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SORENSEN,G.C. Washington Public Power Supply System
RECIP.NAME RECIPIENT AFFILIATION
SCHWENCER,A. Licensing Branch 2

SUBJECT: Forwards environ qualification rept for safety-related equipment. Justification for interim operation included in rev to rept. See rpt

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Washington Public Power Supply System
P.O. Box 968 3000 George Washington Way Richland, Washington 99352 (509) 372-5000

September 16, 1983
G02-83-842

Docket No. 50-397

Director of Nuclear Reactor Regulation
Attention: Mr. A. Schwencer, Chief
Licensing Branch No. 2
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Schwencer:

Subject: NUCLEAR PROJECT #2
ENVIRONMENTAL QUALIFICATION REPORT FOR
SAFETY RELATED EQUIPMENT, SEPTEMBER 1983

Reference: G02-83-590, dated June 30, 1983, G. D. Bouchey to
A. Schwencer, "Justification for Interim Operation"

We have completed our review of environmental profiles as discussed in our referenced letter. Nineteen Table A EPNs were downgraded from qualified as a result of this assessment. Justification for Interim Operation (JIO) for these pieces of equipment are included in this revision to our document.

The Staff asked a number of questions in a telephone conversation on July 23, 1983. These questions are responded to in text changes attached.

The document revision is physically voluminous but not substantial technically. The changes in environmental profiles called for minor changes to many pages. The completion of qualification efforts on some equipment called for list status changes.

As we indicated in our referenced letter, the completion of construction has and will add equipment to the plant requiring environmental qualification, which is not on the equipment lists included in this document. We will have documentation in place regarding the qualification of such equipment at fuel load. Our evaluation will include assessing whether or not the equipment must be on Table A, using the methods described in this document. Obviously, environmental qualification documentation will be in place only for that equipment meeting Table A criteria.

A048
1/4

4 cys ADVANCED
TO R. AULUCK
LIMITED DIST.

We have responded to various Staff questions regarding some of the JIO by modifications in this submittal. Because this document now also includes new justification, there may be additional questions.

We encourage your prompt review so this topical area can be closed as a fuel load issue in the near future.

Very truly yours,

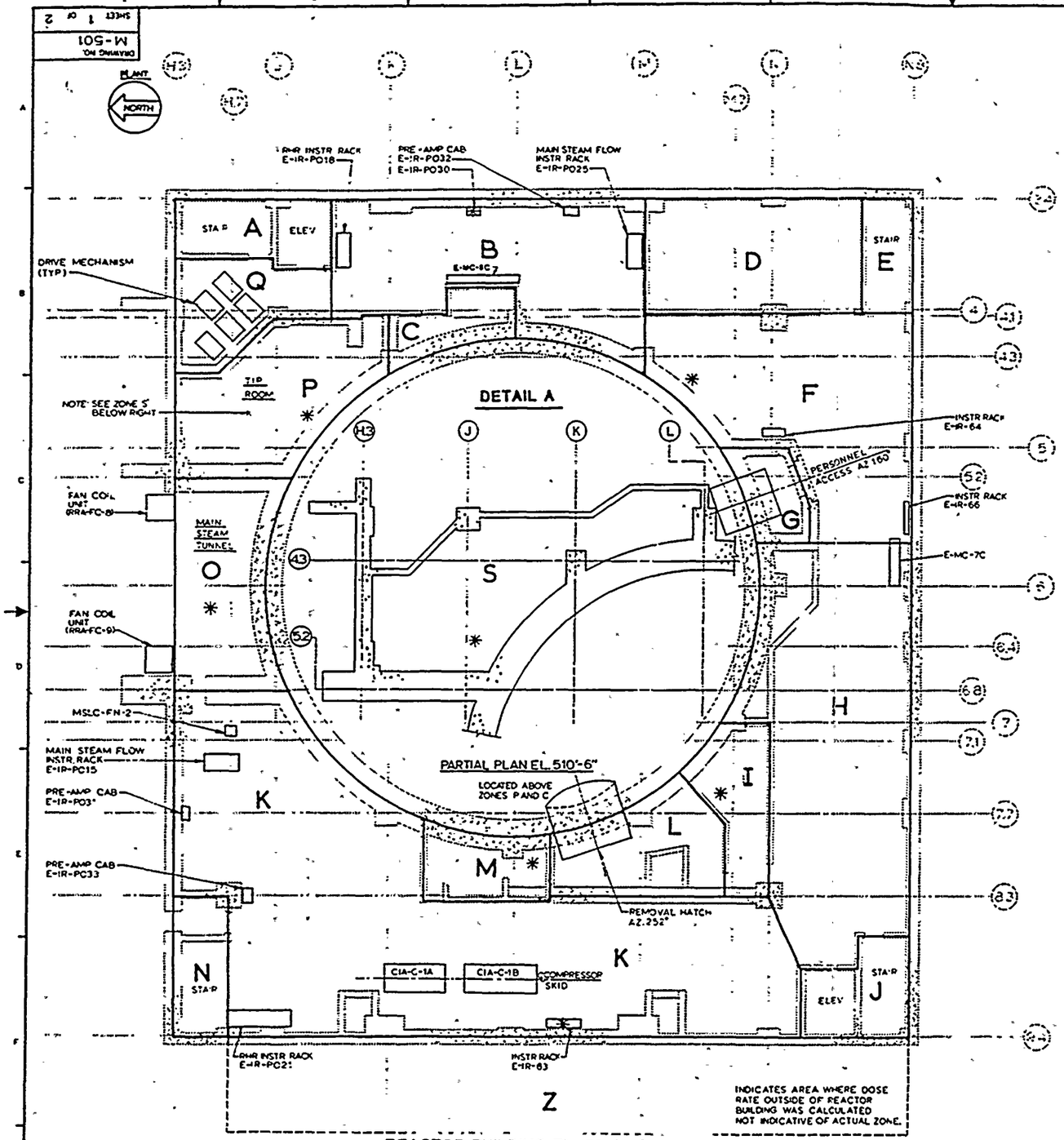
GC Sorensen

G. C. Sorensen, Acting Manager
Nuclear Safety and Regulatory Programs

GCS:KRW:st
Enclosure

cc: R. Auluck, NRC
W. S. Chin, BPA
A. Toth, NRC Site

DRAWING NO. M-501 SHEET 1 OF 2



REACTOR BUILDING EL. 501'-0"

