN STEAM LINE 301 237X731	GE 5467870 RADIATION MONITOR	AB-7 HARSH	C	A1	A				T	SP301-C05-00
1D17 N 0003B	PROCESS RADIATION MONITORING SYSTEM MAIN STEAM LINE 301 237X731	GE 5467870 RADIATION MONITOR	AB-7 HARSH	C	A1	A				T	SP301-C05-00
1D17 N 0003C	PROCESS RADIATION MONITORING SYSTEM MAIN STEAM LINE 301 237X731	GE 5467870 RADIATION MONITOR	AB-7 HARSH	C	A1	A				T	SP301-C05-00
1D17 N 0003D	PROCESS RADIATION MONITORING SYSTEM MAIN STEAM LINE 301 237X731	GE 5467870 RADIATION MONITOR	AB-7 HARSH	C	A1	A				T	SP301-C05-00
1D17 N 0079B	PLANT RADIATION MONITORING SYSTEM POSITION SWITCH FOR VLV F079B 597	TARGET ROCK 77JJ-004 POSITION SWITCH	CT-3 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y 20Y	SP597-000-02
1D17 N 0089B	PLANT RADIATION MONITORING SYSTEM POSITION SWITCH FOR VLV F089B 597	TARGET ROCK 77JJ-004 POSITION SWITCH	CT-7 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y 20Y	SP597-000-02
1D19 K 0200A	POST ACCIDENT RAD MON POST ACCID RAD MON REACT BLD'A'CHANN 621	RADIATION MONITOR	CT-1 HARSH AREA		A1	J		.250			
1D19 K 0200B	POST ACCIDENT RAD MON POST ACCID RAD MON REACT BLD'B'CHANN 621	RADIATION MONITOR	CT-1 HARSH AREA		A1	J		.250			
1D23 F 0010A	CONTAINMENT ATMOSPHERE MONITORING SUPP POOL MAKEUP 597	TARGET ROCK 77JJ-001 SOLENOID VALVE	AB-9 HARSH	A	A1	J	YES	N/A 0.25 SEC	YES	C 40Y 20Y	SP597-000-02
1D23 F 0020A	CONTAINMENT ATMOSPHERE MONITORING INST RT PT-ND22A 597	TARGET ROCK 77JJ-001 SOLENOID VALVE	AB-9 HARSH	A	A1	J	YES	N/A 0.25 SEC	YES	C 40Y 20Y	SP597-000-02
1D23 F 0030A	CONTAINMENT ATMOSPHERE MONITORING 4084301 597	TARGET ROCK 77JJ-001 SOLENOID VALVE	AB-9 HARSH	A	A1	J	YES	N/A 0.25 SEC	YES	C 40Y 20Y	SP597-000-02

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION DEMO	M	LF/MI	SUMMARY
1D23 F 0040A	CONTAINMENT ATMOSPHERE MONITORING INST RT PT-N042A,PT-N043A, 597	TARGET ROCK 77JJ-001 SOLENOID VALVE	AB-9 HARSH	A	A1	J	YES	N/A 0.25 SEC	YES	C 40Y			SP597-000-02 20Y
1D23 F 0050	CONTAINMENT ATMOSPHERE MONITORING SUPP POOL MAKEUP 597	TARGET ROCK 77JJ-001 SOLENOID VALVE	AB-4 HARSH	A	A1	J	YES	N/A 0.25 SEC	YES	C 40Y			SP597-000-02 20Y
1D23 N 0011A	CONTAINMENT ATMOSPHERE MONITORING POSITION SWITCH FOR VLV F010A 597	TARGET ROCK 77JJ-001 POSITION SWITCH	AB-9 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y			SP597-000-02 20Y
1D23 N 0021A	CONTAINMENT ATMOSPHERE MONITORING POSITION SWITCH FOR VLV F020A 597	TARGET ROCK 77JJ-001 POSITION SWITCH	AB-9 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y			SP597-000-02 20Y
1D23 N 0031A	CONTAINMENT ATMOSPHERE MONITORING POSITION SWITCH FOR VLV F030A 597	TARGET ROCK 77JJ-001 POSITION SWITCH	AB-9 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y			SP597-000-02 20Y
1D23 N 0041A	CONTAINMENT ATMOSPHERE MONITORING POSITION SWITCH FOR VLV F040A 597	TARGET ROCK 77JJ-001 POSITION SWITCH	AB-9 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y			SP597-000-02 20Y
1D23 N 0050A	CONTAINMENT ATMOSPHERE MONITORING SUPP POOL WATER TEMP ASSEMBLY 596	WEED 611-1A-D-4-C-152-A20 RESISTANCE	CT-2 HARSH	A	A1	J	YES	.005 5.00 SEC	YES	T 40Y			SP596-000-01 40Y
1D23 N 0050B	CONTAINMENT ATMOSPHERE MONITORING SUPP POOL WATER TEMP ASSEMBLY 596	WEED 611-1A-D-4-C-152-A20 RESISTANCE	CT-2 HARSH	A	A1	J	YES	.005 5.00 SEC	YES	T 40Y			SP596-000-01 40Y
1D23 N 0051	CONTAINMENT ATMOSPHERE MONITORING POSITION SWITCH FOR VLV F050 597	TARGET ROCK 77JJ-001 POSITION SWITCH	AB-4 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y			SP597-000-02 20Y
1D23 N 0060A	CONTAINMENT ATMOSPHERE MONITORING SUPP POOL WATER TEMP ASSEMBLY 596	WEED 611-1A-D-4-C-108-A20 RESISTANCE	CT-2 HARSH	A	A1	J	YES	.005 5.00 SEC	YES	T 40Y			SP596-000-01 40Y
1D23 N 0060B	CONTAINMENT ATMOSPHERE MONITORING SUPP POOL WATER TEMP ASSEMBLY 596	WEED 611-1A-D-4-C-108-A20 RESISTANCE	CT-2 HARSH	A	A1	J	YES	.005 5.00 SEC	YES	T 40Y			SP596-000-01 40Y

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY

AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1D23 N 0070A	CONTAINMENT ATMOSPHERE MONITORING SUPP POOL WATER TEMP ASSEMBLY 596	WEED 611-1A-D-4-C-108-A20 RESISTANCE	CT-2	A	A1	J	YES	.005 5.00 SEC	YES	T 40Y 40Y	SP596-000-01
1D23 N 0070B	CONTAINMENT ATMOSPHERE MONITORING SUPP POOL WATER TEMP ASSEMBLY 596	WEED 611-1A-D-4-C-152-A20 RESISTANCE	CT-2	A	A1	J	YES	.005 5.00 SEC	YES	T 40Y 40Y	SP596-000-01
1D23 N 0080A	CONTAINMENT ATMOSPHERE MONITORING SUPP POOL WATER TEMP ASSEMBLY 596	WEED 611-1A-D-4-C-152-A20 RESISTANCE	CT-2	A	A1	J	YES	.005 5.00 SEC	YES	T 40Y 40Y	SP596-000-01
1D23 N 0080B	CONTAINMENT ATMOSPHERE MONITORING SUPP POOL WATER TEMP ASSEMBLY 596	WEED 611-1A-D-4-C-108-A20 RESISTANCE	CT-2	A	A1	J	YES	.005 5.00 SEC	YES	T 40Y 40Y	SP596-000-01
1D23 N 0100A	CONTAINMENT ATMOSPHERE MONITORING DRYWELL AIR TEMP 596	WEED 601-1A-C-3-C-7-0-0 RESISTANCE	DW-1	A	A1	J	YES	.004 5.00 SEC	YES	T 40Y 40Y	SP596-000-01
1D23 N 0100B	CONTAINMENT ATMOSPHERE MONITORING DRYWELL AIR TEMP 596	WEED 601-1A-C-3-C-7-0-0 RESISTANCE	DW-1	A	A1	J	YES	.004 5.00 SEC	YES	T 40Y 40Y	SP596-000-01
1D23 N 0110A	CONTAINMENT ATMOSPHERE MONITORING DRYWELL AIR TEMP 596	WEED 601-1A-C-3-C-7-0-0 RESISTANCE	DW-1	A	A1	J	YES	.004 5.00 SEC	YES	T 40Y 40Y	SP596-000-01
1D23 N 0110B	CONTAINMENT ATMOSPHERE MONITORING DRYWELL AIR TEMP 596	WEED 601-1A-C-3-C-7-0-0 RESISTANCE	DW-1	A	A1	J	YES	.004 5.00 SEC	YES	T 40Y 40Y	SP596-000-01
1D23 N 0120A	CONTAINMENT ATMOSPHERE MONITORING DRYWELL AIR TEMP 596	WEED 601-1A-C-3-C-7-0-0 RESISTANCE	DW-1	A	A1	J	YES	.004 5.00 SEC	YES	T 40Y 40Y	SP596-000-01
1D23 N 0120B	CONTAINMENT ATMOSPHERE MONITORING DRYWELL AIR TEMP 596	WEED 601-1A-C-3-C-7-0-0 RESISTANCE	DW-1	A	A1	J	YES	.004 5.00 SEC	YES	T 40Y 40Y	SP596-000-01
1D23 N 0130A	CONTAINMENT ATMOSPHERE MONITORING CONTAINMENT AIR TEMP 596	WEED 601-1A-C-3-C-7-0-0 RESISTANCE	CT-4	A	A1	J	YES	.007 5.00 SEC	YES	T 40Y 40Y	SP596-000-01

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION DEMOM LF/MI	SUMMARY
1D23 N 0130B	CONTAINMENT ATMOSPHERE MONITORING	WEED	CT-1	A	A1	J	YES	.007	YES	T 40Y	SP596-000-01
	CONTAINMENT AIR TEMP	601-1A-C-3-C-7-0-0	HARSH					5.00 SEC		40Y	
	596	RESISTANCE	TEMPERATURE DETECTOR								
1D23 N 0140A	CONTAINMENT ATMOSPHERE MONITORING	WEED	CT-1	A	A1	J	YES	.007	YES	T 40Y	SP596-000-01
	CONTAINMENT AIR TEMP	601-1A-C-3-C-7-0-0	HARSH					5.00 SEC		40Y	
	596	RESISTANCE	TEMPERATURE DETECTOR								
1D23 N 0140B	CONTAINMENT ATMOSPHERE MONITORING	WEED	CT-1	A	A1	J	YES	.007	YES	T 40Y	SP596-000-01
	CONTAINMENT AIR TEMP	601-1A-C-3-C-7-0-0	HARSH					5.00 SEC		40Y	
	596	RESISTANCE	TEMPERATURE DETECTOR								
1D23 N 0150A	CONTAINMENT ATMOSPHERE MONITORING	WEED	CT-4	A	A1	J	YES	.007	YES	T 40Y	SP596-000-01
	CONTAINMENT AIR TEMP	601-1A-C-3-C-7-0-0	HARSH					5.00 SEC		40Y	
	596	RESISTANCE	TEMPERATURE DETECTOR								
1D23 N 0150B	CONTAINMENT ATMOSPHERE MONITORING	WEED	CT-4	A	A1	J	YES	.007	YES	T 40Y	SP596-000-01
	CONTAINMENT AIR TEMP	601-1A-C-3-C-7-0-0	HARSH					5.00 SEC		40Y	
	596	RESISTANCE	TEMPERATURE DETECTOR								
1D23 N 0160A	CONTAINMENT ATMOSPHERE MONITORING	WEED	CT-2	A	A1	J	YES	.007	YES	T 40Y	SP596-000-01
	CONTAINMENT AIR TEMP	601-1A-C-3-C-7-0-0	HARSH					5.00 SEC		40Y	
	596	RESISTANCE	TEMPERATURE DETECTOR								
1D23 N 0160B	CONTAINMENT ATMOSPHERE MONITORING	WEED	CT-2	A	A1	J	YES	.007	YES	T 40Y	SP596-000-01
	CONTAINMENT AIR TEMP	601-1A-C-3-C-7-0-0	HARSH					5.00 SEC		40Y	
	596	RESISTANCE	TEMPERATURE DETECTOR								
1D23 N 0170A	CONTAINMENT ATMOSPHERE MONITORING	WEED	CT-2	A	A1	J	YES	.005	YES	T 40Y	SP596-000-01
	SUPP POOL WATER TEMP ASSEMBLY	611-1A-D-4-C-108-A20	HARSH					5.00 SEC		40Y	
	596	RESISTANCE	TEMPERATURE DETECTOR								
1D23 N 0170B	CONTAINMENT ATMOSPHERE MONITORING	WEED	CT-2	A	A1	J	YES	.005	YES	T 40Y	SP596-000-01
	SUPP POOL WATER TEMP ASSEMBLY	611-1A-D-4-C-152-A20	HARSH					5.00 SEC		40Y	
	596	RESISTANCE	TEMPERATURE DETECTOR								
1D23 N 0180A	CONTAINMENT ATMOSPHERE MONITORING	WEED	CT-2	A	A1	J	YES	.005	YES	T 40Y	SP596-000-01
	SUPP POOL WATER TEMP ASSEMBLY	611-1A-D-4-C-152-A20	HARSH					5.00 SEC		40Y	
	596	RESISTANCE	TEMPERATURE DETECTOR								
1D23 N 0180B	CONTAINMENT ATMOSPHERE MONITORING	WEED	CT-2	A	A1	J	YES	.005	YES	T 40Y	SP596-000-01
	SUPP POOL WATER TEMP ASSEMBLY	611-1A-D-4-C-108-A20	HARSH					5.00 SEC		40Y	
	596	RESISTANCE	TEMPERATURE DETECTOR								

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1D23 N 0190A	CONTAINMENT ATMOSPHERE MONITORING SUPP POOL WATER TEMP ASSEMBLY 596	WEED 611-1A-D-4-C-152-A20 RESISTANCE	CT-2	A	A1	J	YES	.005 5.00 SEC	YES	T 40Y 40Y	SP596-000-01
1D23 N 0190B	CONTAINMENT ATMOSPHERE MONITORING SUPP POOL WATER TEMP ASSEMBLY 596	WEED 611-1A-D-4-C-152-A20 RESISTANCE	CT-2	A	A1	J	YES	.005 5.00 SEC	YES	T 40Y 40Y	SP596-000-01
1D23 N 0200A	CONTAINMENT ATMOSPHERE MONITORING SUPP POOL WATER TEMP ASSEMBLY 596	WEED 611-1A-D-4-C-108-A20 RESISTANCE	CT-2	A	A1	J	YES	.005 5.00 SEC	YES	T 40Y 40Y	SP596-000-01
1D23 N 0200B	CONTAINMENT ATMOSPHERE MONITORING SUPP POOL WATER TEMP ASSEMBLY 596	WEED 611-1A-D-4-C-108-A20 RESISTANCE	CT-2	A	A1	J	YES	.005 5.00 SEC	YES	T 40Y 40Y	SP596-000-01
1E12 C 0002A	RESIDUAL HEAT REMOVAL SYSTEM PUMP 301 283X731	GE 5K6338XC105A MOTOR	AB-4	C			I			A	SP301-S01-00
1 1E12 C 0002A	RESIDUAL HEAT REMOVAL SYSTEM RHR PUMP 1E12 C 0002A 301 283X731	BYRON JACKSON 30DX-20CKH2 PUMP	AB-4				HARSH				
1E12 C 0002B	RESIDUAL HEAT REMOVAL SYSTEM PUMP 301 283X731	GE 5K6338XC105A MOTOR	AB-4	C			I			A	SP301-S01-00
1 1E12 C 0002B	RESIDUAL HEAT REMOVAL SYSTEM RHR PUMP 1E12 C 0002B 301 283X731	BYRON JACKSON 30DX-20CKH2 PUMP	AB-4				HARSH				
1E12 C 0002C	RESIDUAL HEAT REMOVAL SYSTEM PUMP 301 283X731	GE 5K6338XC105A MOTOR	AB-4	C			I			A	SP301-S01-00
1 1E12 C 0002C	RESIDUAL HEAT REMOVAL SYSTEM RHR PUMP 1E12 C 0002C 301 283X731	BYRON JACKSON 30DX-20CKH2 PUMP	AB-4				HARSH				
1E12 C 0003	RESIDUAL HEAT REMOVAL SYSTEM WATER LEG PUMP 506	SIEMENS-ALLIS RG/182T MOTOR (5HP)	AB-4	A	A4	J	YES	N/A N/A	YES	C 08Y 07M	SP506-000-01

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/M1	SUMMARY
1 1E12 C 0003	RESIDUAL HEAT REMOVAL SYSTEM WATER LEG PUMP 506	BINGHAM-WILLAMETT 2X2X7-1/2 CAP VERTICALLY SPLIT	AB-4 HARSH		A4	J		N/A N/A			
1E12 F 0003A	RESIDUAL HEAT REMOVAL SYSTEM FLW CNTRL AFTER HX POS IND MAX 52102	LIMITORQUE SMB-3-60 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 79.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E12 F 0003A	RESIDUAL HEAT REMOVAL SYSTEM FLW CNTRL AFTER HXPOS IND MAX OP/CL 52102	BORG WARNER 81340 18 INCH GLOBE VALVES	AB-4 HARSH		A4	J		N/A 79.0 SEC			
1E12 F 0003B	RESIDUAL HEAT REMOVAL SYSTEM FLW CNTRL AFTER HX POS IND MAX 52102	LIMITORQUE SMB-3-60 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 79.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E12 F 0003B	RESIDUAL HEAT REMOVAL SYSTEM FLW CNTRL AFTER HXPOS IND MAX OP/CL 52102	BORG WARNER 81340 18 INCH GLOBE VALVES	AB-4 HARSH		A4	J		N/A 79.0 SEC			
1E12 F 0004A	RESIDUAL HEAT REMOVAL SYSTEM SUPP. POOL SUCTION ISO LOOP A 52102	LIMITORQUE SMB-1-25 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 124. SEC	YES	T 40Y 40Y	SP568-000-01
1 1E12 F 0004A	RESIDUAL HEAT REMOVAL SYSTEM SUPP. POOL SUCT ISO LOOP A MAX 70PSI 52102	BORG WARNER 81170-1 24 INCH GATE VALVES	AB-4 HARSH		A4	J		N/A 124. SEC			
1E12 F 0004B	RESIDUAL HEAT REMOVAL SYSTEM SUPP. POOL SUCTION ISO LOOP B 52102	LIMITORQUE SMB-1-25 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 117. SEC	YES	T 40Y 40Y	SP568-000-01
1 1E12 F 0004B	RESIDUAL HEAT REMOVAL SYSTEM SUPP. POOL SUCT ISO LOOP B MAX 70PSI 52102	BORG WARNER 81170 24 INCH GATE VALVES	AB-4 HARSH		A4	J		N/A 117. SEC			
1E12 F 0005	RESIDUAL HEAT REMOVAL SYSTEM SHUTDOWN SUCTION LINE RELIEF 523	TARGET ROCK CORP. 76H-005 1 INCH X 2 INCH	AB-4 HARSH		A4	J		N/A N/A			
1 1E12 F 0006A	RESIDUAL HEAT REMOVAL SYSTEM SHUTDOWN DUCT. TO LOOP A ISO 52102	BORG WARNER 81150 18 INCH GATE VALVES	AB-4 HARSH		A4	J		N/A 87.2 SEC			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY

AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION DEMO M LF/MI	SUMMARY
1E12 F 0006A	RESIDUAL HEAT REMOVAL SYSTEM SHUTDOWN DUCT. TO LOOP A ISO 52102	LIMITORQUE SMB-1-40 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 87.2 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E12 F 0006B	RESIDUAL HEAT REMOVAL SYSTEM SHUTDOWN SUCT. TO LOOP B ISO 52102	BORG WARNER 81150 18 INCH GATE VALVES	AB-4 HARSH		A4	J		N/A 87.2 SEC			
1E12 F 0006B	RESIDUAL HEAT REMOVAL SYSTEM SHUTDOWN SUCT. TO LOOP B ISO 52102	LIMITORQUE SMB-1-40 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 87.2 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E12 F 0008	RESIDUAL HEAT REMOVAL SYSTEM PEN P421 OUTBRD ISO. PNEU. TEST 52102	BORG WARNER 81230 20 INCH GATE VALVES	AB-4 HARSH		A4	J		N/A 34.0 SEC			
1E12 F 0008	RESIDUAL HEAT REMOVAL SYSTEM PEN #P421 OUTBRD ISO. PNEU. TEST 52102	LIMITORQUE SMB-3-80 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 34.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E12 F 0009	RESIDUAL HEAT REMOVAL SYSTEM PEN P421 INBD. ISO. CLS=33 SEC. 52102	BORG WARNER 81230-1 20 INCH GATE VALVES	DW-1 HARSH		A1	D		N/A 34.0 SEC			
1E12 F 0009	RESIDUAL HEAT REMOVAL SYSTEM PEN P421 INBD. ISO. CLS=33SEC 52102	LIMITORQUE SMB-3-80 MOTOR OPERATOR	DW-1 HARSH	A	A1	D	YES	N/A 34.0 SEC	YES	T 40Y 40Y	SP568-000-01
1E12 F 0010	RESIDUAL HEAT REMOVAL SYSTEM SHUTDOWN SUTION LINE BLOCK VAL 79305	NATIONAL ACME EA18011302/12302 LIMIT SWITCH	DW-1 HARSH	C	A1	J	LATER	N/A N/A	LATER	T	
1E12 F 0011A	RESIDUAL HEAT REMOVAL SYSTEM RHR STEAM COND. TO SUPP. POOL 52102	LIMITORQUE SMB-00-5 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 32.7 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E12 F 0011A	RESIDUAL HEAT REMOVAL SYSTEM RHR STEAM COND. TO SUPP. POOL 52102	BORG WARNER 81300-1 4 INCH GLOBE VALVES	AB-4 HARSH		A4	J		N/A 32.7 SEC			
1E12 F 0011B	RESIDUAL HEAT REMOVAL SYSTEM RHR STEAM COND. TO SUPP. POOL 52102	LIMITORQUE SMB-00-5 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 32.7 SEC	YES	T 40Y 40Y	SP568-000-01

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION DEMO M LF/MI	SUMMARY
1 1E12 F 0011B	RESIDUAL HEAT REMOVAL SYSTEM RHR STEAM COND. TO SUPP. POOL 52102	BORG WARNER 81300 4 INCH GLOBE VALVES	AB-4 HARSH		A4	J		N/A 32.7 SEC			
1E12 F 0017A	RESIDUAL HEAT REMOVAL SYSTEM PUMP SUCTION RELIEF 523	TARGET ROCK CORP. 76H-005 1 INCH X 2 INCH	AB-4 HARSH		A4	J		N/A N/A			
1E12 F 0017B	RESIDUAL HEAT REMOVAL SYSTEM PUMP SUCTION RELIEF 523	TARGET ROCK CORP. 76H-005 1 INCH X 2 INCH	AB-4 HARSH		A4	J		N/A N/A			
1E12 F 0017C	RESIDUAL HEAT REMOVAL SYSTEM PUMP SUCTION RELIEF 523	TARGET ROCK CORP. 76H-005 1 INCH X 2 INCH	AB-4 HARSH		A4	J		N/A N/A			
1E12 F 0019	RESIDUAL HEAT REMOVAL SYSTEM RHR TO RPV HEAD SPRAY 52102	BORG WARNER 81490 6 INCH CHECK VALVE	AB-4 HARSH		A4	J		N/A N/A			
1E12 F 0020	RESIDUAL HEAT REMOVAL SYSTEM FLUSH WATER TO SHUTDOWN SUCTION 52101	TRW MISSION K30SPF-V76 8 INCH CHECK VALVE	AB-4 HARSH		A4	J		N/A N/A			
1 1E12 F 0021	RESIDUAL HEAT REMOVAL SYSTEM C PMP TEST TO SUPP. POOL 52102	BORG WARNER 81340-1 18 INCH GLOBE VALVES	AB-4 HARSH		A4	J		N/A 79.0 SEC			
1E12 F 0021	RESIDUAL HEAT REMOVAL SYSTEM C PMP TEST TO SUPP. POOL R2341 52102	LIMITORQUE SMB-3-60 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 79.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E12 F 0023	RESIDUAL HEAT REMOVAL SYSTEM RHR TO RPV HEAD SPRAY ISO MAX 330PSI 52102	BORG WARNER 81370 6 INCH GLOBE VALVES	AB-4 HARSH		A4	J		N/A 34.0 SEC			
1E12 F 0023	RESIDUAL HEAT REMOVAL SYSTEM RHR TO RPV HEAD SPRAY ISO 52102	LIMITORQUE SMB-1-25 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 34.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E12 F 0024A	RESIDUAL HEAT REMOVAL SYSTEM A PMP TEST TO SUPP. POOL MAX O/C 90SE 52102	BORG WARNER 81150-1 18 INCH GATE VALVES	AB-4 HARSH		A4	J		N/A 87.2 SEC			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION M LF/MI	SUMMARY
1E12 F 0024A	RESIDUAL HEAT REMOVAL SYSTEM A PMP TEST TO SUPP. POOL 52102	LIMITORQUE SMB-1-40 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 87.2 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E12 F 0024B	RESIDUAL HEAT REMOVAL SYSTEM B PMP TEST TO SUPP. POOL MAX O/C 90S 52102	BORG WARNER 81150-1 18 INCH GATE VALVES	AB-4 HARSH		A4	J		N/A 87.2 SEC			
1E12 F 0024B	RESIDUAL HEAT REMOVAL SYSTEM B PMP TEST TO SUPP. POOL 52102	LIMITORQUE SMB-1-40 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 87.2 SEC	YES	T 40Y 40Y	SP568-000-01
1E12 F 0025A	RESIDUAL HEAT REMOVAL SYSTEM LPC1 LINE RELIEF 523	TARGET ROCK CORP. 76H-005 1 INCH X 2 INCH	AB-4 HARSH		A4	J		N/A N/A			
1E12 F 0025B	RESIDUAL HEAT REMOVAL SYSTEM LPC1 LINE RELIEF 523	TARGET ROCK CORP. 76H-005 1 INCH X 2 INCH	AB-4 HARSH		A4	J		N/A N/A			
1E12 F 0025C	RESIDUAL HEAT REMOVAL SYSTEM LPC1 LINE RELIEF 523	TARGET ROCK CORP. 76H-005 1 INCH X 2 INCH	AB-4 HARSH		A4	J		N/A N/A			
1E12 F 0026A	RESIDUAL HEAT REMOVAL SYSTEM RHR STEAM COND TO RCIC PUMP 52102	LIMITORQUE SMB-000-5 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 20.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E12 F 0026A	RESIDUAL HEAT REMOVAL SYSTEM RHR STEAM COND TO RCIC PUMP SUCT ISO 52102	BORG WARNER 81110 4 INCH GATE VALVES	AB-4 HARSH		A4	J		N/A 20.0 SEC			
1E12 F 0026B	RESIDUAL HEAT REMOVAL SYSTEM RHR STEAM COND TO RCIC PUMP 52102	LIMITORQUE SMB-000-5 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 20.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E12 F 0026B	RESIDUAL HEAT REMOVAL SYSTEM RHR STEAM COND TO RCIC PUMP SUCT ISO 52102	BORG WARNER 81110 4 INCH GATE VALVES	AB-4 HARSH		A4	J		N/A 20.0 SEC			
1E12 F 0027A	RESIDUAL HEAT REMOVAL SYSTEM PEN#P113 OUTBOARD ISO 52102	LIMITORQUE SMB-1-25 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 60.0 SEC	YES	T 40Y 40Y	SP568-000-01

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION M LF/MI	SUMMARY
1 1E12 F 0027A	RESIDUAL HEAT REMOVAL SYSTEM PEN#113 OUTBOARD ISO MAX P330PSI 52102	BORG WARNER 81330-1 12 INCH GATE VALVES	AB-4 HARSH		A4	J		N/A 60.0 SEC			
1E12 F 0027B	RESIDUAL HEAT REMOVAL SYSTEM PEN#P412 OUTBOARD ISO 52102	LIMITORQUE SMB-1-25 MOTOR OPERATOR	AE-4 HARSH	A	A4	J	YES	N/A 60.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E12 F 0027B	RESIDUAL HEAT REMOVAL SYSTEM PEN#P412 OUTBOARD ISO MAX P330PSI 52102	BORG WARNER 81330-1 12 INCH GATE VALVES	AB-4 HARSH		A4	J		N/A 60.0 SEC			
1E12 F 0028A	RESIDUAL HEAT REMOVAL SYSTEM PEN #P113 INBRD ISO (CONT SP) 52102	LIMITORQUE SMB-1-25 MOTOR OPERATOR	CT-6 HARSH	A	A1	J	YES	N/A 60.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E12 F 0028A	RESIDUAL HEAT REMOVAL SYSTEM PEN #P113 INBRD ISO MAX P330PSI 52102	BORG WARNER 81330-1 12 INCH GATE VALVES	CT-6 HARSH		A1	J		N/A 60.0 SEC			
1E12 F 0028B	RESIDUAL HEAT REMOVAL SYSTEM PEN #P412 INBRD ISO (CONT SP) 52102	LIMITORQUE SMB-1-25 MOTOR OPERATOR	CT-6 HARSH	A	A1	J	YES	N/A 60.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E12 F 0028B	RESIDUAL HEAT REMOVAL SYSTEM PEN #P412 INBRD ISO MAX P330PSI 52102	BORG WARNER 81330-1 12 INCH GATE VALVES	CT-6 HARSH		A1	J		N/A 60.0 SEC			
1E12 F 0031A	RESIDUAL HEAT REMOVAL SYSTEM PUMP DISCH CHK 52101	TRW MISSION K30SPF-V74 18 INCH CHECK VALVE	AB-4 HARSH		A4	J		N/A N/A			
1E12 F 0031B	RESIDUAL HEAT REMOVAL SYSTEM PUMP DISCH CHK 52101	TRW MISSION K30SPF-V74 18 INCH CHECK VALVE	AB-4 HARSH		A4	J		N/A N/A			
1E12 F 0031C	RESIDUAL HEAT REMOVAL SYSTEM PUMP DISCH CHK 52101	TRW MISSION K30SPF-V74 18 INCH CHECK VALVE	AB-4 HARSH		A4	J		N/A N/A			
1E12 F 0036	RESIDUAL HEAT REMOVAL SYSTEM RHR TO RCIC PMP SUCT RELIEF 523	TARGET ROCK CORP. 76H-010 3 INCH X 4 INCH	AB-3 HARSH RELIEF VALVES		A4	J		N/A N/A			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY

AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1E12 F 0037A	RESIDUAL HEAT REMOVAL SYSTEM RHR TO CONTAINMENT POOLS 52102	LIMITORQUE SMB-2-40 MOTOR OPERATOR	CT-8 HARSH	A	A1	J	YES	N/A 62.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E12 F 0037A	RESIDUAL HEAT REMOVAL SYSTEM RHR TO CONT POOLS TP. MAX P330PSI 52102	BORG WARNER 82350 12 INCH GLOBE VALVES	CT-8 HARSH		A1	J		N/A 62.0 SEC			
1E12 F 0037B	RESIDUAL HEAT REMOVAL SYSTEM RHR TO CONTAINMENT POOLS F3548 52102	LIMITORQUE SMB-2-40 MOTOR OPERATOR	CT-7 HARSH	A	A1	J	YES	N/A 90.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E12 F 0037B	RESIDUAL HEAT REMOVAL SYSTEM RHR TO CONT POOLS TP. MAX P330PSI 52102	BORG WARNER 82350-1 12 INCH GLOBE VALVES	CT-7 HARSH		A1	J		N/A 90.0 SEC			
1 1E12 F 0039A	RESIDUAL HEAT REMOVAL SYSTEM LIMIT SWITCH FOR VALVE 1E12F039A 79305	NATIONAL ACME EA74020100 LIMIT SWITCH	DW-1 HARSH	C	A1	J	LATER	N/A N/A	LATER	T	
1 1E12 F 0039B	RESIDUAL HEAT REMOVAL SYSTEM LIMIT SWITCH FOR VALVE 1E12F039B 79305	NATIONAL ACME EA74020100 LIMIT SWITCH	DW-1 HARSH	C	A1	J	LATER	N/A N/A	LATER	T	
1 1E12 F 0039C	RESIDUAL HEAT REMOVAL SYSTEM LIMIT SWITCH FOR VALVE 1E12F039C 79305	NATIONAL ACME EA74020100 LIMIT SWITCH	DW-1 HARSH	C	A1	J	LATER	N/A N/A	LATER	T	
1 1E12 F 0040	RESIDUAL HEAT REMOVAL SYSTEM RHR "A" LRW SYS CONTROL FLOW 52102	BORG WARNER 81320 8 INCH GLOBE VALVES	AB-2 HARSH		A4	J		N/A 19.2 SEC			
1E12 F 0040	RESIDUAL HEAT REMOVAL SYSTEM RHR "A" LRW SYS CONTROL FLOW 52102	LIMITORQUE SMB-1-25 MOTOR OPERATOR	AB-2 HARSH	A	A4	J	YES	N/A 19.2 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E12 F 0041A	RESIDUAL HEAT REMOVAL SYSTEM LPCI PEN #P411 INBRD CHK (DW) 52103	ROCKWELL 4094(WCC)JQTY 12 INCH CHECK VALVES	DW-1 HARSH		A1	J		N/A N/A			
1 1E12 F 0041B	RESIDUAL HEAT REMOVAL SYSTEM LPCI INBOARD CHK (DW) 52103	ROCKWELL 4094(WCC)JQTY 12 INCH CHECK VALVES	DW-1 HARSH		A1	J		N/A N/A			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION DEMO	M	LF/MI	SUMMARY
1 1E12 F 0041C	RESIDUAL HEAT REMOVAL SYSTEM LPCI INBRD ISO (DW) 52103	ROCKWELL 4094(WCC)JQTY 12 INCH CHECK VALVES	DW-1 HARSH		A1	J		N/A N/A					
1E12 F 0042A	RESIDUAL HEAT REMOVAL SYSTEM LPCI A PEN#P113 INBRD ISO PNEU 52102	LIMITORQUE SMB-2-80 MOTOR OPERATOR	CT-3 HARSH	A	A1	J	YES	N/A 25.9 SEC	YES	T 40Y 40Y			SP568-000-01
1 1E12 F 0042A	RESIDUAL HEAT REMOVAL SYSTEM LPCI A PEN#P113 INBRD ISO PNEUTST 52102	BORG WARNER 81220 12 INCH GATE VALVES	CT-3 HARSH		A1	J		N/A 25.9 SEC					
1E12 F 0042B	RESIDUAL HEAT REMOVAL SYSTEM LPCI B PEN#P412 INBRD ISO PNEU 52102	LIMITORQUE SMB-2-80 MOTOR OPERATOR	CT-3 HARSH	A	A1	J	YES	N/A 25.9 SEC	YES	T 40Y 40Y			SP568-000-01
1 1E12 F 0042B	RESIDUAL HEAT REMOVAL SYSTEM LPCI B PEN#P412 INBRD ISO PNEUTST 52102	BORG WARNER 81220-1 12 INCH GATE VALVES	CT-3 HARSH		A1	J		N/A 25.9 SEC					
1E12 F 0042C	RESIDUAL HEAT REMOVAL SYSTEM LPCI C PEN#P411 OTBRD ISO PNEU 52102	LIMITORQUE SMB-2-80 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 25.9 SEC	YES	T 40Y 40Y			SP568-000-01
1 1E12 F 0042C	RESIDUAL HEAT REMOVAL SYSTEM LPCI C PEN#P411 OTBRD ISO PNEUTST 52102	BORG WARNER 81220-2 12 INCH GATE VALVES	AB-4 HARSH		A4	J		N/A 25.9 SEC					
1E12 F 0044A	RESIDUAL HEAT REMOVAL SYSTEM FLUSH WTR TO CONT SPRAY HDR 52101	TRW MISSION K30SPF-V76 8 INCH CHECK VALVE	CT-3 HARSH		A1	J		N/A N/A					
1E12 F 0044B	RESIDUAL HEAT REMOVAL SYSTEM FLUSH WTR TO CONT SPRAY HDR 52101	TRW MISSION K30SPF-V76 8 INCH CHECK VALVE	CT-3 HARSH		A1	J		N/A N/A					
1E12 F 0046A	RESIDUAL HEAT REMOVAL SYSTEM PUMP MIN FLOW TO SUPP POOL 52101	TRW MISSION K30SPF-V74 6 INCH CHECK VALVE	AB-4 HARSH		A4	J		N/A N/A					
1E12 F 0046B	RESIDUAL HEAT REMOVAL SYSTEM PUMP MIN FLOW TO SUPP POOL 52101	TRW MISSION K30SPF-V74 6 INCH CHECK VALVE	AB-4 HARSH		A4	J		N/A N/A					

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION M LF/MI	SUMMARY
1E12 F 0046C	RESIDUAL HEAT REMOVAL SYSTEM PUMP MIN FLOW TO SUPP POOL 52101	TRW MISSION K30SPF-V74 6 INCH CHECK VALVE	AB-4 HARSH		A4	J		N/A N/A			
1 1E12 F 0047A	RESIDUAL HEAT REMOVAL SYSTEM RHR TO HX ISO MAX OP/CLS TIME 90 SEC 52102	BORG WARNER 81150 18 INCH GATE VALVES	AB-4 HARSH		A4	J		N/A 87.2 SEC			
1E12 F 0047A	RESIDUAL HEAT REMOVAL SYSTEM RHR TO HX ISO 52102	LIMITORQUE SMB-1-40 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 87.2 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E12 F 0047B	RESIDUAL HEAT REMOVAL SYSTEM RHR TO HX ISO MAX OP/CLS TIME 90 SEC 52102	BORG WARNER 81150 18 INCH GATE VALVES	AB-4 HARSH		A4	J		N/A 87.2 SEC			
1E12 F 0047B	RESIDUAL HEAT REMOVAL SYSTEM RHR TO HX ISO 52102	LIMITORQUE SMB-1-40 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 87.2 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E12 F 0048A	RESIDUAL HEAT REMOVAL SYSTEM RHR BALANCING VLV OP/CL 90SEC 52102	BORG WARNER 81340 18 INCH GLOBE VALVES	AB-4 HARSH		A4	J		N/A 79.0 SEC			
1E12 F 0048A	RESIDUAL HEAT REMOVAL SYSTEM RHR BALANCING VLV MAX 52102	LIMITORQUE SMB-3-60 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 79.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E12 F 0048B	RESIDUAL HEAT REMOVAL SYSTEM RHR BALANCING VLV OP/CL 90SEC 52102	BORG WARNER 81340 18 INCH GLOBE VALVES	AB-4 HARSH		A4			N/A 79.0 SEC			
1E12 F 0048B	RESIDUAL HEAT REMOVAL SYSTEM RHR BALANCING VLV MAX 52102	LIMITORQUE SMB-3-60 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 79.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E12 F 0049	RESIDUAL HEAT REMOVAL SYSTEM RHR "A" TO LRW SYS ISO 52102	BORG WARNER 81130 8 INCH GATE VALVES	AB-4 HARSH		A4	J		N/A 49.0 SEC			
1E12 F 0049	RESIDUAL HEAT REMOVAL SYSTEM RHR "A" TO LRW SYS ISO 52102	LIMITORQUE SMB-00-10 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 49.0 SEC	YES	T 40Y 40Y	SP568-000-01

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1E12 F 0050A	RESIDUAL HEAT REMOVAL SYSTEM RHR TO FW 52102	BORG WARNER 81500 12 INCH CHECK VALVE	AB-7 HARSH		A4	J		N/A N/A			
1E12 F 0050B	RESIDUAL HEAT REMOVAL SYSTEM RHR TO FW 52102	BORG WARNER 81500 12 INCH CHECK VALVE	AB-7 HARSH		A4	J		N/A N/A			
1E12 F 0051A	RESIDUAL HEAT REMOVAL SYSTEM MAIN STM TO RHR HX PRESS CONTR 60701	FISHER CONTROLS 6ED667(87) CONTROL VALVE	AB-4 HARSH	A	A1	A	YES	N/A 40.0 SEC	YES	E 40Y 04Y	SP607-001-01
1E12 F 0051B	RESIDUAL HEAT REMOVAL SYSTEM MAIN STM TO RHR HX PRESS CONTR 60701	FISHER CONTROLS 6ED667(87) CONTROL VALVE	AB-4 HARSH	A	A1	A	YES	N/A 40.0 SEC	YES	E 40Y 04Y	SP607-001-01
1 1E12 F 0052A	RESIDUAL HEAT REMOVAL SYSTEM MAIN STM TO RHR HX ISO 52102	BORG WARNER 81380 10 INCH GLOBE VALVES	AB-4 HARSH		A4	J		N/A 70.0 SEC			
1E12 F 0052A	RESIDUAL HEAT REMOVAL SYSTEM MAIN STM TO RHR HX ISO 52102	LIMITORQUE SMB-2-40 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 70.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E12 F 0052B	RESIDUAL HEAT REMOVAL SYSTEM MAIN STM TO RHR HX ISO 52102	BORG WARNER 81380 10 INCH GLOBE VALVES	AB-4 HARSH		A4	J		N/A 70.0 SEC			
1E12 F 0052B	RESIDUAL HEAT REMOVAL SYSTEM MAIN STM TO RHR HX ISO 52102	LIMITORQUE SMB-2-40 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 70.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E12 F 0053A	RESIDUAL HEAT REMOVAL SYSTEM RHR TO FW ISO MAX P330PSI MAX CL 34S 52102	BORG WARNER 81390 12 INCH GLOBE VALVES	AB-4 HARSH		A4	J		N/A 34.0 SEC			
1E12 F 0053A	RESIDUAL HEAT REMOVAL SYSTEM RHR TO FW ISO MAX P330PSI 52102	LIMITORQUE SMB-3-60 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 34.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E12 F 0053B	RESIDUAL HEAT REMOVAL SYSTEM RHR TO FW ISO MAX P330PSI MAX CL 34C 52102	BORG WARNER 81390-1 12 INCH GLOBE VALVES	AB-4 HARSH		A4	J		N/A 34.0 SEC			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION DEMO	M	LF/MI	SUMMARY
1E12 F 0053B	RESIDUAL HEAT REMOVAL SYSTEM RHR TO FW ISO MAX P330PSI 52102	LIMITORQUE SMB-3-40 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 34.0 SEC	YES	T	40Y	SP568-000-01	
1E12 F 0054A	RESIDUAL HEAT REMOVAL SYSTEM RHR TO RCIC PMP SUCT 52101	TRW MISSION K30ACEF-V73 4 INCH CHECK VALVE	AB-4 HARSH		A4	J		N/A N/A					
1E12 F 0054B	RESIDUAL HEAT REMOVAL SYSTEM RHR TO RCIC PMP SUCT 52101	TRW MISSION K30ACEF-V73 4 INCH CHECK VALVE	AB-4 HARSH		A4	J		N/A N/A					
1E12 F 0055A	RESIDUAL HEAT REMOVAL SYSTEM RHR HX SHELL SIDE RELIEF 523	TARGET ROCK CORP. 76H-013 4 INCH X 6 INCH	AB-4 HARSH		A4	J		N/A N/A					
1E12 F 0055B	RESIDUAL HEAT REMOVAL SYSTEM RHR HX SHELL SIDE RELIEF 523	TARGET ROCK CORP. 76H-013 4 INCH X 6 INCH	AB-4 HARSH		A4	J		N/A N/A					
1E12 F 0060A	RESIDUAL HEAT REMOVAL SYSTEM RHR HX OUTLET LOCAL SAPMLE CON 597	TARGET ROCK 77JJ-006 SOLENOID VALVE	AB-4 HARSH	A	A1	J	YES	N/A 0.25 SEC	YES	C	40Y 20Y	SP597-000-02	
1E12 F 0060B	RESIDUAL HEAT REMOVAL SYSTEM RHR HX OUTLET LOCAL SAPMLE CON 597	TARGET ROCK 77JJ-006 SOLENOID VALVE	AB-4 HARSH	A	A1	J	YES	N/A 0.25 SEC	YES	C	40Y 20Y	SP597-000-02	
1E12 F 0063A	RESIDUAL HEAT REMOVAL SYSTEM FLUSH WTR RO RHR SHUTDOWN 52101	TRW MISSION K30SPF-V76 8 INCH CHECK VALVE	AB-4 HARSH		A4	J		N/A N/A					
1E12 F 0063B	RESIDUAL HEAT REMOVAL SYSTEM FLUSH WTR FOR RHR SHUTDOWN 52101	TRW MISSION K30SPF-V76 8 INCH CHECK VALVE	AB-4 HARSH		A4	J		N/A N/A					
1E12 F 0063C	RESIDUAL HEAT REMOVAL SYSTEM FLUSH WTR FOR LPCIC 52101	TRW MISSION K30SPF-V76 8 INCH CHECK VALVE	AB-4 HARSH		A4	J		N/A N/A					
1E12 F 0064A	RESIDUAL HEAT REMOVAL SYSTEM RHR MIN FLW TO SUPP POOL ISO 52102	LIMITORQUE SB-00-10 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 8.00 SEC	YES	T	40Y 40Y	SP568-000-01	

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION DEMO	M	LF/MI	SUMMARY
1 1E12 F 0064A	RESIDUAL HEAT REMOVAL SYSTEM RHR MIN FLW TO SUPP POOL ISO 52102	BORG WARNER 81120 6 INCH GATE VALVES	AB-4 HARSH		A4	J		N/A 8.00 SEC					
1E12 F 0064B	RESIDUAL HEAT REMOVAL SYSTEM RHR MIN FLW TO SUPP POOL ISO 52102	LIMITORQUE SB-00-10 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 8.00 SEC	YES	T 40Y			SP568-000-01 40Y
1 1E12 F 0064B	RESIDUAL HEAT REMOVAL SYSTEM RHR MIN FLW TO SUPP POOL ISO 52102	BORG WARNER 81120 6 INCH GATE VALVES	AB-4 HARSH		A4	J		N/A 8.00 SEC					
1E12 F 0064C	RESIDUAL HEAT REMOVAL SYSTEM RHR MIN FLW TO SUPP POOL ISO 52102	LIMITORQUE SB-00-10 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 8.00 SEC	YES	T 40Y			SP568-000-01 40Y
1 1E12 F 0064C	RESIDUAL HEAT REMOVAL SYSTEM RHR MIN FLW TO SUPP POOL ISO 52102	BORG WARNER 81120 6 INCH GATE VALVES	AB-4 HARSH		A4	J		N/A 8.00 SEC					
1E12 F 0065A	RESIDUAL HEAT REMOVAL SYSTEM RHR HX LEVEL CONTROL 60701	FISHER CONTROLS 2ES667(40) CONTROL VALVE	AB-4 HARSH	A	A1	A	YES	N/A 15.0 SEC	YES	E 40Y			SP607-001-01 04Y
1E12 F 0065B	RESIDUAL HEAT REMOVAL SYSTEM RHR HX LEVEL CONTROL 60701	FISHER CONTROLS 2ES667(40) CONTROL VALVE	AB-4 HARSH	A	A1	A	YES	N/A 15.0 SEC	YES	E 40Y			SP607-001-01 04Y
1E12 F 0073A	RESIDUAL HEAT REMOVAL SYSTEM RHR HX SHELL SIDE VENTS TO POOL 53106	LIMITORQUE SMB-000-2 MOTOR OPERATOR	AB-5 HARSH	A	A4	J	YES	N/A N/A	YES	T 40Y			SP568-000-01 40Y
1 1E12 F 0073A	RESIDUAL HEAT REMOVAL SYSTEM RHR HX SHELL SIDE VENTS TO POOL 53106	ROCKWELL 15014MPT2 1 INCH GLOBE VALVES	AB-5 HARSH		A4	J		N/A N/A					
1E12 F 0073B	RESIDUAL HEAT REMOVAL SYSTEM RHR HX SHELL SIDE VENTS TO POOL 53106	LIMITORQUE SMB-000-2 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A N/A	YES	T 40Y			SP568-000-01 40Y
1 1E12 F 0073B	RESIDUAL HEAT REMOVAL SYSTEM RHR HX SHELL SIDE VENTS TO POOL 53106	ROCKWELL 15014MPT2 1 INCH GLOBE VALVES	AB-4 HARSH		A4	J		N/A N/A					