SAFETY RELATED EQUIPMENT – BY ZONES

ZONE B
- * E-IR-PO30+
- • 4.7×10^5 rads

E-IR-PO18+
E-IR-PO25+
E-IR-PO30+
E-IR-PO32+

ZONE F
- * RRC-MO-16A
- • 5.1×10^4 rads

E-IR-64+
E-IR-66+
RRC-V-16A+

ZONE I
- * CSP-AO-1
- • 1.5×10^6 rads

CSP-V-1+
CSP-V-2+
RHR-V-8+

**CSP-V-96
**CSP-V-97

ZONE K
- * E-IR-63+
- • 8.3×10^4 rads

E-IR-63+
E-IR-PO15+
E-IR-PO21+
E-IR-PO31+
MSLC-FN-2+
RRC-V-16B+

RRC-V-20

♦ SUBZONE K1
- * PSR-V-X77A/2
- • 1.1×10^6 rads

PSR-V-X77A/2
PSR-V-X77A/4

♦ SUBZONE K2
- * E-IR-PO33+
- • 1.4×10^4 rads

E-IR-PO33+

ZONE M
- * RHR-MO-53B
- • 1.0×10^6 rads

RHR-V-16B+
RHR-V-17B+
RHR-V-53B+

ZONE O
- * MS-PO5-V/28D/2
- • 4.2×10^6 rads

MS-V-19+
MS-V-28A+
MS-V-28B+
MS-V-28C+
MS-V-28D+
MS-V-67A+
MS-V-67B+
MS-V-67C+
MS-V-67D+
MSLC-V-10+
MSLC-V-2A+
MSLC-V-2B+
MSLC-V-2C+
MSLC-V-2D+
MSLC-V-3A+
MSLC-V-3B+
MSLC-V-3C+
MSLC-V-3D+
MSLC-V-4+
MSLC-V-5+
MSLC-V-9+
RFW-V-65A+
RFW-V-65B+

LD-TE-29A
LD-TE-29B
LD-TE-29C
LD-TE-29D
LD-TE-31A
LD-TE-31B
LD-TE-31C
LD-TE-31D
MS-RE-3A
MS-RE-3B
MS-RE-3C
MS-RE-3D

ZONE P
- * TIP-V-1
- • 1.1×10^6 rads

TIP-SY-1
TIP-SY-2
TIP-SY-3
TIP-SY-4
TIP-SY-5
TIP-V-1
TIP-V-2
TIP-V-3
TIP-V-4
TIP-V-5

ZONE Q
- * TIP-SY-6
- • 5.7×10^4 rads

TIP-SY-6

ZONE S (DETAIL A C-3)
Located at elev. 510'6" above zones "P" and "C"

- * RCIC-MO-8
- • 2.6×10^6 rads

RCC-V-104+
RCC-V-21+
RCC-V-5+
RCIC-V-8+
RHR-V-53A+
RWCU-V-40+

GENERAL NOTES :

1. *, **, ***, •, ••, ♦, ARE IDENTIFIED IN GENERAL NOTES 2,3,4,5&7 ON DRAWING M-422 SHEET 1.
2. SEE DWG. M-501 SHEET 2 OF 2 FOR COMPONENTS OF LISTED COMPOSITES.

RADIATION ZONE MAP REACTOR BUILDING EL. 501'-0" WASHINGTON PUBLIC POWER SUPPLY SYSTEM	SCALE NONE
	DRAWING NO M-501 REV 7
	SHEET 1 OF 2

WPPSS

QID#045002

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-71

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Atmosphere Control TAG NUMBER CAC-CNTR-1A, 1B MANUFACTURER ITE IMPERIAL MODEL NUMBER A103D COMPONENT Contactor FUNCTION/SERVICE Contactor for CAC-EHC-1A, 1B LOCATION: BLDG R ELEVATION 577 COLUMN M.8/7.0 M.7/7.1	OPERATING TIME	6 months	Equivalent to >6 months	1	6	Engineering Analysis	none
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident Profile 4	212	2	5	Simultaneous Test Engineering Analysis	None
	PRESSURE (PSIA)	14.7	N/A	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 normal 90 max. abnormal Accident Profile 4	100	2	5	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1×10^6	1×10^7	3	5	Sequential Test	None
	AGING	40 years	40 years	2	6	Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Mearns 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list Rev. 8, dated 6/1/83 2. FSAR Paragraph 3.11 3. EDS Report 0740-004-572 F 4. BRI Calculation #5.51.055 5. Gould IEEE 323-1974 Qualification Report #cc-74-213 Rev. 0 6. QID 045002-E	Qualified

WPPSS QID #109007

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-71

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Atmosphere Control TAG NUMBER CAC-EHC-1A, B MANUFACTURER Chromalox MODEL NUMBER DHG#B393-. 146225-000 COMPONENT Heater FUNCTION/SERVICE Preheater for HR-1A , 1B LOCATION: BLDG R ELEVATION 580 COLUMN M7/6.6, M7/7.4	OPERATING TIME	6 months	Equivalent To >6 months	1	4,5	Sequential Test and Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4	1700(Ambient temp. + energized coils)	2	4	Sequential Test	None
	PRESSURE (PSIA)	14.7	85	2	4	N/A	None
	RELATIVE HUMITY (%)	40 normal 90 max abnormal Accident Profile 4	100	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	N/A
	RADIATION (RAD)	1.0×10^6	2×10^8	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4,5	Engineering Analysis, Sequential Test	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	N/A

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Bharat Mahimi 6/24/83 Reviewed by: James Means 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, REV 8, 6/1/83 2. FSAR Par. 3.11 3. EDS Report 0740-004-572F 4. Westinghouse Test Report WCAP 7709-L, Supplements 1-7 5. QID File #109007 6. BRI Calculation #5.51.055	Qualified.

WP-1081

WPPSS QID #110001, 2, 4

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-71, 42A

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Atmosphere Control TAG NUMBER CAC-EHO-Note 2 MANUFACTURER ITT-General Controls MODEL NUMBER - Basic NH91 & NH95 & NH92 (See Note 3 for full model #) COMPONENT Electro-Hydraulic Operator FUNCTION/SERVICE Operate FCV (3 phase) LOCATION: BLDG R ELEVATION (See Note 2) COLUMN (See Note 2)	OPERATING TIME	6 months	Equivalent to > 6 months	5	3,4	Engineering Analysis and Sequential Test	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident profile 4	200	1	3	Sequential Test	None
	PRESSURE (PSIA)	14.7	N/R	1	N/A	N/A	None
	RELATIVE HUMITY (%)	40 normal 90 max. abnormal Accident profile 4	90	1	3,4	Engineering Analysis and Sequential Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	1.7×10^6	2×10^6	2	3	Sequential Test	None
	AGING	40 years	11 years	1	3, 4	Sequential Test, Engineering Analysis	None Note 1
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV: 3
ABOVE FLOOD LEVEL?
YES X NO (Ref.6)

Prepared By Linda Vaccari 9/12/83 Reviewed By: James Mearns 9/12/83

DOCUMENTATION REFERENCES

1. FSAR Par. 311
2. EDS Calc. 0740-004-471E
3. ITT Gen. Controls Letter No. HIE 83-06-21,6-24-83
4. Calculation QID 110001
5. BRI CIE list, REV 8,
6. BRI Calc. #5.51.055

NOTES

1. A preventive maintenance, surveilance program is being developed to extend the qualified life.

Qualified

DOCUMENTATION REFERENCES (Cont'd)

NOTES (Cont'd)

2.

EPN	Elevation	Column
CAC-EHO-FCV/1A	575	L.5/5.3
EHO-FCV/1B	565	J.6/6.7
EHO-FCV/2A	558	H.2/7.1
EHO-FCV/2B	560	H.4/6.6
EHO-FCV/3A	494	H.8/4.4
EHO-FCV/3B	496	J. /7.4
EHO-FCV/4A	493	H.4/7.8
EHO-FCV/4B	492	N.2/6.0
EHO-FCV/5A	572	H.6/6.5
EHO-FCV/5B	573	H.5/7.5
EHO-FCV/6A	572	H.6/6.5
EHO-FCV/6B	573	H.5/7.5
EHO-TCV/4A	573	H.5/6.6
EHO-TCV/4B	573	H.5/7.4
EHO- V/1A	573	H.5/6.6
EHO- V/1B	573	H.5/7.4
EHO- V/2A	573	H.5/6.6
EHO- V/2B	573	H.5/7.4
EHO- V/3A	573	H.5/6.6
EHO- V/3B	573	H.5/7.4

3.

QID	EPN	Model
110001	CAC-EHO-FCV/6A	NH91H4D70F3L16
	TCV/4A	NH92H9970F3L29
	TCV/4B	NH92H9970F3L29
110002	CAC-EHO-V/1A	NH95H2670F3L2
	-V/1B	NH95H2670F3L2
110004	CAC-EHO-FCV/1A	NH91J4002F2L18
	-FCV/1B	NH91J4002F2L18
	-FCV/2A	NH91J4002F2L18
	-FCV/2B	NH91J4002F2L18
	-FCV/3A	NH91H2070F3L3
	-FCV/ 3B	NH91H2070F3L3
	-FCV/4A	NH91J4002F2L18
	-FCV/4B	NH91J4002F2L18
	-FCV/5A	NH91H4070F3L16
	-FCV/5B	NH91H4070F3L16
	-FCV/6B	NH91H4070F3L16
	-V/2A	NH91H2070F3L2
	-V/2B	NH91H2070F3L2
	-V/3A	NH95H1670F3L3
	-V/3B	NH95H1670F3L3

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Meyers 9/12/83

WPPSS QID #156004

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-71

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Atmosphere Control TAG NUMBER CAC-FT-5A, B -6A, B -7A, B MANUFACTURER Barton MODEL NUMBER 386 COMPONENT Differential Pressure Transmitter FUNCTION/SERVICE FT-5A, B: FT for Scrubber 1A, B Ser. Water Inlet FT-6A, B: FT to CAC-FC-67A, B FT-7A, B: FT to CAC-FIC-67A, B LOCATION: BLDG R ELEVATION 578(5),575,576(7B) COLUMN M.3/6.8, M.3/7.5 M.5/6.8, M.5/7.3 M.3/6.6, M.3/7.4	OPERATING TIME	6 months	Equivalent to >6 months	5	4	Eng. Analysis & Operating Experience	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profile 4	286	1	3	Simultaneous Test and Operating Experience	None
	PRESSURE (PSIA)	14.7	74.7	1	3	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4	100%	1	3	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	1.0×10^6	4.8×10^7	2	7	Separate Test	None
	AGING	40 years	8 years	1	4	Operating Experience & Engineering Analysis	None Note 1
	ACCURACY	0.5%	± 0.5%	7	3,4	Separate Test and Engineering Analysis	None.

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref.6)

Prepared by: Richard Mathine 6-24-83 Reviewed by: James Means 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. EDS Report No. 0740-004-572F 3. Westinghouse Test Report WCAP 7410-L, dated 12/70, Volume I of II 4. QID File 209002 5. BRI CIE list, REV 8, 6/1/83 6. BRI Calculation #5.51.055 7. WPPSS Calc. #IN-02-83-01	1. A preventive maintenance/surveillance program is being implemented to extend the qualified life. Qualified.