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1E12 F 0074A	RESIDUAL HEAT REMOVAL SYSTEM RHR HX SHELL SIDE VENTS TO POOL 53106	LIMITORQUE SMB-000-2 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A N/A	YES	T 40Y 40Y	SP568-000-01
1 1E12 F 0074A	RESIDUAL HEAT REMOVAL SYSTEM RHR HX SHELL SIDE VENTS TO POOL 53106	ROCKWELL 15014MPT2 1 INCH GLOBE VALVES	AB-4 HARSH		A4	J		N/A N/A			
1E12 F 0074B	RESIDUAL HEAT REMOVAL SYSTEM RHR HX SHELL SIDE VENTS TO POOL 53106	LIMITORQUE SMB-000-2 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A N/A	YES	T 40Y 40Y	SP568-000-01
1 1E12 F 0074B	RESIDUAL HEAT REMOVAL SYSTEM RHR HX SHELL SIDE VENTS TO POOL 53106	ROCKWELL 15014MPT2 1 INCH GLOBE VALVES	AB-4 HARSH		A4	J		N/A N/A			
1E12 F 0075A	RESIDUAL HEAT REMOVAL SYSTEM RHR HX OUTLET LOCAL SAMPLE CON 597	TARGET ROCK 77JJ-006 SOLENOID VALVE	AB-9 HARSH	A	A1	J	YES	N/A 0.25 SEC	YES	C 40Y 20Y	SP597-000-02
1E12 F 0075B	RESIDUAL HEAT REMOVAL SYSTEM RHR HX OUTLET LOCAL SAMPLE CON 597	TARGET ROCK 77JJ-006 SOLENOID VALVE	AB-9 HARSH	A	A1	J	YES	N/A 0.25 SEC	YES	C 40Y 20Y	SP597-000-02
1E12 F 0084A	RESIDUAL HEAT REMOVAL SYSTEM LPCS WTR LEG PMP TO RHR "A" 53101	DRESSER 5580W 1-1/2 INCH CHECK	AB-4 HARSH VALVE		A4	J		N/A N/A			
1E12 F 0084B	RESIDUAL HEAT REMOVAL SYSTEM RHR WATR LEG PUMP TO RHR "B" 53101	DRESSER 5580W 1-1/2 INCH CHECK	AB-4 HARSH VALVE		A4	J		N/A N/A			
1E12 F 0084C	RESIDUAL HEAT REMOVAL SYSTEM RHR WATER LEG PUMP TO RHR C 53101	DRESSER 5580W 1-1/2 INCH CHECK	AB-4 HARSH VALVE		A4	J		N/A N/A			
1E12 F 0085A	RESIDUAL HEAT REMOVAL SYSTEM LPCS WTR LEG PUMP TO RHR A 53101	DRESSER 7150W 1-1/2 INCH CHECK	AB-4 HARSH VALVE		A4	J		N/A N/A			
1E12 F 0085B	RESIDUAL HEAT REMOVAL SYSTEM RHR WTR LEG PUMP TO RHR B 53101	DRESSER 7150W 1-1/2 INCH CHECK	AB-4 HARSH VALVE		A4	J		N/A N/A			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION DEMO	M	LF/MI	SUMMARY
1E12 F 0085C	RESIDUAL HEAT REMOVAL SYSTEM RHR WTR LEG PUMP TO RHR C 53101	DRESSER 7150W 1-1/2 INCH CHECK	AB-4 HARSH		A4	J		N/A N/A					
1E12 F 0086	RESIDUAL HEAT REMOVAL SYSTEM FLUSH WTR TO RPV 52101	TRW MISSION K30SPF-V74 6 INCH CHECK VALVE	AB-4 HARSH		A4	J		N/A N/A					
1 1E12 F 0087A	RESIDUAL HEAT REMOVAL SYSTEM BYPASS FOR FO51A MAX P#500PSI 52102	BORG WARNER 81370-1 6 INCH GLOBE VALVES	AB-4 HARSH		A4	J		N/A 48.0 SEC					
1E12 F 0087A	RESIDUAL HEAT REMOVAL SYSTEM BYPASS FOR FO51A 52102	LIMITORQUE SMB-1-25 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 48.0 SEC	YES	T 40Y			SP568-000-01 40Y
1 1E12 F 0087B	RESIDUAL HEAT REMOVAL SYSTEM BYPASS FOR FO51B MAX P#500PSI 52102	BORG WARNER 81370-1 6 INCH GLOBE VALVES	AB-4 HARSH		A4	J		N/A 48.0 SEC					
1E12 F 0087B	RESIDUAL HEAT REMOVAL SYSTEM BYPASS FOR FO51B 52102	LIMITORQUE SMB-1-25 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 48.0 SEC	YES	T 40Y			SP568-000-01 40Y
1E12 F 0103A	RESIDUAL HEAT REMOVAL SYSTEM RCIC TURB EXH VAC. RLF TO RHR R 53101	DRESSER 5580W 1-1/2 INCH CHECK	AB-4 HARSH		A4	J		N/A N/A					
1E12 F 0103B	RESIDUAL HEAT REMOVAL SYSTEM RCIC TURB EXH VAC. RLF TO RHR R 53101	DRESSER 5580W 1-1/2 INCH CHECK	AB-4 HARSH		A4	J		N/A N/A					
1E12 F 0104A	RESIDUAL HEAT REMOVAL SYSTEM RCIC TURB EXH VAC. RLF TO RHR R 53101	DRESSER 5580W 1-1/2 INCH CHECK	AB-4 HARSH		A4	J		N/A N/A					
1E12 F 0104B	RESIDUAL HEAT REMOVAL SYSTEM RCIC TURB EXH VAC. RLF TO RHR R 53101	DRESSER 5580W 1-1/2 INCH CHECK	AB-4 HARSH		A4	J		N/A N/A					
1 1E12 F 0105	RESIDUAL HEAT REMOVAL SYSTEM SUPPR POOL SUCT ISO LOOP C MX P#70PS 52102	BORG WARNER 81170 24 INCH GATE VALVES	AB-4 HARSH		A4	J		N/A 117. SEC					

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION M LF/MI	SUMMARY
1E12 F 0105	RESIDUAL HEAT REMOVAL SYSTEM SUPPRESSION POOL SUCTION ISO 52102	LIMITORQUE SMB-1-25 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 117. SEC	YES	T 40Y	SP568-000-01 40Y
1E12 F 0451A	RESIDUAL HEAT REMOVAL SYSTEM CONTROLS OPERATING AIR TO F051A 60701	ASCO NP8320A185E SOLENOID VALVE	AB-4 HARSH	A	A1	A	YES	N/A 0.15 SEC	YES	T 40Y	SP607-001-01 40Y
1E12 F 0451B	RESIDUAL HEAT REMOVAL SYSTEM CONTROLS OPERATING AIR TO F051B 60701	ASCO NP8320A185E SOLENOID VALVE	AB-4 HARSH	A	A1	A	YES	N/A 0.15 SEC	YES	T 40Y	SP607-001-01 40Y
1E12 F 0465A	RESIDUAL HEAT REMOVAL SYSTEM CONTROLS OPERATING AIR TO F065A 60701	ASCO NP8320A185E SOLENOID VALVE	AB-4 HARSH	A	A1	A	YES	N/A 0.15 SEC	YES	T 40Y	SP607-001-01 40Y
1E12 F 0465B	RESIDUAL HEAT REMOVAL SYSTEM CONTROLS OPERATING AIR TO F065B 60701	ASCO NP8320A185E SOLENOID VALVE	AB-4 HARSH	A	A1	A	YES	N/A 0.15 SEC	YES	T 40Y	SP607-001-01 40Y
1 1E12 F 0537A	RESIDUAL HEAT REMOVAL SYSTEM CONTAINMENT SPRAY 2ND ISO 52102	BORG WARNER 81140-1 12 INCH GATE VALVES	CT-1 HARSH		A1	J		N/A 60.0 SEC			
1E12 F 0537A	RESIDUAL HEAT REMOVAL SYSTEM CONTAINMENT SPRAY 2ND ISO 52102	LIMITORQUE SMB-1-25 MOTOR OPERATOR	CT-1 HARSH	A	A1	J	YES	N/A 60.0 SEC	YES	T 40Y	SP568-000-01 40Y
1 1E12 F 0537B	RESIDUAL HEAT REMOVAL SYSTEM CONTAINMENT SPRAY 2ND ISO 52102	BORG WARNER 81140 12 INCH GATE VALVES	CT-1 HARSH		A1	J		N/A 60.0 SEC			
1E12 F 0537B	RESIDUAL HEAT REMOVAL SYSTEM CONTAINMENT SPRAY 2ND ISO 52102	LIMITORQUE SMB-1-25 MOTOR OPERATOR	CT-1 HARSH	A	A1	J	YES	N/A 60.0 SEC	YES	T 40Y	SP568-000-01 40Y
1E12 F 0550	RESIDUAL HEAT REMOVAL SYSTEM THERMAL RELIEF 53101	DRESSER 7440W 3/4 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
1E12 F 0558A	RESIDUAL HEAT REMOVAL SYSTEM 53101	DRESSER 5580W 1 INCH CHECK VALVE	CT-3 HARSH		A1	J		N/A N/A			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1E12 F 0558B	RESIDUAL HEAT REMOVAL SYSTEM RHR HT EXCHANGER VENT CHK VAL 53101	DRESSER 5580W 1 INCH CHECK VALVE	CT-3 HARSH		A1	J		N/A N/A			
1E12 F 0562A	RESIDUAL HEAT REMOVAL SYSTEM 53101	DRESSER 7440W 2 INCH CHECK VALVE	AB-4 HARSH		A4	J		N/A N/A			
1E12 F 0562B	RESIDUAL HEAT REMOVAL SYSTEM 53101	DRESSER 7440W 2 INCH CHECK VALVE	AB-4 HARSH		A4	J		N/A N/A			
1E12 N 0001A	RESIDUAL HEAT REMOVAL SYSTEM HEAT EXCHANGER OUTLET 301 163C1544	BALSBAUGH LABS GV1-2-N/910-1T-1HN CONDUCTIVITY CELL	AB-4 HARSH	C	A3			.020 N/A	A		SP301-C34-00
1E12 N 0001B	RESIDUAL HEAT REMOVAL SYSTEM HEAT EXCHANGER OUTLET 301 163C1544	BALSBAUGH LABS GV1-2-N/910-1T-1HN CONDUCTIVITY CELL	AB-4 HARSH	C	A3			.020 N/A	A		SP301-C34-00
1E12 N 0008A	RESIDUAL HEAT REMOVAL SYSTEM RHR HEAT EXCHANGER A 301 145C3156	BARTON 352/368 LEVEL TRANSMITTER	AB-4 HARSH	C	A3			.010 N/A	A		SP301-C32-00
1E12 N 0008B	RESIDUAL HEAT REMOVAL SYSTEM RHR HEAT EXCHANGER B 301 145C3156	BARTON 352/368 LEVEL TRANSMITTER	AB-9 HARSH	C	A3			.010 N/A	A		SP301-C32-00
1E12 N 0013	RESIDUAL HEAT REMOVAL SYSTEM REACTOR HEAD SPRAY 604	ROSEMOUNT 1153 FLOW TRANSMITTER	AB-9 HARSH								
1E12 N 0058A	RESIDUAL HEAT REMOVAL SYSTEM FLOW TO REACTOR 604	ROSEMOUNT 1153GB8PAN0016 PRESSURE TRANSMITTER	CT-3 HARSH								
1E12 N 0058B	RESIDUAL HEAT REMOVAL SYSTEM FLOW TO REACTOR 604	ROSEMOUNT 1153GB8PAN0016 PRESSURE TRANSMITTER	CT-3 HARSH								
1E12 N 0061A	RESIDUAL HEAT REMOVAL SYSTEM LIMIT SWITCH FOR VLV F060A 597	TARGET ROCK 77JJ-006 POSITION SWITCH	AB-4 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y 20Y	SP597-000-02

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1E12 N 0061B	RESIDUAL HEAT REMOVAL SYSTEM LIMIT SWITCH FOR VLV F060B 597	TARGET ROCK 77JJ-006 POSITION SWITCH	AB-4 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y 20Y	SP597-000-02
1E12 N 0062A	RESIDUAL HEAT REMOVAL SYSTEM CNTMT PRESS. BOTTOM CONNECTION 301 169C8969	ROSEMOUNT 1152AP5E PRESSURE TRANSMITTER	CT-3 HARSH	C	A1	I		.050		T	SP301-C01-00
1E12 N 0062B	RESIDUAL HEAT REMOVAL SYSTEM CNTNMT PRESS. BOTTOM CONNECTION 301 169C8969	ROSEMOUNT 1152AP5E PRESSURE TRANSMITTER	CT-3 HARSH	C	A1	I		.050		T	SP301-C01-00
1E12 N 0062C	RESIDUAL HEAT REMOVAL SYSTEM CONTAINMENT PRESSURE 301 169C8969	ROSEMOUNT 1152AP5E PRESSURE TRANSMITTER	CT-3 HARSH	C	A1	I		.050		T	SP301-C01-00
1E12 N 0062D	RESIDUAL HEAT REMOVAL SYSTEM CONTAINMENT PRESSURE 301 169C8969	ROSEMOUNT 1152AP5E PRESSURE TRANSMITTER	CT-3 HARSH	C	A1	I		.050		T	SP301-C01-00
1E12 N 0076A	RESIDUAL HEAT REMOVAL SYSTEM LIMIT SWITCH FOR VLV F075A 597	TARGET ROCK 77JJ-006 POSITION SWITCH	AB-9 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y 20Y	SP597-000-02
1E12 N 0076B	RESIDUAL HEAT REMOVAL SYSTEM LIMIT SWITCH FOR VLV F075B 597	TARGET ROCK 77JJ-006 POSITION SWITCH	AB-9 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y 20Y	SP597-000-02
1 1E21 C 0001	LOW PRESSURE CORE SPRAY SYSTEM LPCS PUMP 301 283X429	BYRON JACKSON 30DX-20CKXH4 PUMP	AB-2 HARSH								
1E21 C 0001	LOW PRESSURE CORE SPRAY SYSTEM PUMP 301 283X429	GE 5K6348XC100A MOTOR	AB-2 HARSH	C		I				A	SP301-S01-00
1 1E21 C 0002	LOW PRESSURE CORE SPRAY SYSTEM WATER LEG PUMP 506	BINGHAM-WILLAMETTE 2X2X7-1/2 CAP VERTICALLY SPLIT	AB-2 HARSH		A4	J		N/A N/A			
1E21 C 0002	LOW PRESSURE CORE SPRAY SYSTEM WATER LEG PUMP 506	SIEMENS-ALLIS RG/182T MOTOR (5HP)	AB-2 HARSH	A	A4	J	YES	N/A N/A	YES	C 08Y 07M	SP506-000-01

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1 1E21 F 0001	LOW PRESSURE CORE SPRAY SYSTEM PUMP SUCT FROM SUPP POOL ISO 52102	BORG WARNER 81100 24 INCH GATE VALVES	AB-2 HARSH		A4	I		N/A 117. SEC			
1E21 F 0001	LOW PRESSURE CORE SPRAY SYSTEM PUMP SUCT FROM SUPP POOL 150 52102	LIMITORQUE SMB-1-25 MOTOR OPERATOR	AB-2 HARSH	A	A4	I	YES	N/A 117. SEC	YES	T 40Y 40Y	SP568-000-01
1E21 F 0003	LOW PRESSURE CORE SPRAY SYSTEM PUMP DISCH CHECK 52101	TRW MISSION K30SPF-V74 14 INCH CHECK VALVE	AB-4 HARSH		A4	J		N/A N/A			
1E21 F 0005	LOW PRESSURE CORE SPRAY SYSTEM LPCS TO RPV PEN P112 OUTBOARD 52102	LIMITORQUE SMB-2-80 MOTOR OPERATOR	AB-4 HARSH	A	A4	I	YES	N/A 25.9 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E21 F 0005	LOW PRESSURE CORE SPRAY SYSTEM LPCS TO RPV PEN P112 OUTBOARD 52102	BORG WARNER 81220-2 12 INCH GATE VALVES	AB-4 HARSH		A4	I		N/A 25.9 SEC			
1 1E21 F 0006	LOW PRESSURE CORE SPRAY SYSTEM LPCS TO RPV PEN P112 INBOARD 52103	ROCKWELL 4094(WCC)JQTY 12 INCH CHECK VALVES	DW-1 HARSH		A1	I		N/A N/A			
1 1E21 F 0007	LOW PRESSURE CORE SPRAY LIMIT SWITCH FOR VALVE 1E21F007 79305	NATIONAL ACME EA74020100 LIMIT SWITCH	DW-1 HARSH	C	A1	J	LATER	N/A N/A	LATER	T	
1E21 F 0011	LOW PRESSURE CORE SPRAY SYSTEM LPCS PMP MIN FLW TO SUPP POOL 52102	LIMITORQUE SMB-000-5 MOTOR OPERATOR	AB-4 HARSH	A	A4	I	YES	N/A 20.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E21 F 0011	LOW PRESSURE CORE SPRAY SYSTEM LPCS PMP MIN FLW TO SUPP POOL 52102	BORG WARNER 81110 4 INCH GATE VALVES	AB-4 HARSH		A4	I		N/A 20.0 SEC			
1E21 F 0012	LOW PRESSURE CORE SPRAY SYSTEM LPCS TEST TO SUPP POOL 52102	LIMITORQUE SMB-2-40 MOTOR OPERATOR	AB-4 HARSH	A	A4	I	YES	N/A 62.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E21 F 0012	LOW PRESSURE CORE SPRAY SYSTEM LPCS TEST TO SUPP POOL 52102	BORG WARNER 82350 12 INCH GLOBE VALVES	AB-4 HARSH		A4	I		N/A 62.0 SEC			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1E21 F 0018	LOW PRESSURE CORE SPRAY SYSTEM LPCS PMP DISCH LINE RLF 523	TARGET ROCK CORP. 76H-007 1-1/2 INCH X 2 INCH	AB-4				A4 J		N/A N/A		
1E21 F 0031	LOW PRESSURE CORE SPRAY SYSTEM LPCS PMP SUCT LINE RLF 523	TARGET ROCK CORP. 76H-003 1 INCH X 2 INCH	AB-2				A4 J		N/A N/A		
1E21 F 0033	LOW PRESSURE CORE SPRAY SYSTEM WTR LEG PMP DISCH CHECK 53101	DRESSER 7440W 1-1/2 INCH CHECK	AB-2				A4 J		N/A N/A		
1E21 F 0034	LOW PRESSURE CORE SPRAY SYSTEM WTR LEG PMP DISCH ISO 53101	DRESSER 7150W 1-1/2 INCH STOP	AB-2				A4 J		N/A N/A		
1E21 F 0501	LOW PRESSURE CORE SPRAY SYSTEM LPCS TO SUPP POOL 52101	TRW MISSION K15SEF-V75 12 INCH CHECK VALVE	AB-4				A4 J		N/A N/A		
1 1E22 C 0001	HIGH PRESSURE CORE SPRAY SYSTEM HPCS POWER SUPPLY SYSTEM PUMP 301 21A3504AR	GE 5K6357XC18A MOTOR	AB-2	C			I		N/A N/A	A	SP301-S01-00
1E22 C 0001	HIGH PRESSURE CORE SPRAY SYSTEM PUMP 301 21A3504AR	BYRON JACKSON 30DX-19CKXL12 PUMP	AB-2				I		N/A N/A		
1 1E22 C 0003	HIGH PRESSURE CORE SPRAY SYSTEM WATER LEG PUMP 506	SIEMENS-ALLIS RG/182T MOTOR (5HP)	AB-2	A			A4 J YES		N/A N/A	YES C 08Y 07M	SP506-000-01
1E22 C 0003	HIGH PRESSURE CORE SPRAY SYSTEM WATER LEG PUMP 506	BINGHAM-WILLAMETTE 2X2X7-1/2 CAP VERTICALLY SPLIT	AB-2				A4 J		N/A N/A		
1 1E22 F 0001	HIGH PRESSURE CORE SPRAY SYSTEM CST TO HPCS PUMP SUCT. ISO. MOV 301 105D5007		AB-2				I		N/A N/A		
1E22 F 0001	HIGH PRESSURE CORE SPRAY SYSTEM CST TO HPCS PUMP SUCT. ISO. 301 105D5007 G	ANCHOR SMB-00-15 MOTOR OPERATED VALVE	AB-2				I		N/A N/A		

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1E22 F 0002	HIGH PRESSURE CORE SPRAY SYSTEM CST TO HPCS PMP SUCT 52101	TRW MISSION K15SPF-V74 16 INCH CHECK VALVE	AB-2 HARSH		A4	J		N/A N/A			
1E22 F 0003	HIGH PRESSURE CORE SPRAY SYSTEM FLUSH WTR TO HPCS PMP DISCH 52102	BORG WARNER 81490-2 6 INCH CHECK VALVE	AB-8 HARSH		A4	J		N/A N/A			
1 1E22 F 0004	HIGH PRESSURE CORE SPRAY SYSTEM PUMP INJECTION SHUTOFF VALVE 301 105D5007	12.8HP MOTOR	AB-8 HARSH			I		N/A N/A			
1E22 F 0004	HIGH PRESSURE CORE SPRAY SYSTEM PUMP INJECTION SHUTOFF 301 105D5007LG	ANCHOR SB-3-100 MOTOR OPERATED VALVE	AB-8 HARSH			I					
1E22 F 0005	HIGH PRESSURE CORE SPRAY SYSTEM HPCS TO RPV ISOLATION 52103	ROCKWELL 4094(WCC)JQTY 12 INCH CHECK VALVES	DW-1 HARSH		A1	J		N/A N/A			
1E22 F 0006	HIGH PRESSURE CORE SPRAY SYSTEM WTR LEG PMP DISCH. ISD 53101	DRESSER 7150W 1-1/2 INCH CHECK VALVE	AB-2 HARSH		A4	J		N/A N/A			
1E22 F 0007	HIGH PRESSURE CORE SPRAY SYSTEM WTR LEG PMP DISCH. CHECK 53101	DRESSER 7440W 1-1/2 INCH CHECK VALVE	AB-2 HARSH		A4	J		N/A N/A			
1 1E22 F 0010	HIGH PRESSURE CORE SPRAY SYSTEM TEST BYPASS TO CST STORAGE VALVE 301 105D5007	13HP MOTOR	AB-2 HARSH			C		N/A N/A			
1E22 F 0010	HIGH PRESSURE CORE SPRAY SYSTEM TEST BYPASS TO CST STORAGE MOV 301 105D5007LG	ANCHOR SMB-4-200 MOTOR OPERATED VALVE	AB-2 HARSH			C		N/A N/A			
1 1E22 F 0011	HIGH PRESSURE CORE SPRAY SYSTEM TEST RETURN TO CST STORAGE TANK MOV 301 105D5007	13HP MOTOR	AB-2 HARSH			C		N/A N/A			
1E22 F 0011	HIGH PRESSURE CORE SPRAY SYSTEM TEST RETURN TO CST STORAGE TANK MOV 301 105D5007LG	ANCHOR SMB-4-200 MOTOR OPERATED VALVE	AB-2 HARSH			C		N/A N/A			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1 1E22 F 0012	HIGH PRESSURE CORE SPRAY SYSTEM MIN FLOW BYPASS TO SUPPRESSION POOL 301 105D5007	3.2HP MOTOR	AB-8 HARSH				I		N/A N/A		
1E22 F 0012	HIGH PRESSURE CORE SPRAY SYSTEM MIN FLOW BYPASS TO SUPPRESSION POOL 301 105D5007	ANCHOR SB-O-25 MOTOR OPERATED VALVE	AB-8 HARSH				I		N/A N/A		
1E22 F 0014	HIGH PRESSURE CORE SPRAY SYSTEM RLF FOR WTR LEG PMP SUCT LINE 523	TARGET ROCK CORP. 76H-003 1 INCH X 2 INCH	AB-2 HARSH			A4	J		N/A N/A		
1E22 F 0015	HIGH PRESSURE CORE SPRAY SYSTEM HPCS SUCT. FROM SUPP POOL 301 105D5007	ANCHOR MOTOR OPERATED VALVE	AB-2 HARSH				I		N/A N/A		
1 1E22 F 0015	HIGH PRESSURE CORE SPRAY SYSTEM HPCS SUCT FROM SUPP POOL 301 105D5007	5.3HP MOTOR	AB-2 HARSH				I		N/A N/A		
1E22 F 0016	HIGH PRESSURE CORE SPRAY SYSTEM HPCS SUCT FROM SUPP POOL 52101	TRW MISSION K15SEF-V75 12 INCH CHECK VALVE	AB-2 HARSH			A4	J		N/A N/A		
1 1E22 F 0023	HIGH PRESSURE CORE SPRAY SYSTEM HPCS TEST TO SUPP POOL 301 105D5007	10HP MOTOR	AB-8 HARSH				I		N/A N/A		
1E22 F 0023	HIGH PRESSURE CORE SPRAY SYSTEM HPCS TEST TO SUPP POOL 301 105D5007LG	LIMITORQUE SMB-4-150 MOTOR OPERATED GLOBEVALVE	AB-8 HARSH				I		N/A N/A		
1E22 F 0024	HIGH PRESSURE CORE SPRAY SYSTEM HPCS PMP DISCH CHECK 52102	BORG WARNER 81510 16 INCH CHECK VALVE	AB-2 HARSH			A4	J		N/A N/A		
1E22 F 0035	HIGH PRESSURE CORE SPRAY SYSTEM HPCS DISCH LINE RLF TO SUPP PO 523	TARGET ROCK CORP. 76H-012 1-1/2 INCH X 2 INCH RELIEF VALVE	AB-8 HARSH			A4	J		N/A N/A		
1 1E22 F 0036	HIGH PRESSURE CORE SPRAY SYSTEM LIMIT SWITCH FOR VALVE 1E22F036 79305	NATIONAL ACME EA74020100 LIMIT SWITCH	DW-1 HARSH	C		A1	J	LATER	N/A N/A	LATER T	

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION M LF/MI	SUMMARY
1E22 F 0039	HIGH PRESSURE CORE SPRAY SYSTEM THERMAL EXPANSION CHECK 53101	DRESSER 7440W 1 INCH CHECK VALVE	AB-2 HARSH			A4	J	N/A N/A			
1E31 N 0001A	LEAK DETECTION SYSTEM RHR EQUIPMENT AREA 2 AMBIENT 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-4 HARSH	C		A1	F	.005 0002 SEC		T	SP301-C03-00
1E31 N 0001B	LEAK DETECTION SYSTEM RHR EQUIPMENT AREA 2 AMBIENT 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-4 HARSH	C		A1	F	.005 0002 SEC		T	SP301-C03-00
1E31 N 0002A	LEAK DETECTION SYSTEM RHR EQUIPMENT AREA 2 VENT INLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-4 HARSH	C		A1	F	.005 0002 SEC		T	SP301-C03-00
1E31 N 0002B	LEAK DETECTION SYSTEM RHR EQUIPMENT AREA 2 VENT INLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-4 HARSH	C		A1	F	.005 0002 SEC		T	SP301-C03-00
1E31 N 0003A	LEAK DETECTION SYSTEM RHR EQUIPMENT AREA 2 VENT OUTLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-4 HARSH	C		A1	F	.005 0002 SEC		T	SP301-C03-00
1E31 N 0003B	LEAK DETECTION SYSTEM RHR EQUIPMENT AREA 2 VENT OUTLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-4 HARSH	C		A1	F	.005 0002 SEC		T	SP301-C03-00
1E31 N 0004A	LEAK DETECTION SYSTEM RCIC EQUIP AREA AMBIENT 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-3 HARSH	C		A1	F	.005 0002 SEC		T	SP301-C03-00
1E31 N 0004B	LEAK DETECTION SYSTEM RCIC EQUIP AREA AMBIENT 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-3 HARSH	C		A1	F	.005 0002 SEC		T	SP301-C03-00
1E31 N 0005A	LEAK DETECTION SYSTEM EQUIP RCIC VENT INLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-3 HARSH	C		A1	F	.005 0002 SEC		T	SP301-C03-00
1E31 N 0005B	LEAK DETECTION SYSTEM EQUIP RCIC VENT INLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-3 HARSH	C		A1	F	.005 0002 SEC		T	SP301-C03-00

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION M LF/MI	SUMMARY
1E31 N 0006A	LEAK DETECTION SYSTEM EQUIP RCIC VENT OUTLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-3 HARSH	C	A1	F		.003 0002 SEC	T		SP301-C03-00
1E31 N 0006B	LEAK DETECTION SYSTEM EQUIP RCIC VENT OUTLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-3 HARSH	C	A1	F		.005 0002 SEC	T		SP301-C03-00
1E31 N 0015A	LEAK DETECTION SYSTEM MSL 'A' GUARD PIPE 301 145C3224	PYCO 5110 TEMPERATURE ELEMENT	DW-1 HARSH	C	A3			.005 0002 SEC	T		SP301-C03-00
1E31 N 0015B	LEAK DETECTION SYSTEM MSL 'B' GUARD PIPE 301 145C3224	PYCO 5110 TEMPERATURE ELEMENT	DW-1 HARSH	C	A3			.005 0002 SEC	T		SP301-C03-00
1E31 N 0015C	LEAK DETECTION SYSTEM MSL 'C' GUARD PIPE 301 145C3224	PYCO 5110 TEMPERATURE ELEMENT	DW-1 HARSH	C	A3			.005 0002 SEC	T		SP301-C03-00
1E31 N 0015D	LEAK DETECTION SYSTEM MSL 'D' GUARD PIPE 301 145C3224	PYCO 5110 TEMPERATURE ELEMENT	DW-1 HARSH	C	A3			.005 0002 SEC	T		SP301-C03-00
1E31 N 0017A	LEAK DETECTION SYSTEM DRYWELL AMBIENT 301 145C3224	PYCO 5110 TEMPERATURE ELEMENT	DW-1 HARSH	C	A3			.005 0002 SEC	T		SP301-C03-00
1E31 N 0017B	LEAK DETECTION SYSTEM DRYWELL AMBIENT 301 145C3224	PYCO 5110 TEMPERATURE ELEMENT	DW-1 HARSH	C	A3			.005 0002 SEC	T		SP301-C03-00
1E31 N 0017C	LEAK DETECTION SYSTEM DRYWELL AMBIENT 301 145C3224	PYCO 5110 TEMPERATURE ELEMENT	DW-1 HARSH	C	A3			.005 0002 SEC	T		SP301-C03-00
1E31 N 0017D	LEAK DETECTION SYSTEM DRYWELL AMBIENT 301 145C3224	PYCO 5110 TEMPERATURE ELEMENT	DW-1 HARSH	C	A3			.005 0002 SEC	T		SP301-C03-00
1E31 N 0018A	LEAK DETECTION SYSTEM RHR EQUIPMENT AREA 1 AMBIENT 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-4 HARSH	C	A1	F		.005 0002 SEC	T		SP301-C03-00

SAFETY-RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SGRT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1E31 N 0018B	LEAK DETECTION SYSTEM RHR EQUIPMENT AREA 1 AMBIENT 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-4 HARSH	C	A1	F		.005 0002 SEC	T		SP301-C03-00
1E31 N 0021	LEAK DETECTION SYSTEM DRYWELL AIR COOLER DRAIN 301 235A1302	BARTON 7183 TURBINE FLOW XMTR	DW-1 HARSH	C	A3			N/A N/A	A		SP301-C39-00
1E31 N 0027A	LEAK DETECTION SYSTEM RHR EQUIPMENT AREA 1 VENT INLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-4 HARSH	C	A1	F		.005 0002 SEC	T		SP301-C03-00
1E31 N 0027B	LEAK DETECTION SYSTEM RHR EQUIPMENT AREA 1 VENT INLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-4 HARSH	C	A1	F		.005 0002 SEC	T		SP301-C03-00
1E31 N 0028A	LEAK DETECTION SYSTEM RHR EQUIPMENT AREA 1 VENT OUTLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-4 HARSH	C	A1	F		.005 0002 SEC	T		SP301-C03-00
1E31 N 0028B	LEAK DETECTION SYSTEM RHR EQUIPMENT AREA 1 VENT OUTLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-4 HARSH	C	A1	F		.005 0002 SEC	T		SP301-C03-00
1E31 N 0029A	LEAK DETECTION SYSTEM PIPE INL MAIN STEAM VENT INLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-7 HARSH	C	A1	F		.005 0002 SEC	T		SP301-C03-00
1E31 N 0029B	LEAK DETECTION SYSTEM PIPE INL MAIN STEAM VENT INLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-7 HARSH	C	A1	F		.005 0002 SEC	T		SP301-C03-00
1E31 N 0029C	LEAK DETECTION SYSTEM PIPE INL MAIN STEAM VENT INLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-7 HARSH	C	A1	F		.005 0002 SEC	T		SP301-C03-00
1E31 N 0029D	LEAK DETECTION SYSTEM PIPE INL MAIN STEAM VENT INLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-7 HARSH	C	A1	F		.005 0002 SEC	T		SP301-C03-00
1E31 N 0030A	LEAK DETECTION SYSTEM PIPE INL MAIN STEAM VENT OUTLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-7 HARSH	C	A1	F		.005 0002 SEC	T		SP301-C03-00

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1E31 N 0030B	LEAK DETECTION SYSTEM PIPE TNL MAIN STEAM VENT OUTLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-7 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0030C	LEAK DETECTION SYSTEM PIPE TNL MAIN STEAM VENT OUTLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-7 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0030D	LEAK DETECTION SYSTEM PIPE TNL MAIN STEAM VENT OUTLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-7 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0031A	LEAK DETECTION SYSTEM PIPE TNL MAIN STEAM AMBIENT 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-7 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0031B	LEAK DETECTION SYSTEM PIPE TNL MAIN STEAM AMBIENT 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-7 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0031C	LEAK DETECTION SYSTEM PIPE TNL MAIN STEAM AMBIENT 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-7 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0031D	LEAK DETECTION SYSTEM PIPE TNL MAIN STEAM AMBIENT 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-7 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0034A	LEAK DETECTION SYSTEM RWCU HEAT EXCHANGER AMBIENT 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	CT-5 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0034B	LEAK DETECTION SYSTEM RWCU HEAT EXCHANGER AMBIENT 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	CT-5 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0035A	LEAK DETECTION SYSTEM RWCU HEAT XGER VENT INLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	CT-8 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0035B	LEAK DETECTION SYSTEM RWCU HEAT XGER VENT INLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	CT-8 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION M LF/MI	SUMMARY
1E31 N 0036A	LEAK DETECTION SYSTEM RWCU HEAT XGER VENT OUTLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	CT-7	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0036B	LEAK DETECTION SYSTEM RWCU HEAT XGER VENT OUTLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	CT-7	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0037A	LEAK DETECTION SYSTEM RWCU PMP ROOM AMBIENT 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-5	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0037B	LEAK DETECTION SYSTEM RWCU PMP ROOM AMBIENT 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-5	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0038A	LEAK DETECTION SYSTEM RWCU PMP ROOM VENT INLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-9	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0038B	LEAK DETECTION SYSTEM RWCU PMP ROOM VENT INLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-9	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0039A	LEAK DETECTION SYSTEM RWCU PMP ROOM VENT OUTLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-5	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0039B	LEAK DETECTION SYSTEM RWCU PMP ROOM VENT OUTLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-5	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0040A	LEAK DETECTION SYSTEM RWCU PMP ROOM AMBIENT 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-5	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0040B	LEAK DETECTION SYSTEM RWCU PMP ROOM AMBIENT 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-5	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0041A	LEAK DETECTION SYSTEM RWCU PMP ROOM VENT INLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-9		A1	F		.005 0002 SEC			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY

AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SCRT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/M!	SUMMARY
1E31 N 0041B	LEAK DETECTION SYSTEM RWCU PMP ROOM VENT INLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-9 HARSH		A1	F		.005 0002 SEC			
1E31 N 0042A	LEAK DETECTION SYSTEM RWCU PMP ROOM VENT OUTLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-5 HARSH	C	A1	F		.005 0002 SEC		T	SP301-C03-00
1E31 N 0042B	LEAK DETECTION SYSTEM RWCU PMP ROOM VENT OUTLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-5 HARSH	C	A1	F		.005 0002 SEC		T	SP301-C03-00
1E31 N 0043A	LEAK DETECTION SYSTEM RWCU VALVE NEST RM AMBIENT 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-5 HARSH	C	A1	F		.005 0002 SEC		T	SP301-C03-00
1E31 N 0043B	LEAK DETECTION SYSTEM RWCU VALVE NEST RM AMBIENT 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-5 HARSH	C	A1	F		.005 0002 SEC		T	SP301-C03-00
1E31 N 0044A	LEAK DETECTION SYSTEM RWCU VALVE NEST RM VENT INLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-5 HARSH	C	A1	F		.005 0002 SEC		T	SP301-C03-00
1E31 N 0044B	LEAK DETECTION SYSTEM RWCU VALVE NEST RM VENT INLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-5 HARSH	C	A1	F		.005 0002 SEC		T	SP301-C03-00
1E31 N 0045A	LEAK DETECTION SYSTEM RWCU VALVE NEST RM VENT OUTLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-5 HARSH	C	A1	F		.005 0002 SEC		T	SP301-C03-00
1E31 N 0045B	LEAK DETECTION SYSTEM RWCU VALVE NEST RM VENT OUTLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	AB-5 HARSH	C	A1	F		.005 0002 SEC		T	SP301-C03-00
1E31 N 0046A	LEAK DETECTION SYSTEM RWCU DEMIN ROOM AMBIENT 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	CT-5 HARSH	C	A1	F		.005 0002 SEC		T	SP301-C03-00
1E31 N 0046B	LEAK DETECTION SYSTEM RWCU DEMIN ROOM AMBIENT 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	CT-5 HARSH	C	A1	F		.005 0002 SEC		T	SP301-C03-00

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEM	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1E31 N 0047A	LEAK DETECTION SYSTEM RWCU DEMIN RM VENT INLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	CT-8 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0047B	LEAK DETECTION SYSTEM RWCU DEMIN RM VENT INLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	CT-8 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0048A	LEAK DETECTION SYSTEM RWCU DEMIN RM VENT OUTLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	CT-5 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0048B	LEAK DETECTION SYSTEM RWCU DEMIN RM VENT OUTLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	CT-5 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0049A	LEAK DETECTION SYSTEM RWCU DEMIN ROOM AMBIENT 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	CT-5 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0049B	LEAK DETECTION SYSTEM RWCU DEMIN ROOM AMBIENT 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	CT-5 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0050A	LEAK DETECTION SYSTEM RWCU DEMIN RM VENT INLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	CT-8 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0050B	LEAK DETECTION SYSTEM RWCU DEMIN RM VENT INLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	CT-8 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0051A	LEAK DETECTION SYSTEM RWCU DEMIN RM VENT OUTLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	CT-5 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0051B	LEAK DETECTION SYSTEM RWCU DEMIN RM VENT OUTLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	CT-5 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0052A	LEAK DETECTION SYSTEM RWCU DEMIN VALVE RM AMBIENT 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	CT-5 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1E31 N 0052B	LEAK DETECTION SYSTEM RWCU DEMIN VALVE RM AMBIENT 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	CT-5 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0053A	LEAK DETECTION SYSTEM RWCU DEMIN VLV RM VENT INLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	CT-8 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0053B	LEAK DETECTION SYSTEM RWCU DEMIN VLV RM VENT INLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	CT-8 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0054A	LEAK DETECTION SYSTEM RWCU DEMIN VLV RM VENT OUTLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	CT-5 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0054B	LEAK DETECTION SYSTEM RWCU DEMIN VLV RM VENT OUTLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	CT-5 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0055A	LEAK DETECTION SYSTEM RWCU DEMIN REC TK AMBIENT 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	CT-5 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0055B	LEAK DETECTION SYSTEM RWCU DEMIN REC TK AMBIENT 301 145C3224	PYCO 5110 TEMPERATURE ELEMENT	CT-5 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0056A	LEAK DETECTION SYSTEM RWCU DEMIN REC TK VENT INLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	CT-4 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0056B	LEAK DETECTION SYSTEM RWCU DEMIN REC TK VENT INLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	CT-4 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0057A	LEAK DETECTION SYSTEM RWCU DEMIN REC TK VENT OUTLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	CT-5 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	
1E31 N 0057B	LEAK DETECTION SYSTEM RWCU DEMIN REC TK VENT OUTLET 301 145C3224	PYCO 102-9039-11 TEMPERATURE ELEMENT	CT-5 HARSH	C	A1	F		.005 0002 SEC	T	SP301-C03-00	

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION M LF/MI	SUMMARY
1E31 N 0075B	LEAK DETECTION SYSTEM TO MAIN CONDENSER 301 169C8391	ROSEMOUNT 1152DP5A DIFFERENTIAL	AB-9	C	A1	B		.050		T	SP301-C01-00
			HARSH								
			PRESSURE TRANSMITTER								
1E31 N 0076A	LEAK DETECTION SYSTEM SUCTION FROM RECIRC 301 169C8391	ROSEMOUNT 1152DP5A DIFFERENTIAL	CT-3	C	A1	B		.050		T	SP301-C01-00
			HARSH								
			PRESSURE TRANSMITTER								
1E31 N 0076B	LEAK DETECTION SYSTEM SUCTION FROM RECIRC 301 169C8391	ROSEMOUNT 1152 DIFFERENTIAL	CT-3	C	A1	B		.050		T	SP301-C01-00
			HARSH								
			PRESSURE TRANSMITTER								
1E31 N 0077B	LEAK DETECTION SYSTEM RETURN TO FEEDWATER 301 169C8391	ROSEMOUNT 1152 DIFFERENTIAL	AB-9	C	A1	B		.050		T	SP301-C01-00
			HARSH								
			PRESSURE TRANSMITTER								
1E31 N 0080A	LEAK DETECTION SYSTEM RHR A TO LPCS INJECTION 604	ROSEMOUNT 1153 DIFFERENTIAL	CT-3								
			HARSH								
			PRESSURE TRANSMITTER								
1E31 N 0080B	LEAK DETECTION SYSTEM RHR B TO RHR C INJECTION 604	ROSEMOUNT 1153 DIFFERENTIAL	CT-3								
			HARSH								
			PRESSURE TRANSMITTER								
1E31 N 0081	LEAK DETECTION SYSTEM HPCS REF-LEAK DETECTOR 301 163C1560	ROSEMOUNT 1151 DIFFERENTIAL	CT-3								
			HARSH								
			PRESSURE TRANSMITTER								
1E31 N 0084A	LEAK DETECTION SYSTEM RCIC/RHR STEAM FLOW 301 169C8392	ROSEMOUNT 1152DP5 DIFFERENTIAL	CT-3	C	A1	E		.050		T	SP301-C01-00
			HARSH								
			PRESSURE TRANSMITTER								
1E31 N 0084B	LEAK DETECTION SYSTEM RCIC/RHR STEAM FLOW 301 169C8392	ROSEMOUNT 1152DP5 DIFFERENTIAL	CT-3	C	A1	E		.050		T	SP301-C01-00
			HARSH								
			PRESSURE TRANSMITTER								
1E31 N 0085A	LEAK DETECTION SYSTEM RCIC/RHR STEAM FLOW 301 169C8394	ROSEMOUNT 1152GP7 DIFFERENTIAL	CT-3	C	A1	F		.050		T	SP301-C01-00
			HARSH								
			PRESSURE TRANSMITTER								
1E31 N 0085B	LEAK DETECTION SYSTEM RCIC/RHR STEAM FLOW 301 169C8394	ROSEMOUNT 1152GP7 DIFFERENTIAL	CT-3	C	A1	F		.050		T	SP301-C01-00
			HARSH								
			PRESSURE TRANSMITTER								

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RI TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1E31 N 0086A	LEAK DETECTION SYSTEM STEAM LINE A FLOW 604	ROSE MOUNT 1153DB7PAN0016 DIFFERENTIAL	CT-3				A1 F				
1E31 N 0086B	LEAK DETECTION SYSTEM STEAM LINE A FLOW 604	ROSE MOUNT 1153DB7PAN0016 DIFFERENTIAL	CT-3				A1 F				
1E31 N 0086C	LEAK DETECTION SYSTEM STEAM LINE A FLOW 604	ROSE MOUNT 1153DB7PAN0016 DIFFERENTIAL	CT-3				A1 F				
1E31 N 0086D	LEAK DETECTION SYSTEM STEAM LINE A FLOW 604	ROSE MOUNT 1153DB7PAN0016 DIFFERENTIAL	CT-3				A1 F				
1E31 N 0087A	LEAK DETECTION SYSTEM STEAM LINE B FLOW 604	ROSE MOUNT 1153DB7PAN0016 DIFFERENTIAL	CT-3				A1 F				
1E31 N 0087B	LEAK DETECTION SYSTEM STEAM LINE B FLOW 604	ROSE MOUNT 1153DB7PAN0016 DIFFERENTIAL	CT-3				A1 F				
1E31 N 0087C	LEAK DETECTION SYSTEM STEAM LINE B FLOW 604	ROSE MOUNT 1153DB7PAN0016 DIFFERENTIAL	CT-3				A1 F				
1E31 N 0087D	LEAK DETECTION SYSTEM STEAM LINE B FLOW 604	ROSE MOUNT 1153DB7PAN0016 DIFFERENTIAL	CT-3				A1 F				
1E31 N 0088A	LEAK DETECTION SYSTEM STEAM LINE C FLOW 604	ROSE MOUNT 1153DB7PAN0016 DIFFERENTIAL	CT-3				A1 F				
1E31 N 0088B	LEAK DETECTION SYSTEM STEAM LINE C FLOW 604	ROSE MOUNT 1153DB7PAN0016 DIFFERENTIAL	CT-3				A1 F				
1E31 N 0088C	LEAK DETECTION SYSTEM STEAM LINE C FLOW 604	ROSE MOUNT 1153DB7PAN0016 DIFFERENTIAL	CT-3				A1 F				

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 7EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION DEMO	M LF/MI	SUMMARY
1E31 N 0088D	LEAK DETECTION SYSTEM STEAM LINE C FLOW 604	ROSEMOUNT 1153DB7PAN0016 DIFFERENTIAL	CT-3		A1	F						
			HARSH				PRESSURE TRANSMITTER					
1E31 N 0089A	LEAK DETECTION SYSTEM STEAM LINE D FLOW 604	ROSEMOUNT 1153DB7PAN0016 DIFFERENTIAL	CT-3		A1	F						
			HARSH				PRESSURE TRANSMITTER					
1E31 N 0089B	LEAK DETECTION SYSTEM STEAM LINE D FLOW 604	ROSEMOUNT 1153DB7PAN0016 DIFFERENTIAL	CT-3		A1	F						
			HARSH				PRESSURE TRANSMITTER					
1E31 N 0089C	LEAK DETECTION SYSTEM STEAM LINE D FLOW 604	ROSEMOUNT 1153DB7PAN0016 DIFFERENTIAL	CT-3		A1	F						
			HARSH				PRESSURE TRANSMITTER					
1E31 N 0089D	LEAK DETECTION SYSTEM STEAM LINE D FLOW 604	ROSEMOUNT 1153DB7PAN0016 DIFFERENTIAL	CT-3		A1	F						
			HARSH				PRESSURE TRANSMITTER					
1E31 N 0092	LEAK DETECTION SYSTEM REACTR FLANGE LEAKAGE PRES TRANS 604	ROSEMOUNT 1153 PRESSURE TRANSMITTER	CT-4									
			HARSH									
1E31 N 0093	LEAK DETECTION SYSTEM DRYWELL SUMP MONITOR 301 145C3156	BARTON 352/368 LEVEL TRANSMITTER	DW-1	C	A3			.010		A		SP301-C32-00
			HARSH					N/A				
1E31 N 0350A	LEAK DETECTION SYSTEM MSL STEAM TUNNEL AMBIENT 596	WEED E4D250G-7A1 THERMOCOUPLE	AB-7	A	A1	J	YES	.025	YES	T	40Y	SP596-000-01
			HARSH					5.00 SFC			40Y	
1E31 N 0350B	LEAK DETECTION SYSTEM MSL STEAM TUNNEL AMBIENT 596	WEED E4D250G-7A1 THERMOCOUPLE	AB-7	A	A1	J	YES	.025	YES	T	40Y	SP596-000-01
			HARSH					5.00 SEC			40Y	
1E31 N 0350C	LEAK DETECTION SYSTEM MSL STEAM TUNNEL AMBIENT 596	WEED E4D250G-7A1 THERMOCOUPLE	AB-7	A	A1	J	YES	.025	YES	T	40Y	SP596-000-01
			HARSH					5.00 SEC			40Y	
1E31 N 0350D	LEAK DETECTION SYSTEM MSL STEAM TUNNEL AMBIENT 596	WEED E4D250G-7A1 THERMOCOUPLE	AB-7	A	A1	J	YES	.025	YES	T	40Y	SP596-000-01
			HARSH					5.00 SEC			40Y	

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1E31 N 0360A	LEAK DETECTION SYSTEM MSL TURBINE BLDG AMBIENT 596	WEED E4D250G-7A1 THERMOCOUPLE	TB-1 HARSH	A	A1	J	YES	.025 5.00 SEC	YES	T 40Y 40Y	SP596-000-01
1E31 N 0360B	LEAK DETECTION SYSTEM MSL TURBINE BLDG AMBIENT 596	WEED E4D250G-7A1 THERMOCOUPLE	TB-1 HARSH	A	A1	J	YES	.025 5.00 SEC	YES	T 40Y 40Y	SP596-000-01
1E31 N 0360C	LEAK DETECTION SYSTEM MSL TURBINE BLDG AMBIENT 596	WEED E4D250G-7A1 THERMOCOUPLE	TB-1 HARSH	A	A1	J	YES	.025 5.00 SEC	YES	T 40Y 40Y	SP596-000-01
1E31 N 0360D	LEAK DETECTION SYSTEM MSL TURBINE BLDG AMBIENT 596	WEED E4D250G-7A1 THERMOCOUPLE	TB-1 HARSH	A	A1	J	YES	.025 5.00 SEC	YES	T 40Y 40Y	SP596-000-01
1E32 B 0001A	MSIV LEAKAGE CONTROL SYSTEM MSIV-LCS HEATER 301 21A3581	GE/LOMPOC 47D518673 HEATER	AB-4 HARSH	C	A1			N/A N/A		T	SP301-S06-00
1E32 B 0001E	MSIV LEAKAGE CONTROL SYSTEM MSIV-LCS HEATER 301 21A3581	GE/LOMPOC 47D518673 HEATER	AB-4 HARSH	C	A1			N/A N/A		T	SP301-S06-00
1E32 B 0001J	MSIV LEAKAGE CONTROL SYSTEM MSIV-LCS HEATER 301 21A3581	GE/LOMPOC 47D518673 HEATER	AB-4 HARSH	C	A1			N/A N/A		T	SP301-S06-00
1E32 B 0001N	MSIV LEAKAGE CONTROL SYSTEM MSIV-LCS HEATER 301 21A3581	GE/LOMPOC 47D518673 HEATER	AB-4 HARSH	C	A1			N/A N/A		T	SP301-S06-00
1E32 C 0001	MSIV LEAKAGE CONTROL SYSTEM INBOARD AIR BLOWER 301 21A3762	GE/LOMPOC 47B518664 BLOWER	AB-4 HARSH	C	A1	I		N/A N/A		T	SP301-S07-00
1E32 C 0002B	MSIV LEAKAGE CONTROL SYSTEM INBOARD AIR BLOWER 301 21A3762	GE/LOMPOC 47A518663 BLOWER	AB-4 HARSH	C	A1	I		N/A N/A		T	SP301-S07-00
1E32 C 0002F	MSIV LEAKAGE CONTROL SYSTEM OUTBOARD AIR BLOWER 301 21A3762	GE/LOMPOC 47A518663 BLOWER	AB-4 HARSH	C	A1	I		N/A N/A		T	SP301-S07-00

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION M LF/MI	SUMMARY
1E32 F 0001A	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL ISOLATION VLV 52103	LIMITORQUE SMB-000-5 MOTOR OPERATOR	AB-7 HARSH	A	A4	J	YES	N/A 15.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E32 F 0001A	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL ISOLATION VLV 52103	ROCKWELL 12511BDDFMPQTY 2-1/2 INCH GATE	AB-7 HARSH VALVES		A4	J		N/A 15.0 SEC			
1E32 F 0001E	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL ISOLATION VLV 52103	LIMITORQUE SMB-000-5 MOTOR OPERATOR	AB-7 HARSH	A	A4	J	YES	N/A 15.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E32 F 0001E	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL ISOLATION VLV 52103	ROCKWELL 12511BDDFMPQTY 2-1/2 INCH GATE	AB-7 HARSH VALVES		A4	J		N/A 15.0 SEC			
1E32 F 0001J	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL ISOLATION VLV 52103	LIMITORQUE SMB-000-5 MOTOR OPERATOR	AB-7 HARSH	A	A4	J	YES	N/A 15.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E32 F 0001J	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL ISOLATION VLV 52103	ROCKWELL 12511BDDFMPQTY 2-1/2 INCH GATE	AB-7 HARSH VALVES		A4	J		N/A 15.0 SEC			
1E32 F 0001N	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL ISOLATION VLV 52103	LIMITORQUE SMB-000-5 MOTOR OPERATOR	AB-7 HARSH	A	A4	J	YES	N/A 15.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E32 F 0001N	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL ISOLATION VLV 52103	ROCKWELL 12511BDDFMPQTY 2-1/2 INCH GATE	AB-7 HARSH VALVES		A4	J		N/A 15.0 SEC			
1E32 F 0002A	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL ISOLATION VLV 52103	LIMITORQUE SMB-000-5 MOTOR OPERATOR	AB-7 HARSH	A	A4	J	YES	N/A 15.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E32 F 0002A	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL ISOLATION VLV 52103	ROCKWELL 12511BDDFMPQTY 2-1/2 INCH GATE	AB-7 HARSH VALVES		A4	J		N/A 15.0 SEC			
1E32 F 0002E	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL ISOLATION VLV 52103	LIMITORQUE SMB-000-5 MOTOR OPERATOR	AB-7 HARSH	A	A4	J	YES	N/A 15.0 SEC	YES	T 40Y 40Y	SP568-000-01

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION DEMO	M	LF/MI	SUMMARY
1 1E32 F 0002E	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL ISOLATION VLV 52103	ROCKWELL 12511BDDFMPQTY 2-1/2 INCH GATE	AB-7 HARSH			A4	J		N/A 15.0 SEC				
1E32 F 0002J	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL ISOLATION VLV 52103	LIMITORQUE SMB-000-5 MOTOR OPERATOR	AB-7 HARSH	A		A4	J	YES	N/A 15.0 SEC	YES	T	40Y 40Y	SP568-000-01
1 1E32 F 0002J	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL ISOLATION VLV 52103	ROCKWELL 12511BDDFMPQTY 2-1/2 INCH GATE	AB-7 HARSH			A4	J		N/A 15.0 SEC				
1E32 F 0002N	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL ISOLATION VLV 52103	LIMITORQUE SMB-000-5 MOTOR OPERATOR	AB-7 HARSH	A		A1	J	YES	N/A 15.0 SEC	YES	T	40Y 40Y	SP568-000-01
1 1E32 F 0002N	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL ISOLATION VLV 52103	ROCKWELL 12511BDDFMPQTY 2-1/2 INCH GATE	AB-7 HARSH			A1	J		N/A 15.0 SEC				
1E32 F 0003A	MSIV LEAKAGE CONTROL SYSTEM ANNULUS ISOLATION VLV 52103	LIMITORQUE SMB-000-5 MOTOR OPERATOR	AB-4 HARSH	A		A4	J	YES	N/A 15.0 SEC	YES	T	40Y 40Y	SP568-000-01
1 1E32 F 0003A	MSIV LEAKAGE CONTROL SYSTEM ANNULUS ISOLATION VLV 52103	ROCKWELL 12511BDDFMPQTY 2-1/2 INCH GATE	AB-4 HARSH			A4	J		N/A 15.0 SEC				
1E32 F 0003E	MSIV LEAKAGE CONTROL SYSTEM ANNULUS ISOLATION VLV 52103	LIMITORQUE SMB-000-5 MOTOR OPERATOR	AB-4 HARSH	A		A4	J	YES	N/A 15.0 SEC	YES	T	40Y 40Y	SP568-000-01
1 1E32 F 0003E	MSIV LEAKAGE CONTROL SYSTEM ANNULUS ISOLATION VLV 52103	ROCKWELL 12511BDDFMPQTY 2-1/2 INCH GATE	AB-4 HARSH			A4	J		N/A 15.0 SEC				
1E32 F 0003J	MSIV LEAKAGE CONTROL SYSTEM ANNULUS ISOLATION VLV 52103	LIMITORQUE SMB-000-5 MOTOR OPERATOR	AB-4 HARSH	A		A4	J	YES	N/A 15.0 SEC	YES	T	40Y 40Y	SP568-000-01
1 1E32 F 0003J	MSIV LEAKAGE CONTROL SYSTEM ANNULUS ISOLATION VLV 52103	ROCKWELL 12511BDDFMPQTY 2-1/2 INCH GATE	AB-4 HARSH			A4	J		N/A 15.0 SEC				

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION DEMO	M LF/MI	SUMMARY
1E32 F 0003N	MSIV LEAKAGE CONTROL SYSTEM ANNULUS ISOLATION VLV 52103	LIMITORQUE SMB-000-5 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 15.0 SEC	YES	T 40Y	SP568-000-01	40Y
1 1E32 F 0003N	MSIV LEAKAGE CONTROL SYSTEM ANNULUS ISOLATION VLV 52103	ROCKWELL 12511BDDFMPQTY 2-1/2 INCH GATE	AB-4 HARSH VALVES		A4	J		N/A 15.0 SEC				
1E32 F 0006	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL ISO VLV 53106	LIMITORQUE SMB-000-2 MOTOR OPERATOR	AB-7 HARSH	A	A4	J	YES	N/A 8.00 SEC	YES	T 40Y	SP568-000-01	40Y
1 1E32 F 0006	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL ISO VLV 53106	ROCKWELL 15014MPT2 2 INCH GLOBE VALVES	AB-7 HARSH		A4	J		N/A 8.00 SEC				
1E32 F 0007	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL ISO VLV 53106	LIMITORQUE SMB-000-2 MOTOR OPERATOR	AB-7 HARSH	A	A4	J	YES	N/A 8.00 SEC	YES	T 40Y	SP568-000-01	40Y
1 1E32 F 0007	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL ISO VLV 53106	ROCKWELL 15014MPT2 2 INCH GLOBE VALVES	AB-7 HARSH		A4	J		N/A 8.00 SEC				
1E32 F 0008	MSIV LEAKAGE CONTROL SYSTEM ANNULUS ISO VLV 52103	LIMITORQUE SMB-000-5 MOTOR OPERATOR	AB-7 HARSH	A	A4	J	YES	N/A 15.0 SEC	YES	T 40Y	SP568-000-01	40Y
1 1E32 F 0008	MSIV LEAKAGE CONTROL SYSTEM ANNULUS ISO VLV 52103	ROCKWELL 12511BDDFMPQTY 2-1/2 INCH GATE	AB-7 HARSH VALVES		A4	J		N/A 15.0 SEC				
1E32 F 0009	MSIV LEAKAGE CONTROL SYSTEM ANNULUS ISO VLV 52103	LIMITORQUE SMB-000-5 MOTOR OPERATOR	AB-7 HARSH	A	A4	J	YES	N/A 15.0 SEC	YES	T 40Y	SP568-000-01	40Y
1 1E32 F 0009	MSIV LEAKAGE CONTROL SYSTEM ANNULUS ISO VLV 52103	ROCKWELL 12511BDDFMPQTY 2-1/2 INCH GATE	AB-7 HARSH VALVES		A4	J		N/A 15.0 SEC				
1E32 F 0010	MSIV LEAKAGE CONTROL SYSTEM DRAIN LINE CHK VALVE LO PRESS. 53101	DRESSER 744OW 3/4 INCH CHECK VALVE	AB-7 HARSH		A4	J		N/A N/A				

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1E32 F 0011	MSIV LEAKAGE CONTROL SYSTEM DRAIN LINE CHK VLV 53101	DRESSER 7440W 3/4 INCH CHECK VALVE	AB-7 HARSH			A4	J	N/A N/A			
1E32 N 0005A	MSIV LEAKAGE CONTROL SYSTEM HEATER TEMPERATURE 301 195B9938	THERMO ELECTRIC TEMPERATURE ELEMENT	AB-4 HARSH	C	A3	I		N/A N/A		A	SP301-C38-00
1E32 N 0005E	MSIV LEAKAGE CONTROL SYSTEM HEATER TEMPERATURE 301 195B9938	THERMO ELECTRIC TEMPERATURE ELEMENT	AB-4 HARSH	C	A3	I		N/A N/A		A	SP301-C38-00
1E32 N 0005J	MSIV LEAKAGE CONTROL SYSTEM HEATER TEMPERATURE 301 195B9938	THERMO ELECTRIC TEMPERATURE ELEMENT	AB-4 HARSH	C	A3	I		N/A N/A		A	SP301-C38-00
1E32 N 0005N	MSIV LEAKAGE CONTROL SYSTEM HEATER TEMPERATURE 301 195B9938	THERMO ELECTRIC TEMPERATURE ELEMENT	AB-4 HARSH	C	A3	I		N/A N/A		A	SP301-C38-00
1E32 N 0006A	MSIV LEAKAGE CONTROL SYSTEM MAIN STM TO LOW PRESS MANIFOLD 301 169C8338	S&K 20-9651-8550 FLOW ELEMENT	AB-4 HARSH	C	A1	I		.020 N/A		T	SP301-C07-00
1E32 N 0006E	MSIV LEAKAGE CONTROL SYSTEM MAIN STM TO LOW PRESS MANIFOLD 301 169C8338	S&K 20-9651-8550 FLOW ELEMENT	AB-4 HARSH	C	A1	I		.020 N/A		T	SP301-C07-00
1E32 N 0006J	MSIV LEAKAGE CONTROL SYSTEM MAIN STM TO LOW PRESS MANIFOLD 301 169C8338	S&K 20-9651-8550 FLOW ELEMENT	AB-4 HARSH	C	A1	I		.020 N/A		T	SP301-C07-00
1E32 N 0006N	MSIV LEAKAGE CONTROL SYSTEM MAIN STM TO LOW PRESS MANIFOLD 301 169C8338	S&K 20-9651-8550 FLOW ELEMENT	AB-4 HARSH	C	A1	I		.020 N/A		T	SP301-C07-00
1E32 N 0005O	MSIV LEAKAGE CONTROL SYSTEM REACTOR PRESS 301 169C8394	ROSEMOUNT 1152GP6E PRESSURE TRANSMITTER	CT-3 HARSH	C	A1	I		.050		T	SP301-C01-00
1E32 N 0051A	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL 604	ROSEMOUNT 1153AB5PAN0016 PRESSURE TRANSMITTER	AB-9 HARSH				I				

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION M LF/MI	SUMMARY
1E32 N 0051E	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL 604	ROSEMOUNT 1153AB5PAN0016 PRESSURE TRANSMITTER	AB-9				I				
			HARSH								
1E32 N 0051J	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL 604	ROSEMOUNT 1153AB5FAN0016 PRESSURE TRANSMITTER	AB-9				I				
			HARSH								
1E32 N 0051N	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL 604	ROSEMOUNT 1153/35PAN0016 PRESSURE TRANSMITTER	AB-9				I				
			HARSH								
1E32 N 0053A	MSIV LEAKAGE CONTROL SYSTEM MAIN STM TO LOW PRESS MANIFOLD 301 169C8339	S&K 91X-16-4-20 FLOW TRANSMITTER	AB-4	C	A1	I		.020		T	SP301-C08-00
			HARSH					N/A			
1E32 N 0053E	MSIV LEAKAGE CONTROL SYSTEM MAIN STM TO LOW PRESS MANIFOLD 301 169C8339	S&K 91X-16-4-20 FLOW TRANSMITTER	AB-4	C	A1	I		.020		T	SP301-C08-00
			HARSH					N/A			
1E32 N 0053J	MSIV LEAKAGE CONTROL SYSTEM MAIN STM TO LOW PRESS MANIFOLD 301 169C8339	S&K 91X-16-4-20 FLOW TRANSMITTER	AB-4	C	A1	I		.020		T	SP301-C08-00
			HARSH					N/A			
1E32 N 0053N	MSIV LEAKAGE CONTROL SYSTEM MAIN STM TO LOW PRESS MANIFOLD 301 169C8339	S&K 91X-16-4-20 FLOW TRANSMITTER	AB-4	C	A1	I		.020		T	SP301-C08-00
			HARSH					N/A			
1E32 N 0054	MSIV LEAKAGE CONTROL SYSTEM LOW PRESS MANIFOLD 604	ROSEMOUNT 1153DB4PAN0016 DIFFERENTIAL PRESS TRANSMITTER	AB-9				I				
			HARSH								
1E32 N 0055	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL 604	ROSEMOUNT 1153GB6PAN0016 PRESSURE TRANSMITTER	AB-9				I				
			HARSH								
1E32 N 0056	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL 604	ROSEMOUNT 1153AB5PAN0016 PRESSURE TRANSMITTER	AB-9				I				
			HARSH								
1E32 N 0058	MSIV LEAKAGE CONTROL SYSTEM REACTOR PRESSURE 301 169C8394	ROSEMOUNT 1152GP6E PRESSURE TRANSMITTER	CT-3	C	A1	I		.050		T	SP301-C01-00
			HARSH								

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY

AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1E32 N 0059	MSIV LEAKAGE CONTROL SYSTEM EXHAUST BLOWER 604	ROSEMOUNT 1153DB4PAN0016 DIFFERENTIAL PRESS	AB-9				I				
1E32 N 0061A	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL 604	ROSEMOUNT 1153GB6PAN0016 PRESSURE TRANSMITTER	AB-9				I				
1E32 N 0061E	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL 604	ROSEMOUNT 1153GB6PAN0016 PRESSURE TRANSMITTER	AB-9			A1	I				
1E32 N 0061J	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL 604	ROSEMOUNT 1153GB6PAN0016 PRESSURE TRANSMITTER	AB-9			A1	I				
1E32 N 0061N	MSIV LEAKAGE CONTROL SYSTEM STEAM TUNNEL 604	ROSEMOUNT 1153GB6PAN0016 PRESSURE TRANSMITTER	AB-9			A1	I				
1E51 C 0001	REACTOR CORE ISOLATION COOLING REAC CORE ISOL COOL PUMP 301 21A9526	BINGHAM PUMP CO 6X6X10 1/2 CP PUMP	AB-3	C		A1		N/A N/A		C	SP301-S08-00
1E51 C 0002	REACTOR CORE ISOLATION COOLING PUMP TURBINE DRIVE 301 21A9526	TERRY CORP GS-2N TURBINE DRIVE	AB-3	C		A1	E	N/A N/A		C	SP301-S08-00
1E51 C 0003	REACTOR CORE ISOLATION COOLING WATER LEG PUMP 506	BINGHAM-WILLAMETTE 2X2X7-1/2 CAP VERTICALLY SPLIT	AB-4			A4	J	N/A N/A			
1 1E51 C 0003	REACTOR CORE ISOLATION COOLING WATER LEG PUMP 506	SIEMENS-ALLIS RG/182T 5HP MOTOR	AB-4	A		A4	J	YES N/A N/A	YES N/A	C 08Y 07M	SP506-000-01
1E51 F 0004	REACTOR CORE ISOLATION COOLING TURB DRN POT TO CRW ISO 60701	FISHER CONTROLS 1ES667(40) CONTROL VALVE	AB-3	A		A1	A	YES N/A 15.0 SEC	YES N/A	E 40Y 04Y	SP607-001-01
1E51 F 0005	REACTOR CORE ISOLATION COOLING TURB DRN POT TO CRW ISO 60701	FISHER CONTROLS 1ES667(40) CONTROL VALVE	AB-3	A		A1	A	YES N/A 15.0 SEC	YES N/A	E 40Y 04Y	SP607-001-01

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION M LF/MI	SUMMARY
1E51 F 0010	REACTOR CORE ISOLATION COOLING CST TO RCIC PMP ISO 52102	LIMITORQUE SMB-00-10 MOTOR OPERATOR	AB-3 HARSH	A	A4	I	YES	N/A 30.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E51 F 0010	REACTOR CORE ISOLATION COOL SYSTEM CST TO RCIC PMP ISO 52102	BORG WARNER 83470-1 6 INCH GATE VALVES	AB-3 HARSH		A4	I		N/A 30.0 SEC			
1E51 F 0011	REACTOR CORE ISOLATION COOLING CST TO RCIC PMP. 52101	TRW MISSION K15SEF-V75 6 INCH CHECK VALVE	AB-3 HARSH		A4	J		N/A N/A			
1 1E51 F 0013	REACTOR CORE ISOLATION COOL. SYSTEM P123 OUTBRD ISO MAX AP 1400PSI 52102	BORG WARNER 83490 6 INCH GATE VALVES	AB-4 HARSH		A4	E		N/A 15.0 SEC			
1E51 F 0013	REACTOR CORE ISOLATION COOLING P123 OUTBRD ISO MAX AP 1400PSI 52102	LIMITORQUE SMB-1-40 MOTOR OPERATOR	AB-4 HARSH	A	A4	E	YES	N/A 15.0 SEC	YES	T 40Y 40Y	SP568-000-01
1E51 F 0015	REACTOR CORE ISOLATION COOLING SYS OUTLET PRESS REG TO TURB LUBE COOLER 60704	TARGET ROCK CORP 8CM-001 2 INCH PRESSURE	AB-3 HARSH		A1			N/A N/A			
1E51 F 0017	REACTOR CORE ISOLATION COOLING RCIC PMP SUCT RLF TO CRW 523	TARGET ROCK CORP. 76H-003 1 INCH X 2 INCH	AB-3 HARSH		A4	J		N/A N/A			
1E51 F 0018	REACTOR CORE ISOLATION COOLING RCIC TO LUBE OIL CLR. REL. 523	TARGET ROCK CORP. 76H-004 1 INCH X 2 INCH	AB-3 HARSH		A4	J		N/A N/A			
1E51 F 0019	REACTOR CORE ISOLATION COOL. SYSTEM RCIC MIN FLOW TO SUPP POOL 53106	LIMITORQUE SMB-000-5 MOTOR OPERATOR	AB-4 HARSH	A	A4	I	YES	N/A 5.00 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E51 F 0019	REACTOR CORE ISOLATION COOL. SYSTEM RCIC MIN FLOW TO SUPP POOL 53106	ROCKWELL 15014MPT2 2 INCH GLOBE VALVES	AB-4 HARSH		A4	I		N/A 5.00 SEC			
1E51 F 0021	REACTOR CORE ISOLATION COOLING RCIC PMP MIN FLOW TO SUPP POOL 53101	DRESSER 7440W 2 INCH CHECK VALVE	AB-4 HARSH		A4	J		N/A N/A			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION M LF/MI	SUMMARY
1 1E51 F 0022	REACTOR CORE ISOLATION COOL. SYSTEM RCIC TO CST ISO DC MOTOR OPER 52102	BORG WARNER 83480 4 INCH GLOBE VALVES	AB-3 HARSH		A4	I		N/A 15.0 SEC			
1E51 F 0022	REACTOR CORE ISOLATION COOLING RCIC TO CST ISO 52102	LIMITORQUE SMB-O-25 MOTOR OPERATOR	AB-3 HARSH	A	A4	I	YES	N/A 15.0 SEC	YES	T 40Y 40Y	SP568-000-01
1E51 F 0025	REACTOR CORE ISOLATION COOLING MS DRN POT TO COND ISO 60701	FISHER CONTROLS 1DBQNS-667NS(45) CONTROL VALVE	AB-3 HARSH	A	A1	A	YES	N/A 10.0 SEC	YES	E 40Y 04Y	SP607-001-01
1E51 F 0026	REACTOR CORE ISOLATION COOLING MS DRN POT TO COND ISO 60701	FISHER CONTROLS 1DBQNS-667NS(45) CONTROL VALVE	AB-3 HARSH	A	A1	A	YES	N/A 10.0 SEC	YES	E 40Y 04Y	SP607-001-01
1E51 F 0030	REACTOR CORE ISOLATION COOLING SUPP POOL SUCT FOR RCIC PMP 52101	TRW MISSION K15SEF-V75 6 INCH CHECK VALVE	AB-3 HARSH		A4	J		N/A N/A			
1E51 F 0031	REACTOR CORE ISOLATION COOLING SUPP POOL SUCT ISO FOR RCIC PM 52102	LIMITORQUE SMB-000-5 MOTOR OPERATOR	AB-3 HARSH	A	A4	I	YES	N/A 37.5 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E51 F 0031	REACTOR CORE ISOLATION COOL. SYSTEM SUPP POOL SUCT ISO FOR RCIC PM 52102	BORG WARNER 83470 6 INCH GATE VALVES	AB-3 HARSH		A4	I		N/A 37.5 SEC			
1E51 F 0040	REACTOR CORE ISOLATION COOLING RCIC TURB. EXH TO SUPP. POOL 52101	TRW MISSION K15SEF-V75 12 INCH CHECK VALVE	AB-4 HARSH		A4	J		N/A N/A			
1 1E51 F 0045	REACTOR CORE ISOLATION COOL. SYSTEM MS TO RCIC TURB. MAX P#1145PSI 52102	BORG WARNER 83480 4 INCH GLOBE VALVES	AB-3 HARSH		A4	I		N/A 15.0 SEC			
1E51 F 0045	REACTOR CORE ISOLATION COOLING MS TO RCIC TURB. MAX P#1145PSI 52102	LIMITORQUE SMB-O-25 MOTOR OPERATOR	AB-3 HARSH	A	A4	I	YES	N/A 15.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E51 F 0046	REACTOR CORE ISOLATION COOL. SYSTEM RCIC PMP DISCH TO TURB LB OIL CLR. 53106	ROCKWELL 15014MPT2 2 INCH GLOBE VALVES	AB-3 HARSH		A4	I		N/A 5.00 SEC			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1E51 F 0046	REACTOR CORE ISOLATION COOL. SYSTEM RCIC PMP DISCH TO TURB LB OIL CLR. 53106	LIMITORQUE SMB-000-5 MOTOR OPERATOR	AB-3 HARSH	A	A4	I	YES	N/A 5.00 SEC	YES	T 40Y 40Y	SP568-000-01
1E51 F 0047	REACTOR CORE ISOLATION COOLING TURB DRN POT TO CRW 53101	DRESSER 7440W 1 INCH CHECK VALVE	AB-3 HARSH		A4	J		N/A N/A			
1E51 F 0054	REACTOR CORE ISOLATION COOLING MS DRN POT LEVEL CONT. 60701	FISHER CONTROLS 1DBQNS-667NS(45) CONTROL VALVE	AB-3 HARSH	A	A1	A	YES	N/A 10.0 SEC	YES	E 40Y 04Y	SP607-001-01
1 1E51 F 0059	REACTOR CORE ISOLATION COOL. SYSTEM RCIC TO CST ISO 52102	BORG WARNER 81190 4 INCH GATE VALVES	AB-4 HARSH		A4	I		N/A 15.0 SEC			
1E51 F 0059	REACTOR CORE ISOLATION COOLING RCIC TO CST ISO 52102	LIMITORQUE SMB-00-15 MOTOR OPERATOR	AB-4 HARSH	A	A4	I	YES	N/A 15.0 SEC	YES	T 40Y 40Y	SP568-000-01
1E51 F 0061	REACTOR CORE ISOLATION COOLING WTR LEG PMP DISCH TO RCIC PMP 53101	DRESSER 5580W 1-1/2 INCH CHECK	AB-3 HARSH		A4	J		N/A N/A			
1E51 F 0062	REACTOR CORE ISOLATION COOLING WTR LEG PMP DISCH TO RCIC PMP 53101	DRESSER 7150W 1-1/2 INCH CHECK	AB-3 HARSH		A4	J		N/A N/A			
1 1E51 F 0063	REACTOR CORE ISOLATION COOL. SYSTEM P422 INBRD ISO. PNEU TEST MAX 1145PS 52102	BORG WARNER 81210-1 10 INCH GATE VALVES	DW-1 HARSH		A1	E		N/A 19.5 SEC			
1E51 F 0063	REACTOR CORE ISOLATION COOLING P422 INBRD ISO. PNEU TEST MAX 52102	LIMITORQUE SMB-1-60 MOTOR OPERATOR	DW-1 HARSH	A	A1	E	YES	N/A 19.5 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E51 F 0064	REACTOR CORE ISOLATION COOL. SYSTEM P422 OUTBRD ISO POSSW PNEU TST 52102	BORG WARNER 81210 10 INCH GATE VALVES	AB-7 HARSH		A4	I		N/A 10.0 SEC			
1E51 F 0064	REACTOR CORE ISOLATION COOLING P422 OUTBRD ISO POSSW PNEU TST 52102	LIMITORQUE SB-1-60 MOTOR OPERATOR	AB-7 HARSH	A	A4	I	YES	N/A 10.0 SEC	YES	T 40Y 40Y	SP568-000-01

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY

AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1E51 F 0065	REACTOR CORE ISOLATION COOLING OUTBD ISO P123, TESTABLE, 52103	ROCKWELL 1570JQTY 6 INCH CHECK VALVE	AB-7 HARSH		A4	J		N/A N/A			
1 1E51 F 0066	REACTOR CORE ISOLATION COOL. SYSTEM INBRD ISO P123 PNEU TEST 52103	ROCKWELL FIG 4094(WCC) JQTY 6 INCH CHECK VALVES	DW-1 HARSH		A1	I		N/A N/A			
1 1E51 F 0068	REACTOR CORE ISOLATION COOL. SYSTEM RCIC TURB EXH TO SUPP POOL ISO 52102	BORG WARNER 81090 12 INCH GATE VALVES	AB-4 HARSH		A4	I		N/A 66.0 SEC			
1E51 F 0068	REACTOR CORE ISOLATION COOLING RCIC TURB EXH TO SUPP POOL ISO 52102	LIMITORQUE SMB-0-15 MOTOR OPERATOR	AB-4 HARSH	A	A4	I	YES	N/A 66.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E51 F 0076	REACTOR CORE ISOLATION COOL. SYSTEM BYPASS FOR F063 53106	ROCKWELL 15014MPT1 1 INCH GLOBE VALVES	DW-1 HARSH		A1	E		N/A N/A			
1E51 F 0076	REACTOR CORE ISOLATION COOL. SYSTEM BYPASS FOR F063 53106	LIMITORQUE SMB-000-2 MOTOR OPERATOR	DW-1 HARSH	A	A1	E	YES	N/A N/A	YES	T 40Y 40Y	SP568-000-01
1 1E51 F 0077	REACTOR CORE ISOLATION COOL. SYSTEM VACUUM RLF FOR RCIC TURB EXH 53106	ROCKWELL 15004MPT2 1-1/2 INCH GLOBE VALVES	AB-4 HARSH		A4	I		N/A 8.00 SEC			
1E51 F 0077	REACTOR CORE ISOLATION COOL. SYSTEM VACUUM RLF FOR RCIC TURB EXH 53106	LIMITORQUE SMB-000-2 MOTOR OPERATOR	AB-4 HARSH	A	A4	I	YES	N/A 8.00 SEC	YES	T 40Y 40Y	SP568-000-01
1 1E51 F 0078	REACTOR CORE ISOLATION COOL. SYSTEM VACUUM RLF FOR RCIC TURB EXH 53106	ROCKWELL 15014MPT2 2 INCH GLOBE VALVES	AB-4 HARSH		A4	I		N/A N/A			
1E51 F 0078	REACTOR CORE ISOLATION COOL. SYSTEM VACUUM RLF FOR RCIC TURB EXH 53106	LIMITORQUE SMB-000-2 MOTOR OPERATOR	AB-4 HARSH	A	A4	I	YES	N/A N/A	YES	T 40Y 40Y	SP568-000-01
1E51 F 0079	REACTOR CORE ISOLATION COOLING VACUUM RLF FOR RCIC TURB EXH 53101	DRESSER 5580W 1-1/2 INCH CHECK VALVE	AB-4 HARSH		A4	J		N/A N/A			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	DP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION DEMO	M	LF/MI	SUMMARY
1E51 F 0081	REACTOR CORE ISOLATION COOLING VACUUM RLF FOR RCIC TURB EXH 53101	DRESSER 5580W 1-1/2 INCH CHECK	AB-4 HARSH VALVE		A4	J		N/A N/A					
1E51 F 0090	REACTOR CORE ISOLATION COOLING THERMAL EXPANSION CHK. 53101	DRESSER 7440W 1 INCH CHECK VALVE	AB-3 HARSH		A4	J		N/A N/A					
1E51 F 0404	REACTOR CORE ISOLATION COOLING CONTROLS OPERATING AIR TO FO04 60701	ASCO NP8320A185E SOLENOID VALVE	AB-3 HARSH	A	A1	A	YES	N/A 0.15 SEC	YES	T 40Y			SP607-001-01 40Y
1E51 F 0405	REACTOR CORE ISOLATION COOLING CONTROLS OPERATING AIR TO FO05 60701	ASCO NP8320A185E SOLENOID VALVE	AB-3 HARSH	A	A1	A	YES	N/A 0.15 SEC	YES	T 40Y			SP607-001-01 40Y
1E51 F 0425	REACTOR CORE ISOLATION COOLING CONTROLS OPERATING AIR TO FO25 60701	ASCO NP8320A185E SOLENOID VALVE	AB-3 HARSH	A	A1	A	YES	N/A 0.15 SEC	YES	E 40Y			SP607-001-01 40Y
1E51 F 0426	REACTOR CORE ISOLATION COOLING CONTROLS OPERATING AIR TO FO26 60701	ASCO NP8320A185E SOLENOID VALVE	AB-3 HARSH	A	A1	A	YES	N/A 0.15 SEC	YES	E 40Y			SP607-001-01 40Y
1E51 F 0454	REACTOR CORE ISOLATION COOLING CONTROLS OPERATING AIR TO FO54 60701	ASCO NP8320A185E SOLENOID VALVE	AB-3 HARSH	A	A1	A	YES	N/A 0.15 SEC	YES	E 40Y			SP607-001-01 40Y
1 1E51 F 0510	REACTOR CORE ISOLATION COOLING RCIC TURB TRIP THROTTLE VALVE 301 21A9526	LIMITORQUE SMB-000 OPERATOR-DC	AB-3 HARSH	C	A3			N/A N/A		C			SP301-S09-00
1E51 F 0510	REACTOR CORE ISOLATION COOLING RCIC TURB TRIP THROTTLE 301 21A9526	GIMPEL MACH WORKS P-2989 VALVE	AB-3 HARSH		A1			N/A N/A					
3 1E51 F 0510	REACTOR CORE ISOLATION COOLING RCIC TURB TRIP THROTTLE VALVE 301 21A9526	MICRO SWITCH LS-PIA-20 LIMIT SWITCHES	AB-3 HARSH	C	A3			N/A N/A		C			SP301-S09-00
2 1E51 F 0510	REACTOR CORE ISOLATION COOLING RCIC TURB TRIP THROTTLE VALVE 301 21A9526	TROMBETTA G206 SOLENOID	AB-3 HARSH	C	A3			N/A N/A		C			SP301-S09-00

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1E51 N 0010	REACTOR CORE ISOLATION COOLING DRAIN TRAP LEVEL HIGH 301 159C4361	MAGNETROL 3.5-751-1X-MPG-M14HY LEVEL SWITCH	AB-3	C	A1	J		.002		T	SP301-C11-00
								N/A			
1E51 N 0035A	REACTOR CORE ISOLATION COOLING CNDS STORAGE TANK LEVEL 604	ROSEMOUNT 1153DB4PAN0016 DIFFERENTIAL PRESS	TB-2		A1	E					
1E51 N 0035E	REACTOR CORE ISOLATION COOLING CNDS STORAGE TANK LEVEL 604	ROSEMOUNT 1153DB4PAN0016 DIFFERENTIAL PRESS	TB-2		A1	E					
1E51 N 0037	REACTOR CORE ISOLATION COOLING DRAIN TRAP LEVEL HIGH 301 159C4361	MAGNETROL 3.5-751-1X-MPG-M14HY LEVEL SWITCH	AB-3	C	A1	J		.002		T	SP301-C11-00
								N/A			
1E51 N 0404	REACTOR CORE ISOLATION COOLING LIMIT SWITCH FOR VALVE FO04 79305	NATIONAL ACME EA18031302 LIMIT SWITCH	AB-3	C	A1	J	LATER	N/A	LATER T		
								N/A			
1E51 N 0405	REACTOR CORE ISOLATION COOLING LIMIT SWITCH FOR VALVE FO05 79305	NATIONAL ACME EA18031302 LIMIT SWITCH	AB-3	C	A1	A	LATER	N/A	LATER T		
								N/A			
1E51 N 0425	REACTOR CORE ISOLATION COOLING LIMIT SWITCH FOR VALVE FO25 79305	NATIONAL ACME EA18031302 LIMIT SWITCH	AB-3	C	A1	J	LATER	N/A	LATER T		
								N/A			
1E51 N 0426	REACTOR CORE ISOLATION COOLING LIMIT SWITCH FOR VALVE FO26 79305	NATIONAL ACME EA18031302 LIMIT SWITCH	AB-3	C	A1	A	LATER	N/A	LATER T		
								N/A			
1E51 N 0454	REACTOR CORE ISOLATION COOLING LIMIT SWITCH FOR VALVE FO54 79305	NATIONAL ACME EA18031302 LIMIT SWITCH	AB-3	C	A1	J	LATER	N/A	LATER T		
								N/A			
1G33 F 0001	REACTOR WATER CLEAN-UP SYSTEM PEN P131 INBOARD ISO LRL,PNEU 52102	LIMITORQUE SMB-00-15 MOTOR OPERATOR	DW-1	A	A1	J	YES	N/A	YES	T 40Y	SP568-000-01
								15.0 SEC		40Y	
1 1G33 F 0001	REACTOR WATER CLEAN-UP SYSTEM PEN P131 INBOARD ISO LRL,PNEU 52102	BORG WARNER 81200 6 INCH GATE VALVES	DW-1		A1	J		N/A			
								15.0 SEC			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION M LF/MI	SUMMARY
1G33 F 0004	REACTOR WATER CLEAN-UP SYSTEM PEN P131 OUTBOARD ISO PNEU 52102	LIMITORQUE SMB-O-25 MOTOR OPERATOR	AB-7 HARSH	A	A4	J	YES	N/A 15.0 SEC	YES	T 40Y	SP568-000-01 40Y
1 1G33 F 0004	REACTOR WATER CLEAN-UP SYSTEM PEN P 131 OUTBOARD ISO PNEU 52102	BORG WARNER 81200-2 6 INCH GATE VALVES	AB-7 HARSH		A4	J		N/A 15.0 SEC			
1G33 F 0028	REACTOR WATER CLEAN-UP SYSTEM PEN P424 INBOARD ISO 52102	LIMITORQUE SMB-00-10 MOTOR OPERATOR	CT-2 HARSH	A	A1	J	YES	N/A 15.0 SEC	YES	T 40Y	SP568-000-01 40Y
1 1G33 F 0028	REACTOR WATER CLEAN-UP ISOLATION VALVE 52102	BORG WARNER 81190-3 4 INCH GATE VALVES	CT-6 HARSH		A1	J		N/A 15.0 SEC			
1G33 F 0034	REACTOR WATER CLEAN-UP SYSTEM PEN P424 OUTBOARD ISO 52102	LIMITORQUE SMB-00-10 MOTOR OPERATOR	AB-7 HARSH	A	A4	J	YES	N/A 15.0 SEC	YES	T 40Y	SP568-000-01 40Y
1 1G33 F 0034	REACTOR WATER CLEAN-UP SYSTEM PEN P424 OUTBOARD ISO 52102	BORG WARNER 81190-2 4 INCH GATE VALVES	AB-7 HARSH		A4	J		N/A 15.0 SEC			
1G33 F 0039	REACTOR WATER CLEAN-UP SYSTEM PEN P132 OUTBOARD ISO 52102	LIMITORQUE SMB-00-25 MOTOR OPERATOR	AB-7 HARSH	A	A4	J	YES	N/A 15.0 SEC	YES	T 40Y	SP568-000-01 40Y
1 1G33 F 0039	REACTOR WATER CLEAN-UP SYSTEM PEN P 132 OUTBOARD ISO 52102	BORG WARNER 81200-1 6 INCH GATE VALVES	AB-7 HARSH		A4	J		N/A 15.0 SEC			
1G33 F 0040	REACTOR WATER CLEAN-UP SYSTEM PEN P132 INBOARD ISO 52102	LIMITORQUE SMB-O-25 MOTOR OPERATOR	CT-6 HARSH	A	A1	J	YES	N/A 15.0 SEC	YES	T 40Y	SP568-000-01 40Y
1 1G33 F 0040	REACTOR WATER CLEAN-UP SYSTEM PEN P132 INBOARD ISO 52102	BORG WARNER 81200-1 6 INCH GATE VALVES	CT-6 HARSH		A1	J		N/A 15.0 SEC			
1G33 F 0052A	REACTOR WATER CLEAN-UP SYSTEM RWCU TO RHR A TO FW A 52102	BORG WARNER 83210 6 INCH CHECK VALVE	AB-7 HARSH		A4	J		N/A N/A			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION M LF/MI	SUMMARY
1G33 F 0052B	REACTOR WATER CLEAN-UP SYSTEM RWCU TO RHR B TO FW B 52102	BORG WARNER 83210 6 INCH CHECK VALVE	AB-7 HARSH		A4	J		N/A N/A			
1G33 F 0053	REACTOR WATER CLEAN-UP SYSTEM PEN P419 INBOARD ISO 52102	LIMITORQUE SMB-00-10 MOTOR OPERATOR	CT-6 HARSH	A	A1	J	YES	N/A 15.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1G33 F 0053	REACTOR WATER CLEAN-UP SYSTEM PEN P419 INBOARD ISO 52102	BORG WARNER 81190-3 4 INCH GATE VALVES	CT-6 HARSH		A1	J		N/A 15.0 SEC			
1G33 F 0054	REACTOR WATER CLEAN-UP SYSTEM PEN P419 OUTBOARD ISO 52102	LIMITORQUE SMB-00-10 MOTOR OPERATOR	AB-7 HARSH	A	A4	J	YES	N/A 15.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1G33 F 0054	REACTOR WATER CLEAN-UP SYSTEM PEN P419 OUTBOARD ISO 52102	BORG WARNER 81190-3 4 INCH GATE VALVES	AB-7 HARSH		A4	J		N/A 15.0 SEC			
1G33 N 0007	REACTOR WATER CLEAN-UP SYSTEM HX TUBE OUTLET 301 136B3207	WEED N/A THERMISTOR PROBE	CT-5 HARSH	C	A3			.007 N/A		A	SP301-C21-00
1G33 N 0008	REACTOR WATER CLEAN-UP SYSTEM TEMP SWITCH W/IND 301 136B2186	FENWAL 56100-63 TEMPERATURE CONT	CT-3 HARSH	C	A3			N/A N/A		A	SP301-C22-00
1G41 F 0090	FUEL POOL COOLING & CLEAN-UP SYSTEM CONTAINMENT POOL INFLUENT, FL 524	LIMITORQUE SMB-0002 MOTOR OPERATOR	FB-3 HARSH	A	A4	J	YES	N/A 30.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1G41 F 0090	FUEL POOL COOLING & CLEAN-UP SYSTEM 524	CONTROMATICS C-W2566-CC 8 INCH BUTTERFLY	FB-3 HARSH		A4	J		N/A 30.0 SEC			
1G41 F 0140	FUEL POOL COOLING & CLEAN-UP SYSTEM INBOARD CONTAINMENT ISOL. EFFL 524	LIMITORQUE SMB-0002 MOTOR OPERATOR	CT-3 HARSH	A	A1	J	YES	N/A 30.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1G41 F 0140	FUEL POOL COOLING & CLEAN-UP SYSTEM INBOARD CONTAINMENT ISOL. EFFL 524	CONTROMATICS C-W2566-CC 10 INCH BUTTERFLY	CT-3 HARSH		A1	J		N/A 30.0 SEC			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION M LF/MI	SUMMARY
1G41 F 0522	FUEL POOL COOLING & CLEAN-UP SYSTEM CONTAINMENT ISOL. 52101	TRW MISSION K15CEF-V77 8 INCH CHECK VALVE	CT-3 HARSH		A1	J		N/A N/A			
1 1G42 F 0010	SUPPRESSION POOL DRAIN & CLEAN-UP SPCU. PUMP SUCT. ISOL. 524	CONTROMATICS C-W2566-BB 12 INCH BUTTERFLY	AB-2 HARSH		A4	J		N/A 30.0 SEC			
1G42 F 0010	SUPPRESSION POOL DRAIN & CLEAN-UP SPCU. PUMP SUCT. ISOL. 524	LIMITORQUE SMB MOTOR OPERATOR	AB-2 HARSH	A	A4	J	YES	N/A 30.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1G42 F 0020	SUPPRESSION POOL DRAIN & CLEAN-UP SPCU. PUMP SUCT. ISOL. 524	CONTROMATICS C-W2566-BB 12 INCH BUTTERFLY	AB-2 HARSH		A4	J		N/A 30.0 SEC			
1G42 F 0020	SUPPRESSION POOL DRAIN & CLEAN-UP SPCU. PUMP SUCT. ISOL. 524	LIMITORQUE SMB MOTOR OPERATOR	AB-2 HARSH	A	A4	J	YES	N/A 30.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1G43 F 0030A	SUPPRESSION POOL MAKE-UP SYSTEM SUPPRESSION POOL MAKE-UP 524	CONTROMATICS C-W2566-CC 24 INCH BUTTERFLY	CT-8 HARSH		A1	J		N/A 30.0 SEC			
1G43 F 0030A	SUPPRESSION POOL MAKE-UP SYSTEM SUPPRESSION POOL MAKEUP 524	LIMITORQUE SMB-0010 MOTOR OPERATOR	CT-8 HARSH	A	A1	J	YES	N/A 30.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1G43 F 0030B	SUPPRESSION POOL MAKE-UP SYSTEM SUPPRESSION POOL MAKE-UP 524	CONTROMATICS C-W2566-CC 24 INCH BUTTERFLY	CT-7 HARSH		A1	J		N/A 30.0 SEC			
1G43 F 0030F	SUPPRESSION POOL MAKE-UP SYSTEM SUPPRESSION POOL MAKEUP 524	LIMITORQUE SMB-0010 MOTOR OPERATOR	CT-7 HARSH	A	A1	J	YES	N/A 30.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1G43 F 0040A	SUPPRESSION POOL MAKE-UP SYSTEM SUPPRESSION POOL MAKE-UP 524	CONTROMATICS C-W2566-CC 24 INCH BUTTERFLY	CT-8 HARSH		A1	J		N/A 30.0 SEC			
1G43 F 0040A	SUPPRESSION POOL MAKE-UP SYSTEM SUPPRESSION POOL MAKEUP 524	LIMITORQUE SMB-0010 MOTOR OPERATOR	CT-8 HARSH	A	A1	J	YES	N/A 30.0 SEC	YES	T 40Y 40Y	SP568-000-01

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY

AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1 1G43 F 0040B	SUPPRESSION POOL MAKE-UP SYSTEM SUPPRESSION POOL MAKE-UP 524	CONTROMATICS C-W2566-CC 24 INCH BUTTERFLY	CT-7 HARSH		A1	J		N/A 30.0 SEC			
1G43 F 0040B	SUPPRESSION POOL MAKE-UP SYSTEM SUPPRESSION POOL MAKEUP 524	LIMITORQUE SMB-0010 MOTOR OPERATOR	CT-7 HARSH	A	A1	J	YES	N/A 30.0 SEC	YES	T 40Y 40Y	SP568-000-01
1G43 F 0050A	SUPPRESSION POOL MAKE-UP SYSTEM SUPPRESSION POOL LEVEL TRANSMI 597	TARGET ROCK 77JJ-003 SOLENOID VALVE	AB-4 HARSH	A	A1	J	YES	N/A 0.25 SEC	YES	C 40Y 20Y	SP597-000-02
1G43 F 0050B	SUPPRESSION POOL MAKE-UP SYSTEM SUPPRESSION POOL LEVEL TRANSMI 597	TARGET ROCK 77JJ-003 SOLENOID VALVE	AB-4 HARSH	A	A1	J	YES	N/A 0.25 SEC	YES	C 40Y 20Y	SP597-000-02
1G43 F 0060	SUPPRESSION POOL MAKE-UP SYSTEM SUPPRESSION POOL LEVEL TRANSMI 597	TARGET ROCK 77JJ-003 SOLENOID VALVE	AB-2 HARSH	A	A1	J	YES	N/A 0.25 SEC	YES	C 40Y 20Y	SP597-000-02
1G43 F 0508A	SUPPRESSION POOL MAKE-UP SYSTEM THERMAL EXPANSION CHECK 53101	DRESSER 5580W 2 INCH CHECK VALVE	CT-3 HARSH		A1	J		N/A N/A			
1G43 F 0508B	SUPPRESSION POOL MAKE-UP SYSTEM THERMAL EXPANSION CHECK 53101	DRESSER 5580W 2 INCH CHECK VALVE	CT-3 HARSH		A1	J		N/A N/A			
1G43 N 0010A	SUPPRESSION POOL MAKE-UP SYSTEM FUEL STRG POOL WATER TEMP 596	WEED 611-1A-D-4-C-115-A20 RESISTANCE	CT-4 HARSH	A	A1	J	YES	.005 5.00 SEC	YES	T 40Y 40Y	SP596-000-01
1G43 N 0010B	SUPPRESSION POOL MAKE-UP SYSTEM SEPARATOR STRG WELL WATER TEMP 596	WEED 611-1A-D-4-C-115-A20 RESISTANCE	CT-4 HARSH	A	A1	J	YES	.005 5.00 SEC	YES	T 40Y 40Y	SP596-000-01
1G43 N 0020A	SUPPRESSION POOL MAKE-UP SYSTEM UPPER POOL LEVEL 604	ROSEMOUNT 1153DB5 LEVEL TRANSMITTER	CT-8 HARSH	C	A1	J	LATER	.003 0.50 SEC	LATER		
1G43 N 0020B	SUPPRESSION POOL MAKE-UP SYSTEM UPPER POOL LEVEL 604	ROSEMOUNT 1153DB5 LEVEL TRANSMITTER	CT-7 HARSH	C	A1	J	LATER	.003 0.50 SEC	LATER		