WPPSS QID #209002

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: #2808-71

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Atmosphere Control TAG NUMBER CAC-LT-1A, B MANUFACTURER ITT Barton MODEL NUMBER 386 COMPONENT Differential Pressure Transmitter FUNCTION/SERVICE LTs for MS-1A,1B LOCATION: BLDG R ELEVATION 574' COLUMN M.3/6.8 M.3/7.5	OPERATING TIME	6 months	Equivalent to >6 months	5	4	Engineering Analysis and Operating Experience	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profile 4	286	1	3	Simultaneous Test Operating Experience	None
	PRESSURE (PSIA)	14.7	74.7	1	3	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4	100%	1	3	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	1.0×10^6	4.8×10^7	2	4	Separate Test	None
	AGING	40 years	8 years	1	4	Operating Experience, Engineering Analysis	None Note 1
	ACCURACY	0.5%	± 0.5%	7	3,4	Separate Test and Engineering Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by Behzad Mahini 6/24/83 Reviewed by: James Meara 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. EDS Report No. 0740-004-572F 3. Westinghouse Test Report WCAP 7410-L, dated 12/70, Volume I of II 4. QID File #209002 5. BRI C1E list, REV 8, 6/1/83 6. BRI Calc. #5.51.055 7. WPPSS Calc. #IN-02-83-01	1. A preventive maintenance/surveillance program is being implemented to extend the qualified life. Qualified

WPPSS QID #213048

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-71

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Atmospheric Control TAG NUMBER CAC-M-FN/1A, 1B MANUFACTURER Westinghouse MODEL NUMBER Style No. 75D42473 COMPONENT Fan Motor FUNCTION/SERVICE Fan motors for FN-1A, 1B LOCATION: BLDG R ELEVATION 572 COLUMN M5/6.6 M5/7.4	OPERATING TIME	6 months	Equivalent to 6 months	1	4,5	Simultaneous Test Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident profile 4	410	2	4	Simultaneous Test Engineering Analysis	None
	PRESSURE (PSIA)	14.7	N/R	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 normal 90 max abnormal Accident profile 4	100	2	4	Sequential Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	N/A
	RADIATION (RAD)	1.0×10^6	2×10^8	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4	Simultaneous Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	N/A

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by Behzad Mehri 6/24/83 Reviewed by: James Mirens 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, REV 8, 6/1/83 2. FSAR Para. 3.11 3. EDS Report 0740-004-572F 4. QID# 213017 5. BRI Calc. #5.51.055	Qualified.

WP-1081

WPPSS

QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Atmospheric Control TAG NUMBER CAC-MO-11, 2 13, 4 15, 6 17, 8 MANUFACTURER Limitorque MODEL NUMBER SMB-000-5/056A COMPONENT Porter Peerless Motor Operator DC Motor/Class H Ins. FUNCTION/SERVICE Operate CAC Valves LOCATION: BLDG R ELEVATION COLUMN (See Note 1)	OPERATING TIME	6 months	Equivalent to 6 months	5	3,4	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident profile 4	See enclosed profile	1	3	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	See enclosed profile	1	3	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 max. abnormal Accident profile 4	100	1	3	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	1.7×10^6	1×10^7	2	3	Sequential Test	None
	AGING	40 years	40 years+	1	3,4	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

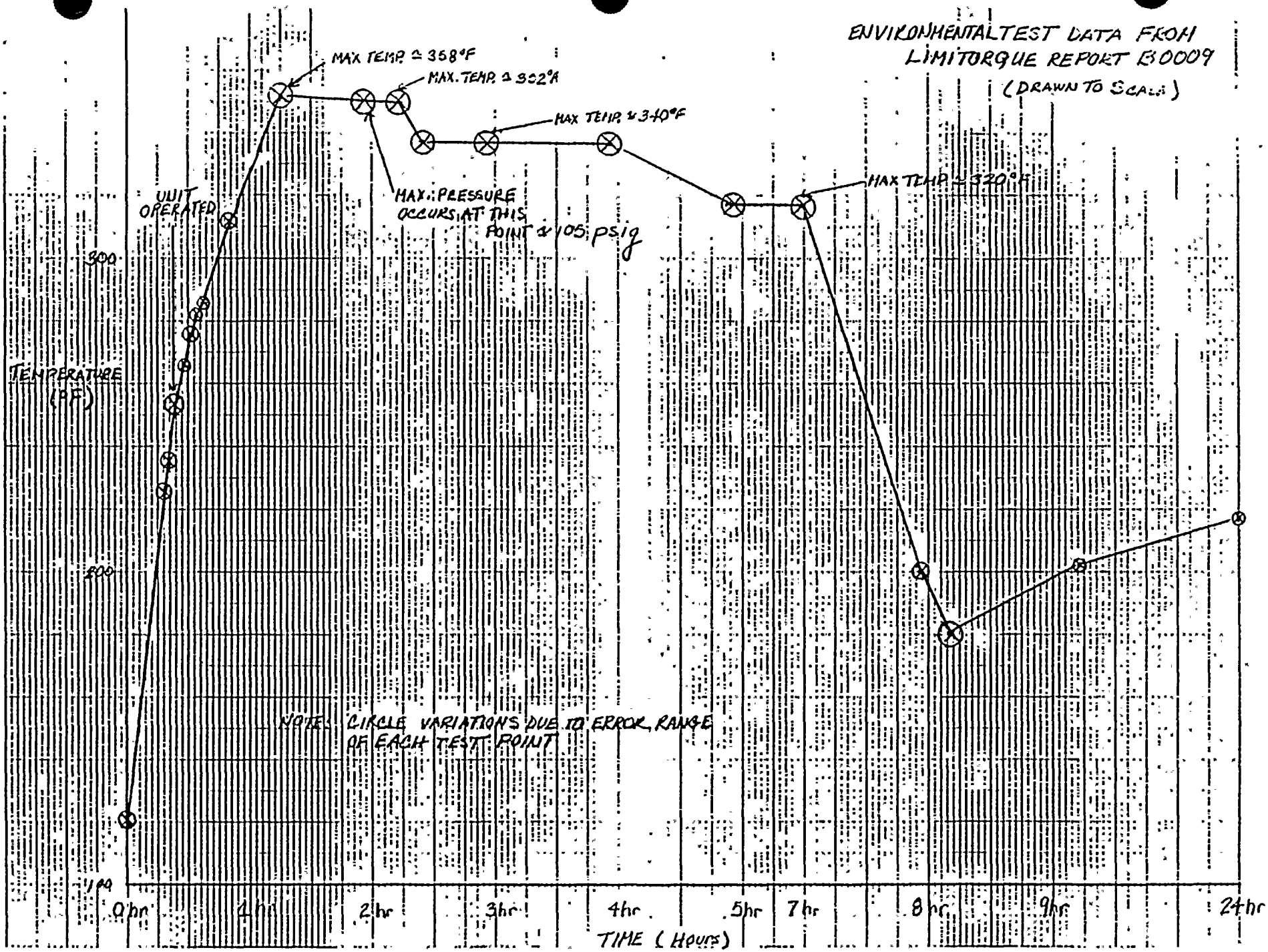
Prepared by: Behzad Mahini 6/24/83 Reviewed by: James Munro 6/24/83