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1G43 N 0051A	SUPPRESSION POOL MAKE-UP SYSTEM POSITION SWITCH FOR VLV F050A 597	TARGET ROCK 77JJ-003 POSITION SWITCH	AB-4 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y 20Y	SP597-000-02
1G43 N 0051B	SUPPRESSION POOL MAKE-UP SYSTEM POSITION SWITCH FOR VLV F050B 597	TARGET ROCK 77JJ-003 POSITION SWITCH	AB-4 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y 20Y	SP597-000-02
1G43 N 0061	SUPPRESSION POOL MAKE-UP SYSTEM POSITION SWITCH FOR VLV F060 597	TARGET ROCK 77JJ-003 POSITION SWITCH	AB-2 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y 20Y	SP597-000-02
1G43 N 0090A	SUPPRESSION POOL MAKE-UP SYSTEM SUPP PL LEVEL-EXTENDED WIDE RNG 604	ROSEMOUNT 1153DB5 LEVEL TRANSMITTER	AB-1 HARSH	A	A1	J	YES	.003 0.20 SEC	YES	T 10Y 10Y	SP604-000-03
1G43 N 0090B	SUPPRESSION POOL MAKE-UP SYSTEM SUPP PL LEVEL-EXTENDED WIDE RNG 604	ROSEMOUNT 1153DB5 LEVEL TRANSMITTER	AB-4 HARSH	A	A1	J	YES	.003 0.20 SEC	YES	T 10Y 10Y	SP604-000-03
1 1G50 F 0272	LIQUID RADWASTE SYSTEM CONTAINMENT ISOL. RBTP DISCH. 52102	BORG WARNER 81110 4 INCH GATE VALVES	CT-6 HARSH		A4	J		N/A 20.0 SEC			
1G50 F 0272	LIQUID RADWASTE SYSTEM CONTAINMENT ISOL. RBTP DISCH. 52102	LIMITORQUE SMB-000-5 MOTOR OPERATOR	CT-6 HARSH	A	A4	J	YES	N/A 20.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1G50 F 0277	LIQUID RADWASTE SYSTEM CONTAINMENT ISOL. RBTP DISCH. 52102	BORG WARNER 81110 4 INCH GATE VALVES	AB-7 HARSH		A4	J		N/A 20.0 SEC			
1G50 F 0277	LIQUID RADWASTE SYSTEM CONTAINMENT ISOL. RBTP DISCH. 52102	LIMITORQUE SMB-000-5 MOTOR OPERATOR	AB-7 HARSH	A	A4	J	YES	N/A 20.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1G61 F 0030	LIQUID RADWASTE SUMPS SYSTEM DRYWELL ISOL.-OUTSIDE DRYWELL 52102	BORG WARNER 81050 2-1/2 INCH GATE	CT-2 HARSH		A1	J		N/A 16.5 SEC			
1G61 F 0030	LIQUID RADWASTE SUMPS SYSTEM DRYWELL ISOL.-OUTSIDE DRYWELL 52102	LIMITORQUE SMB-000-5 MOTOR OPERATOR	CT-2 HARSH	A	A1	J	YES	N/A 16.5 SEC	YES	T 40Y 40Y	SP568-000-01

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY

SELECT : 47EH

AS OF 00352 05/04/83

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1 1G61 F 0035	LIQUID RADWASTE SUMPS SYSTEM DRYWELL ISOL.-OUTSIDE DRYWELL 52102	BORG WARNER 81050 2-1/2 INCH GATE	CT-2 HARSH		A1	J		N/A 16.5 SEC			
1G61 F 0035	LIQUID RADWASTE SUMPS SYSTEM DRYWELL ISOL.-OUTSIDE DRYWELL 52102	LIMITORQUE SMB-000-5 MOTOR OPERATOR	CT-2 HARSH	A	A1	J	YES	N/A 16.5 SEC	YES	T 40Y 40Y	SP568-000-01
1 1G61 F 0075	LIQUID RADWASTE SUMPS SYSTEM CONTAINMENT ISOL.-INSIDE CONTA 52102	BORG WARNER 81060 3 INCH GATE VALVES	CT-2 HARSH		A1	J		N/A 22.0 SEC			
1G61 F 0075	LIQUID RADWASTE SUMPS SYSTEM CONTAINMENT ISOL.-INSIDE CONTA 52102	LIMITORQUE SMB-000-5 MOTOR OPERATOR	CT-2 HARSH	A	A1	J	YES	N/A 22.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1G61 F 0080	LIQUID RADWASTE SUMPS SYSTEM CONTAINMENT ISOL. OUTSIDE CONT. 52102	BORG WARNER 81060 3 INCH GATE VALVES	AB-4 HARSH		A4	J		N/A 22.0 SEC			
1G61 F 0080	LIQUID RADWASTE SUMPS SYSTEM CONTAINMENT ISOL. OUTSIDE CONT. 52102	LIMITORQUE SMB-000-5 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 22.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1G61 F 0150	LIQUID RADWASTE SUMPS SYSTEM DRYWELL ISOL.-OUTSIDE DRYWELL 52102	BORG WARNER 81050-1 2-1/2 INCH GATE	CT-2 HARSH		A1	J		N/A 16.5 SEC			
1G61 F 0150	LIQUID RADWASTE SUMPS SYSTEM DRYWELL ISOL.-OUTSIDE DRYWELL 52102	LIMITORQUE SMB-000-5 MOTOR OPERATOR	CT-2 HARSH	A	A1	J	YES	N/A 16.5 SEC	YES	T 40Y 40Y	SP568-000-01
1 1G61 F 0155	LIQUID RADWASTE SUMPS SYSTEM DRYWELL ISOL.-OUTSIDE DRYWELL 52102	BORG WARNER 81050 2-1/2 INCH GATE	CT-2 HARSH		A1	J		N/A 16.5 SEC			
1G61 F 0155	LIQUID RADWASTE SUMPS SYSTEM DRYWELL ISOL.-OUTSIDE DRYWELL 52102	LIMITORQUE SMB-000-5 MOTOR OPERATOR	CT-2 HARSH	A	A1	J	YES	N/A 16.5 SEC	YES	T 40Y 40Y	SP568-000-01
1 1G61 F 0165	LIQUID RADWASTE SUMPS SYSTEM CONT. ISOL.-INSIDE CONT. 52102	BORG WARNER 81060 3 INCH GATE VALVES	CT-2 HARSH		A1	J		N/A 22.0 SEC			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1G61 F 0165	LIQUID RADWASTE SUMPS SYSTEM CONT. ISOL.- INSIDE CONT. 52102	LIMITORQUE SMB-000-5 MOTOR OPERATOR	CT-2 HARSH	A	A1	J	YES	N/A 22.0 SEC	YES	T 40Y	SP568-000-01 40Y
1 1G61 F 0170	LIQUID RADWASTE SUMPS SYSTEM CONT. ISOL.-OUTSIDE CONT. 52102	BORG WARNER 81060 3 INCH GATE VALVES	AB-4 HARSH		A4	J		N/A 22.0 SEC			
1G61 F 0170	LIQUID RADWASTE SUMPS SYSTEM CONT. ISOL.-OUTSIDE CONT. 52102	LIMITORQUE SMB-000-5 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 22.0 SEC	YES	T 40Y	SP568-000-01 40Y
1G61 N 0525A	LIQUID RADWASTE SUMPS SYSTEM CC FLOODING-AUX BLDG-EL 599' 600	MAGNETROL FLS LEVEL SWITCH	AB-9 HARSH	B			LATER		LATER T		
1G61 N 0525B	LIQUID RADWASTE SUMPS SYSTEM CC FLOODING-AUX BLDG-EL 599' 600	MAGNETROL FLS LEVEL SWITCH	AB-9 HARSH	B			LATER		LATER T		
1H22 P 0002	LOCAL PANELS AND RACKS - GE REAC WTR CLEAN UP INSTR RACK 301 164C5901	GE N/A INSTR RACK	CT-4 HARSH		A1	I		N/A N/A			
1H22 P 0004A	LOCAL PANELS AND RACKS - GE RV LEVEL AND PRESS INSTR RACK - A 301 865E222	GE N/A INSTR RACK	CT-3 HARSH		A1	I		N/A N/A			
1H22 P 0004B	LOCAL PANELS AND RACKS - GE RV LEVEL AND PRESS INSTR RACK - A 301 865E222	GE N/A INSTR RACK	CT-3 HARSH		A1	I		N/A N/A			
1H22 P 0004C	LOCAL PANELS AND RACKS - GE RV LEVEL AND PRESS INSTR RACK - A 301 865E222	GE N/A INSTR RACK	CT-3 HARSH		A1	I		N/A N/A			
1H22 P 0005	LOCAL PANELS AND RACKS - GE RV LEVEL AND PRES INSTR RACK C 301 164C5902	GE N/A INSTR RACK	CT-3 HARSH		A1	I		N/A N/A			
1H22 P 0011	LOCAL PANELS AND RACKS - GE STANDBY LIQ CONTROL INSTR RACK 301 164C5905	GE N/A INSTR RACK	CT-4 HARSH		A1	I		N/A N/A			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1H22 P 0015	LOCAL PANELS AND RACKS - GE MAIN STEAM FLOW INSTRUMNT RACK A 301 133D9951	GE N/A INSTR RACK	CT-3 HARSH		A1	I		N/A N/A			
1H22 P 0025	LOCAL PANELS AND RACKS - GE MAIN STEAM FLOW INSTR RACK B 301 164C5910	GE N/A INSTR RACK	CT-3 HARSH		A1	I		N/A N/A			
1H22 P 0026	LOCAL PANELS AND RACKS - GE RV LVL & PRES INSTR RACK D 301 164C5911	GE N/A RV LVL & PRESS INSTR RACK	CT-3 HARSH		A1	I		N/A N/A			
1H22 P 0027	LOCAL PANELS AND RACKS - GE RV LVL & PRES INSTR RACK B 301 133D9953	GE N/A INSTR RACK	CT-3 HARSH		A1	I		N/A N/A			
1H22 P 0041	LOCAL PANELS AND RACKS - GE MAIN STM FLOW INSTR RACK - D 301 164C5912	GE N/A INSTR RACK	CT-3 HARSH		A1	I		N/A N/A			
1H22 P 0042	LOCAL PANELS AND RACKS - GE MAIN STM FLOW INSTR RACK - C 301 164C5913	GE N/A INSTR RACK	CT-3 HARSH		A1	I		N/A N/A			
1H22 P 0071	LOCAL PANELS AND RACKS - GE ROD POSITION MULTIPLEXER CAB A - 1 301 865E133BA	GE N/A MULTIPLEXER CAB	CT-3 HARSH	C	A3	J		N/A N/A		A	SP301-C27-00
1H22 P 0072	LOCAL PANELS AND RACKS - GE ROD POSITION MULTIPLEXER CAB B - 1 301 865E133BA	GE N/A MULTIPLEXER CAB	CT-3 HARSH	C	A3	J		N/A N/A		A	SP301-C27-00
1H22 P 0073	LOCAL PANELS AND RACKS - GE MSIV LEAKAGE TRANSMITTER RACK 301 169C8780	GE N/A INSTR RACK	AB-9 HARSH		A1	I		N/A N/A			
1H22 P 0074	LOCAL PANELS AND RACKS - GE MSIV LEAKAGE TRANSMITTER RACK 301 169C8781	GE N/A INSTR RACK	AB-9 HARSH		A1	I		N/A N/A			
1H51 P 0037	LOCAL PANELS AND RACKS - NON GE PUMP RM COOL HVAC CONTROL PANEL 594	COMSIP-CUSTOMLINE B-809-073 CONTROL PANEL-FLOOR MOUNTED-ENCLOSED	AB-9 HARSH	B	P		LATER	N/A N/A	LATER	40Y	

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION DEMO	M	LF/MI	SUMMARY
1M14 F 0040	CONTAINMENT VESSEL AND DRYWELL PURGE CONTAINMENT PURGE SUPPLY ISO. 641	HENRY PRATT COMPANY 1200NRS BUTTERFLY VALVE	CT-0			A1	J		N/A				
			HARSH						04.0 SEC				
1 1M14 F 0040	CONTAINMENT VESSEL AND DRYWELL PURGE SUPPLY AIR VALVE ACTUATOR 641	BETTIS CORP T-420-SR2 PNEUMATIC CYLINDER	CT-0			A1	J		N/A				
			HARSH						04.0 SEC				
			VALVE OPERATOR										
1M14 F 0043	CONTAINMENT VESSEL AND DRYWELL PURGE OP AIR TO FO40 641	ASCO NP8316A75E SOLENOID	CT-0		A	A3	J	YES	N/A	YES	C 40Y	SP641-000-04	
			HARSH						15.0 SEC		08Y		
1 1M14 F 0045	CONTAINMENT VESSEL AND DRYWELL PURGE SUPPLY AIR VALVE ACTUATOR 641	BETTIS CORP T-420-SR2 PNEUMATIC CYLINDER	CT-1			A1	J		N/A				
			HARSH						04.0 SEC				
			VALVE OPERATOR										
1M14 F 0045	CONTAINMENT VESSEL AND DRYWELL PURGE CNT PURGE SUPPLY ISOL. 641	HENRY PRATT COMPANY 1200NRS BUTTERFLY VALVE	CT-1			A1	J		N/A				
			HARSH						04.0 SEC				
1M14 F 0048	CONTAINMENT VESSEL AND DRYWELL PURGE OP AIR TO FO45 641	ASCO NP8316A75E SOLENOID	CT-1		A	A3	J	YES	N/A	YES	C 40Y	SP641-000-04	
			HARSH						15.0 SEC		08Y		
1M14 F 0055A	CONTAINMENT VESSEL AND DRYWELL PURGE DW PURGE SUPPLY ISOL. 641	HENRY PRATT COMPANY 1200NRS BUTTERFLY VALVE	DW-1			A1	J		N/A				
			HARSH						04.0 SEC				
1 1M14 F 0055A	CONTAINMENT VESSEL AND DRYWELL PURGE SUPPLY AIR VALVE ACTUATOR 641	BETTIS CORP T-312-SR2 PNEUMATIC CYLINDER	DW-1			A1	J		N/A				
			HARSH						04.0 SEC				
			VALVE OPERATOR										
1M14 F 0055B	CONTAINMENT VESSEL AND DRYWELL PURG DW PURGE SUPPLY ISOL. 641	HENRY PRATT COMPANY 1200NRS BUTTERFLY VALVE	CT-3			A1	J		N/A				
			HARSH						04.0 SEC				
1 1M14 F 0055B	CONTAINMENT VESSEL AND DRYWELL PURGE SUPPLY AIR VALVE ACTUATOR 641	BETTIS CORP T-312-SR2 PNEUMATIC CYLINDER	CT-3			A1	J		N/A				
			HARSH						04.0 SEC				
			VALVE OPERATOR										
1M14 F 0058A	CONTAINMENT VESSEL AND DRYWELL PURGE OP AIR TO FO55A 641	ASCO NP8316A75E SOLENOID	DW-1		A	A3	J	YES	N/A	YES	C 40Y	SP641-000-04	
			HARSH						15.0 SEC		08Y		

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY

AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION DEMO	M LF/MI	SUMMARY
1M14 F 0058B	CONTAINMENT VESSEL AND DRYWELL PURGE OP AIR TO F055B 641	ASCO NP8316A75E SOLENOID	CT-3	A	A3	J	YES	N/A	YES	C 40Y	SP641-000-04	08Y
1M14 F 0060A	CONTAINMENT VESSEL AND DRYWELL PURGE DW PURGE SUPPLY ISOL. 641	HENRY PRATT COMPANY 1200NRS BUTTERFLY VALVE	DW-1 HARSH		A1	J		N/A	04.0 SEC			
1 1M14 F 0060A	CONTAINMENT VESSEL AND DRYWELL PURGE SUPPLY AIR VALVE ACTUATOR 641	BETTIS CORP T-312-SR2 PNEUMATIC CYLINDER	DW-1 HARSH		A1	J		N/A	04.0 SEC			
1M14 F 0060B	CONTAINMENT VESSEL AND DRYWELL PURGE DW PURGE SUPPLY ISOL. 641	HENRY PRATT COMPANY 1200NRS BUTTERFLY VALVE	CT-4 HARSH		A1	J		N/A	04.0 SEC			
1 1M14 F 0060B	CONTAINMENT VESSEL AND DRYWELL PURGE SUPPLY AIR VALVE ACTUATOR 641	BETTIS CORP T-312-SR2 PNEUMATIC CYLINDER	CT-4 HARSH		A1	J		N/A	04.0 SEC			
1M14 F 0063A	CONTAINMENT VESSEL AND DRYWELL PURGE OP AIR TO F060A 641	ASCO NP8316A75E SOLENOID	DW-1 HARSH	A	A3	J	YES	N/A	YES	C 40Y	SP641-000-04	08Y
1M14 F 0063B	CONTAINMENT VESSEL AND DRYWELL PURGE OP AIR TO F060B 641	ASCO NP8316A75E SOLENOID	CT-4 HARSH	A	A3	J	YES	N/A	YES	C 40Y	SP641-000-04	08Y
1M14 F 0065	CONTAINMENT VESSEL AND DRYWELL PURGE DW PURGE EXHAUST ISOL. 641	HENRY PRATT COMPANY 1200NRS BUTTERFLY VALVE	CT-4 HARSH		A1	J		N/A	04.0 SEC			
1 1M14 F 0065	CONTAINMENT VESSEL AND DRYWELL PURGE EXHAUST AIR VALVE ACTUATOR 641	BETTIS CORP T-416-SR2 PNEUMATIC CYLINDER	CT-4 HARSH		A1	J		N/A	04.0 SEC			
1M14 F 0068	CONTAINMENT VESSEL AND DRYWELL PURGE OP AIR TO F065 641	ASCO NP8316A75E SOLENOID	CT-4 HARSH	A	A3	J	YES	N/A	YES	C 40Y	SP641-000-04	08Y
1 1M14 F 0070	CONTAINMENT VESSEL AND DRYWELL PURGE EXHAUST AIR VALVE ACTUATOR 641	BETTIS CORP T-416-SR2 PNEUMATIC CYLINDER	CT-4 HARSH		A1	J		N/A	04.0 SEC			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION M LF/MI	SUMMARY
1M14 F 0070	CONTAINMENT VESSEL AND DRYWELL PURGE DW PURGE EXHAUST ISOL. 641	HENRY PRATT COMPANY 1200NRS BUTTERFLY VALVE	CT-4 HARSH		A1	J		N/A 04.0 SEC			
1M14 F 0073	CONTAINMENT VESSEL AND DRYWELL PURGE OP AIR TO F070 641	ASCO NP8316A75E SOLENOID	CT-4 HARSH	A	A3	J	YES	N/A 15.0 SEC	YES	C 40Y OBY	SP641-000-04
1M14 F 0085	CONTAINMENT VESSEL AND DRYWELL PURGE CNT PURGE EXHAUST ISOL. 641	HENRY PRATT COMPANY 1200NRS BUTTERFLY VALVE	CT-4 HARSH		A1	J		N/A 04.0 SEC			
1 1M14 F 0085	CONTAINMENT VESSEL AND DRYWELL PURGE EXHAUST AIR VALVE ACTUATOR 641	BETTIS CORP T-420-SR2 PNEUMATIC CYLINDER	CT-4 HARSH		A1	J		N/A 04.0 SEC			
1M14 F 0088	CONTAINMENT VESSEL AND DRYWELL PURGE OP AIR TO F085 641	ASCO NP8316A75E SOLENOID	CT-4 HARSH	A	A3	J	YES	N/A 15.0 SEC	YES	C 40Y OBY	SP641-000-04
1 1M14 F 0090	CONTAINMENT VESSEL AND DRYWELL PURGE EXHAUST AIR VALVE ACTUATOR 641	BETTIS CORP T-420-SR2 PNEUMATIC CYLINDER	CT-0 HARSH		A1	J		N/A 04.0 SEC			
1M14 F 0090	CONTAINMENT VESSEL AND DRYWELL PURGE CONTAINMENT PURGE EXHAUST ISO. 641	HENRY PRATT COMPANY 1200NRS BUTTERFLY VALVE	CT-0 HARSH		A1	J		N/A 04.0 SEC			
1M14 F 0093	CONTAINMENT VESSEL AND DRYWELL PURGE OP AIR TO F090 641	ASCO NP8316A75E SOLENOID	CT-0 HARSH	A	A3	J	YES	N/A 15.0 SEC	YES	C 40Y OBY	SP641-000-04
1M14 F 0190	CONTAINMENT VESSEL AND DRYWELL PURGE CNT PURGE SUPPLY ISOL 641	HENRY PRATT COMPANY 1200NRS BUTTERFLY VALVE	CT-1 HARSH		A1	J		N/A 04.0 SEC			
1 1M14 F 0190	CONTAINMENT VESSEL AND DRYWELL PURGE EXHAUST AIR VALVE ACTUATOR 641	BETTIS CORP T-420-SR2 PNEUMATIC CYLINDER	CT-1 HARSH		A1	J		N/A 04.0 SEC			
1M14 F 0192	CONTAINMENT VESSEL AND DRYWELL PURGE OP AIR TO F190 641	ASCO NP8316A75E SOLENOID	CT-1 HARSH	A	A3	J	YES	N/A 15.0 SEC	YES	C 40Y OBY	SP641-000-04

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY

AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1 1M14 F 0200	CONTAINMENT VESSEL AND DRYWELL PURGE EXHAUST AIR VALVE ACTUATOR 641	BETTIS CORP T-420-SR2 PNEUMATIC CYLINDER	CT-4 HARSH		A1	J		N/A 04.0 SEC			
1M14 F 0200	CONTAINMENT VESSEL AND DRYWELL PURGE CNT VESSEL PURGE EXHAUST ISOL. 641	HENRY PRATT COMPANY 1200NRS BUTTERFLY, VALVE	CT-4 HARSH		A1	J		N/A 04.0 SEC			
1M14 F 0202	CONTAINMENT VESSEL AND DRYWELL PURGE OP AIR TO F200 641	ASCO NP8316A75E SOLENOID	CT-4 HARSH	A	A3	J	YES	N/A 15.0 SEC	YES	C 40Y 08Y	SP641-000-04
1M14 N 0041	CONTAINMENT VESSEL AND DRYWELL PURGE LIMIT SWITCH FOR VLV F040 79305	NATIONAL ACME EA-740-20100 LIMIT SWITCH	CT-0 HARSH	C	A1	J	LATER	N/A N/A	LATER T		
1M14 N 0042	CTMT VESSEL AND DRYWELL PURGE LIMIT SWITCH FOR DAMPER 1M14F040 79305	NATIONAL ACME EA74020100 LIMIT SWITCH	CT-0 HARSH	C	A1	J	LATER	N/A N/A	LATER T		
1M14 N 0046	CTMT VESSEL AND DRYWELL PURGE LIMIT SWITCH FOR DAMPER 1M14F045 79305	NATIONAL ACME EA74020100 LIMIT SWITCH	CT-1 HARSH	C	A1	J	LATER	N/A N/A	LATER T		
1M14 N 0056A	CTMT VESSEL AND DRYWELL PURGE LIMIT SWITCH FOR DAMPER 1M14F055A 79305	NATIONAL ACME EA74020100 LIMIT SWITCH	DW-1 HARSH	C	A1	J	LATER	N/A N/A	LATER T		
1M14 N 0056B	CTMT VESSEL AND DRYWELL PURGE LIMIT SWITCH FOR DAMPER 1M14F055B 79305	NATIONAL ACME EA74020100 LIMIT SWITCH	CT-3 HARSH	C	A1	J	LATER	N/A N/A	LATER T		
1M14 N 0061A	CTMT VESSEL AND DRYWELL PURGE LIMIT SWITCH FOR DAMPER 1M14F060A 79305	NATIONAL ACME EA74020100 LIMIT SWITCH	DW-1 HARSH	C	A1	J	LATER	N/A N/A	LATER T		
1M14 N 0061B	CTMT VESSEL AND DRYWELL PURGE LIMIT SWITCH FOR DAMPER 1M14F060B 79305	NATIONAL ACME EA74020100 LIMIT SWITCH	CT-3 HARSH	C	A1	J	LATER	N/A N/A	LATER T		
1M14 N 0066	CTMT VESSEL AND DRYWELL PURGE LIMIT SWITCH FOR DAMPER 1M14F065 79305	NATIONAL ACME EA74020100 LIMIT SWITCH	CT-1 HARSH	C	A1	J	LATER	N/A N/A	LATER T		

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1M14 N 0071	CTMT VESSEL AND DRYWELL PURGE LIMIT SWITCH FOR DAMPER 1M14F070 79305	NATIONAL ACME EA74020100 LIMIT SWITCH	CT-1 HARSH	C	A1	J	LATER	N/A N/A	LATER T		
1M14 N 0086	CTMT VESSEL AND DRYWELL PURGE LIMIT SWITCH FOR DAMPER 1M14F085 79305	NATIONAL ACME EA74020100 LIMIT SWITCH	CT-1 HARSH	C	A1	J	LATER	N/A N/A	LATER T		
1M14 N 0091	CTMT VESSEL AND DRYWELL PURGE LIMIT SWITCH FOR DAMPER 1M14F090 79305	NATIONAL ACME EA74020100 LIMIT SWITCH	CT-0 HARSH	C	A1	J	LATER	N/A N/A	LATER T		
1M14 N 0092	CTMT VESSEL AND DRYWELL PURGE LIMIT SWITCH FOR DAMPER 1M14F090 79305	NATIONAL ACME EA74020100 LIMIT SWITCH	CT-0 HARSH	C	A1	J	LATER	N/A N/A	LATER T		
1M14 N 0191	CTMT VESSEL AND DRYWELL PURGE LIMIT SWITCH FOR DAMPER 1M14F190 79305	NATIONAL ACME EA74020100 LIMIT SWITCH	CT-1 HARSH	C	A1	J	LATER	N/A N/A	LATER T		
1M14 N 0201	CTMT VESSEL AND DRYWELL PURGE LIMIT SWITCH FOR DAMPER 1M14F200 79305	NATIONAL ACME EA74020100 LIMIT SWITCH	CT-4 HARSH	C	A1	J	LATER	N/A N/A	LATER T		
1M14 N 0202	CTMT VESSEL AND DRYWELL PURGE LIMIT SWITCH FOR DAMPER 1M14F200 79305	NATIONAL ACME EA74020100 LIMIT SWITCH	CT-4 HARSH	C	A1	J	LATER	N/A N/A	LATER T		
1 1M15 C 0001A	ANNULUS EXHAUST GAS SYSTEM CENTRIFUGAL FAN 645	WESTINGHOUSE CORP 409-M SUPPLY AIR FAN	FB-7 HARSH		A1	J		N/A N/A			
1M15 C 0001A	ANNULUS EXHAUST GAS TREATMENT SYSTEM FAN 645	RELIANCE ELECTRIC AC POLYPHASE MOTOR	FB-7 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y 40Y	SP645-000-07
1 1M15 C 0001B	ANNULUS EXHAUST GAS SYSTEM CENTRIFUGAL FAN 645	WESTINGHOUSE CORP 409-M SUPPLY AIR FAN	FB-7 HARSH		A1	J		N/A N/A			
1M15 C 0001B	ANNULUS EXHAUST GAS TREATMENT SYSTEM FAN 645	RELIANCE ELECTRIC AC POLYPHASE MOTOR	FB-7 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y 40Y	SP645-000-07

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1M15 D 0001A	ANNULUS EXHAUST GAS TREATMENT SYSTEM PLENUM 642	CVI PENWALT CORP N/A AEGT HEATING COIL A	FB-7 HARSH	D	A1	J		N/A N/A			
1M15 D 0001B	ANNULUS EXHAUST GAS TREATMENT SYSTEM PLENUM 642	CVI PENWALT CORP N/A AEGT HEATING COIL B	FB-7 HARSH	D	A1	J		N/A N/A			
1 1M15 F 0070B	ANNULUS EXHAUST GAS TREATMENT SYSTEM DAMPER MOTOR OPERATOR 091	ITT GENERAL CONTROLS NH91 ITT MOTOR OPERATOR	FB-7 HARSH	C	A1	J		N/A N/A			
1M15 F 0070B	ANNULUS EXHAUST GAS TREATMENT SYSTEM AIR FLOW MODULATION 091	PAPCO OB-1000 DAMPER	FB-7 HARSH	C	A1	J		N/A N/A			
1 1M15 F 0080A	ANNULUS EXHAUST GAS TREATMENT SYSTEM DAMPER MOTOR OPERATOR 091	ITT GENERAL CONTROLS NH91 ITT MOTOR OPERATOR	FB-7 HARSH	C	A1	J		N/A N/A			
1M15 F 0080A	ANNULUS EXHAUST GAS TREATMENT SYSTEM AIR FLOW MODULATION 091	PAPCO OB-1000 DAMPER	FB-7 HARSH	C	A1	J		N/A N/A			
1M15 F 0513A	ANNULUS EXHAUST GAS TREATMENT SYSTEM TRAIN ISOLATION 091	TECHNO N/A CHECK DAMPER	FB-7 HARSH		A2	J		N/A N/A			
1M15 F 0513B	ANNULUS EXHAUST GAS TREATMENT SYSTEM TRAIN ISOLATION 091	TECHNO N/A CHECK DAMPER	FB-7 HARSH		A2	J		N/A N/A			
1M15 N 0012B	ANNULUS EXHAUST GAS TREATMENT SYSTEM ANNULUS SPACE 604	ROSEMOUNT 1153DB3 PRESSURE TRANSMITTER	AB-9 HARSH	A	A1	J	YES	.003 2.00 SEC	YES	T 10Y 10Y	SP604-000-03
1M15 N 0013A	ANNULUS EXHAUST GAS TREATMENT SYSTEM ANNULUS SPACE 604	ROSEMOUNT 1153DB3 PRESSURE TRANSMITTER	AB-9 HARSH	A	A1	J	YES	.003 2.00 SEC	YES	T 10Y 10Y	SP604-000-03
1M15 N 0013B	ANNULUS EXHAUST GAS TREATMENT SYSTEM ANNULUS SPACE 604	ROSEMOUNT 1153DB3 PRESSURE TRANSMITTER	FB-3 HARSH	A	A1	J	YES	.003 2.00 SEC	YES	T 56M 56M	SP604-000-03

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1M15 N 0021A	ANNULUS EXHAUST GAS TREATMENT SYSTEM PLENUM TEMPERATURE 596	WEED 4000R TEMPERATURE	FB-7 HARSH TRANSMITTER	A	A1	J	YES	.001 5.00 SEC	YES	T 40Y 27M	SP596-000-01
1M15 N 0021B	ANNULUS EXHAUST GAS TREATMENT SYSTEM PLENUM TEMPERATURE 596	WEED 4000R TEMPERATURE	FB-7 HARSH TRANSMITTER	A	A1	J	YES	.001 5.00 SEC	YES	T 40Y 27M	SP596-000-01
1M15 N 0061A	ANNULUS EXHAUST GAS TREATMENT SYSTEM ANNULUS SPACE 091	SOLON 7PS2DW DIFF. PRESS SWITCH	FB-7 HARSH	A	A1	J	YES	N/A 0.05 SEC	YES	C 40Y 04Y	SP091-000-02
1M15 N 0061B	ANNULUS EXHAUST GAS TREATMENT SYSTEM ANNULUS SPACE 091	SOLON 7PS2DW DIFF. PRESS SWITCH	FB-7 HARSH	A	A1	J	YES	N/A 0.05 SEC	YES	C 40Y 04Y	SP091-000-02
1M15 N 0071B	ANNULUS EXHAUST GAS TREATMENT SYSTEM POSITION SWITCH FOR DAMPER F070B 091	NATIONAL ACME EA-740-80100 LIMIT SWITCH	FB-7 HARSH	C	A1	J		N/A N/A			
1M15 N 0081A	ANNULUS EXHAUST GAS TREATMENT SYSTEM POSITION SWITCH FOR DAMPER F080A 091	NATIONAL ACME EA-740-80100 LIMIT SWITCH	FB-7 HARSH	C	A1	J		N/A N/A			
1M16 F 0010A	DRYWELL VACUUM RELIEF SYSTEM DRYWELL ISOL. 641	LIMITORQUE SMB0002/HOBC DW VAC RLF TRAIN A	CT-7 HARSH	A	A1	J	YES	N/A 05.0 SEC	YES	C 40Y 40Y	SP568-000-01
1 1M16 F 0010A	DRYWELL VACUUM RELIEF SYSTEM DRYWELL ISOL. 641	HENRY PRATT COMPANY NRS DW VAC RLF TRAIN A	CT-7 HARSH		A1	J		N/A 05.0 SEC			
1M16 F 0010B	DRYWELL VACUUM RELIEF SYSTEM DRYWELL ISOL. 641	LIMITORQUE SMB0002/HOBC DW VAC RLF TRAIN B	CT-7 HARSH	A	A1	J	YES	N/A 05.0 SEC	YES	C 40Y 40Y	SP068-000-01
1 1M16 F 0010B	DRYWELL VACUUM RELIEF SYSTEM DRYWELL ISOL. 641	HENRY PRATT COMPANY NRS DW VAC RLF TRAIN A	CT-7 HARSH		A1	J		N/A 05.0 SEC			
1 1M16 F 0020A	DRYWELL VACUUM RELIEF SYSTEM DRYWELL ISOL 635	GPE CONTROLS DIV LD240-339 10 INCH CHECK VALVE	CT-7 HARSH		A1	J		N/A N/A			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1 1M16 F 0020B	DRYWELL VACUUM RELIEF SYSTEM DRYWELL ISOL 635	GPE CONTROLS DIV. LD240-339 10 INCH CHECK VALVE	CT-8 HARSH		A1	J		N/A N/A			
1 1M17 F 0010	CONTAINMENT VACUUM RELIEF SYSTEM VAC. RELIEF CHECK 635	GPE CONTROLS DIV. LD240-337 24 INCH CHECK VALVE	CT-1 HARSH		A1	J		N/A N/A			
1 1M17 F 0015	CONTAINMENT VACUUM RELIEF SYSTEM CONTAINMENT VAC. RELIEF 641	HENRY PRATT COMPANY NRS CONTAINMENT VACUUM	CT-0 HARSH		A1	J		N/A 05.0 SEC			
1M17 F 0015	CONTAINMENT VACUUM RELIEF SYSTEM CONTAINMENT VAC. RELIEF 641	LIMITORQUE SMB0015/H3BC MOTOR OPERATOR	CT-0 HARSH	A	A1	J	YES	N/A 05.0 SEC	YES	C 40Y 40Y	SP568-000-01
1 1M17 F 0020	CONTAINMENT VACUUM RELIEF SYSTEM VAC. RELIEF CHECK 635	GPE CONTROLS DIV. LD240-337 24 INCH CHECK VALVE	CT-1 HARSH		A1	J		N/A N/A			
1M17 F 0025	CONTAINMENT VACUUM RELIEF SYSTEM CONTAINMENT VAC. RELIEF 641	LIMITORQUE SMB0015/H3BC MOTOR OPERATOR	CT-0 HARSH	A	A1	J	YES	N/A 05.0 SEC	YES	C 40Y 40Y	SP568-000-01
1 1M17 F 0025	CONTAINMENT VACUUM RELIEF SYSTEM CONTAINMENT VAC. RELIEF 641	HENRY PRATT COMPANY NRS CONTAINMENT VACUUM	CT-0 HARSH		A1	J		N/A 05.0 SEC			
1 1M17 F 0030	CONTAINMENT VACUUM RELIEF SYSTEM VAC. RELIEF CHECK 635	GPE CONTROLS DIV. LD240-337 24 INCH CHECK VALVE	CT-1 HARSH		A1	J		N/A N/A			
1 1M17 F 0035	CONTAINMENT VACUUM RELIEF SYSTEM CONTAINMENT VAC. RELIEF 641	HENRY PRATT COMPANY NRS CONTAINMENT VACUUM	CT-0 HARSH		A1	J		N/A 05.0 SEC			
1M17 F 0035	CONTAINMENT VACUUM RELIEF SYSTEM CONTAINMENT VAC RELIEF ISOL 641	LIMITORQUE SMB0015/H3BC MOTOR OPERATOR	CT-0 HARSH	A	A1	J	YES	N/A 05.0 SEC	YES	C 40Y 40Y	SP568-000-01
1 1M17 F 0040	CONTAINMENT VACUUM RELIEF SYSTEM VAC. RELIEF CHECK 635	GPE CONTROLS DIV. LD240-337 24 INCH CHECK VALVE	CT-1 HARSH		A1	J		N/A N/A			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1M17 F 0045	CONTAINMENT VACUUM RELIEF SYSTEM CONTAINMENT VAC. RELIEF ISOL. 641	LIMITORQUE SM80015 H3BC MOTOR OPERATOR	CT-0 HARSH	A	A1	J	YES	N/A 05.0 SEC	YES	C 40Y 40Y	SP568-000-01
1 1M17 F 0045	CONTAINMENT VACUUM RELIEF SYSTEM CONTAINMENT VAC. RELIEF 641	HENRY PRATT COMPANY NRS CONTAINMENT VACUUM	CT-0 HARSH		A1	J		N/A 05.0 SEC			
1M17 F 0055	CONTAINMENT VACUUM RELIEF SYSTEM INST. RT. PT-NO19, PT-NO28 597	TARGET ROCK 77JJ-001 SOLENOID VALVE	AB-9 HARSH	A	A1	J	YES	N/A 0.25 SEC	YES	C 40Y 20Y	SP597-000-02
1M17 N 0056	CONTAINMENT VACUUM RELIEF SYSTEM POSITION SWITCH FOR SCV-F055 597	TARGET ROCK 77JJ-001 POSITION SWITCH	AB-9 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y 20Y	SP597-000-02
1M39 3 0001A	ECCS PUMP ROOM COOLING SYSTEM RHR A AIR HANDLING UNIT 646	CARRIER 39ED15 FAN	AB-4 HARSH		A1	J		N/A N/A			
1 1M39 3 0001A	ECCS PUMP ROOM COOLING SYSTEM RHR A AIR HANDLING UNIT MOTOR 646	RELIANCE ELECTRIC P25G369 MOTOR	AB-4 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y 40Y	SP646-000-03
1M39 B 0001B	ECCS PUMP ROOM COOLING SYSTEM RHR B AIR HANDLING UNIT 646	CARRIER 39ED15 FAN	AB-4 HARSH		A1	J		N/A N/A			
1 1M39 B 0001B	ECCS PUMP ROOM COOLING SYSTEM RHR B AIR HANDLING UNIT MOTOR 646	RELIANCE ELECTRIC P25G369 MOTOR	AB-4 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y 40Y	SP646-000-03
1M39 B 0002	ECCS PUMP ROOM COOLING SYSTEM RHR C COOLING AIR HANDLING UNIT 646	CARRIER 39ED15 FAN	AB-4 HARSH		A1	J		N/A N/A			
1 1M39 B 0002	ECCS PUMP ROOM COOLING SYSTEM RHR C AIR HANDLING UNIT MOTOR 646	RELIANCE ELECTRIC P25G369 MOTOR	AB-4 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y 40Y	SP646-000-03
1M39 B 0003	ECCS PUMP ROOM COOLING SYSTEM HPCS PUMP ROOM AIR HANDLING UNIT 646	CARRIER 39ED15 FAN	AB-2 HARSH		A1	J		N/A N/A			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY

AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1 1M39 B 0003	ECCS PUMP ROOM COOLING SYSTEM HPCS PUMP RM AIR HANDLING UNIT MOTOR 646	RELIANCE ELECTRIC P25G369 MOTOR	AB-2 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y 40Y	SP646-000-03
1M39 B 0004	ECCS PUMP ROOM COOLING SYSTEM RCIC PUMP ROOM AIR HANDLING UNIT 646	CARRIER 39BA050 FAN	AB-3 HARSH		A1	J		N/A N/A			
1 1M39 B 0004	ECCS PUMP ROOM COOLING SYSTEM RCIC PUMP RM AIR HANDLING UNIT MOTOR 646	RELIANCE ELECTRIC P18G341 MOTOR	AB-3 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y 40Y	SP646-000-03
1M39 B 0006	ECCS PUMP ROOM COOLING SYSTEM LPCS PUMP ROOM AIR HANDLING UNIT 646	CARRIER 39ED15 FAN	AB-2 HARSH		A1	J		N/A N/A			
1 1M39 B 0006	ECCS PUMP ROOM COOLING SYSTEM LPCS PUMP RM AIR HANDLING UNIT MOTOR 646	RELIANCE ELECTRIC P25G369 MOTOR	AB-2 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y 40Y	SP646-000-03
1M39 K 0001	ECCS PUMP ROOM COOLING SYSTEM AUXILIARY LOGIC RELAY 594	AGASTAT 7012-ACM RELAY, TIME DELAY, ADJRANGE 1.5 TO 15 SEC.	AB-9 HARSH	A	A1	J	YES	.100 .050 SEC	YES	T 10Y 10Y	SP594-000-05
1M39 K 0002	ECCS PUMP ROOM COOLING SYSTEM AUXILIARY LOGIC RELAY 594	ITE-GOULD J10A6012 RELAY	AB-9 HARSH	A	A1	J	YES	N/A .020 SEC	YES	T 40Y 40Y	SP594-000-12
1M39 K 0003	ECCS PUMP ROOM COOLING SYSTEM AUXILIARY LOGIC RELAY 594	ITE-GOULD J10A6012 RELAY	AB-9 HARSH	A	A1	J	YES	N/A .020 SEC	YES	T 40Y 40Y	SP594-000-12
1M39 K 0004	ECCS PUMP ROOM COOLING SYSTEM AUXILIARY LOGIC RELAY 594	AGASTAT 7012-ACM RELAY, TIME DELAY, ADJRANGE 1.5 TO 15 SEC.	AB-9 HARSH	A	A1	J	YES	.100 .050 SEC	YES	T 10Y 10Y	SP594-000-05
1M39 K 0005	ECCS PUMP ROOM COOLING SYSTEM AUXILIARY LOGIC RELAY 594	ITE-GOULD J10A6012 RELAY	AB-9 HARSH	A	A1	J	YES	N/A .020 SEC	YES	T 40Y 40Y	SP594-000-12
1M39 K 0006	ECCS PUMP ROOM COOLING SYSTEM AUXILIARY LOGIC RELAY 594	AGASTAT 7012-ACM RELAY, TIME DELAY, ADJRANGE 1.5 TO 15 SEC.	AB-9 HARSH	A	A1	J	YES	.100 .050 SEC	YES	T 10Y 10Y	SP594-000-05

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1M39 K 0007	ECCS PUMP ROOM COOLING SYSTEM AUXILIARY LOGIC RELAY 594	ITE-GOULD J10A6012 RELAY	AB-9 HARSH	A	A1	J	YES	N/A .020 SEC	YES	T 40Y 40Y	SP594-000-12
1M39 K 0008	ECCS PUMP ROOM COOLING SYSTEM AUXILIARY LOGIC RELAY 594	AGASTAT 7012-ACM RELAY, TIME DELAY, ADJRANGE 1.5 TO 15 SEC.	AB-9 HARSH	A	A1	J	YES	.100 .050 SEC	YES	T 10Y 10Y	SP594-000-05
1M39 K 0009	ECCS PUMP ROOM COOLING SYSTEM AUXILIARY LOGIC RELAY 594	ITE-GOULD J10A6012 RELAY	AB-9 HARSH	A	A1	J	YES	N/A .020 SEC	YES	T 40Y 40Y	SP594-000-12
1M39 K 0010	ECCS PUMP ROOM COOLING SYSTEM TEMP MONITOR 594	AGASTAT 7012-ACM RELAY, TIME DELAY, ADJRANGE 1.5 TO 15 SEC.	AB-9 HARSH	A	A1	J	YES	.100 .050 SEC	YES	T 10Y 10Y	SP594-000-05
1M39 K 0011	ECCS PUMP ROOM COOLING SYSTEM AUXILIARY LOGIC RELAY 594	ITE-GOULD J10A6012 RELAY	AB-9 HARSH	A	A1	J	YES	N/A .020 SEC	YES	T 40Y 40Y	SP594-000-12
1M39 K 0012	ECCS PUMP ROOM COOLING SYSTEM AUXILIARY LOGIC RELAY 594	AGASTAT 7012-ACM RELAY, TIME DELAY, ADJRANGE 1.5 TO 15 SEC.	AB-9 HARSH	A	A1	J	YES	.100 .050 SEC	YES	T 10Y 10Y	SP594-000-05
1M39 S 0001	ECCS PUMP ROOM COOLING SYSTEM RCIC PUMP ROOM COOLER 594	GE CR294OYS203E-1NUC CONTROL SWITCH	AB-9 HARSH	A	A1	J	YES	N/A N/A		T 40Y 40Y	SP594-000-07
1M39 S 0002	ECCS PUMP ROOM COOLING SYSTEM LPCS PUMP ROOM COOLER 594	GE CR294OYS203E-1NUC CONTROL SWITCH	AB-9 HARSH	A	A1	J	YES	N/A N/A		T 40Y 40Y	SP594-000-07
1M39 S 0003	ECCS PUMP ROOM COOLING SYSTEM HPCS PUMP ROOM COOLER 594	GE CR294OYS203E-1NUC CONTROL SWITCH	AB-9 HARSH	A	A1	J	YES	N/A N/A		T 40Y 40Y	SP594-000-07
1M39 S 0004	ECCS PUMP ROOM COOLING SYSTEM RHR PUMP A & HX COOLER 594	GE CR294OYS203E-1NUC CONTROL SWITCH	AB-9 HARSH	A	A1	J	YES	N/A N/A		T 40Y 40Y	SP594-000-07
1M39 S 0005	ECCS PUMP ROOM COOLING SYSTEM RHR PUMP B & HX COOLER 594	GE CR294OYS203E-1NUC CONTROL SWITCH	AB-9 HARSH	A	A1	J	YES	N/A N/A		T 40Y 40Y	SP594-000-07

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1M39 S 000G	ECCS PUMP ROOM COOLING SYSTEM RHR C PUMP ROOM COOLER 594	GE CR294OYS203E-1NUC CONTROL SWITCH	AB-9 HARSH	A	A1	J	YES	N/A N/A		T 40Y 40Y	SP594-000-07
1M51 C 0001A	COMBUSTIBLE GAS CONTROL SYSTEM HYDROGEN MIXING 632	RELIANCE TYPE P MOTOR	CT-4 HARSH	A	A1	J	YES	N/A N/A	YES	T 40Y	SP632-000-03
1 1M51 C 0001A	COMBUSTIBLE GAS CONTROL SYSTEM HYDROGEN MIXING 632	TURBONETICS SC-6 COMPRESSOR	CT-4 HARSH		A1	J		N/A N/A			
1M51 C 0001B	COMBUSTIBLE GAS CONTROL SYSTEM HYDROGEN MIXING 632	RELIANCE TYPE P MOTOR	CT-4 HARSH	A	A1	J	YES	N/A N/A	YES	T 40Y	SP632-000-03
1 1M51 C 0001B	COMBUSTIBLE GAS CONTROL SYSTEM HYDROGEN MIXING 632	TURBONETICS SC-6 COMPRESSOR	CT-4 HARSH		A1	J		N/A N/A			
1M51 D 0001A	COMBUSTIBLE GAS CONTROL SYSTEM POST-LOCA HYDROGEN RECOMBINER A 628	WESTINGHOUSE MODEL A POST LOCA HYDROGEN	CT-4 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y	SP628- 00-01
1M51 D 0001B	COMBUSTIBLE GAS CONTROL SYSTEM POST-LOCA HYDROGEN RECOMBINER B 628	WESTINGHOUSE MODEL A POST LOCA HYDROGEN	CT-4 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y	SP628- 00-01
1M51 F 0010A	COMBUSTIBLE GAS CONTROL SYSTEM COMBUSTIBLE GAS PURGING UNIT, 52102	LIMITORQUE SMB-00-5 MOTOR OPERATOR	CT-7 HARSH	A	A1	J	YES	N/A 32.7 SEC	YES	T 40Y 40Y	SP568-000-01
1 1M51 F 0010A	COMBUSTIBLE GAS CONTROL SYSTEM COMBUSTIBLE GAS PURGING UNIT 52102	BORG WARNER 81300 4 INCH GLOBE VALVES	CT-7 HARSH		A1	J		N/A 32.7 SEC			
1M51 F 0010B	COMBUSTIBLE GAS CONTROL SYSTEM COMBUSTIBLE GAS PURGING UNIT D 52102	LIMITORQUE SMB-00-5 MOTOR OPERATOR	CT-4 HARSH	A	A1	J	YES	N/A 32.7 SEC	YES	T 40Y 40Y	SP568-000-01
1 1M51 F 0010B	COMBUSTIBLE GAS CONTROL SYSTEM COMBUSTIBLE GAS PURGING UNIT D 52102	BORG WARNER 81300 4 INCH GLOBE VALVE	CT-4 HARSH		A1	J		N/A 32.7 SEC			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1MS1 F 0020A	COMBUSTIBLE GAS CONTROL SYSTEM COMP. COOLING WTR. SUPPLY 53106	LIMITORQUE SMB-000-2 MOTOR OPERATOR	CT-4 HARSH	A	A1	J	YES	N/A N/A	YES	T 40Y 40Y	SP568-000-01
1 1MS1 F 0020A	COMBUSTIBLE GAS CONTROL SYSTEM COMP. COOLING WTR. SUPPLY 53106	ROCKWELL 15014MPT2 2 INCH GLOBE VALVES	CT-4 HARSH		A1	J		N/A N/A			
1MS1 F 0020B	COMBUSTIBLE GAS CONTROL SYSTEM COMP. COOLING WTR. SUPPLY 53106	LIMITORQUE SMB-000-2 MOTOR OPERATOR	CT-4 HARSH	A	A1	J	YES	N/A N/A	YES	T 40Y 40Y	SP568-000-01
1 1MS1 F 0020B	COMBUSTIBLE GAS CONTROL SYSTEM COMP. COOLING WTR. SUPPLY 53106	ROCKWELL 15014MPT2 2 INCH GLOBE VALVE	CT-4 HARSH		A1	J		N/A N/A			
1MS1 F 0090	COMBUSTIBLE GAS CONTROL SYSTEM BACKUP H2 PURGE INSIDE CONTAIN 53106	LIMITORQUE SMB-000-2 MOTOR OPERATOR	CT-3 HARSH	A	A1	J	YES	N/A N/A	YES	T 40Y 40Y	SP568-000-01
1 1MS1 F 0090	COMBUSTIBLE GAS CONTROL SYSTEM BACKUP H2 PURGE INSIDE CONTAIN 53106	ROCKWELL 15014MPT2 2 INCH GLOBE VALVES	CT-3 HARSH		A1	J		N/A N/A			
1MS1 F 0210A	COMBUSTIBLE GAS CONTROL SYSTEM HYDROGEN SAMPLE ISOL. 597	TARGET ROCK 77JJ-002 SOLENOID VALVE	AB-4 HARSH	A	A1	J	YES	N/A 0.25 SEC	YES	C 40Y 20Y	SP597-000-02
1MS1 F 0220A	COMBUSTIBLE GAS CONTROL SYSTEM HYDROGEN SAMPLE ISOL. 597	TARGET ROCK 77JJ-002 SOLENOID VALVE	AB-4 HARSH	A	A1	J	YES	N/A 0.25 SEC	YES	C 40Y 20Y	SP597-000-02
1MS1 F 0230A	COMBUSTIBLE GAS CONTROL SYSTEM HYDROGEN SAMPLE ISOL. 597	TARGET ROCK 77JJ-002 SOLENOID VALVE	AB-4 HARSH	A	A1	J	YES	N/A 0.25 SEC	YES	C 40Y 20Y	SP597-000-02
1MS1 F 0240A	COMBUSTIBLE GAS CONTROL SYSTEM HYDROGEN SAMPLE ISOL. 597	TARGET ROCK 77JJ-002 SOLENOID VALVE	AB-4 HARSH	A	A1	J	YES	N/A 0.25 SEC	YES	C 40Y 20Y	SP597-000-02
1MS1 F 0250A	COMBUSTIBLE GAS CONTROL SYSTEM HYDROGEN SAMPLE ISOL. 597	TARGET ROCK 77JJ-002 SOLENOID VALVE	AB-4 HARSH	A	A1	J	YES	N/A 0.25 SEC	YES	C 40Y 20Y	SP597-000-02

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

AS OF 00352 05/04/83

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1M51 F 0501A	COMBUSTIBLE GAS CONTROL SYSTEM DRYWELL ISOL. 52101	TRW MISSION K15ACEF-V73 4 INCH CHECK VALVE	DW-4 HARSH		A1	J		N/A N/A			
1M51 F 0501B	COMBUSTIBLE GAS CONTROL SYSTEM DRYWELL ISOL. 52101	TRW MISSION K15ACEF-V73 4 INCH CHECK VALVE	DW-4 HARSH		A1	J		N/A N/A			
1M51 N 0211A	COMBUSTIBLE GAS CONTROL SYSTEM POSITION SWITCH FOR VALVE F210A 597	TARGET ROCK 77JJ-002 POSITION SWITCH	AB-4 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y 20Y	SP597-000-02
1M51 N 0221A	COMBUSTIBLE GAS CONTROL SYSTEM POSITION SWITCH FOR VALVE F220A 597	TARGET ROCK 77JJ-002 POSITION SWITCH	AB-4 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y 20Y	SP597-000-02
1M51 N 0231A	COMBUSTIBLE GAS CONTROL SYSTEM POSITION SWITCH FOR VALVE F230A 597	TARGET ROCK 77JJ-002 POSITION SWITCH	AB-4 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y 20Y	SP597-000-02
1M51 N 0241A	COMBUSTIBLE GAS CONTROL SYSTEM POSITION SWITCH FOR VALVE F240A 597	TARGET ROCK 77JJ-002 POSITION SWITCH	AB-4 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y 20Y	SP597-000-02
1M51 N 0251A	COMBUSTIBLE GAS CONTROL SYSTEM POSITION SWITCH FOR VALVE F250A 597	TARGET ROCK 77JJ-002 POSITION SWITCH	AB-4 HARSH	A	A1	J	YES	N/A N/A	YES	C 40Y 20Y	SP597-000-02
1N11 F 0020A	MAIN AND REHEAT STEAM SYSTEM MAIN STEAM STOP 3RD ISO 52102	LIMITORQUE SMB-4-100 MOTOR OPERATOR	AB-7 HARSH	A	A4	J	YES	N/A 140. SEC	YES	T 40Y 40Y	SP568-000-01
1 1N11 F 0020A	MAIN AND REHEAT STEAM SYSTEM MAIN STEAM STOP 3RD ISO 52102	BORG WARNER 81240-1 28 INCH GATE VALVES	AB-7 HARSH		A4	J		N/A 140. SEC *			
1N11 F 0020B	MAIN AND REHEAT STEAM SYSTEM MAIN STEAM STOP 3RD ISO 52102	LIMITORQUE SMB-4-100 MOTOR OPERATOR	AB-7 HARSH	A	A4	J	YES	N/A 140. SEC	YES	T 40Y 40Y	SP568-000-01
1 1N11 F 0020B	MAIN AND REHEAT STEAM SYSTEM MAIN STEAM STOP 3RD ISO 52102	BORG WARNER 81240-1 28 INCH GATE VALVES	AB-7 HARSH		A4	J		N/A 140. SEC			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	ROD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION DEMO	M LF/MI	SUMMARY
1N11 F 0020C	MAIN AND REHEAT STEAM SYSTEM MAIN STEAM STOP 3RD ISO 52102	LIMITORQUE SMB-4-100 MOTOR OPERATOR	AB-7 HARSH	A	A4	J	YES	N/A 140. SEC	YES	T 40Y	SP568-000-01	40Y
1 1N11 F 0020C	MAIN AND REHEAT STEAM SYSTEM MAIN STEAM STOP 3RD ISO 52102	BORG WARNER 81240-1 28 INCH GATE VALVES	AB-7 HARSH		A4	J		N/A 140. SEC				
1N11 F 0020D	MAIN AND REHEAT STEAM SYSTEM MAIN STEAM STOP 3RD ISO 52102	LIMITORQUE SMB-4-100 MOTOR OPERATOR	AB-7 HARSH	A	A4	J	YES	N/A 140. SEC	YES	T 40Y	SP568-000-01	40Y
1 1N11 F 0020D	MAIN AND REHEAT STEAM SYSTEM MAIN STEAM STOP 3RD ISO 52102	BORG WARNER 81240-1 28 INCH GATE VALVES	AB-7 HARSH		A4	J		N/A 140. SEC				
1N22 F 0420A	MAIN/REHEAT/EXTRACTION & MISC DRAINS 1N11 FO20A BEFORE SEAT, DR 60701	FISHER CONTROLS 1.5DBQNS-667NS(45) CONTROL VALVE	AB-7 HARSH	A	A1	A	YES	N/A 10.0 SEC	YES	E 40Y	SP607-001-01	04Y
1N22 F 0420B	MAIN/REHEAT/EXTRACTION & MISC DRAINS 1N11 FO20B BEFORE SEAT, DR 60701	FISHER CONTROLS 1.5DBQNS-667NS(45) CONTROL VALVE	AB-7 HARSH	A	A1	A	YES	N/A 10.0 SEC	YES	E 40Y	SP607-001-01	04Y
1N22 F 0420C	MAIN/REHEAT/EXTRACTION & MISC DRAINS 1N11 FO20C BEFORE SEAT DR. 60701	FISHER CONTROLS 1.5DBQNS-667NS(45) CONTROL VALVE	AB-7 HARSH	A	A1	A	YES	N/A 10.0 SEC	YES	E 40Y	SP607-001-01	04Y
1N22 F 0420D	MAIN/REHEAT/EXTRACTION & MISC DRAINS 1N11 FO20D BEFORE SEAT DR. 60701	FISHER CONTROLS 1.5DBQNS-667NS(45) CONTROL VALVE	AB-7 HARSH	A	A1	A	YES	N/A 10.0 SEC	YES	E 40Y	SP607-001-01	04Y
1N27 F 0559A	FEEDWATER SYSTEM RX. FEED CHECK 52103	ROCKWELL 7592 (WCC) JNQTY 20 INCH CHECK VALVES	DW-1 HARSH		A1	J		N/A N/A				
1N27 F 0559B	FEEDWATER SYSTEM RX. FEED CHECK 52103	ROCKWELL 7592 (WCC) JNQTY 20 INCH CHECK VALVES	DW-1 HARSH		A1	J		N/A N/A				
1N27 F 0737	FEEDWATER SYSTEM INBOARD FW-LCS ISOL. VALVE 53106	LIMITORQUE SMB-000-2 MOTOR OPERATOR	AB-7 HARSH	A	A4	J	YES	N/A N/A	YES	T 40Y	SP568-000-01	40Y

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION M LF/M	SUMMARY
1 1N27 F 0737	FEEDWATER SYSTEM INBOARD FW-LCS ISOL. VALVE 53106	ROCKWELL 15004MPRT1 1-1/2 INCH GLOBE	AB-7 HARSH VALVES			A4	J	N/A N/A			
1N27 F 0739A	FEEDWATER SYSTEM INBOARD FW-LCS ISOL. VALVE 53104	KEROTEST D-31608 1 INCH CHECK VALVE	AB-7 HARSH			A4	J	N/A N/A			
1N27 F 0739B	FEEDWATER SYSTEM INBOARD FW-LCS ISOL. VALVE 53104	KEROTEST D31608 1 INCH CHECK VALVE	AB-7 HARSH			A4	J	N/A N/A			
1N27 F 0740	FEEDWATER SYSTEM OUTBOARD FW-LCS ISOL. VALVE 53106	LIMITORQUE SMB-000-2 MOTOR OPERATOR	AB-7 HARSH	A		A4	J YES	N/A N/A	YES	T 40Y 40Y	SP568-000-01
1 1N27 F 0740	FEEDWATER SYSTEM OUTBOARD FW-LCS ISOL. VALVE 53106	ROCKWELL 15004MPRT1 1-1/2 INCH GLOBE	AB-7 HARSH VALVES			A4	J	N/A N/A			
1N27 F 0742A	FEEDWATER SYSTEM OUTBOARD FW-LCS ISOL. VALVE 53104	KEROTEST D31608 1 INCH CHECK VALVE	AB-7 HARSH			A4	J	N/A N/A			
1N27 F 0742B	FEEDWATER SYSTEM OUTBOARD FW-LCS ISOL. VALVE 53104	KEROTEST D31608 1 INCH CHECK VALVE	AB-7 HARSH			A4	J	N/A N/A			
1N27 F 0783	FEEDWATER SYSTEM TEST LINE TO RHR 53104	KEROTEST D31608 1 INCH CHECK VALVE	AB-3 HARSH			A4	J	N/A N/A			
1 1P11 F 0060	CONDENSATE TRANSFER & STORAGE SYSTEM OUTBOARD CONTAINMENT ISOL. 524	CONTROMATICS C-W2566-BB 12 INCH BUTTERFLY	AB-9 HARSH VALVES			A4	J	N/A 30.0 SEC			
1P11 F 0060	CONDENSATE TRANSFER & STORAGE SYSTEM OUTBOARD CONTAINMENT ISOL. 524	LIMITORQUE SMB MOTOR OPERATOR	AB-9 HARSH	A		A4	J YES	N/A 30.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 1P11 F 0080	CONDENSATE TRANSFER & STORAGE SYSTEM CONTAINMENT POOL DR. LINE OUTB 524	CONTROMATICS C-W2566-BB 12 INCH BUTTERFLY	AB-9 HARSH VALVES			A4	J	N/A 30.0 SEC			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION DEMO	M LF/MI	SUMMARY
1P11 F 0080	CONDENSATE TRANSFER & STORAGE SYSTEM CONTAINMENT POOL DR. LINE OUTB 524	LIMITORQUE SMB-0002 MOTOR OPERATOR	AB-9 HARSH	A	A4	J	YES	N/A 30.0 SEC	YES	T 40Y	SP568-000-01	
1 1P11 F 0090	CONDENSATE TRANSFER & STORAGE SYSTEM CONTAINMENT POOL DR. LINE INBD 524	CONTROMATICS C-W2566-BB 10 INCH BUTTERFLY	CT-2 HARSH VALVES		A1	J		N/A 30.0 SEC				
1P11 F 0090	CONDENSATE TRANSFER & STORAGE SYSTEM CONTAINMENT POOL DR. LINE INBD 524	LIMITORQUE SMB-0002 MOTOR OPERATOR	CT-2 HARSH	A	A1	J	YES	N/A 30.0 SEC	YES	T 40Y	SP568-000-01	
1P11 F 0545	CONDENSATE TRANSFER & STORAGE SYSTEM INBOARD CONTAINMENT ISOL. INFL 52101	TRW MISSION K15SEF-V75 12 INCH CHECK VALVE	CT-2 HARSH		A1	J		N/A N/A				
1P22 F 0015	MIXED BED DEMIN AND DISTRIBUTION DW. ISO. PRB 3050 53101	LIMITORQUE SMB-000-2 MOTOR OPERATOR	CT-3 HARSH	A	A1	J	YES	N/A N/A	YES	T 40Y	SP568-000-01	
1 1P22 F 0015	MIXED BED DEMINERALIZER SYSTEM PNEUMATIC SEAT TEST REQUIRED 53101	DRESSER 7150 1-1/4 INCH GLOBE	CT-3 HARSH VALVE		A1	J		N/A N/A				
1P22 F 0577	MIXED BED DEMIN AND DISTRIBUTION CNT. ISOL. PEN 309 52102	BORG WARNER 81450 3 INCH CHECK VALVES	CT-2 HARSH		A1	J		N/A N/A				
1P22 F 0593	MIXED BED DEMIN AND DISTRIBUTION DW. ISO. PRB 3050 53101	DRESSER 5580W 1-1/4 INCH CHECK	CT-3 HARSH VALVE		A1	J		N/A N/A				
1P42 F 0540	EMERGENCY CLOSED COOLING SYSTEM THERMAL EXP. RELIEF 523	TARGET ROCK CORP. 76H-001 3/4 INCH X 1 INCH	AB-2 HARSH		A4	J		N/A N/A				
1P42 F 0566A	EMERGENCY CLOSED COOLING SYSTEM THERMAL EXP. RELIEF 523	TARGET ROCK CORP. 76H-001 3/4 INCH X 1 INCH	AB-4 HARSH		A4	J		N/A N/A				
1P42 F 0566B	EMERGENCY CLOSED COOLING SYSTEM THERMAL EXP. RELIEF 523	TARGET ROCK CORP. 76H-001 3/4 INCH X 1 INCH	AB-4 HARSH		A4	J		N/A N/A				

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION DEMO	M	LF/MI	SUMMARY
1P42 F 0566C	EMERGENCY CLOSED COOLING SYSTEM THERMAL EXP. RELIEF 523	TARGET ROCK CORP. 76H-001 3/4 INCH X 1 INCH	AB-4		A4	J		N/A		N/A			
1P42 F 0570	EMERGENCY CLOSED COOLING SYSTEM THERMAL EXP. RELIEF 523	TARGET ROCK CORP. 76H-001 3/4 INCH X 1 INCH	AB-3		A4	J		N/A		N/A			
1 1P43 F 0215	NUCLEAR CLOSED COOLING SYSTEM INBOARD CNT. ISOL. EFFLUENT 524	CONTROMATICS C-W2566-BB 12 INCH BUTTERFLY	CT-2		A1	J		N/A		30.0 SEC			
1P43 F 0215	NUCLEAR CLOSED COOLING SYSTEM INBOARD CNT. ISOL EFFLUENT 524	LIMITORQUE SMB MOTOR OPERATOR	CT-2	A	A1	J	YES	N/A	YES	30.0 SEC	T 40Y		SP568-000-01 40Y
1 1P43 F 0355	NUCLEAR CLOSED COOLING SYSTEM OUTBOARD DRYWELL ISOL. INFLUEN. 524	CONTROMATICS C-W2566-BB 10 INCH BUTTERFLY	CT-2		A1	J		N/A		10.0 SEC			
1P43 F 0355	NUCLEAR CLOSED COOLING SYSTEM OUTBOARD DRYWELL ISOL. INFLUEN 524	LIMITORQUE SMB-0002 MOTOR OPERATOR	CT-2	A	A1	J	YES	N/A	YES	10.0 SEC	T 40Y		SP568-000-01 40Y
1 1P43 F 0400	NUCLEAR CLOSED COOLING SYSTEM DRYWELL ISOL. EFFLUENT 524	CONTROMATICS C-W2566-BB 10 INCH BUTTERFLY	CT-2		A1	J		N/A		10.0 SEC			
1P43 F 0400	NUCLEAR CLOSED COOLING SYSTEM DRYWELL ISOL. EFFLUENT 524	LIMITORQUE SMB-0002 MOTOR OPERATOR	CT-2	A	A1	J	YES	N/A	YES	10.0 SEC	T 40Y		SP568-000-01 40Y
1 1P43 F 0410	NUCLEAR CLOSED COOLING SYSTEM DRYWELL ISOL. EFFLUENT 524	CONTROMATICS C-W2566-BB 10 INCH BUTTERFLY	CT-2		A1	J		N/A		10.0 SEC			
1P43 F 0410	NUCLEAR CLOSED COOLING SYSTEM DRYWELL ISOL. EFFLUENT 524	LIMITORQUE SMB-0002 MOTOR OPERATOR	CT-2	A	A1	J	YES	N/A	YES	10.0 SEC	T 40Y		SP568-000-01 40Y
1P43 F 0721	NUCLEAR CLOSED COOLING SYSTEM INFLUENT CNT. ISOL. V/V. INBOA 52101	TRW MISSION K15SEF-V75 12 INCH CHECK VALVE	CT-2		A1	J		N/A		N/A			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION DEMO	M	LF/MI	SUMMARY
1P43-F 0722	NUCLEAR CLOSED COOLING SYSTEM INFLUENT DRYWELL ISOL. INBOARD 52101	TRW MISSION K15SEF-V75 10 INCH CHECK	CT-2 HARSH		A1	J		N/A N/A					
1 1P45 F 0014A	EMERGENCY SERVICE WATER SYSTEM RHR HEAT EXCH ISO. 524	CONTROMATICS C-W2566-BB 20 INCH BUTTERFLY	AB-4 HARSH		A4	J		N/A 30.0 SEC					
1P45 F 0014A	EMERGENCY SERVICE WATER SYSTEM RHR HEAT EXCH ISO. 524	LIMITORQUE SMB-0005 MOTOR OPERATOR	AB-1 HARSH	A	A4	J	YES	N/A 30.0 SEC	YES	T	40Y		SP568-000-01 40Y
1 1P45 F 0014B	EMERGENCY SERVICE WATER SYSTEM RHR HEAT EXCH ISO. 524	CONTROMATICS C-W2566-BB 20 INCH BUTTERFLY	AB-4 HARSH		A4	J		N/A 30.0 SEC					
1P45 F 0014B	EMERGENCY SERVICE WATER SYSTEM RHR HEAT EXCH ISO. 524	LIMITORQUE SMB-0005 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 30.0 SEC	YES	T	40Y		SP568-000-01 40Y
1 1P45 F 0068A	EMERGENCY SERVICE WATER SYSTEM RHR HEAT EXCH ISO. 524	CONTROMATICS C-W2566-BB 20 INCH BUTTERFLY	AB-4 HARSH		A4	J		N/A 30.0 SEC					
1P45 F 0068A	EMERGENCY SERVICE WATER SYSTEM RHR HEAT EXCH ISO. 524	LIMITORQUE SMB-0005 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 30.0 SEC	YES	T	40Y		SP568-000-01 40Y
1 1P45 F 0068B	EMERGENCY SERVICE WATER SYSTEM RHR HEAT EXCH ISO. 524	CONTROMATICS C-W2566-BB 20 INCH BUTTERFLY	AB-4 HARSH		A4	J		N/A 30.0 SEC					
1P45 F 0068B	EMERGENCY SERVICE WATER SYSTEM RHR HEAT EXCH ISO. 524	LIMITORQUE SMB-0005 MOTOR OPERATOR	AB-4 HARSH	A	A4	J	YES	N/A 30.0 SEC	YES	T	40Y		SP568-000-01 40Y
1P45 F 0517	EMERGENCY SERVICE WATER SYSTEM THERMAL EXP. REL. 523	TARGET ROCK CORP. 76H-001 3/4 INCH X 1 INCH	AB-2 HARSH		A4	J		N/A N/A					
1P45 F 0543A	EMERGENCY SERVICE WATER SYSTEM RELIEF 3/4 X 1 SET 150PSIQ 523	TARGET ROCK CORP. 76H-001 3/4 INCH X 1 INCH	AB-9 HARSH		A4	J		N/A N/A					

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION M LF/MI	SUMMARY
1P45 F 0543B	EMERGENCY SERVICE WATER SYSTEM RELIEF 3/4 X 1 SET 150PSIG 523	TARGET ROCK CORP. 76H-001 3/4 INCH X 1 INCH	AB-9 HARSH		A4	J		N/A N/A			
1P45 F 0571A	EMERGENCY SERVICE WATER SYSTEM RHR HEAT EXCH ISO. 523	TARGET ROCK CORP. 76H-006 1-1/2 INCH X 2 INCH	AB-4 HARSH		A4	J		N/A N/A			
1P45 F 0571B	EMERGENCY SERVICE WATER SYSTEM RHR HEAT EXCH ISOL 523	TARGET ROCK CORP. 76H-006 1-1/2 INCH X 2 INCH	AB-4 HARSH		A4	J		N/A N/A			
1P45 F 0575	EMERGENCY SERVICE WATER SYSTEM 52101	TRW MISSION K30SPF-V74 18 INCH CHECK VALVE	AB-5 HARSH		A4	J		N/A N/A			
1P45 F 0579A	EMERGENCY SERVICE WATER SYSTEM RHR. HX. DR. PMP. DISCH. 53101	DRESSER 5580W 1-1/4 INCH CHECK	AB-4 HARSH		A4	J		N/A N/A			
1P45 F 0579B	EMERGENCY SERVICE WATER SYSTEM RHR. HX. DR. PMP. DISCH. 53101	DRESSER 5580W 1-1/4 INCH CHECK	AB-4 HARSH		A4	J		N/A N/A			
1 1P50 F 0140	CONTAINMENT VESSEL CHILLED WATER INBOARD CONTAINMENT RET. ISOL. 524	CONTROMATICS C-W2566-BB 6 INCH BUTTERFLY	CT-2 HARSH		A1	J		N/A 30.0 SEC			
1P50 F 0140	CONTAINMENT VESSEL CHILLED WATER INBOARD CONTAINMENT RET. ISOL. 524	LIMITORQUE SMF MOTOR OPERATOR	CT-2 HARSH	A	A1	J	YES	N/A 30.0 SEC	YES	T 40Y 40Y	SP568-000-01
1P50 F 0539	CONTAINMENT VESSEL CHILLED WATER INBOARD CONTAINMENT ISOL. 52101	TRW MISSION K15SEF-V75 6 INCH CHECK VALVE	CT-2 HARSH		A1	J		N/A N/A			
1P51 F 0530	SERVICE AIR SYSTEM INBOARD INFLUENT CONTAINMENT I 52102	BORG WARNER 81440 2-1/2 INCH CHECK	CT-2 HARSH		A1	J		N/A N/A			
1 1P51 F 0652	SERVICE AIR SYSTEM DRYWELL ISOLATION 53106	ROCKWELL 15004MPT2 1-1/2 INCH GLOBE	CT-3 HARSH		A1	J		N/A 8.00 SEC			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION DEMO	M LF/MI	SUMMARY
1P51 F 0652	SERVICE AIR SYSTEM DRYWELL ISOLATION 53106	LIMITORQUE SMB-000-2 MOTOR OPERATOR	CT-3 HARSH	A	A1	J	YES	N/A 8.00 SEC	YES	T 40Y	SP568-000-01	40Y
1P51 F 0653	SERVICE AIR SYSTEM 53101	DRESSER 5580W 1-1/2 INCH CHECK	CT-3 HARSH		A1	J		N/A N/A				
1P52 F 0550	INSTRUMENT AIR SYSTEM INBOARD INFLUENT CONTAINMENT 53101	DRESSER 5580W 2 INCH CHECK VALVES	CT-2 HARSH		A1	J		N/A N/A				
1P52 F 0639	INSTRUMENT AIR SYSTEM ACCUMULATOR SUPPLY LINE ISOL 53101	DRESSER 5580W 2 INCH CHECK VALVE	CT-3 HARSH		A1	J		N/A N/A				
1P52 F 0646	INSTRUMENT AIR SYSTEM DRYWELL ISOLATION 53106	LIMITORQUE SMB-000-2 MOTOR OPERATOR	CT-3 HARSH	A	A1	J	YES	N/A N/A	YES	T 40Y	SP568-000-01	40Y
1 1P52 F 0646	INSTRUMENT AIR SYSTEM DRYWELL ISOLATION 53106	ROCKWELL 15114MPT2 2 INCH GLOBE VALVES	CT-3 HARSH		A1	J		N/A N/A				
1P52 F 0784	INSTRUMENT AIR SYSTEM S-R ACCUMULATOR AIR SUP LINE ISO VLV 660	CIRCLE SEAL CORP N161-180 1 INCH CHECK VALVE	CT-2 HARSH		A2	J		N/A N/A				
1P52 F 0785	INSTRUMENT AIR SYSTEM S-R ACCUMULATOR AIR SUP LINE ISO VLV 660	CIRCLE SEAL CORP N161-180 1 INCH CHECK VALVE	CT-2 HARSH		A2	J		N/A N/A				
1P52 F 0786	INSTRUMENT AIR SYSTEM S-R ACCUMULATOR AIR SUP LINE ISO VLV 660	CIRCLE SEAL CORP N161-180 1 INCH CHECK VALVE	CT-2 HARSH		A2	J		N/A N/A				
1P52 F 0787	INSTRUMENT AIR SYSTEM S-R ACCUMULATOR AIR SUP LINE ISO VLV 660	CIRCLE SEAL CORP N161-180 1 INCH CHECK VALVE	CT-2 HARSH		A2	J		N/A N/A				
1P52 F 0788	INSTRUMENT AIR SYSTEM S-R ACCUMULATOR AIR SUP LINE ISO VLV 660	CIRCLE SEAL CORP N160-180 1/2 INCH CHECK VALVE	CT-2 HARSH		A2	J		N/A N/A				

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY

AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION DEMO	M	LF/MI	SUMMARY
1P52 F 0789	INSTRUMENT AIR SYSTEM S-R ACCUMULATOR AIR SUP LINE ISO VLV 660	CIRCLE SEAL CORP N160-180 1/2 INCH CHECK VALVE	CT-2 HARSH		A2	J		N/A N/A					
1P52 F 0790	INSTRUMENT AIR SYSTEM S-R ACCUMULATOR AIR SUP LINE ISO VLV 660	CIRCLE SEAL CORP N160-180 1/2 INCH CHECK VALVE	CT-2 HARSH		A2	J		N/A N/A					
1P52 F 0791	INSTRUMENT AIR SYSTEM S-R ACCUMULATOR AIR SUP LINE ISO VLV 660	CIRCLE SEAL CORP N160-180 1/2 INCH CHECK VALVE	CT-2 HARSH		A2	J		N/A N/A					
1P52 F 0792	INSTRUMENT AIR SYSTEM S-R ACCUMULATOR AIR SUP LINE ISO VLV 660	CIRCLE SEAL CORP N160-180 1/2 INCH CHECK VALVE	CT-2 HARSH		A2	J		N/A N/A					
1P52 F 0793	INSTRUMENT AIR SYSTEM S-R ACCUMULATOR AIR SUP LINE ISO VLV 660	CIRCLE SEAL CORP N160-180 1/2 INCH CHECK VALVE	CT-2 HARSH		A2	J		N/A N/A					
1P52 F 0794	INSTRUMENT AIR SYSTEM S-R ACCUMULATOR AIR SUP LINE ISO VLV 660	CIRCLE SEAL CORP N160-180 1/2 INCH CHECK VALVE	CT-2 HARSH		A2	J		N/A N/A					
1P52 F 0795	INSTRUMENT AIR SYSTEM S-R ACCUMULATOR AIR SUP LINE ISO VLV 660	CIRCLE SEAL CORP N160-180 1/2 INCH CHECK VALVE	CT-2 HARSH		A2	J		N/A N/A					
1P52 F 0796	INSTRUMENT AIR SYSTEM S-R ACCUMULATOR AIR SUP LINE ISO VLV 660	CIRCLE SEAL CORP N160-180 1/2 INCH CHECK VALVE	CT-2 HARSH		A2	J		N/A N/A					
1 1P54 F 0395	FIRE PROTECTION SYSTEM DRYWELL ISOLATION 52102	BORG WARNER 81110 4 INCH GATE VALVES	CT-3 HARSH		A1	J		N/A 20.0 SEC					
1P54 F 0395	FIRE PROTECTION SYSTEM DRYWELL ISOLATION 52102	LIMITORQUE SMB-000-5 MOTOR OPERATOR	CT-3 HARSH	A	A1	J	YES	N/A 20.0 SEC	YES	T 40Y		SP568-000-01 40Y	
1P54 F 1098	FIRE PROTECTION SYSTEM 52101	TRW MISSION K15ACEF-V73 4 INCH CHECK VALVE	CT-3 HARSH		A1	J		N/A N/A					

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1P57 F 0020A	SAFETY RELATED INSTRUMENT AIR SYSTEM CONTAINMENT ISOLATION 53106	LIMITORQUE SMB-000-2 MOTOR OPERATOR	CT-3 HARSH	A	A1	J	YES	N/A N/A	YES	T 40Y 40Y	SP568-000-01
1 1P57 F 0020A	SAFETY RELATED INSTRUMENT AIR SYSTEM CONTAINMENT ISOLATION 53106	ROCKWELL 15114MPT2 1 INCH GLOBE VALVES	CT-3 HARSH		A1	J		N/A N/A			
1P57 F 0020B	SAFETY RELATED INSTRUMENT AIR SYSTEM CONTAINMENT ISOLATION 53106	LIMITORQUE SMB-000-2 MOTOR OPERATOR	CT-3 HARSH	A	A1	J	YES	N/A N/A	YES	T 40Y 40Y	SP568-000-01
1 1P57 F 0020B	SAFETY RELATED INSTRUMENT AIR SYSTEM CONTAINMENT ISOLATION 53106	ROCKWELL 15114MPT2 1 INCH GLOBE VALVES	CT-3 HARSH		A1	J		N/A N/A			
1P57 F 0524A	SAFETY RELATED INSTRUMENT AIR SYSTEM 53101	DRESSER 5580W 1 INCH CHECK VALVE	DW-1 HARSH		A1	J		N/A N/A			
1P57 F 0524B	SAFETY RELATED INSTRUMENT AIR SYSTEM 53101	DRESSER 5580W 1 INCH CHECK VALVE	DW-1 HARSH		A1	J		N/A N/A			
1P86 F 0528	NITROGEN SUPPLY SYSTEM INBOARD ISO PEN P117 53101	DRESSER 7440W 2 INCH CHECK VALVE	CT-3 HARSH		A1	J		N/A N/A			
1R72 S 0001	PENETRATIONS-ELECTRICAL MEDIUM VOLTAGE PWR ELEC. PENETRATION 563	WESTINGHOUSE WX-33328 ELECTRICAL	CT-7 HARSH PENETRATION	A	P		YES	N/A N/A		T 40Y 40Y	SP563-000-03
1R72 S 0002	PENETRATIONS-ELECTRICAL MEDIUM VOLTAGE PWR ELEC. PENETRATION 563	WESTINGHOUSE WX-33328 ELECTRICAL	CT-7 HARSH PENETRATION	A	P		YES	N/A N/A		T 40Y 40Y	SP563-000-03
1R72 S 0003	PENETRATIONS-ELECTRICAL LOW VOLTAGE PWR.& CTL. ELEC. PENETR. 563	WESTINGHOUSE WX-33329 ELECTRICAL	CT-7 HARSH PENETRATION	A	A1	J	YES	N/A N/A		T 40Y 40Y	SP563-000-02
1R72 S 0004	PENETRATIONS-ELECTRICAL LOW VOLTAGE PWR.& CTL. ELEC. PENETR. 563	WESTINGHOUSE WX-33329 ELECTRICAL	CT-7 HARSH PENETRATION	A	A1	J	YES	N/A N/A		T 40Y 40Y	SP563-000-02

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1R72 S 0005	PENETRATIONS-ELECTRICAL LOW VOLTAGE POWER ELEC. PENETRATION 563	WESTINGHOUSE WX-33330 ELECTRICAL	CT-7 HARSH PENETRATION	A	P		YES	N/A N/A		T 40Y 40Y	SP563-000-02
1R72 S 0006	PENETRATIONS-ELECTRICAL LOW VOLTAGE POWER ELEC. PENETRATION 563	WESTINGHOUSE WX-33331 ELECTRICAL	CT-7 HARSH PENETRATION	A	I		YES	N/A N/A		T 40Y 40Y	SP563-000-02
1R72 S 0007	PENETRATIONS-ELECTRICAL CONTROL ELECTRICAL PENETRATION 563	WESTINGHOUSE WX-33332 ELECTRICAL	CT-7 HARSH PENETRATION	A	A1	J	YES	N/A N/A		T 40Y 40Y	SP563-000-02
1R72 S 0008	PENETRATIONS-ELECTRICAL CONTROL ELECTRICAL PENETRATION 563	WESTINGHOUSE WX-33333 ELECTRICAL	CT-7 HARSH PENETRATION	A	A1	J	YES	N/A N/A		T 40Y 40Y	SP563-000-02
1R72 S 0009	PENETRATIONS-ELECTRICAL CONTROL ELECTRICAL PENETRATION 563	WESTINGHOUSE WX-33332 ELECTRICAL	CT-7 HARSH PENETRATION	A	A1	J	YES	N/A N/A		T 40Y 40Y	SP563-000-02
1R72 S 0010	PENETRATIONS-ELECTRICAL CONTROL ELECTRICAL PENETRATION 563	WESTINGHOUSE WX-33333 ELECTRICAL	CT-7 HARSH PENETRATION	A	A1	J	YES	N/A N/A		T 40Y 40Y	SP563-000-02
1R72 S 0011	PENETRATIONS-ELECTRICAL CONTROL ELECTRICAL PENETRATION 563	WESTINGHOUSE WX-33334 ELECTRICAL	CT-7 HARSH PENETRATION	A	A1	J	YES	N/A N/A		T 40Y 40Y	SP563-000-02
1R72 S 0012	PENETRATIONS-ELECTRICAL LOW VOLTAGE PWR. & CTL. ELEC. PENETR. 563	WESTINGHOUSE WX-33335 ELECTRICAL	CT-7 HARSH PENETRATION	A	P		YES	N/A N/A		T 40Y 40Y	SP563-000-02
1R72 S 0013	PENETRATIONS-ELECTRICAL CONTROL ELECTRICAL PENETRATION 563	WESTINGHOUSE WX-33333 ELECTRICAL	CT-7 HARSH PENETRATION	A	P		YES	N/A N/A		T 40Y 40Y	SP563-000-02
1R72 S 0014	PENETRATIONS-ELECTRICAL LOW VOLTAGE PWR. & CTL. ELEC. PENETR. 563	WESTINGHOUSE WX-33335 ELECTRICAL	CT-7 HARSH PENETRATION	A	P		YES	N/A N/A		T 40Y 40Y	SP563-000-02
1R72 S 0015	PENETRATIONS-ELECTRICAL CONTROL ELECTRICAL PENETRATION 563	WESTINGHOUSE WX-33333 ELECTRICAL	CT-7 HARSH PENETRATION	A	P		YES	N/A N/A		T 40Y 40Y	SP563-000-02

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1R72 S 0016	PENETRATIONS-ELECTRICAL INSTRUMENT ELECTRICAL PENETRATION 563	WESTINGHOUSE WX-33336 ELECTRICAL	CT-4	A	A1	J	YES	N/A N/A	T 40Y 40Y	SP563-000-02	
1R72 S 0017	PENETRATIONS-ELECTRICAL INSTRUMENT ELECTRICAL PENETRATION 563	WESTINGHOUSE WX-33337 ELECTRICAL	CT-4	A	A1	J	YES	N/A N/A	T 40Y 40Y	SP563-000-02	
1R72 S 0018	PENETRATIONS-ELECTRICAL INSTRUMENT ELECTRICAL PENETRATION 563	WESTINGHOUSE WX-33338 ELECTRICAL	CT-4	A	P		YES	N/A N/A	T 40Y 40Y	SP563-000-02	
1R72 S 0019	PENETRATIONS-ELECTRICAL INSTRUMENT ELECTRICAL PENETRATION 563	WESTINGHOUSE WX-33339 ELECTRICAL	CT-4	A	P		YES	N/A N/A	T 40Y 40Y	SP563-000-02	
1R72 S 0020	PENETRATIONS-ELECTRICAL INSTRUMENT ELECTRICAL PENETRATION 563	WESTINGHOUSE WX-33336 ELECTRICAL	CT-4	A	A1	J	YES	N/A N/A	T 40Y 40Y	SP563-000-02	
1R72 S 0021	PENETRATIONS-ELECTRICAL INSTRUMENT ELECTRICAL PENETRATION 563	WESTINGHOUSE WX-33363 ELECTRICAL	CT-4	A	A1	J	YES	N/A N/A	T 40Y 40Y	SP563-000-02	
1R72 S 0022	PENETRATIONS-ELECTRICAL INSTRUMENT ELECTRICAL PENETRATION 563	WESTINGHOUSE WX-33340 ELECTRICAL	CT-4	A	P		YES	N/A N/A	T 40Y 40Y	SP563-000-02	
1R72 S 0023	PENETRATIONS-ELECTRICAL INSTRUMENT ELECTRICAL PENETRATION 563	WESTINGHOUSE WX-33341 ELECTRICAL	CT-4	A	A1	J	YES	N/A N/A	T 40Y 40Y	SP563-000-02	
1R72 S 0024	PENETRATIONS-ELECTRICAL INSTRUMENT ELECTRICAL PENETRATION 563	WESTINGHOUSE WX-33342 ELECTRICAL	CT-4	A	P		YES	N/A N/A	T 40Y 40Y	SP563-000-02	
1R72 S 0025	PENETRATIONS-ELECTRICAL INSTRUMENT ELECTRICAL PENETRATION 563	WESTINGHOUSE WX-33337 ELECTRICAL	CT-7	A	A1	J	YES	N/A N/A	T 40Y 40Y	SP563-000-02	
1R72 S 0026	PENETRATIONS-ELECTRICAL INSTRUMENT ELECTRICAL PENETRATION 563	WESTINGHOUSE WX-33343 ELECTRICAL	CT-3	A	A1	J	YES	N/A N/A	T 40Y 40Y	SP563-000-02	

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	ROD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION M LF/MI	SUMMARY
1R72 S 0027	PENETRATIONS-ELECTRICAL INSTRUMENT ELECTRICAL PENETRATION 563	WESTINGHOUSE WX-33344 ELECTRICAL	CT-3 HARSH PENETRATION	A	P		YES	N/A N/A		T 40Y 40Y	SP563-000-02
1R72 S 0028	PENETRATIONS-ELECTRICAL INSTRUMENT ELECTRICAL PENETRATION 563	WESTINGHOUSE WX-33345 ELECTRICAL	CT-4 HARSH PENETRATION	A	A1	J	YES	N/A N/A		T 40Y 40Y	SP563-000-02
1R72 S 0029	PENETRATIONS-ELECTRICAL LOW VOLTAGE POWER ELEC. PENETRATION 563	WESTINGHOUSE WX-34147 ELECTRICAL	CT-7 HARSH PENETRATION	A	P		YES	N/A N/A		T 40Y 40Y	SP563-000-02
1R72 S 0030	PENETRATIONS-ELECTRICAL INSTRUMENT ELECTRICAL PENETRATION 563	WESTINGHOUSE WX-34488 ELECTRICAL	CT-4 HARSH PENETRATION	A	A1	J	YES	N/A N/A		T 40Y 40Y	SP563-000-02
1R72 S 0031	PENETRATIONS-ELECTRICAL INSTRUMENT ELECTRICAL PENETRATION 563	WESTINGHOUSE WX-34489 ELECTRICAL	CT-7 HARSH PENETRATION	A	P		YES	N/A N/A		T 40Y 40Y	SP563-000-02
1R72 S 0033	PENETRATIONS-ELECTRICAL INSTRUMENT ELECTRICAL PENETRATION 563	WESTINGHOUSE WX-34490 ELECTRICAL	CT-7 HARSH PENETRATION	A	P		YES	N/A N/A		T 40Y 40Y	SP563-000-02
1R72 S 0035	PENETRATIONS-ELECTRICAL INSTRUMENT ELECTRICAL PENETRATION 563	WESTINGHOUSE WX-34491 ELECTRICAL	CT-4 HARSH PENETRATION	A	A1	J	YES	N/A N/A		T 40Y 40Y	SP563-000-02
1R72 S 0036	PENETRATIONS-ELECTRICAL INSTRUMENT ELECTRICAL PENETRATION 563	WESTINGHOUSE WX-34492 ELECTRICAL	CT-7 HARSH PENETRATION	A	P		YES	N/A N/A		T 40Y 40Y	SP563-000-02
1R72 S 0038	PENETRATIONS-ELECTRICAL INSTRUMENT ELECTRICAL PENETRATION 563	WESTINGHOUSE WX-34493 ELECTRICAL	CT-7 HARSH PENETRATION	A	P		YES	N/A N/A		T 40Y 40Y	SP563-000-02
2B21 F 0100U	NUCLEAR BOILER SYSTEM RELIEF VALVE VACUUM BREAK 53104	KEROTEST D30616 2 INCH CHECK VALVE	DW-2 HARSH		A1	J		N/A N/A			
2B21 F 0100V	NUCLEAR BOILER SYSTEM RELIEF VALVE VACUUM BREAK 53104	KEROTEST D30616 2 INCH CHECK VALVE	CT-3 HARSH		A1	J		N/A N/A			

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	RQD FT	OPER DEMO	ACC RES	ACC/RT TME	QUALIFICATION M LF/MI	SUMMARY
2E12 F 0037A	RESIDUAL HEAT REMOVAL SYSTEM RHR TO CONTAINMENT POOLS 52102	LIMITORQUE SMB-2-40 MOTOR OPERATOR	CT-8 HARSH	A	A1	J	YES	N/A 90.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 2E12 F 0037A	RESIDUAL HEAT REMOVAL SYSTEM RHR TO CONTAINMENT POOLS 52102	BORG WARNER 82350-1 12 INCH GLOBE VALVES	CT-8 HARSH		A1	J		N/A 90.0 SEC			
2E12 F 0037B	RESIDUAL HEAT REMOVAL SYSTEM RHR TO CONTAINMENT POOLS 52102	LIMITORQUE SMB-2-40 MOTOR OPERATOR	CT-7 HARSH	A	A1	J	YES	N/A 62.0 SEC	YES	T 40Y 40Y	SP568-000-01
1 2E12 F 0037B	RESIDUAL HEAT REMOVAL SYSTEM RHR TO CONTAINMENT POOLS 52102	BORG WARNER 82350 12 INCH GLOBE VALVES	CT-7 HARSH		A1	J		N/A 62.0 SEC			
2E21 F 0005	LOW PRESSURE CORE SPRAY SYSTEM LPCS TO RPV PEN P112 OUTBOARD 52102	LIMITORQUE SMB-2-80 MOTOR OPERATOR	AB-4 HARSH	A	A4	I	YES	N/A 25.9 SEC	YES	T 40Y 40Y	SP568-000-01
1 2E21 F 0005	LOW PRESSURE CORE SPRAY SYSTEM LPCS TO RPV PEN P112 OUTBOARD 52102	BORG WARNER 81220-3 12 INCH GATE VALVES	AB-4 HARSH		A4	I		N/A 25.9 SEC			
2E22 F 0006	HIGH PRESSURE CORE SPRAY SYSTEM WTR LEG PMP DISCH. ISO 53102	BORG WARNER 126EAB1-001 1-1/2 INCH STOP	AB-2 HARSH		A4	J		N/A N/A			
2E51 F 0062	REACTOR CORE ISOLATION COOLING WTR LEG PMP DISCH TO RCIC PMP 53102	BORG WARNER 126EAB1-001 1-1/2 INCH STOP	AB-3 HARSH		A4	J		N/A N/A			
2G43 F 0508A	SUPPRESSION POOL MAKE-UP SYSTEM THERMAL EXPANSION CHECK 53104	KEROTEST D30516 2 INCH CHECK VALVE	CT-7 HARSH		A1	J		N/A N/A			
2G43 F 0508B	SUPPRESSION POOL MAKE-UP SYSTEM THERMAL EXPANSION CHECK 53104	KEROTEST D30516 2 INCH CHECK VALVE	CT-7 HARSH		A1	J		N/A N/A			
2N11 F 0020A	MAIN AND REHEAT STEAM SYSTEM MAIN STEAM STOP 3RD ISO 52102	LIMITORQUE SMB-4-100 MOTOR OPERATOR	AB-7 HARSH	A	A4	J	YES	N/A 140. SEC	YES	T 40Y 40Y	SP568-000-01

SAFETY RELATED EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL QUALIFICATION SUMMARY
AS OF 00352 05/04/83

SELECT : 47EH

SELECT :

SORT : 01

TITLE : HARSH ENVIRONMENTAL

EQUIPMENT NUMBER	SERVICE DESCRIPTION SP NO 1 GE PURCH DWG	MANUFACTURER MODEL EQUIP. DESCRIPTION	ENV ZONE	ENV QUALD	OP EC	ROD FT	OPER DEMO	ACC RES	ACC/RT TME DEMO	QUALIFICATION M LF/MI	SUMMARY
1 2N11 F 0020A	MAIN AND REHEAT STEAM SYSTEM MAIN STEAM STOP 3RD ISO 52102	BORG WARNER 81240-1 28 INCH GATE VALVES	AB-7 HARSH		A4	J		N/A 140. SEC			
2N11 F 0020B	MAIN AND REHEAT STEAM SYSTEM MAIN STEAM STOP 3RD ISO 52102	LIMITORQUE SMB-4-100 MOTOR OPERATOR	AB-7 HARSH	A	A4	J	YES	N/A 140. SEC	YES	T 40Y 40Y	SP568-000-01
1 2N11 F 0020B	MAIN AND REHEAT STEAM SYSTEM MAIN STEAM STOP 3RD ISO 52102	BORG WARNER 81240-1 28 INCH GATE VALVES	AB-7 HARSH		A4	J		N/A 140. SEC			
2N11 F 0020C	MAIN AND REHEAT STEAM SYSTEM MAIN STEAM STOP 3RD ISO 52102	LIMITORQUE SMB-4-100 MOTOR OPERATOR	AB-7 HARSH	A	A4	J	YES	N/A 140. SEC	YES	T 40Y 40Y	SP568-000-01
1 2N11 F 0020C	MAIN AND REHEAT STEAM SYSTEM MAIN STEAM STOP 3RD ISO 52102	BORG WARNER 81240-1 28 INCH GATE VALVES	AB-7 HARSH		A4	J		N/A 140. SEC			
2N11 F 0020D	MAIN AND REHEAT STEAM SYSTEM MAIN STEAM STOP 3RD ISO 52102	LIMITORQUE SMB-4-100 MOTOR OPERATOR	AB-7 HARSH	A	A4	J	YES	N/A 140. SEC	YES	T 40Y 40Y	SP568-000-01
1 2N11 F 0020D	MAIN AND REHEAT STEAM SYSTEM MAIN STEAM STOP 3RD ISO 52102	BORG WARNER 81240-1 28 INCH GATE VALVES	AB-7 HARSH		A4	J		N/A 140. SEC			

HARSH ENVIRONMENT

EQUIPMENT DESCRIPTION	SPEC.	MANUFACTURER	MODEL NUMBER	ELEM. DIAG.	SUPPORT	LOCATION	ENV. ZONE	DAMPING LOADS	OPER. REG.	ACC/RT
MCT (MULTIPLE CABLE TRANSIT)	33	NELSON	RGS-6	N/A	DRYWELL WALL	C	CT		A1, J	N/A
CABLE CONNECTORS	33	BURNDY	YAES-K	N/A	VARIOUS	VARIOUS	VARIOUS		A1, J	N/A
TERMINAL BLOCKS	33	BUCHANON	NQB, NQO	N/A	TERMINAL BOX	VARIOUS	ALL EXCEPT DW, CT-1, CT-7, CT-8		A1, J	N/A
SPlicing AND TERMINATING PRODUCTS	33	RAYCHEM	NMCK, NESK NCBK, NPKV WCSF-N	N/A	N/A	VARIOUS	VARIOUS		A1, J	N/A
CABLE	559	ANACONDA	VARIOUS 5-15 KV POWER	N/A	TRAY, CONDUIT	VARIOUS	VARIOUS EXCEPT DW		A1, J	N/A
CABLE	560	ROCKBESTOS	VARIOUS Small Pwr. & Control	N/A	CONDUIT	C	DW		A1, J	N/A
					TRAY, CONDUIT	C	CT		A1, J	N/A
					TRAY, CONDUIT	OUTSIDE REACTOR	VARIOUS		A1, J	N/A

HARSH ENVIRONMENT
(Cont'd)

EQUIPMENT DESCRIPTION	SPEC.	MANUFACTURER	MODEL NUMBER	ELEM. DIAG.	SUPPORT	LOCATION	ENV. ZONE	DAMPING LOADS	OPER. REG.	ACC/RT
CABLE	561	BRAND REX	VARIOUS INSTRU- MENTATION CABLE	N/A	CONDUIT	C	DW		A1, J	N/A
					TRAY, CONDUIT	C	CT		A1, J	N/A
					TRAY, CONDUIT	OUTSIDE REACTOR BUILDING	VARIOUS		A1, J	N/A
CABLE	567	SAMUEL MOORE	VARIOUS THERMO- COUPLE	N/A	CONDUIT	C	DW		A1, J	N/A
					TRAY, CONDUIT	C	CT		A1, J	N/A
					TRAY, CONDUIT	OUTSIDE REACTOR BUILDING	VARIOUS		A1, J	N/A
CABLE	793-01	ROCKBESTOS	VARIOUS INSTR., CONTROL, COAXIAL	N/A	CONDUIT	C	DW		A1, J	N/A
					TRAY, CONDUIT	C	CT		A1, J	N/A
					TRAY CONDUIT	OUTSIDE REACTOR BUILDING	VARIOUS		A1, J	N/A

270.2 Provide the information requested in Questions 5, 6, & 7 of Appendix E, NUREG-0588 for safety-related equipment located in a harsh environment.