DOCUMENTATION REFERENCES

1. FSAR Par. 3.11
2. EDS Study 0740-004-471E (worst case)
3. Limitorque Report B0009, 4/30/76
4. Applicability calculations in QID 221001
5. BRI C1E list, REV 8, 6/1/83
6. BRI Calculation #5.51.055

NOTES

Qualfied.	Tag Number	Elevation	Column
1.	CAC-MO-2	558	M.1/7.1
	-4	493	M.3/8.0
	-6	575	L.7/5.0
	-8	491	M.7/4.5
	-11	560	M.2/6.5
	-13	487	N.0/6.0
	-15	565	J.6/6.7
	-17	494	J /7.4


ENVIRONMENTAL TEST DATA FROM
LIMITORQUE REPORT B0009
(DRAWN TO SCALE)
MAX TEMP. ≈ 358°F
MAX. TEMP. ≈ 302°F
MAX TEMP. ≈ 340°F
MAX TEMP. ≈ 320°F
MAX. PRESSURE OCCURS AT THIS POINT ≈ 105 psig
UNIT OPERATED
300
200
100
TEMPERATURE (°F)
NOTE: CIRCLE VARIATIONS DUE TO ERROR RANGE OF EACH TEST POINT
0 hr
1 hr
2 hr
3 hr
4 hr
5 hr
7 hr
8 hr
9 hr
24 hr
TIME (Hours)

WPPSS QID #259006

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-71

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Atmosphere Control TAG NUMBER CAC-PT-68A, B -1A, B MANUFACTURER ITT Barton MODEL NUMBER 386 COMPONENT Differential Pressure Transmitter FUNCTION/SERVICE PT-68A, B: PT for CAC-MS-1A, B PT-1A, B: 0-30 psig for CAC-FN-1A, B LOCATION: BLDG R ELEVATION 576, 572, 575, 575 COLUMN M.3/6.8, M.3/7.5 M.3/6.5, M.3/7.3	OPERATING TIME	6 months	Equivalent to > 6 months	5	4	Eng. Analysis & Operating Experience	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profile 4	286	1	3	Simultaneous Test, Operating Experience	None
	PRESSURE (PSIA)	14.7	74.7	1	3	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4	100	1	3	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	1.0×10^6	4.8×10^7	2	4	Separate Test	None
	AGING	40 years	8 years	1	4	Operating Exper. & Eng. Analysis	None Note 1
	ACCURACY	0.5%	$\pm$ 0.5%	7	3,4	Separate Test and Engineering Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO

Prepared by: Richard Hakimi 6/24/83 Reviewed by: James Mecano 6/24/83

DOCUMENTATION REFERENCES

1. FSAR Par. 3.11
2. EDS Report No. 0740-004-572F
3. Westinghouse Test Report WCAP 7410-L, dated 12/70, Volume I of II
4. QID File 209002
5. BRI CIE list, REV 8, 6/1/83
6. BRI Calc. #5.51.055
7. Supplu System Calc#In-02-83-01

NOTES

1. A preventive maintenance/surveillance program is being implemented to extend the qualified life.

Qualified.

WPPSS QID # 283011E

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC:

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Atmosphere Control TAG NUMBER CAC-RLY-Note 1 MANUFACTURER ASEA MODEL NUMBER RXMK1 COMPONENT Relay FUNCTION/SERVICE Power Available Relay LOCATION: BLDG R ELEVATION See COLUMN Note 1	OPERATING TIME	4320 hours	> 4320 hours	1	4	Engineering Analysis	None
	TEMPERATURE (F)	90° normal 104° abnormal Accident Profile 4	194	2	4	Materials Test and Engineering Analysis	None
	PRESSURE (PSIA)	14.7	14.7	2	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4	90	2	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A			N/A	None
	RADIATION (RAD)	7.1×10^4	10^6	3	4	Materials Test and Engineering Analysis	None
	AGING	40 years	> 40 years	2	4	Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	N/A

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref 5)

Prepared by: Ali Rashen 6/24/83 Reviewed by: James Manns 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. BKI CIE list, Rev.8, dated 6/1/83 2. FSAR 3.11 3. EDS report 0740-004-471D 4. QID 283015 E 5. BRI Calculation #5.51.055	Qualified

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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

1.

EPN	LOCATION	
CAC-RLY-4A/CR1	476	N.1/9.0
4A/CR2	476	"
FCV1A80	471	"
FCV2A80	471	"
FCV3A80	471	"
FCV4A80	471	"
4B/CR1	476	N.0/8.3
4B/CR2	476	"
FCV1B80	471	"
FCV2B80	471	"
FCV3B80	471	"
FCV4B80	471	"

WPPSS QID #339006

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-71

MPL:
PPD:

PAGE NO:
REVISION Revision 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Atmosphere Control TAG NUMBER CAC-TE-(NOTE 1) MANUFACTURER Thermo Electric, Inc. MODEL NUMBER 80500 COMPONENT Temperature Element FUNCTION/SERVICE LOCATION: BLDG R ELEVATION See COLUMN Note 1	OPERATING TIME	6 months	Equivalent to >6 months	2	4	Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4	550	1	4	Material Test and Engineering Analysis	None
	PRESSURE (PSIA)	14.7	N/A	1	N/A	N/A	None
	RELATIVE HUMITY (%)	40 normal 90 max abnormal Accident Profile 4	90 Max normal	1	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	1.0×10^6	1.0×10^7	3	4	Material Test and Engineering Analysis	None
	AGING	40 years	40 years	1	4	Engineering Analysis	None
	ACCURACY	± 3.87%	± 0.60%	6	4	Engineering Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Williams 9/12/83

DOCUMENTATION REFERENCES

1. FSAR Par. 3.11
2. BRI CIE list, REV 8, 6/1/83
3. EDS Report #0740-004-572F
4. QID #339006
5. BRI Calc. #5.51.055
6. Supply System Calc.In-02-83-01

NOTES

Qualified

1. (See next page.)

DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

1.

	ELEVATION	COLUMN
CAC-TE-1A	580	M.5/6.6
1B	580	M.5/7.4
2A	581	M.5/6.6
2B	581	M.5/7.4
3A	576	M.5/6.6
3B	576	M.5/7.4
4A	578	M.5/6.6
4B	578	M.5/7.4
5A	576	M.5/6.6
5B	576	M.5/7.4
6A	578	M.5/6.6
6B	578	M.5/7.4
7A	580	M.5/6.6
7B	580	M.5/7.4

WPPSS QID 361009

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Control Air System TAG NUMBER CAS-V-453 MANUFACTURER Marotta MODEL NUMBER MV250-4 COMPONENT Solenoid Valve FUNCTION/SERVICE Control Wetwell Vacuum Breakers LOCATION: BLDG Reactor ELEVATION 479 COLUMN M.5/7.5	OPERATING TIME	4320 Hours	Equivalent to >4320 Hours	1	4	Engineering Analysis	None
	TEMPERATURE (F)	Max normal 90 Max abnormal 104 Accident Profile 4	221	2	4	Materials Test and Engineering Analysis	None
	PRESSURE (PSIA)	14.7	14.7	2	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	Max normal 40 Max abnormal 90 68 Accident	90	2	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	7.1×10^4	5×10^6	3	4	Materials Test and Engineering Analysis	None
	AGING	40 years	40 years	2	4	Materials Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV: (Ref. 6)
ABOVE FLOOD LEVEL?
YES X NO

Prepared by: Behzad Mobini 6/24/83 Reviewed by: James Mearns 6/24/83

DOCUMENTATION REFERENCES

1. BRI Class 1E Equipment List, Rev. 8 ,dated 6/1/83
2. FSAR Paragraph 3.11
3. EDS Study 0740-004-471D
4. QID 315023
5. Performance Specification for Marotta Solenoid Valves, Hyle Report #26411, dated 4/27/83
6. BRI Calc. #5.51.055

NOTES

Qualified

1. These components are being tested to demonstrate their qualification to IEEE Stds 323-1974 and 344-1975. Qualification objectives are identified in [5]. Interim qualification is addressed in QID 315023 [4].

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WPPSS QID #200015

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-68

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Exhaust Purge System TAG NUMBER CEP-POS-V/1A 2A MANUFACTURER NAMCO MODEL NUMBER EA74080100 COMPONENT Limit Switches FUNCTION/SERVICE Limit Switches for CEP-V-1A, 1B, 2A LOCATION: BLDG R ELEVATION 563, 558 COLUMN J.1/5.4	OPERATING TIME	6 months	Equivalent to >6 months	2	4,5	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profile 4	See enclosed LOCA test	1	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	See enclosed LOCA test	1	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4	See enclosed LOCA test	1	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	1.0×10^6	2.0×10^8	3	5	Materials Test and Engineering Analysis	None
	AGING	40 years	40 years	1	5	Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Richard Mahini 6/24/83 Reviewed by: James Means 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. BRI CIE list, Rev.8 dated 6/1/83 3. EDS Report 0740-004-548Q 4. ACME-Cleveland Report, "Qualification of Namco Control Limit Switch Model EA-740" dated 2/22/79 5. QID No. 200015 6. NAMCO Controls, Limit Switches General Catalog, copyright 1979 7. BRI Calc. #5.51.055	Qualified