Response

The requested information available at this time is attached to the letter transmitting these responses.

ATTACHMENT 270.2

(79 Sheets)

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions for Class IE Equipment in Harsh Environment

Specification: 33

Equipment
Description or Name: WCSF-N (NUCLEAR IN-LINE CABLE SPLICE ASSEMBLIES)

Vendor: RAYCHEM

Qualified Life: 40 yrs. Aging Time/Temp. 1500 HRS/ 150 °C

Life-limiting Components: NONE

Parameter	Worst Case Plant Condition	Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	ZONE DW-1	ZONE DW-1	SEE ATTACH. 1 (3.4)
Rel. Humidity	" "	N/A	N/A
Radiation	" DW-2	ZONE DW-2	SEE ATTACH 1 (3.3)
Pressure	" DW-1	" DW-1	" " 1 (3.4)

3.3 Radiation Exposure

The specimens, while still on the mandrel, were subjected to gamma radiation from a Cobalt-60 source. The total dose given the specimens ranged from 2.0×10^8 to 2.9×10^8 rads. The dose rate was between 0.32 and 0.47×10^6 rads per hour. The certificate of radiation dose is shown in Appendix 1.

3.3.1 Functional Tests

The functional tests were again performed as described in 3.1.1. All specimens passed the voltage withstand test. The insulation resistance values are given in Table 1.

3.4 Loss of Coolant Accident and Main Steamline Break (LOCA/MSLB) Environmental Exposure

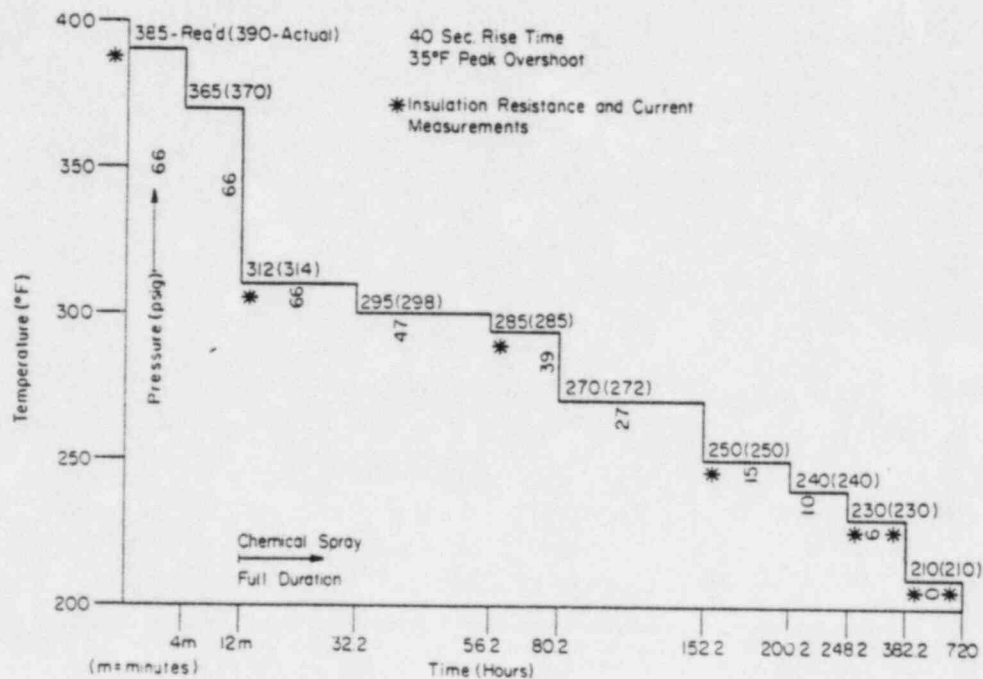


Figure 4 Temperature/Pressure Profile For Simulation of LOCA/MSLB Environment

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions for Class IE Equipment in Harsh Environment

Specification: 33

Equipment
Description or Name: NCBK (NUCLEAR CABLE BREAKOUT KIT)

Vendor: RAYCHEM

Qualified Life: 40 yrs Aging Time/Temp. 1500 HRS / 150°C

Life-limiting Components: NONE

Parameter	Worst Case Plant Condition	Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	ZONE DW-1	ZONE DW-1	SEE ATTACH 1.
Rel. Humidity	" "	N/A	N/A
Radiation	" DW-2	ZONE DW-2	SEE ATTACH. 1
Pressure	" DW-1	" DW-1	" " 1

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions for Class 1E Equipment in Harsh Environment

Specification: 33

Equipment
Description or Name: NESK (NUCLEAR END SEALING KIT)

Vendor: RAYCHEM

Qualified Life: 40 yrs. Aging Time/Temp. 1500 HRS / 150°C

Life-limiting Components: NONE

Parameter	Worst Case Plant Condition	Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	ZONE DW-1	ZONE DW-1	SEE ATTACH. 1
Rel. Humidity	" "	N/A	N/A
Radiation	" DW-2	ZONE DW-2	SEE ATTACH. 1
Pressure	" DW-1	" DW-1	" " 1

3.3 Radiation Exposure

All the specimens, while still on the mandrel, were subjected to gamma radiation from a Cobalt-60 source. The total air equivalent dose given the specimens ranged from 2.0×10^8 to 2.9×10^8 rads. The dose rate was between 0.32 and 0.47×10^6 rads per hour. The certificate of radiation dose is shown in Appendix A.

3.3.1 Functional Tests

The functional tests were again performed as described in 3.1.1. All specimens passed the voltage withstand test. The insulation resistance values are given in Table 1.

3.4 Loss of Coolant Accident and Main Steamline Break (LOCA/MSLB) Environmental Exposure

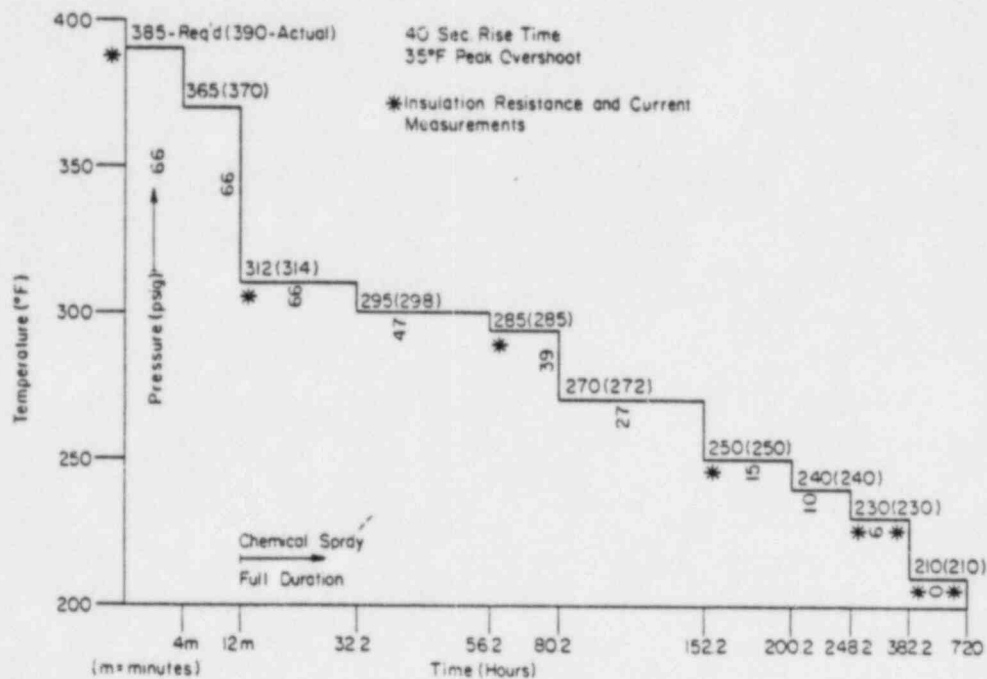


Figure 5 Temperature/Pressure Profile For Simulation of LOCA/MSLB Environment

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions
for Class IE Equipment in Harsh Environment

Specification: 33

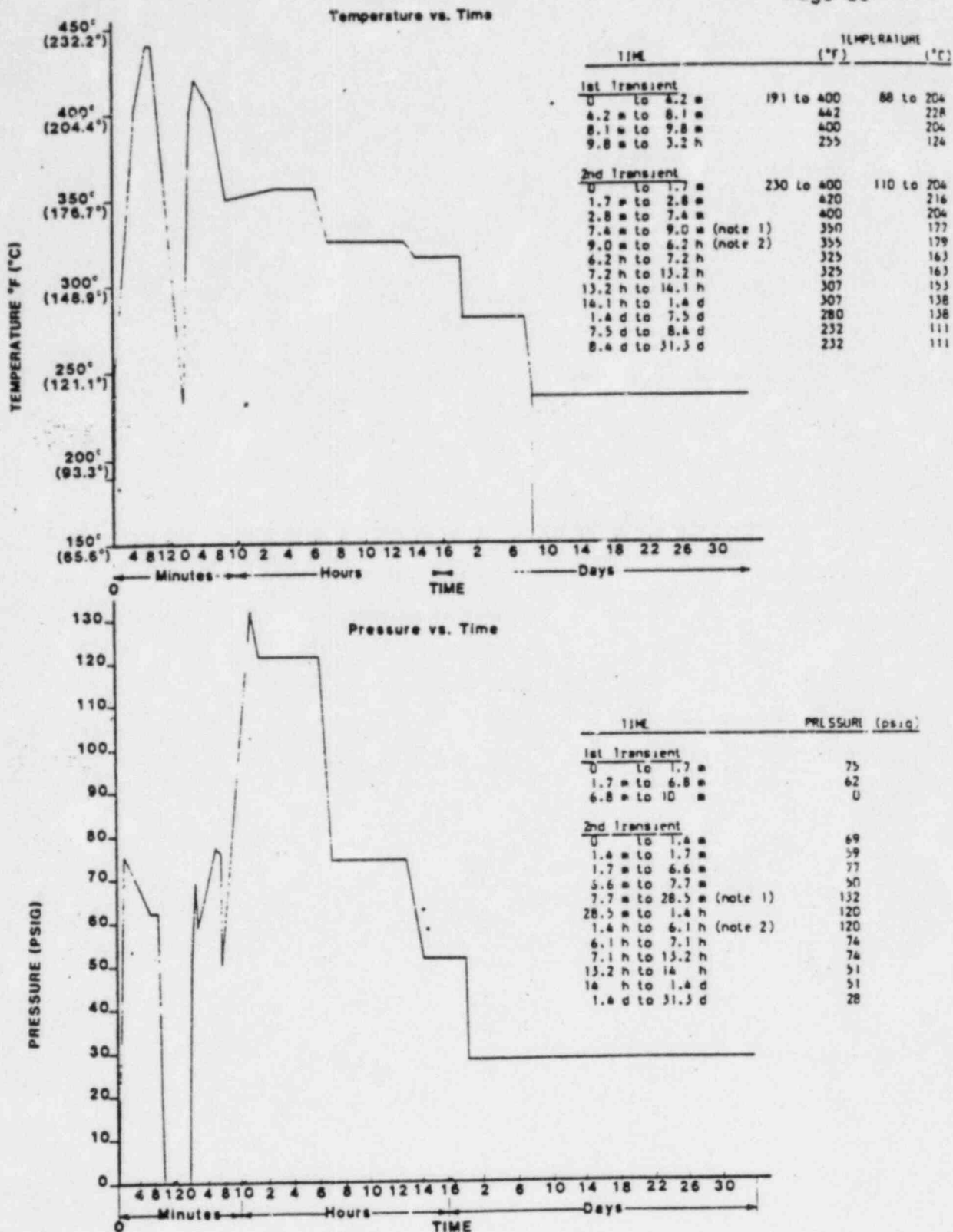
Equipment
Description or Name: NPKV (NUCLEAR PLANT STUB CONNECTION KIT)

Vendor: RAYCHEM

Qualified Life: 40 yrs Aging Time/Temp. 916 HRS 150°C
138 HRS 175°C

Life-limiting Components: NONE

Parameter	Worst Case Plant Condition	Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	<u>ZONE DW-1</u>	<u>ZONE DW-1</u>	<u>SEE ATTACH. 1</u>
Rel. Humidity	<u>" "</u>	<u>N/A</u>	<u>N/A</u>
Radiation	<u>" DW-2</u>	<u>ZONE DW-2</u>	<u>SEE ATTACH. 2 (3.3.2)</u>
Pressure	<u>" DW-1</u>	<u>" DW-1</u>	<u>" " 1</u>



NOTES: (1) Problems encountered with test vessel pressure seals necessitated interrupting the test after 9.0 minutes. Test was resumed at the 177°C (350°F) temperature plateau and the chemical spray was initiated.

(2) Problems encountered with the test specimen extension leads and the test vessel pressure seals necessitated interrupting the test after 5 hours. The test was resumed at the 177°C (350°F) temperature plateau to complete the required exposure at this temperature level.

Figure 5 - Temperature and Pressure Profiles for Simulation of LOCA/MSLB Environment

3.3.2

Thermally aged specimens were exposed both to the postulated accident dose, plus 10 percent margin, and the dose representing 40 years of installed life totalling 2.15×10^8 rads gamma. The samples simulating the beginning of installed life received only the postulated accident dose plus 10 percent margin for a total dose of 1.65×10^8 rads gamma.

The actual gamma radiation exposures exceeded the required 2.15×10^8 rad and 1.65×10^8 rad levels. Table 1 depicts the actual air equivalent radiation doses and associated dose rates by specimen number. The radiation source utilized was Co^{60} and the Certificate of Radiation is shown in Appendix A.

3.3.3

Functional Tests

The functional tests were again performed after specimen preconditioning as described in Section 3.2. Test values are listed in Table 2.

3.4

LOCA/MSLB Environmental Exposure

The test specimens were placed on perforated metal trays inside a pressure vessel. Five specimens (Nos. 1, 2, 4, 6, and 7) were installed horizontally in conduit outlet boxes to simulate field installation in a conduit fitting or box. To allow sample exposure to the environment, the conduit outlet box opening was left uncovered and positioned on the bottom. The remaining two specimens (Nos. 3 and 5) were positioned horizontally upon the tray without the covering. A diagram of the pressure vessel is given in Figure 2. Figure 3 shows the installation of test specimens in the pressure vessel.

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions
for Class IE Equipment in Harsh Environment

Specification: 33

Equipment
Description or Name: YAES-K, YAV CABLE CONNECTORS

Vendor: BURNDY

Qualified Life: 40 yrs. Aging Time/Temp. 7 DAYS 1163°C

Life-limiting Components: NONE

Parameter	Worst Case Plant Condition	Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	ZONE DW-1	ZONE DW-1	SEE ATTACH. 1
Rel. Humidity	" "	" "	" " 3 (CHEM. SPRAY)
Radiation	" DW-2	" DW-2	" " 2 (6)
Pressure	" DW-1	" DW-1	" " 1

LOSS OF COOLANT ACCIDENT SIMULATION

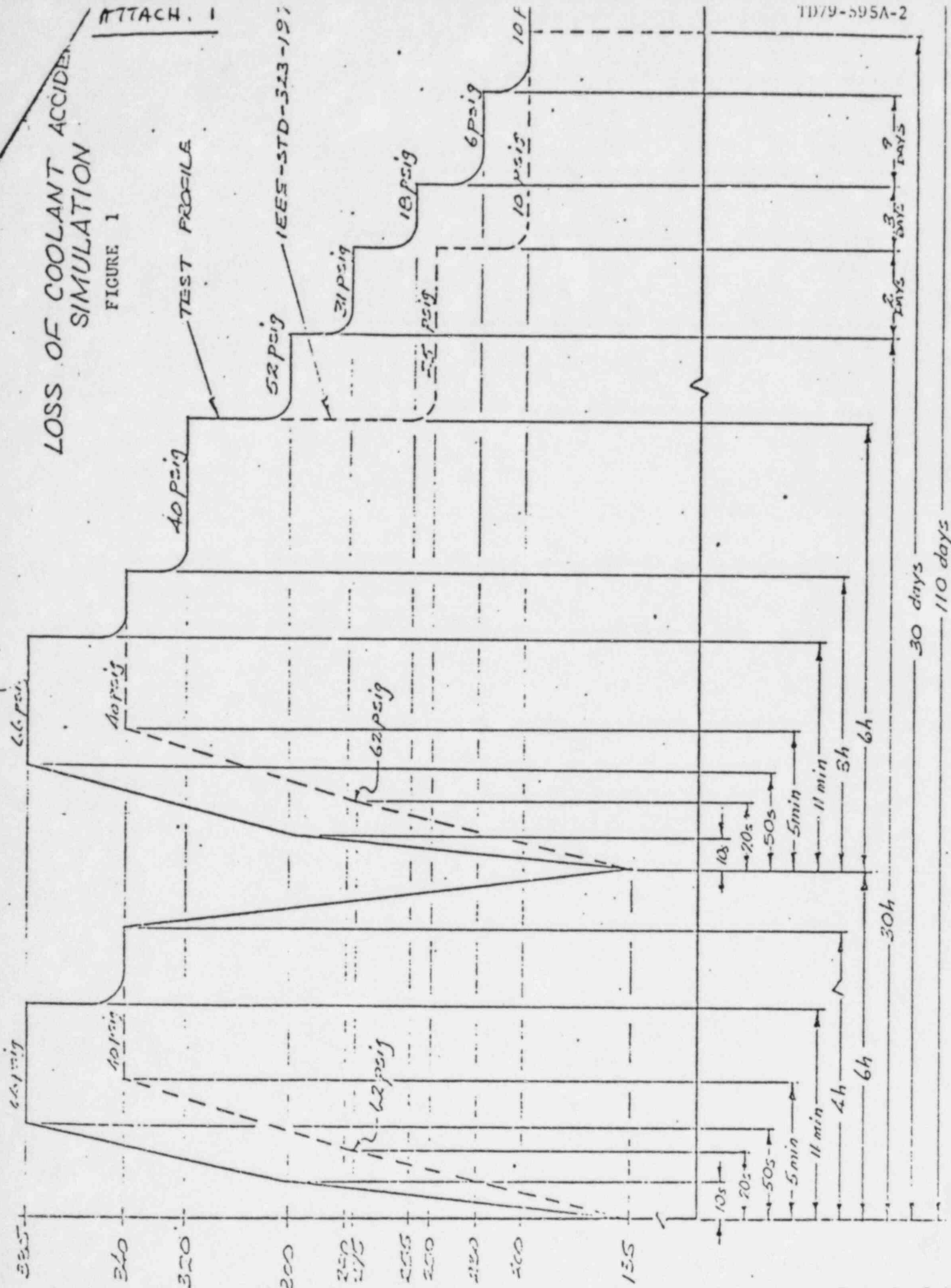
FIGURE 1

ATTACH. 1

TD/9-595A-2

TEST PROFILE

IEEE-STD-323-197



30 days
110 days

LABORATORY TEST RECORD No. TD79-595A-2

Ageing and Testing Procedures (continued)

5. Voltage Drop: The voltage drop measurements described in 1 were repeated.
6. Radiation Exposure: The test assemblies were placed in a hot cell and exposed to a cobalt-60 source so that a total dose of gamma radiation of 224.9M rads was reached at an average dose rate of 0.65M rads per hour.
7. Voltage Drop: The voltage drop measurements were repeated.
8. LOCA Simulation: The terminal block assembly was fastened to a fiber-glass reinforced panel. The single spliced conductor assemblies were attached to terminal blocks, which were fastened to the same panel, in a series loop. The panel was placed in the test chamber (autoclave) and positioned so that the samples would not be exposed to direct impingement of the chemical spray during the test.

All electrical leads required for energizing the test assemblies were routed through the chamber penetration. These penetrations consisted of piping filled with a two-part electrically insulating potting compound which provided a pressure barrier seal. All samples were subjected to an electrical continuity test and then connected to the various power supplies used to energize them during the LOCA test.

All assemblies were energized with a current of 18 amps and this current was maintained throughout the test.

The LOCA test was run for 110 days according to the profile shown in Figure 1 with the following exceptions:

During the first temperature/pressure/time transient, the test was aborted at a temperature of 275°F and a pressure of 40 psig because of excessive steam leaks at the cable/chamber penetrations.

The leaks were repaired and the test was restarted.

Again during the first temperature/pressure/time transient, this time at a temperature of 305°F and a pressure of 64 psig excessive steam leakage occurred at one of the cable/chamber penetrations and the test was again aborted.

The penetrations were repaired and additional supports were installed to ensure their pressure integrity. After completion of this modification, the chamber was pressurized with air to the maximum operating pressure and each penetration was checked for air leaks. None were observed and the test was restarted.

The first temperature/pressure/time transient was initiated. The chamber temperature and pressure conditions of 300°F and 54 psig were obtained within 10 seconds. The required chamber pressure of 66 psig was obtained in 5 minutes. The

LABORATORY TEST RECORD No. TD 79-595A-2

Ageing and Testing Procedures (continued)

recorded time from 300°F to 385°F was 1 hour and 4 minutes. The recorded chamber temperature during this phase of the test was approximately 25°F lower than the actual internal chamber steam temperature. The chamber temperature was maintained between 300°F and 341°F for approximately 20 minutes while calibration of the recorder could be checked. When the temperature of 385°F was reached, that temperature and a pressure of 66 psig were maintained for 11 minutes.

The chamber temperature was then reduced to 340°F and the pressure reduced to 45 psig and these conditions were maintained for 3.81 hours. After completion of 4 hours at these temperature/pressure conditions, the first temperature/pressure/time transient was completed and the test chamber was allowed to return to 135°F and 0 psig.

The second ramp of the LOCA test was initiated. The chamber temperature and pressure conditions of 300°F, 54 psig, were obtained in 10 seconds. The required chamber pressure of 66 psig was obtained in 3 minutes. The recorded time from 300°F to 385°F was 37 minutes 50 seconds.

The remainder of the test followed the profile shown in Figure 1. The chemical spray was turned off after 33 days. The test was terminated after 110 days.

Note: The chemical spray used for this test consisted of 6,200 ppm boron, 50 ppm hydrazine, 0.064 molar sodium bisulphate mixed with demineralized water and buffered to 10.5 pH with sodium phosphate.

9. Post LOCA tests: All samples were examined visually for damage and/or degradation. They were then subjected to a continuity test and voltage drop measurements. Finally the terminal block assembly with the Kynar insulated terminal-wire assemblies mounted on it and the individual terminal-wire assemblies were dielectric voltage withstand tested.

RESULTS:

Visual Examination

The only evidence of damage and/or degradation of the samples was a discoloration of the Kynar insulation on the YAES14K terminals to a dark brown color and some slight corrosion of the exposed metal portions of the terminals. The uninsulated terminals and splices also showed evidence of slight corrosion on their exposed surfaces.

Continuity

All sample assemblies demonstrated electrical continuity. This measurement was made with a V.O.M.

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions
for Class IE Equipment in Harsh Environment

Specification: 33

Equipment
Description or Name: NMCK (NUCLEAR MOTOR CONNECTION KIT)

Vendor: RAYCHEM

Qualified Life: 40 yrs Aging Time/Temp. 1500 HRS/ 150°C

Life-limiting Components: NONE

Parameter	Worst Case Plant Condition	Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	ZONE DW-1	ZONE DW-1	SEE ATTACH. 1 (3.4)
Rel. Humidity	" "	N/A	N/A
Radiation	" DW-2	ZONE DW-2	SEE ATTACH. 1 (3.3)
Pressure	" DW-1	" DW-1	" " 1 (3.4)

3.3 Radiation Exposure

The specimens, while still on the mandrel, were subjected to gamma radiation from a Cobalt-60 source. The total dose given the specimens ranged from 2.0×10^8 to 2.9×10^8 rads. The dose rate was between 0.32 and 0.47×10^6 rads per hour. The certificate of radiation dose is shown in Appendix A.

3.3.1 Functional Tests

The functional tests were again performed as described in 3.1.1. All specimens passed the voltage withstand test. The insulation resistance values are given in Table 1.

3.4 Loss of Coolant Accident and Main Steamline Break (LOCA/MSLB) Environmental Exposure

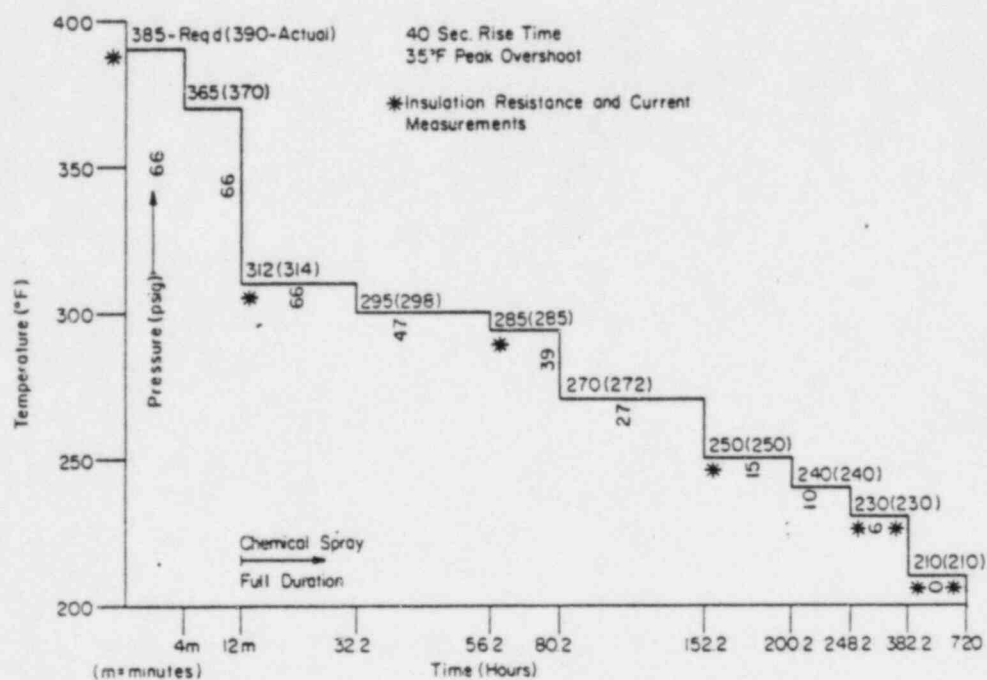


Figure 5 Temperature/Pressure Profile For Simulation of LOCA/MSLB Environment

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions for Class IE Equipment in Harsh Environment

Specification: 33

Equipment
Description or Name: NQB, NQO TERMINAL BLOCKS

Vendor: BUCHANON

Qualified Life: 40 yrs. Aging Time/Temp. 39.6 DAYS 165°C (NQB)
8.3 DAYS 121°C (NQO)

Life-limiting Components: NONE

Parameter	Worst Case Plant Condition	Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	ZONE CT-2	ZONE CT-2	SEE ATTACH. 1
Rel. Humidity	" "	" "	SEE ATTACH. 2 (5.10)
Radiation	" "	" "	SEE ATTACH. 3 (5.5)
Pressure	" "	" "	SEE ATTACH. 1

S-14

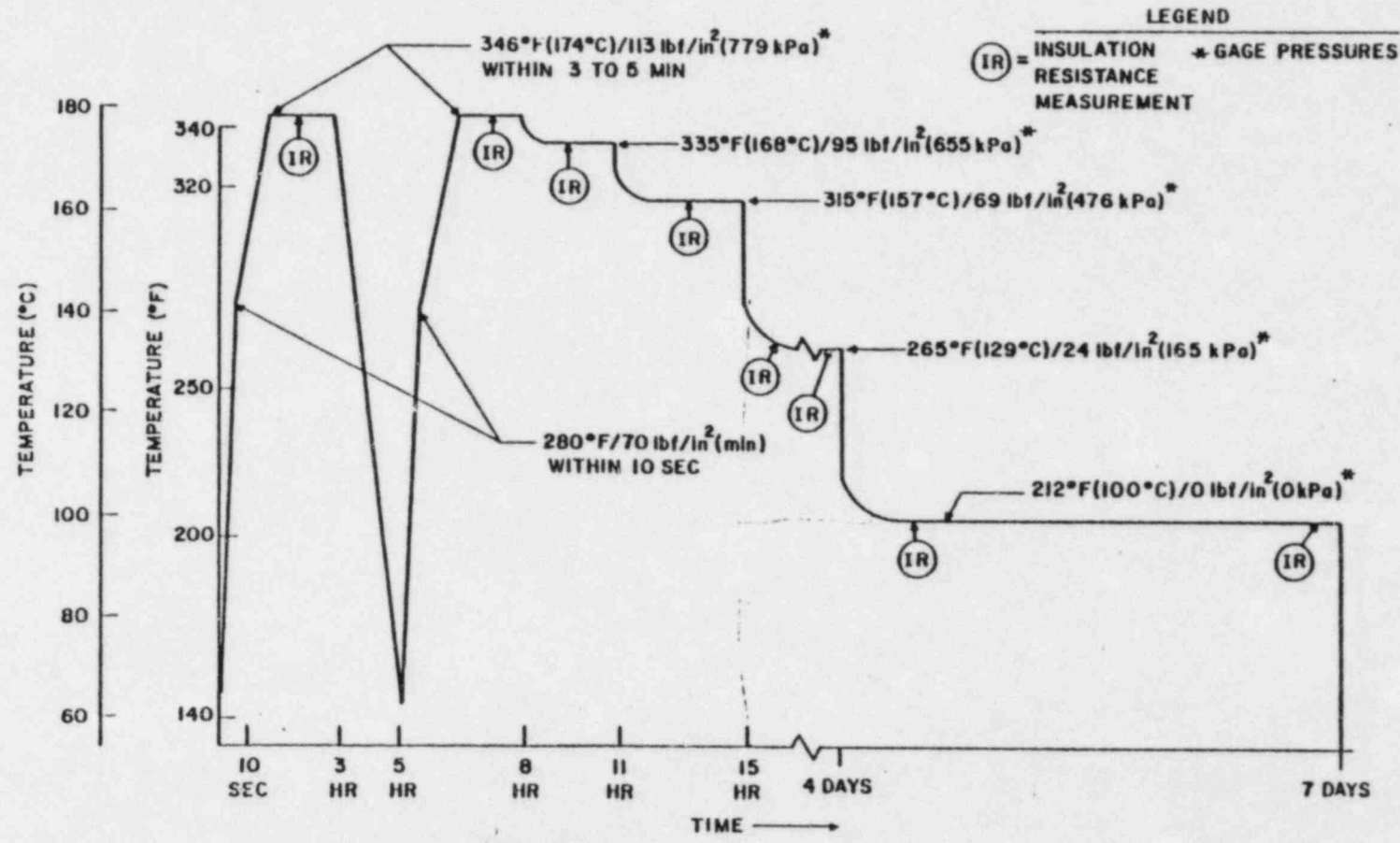


Figure 11. Temperature/Pressure Profile for Simulation of Loss-of-Coolant

F-C514

ATTACH. 1

Because fusible links in Specimen P fuses were likely to soften at the high temperature of the S/C exposure and interrupt electrical continuity, the fuses were replaced with nickel-plated brass tubes of the same dimensions. See Table 1. (This would not infer any inadequacy of the specimens, i.e., fuse holders.)

5.10 STEAM/CHEMICAL-SPRAY EXPOSURE

The enclosure with specimens was exposed to a 7-day steam/chemical-spray (S/C) exposure in accordance with the temperature/pressure profile shown in Figure 11. The chemical-spray solution consisted of 3000 ppm boron as boric acid, 0.064 molar sodium thiosulfate and sufficient sodium hydroxide to obtain a pH of 10.5 at room temperature.

During the S/C exposure, the specimens were energized with the specified potentials and currents, except during short intervals to obtain IR measurements; IR was measured at the times indicated in Figure 11.

5.11 FINAL MEASUREMENTS AND TESTS

After completion of the S/C exposure, the specimens were visually inspected and subjected to an ac high-potential-withstand test of 2200 V held for 5 minutes and a wire-retention (pull) test of 25 lb (11.3 kg) held for 1 minute. The wire-retention test was conducted by simultaneously pulling on a pair of wires connected to opposite sides of the terminal blocks. A crosshead speed of 0.05 in/min (1.3 mm/min) was used until 25-lb (11.3-kg) force was achieved. After holding this force for 1 minute (minimum), the motion of the crosshead was continued until the wire(s) pulled out of the specimen clamp or other failure occurred. The maximum force developed was recorded.

Figure 11. Temperature/Pressure Profile for Simulation of Loss-of-Coolant Accident (LOCA) Environment

• Contact Resistance Tests

The voltage drop was measured between the points indicated in Figure 8, while a dc current of 2.5 A was passed through the circuit. The contact resistance was calculated as $R = V/I$.

Specimens C, F, I, L, and O were designated as spares and packaged in a cardboard box.

5.5 GAMMA IRRADIATION

The two enclosures with specimens plus the cardboard box of spare specimens were exposed to an air-equivalent dose of 200 Mrd minimum of gamma irradiation from a cobalt-60 source at an average dose rate of 0.56 Mrd/h.

Following gamma irradiation, the specimens were visually inspected and subjected to IR and contact resistance measurements; the contact resistance was measured between wire conductors on both sides of the terminals, i.e., A to E and F to H of Figure 8.

5.6 VIBRATION AGING

Enclosure 1 with Specimens A, D, G, J, M, and P was mounted vertically to the table of the vibration facility using a test fixture illustrated in Figures 2 and 9.

The enclosure with specimens was vibrated at each of the 10 frequencies listed in Table 2, in each of three mutually perpendicular directions, shown as the X, Y, and Z axes in Figure 9. The appropriate orientations of specimens and thrust axis were obtained by changing the positions of the actuator (horizontal for X and Y vibrations and vertical for Z vibrations) and rotating the enclosure about a vertical axis. The table was oriented horizontally in all cases, and the specimens remained fixed relative to the table. For each combination of frequency and specimen orientation, the vibration was sustained for 15 minutes.

Enclosure 2 with its contents was not subjected to vibration aging.

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions
for Class IE Equipment in Harsh Environment

Specification: SP-091-4549-00

Equipment

Description or Name: DIFFERENTIAL PRESSURE SWITCH

Vendor: SOLON

Qualified Life: 40 YEARS Aging Time/Temp. 100 DAYS / 160 °F

Life-limiting Components: BUNA N DIAPHRAGMS - 4 YEARS

Parameter	Worst Case Plant Condition	Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min °F Temperature	ZONE FB-7	111 °F (AVG)	250 °F
Rel. Humidity	ZONE FB-7	50 %	100 %
Radiation	ZONE FB-7	1×10^4 RADS, T.I.D.	1×10^7 RADS, T.I.D.
Pressure	ZONE FB-7	ATMOS.	2 PSIG



Gilbert Associates, Inc.

Reading, Pennsylvania

CALCULATION

SUBJECT

CISID

SP-506-4549-00

PAGE

1

REV.

0

1

2

3

OF

MICROFILMED

PAGES 3

ORIGINATOR J S Smith

DATE

3-18-83

Listed below is the environmental envelope for the water leg pumps and motors SP-506-4549-00. Included is a comparison to the vendor tested conditions.

DESIGNTESTED

Normal Full Power
Operation

	(DURATION)	(TEMP. °F)	(PRESS psig)	(R.H.%)
Max.	8,408 hrs	123	ATMOS.	90
Min.	3,503 hrs	90	ATMOS.	20
Avg.	338,440 hrs	102	ATMOS.	50

As the result of data obtained from accelerated thermal aging tests conducted in accordance with

IEEE 117-1974, a thermal life of 80,000 hours at a total temperature of 130°C has been established. The subject motors are known to operate at 50°C rise long resistance at 1.0

Normal Shutdown
(111 cycles) 234 hrs duration

	(TEMP. °F)	(PRESS psig)	(R.H.%)
Max.	140	ATMOS	90
Min.	106	ATMOS	20

service factor dry test.

Normal Continuation
of Shutdown (40 cycles) 720 hrs duration

	(Temp. °F)	(PRESS psig)	(R.H.%)
Max.	140	ATMOS	90
Min.	106	ATMOS	20

This envelope any of the normal & abnormal or accident temperatures at Perry: 80,000 hrs minus a 180 day accident yields a 0.64 yr thermal qualified life.



Gilbert Associates, Inc.

Reading, Pennsylvania

CALCULATION

SUBJECT

CISID

SP-506-4549-00

PAGE 2

REV.

0

1

2

3

OF

MICROFILMED

ORIGINATOR

J S Smith

DATE

3-18-83

PAGES 3

Abnormal Loss of HVAC
(1 cycle) 49 hrs duration
(TEMP °F) (PRESS psig) (R.H.%)

MAX	154	ATMOS.	90
MIN	106	ATMOS.	20

The motor where exposed
to and are qualified
to 100% relative
humidity.

ACCIDENT (INCLUDES RWCH BREAK IN
ZONE AB-5, RWCH BREAK IN ZONE AB-3,
LOCA IN CONTAINMENT, RCIC LINE
BREAK - STEAM SUPPLY TO RCIC TURBINE -
RHR 'A', MODERATE ENERGY CRACKS IN
10", 18", AND 24" RHR LINES.

(TEMP °F) (RELATIVE HUMIDITY %) (PRESS PSIG)

0 Sec	123	90	0.0
14 Sec	155	100	3.0
30 Sec	151	100	0.4
40 Sec	151	100	0.1
1 min	151	100	0.1
7.5 min	149	100	0.5
8.3 min	148	100	0.6
10 min	147	90	0.6
25 min	125	90	0.2
50 min	135	90	0.1
60 min	140	100	0.0
62.1 min	152	100	0.6
62.4 min	160	90	0.2
69.1 min	140	90	0.0
71 min	140	90	0.0
82.4 min	140	90	0.0
92.4 min	140	90	0.0
171 min	140	90	0.0
24 hr	140	90	0.0



Gilbert Associates, Inc.

Reading, Pennsylvania

CALCULATION

SUBJECT

CISID

SP-506-4549-00

PAGE

3

REV.

0

1

2

3

MICROFILMED

ORIGINATOR

J S Smith

DATE

3-18-83

OF

3

PAGES

TEMP °F RELATIVE HUMIDITY % PRESS PSIG

40 in	140	90	0.0
120 in	138	90	0.0
180 days	138	90	0.0

RADIATION:

Integrated gamma Radiation dose for the 40 yr life of the plant is 6.2×10^5 rads

The 180 day accident integrated gamma Radiation dose is 4.1×10^7 RADS

Tests on motor components and systems show that accumulated dosages of gamma radiation (cobalt 60 source) have little or no effect at levels up to 2×10^6 RADS. Ref. page 11 Test report.

$$TID = D_{YN} + D_{YA}$$

$$TID(\text{rads}) = 6.2 \times 10^5 + 4.1 \times 10^7$$

$$TID(\text{rads}) = 4.162 \times 10^7 = 4.2 \times 10^7$$

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions for Class IE Equipment in Harsh Environment

Specification: 559

Equipment
Description or Name: 5 * 15KV Power CABLES

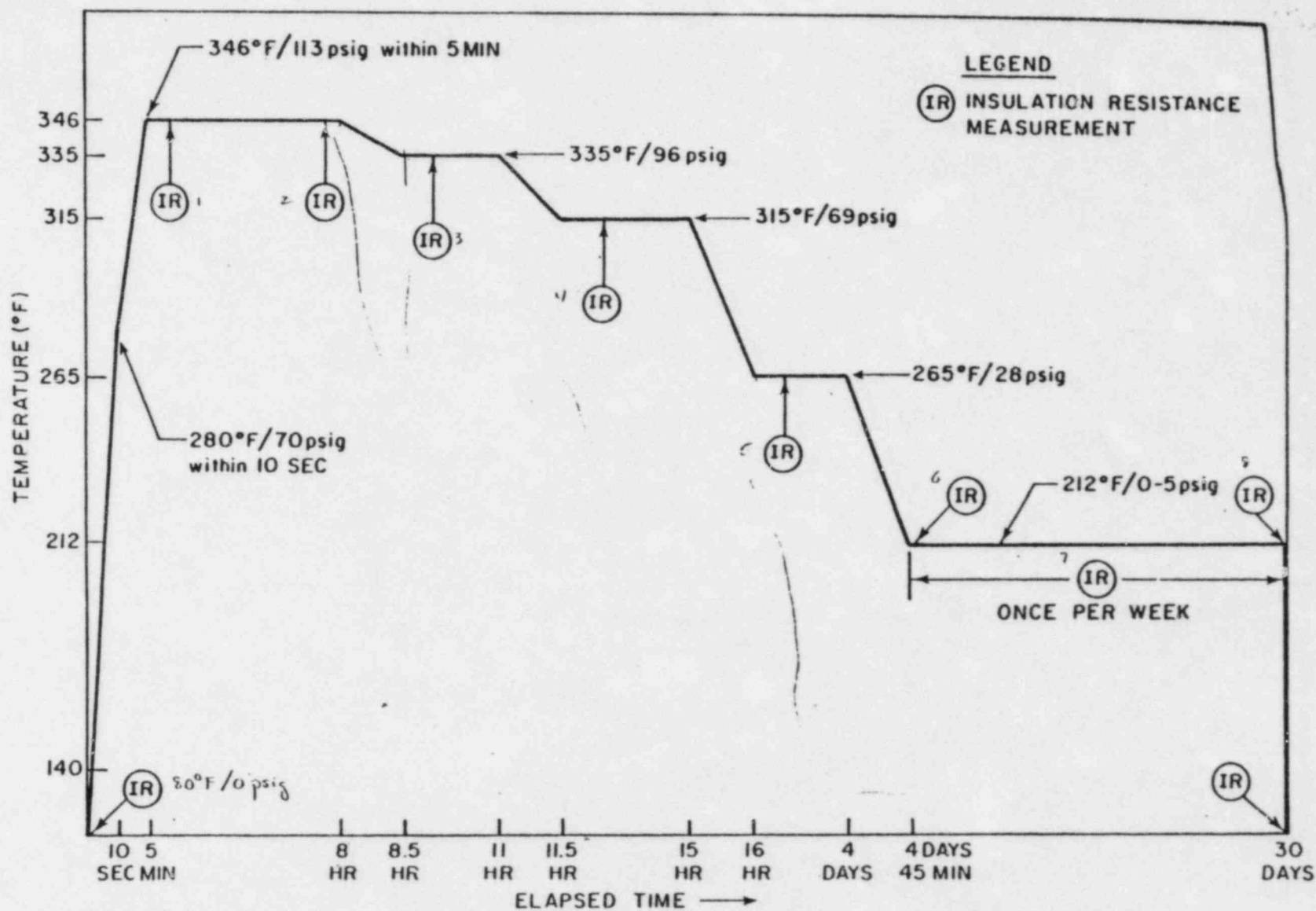
Vendor: ANACONDA

Qualified Life: 40 yrs. Aging Time/Temp. 7 DAYS / 150°C

Life-limiting Components: NONE

Parameter	Worst Case Plant Condition	Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	ZONE CT-1	ZONE CT-1	SEE ATTACH. 1
Rel. Humidity	" "	N/A	N/A
Radiation	" CT-5	ZONE CT-5	SEE ATTACH. 2+3 (SEC. 3.2)
Pressure	" CT-1	" CT-1	" " 1

Figure 2. Temperature/Pressure Profile for Simulation of Loss-of-Coolant Accident (LOCA) Environment



3-5

ATTACH. 1

F-C4350-3



3. TEST PROGRAM

3.1 PRETEST INSPECTION AND PREPARATIONS

The specimens were visually inspected upon receipt for defects, damage or sharp bends and identified with numbered stainless steel tags, then wound around two concentric stainless steel mandrels (each consisting of 8 stainless steel tubes in a circular array) as shown in Figure 1. The cables on the inner mandrel (OD = 16 inches) were wrapped with three turns and those on the outer mandrel (OD = 20 inches) were wrapped with two turns. The double mandrel was immersed in a tank of tap water at room temperature and insulation resistance (IR) measurements were made after applying a potential of 500 Vdc for one minute. For the 7/C control cables, the measurements were made between conductors 2, 4 and 6 connected together versus conductors 1, 3, 5 and 7 connected together at ground potential; for the 1/C low voltage cables, measurements were made between the conductor and the mandrel at ground potential; and for the 1/C medium voltage cables, measurements were made between the conductor and the metallic part of the insulation shield at ground potential. Following the IR measurements, the double mandrel was removed from the water and allowed to air dry.

3.2 THERMAL AND RADIATION AGING

While still on the mandrel, the cables were placed in a forced-convection, air oven and thermally aged for 7 days at 150°C (302°F), after which the cables were visually inspected for obvious changes in physical appearance.

The double mandrel was attached to the flanged head of the pressure vessel and the ends of the cables were passed up through the central volume of the mandrel and through pressure sealing glands in the pressure vessel head. The assembly was then subjected to gamma radiation from a cobalt-60 source at a dose rate of 0.35 megarads per hour until each sample received a minimum air-

*equivalent** dose of 200 megarads. The cables were visually inspected after both the thermal and radiation aging periods to determine if any obvious changes had occurred in their physical appearance.

3.3 LOSS-OF-COOLANT ACCIDENT (LOCA) SIMULATION

The specimens were exposed to steam and chemical spray in accordance with the temperature/pressure profile illustrated in Figure 2.

The test chamber was a 24-inch diameter by 48-inch stainless steel pressure vessel with a flat flanged head containing penetrations for the cables. A perforated steam inlet pipe extended about 7 inches down from the center of the head flange; this was surrounded by a cylindrical baffle that prevented direct impingement of steam on the specimens.

A spray system was provided to spray the specimens uniformly at an average rate of 0.15 gallons per minute (gpm) per square foot over the cylindrical area approximately midway between the two mandrels. This was accomplished by locating four wide-angle spray nozzles at each of two locations along the axis of the mandrel. The spray was directed radially outward, part of it impinging on the specimens mounted on the inner mandrel and part of it passing through the spaces between cable turns to impinge on the specimens mounted on the outer mandrel. If it is assumed that the spray is uniformly applied to the interior of an imaginary cylinder midway between the 33-inch long inner and outer mandrels, 0.15 gpm per square foot is equivalent to a total rate of 1.94 gpm. A rate of 2.5 gpm was used to assure adequate spray formation from the eight wide-angle nozzles (approximately 0.31 gpm per nozzle).

A chemical spray consisting of 3000 ppm boron as boric acid, 0.064 molar sodium thiosulfate, adjusted with sodium hydroxide to a pH of 10.5 at room temperature, was applied at the rate of 0.15 gpm per square foot (100 ml per second per square meter) of spray area. Fresh spray solution was used until the temperature was reduced to 315°F (elapsed time = 11.5 hrs). Thereafter,

* IEEE Standard 334-1974: "The volume occupied by the sample shall receive an isotropic flux of gamma radiation such that if the volume contained air the specified radiation dose would result."

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions
for Class IE Equipment in Harsh Environment

Specification: 560

Equipment

Description or Name: 600V CHEM. XLP INSUL. PWR. & CTL. CABLE
WITH REWORK

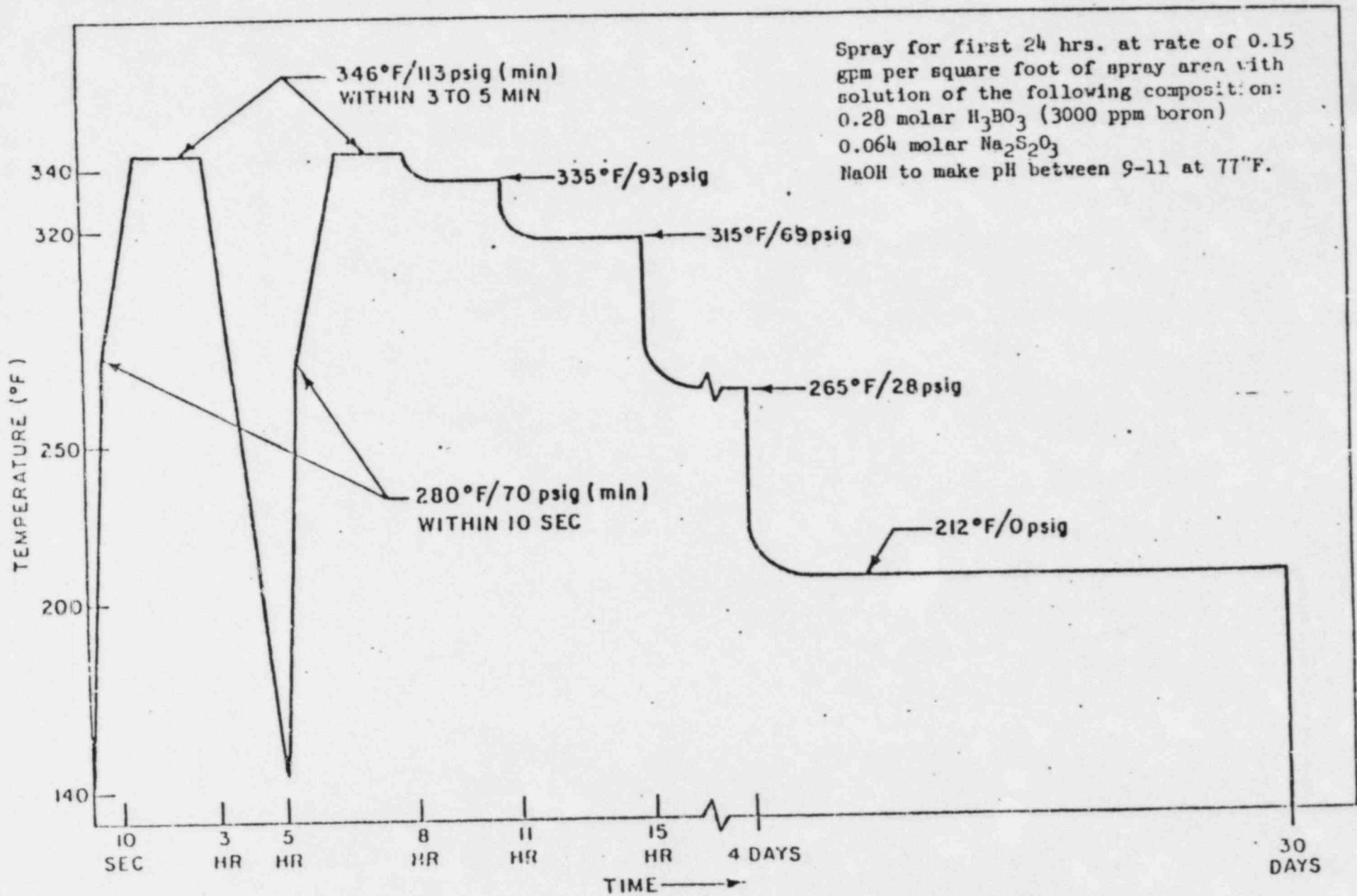
Vendor: ROCKBESTO S

Qualified Life: 40 yrs. Aging Time/Temp. 1300 HRS. / 150°C

Life-limiting Components: NONE

Parameter	Worst Case Plant Condition	Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	ZONE DW-1	ZONE DW-1	SEE ATTACH. 1
Rel. Humidity	" "	N/A	N/A
Radiation	" DW-2	ZONE DW-2	SEE ATTACH. 2 (SEC. III)
Pressure	" DW-1	" DW-1	" " 1

LOCA Profile



LOCA PROFILE

ATTACH. 1

TEST PROCEDURE FOR ACCIDENT (LOCA) CONDITIONI. Reference IEEE 383 Paragraph 2.3.3.1

Two 10 ft. specimens of each test sample described on Page 1 with factory insulation rework were prepared for testing.

II. The specimens were thermally aged in a circulating air oven for 1300 hours at 150°C in order to simulate 40 year installed life at a continuous operating temperature of 90°C. This simulation was based on the attached Arrhenius data. Exposure time of 850 hours dictated by the Arrhenius slope was adjusted to 1300 hours to provide an adequate margin over specified service temperature, as required in IEEE 323, Section 6.3.1.5.

III. Reference IEEE 383 Paragraph 2.3.3.3

The specimens were subsequently subjected in air to gamma radiation from cobalt 60 source at a rate of 0.54×10^6 rads per hour to cumulative dosage of 2.01×10^8 rads.

IV. Reference IEEE 383 Paragraph 2.4

In order to demonstrate the serviceability of the specimens during and after a LOCA, the specimens were subjected to the LOCA profile of IEEE 323 for combined PWR/BWR while energized with 600 VAC.* Following this exposure, the specimens were straightened and recoiled with an inside diameter of 40 times their O.D.'s and immersed in tap water at room temperature. While still immersed, the specimens were subjected and passed to a voltage withstand test for 5 minutes at a potential of 80 vac/mil (criteria for acceptance).

* Paragraph 1.3.4.2.1 of IEEE Std. 383 requires that the electrical loading of cables be such as to simulate the most unfavorable condition anticipated. The most unfavorable condition for the cables in question is to energize with voltage only, since a current loading would have the effect of establishing a thermal gradient across the insulation thus minimizing the effect of moisture penetration and thus the risk of electrical failure during the LOCA period.

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions for Class IE Equipment in Harsh Environment

Specification: 560

Equipment

Description or Name: 600V CHEM. XLP INSUL. PWR. + CTL. CABLE
BEFORE REWORK

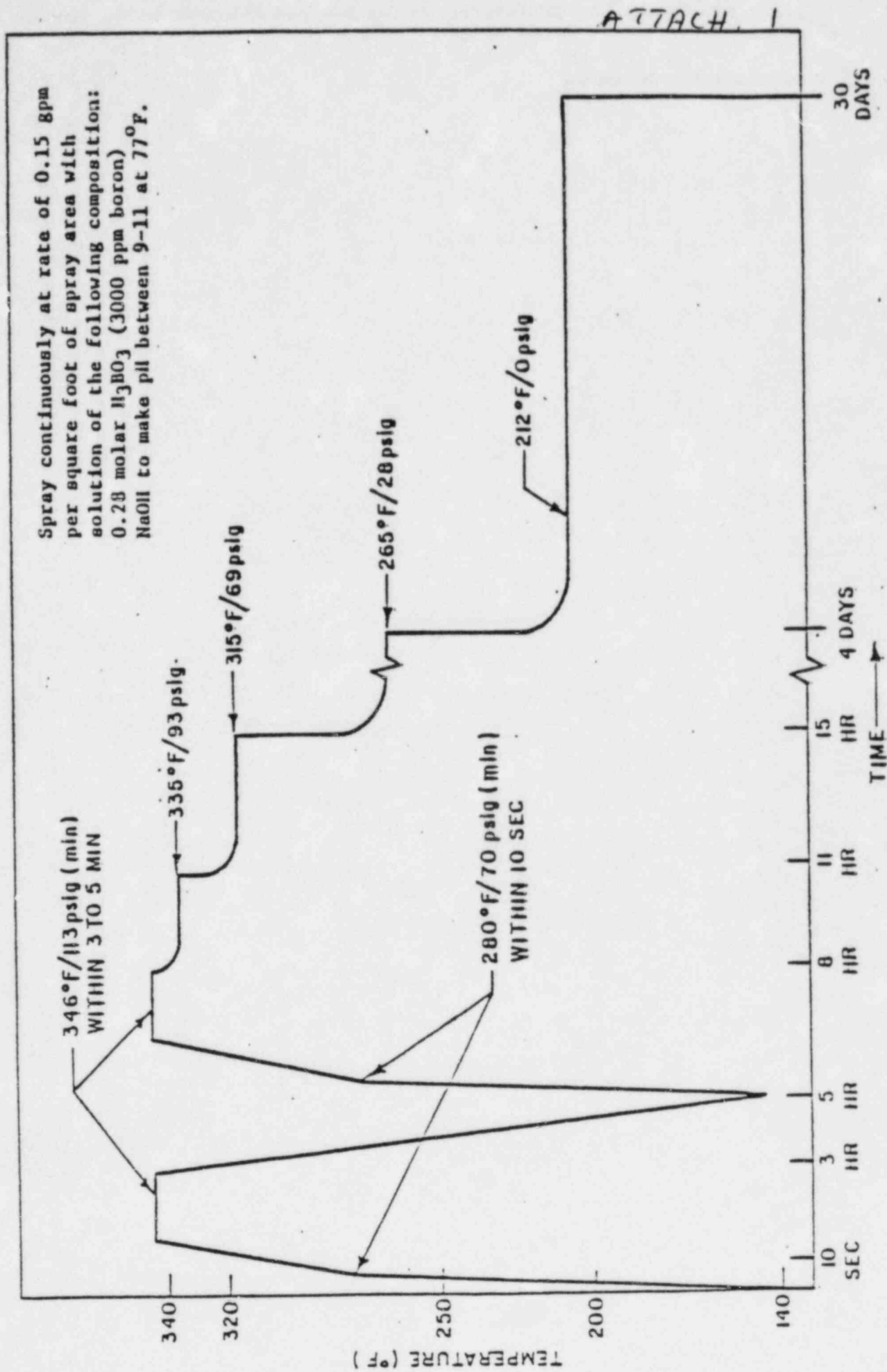
Vendor: ROCKBESTOS

Qualified Life: 40 yrs. Aging Time/Temp. 1300 HRS / 150°C

Life-limiting Components: NONE

Parameter	Worst Case Plant Condition	Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	<u>ZONE DW-1</u>	<u>ZONE DW-1</u>	<u>SEE ATTACH. 1</u>
Rel. Humidity	<u>" "</u>	<u>N/A</u>	<u>N/A</u>
Radiation	<u>" DW-2</u>	<u>ZONE DW-2</u>	<u>SEE ATTACH. 2+3 (SET. III + V)</u>
Pressure	<u>" DW-1</u>	<u>" DW-1</u>	<u>" " 1</u>

LOCA Profile



PROCEDUREI. Reference IEEE 383 Paragraph 2.3.3.1

Three specimens ("A," "B" and "C") each made up of two 10 ft. pieces of cable, were prepared for each of the Firewall III instrumentation, control and power cable test samples described on Page 1. All specimens were formed into test coils.

II. Reference IEEE 383 Paragraph 2.3.3.2

All "A" and "B" specimens were thermally aged in a circulating air oven for 1300 hours at 150°C in order to simulate 40 year installed life at a continuous operating temperature of 90°C. This simulation was based on the attached Arrhenius data. Exposure time of 850 hours dictated by the Arrhenius slope was adjusted to 1300 hours to provide an adequate margin over specified service temperature, as required in IEEE 323, Section 6.3.1.5.

III. Reference IEEE 383 Paragraph 2.3.3.3

All "A" and "B" specimens were subsequently subjected in air to gamma radiation from a cobalt 60 source at a rate of 0.65 Mrads/hr. to a cumulative dosage of 50.7 Mrads.

IV. Reference IEEE 383 Paragraph 2.3.3.4

In order to demonstrate the serviceability of Firewall III after normal 40 year service conditions, each "A" specimen was straightened and recoiled with an inside diameter of 20 times its O.D. and immersed in tap water at room temperature. While still immersed, each specimen was subjected to and passed a voltage withstand test for 5 minutes at a potential of 80 V/mil AC.

V. Reference IEEE 383 Paragraph 2.4

In order to demonstrate the serviceability of Firewall III during and after a LOCA occurring during the first days of installed life, each "C" specimen was first subjected to a radiation dosage of 150.4 Mrads at a rate of 0.8 Mrads/hr. and then installed in an autoclave and subjected to the LOCA profile of IEEE 323 for combined PWR/BWR while energized with rated voltage and current*. Having functioned electrically throughout this exposure, the specimens were then removed from the autoclave, straightened and recoiled with an inside diameter of 40 times its O.D. and immersed in tap water at room temperature. While still immersed, each specimen was subjected to and passed a voltage withstand test for 5 minutes at a potential of 80 V/Mil AC (criteria for acceptance).

In order to demonstrate the serviceability of Firewall III during and after a LOCA occurring during the last days of 40 year installed life, each "B" specimen was first subjected to an additional radiation dosage of 150.4 Mrads at a rate of 0.8 Mrads/hr., bringing the total dosage to 201.1 Mrads, and then installed in an autoclave and subjected to the LOCA profile of IEEE 323 for combined PWR/BWR while energized with rated voltage and current*. Having functioned electrically throughout this exposure, each specimen was then removed from the autoclave, straightened and recoiled with an inside diameter of 40 times its O.D. and immersed in tap water at room temperature. While still immersed, each specimen was subjected to and passed a voltage withstand test for 5 minutes at a potential of 80 V/Mil AC (Criteria for acceptance).

* 6 AWG: 600 VAC, 70A

12 AWG: 600 VAC, 30A

16 AWG: 300 VAC, 22A

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions
for Class IE Equipment in Harsh Environment

Specification: 560

Equipment
Description or Name: 600V IRRADIATION XLP PWR. + CTL. CABLE
WITH REWORK

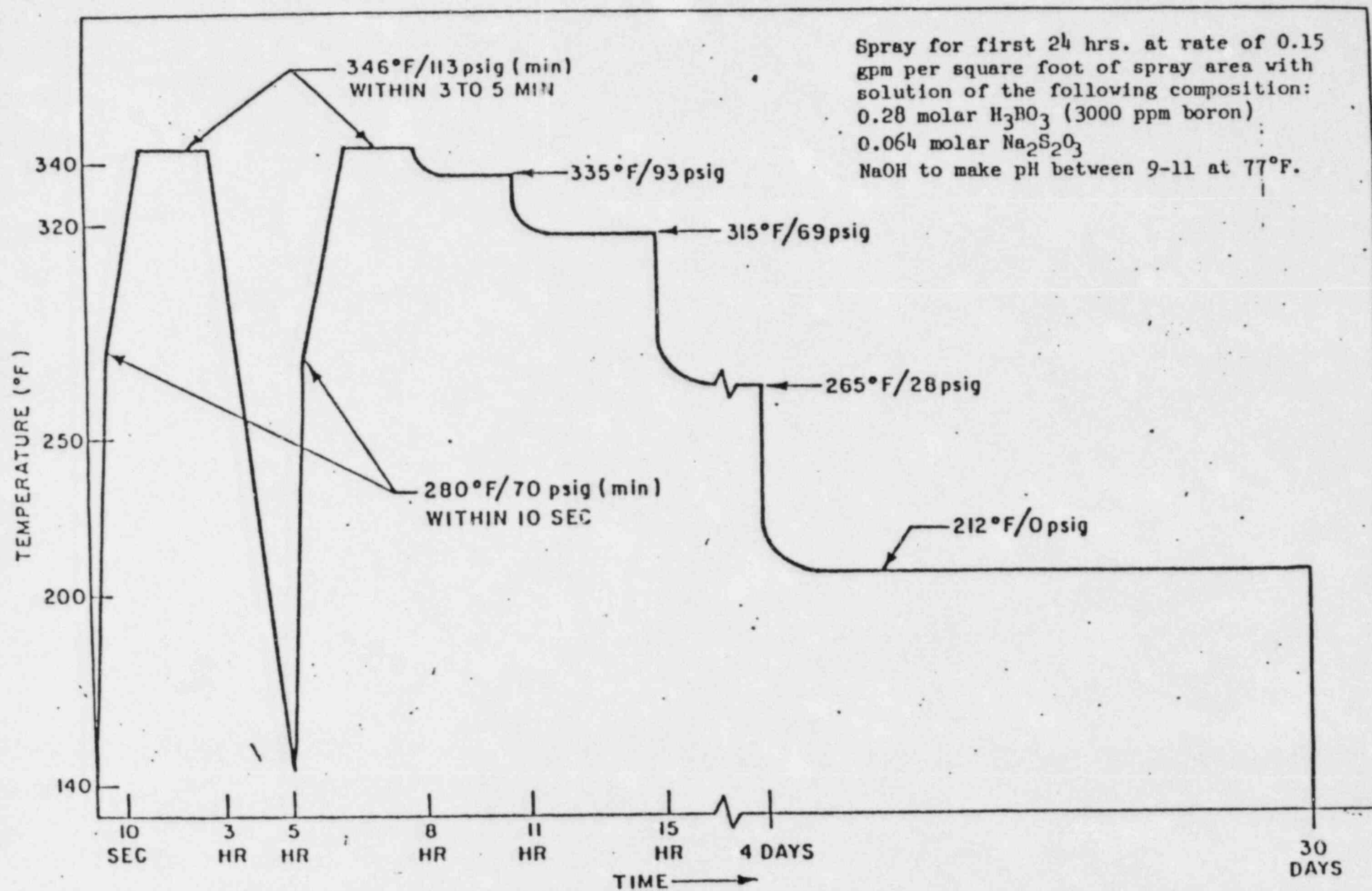
Vendor: ROCKBESTOS

Qualified Life: 40 yrs. Aging Time/Temp. 850 HRS/ 150°C

Life-limiting Components: NONE

Parameter	Worst Case Plant Condition	Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	<u>ZONE DW-1</u>	<u>ZONE DW-1</u>	<u>SEE ATTACH. 1</u>
Rel. Humidity	<u>" "</u>	<u>N/A</u>	<u>N/A</u>
Radiation	<u>" DW-2</u>	<u>ZONE DW-2</u>	<u>SEE ATTACH. 2 (SEC. II)</u>
Pressure	<u>" DW-1</u>	<u>" DW-1</u>	<u>" " 1</u>

LOCA Profile



LOCA PROFILE

ATTACH. 1 7.

PURPOSE

The purpose of this test program is to demonstrate that Firewall[®] III electric cables with irradiation cross-linked insulation and factory KXL760 insulation rework* will function during normal conditions and a loss of coolant accident (LOCA) postulated to occur at any time during 40 years of operation under conditions as prescribed by IEEE 383-1974.

TEST SAMPLE DESCRIPTIONSControl Cable

Single conductor #14 AWG, 600 volt, 30 mils of flame retardant irradiation cross-linked insulation and factory KXL760 insulation rework identified with traceability Lot #B8031.

TEST PROCEDURE FOR ACCIDENT (LOCA) CONDITIONI. Reference IEEE 383 Paragraph 2.3.3.2

The specimen was thermally aged in a circulating air oven for 850 hours at 150°C in order to simulate 40 year installed life at a continuous operating temperature of 90°C. This simulation was based on the attached Arrhenius data.

II. Reference IEEE 383 Paragraph 2.3.3.3

The specimen was subsequently subjected in air to gamma radiation from a cobalt 60 source at a rate of 0.35×10^6 rads per hour to a cumulative dosage of 2.00×10^8 rads.

*Factory insulation rework is necessitated by minute imperfections within the insulation wall which result in electrical failure during factory high voltage testing. Rework methods are covered by Rockbestos internal instructions which are available for review.

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions for Class IE Equipment in Harsh Environment

Specification: 560

Equipment

Description or Name: 600 V IRRADIATION XLP PWR. + CTL. CABLE
BEFORE REWORK

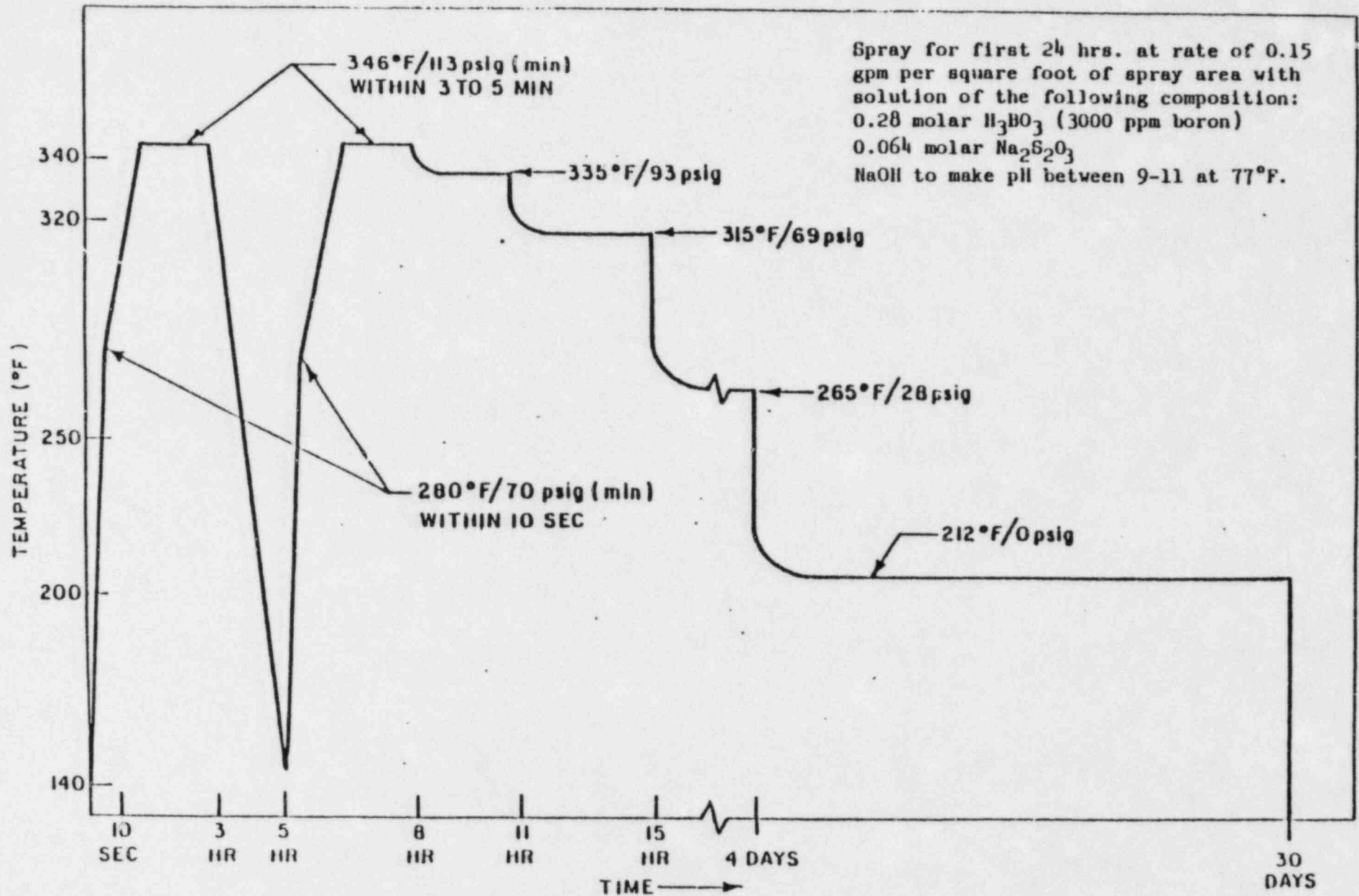
Vendor: ROCKBESTOS

Qualified Life: 40 y/s. Aging Time/Temp. 1300 HRS. / 150°C

Life-limiting Components: NONE

Parameter	Worst Case Plant Condition	Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	ZONE DW-1	ZONE DW-1	SEE ATTACH. 1
Rel. Humidity	" "	N/A	N/A
Radiation	" DW-2	ZONE DW-2	SEE ATTACH. 2 (SEC. III)
Pressure	" DW-1	" DW-1	" " 1

LOCA Profile



LOCA PROFILE

ATTACH. 1
8.

PROCEDUREI. Reference IEEE 383 Paragraph 2.3.3.1

Three specimens ("A," "B" and "C") each made up of two 10 ft. pieces of cable were prepared for the Firewall III control cable test sample described on page 1. All specimens were formed into test coils.

II. Reference IEEE 383 Paragraph 2.3.3.2

The "A" and "B" specimens were thermally aged in a circulating air oven for 1300 hours at 150°C in order to simulate 40 year installed life at a continuous operating temperature of 90°C. This simulation was based on the attached Arrhenius data. Exposure time of 850 hours dictated by the Arrhenius slope was adjusted to 1300 hours to provide an adequate margin over specified service temperature, as required in IEEE 323, Section 6.3.1.5.

III. Reference IEEE 383 Paragraph 2.3.3.3

The "A", "B" and "C" specimens were subsequently subjected in air to gamma radiation from a cobalt 60 source at a rate of 0.51 Mrads/hr. to a cumulative dosage of 204 Mrads.

IV. Reference IEEE 383 Paragraph 2.3.3.4

In order to demonstrate the serviceability of Firewall III after normal 40 year service conditions, the "A" specimen was straightened and recoiled with an inside diameter of 20 times its O.D. and immersed in tap water at room temperature. While still immersed, the specimens was subjected to and passed a voltage withstand test for 5 minutes at a potential of 80 V/mil AC.

A₁ 2400 VAC RMS - 5 minutes - No Failure

A₂ 2400 VAC RMS - 5 minutes - No Failure

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions
for Class IE Equipment in Harsh Environment

Specification: 561

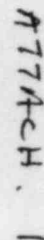
Equipment
Description or Name: INSTRUMENTATION CABLE

Vendor: BRAND-REX CO.

Qualified Life: 40 yrs. Aging Time/Temp. 7 DAYS / 136 °C

Life-limiting Components: NONE

Parameter	Worst Case Plant Condition	Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	ZONE DW-1	ZONE DW-1	SEE ATTACH. 1
Rel. Humidity	" "	N/A	N/A
Radiation	" DW-2	ZONE DW-2	SEE ATTACH. 2 (SEC. 5.3)
Pressure	" DW-1	ZONE DW-1	" " 1



F-C5120-1

5. TEST RESULTS

5.1 INSULATION RESISTANCE

Results of IR measurements obtained during the test program are summarized in Table 2. IR measurements made during the S/C exposure include the IR effects of extension cables and terminal blocks used to connect the specimens to energizing circuits; the effects usually cause a small reduction in measured IR.

5.2 THERMAL AGING

The specimens that were thermally aged at 136°C (277°F) for 7 days appeared to be in generally good condition; there was no significant difference in flexibility from that observed before the thermal aging. Minor blocking, i.e., sticking, occurred between turns of some specimens. The red-colored adhesive in the heat-shrinkable splice of Specimen 7 apparently melted, and some of the adhesive flowed out of both ends of the splice.

The specimens that were thermally aged at 158°C (317°F) for 7 days were still flexible. Some loops of cable were sticking together but could be easily separated. Minor impressions were left in the insulation of Specimen 3-3 where the cable was supported in the aging oven and where fiberglass ties were used to fasten the coils of cable. There were no cracks or other irregularities observed.

5.3 GAMMA IRRADIATION

After being exposed to an air-equivalent dose of 200 Mrd, most of the specimens appeared to be in good condition. The jackets of Specimens 6-2 and 7 appeared to be stiffer than the jacket of Specimen 6-1. (Specimen 6-1 was not thermally aged.) There were no cracks or other irregularities observed.

5.4 STEAM/CHEMICAL-SPRAY EXPOSURE

The steam/chemical-spray (S/C) exposure was provided in general accordance with the specified temperature/pressure profile illustrated in Figure 5 with the following comments:

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions for Class IE Equipment in Harsh Environment

Specification: 567

Equipment

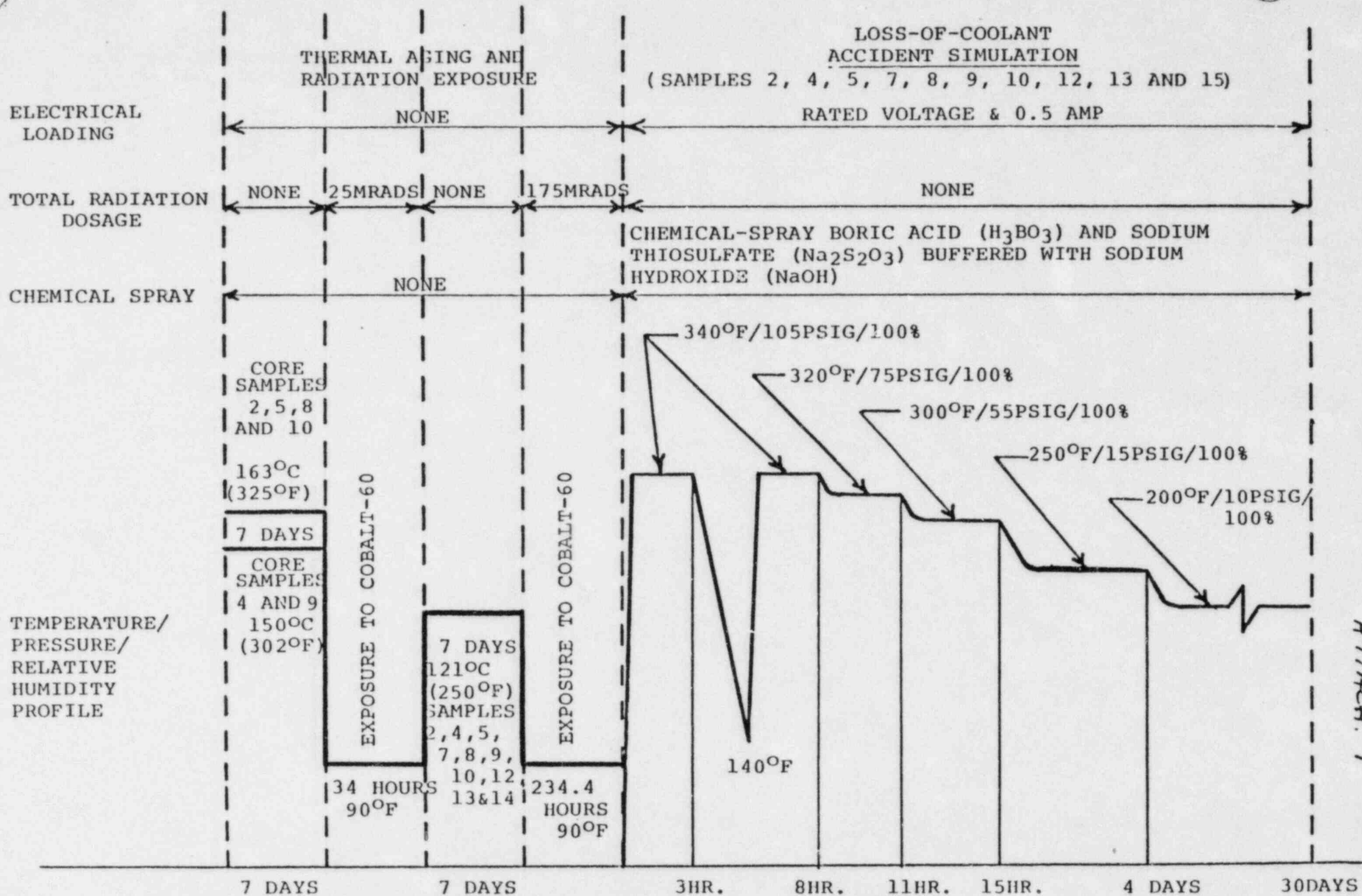
Description or Name: THERMOCOUPLE EXTENSION CABLE

Vendor: SAMUEL MOORE CO.

Qualified Life: 40 yrs. Aging Time/Temp. 7 DAYS 163°C OR 7 DAYS / 150°C

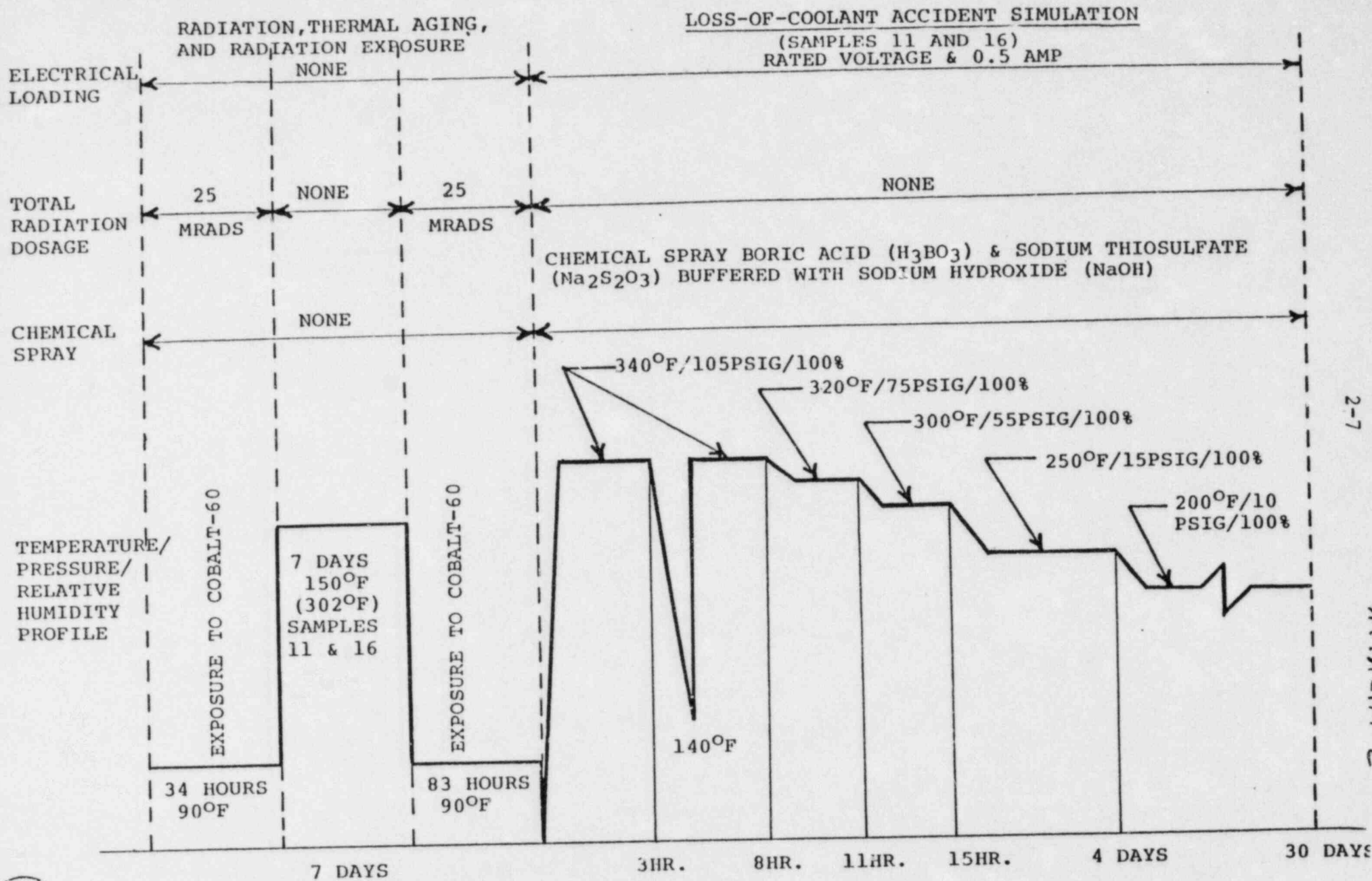
Life-limiting Components: NONE

Parameter	Worst Case Plant Condition	Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	<u>ZONE DW-1</u>	<u>ZONE DW-1</u>	<u>SEE ATTACH. 1+2</u>
Rel. Humidity	<u>" "</u>	<u>N/A</u>	<u>N/A</u>
Radiation	<u>ZONE DW-2</u>	<u>ZONE DW-2</u>	<u>SEE ATTACH. 3,4,5 (SEC. 2.2.2+ 2.2.4)</u>
Pressure	<u>" DW-1</u>	<u>ZONE DW-1</u>	<u>SEE ATTACH. 1+2</u>



PROFILE OF TEST PHASES FOR SAMPLES 2, 4, 5, 7, 8, 9, 10, 12, 13 AND 14

FIGURE 1 - IEEE 323 LOCA SIMULATION PROFILE



2-7

ATTACH. 2

PROFILE OF TEST PHASES FOR SAMPLES 11 AND 16
FIGURE 2 - IEEE 323 LOCA SIMULATION PROFILE

SECTION 2. TEST PROGRAM

2.1 Purpose

The purpose of the program was to provide qualification tests on electric cables in accordance with the suggestions contained in IEEE 323-1974, "IEEE Standards for Qualifying Class 1E Equipment for Nuclear Powered Generating Stations", and IEEE 383-1974, "IEEE Standard for Type Test of 1E Electric Cables, Field Splices and Connections for Nuclear Powered Generating Stations".

2.2 Discussions

2.2.1 Phase I - Core Thermal Aging

The cores of cable samples 2, 4, 5, 8, 9 and 10 were thermally aged at the facilities of Samuel Moore and Company. Cable samples 2, 5, 8 and 10 were aged at 163°C for 7 days and cable samples 4 and 9 were aged at 150°C for 7 days.

At the conclusion of this phase, the cable samples were jacketed and forwarded to Isomedix for further tests. The core thermal aging records were also forwarded and are available for inspection at Isomedix.

2.2.2 Phase II - First Radiation Aging

The cable samples were placed in a corrugated carton. The carton containing the samples was placed in a radiation facility and subjected to a Cobalt-60 source of gamma



radiation at an exposure rate of approximately 0.75 megarads per hour.

Appendix A contains complete radiation configuration and formal certification.

The carton was removed after the cables had received an accumulated dose of 25 megarads. At the conclusion of the Phase II Radiation Aging Period, IR measurements were made at room ambient conditions.

2.2.3 Phase III - Thermal Aging

Cable samples 11 and 16 were placed in a forced air oven and thermally aged at 150°C for 7 days. The oven's heater controls were adjusted to automatically maintain 150°C throughout the aging period.

Cable samples 2, 4, 5, 7, 8, 9, 10, 12, 13 and 14 were placed in a forced air oven and thermally aged at 121°C for 7 days. The heater controls on the oven were adjusted to automatically maintain 121°C throughout the 7 days.

At the conclusion of Phase III, Thermal Aging, IR measurements were made at room ambient conditions.

2.2.4 Phase IV - Second Radiation Aging

Cable samples 11 and 16 were placed in one corrugated box and cable samples 2, 4, 5, 7, 8, 9, 10, 12, 13 and 14 were placed in another corrugated box. Both boxes containing

the samples were placed in a radiation facility and subjected to a Cobalt-60 source of gamma radiation. The exposure rates were approximately 0.3 megarads per hour for cable samples 11 and 16, and 0.75 megarads per hour for the other cable samples.

Appendix A contains complete radiation configuration and formal certification.

The box containing samples 11 and 16 were removed after the samples had received an accumulated dose of 25 megarads. The other box was removed after the samples had received an accumulated dose of 175 megarads. At the conclusion of Phase IV Radiation Aging Period, IR measurements were made at room ambient conditions.

2.2.5 Phase V - LOCA Simulation (See Figure 1 and Figure 2)

At the start of the steam exposure, the cables were energized and the ambient temperature was 140°F within the pressure vessel.

To initiate the exposure, steam was rapidly admitted, raising the temperature and pressure to 340°F and 105 psig within 5 minutes. The temperature was maintained at 340°F for the remainder of the three-hour period.

At the end of this period, a controlled temperature drop was initiated that reduced the temperature to 140°F over the next two hours.

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions for Class IE Equipment in Harsh Environment

Specification: SP 568

Equipment Description or Name: Valve Actuator

Vendor: Limitorque

Qualified Life: 40 Years Aging Time/Temp. 100 hours/356°F

Life-limiting Components: None

Parameter	Worst Case Plant Condition		Normal Qualification Program Conditions	Accident Qualification Program Conditions
	Short Term	Long Term		
Max/Min Temperature	DW-1	CT-6	140°F	200°F
Rel. Humidity	DW-1	CT-1	100%	100%
Radiation	DW-1	CT-1	4×10^6 rads T.I.D.	2×10^8 rads T.I.D.
Pressure	DW-1	CT-1	Atmospheric	105 psig

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions
for Class IE Equipment in Harsh Environment

Specification: SP-594-4549-00

Equipment
Description or Name: RELAYS

Vendor: GOULD

Qualified Life: 40 YEARS Aging Time/Temp. 107 HOURS / 212°F

Life-limiting Components: N/A

Parameter	Worst Case Plant Condition	Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	ZONE AB-9	60-104°F	200°F (NOTE 1)
Rel. Humidity	ZONE AB-9	20-40%	100%
Radiation	ZONE AB-9	860 RADS	4.5 X 10 ⁴ RADS
Pressure	ZONE AB-9	Atmospheric	1.1 psi

NOTES:

- EQUIPMENT IS INSTALLED IN A NEMA 12 ENCLOSURE AND WILL NOT EXPERIENCE THE PEAK TEMPERATURE OF 217°F WHICH EXISTS FOR LESS THAN 30 SECONDS OUTSIDE THE ENCLOSURE.

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions
for Class IE Equipment in Harsh Environment

Specification: SP-594-4549-00

Equipment

Description or Name: RELAY

Vendor: AGASTAT

Qualified Life: 10 YEARS Aging Time/Temp. 42 DAYS / 100°C (212°F) ..

Life-limiting Components: N/A

Parameter	Worst Case Plant Condition	Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	ZONE AB-9	70-104°F	40-217°F (NOTE 2)
Rel. Humidity	ZONE AB-9	40-60%	10-100% (NOTE 2)
Radiation	ZONE AB-9	NOTE 1	2.0 x 10 ⁵
Pressure	ZONE AB-9	ATMOSPHERIC	1.6 PSIG (NOTE 2)

NOTES:

1. QUALIFICATION TESTING COMBINED NORMAL AND ACCIDENT RADIATION DOSES FOR A TOTAL DOSE OF 2.0 x 10⁵ RADS.
2. REFERENCE LETTER OF 7/8/82, DAN BUCCI OF CONTROL PRODUCTS DIVISION OF AMERACE CORP. TO COMSIP INC., CUSTOMLINE DIVISION.

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions
for Class IE Equipment in Harsh Environment

Specification: SP-594-4549-00

Equipment

Description or Name: INDICATING LIGHT

Vendor: GENERAL ELECTRIC

Qualified Life: 40 YEARS Aging Time/Temp. 14 DAYS 113°C (266°F)

Life-limiting Components: N/A

Parameter	Worst Case Plant Condition	Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	ZONE AB-9	266°F	
Rel. Humidity	ZONE AB-9	NOTE 2	
Radiation	ZONE AB-9	1X10 ⁶ RADS	
Pressure	ZONE AB-9	Opsig (NOTE 1)	

NOTES:

1. NOT APPLICABLE TO FAILURE MODE
2. EQUIPMENT IS INSTALLED IN A NEMA 12 ENCLOSURE AND WILL NOT BE EXPOSED TO THE HIGH HUMIDITY CONDITION EXISTING OUTSIDE THE ENCLOSURE.

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions
for Class IE Equipment in Harsh Environment

Specification: SP-594-4549-00

Equipment

Description or Name: CABLE

Vendor: GENERAL ELECTRIC

Qualified Life: 40 YEARS Aging Time/Temp. 125 HOURS / 165°C

Life-limiting Components: N/A

Parameter	Worst Case Plant Condition	Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	ZONE AB-9	194°F MAX	212-346°F
Rel. Humidity	ZONE AB-9	N/A	100%
Radiation	ZONE AB-9	2.22 X 10 ⁸ RADS	NOTE 1
Pressure	ZONE AB-9	Opsig	113 psig

NOTES:

1. QUALIFICATION TESTING COMBINED NORMAL AND ACCIDENT RADIATION DOSES FOR A TOTAL DOSE OF 2.22 X 10⁸ RADS.

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions
for Class IE Equipment in Harsh Environment

Specification: SP-594-4549-00

Equipment

Description or Name: TERMINAL BOARDS

Vendor: GENERAL ELECTRIC

Qualified Life: 40 YEARS Aging Time/Temp. 29 DAYS 1140°C (2840°F)

Life-limiting Components: N/A

Parameter	Worst Case Plant Condition	Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	ZONE AB-9	180°F	2840°F
Rel. Humidity	ZONE AB-9	NOTE 2	NOTE 2
Radiation	ZONE AB-9	1 X 10 ⁶ RADS	NOTE 3
Pressure	ZONE AB-9	ATMOS.	Opsig (NOTE 1)

NOTES:

1. NOT APPLICABLE TO FAILURE MODE
2. EQUIPMENT IS INSTALLED IN A NEMA 12 ENCLOSURE AND WILL NOT BE EXPOSED TO THE HIGH HUMIDITY CONDITION EXISTING OUTSIDE THE ENCLOSURE.
3. QUALIFICATION TESTING COMBINED NORMAL AND ACCIDENT RADIATION DOSES FOR A TOTAL DOSE OF 1 X 10⁶ RADS.

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions
for Class IE Equipment in Harsh Environment

Specification: SP-594-4549-00

Equipment

Description or Name: CONTROL SWITCH

Vendor: GENERAL ELECTRIC

Qualified Life: 40 YEARS Aging Time/Temp. 14 DAYS 1131°C (266°F)

Life-limiting Components: N/A

Parameter	Worst Case Plant Condition	Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	ZONE AB-9	215°F	266°F
Rel. Humidity	ZONE AB-9	NOTE 2	NOTE 2
Radiation	ZONE AB-9	1×10^6 RADS	NOTE 3
Pressure	ZONE AB-9	ATMOS.	Opsig (NOTE 1)

NOTES:

1. NOT APPLICABLE TO FAILURE MODE
2. EQUIPMENT IS INSTALLED IN A NEMA 12 ENCLOSURE AND WILL NOT BE EXPOSED TO THE HIGH HUMIDITY CONDITION EXISTING OUTSIDE THE ENCLOSURE.
3. RADIATION TEST COMBINED NORMAL AND ACCIDENT RADIATION DOSES FOR A TOTAL DOSE OF 1×10^6 RADS

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions
for Class IE Equipment in Harsh Environment

Specification: SP-594-4549-00

Equipment

Description or Name: TERMINAL & FUSE BLOCKS

Vendor: BUCHANAN

Qualified Life: 40 YEARS Aging Time/Temp. 8.3 DAYS / 121°C (250°F)

Life-limiting Components: N/A

Parameter	Worst Case Plant Condition	Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	ZONE AB-9	50°C (122°F) MAX	346°F MAX
Rel. Humidity	ZONE AB-9	ATMOSPHERIC (NOTE 1)	100%
Radiation	ZONE AB-9	2 X 10 ⁸ RADS	NOTE 2
Pressure	ZONE AB-9	ATMOSPHERIC	113 psig

NOTES:

1. VENDORS QUALIFICATION DOCUMENTATION STATES THAT EQUIPMENT IS NOT AFFECTED SIGNIFICANTLY BY HUMIDITY; ADDITIONALLY, THE LOCA DBE TEST INCLUDES EXPOSURE TO HIGH HUMIDITY.
2. QUALIFICATION TESTING COMBINED NORMAL AND ACCIDENT RADIATION DOSES FOR A TOTAL DOSE OF 2.0 X 10⁸ RADS.

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions
for Class IE Equipment in Harsh Environment

Specification: SP-597-4549-00

Equipment
Description or Name: SOLENOID VALVES

Vendor: TARGET ROCK

Qualified Life: ^{40 YEARS WITH REPLACEMENT}
OF COIL AFTER 20 YEARS Aging Time/Temp. 33 DAYS @ 350°F

Life-limiting Components: COIL

Parameter	Worst Case Plant Condition	Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	ZONE AB-4	104°F	385°F
Rel. Humidity	ZONE AB-4	50-60% (NOTE 1)	100%
Radiation	ZONE AB-4	2.27 X 10 ⁷ RADS	1.0 X 10 ⁸ RADS
Pressure	ZONE CT-3	ATMOS.	66 psig

NOTES:

- SOLENOID COIL IS POTTED; THEREFORE IT IS NOT AFFECTED BY NORMAL ENVIRONMENTAL VARIATIONS IN HUMIDITY.

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions for Class IE Equipment in Harsh Environment

Specification: SP-604-000-03

Equipment
Description or Name: TRANSMITTERS

Vendor: ROSEMOUNT

Qualified Life: NOTE 1 Aging Time/Temp. 47 DAYS 12030F

Life-limiting Components: N/A

Parameter	Worst Case Plant Condition	Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	ZONE AB-9	40-135°F	3180°F
Rel. Humidity	ZONE AB-9	0-95%	100%
Radiation	ZONE AB-4	NOTE 2	2.21 X 10 ⁷ RADS
Pressure	ZONE AB-9	Atmos	73 psig

NOTES:

1. TRANSMITTERS IN ZONES FB-4, AB-4, AB-6, AB-9, AND AB-1 HAVE A QUALIFIED LIFE OF 10 YEARS. TRANSMITTERS IN ZONE FB-3 HAVE A QUALIFIED LIFE OF 4.68 YEARS.
2. QUALIFICATION TESTING COMBINED NORMAL AND ACCIDENT RADIATION DOSES FOR A TOTAL DOSE OF 2.21 X 10⁷ RADS.

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions
for Class IE Equipment in Harsh Environment

Specification: SP-607-01

Equipment
Description or Name: SOLENOID VALVES

Vendor: ASCO

Qualified Life: 40 YEARS Aging Time/Temp. 18 1/4 DAYS @ 250°F

Life-limiting Components: N/A

Parameter	Worst Case Plant Condition	Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	ZONE AB-4	140°F MAX	450°F
Rel. Humidity	ZONE AB-4	AMBIENT (NOTE 1)	100%
Radiation	ZONE AB-4	2.3×10^7 RADS	1.82×10^8 RADS
Pressure	ZONE AB-3	Atmos to 80 psig	66 psig

NOTES:

- SOLENOID COIL ENCLOSURE IS WATERPROOF. ALSO, IF THE COIL FAILS, THE VALVE MOVES TO IT'S SAFE POSITION.

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions for Class IE Equipment in Harsh Environment

Specification: 628-4549-00

Equipment
Description or Name: HYDROGEN RECOMBINERS

Vendor: WESTINGHOUSE

Qualified Life: 40 yrs Aging Time/Temp. 1

Life-limiting Components: _____

Parameter	Worst Case Plant Condition	Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	CT-4	*	**
Rel. Humidity	CT-4	*	100%
Radiation	CT-4	→	2.0×10^8 RADS
Pressure	CT-4	*	**

* The recombiner unit is composed primarily of metallic structural material, metal-enclosed thermal insulation, metal-clad ceramic insulated heater elements and power cables.

The normal schedule of the recombiner calls for periodic testing to determine system availability plus periods of non-operating time in normal containment environment. Evaluation of these factors leads to the conclusion that the most significant aging factor was the fatigue life of the structure, due to thermal stresses induced by the periodic heat up and cool down tests. It was concluded that the metal structures and metal-enclosed thermal insulation would not be affected by time alone. The heater life for this type of heater element is far in excess of the duty cycles



Gilbert Associates, Inc.

Ruoding, Pennsylvania

CALCULATION

SUBJECT

CISID

SD-628-4549-00

PAGE

OF

REV.

0

1

2

3

MICROFILMED

ORIGINATOR

J S Smith

DATE

3-4-83

PAGES

imposed by the periodic tests; however, the duty cycles were included in the aging program since they are a necessary part of the recombiner test. The power cables are subject to deterioration due to aging; they are covered by IEEE-383, "Standard for Type Test of Class 1E Electric Cables, Field Splices and Connections for Nuclear Power Generating Stations" and have been qualified to Section 2.4 of this standard.

The aging test for the recombiner structure consisted of eighty heat up and cool down cycles as described in WCAP-77094, Supplement 2, Section 3.2. Estimating two full temperature tests per year for an installed recombiner leads to a projection of 40 years of qualified life (Since this test, approximately 30 more thermal cycles have been imposed on the recombiner.) Following the eighty cycle test the unit was inspected for damage and was found to be in good operating condition. As previously noted, the heaters were also aged in this test.

It was determined that radiation affects the life of the power cables which, as previously noted, are covered by IEEE-383. The cables were tested to 2.0×10^8 rads gamma as reported in WCAP-77094, Supplement 2, Item 3.6. The rest of the equipment was not shown to be affected by radiation; but since the irradiation facility space was available, heater elements, thermocouples, and ceramic terminal blocks were also irradiation-tested as described in the above reference.



Gilbert Associates, Inc.

Reading, Pennsylvania

CALCULATION

SUBJECT

CISID

SP-628-4549-00

PAGE

OF

REV.

0

1

2

3

MICROFILMED

ORIGINATOR

JSS/HH

DATE

3-4-83

PAGES

** The accident qualification test program consisted of one pressure transient to 85 psia which was maintained for 4 hours. The pressure was then reduced to 35 psia and held for 20 hours. Following this the pressure was reduced to 20 psia and held for 21 days. The temperature in the pressure vessel during the 20 psia run was controlled to the anticipated POST LOCA containment temperature of approximately 155°F. To cover other possible temperatures of interest the vessel temperature was varied from 138°F to 200°F.

A ten day (240 hour) test was conducted by spraying sodium tetraborate spray on the recombiner while it was operating at recombiner temperature. The test results confirm the two day test on the prototype which shows this type of environment does not effect recombiner operation.

The power cables for the recombiner have been previously tested, along with the heater banks in the post-LOCA steam and spray environment, subjected to 2×10^8 rad irradiation and seismically tested with the recombiner. This testing demonstrated that the cables are well qualified for the intended service; however, in addition, tests were performed on cable taken from a production run in accordance with IEEE 383-1974 Sections 2.4 and 2.5. The series of tests performed included thermal aging, irradiation, post LOCA



Gilbert Associates, Inc.

Reading, Pennsylvania

CALCULATION

SUBJECT

CISID

SP-628-4549-00

PAGE

OF

REV.

0

1

2

3

MICROFILMED

ORIGINATOR

J S Smith

DATE

3-4-83

PAGES

containment steam and spray exposure and voltage tests. In addition the power cable was flame tested in accordance with paragraph 2.5 of IEEE 383-1974. These tests are described in WCAP-77094 Supplement 7.



Gilbert Associates, Inc.

Reading, Pennsylvania

CALCULATION

SUBJECT AUDITABLE FILE PACKAGE

CISID

SP-632-4549-00

PAGE 1

OF

PAGES 6

REV.

0

1

2

3

MICROFILMED

ORIGINATOR J S Smith

DATE 4-7-83

ATTACHMENT "B"

The equipment described on page 1 of TBI-77TR-1 underwent Thermal, Radiation and Mechanical aging as described in Appendix A, B and C of TBI-77TR-1 respectively. The same equipment was then subjected to design bases event and post design bases event as described in TBI-77TR-5.

Each of these reports and their appendices present their specific feature(s) to be demonstrated, test equipment, environmental, operating and measurement sequence, mounting requirements, aging simulation procedure and test plan with results for the specific aging to be performed. Certain information while remaining constant throughout testing are documented under appropriate references as shown in the NUREG check list.

A comparison of the design environmental parameters and environmental values which the equipment has been tested to follows:



Gilbert Associates, Inc.

Reading, Pennsylvania

CALCULATION

SUBJECT AUDITABLE FILE PACKAGE

CISID

SP-632-4549-4

PAGE 2

REV.

0

1

2

3

OF

MICROFILMED

PAGES 6

ORIGINATOR

J S SMITH

DATE

4-7-83

Design Conditions

Temperature:

Normal Full Power Operation

	Duration	Temperature °F
MAX	7,731 hrs	104
MIN	3,221 hrs	62
AUG	322,115 hrs	87

Normal Hot Standby

	Duration (26,400 hrs)
MAX	105°F
MIN	104°F

Abnormal Loss of HVAC

Duration (49 hrs) 1 cycle

MAX	131°F
MIN	104°F

Abnormal Safety Relief Valve Discharge 108 cycles

Time	Temperature °F
0 min	90.0
30 min	96.6
90 min	109.0
2 hrs	112.7
3 hrs	117.7
4 hrs	119.7
5 hrs	120.0
6 hrs	118.1
7 hrs	116.9
8 hrs	115.9
9 hrs	115.1
10 hrs	114.7
11 hrs	104.2
12 hrs	105.0
13 hrs	101.7
17 hrs	90.0



Gilbert Associates, Inc.

Reading, Pennsylvania

CALCULATION

SUBJECT AUDITABLE FILE PACKAGE

CISID

SP-632-4549-00

PAGE

3

REV.

0

1

2

3

MICROFILMED

ORIGINATOR J S Smith

DATE 4-7-83

PAGES 6

Tested Conditions

Temperature;

The unit has been aged for 265 hours at 200°C, this represents continuous 40 year operation at 105°C total winding temperature. This envelope with a large degree of margin, any of Perry's design conditions for this unit. As a result the thermal life of the motor could easily be extended by using Turbonetics figure 401A073 which is included within TBI-77TR-1. The need for this will be explained further under Accident conditions.

Accident Conditions

Attached are profiles of the Accident Temperature and Pressure design and tested conditions. Below is a review of these curves.

Temperature; From $t = 20$ min to $t = 90$ min the design temperatures exceed tested conditions, however, from $t = 6$ hrs. to $t = 60$ days the margin between design and tested temperatures is so great the total aging and associated equipment degradation of tested equipment should exceed equipment degradation experienced during the specified design DBA.

While the test duration for the DBA fell 120 days short of the design duration it should be noted that the unit had been previously aged to an equivalent of 40 years at 105°C.



Gilbert Associates, Inc.

Reading, Pennsylvania

CALCULATION

SUBJECT AUDITABLE FILE PACKAGE

CISID

SP-632-4549-00

PAGE

4

OF

PAGES

6

REV.

0

1

2

3

MICROFILMED

ORIGINATOR JSS, 14th

DATE 4-7-83

The highest temperature experienced during the normal 40 year life of the plant including abnormal conditions is 120°F. While the average temperature is 87°F. We believe this obviously envelopes the extra 120 days post DBA where the temperature falls from 120°F at 10 days to 90°F at 100 days. Beyond 100 days the temperature remains at 90°F.

Pressure; For the initial 3 hours of the DBA test, design pressure exceeds the tested pressure, however, from $t = 3$ hr to $t = 60$ days a large degree of margin between tested and design pressure is provided. The maximum design pressure is 12 psig. The unit was subjected to 15 psig and held at that point for 20 hours.

Containment Spray; The unit is not subject to containment spray. The unit is located at elevation 664'-7" directly beneath the diamond plate at elevation 689'-6".

Humidity; The unit has been subjected to 100% humidity atmosphere during the DBA testing (Ref TISI-77TR-5).

Cyclic Operation; The unit is not subjected to any cyclic operation which might promote any significant aging effects. The Drywell Purge Compressor is subject to the following surveillance requirements:

The drywell hydrogen mixing system shall be demonstrated operable



Gilbert Associates, Inc.

Reading, Pennsylvania

CALCULATION

SUBJECT
AUDITABLE FILE PACKAGE

CISID
SP-632-4549-00

PAGE
6
OF

REV.

0

1

2

3

MICROFILMED

ORIGINATOR J S Smith

DATE 4-7-83

PAGES
6

Radiation: Tested

The unit was subjected to 1.1×10^3 rad gamma which envelopes (with margin) the design value. The minimum tested doses occurred along the centerlines of the test items. Maximum overdose, occurring to the sides of the items in test was by a factor of 1.15; that is, those portions of the test items closest to the source received an air equivalent overdose of up to 15% greater than the target dose.

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions
for Class IE Equipment in Harsh Environment

Specification: SP-641-4549-00

Equipment

Description or Name: SOLENOID VALVES

Vendor: AUTOMATIC SWITCH COMPANY (ASCO)

Qualified Life: 40 YEARS Aging Time/Temp. 18 1/4 DAYS/ 250°F

COILS &

Life-limiting Components: Elastomeric Seals - 8 YEARS

Parameter	Worst Case Plant Condition		Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	DW-1/ CT-0	CT-V/ CT-1	140°F	140°F/442°F
Rel. Humidity	CT-0	DW-1	20% - 90%	~ 100%
Radiation	DW-1	DW-1	2.3×10^7 RADS, T.I.D.	1.82×10^8 RADS, T.I.D.
Pressure	CT-0	DW-1	Atmospheric	78 PSIG
	NORMAL	ACCIDENT		

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions
for Class IE Equipment in Harsh Environment

Specification: SP-641-4549-00

Equipment

Description or Name: VALVE OPERATOR

Vendor: LIMITORQUE

Qualified Life: 138 YEARS Aging Time/Temp. 100 Hrs / 356 °F

Life-limiting Components: NONE

Parameter	Worst Case Plant Condition		Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	CT-0/ *	CT-1/ *	140 °F	200 °F
Rel. Humidity	* / CT-0	* / CT-0	100 %	100 %
Radiation	CT-0	CT-3	4×10^6 rads T.I.D.	2×10^8 rads T.I.D.
Pressure	CT-0	CT-0	Atmospheric	105 PSIG
	NORMAL ACCIDENT			

* Service water valve pit - outdoors

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions
for Class IE Equipment in Harsh Environment

SP-645-4549-00

Specification: SP-646-4549-00

Equipment

Description or Name: RELIANCE MOTORS

Vendor: WESTINGHOUSE (SP-645) ; CARRIER (SP-646)

Qualified Life: 40 Years Aging Time/Temp. /

Life-limiting Components: NONE

Parameter	Worst Case Plant Condition		Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	FB-7 AB-2	FB-3 AB-3	202°F	202°F
Rel. Humidity	AB-2	AB-3 AB-2	100 %	100 %
Radiation	AB-4	AB-4	1×10^{10} rads T.I.D.	1×10^{10} rads T.I.D.
Pressure	AB-2	AB-3	Atmospheric	Atmospheric
NORMAL		ACCIDENT		

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions for Class IE Equipment in Harsh Environment

Specification: 793-01

Equipment

Description or Name: RF INSTRUMENTATION CABLES

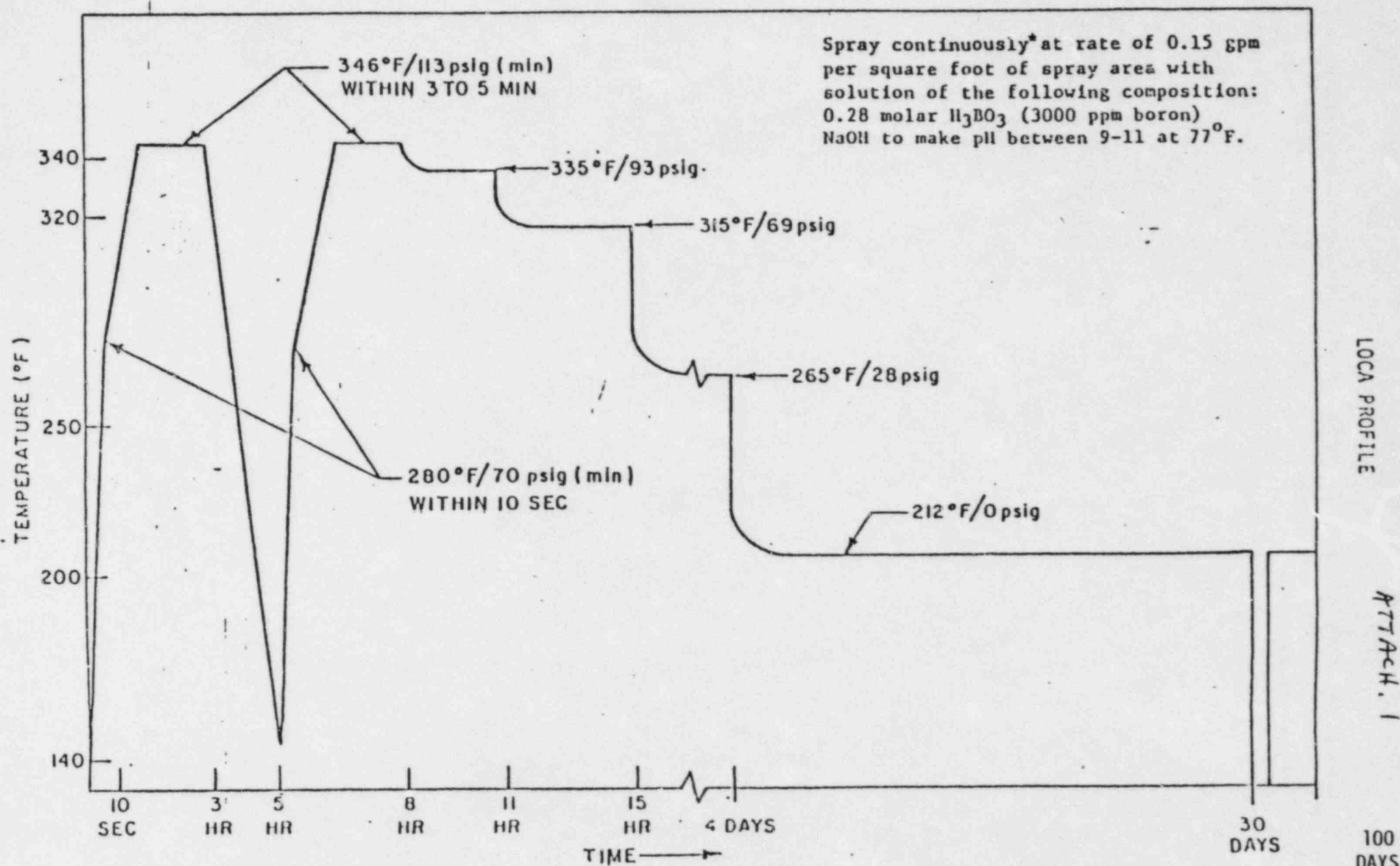
Vendor: ROCKWELL

Qualified Life: 40 yrs Aging Time/Temp. 700 HRS / 120°C

Life-limiting Components: NONE

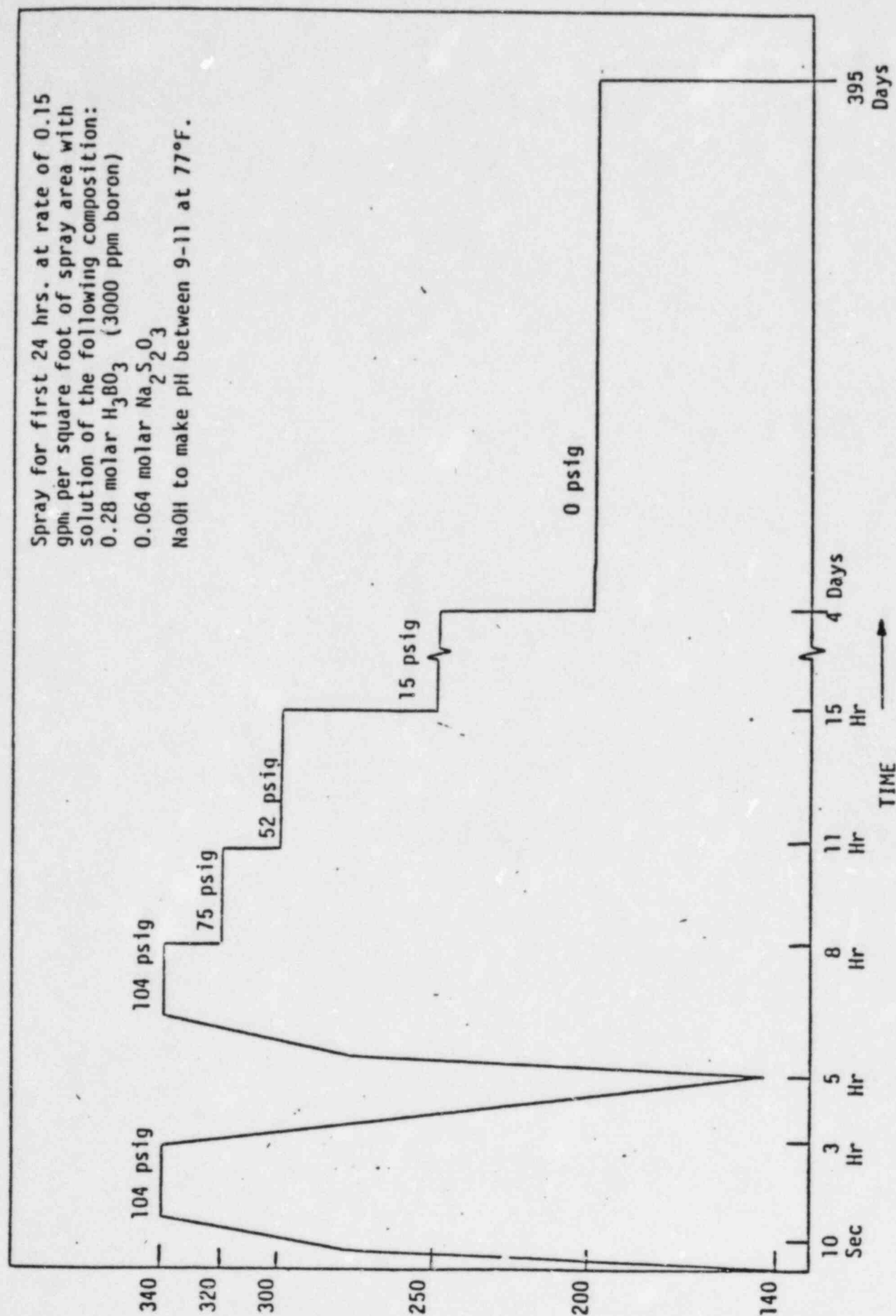
Parameter	Worst Case Plant Condition	Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	ZONE DW-1	ZONE DW-1	SEE ATTACH. 1 & 2
Rel. Humidity	" "	N/A	N/A
Radiation	" DW-2	ZONE DW-2	SEE ATTACH. 3 (SEC II)
Pressure	" DW-1	" DW-1	" " 1 & 2

LOCA Profile



EXCERPT FROM PREVIOUS REFERENCED REPORT

LOCA Profile



II. Radiation Exposure - Reference IEEE-363, Paragraph 2.3.3.3

Sample "B", which was unaged, was also wrapped around an open mandrel approximately 24" in diameter.

Sample "A" was exposed to gamma radiation in air, from a Cobalt-60 source at the rate of .65 megarads per hour for a total of 315 hours, resulting in a total integrated dose in excess of 200 megarads. (SEE APPENDIX II)

Sample "B" was exposed to gamma radiation in air, from a Cobalt-60 source at the rate of .64 megarads per hour for a total of 324 hours, resulting in a total integrated dose in excess of 200 megarads. (SEE APPENDIX III)

III Pre-LOCA Test

Upon completion of irradiation, Samples "A" and "B" were tested with 2000 Vac 60 Hz with the center conductor energized and the shield at ground potential for a 5-minute period. Both samples withstood the voltage stress. This is not a requirement when testing per IEEE 383-1974, Paragraph 2.4 but was performed to demonstrate an added safety margin due to the additional voltage stress.

IV. Design Basis Event-LOCA; Reference IEEE 383-1974 Paragraph 2.4

To demonstrate serviceability of the coaxial construction during and after a LOCA, Samples "A" and "B" were subjected to the LOCA profile for combined PWR/BWR described by IEEE-323, Fig. A1.

(SEE APPENDIX IV)

The first four (4) days of the profile were conducted in an autoclave. The samples were then transferred to a humidity chamber at 212°F 100% relative humidity, for an additional twenty-six (26) days.

PERRY NUCLEAR POWER PLANT

Environmental Test Conditions
for Class IE Equipment in Harsh Environment

Specification: 793-01

Equipment

Description or Name: SHIELDED MULTI CONDUCTOR INSTR. CABLE

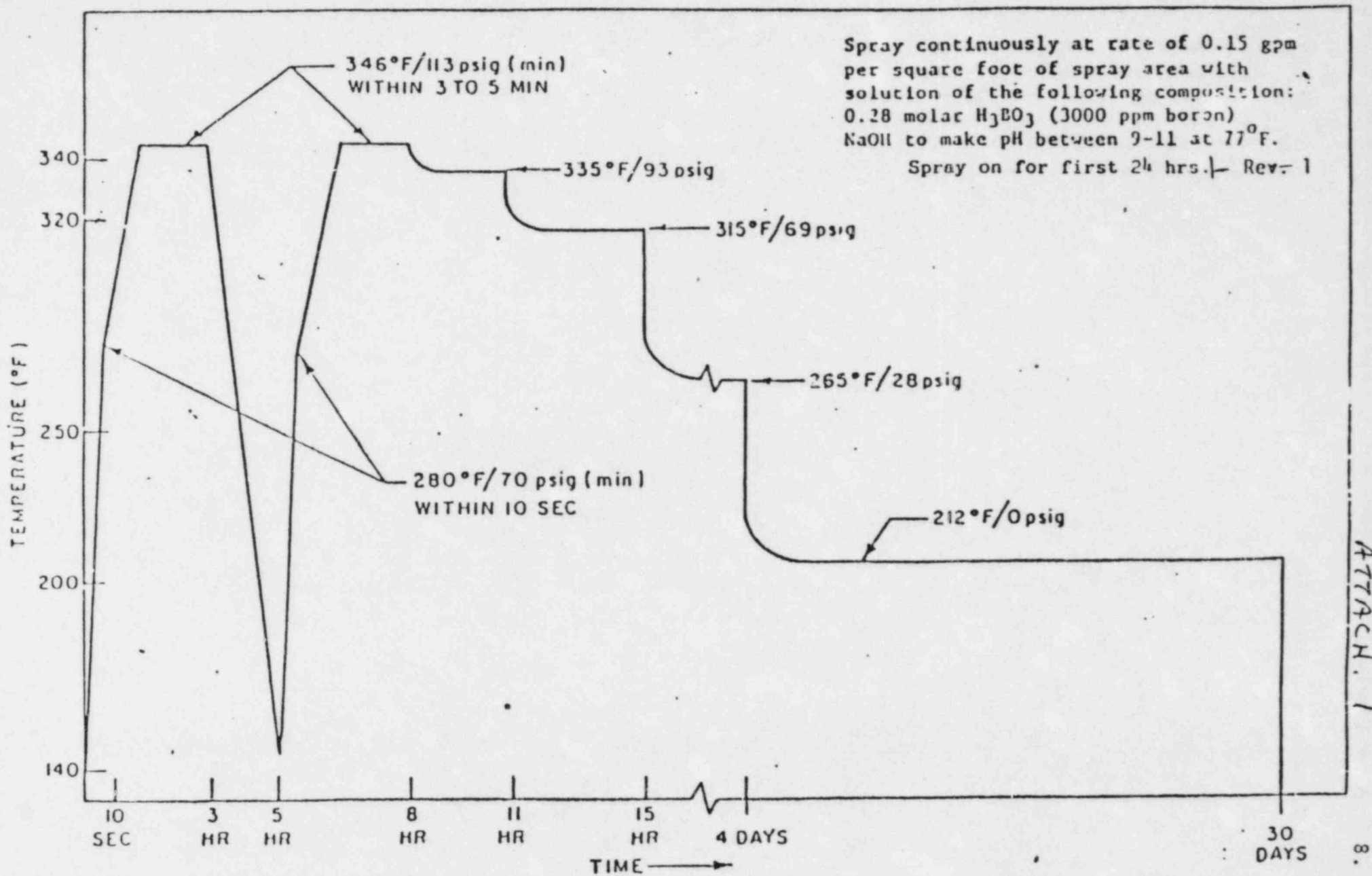
Vendor: ROCKBESTOS

Qualified Life: 40 yrs. Aging Time/Temp. 1300 HRS. / 150°C

Life-limiting Components: NONE

Parameter	Worst Case Plant Condition	Normal Qualification Program Conditions	Accident Qualification Program Conditions
Max/Min Temperature	ZONE DW-1	ZONE DW-1	SEE ATTACH. 1
Rel. Humidity	" "	N/A	N/A
Radiation	" DW-2	ZONE DW-2	SEE ATTACH. 2 (SEC. III)
Pressure	" DW-1	" DW-1	" " 1

LOCA Profile



TEST PROCEDURE FOR ACCIDENT (LOCA) CONDITIONI. Reference IEEE 383 Paragraph 2.3.3.1

Two 10 ft. specimens of the sample described on page 1 with factory insulation rework were prepared for testing.

II. Reference IEEE 383 Paragraph 2.3.3.2

The specimens were thermally aged in a circulating air oven for 1300 hours at 150°C in order to simulate 40 year installed life at a continuous operating temperature of 90°C. This simulation was based on the attached Arrhenius data. Exposure time of 850 hours dictated by the Arrhenius slope was adjusted to 1300 hours in order to provide a 50% margin over specified service life.

III. Reference IEEE 383 Paragraph 2.3.3.3

The specimens were subsequently subjected in air to gamma radiation from a cobalt 60 source at a rate of 0.54×10^6 rads per hours to a cumulative dosage of 2.01×10^8 rads.

IV. Reference IEEE 383 Paragraph 2.4

In order to demonstrate the serviceability of the specimens during and after a LOCA, the specimens were subjected to the LOCA profile of IEEE 323 for combined PWR/BWR while energized with 600 VAC.* Following this exposure, the specimens were straightened and recoiled with an inside diameter of 40 times their O.D.'s and immersed in tap water at room temperature. While still immersed, the specimens were subjected to and passed a voltage withstand test of 5 minutes at a potential of 80 vac/mil (criteria for acceptance).

* Paragraph 1.3.4.2.1 of IEEE Std. 383 requires that the electrical loading of cables be such as to simulate the most unfavorable condition anticipated. The most unfavorable condition for the cables in question is to energize with voltage only, since the current loading would have the effect of establishing a thermal gradient across the insulation thus minimizing the effect of moisture penetration and thus the risk of electrical failure during

270.3 In the Equipment Qualification Review List (attached to CEI letter to NRC dated October 25, 1982), provide the type of equipment (valve operator, SOV, penetration, etc.) and indicate which items are included in the requalification program described in GE Licensing Topical Report NEDE-24326-P. Missing model numbers, manufacturers, etc. should also be included in the revised list.

Response

The previously provided EQRL printout format has been modified to include equipment type. All new printouts provided will have this field.

Equipment covered by the GE Licensing Topical Report NEDE-24326-P is the Class IE, harsh environment items indicated by SP No. 301.

As much of the missing information as possible will be included in the revised list. New updates are made monthly.

270.4

Define the environmental conditions associated with all line breaks postulated in Sections 3.6.1 and 3.6.2 of the FSAR or, where specific break environments need not be considered in the program for qualification of safety-related equipment, provide justification for their exclusion. In addition, identify any essential equipment outside containment which is subject to submergence as a result of a line break.

RESPONSE

The response to this question is provided in revised Section 3.11.1.2.

plant buildings. Table 3.11-1 provides a list of environmental zone descriptions including typical equipment and systems located in each zone. The zone boundaries were determined based on contingent areas with similar environmental conditions by review of Section 3.6 for pipe rupture locations, Section 9.4 for HVAC system boundaries and Chapter 12 for radiation doses. The environmental zone boundaries are shown on plant layout drawings called "Environmental Zone Maps" in Figures 3.11-1 through 3.11-8. Notice that areas where no safety-related equipment is located are shaded out and not assigned an environmental zone.

The normal, abnormal and accident (including post-accident) environmental conditions for each environmental zone are provided in terms of temperature, pressure, relative humidity and radiation in Tables 3.11-2 through 3.11-8. Definitions used in determining the environmental conditions follow:

- a. Normal Conditions - planned, purposeful, unrestricted reactor operating modes that include startup, power range and hot standby (condenser available), shutdown and refueling modes.
- b. Abnormal Conditions - any deviation from normal conditions anticipated to occur often enough that design should include a capability to withstand the conditions without operation impairment; planned testing including preoperational tests are also considered abnormal conditions (loss of non-safety-related HVAC is an example of an abnormal condition)
- c. Accident Conditions - a single event not reasonably expected during the course of plant operations that has been hypothesized for analysis purposes or postulated from unlikely but possible situations or that has the potential to cause a release of radioactive material (a reactor coolant pressure boundary rupture may qualify as an accident; a fuel cladding defect does not). Accident conditions are calculated for a post-accident period sufficient to assure that steady-state conditions have been reached.

Accident conditions considered included all line breaks postulated in Sections 3.6.1 and 3.6.2 for the environmental zones for which they are

applicable. The governing line break for each zone, is listed in the significant event columns of Tables 3.11-2 through 8. If more than one line break provides a worst case environmental parameter, then both were provided. An example is in the Drywell where the large break LOCA provides the governing pressure transient and the small break LOCA provides the governing temperature transient. Section 3.6.1.3 discusses how all safety-related equipment outside the containment has been protected from submergence as a result of the line breaks considered above.

The environmental parameters shown are based on verified design calculations and do not include margins required in qualification testing or analysis as

270.5

The description of the criteria utilized for establishing environmental conditions does not reference Section II.B.2 of NUREG-0737 as the basis for establishing radiation doses from recirculating fluid lines. Discuss your compliance with the recommendations of this section of the Action Plan.

RESPONSE

The response to this question is provided in revised Section 3.11.5.2.2.

Sampling sections are provided for periodic analysis of this water to assure compliance with operation limits of the plant technical specification.

3.11.5.1.2 Design Basis Accident

Water released from the reactor to the suppression pool, following a design basis accident and used for the containment spray, is calculated on the basis of Regulatory Guide 1.7 to have a pH range of 4.5 to 7.0, a conductivity of $\leq 21 \mu\text{S}/\text{CM}$, oxygen content of $\leq 8 \text{ ppm}$, a carbon dioxide content of $\leq 1 \text{ ppm}$, dissolved hydrogen of $\leq 60 \text{ ppb}$, dissolved salts of $\leq 2 \times 10^{-5} \text{ g mole/L}$, and undissolved solids $\leq 9 \text{ ppm}$. No significant concentrations of airborne or waterborne deleterious chemicals have been identified due to the post-LOCA fission products.

The containment spray system provides demineralized water as described above (for containment depressurization) at 5250 gpm per train, 120 psig, and 132° F from the containment spray headers. The spray may be initiated in conjunction with the RHR system operation 10 minutes after the LOCA signal (drywell high pressure) either manually or on high containment pressure. The spray system is manually shutoff when the pressure transient has been stabilized.

3.11.5.2 Radiation Environment

3.11.5.2.1 Normal Operation

Radiation sources during normal plant operations are identified in Chapters 11 and 12.

Normal radiation environments are provided for both gamma and neutron radiation integrated over 40 years.

3.11.5.2.2 Design Basis Accident

The radiation doses from recirculating fluid lines used to determine the equipment qualification environmental conditions are in accordance with

NUREG 0588, for comment (dated December 1979) and are based on the radiation sources given in NUREG-0737 Section II.B.2. For a LOCA, an additional 50 percent of the core equilibrium Cs-Rb inventory is used.

Accident radiation environments are provided for both gamma and beta integrated over six months.

3.11.6 REFERENCES FOR SECTION 3.11

1. 10 CFR Part 50, Appendix A, General Design Criterion 4, "Environmental and Missile Design Bases."
2. 10 CFR Part 50, Appendix B, Criterion III, "Design Control", Criterion XI, "Test Control"; and Criterion XVII, "Quality Assurance Records."
3. IEEE Std 98-1972, "Guide for the Preparation of Test Procedures for the Thermal Evaluation and Establishment of Temperature Indices of Solid Electrical Insulating Materials".
4. IEEE Std 99-1970, "Guide for the Preparation of Test Procedures for the Thermal Evaluation of Insulation Systems for Electrical Equipment".
5. IEEE Std 101-1972, "Guide for Statistical Analysis of Thermal Life Test Data".
6. IEEE Std 279 (ANSI N42.7-1972), "Criteria for Protection Systems for Nuclear Power Generating Stations," Institute of Electrical and Electronics Engineers.
7. IEEE Std 317-1976, "Electric Penetration Assemblies in Containment Structures for Nuclear Power Generating Stations," Institute of Electrical and Electronics Engineers.
8. IEEE Std 323-1974, "Standard for Qualifying Class 1E Equipment Nuclear Power Generating Stations," Institute of Electrical and Electronics Engineers.

270.6 Describe in general terms the program to be utilized for detecting age-related degradation in equipment, including that caused by synergistic and low dose rate effects. The methods for determining the items to be inspected and parameters to be measured and the frequency of examination should be discussed. Provide specific information on your approach for cables located inside the drywell.

Response

CEI is in the process of developing a surveillance and maintenance program for the Perry Nuclear Power Plant based on the guidance of Regulatory Guide 1.33 (Rev. 2). The program will be completed prior to fuel loading of Unit 1. One function of the program will be to detect age-related degradation in equipment including degradation caused by synergistic and low dose rate effect. Although the program is still in the developmental stage, it will include six program elements which will provide the means for detecting polymeric degradation and the approach to failures by age-related or other mechanisms.

1) Corrective Maintenance: Corrective Maintenance, when required, is performed by trained personnel experienced in the tasks being performed and in accordance with approved procedures. These maintenance actions are documented. Such documentation provides for a description of the failure and the corrective action taken. During work performance, job site component inspections are performed by the technicians and various levels of supervision. These inspections inherently include detection of component degradation which may be due to wear and/or in-service aging. Corrective maintenance, when performed in recurring situations on like or similar equipment, identifies component or component part performance trends. Maintenance personnel identify and correct such deficiencies.

2) Preventive Maintenance: Preventive Maintenance scheduled and performed on equipment and instrumentation identifies regular activities, such as lubrication of bearings, to extend component life and ensure performance of the component's function. Procedures for the Preventive Maintenance Program are developed taking into account equipment manufacturers' recommendations and operating experience. Wherever applicable, preventive maintenance procedures specify the nature of the specific post-maintenance testing requirements and acceptance criteria. These procedures are periodically reviewed and updated to incorporate new and additional information obtained from the manufacturers, experience in plant operations, licensee event reports, NRC circulars and bulletins, and from equipment qualification tests. The preventive maintenance activities are documented and include descriptions of abnormalities noted and corrective actions taken.

3) Periodic Performance Testing: Periodic performance testing is scheduled and performed on a recurring basis. These tests are performed to monitor system and/or component (e.g., RHR System, valve operator) operation, and determine unacceptable component degradation. Results of these tests are evaluated; and, where necessary, corrective maintenance activities are initiated to ensure continued satisfactory equipment operability.

4) Surveillance Program: Plant Surveillance Programs identify the monitoring activities to be performed. Surveillance is geared at a minimum to monitor safety-related equipment and equipment inaccessible for monitoring during normal plant operation. These scheduled tasks on a particular component are to monitor and record component performance. This information is used to schedule and perform corrective actions prior to failure.

5) Manufacturer, Utility, NRC Communications: Information is received from these and other sources on a routine basis concerning existing or potential problems and/or failures of components or component parts. This information is reviewed and integrated into the existing plant maintenance programs as applicable. Through this effort, generic component deficiencies can be identified and corrected, thus minimizing the potential for equipment failures.

6) Operational and Performance Parameters-Monitoring and Evaluation: Operations Personnel routinely monitor plant, system and component operation and performance. When equipment performance degradation is noted, operational parameters are monitored and evaluated to identify equipment performance problems. This not only applies to system and component performance, but to the monitoring instrumentation used to verify the various equipments' performance. This review and analysis is used to detect causes of component performance degradation and correct such deficiencies prior to failure.

The CEI surveillance and maintenance program thus includes features that enable identification of equipment degradation and the approach to failures whether caused by wear mechanisms, aging mechanisms or other mechanisms. Additionally, equipment/component failures are routinely evaluated by various levels of maintenance personnel including management. These evaluations are performed based on the experienced judgments of the various personnel involved, particularly maintenance technicians and foremen who are trained, experienced and familiar with the equipment. These failure evaluations provide for additional defense against the potential for further failures. The culmination of these activities, when performed by experienced personnel sensitive to component performance degradation and monitoring, helps minimize potential for failures.

270.7 Identify any differences between Units 1 and 2 in postulated environments, or safety-related systems and equipment. The staff will review and evaluate Unit 2 when adequate information is received on the docket.

RESPONSE

Postulated environments for Unit 1 are identical to those of Unit 2 with minor exceptions. In those cases where there are differences, the environments of Tables 3.11-1 through 3.11-9 would envelope those of Unit 2.

The Equipment Qualification Review List (EQRL) as discussed in Section 3.11.3.1 lists Unit 1 and common equipment MPL numbers. When the Unit 2 device differs in equipment type, manufacturer and model number, or performance requirements from the Unit 1 device, a separate Unit 2 MPL number is entered to reflect the differences. Otherwise the data provided for the Unit 1 devices also applies to those of Unit 2.

270.8 To demonstrate compliance with 10 CFR 50.49, the following information is required to be submitted before an operating license is granted.

(a) In accordance with the scope defined in 10 CFR 50.49, provide

- (1) a list of all nonsafety-related electrical equipment located in a harsh environment whose failure under postulated environmental conditions could prevent satisfactory accomplishment of safety functions by the safety-related equipment. A description of the methods used to identify this equipment must also be included. The nonsafety-related equipment identified must be included in the environmental qualification program.
- (2) a statement that all safety-related electrical equipment in a harsh environment, as defined in the scope of 10 CFR 50.49, is included in the list of equipment identified in the October 25, 1982 submittal.
- (3) a list of all Category 1 & 2 postaccident monitoring equipment currently installed, or that will be installed before plant operation, that is relied on to provide measurements and indications of the variables listed in Revision 2 of RG 1.97. The equipment identified must be included in the environmental qualification program.

(b) Provide information demonstrating qualification of all electrical equipment located in a harsh environment, including all safety-related, nonsafety-related, and installed RG 1.97 equipment discussed above, or provide justifications for interim operation until November 30, 1985, pending completion of qualification, as required by 10 CFR 50.49. This qualification information or justification should be submitted to allow sufficient time for staff review and approval before issuance of an operating license.

Response

CEI will address these specific questions and provide a written response by July 1, 1984.

270.9. Indicate if the one hour time margin has been applied for equipment with operability times of less than 10 hours. If this margin has not been utilized, additional information will be requested to justify reduced margins.

Response

The Perry "Checklist for Equipment Qualification Report Review" asks "For equipment that is required to perform its safety function within a short time period into the event, was this equipment qualified for at least one hour in excess of the required time in the accident environment?" This question is addressed for each BOP equipment qualification report and appropriate justification provided for a lesser time when applicable.

Application of the minimum one hour time margin to NSSS equipment is discussed in GE Licensing Topical Report NEDE-24326-1-P (dated January, 1983).

270.10

Section 6.2.1.1.5 of the FSAR describes steam bypass of the suppression pool. Compare the postulated temperatures in the reactor building for this event with those postulated for a LOCA. Equipment must be qualified for the more severe postulated environment.

RESPONSE

The design conditions of the PNPP containment bound the various containment pressure/temperature conditions for LOCA and Steam Bypass of the suppression pool.

270.11 The type test sequence outlined in Section 3.11.2.2.1.1 does not follow the sequence for testing as stated IEEE Std. 323-1974. The FSAR test sequence should include inspection of the test unit prior to testing, mechanical vibration which includes self-induced vibration and seismic vibrations (item d) and disassembly for inspection.

Response

The Perry "Checklist for Equipment Qualification Report Review" requires that these items be addressed in type tests. See revised Section 3.11.2.2.1.1.

and response time requirements applicable for normal, abnormal, and accident conditions. The type test consists of a demonstration of safety functions under a planned sequence of conditions, both before and after age conditioning.

A test plan is prepared at the beginning of the type testing program, which includes the basic methodology of the program, its intent and purpose, and sufficient detail to describe the tests and demonstrate compatibility with the requirements. As a minimum, it includes:

- a. Equipment description.
- b. Number of test specimens.
- c. Acceptance criteria.
- d. Failure definition.
- e. Testing sequence.
- f. Aging technique with appropriate justification.
- g. Test levels and service conditions.
- h. Parameters to be monitored.
- i. Test equipment to be used.
- j. Mounting and connection methods.
- k. Qualified life goal and design life.
- l. Documentation to be maintained.

3.11.2.2.1.1 Sequence

Type testing is done in the following sequence:

- a. Inspection to assure test unit has not been damaged. |
- b. Demonstration of required safety functions during normal service conditions. |
- c. Demonstration of required safety functions at the extreme of the abnormal service conditions. |
- d. Age conditioning. |

- e. Mechanical vibration (including seismic, self-induced and pipe-related vibrations).
- f. Demonstration of required safety functions during and after accident conditions.
- g. Disassembly for inspection.

The same units are used for steps (a) through (g).

3.11.2.2.1.2 Test Specification

The type test is performed in accordance with a manufacturer-prepared test specification. This specification expands the approved test plan into a detailed step-by-step description of how to implement the test plan. The specification includes details of the tests and is submitted as part of the test result.

3.11.2.2.1.3 Margin

Margin is the difference between the most severe calculated service condition of the plant and the conditions used in type testing. Margin is necessary to account for normal variations in production and reasonable error in calculating service conditions. Margin has been achieved, where practicable in the suppliers' generic-type tests by increasing the levels of test parameters, the number of test cycles, and the test duration.

3.11.2.2.1.4 Acceptance Criteria

The type-test program is designed to show that the equipment can perform its design safety function under the environmental conditions, specified under Section 3.11.1, with margin as defined above.

3.11.2.2.1.5 Testing Under Normal Conditions

The equipment is installed and operated in a manner which simulates the intended normal in-service conditions. The equipment is exercised to demonstrate performance of its safety functions. Data is recorded for later reference.

270.12

Zone FB-3 in the fuel building is considered to be a mild environment. However, the LOCA temperature of this area exceeds the normal and abnormal normal conditions. Explain this zone classification.

RESPONSE

Zone FB-3 was classified in error. It should be classified as harsh environment per the definitions in Section 3.11.1.2. Based on this discrepancy, a review was done of all zone classifications in Table 3.11-1. The review indicates Zone AB-6 can be classified as a mild environment. Revised Table 3.11-1 incorporates these changes.

TABLE 3.11-1 (Continued)

<u>Zone(1)</u>	<u>Classification(2)</u>	<u>Description</u>	<u>Typical Equipment</u>
<u>Auxiliary Building</u>			
AB-1	Mild	HVAC Equipment Areas	Auxiliary Building HVAC equipment Panels, instrument and control
AB-2	Harsh	LPCS, HPCS, Pump Rooms	LPCS, HPCS, pumps, motors Panels, instruments and control
AB-3	Harsh	RCIC turbine and pump room	RCIC pump Turbine, gland seal and compressor Panels, instrument and control
AB-4	Harsh	RHR pump rooms	RHR pumps and motors, heat exchanger Panels, instrument and control
AB-5	Harsh	RWCU pump room	RWCU pumps and motors Panel, instrument and control
AB-6	Mild	Corridors outside ECCS rooms	Misc. Instrument and Control Panels
AB-7	Harsh	Steam tunnel	MSIV's and NS Shutoff System MSIV Leak detection equipment
AB-8	Harsh	Piping Containment Penetrations/Chase	Misc. piping/isolation valves
AB-9	Harsh	Corridors Outside ECCS Pump Rooms	Panels, instrument and control

TABLE 3.11-1 (Continued)

<u>Zone(1)</u>	<u>Classification(2)</u>	<u>Description</u>	<u>Typical Equipment</u>
<u>Fuel Building/Intermediate Building</u>			
FB-1	Mild	Fuel pool pump area	Fuel pool pump and motors Radiation monitors Panels, instrument and control Leak detection equipment Fuel pool heat exchangers Chilled water pumps, service air
FB-2	Mild	Operating floor	Neutron System amplifiers Pool Radiation monitors Auxiliary platforms Fuel preparation machines Panels, instrument and controls
FB-3	Harsh	Below operating floor	CRD pumps and motors Radiation monitors Fuel handling HVAC equipment
FB-4	Mild	HVAC equipment areas	AEGTS fans, filters and controls CV and DW Purge System fans, filters and controls Fuel Handling Area Vent System fans, filters Intermediate Bldg HVAC Equipment
FB-5	Mild	Electrical penetration area	Electrical penetrations Panels, instruments and controls
FB-6	Harsh	Pipe Chase (Elev. 585'-0")	Misc. instrumentation
FB-7	Harsh	AEGTS Area	Annunlus Exhaust Gas Treatment System equipment and controls
FB-8	Harsh	Fuel Handling Building Exhaust Filter Room	FH Bldg Exhaust Filter and instrumentation

270.13 The staff will conduct an audit of the qualification files and installed equipment after determining that the required systems and components have been included in the program and are being qualified to appropriate environments using acceptable methods. In addition, a minimum of 85% of the equipment in a harsh environment shall have been reviewed and evaluated, and the following established:

- a. Equipment is fully qualified or
- b. Equipment is not fully qualified but a commitment to qualification by retesting, replacement, relocation to a less harsh environment, or modification (such as radiation shielding) has been made. A schedule for completion should also be provided.

Mechanical and electrical equipment will be selected for audit. The criteria for electrical equipment qualification are described in SRP 3.11. Mechanical equipment will be evaluated against the criteria in General Design Criterion 4 and 10 CFR Part 50 Appendix B, Sections III, XI and XVII. Our review of mechanical equipment will concentrate on materials which are sensitive to environmental effects, for example, seals, gaskets, lubricants, fluids for hydraulic systems, diaphragms, etc. in both active and passive equipment located in a harsh environment. Selected mechanical equipment qualification documentation will be identified by the staff to be submitted for review. Electrical equipment qualification documentation will be reviewed during the site audit.

Response

CEI will be prepared for the environmental audit by September 1, 1983.