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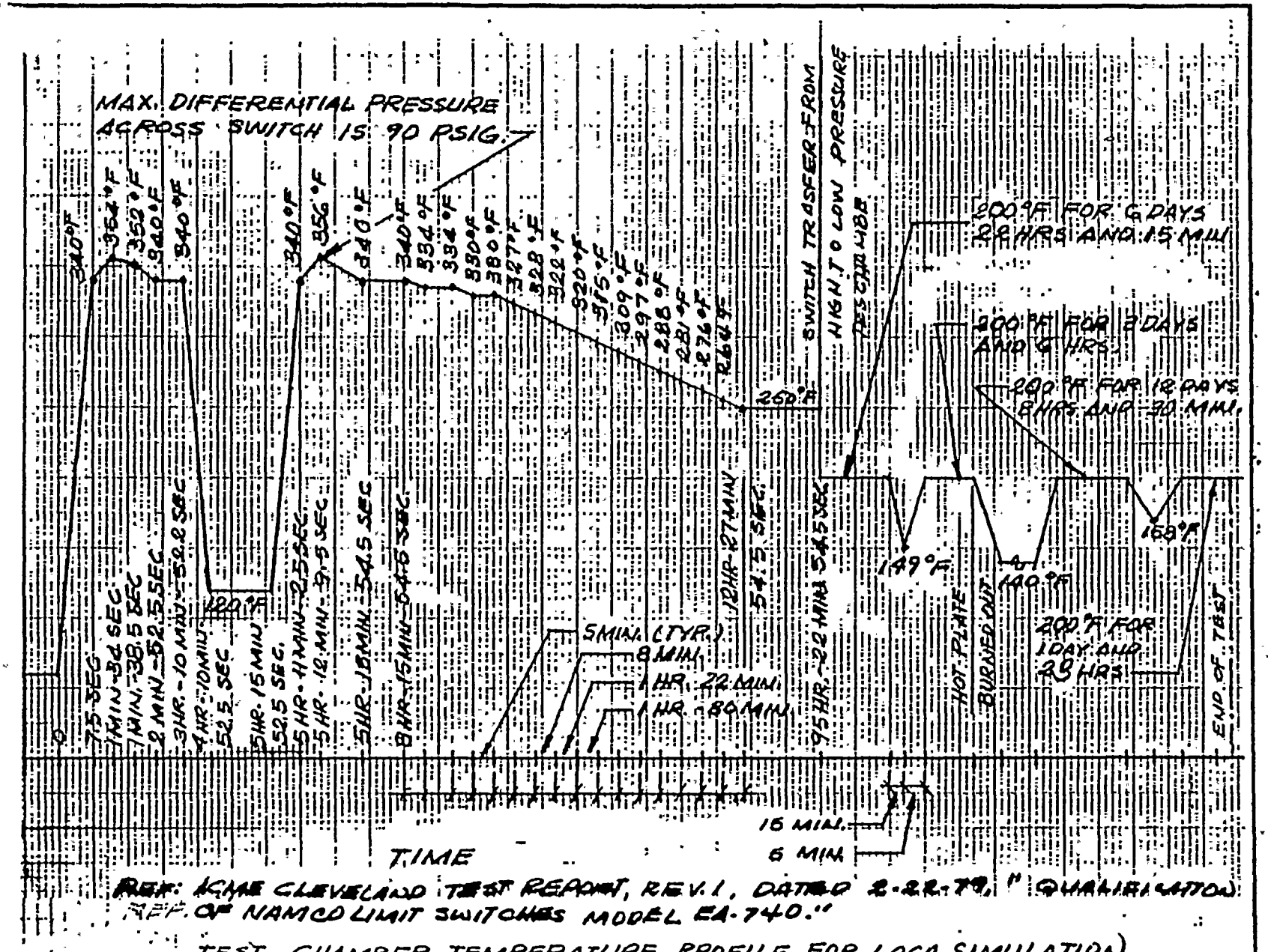

REF: ACME CLEVELAND TEST REPORT, REV. 1, DATED 2-22-79, "QUALIFICATION OF NAMCO LIMIT SWITCHES MODEL EA-740."

TEST CHAMBER TEMPERATURE PROFILE FOR LOCA SIMULATION

WPPSS QID #200009

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC:

MPL:
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PAGE NO:
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DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Exhaust Purge System TAG NUMBER CEP-POS-V/1B 2B MANUFACTURER NAMCO MODEL NUMBER 17031100 COMPONENT Limit Switches FUNCTION/SERVICE Limit Switches for CEP-V-1B,2B LOCATION: BLDG R ELEVATION 563, 559 COLUMN J.4/5.3	OPERATING TIME	6 months	Equivalent to 6 months	2	4,5	Sequential test and Engineering Analysis	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profile 4	200	1	4	Sequential Test and Engineering Analysis	None
	PRESSURE (PSIA)	14.7	N/A	1	N/A	N/A	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4	100%	1	4,5	Sequential Test and Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	1.0×10^6	5.0×10^7	3	5	Engineering Analysis	None
	AGING	40 years	40 years	1	5	Materials Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Richard Matsui 6/24/83 Reviewed by: James Means 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. BRI CIE list Rev. 8, dated 6/1/83 3. EDS Report 0740-004-548Q 4. ACME-Cleveland Report, "Qualification of Namco Control Limit Switch Model EA-170", dated 7/24/78 5. QID No. 200009 6. NAMCO Controls, Limit Switches General Catalog, copyright 1979 7. BRI Calc #5 51 055	Qualified

WPPSS QID #200015

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-68

MPL:
PPD:

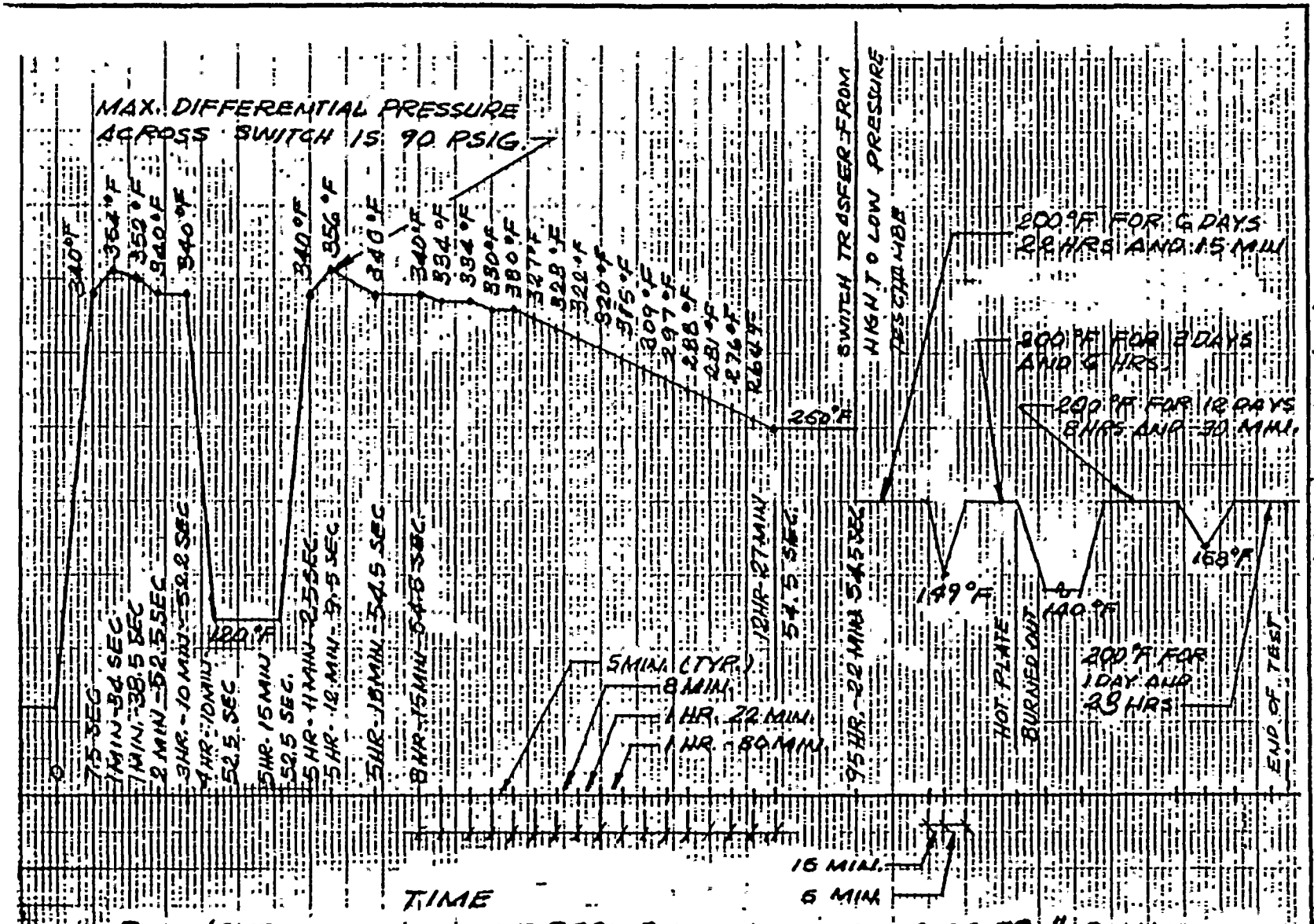
PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Exhaust Purge System TAG NUMBER CEP-POS-V/3A 4A MANUFACTURER Namco MODEL NUMBER 74080100 COMPONENT Limit Switches FUNCTION/SERVICE Limit Switch for CEP-LMS-3A -4A,B LOCATION: BLDG R ELEVATION 491,491,495 COLUMN H.4/5.4,H.5/5.6, H.4/5.6	OPERATING TIME	6 months	Equivalent to or >6 months	1	4,5	Simultaneous Test Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4	See enclosed LOCA tested profile #1	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	See enclosed LOCA tested profile #1	2	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 max abnormal Accident Profile 4	See enclosed LOCA tested profile #1	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	N/A
	RADIATION (RAD)	4.4×10^7	2×10^8	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4,5	Sequential Test Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Behzad Mahini 6/24/83 Reviewed by: James Weems 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list Rev. 8, dated 6/1/83 2. FSAR Par. 3.11 3. EDS Report 0740-004-471J 4. Qualification of NAMCO Controls Limit Switch Model EA-740 to IEEE Stds. 344 (1975), 323 (1974) and 382 (1972), Rev. 1, dtd. 2/22/79, Rev. 0. dtd. 2/20/78 5. QID #200015 6. BRI Calc #5.51.055	Qualified



REF: ACME CLEVELAND TEST REPORT, REV. 1, DATED 2-22-79, "QUALIFICATION OF NAMCO LIMIT SWITCHES MODEL EA-740."

TEST CHAMBER TEMPERATURE PROFILE FOR LOCA SIMULATION

WPPSS QID #200009

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-68

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PAGE NO:
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DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Exhaust Purge System TAG NUMBER CEP-POS-V/3B V/4B MANUFACTURER Namco MODEL NUMBER 17031100 COMPONENT Limit Switches for CEP-V-3B FUNCTION/SERVICE Limit Switch for CEP-V-3B LOCATION: BLDG R ELEVATION 495 COLUMN H.5/5.4	OPERATING TIME	6 months	Equivalent To or > 6 months	1	4,5	Sequential Test Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4	200° F	2	4,5	Sequential Test Engineering Analysis	None
	PRESSURE (PSIA)	14.7	N/A	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 normal 90 max abnormal Accident Profile 4	100	2	4,5	Sequential Test and Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	N/A
	RADIATION (RAD)	4.4×10^7	5.0×10^7	3	5	Materials Test and Engineering Analysis	None
	AGING	40 years	40 years	2	4,5	Sequential Test Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	N/A

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Behzad Mahini 6/24/83 Reviewed by: James Means 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list Rev. 8, dated 6/1/83 2. FSAR Par. 3.11 3. EDS Report 0740-004-471J 4. Qualification of NAMCO Controls Limit Switch Model EA-170 Report Revision 1 dated 7/24/78 5. QID #200009 6. BRI Calc. #5.51.055	Qualified.

WPPSS QID #315004

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-58

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Exhaust Purge TAG NUMBER CEP-SPV-(See Note 2) MANUFACTURER Automatic Switch (ASCO) MODEL NUMBER See Note 2 COMPONENT Solenoid Pilot Valve FUNCTION/SERVICE Solenoid Pilot for CEP-V-3A LOCATION: BLDG R ELEVATION See Note 2 COLUMN	OPERATING TIME	4320 hours	Equivalent to >6 months	1	4	Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Profile 4	185	2	4	Materials Test Engineering Analysis	None
	PRESSURE (PSIA)	14.7	>14.7	2	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 max normal 90 max abnormal Profile 4	90	2	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.7×10^5	4×10^5	3	4	Material Test and Engineering Analysis	None
	AGING	40 years	7 years	2	4	Operating Experience and Engineering Analysis	None Note 1
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Linda Vaccari 9/12/83

Reviewed by: James Means 9/12/83

DOCUMENTATION REFERENCES	NOTES
1 BRI CIE list Rev. 8, dated 6/1/83 2. FSAR Para 3.11 3. EDS Study 0740-004-471J2, 548G,548 P, 501K 4. Calculation QID315004-E 5. BRI Calculation #5.51.055	1. A preventive maintenance program is being developed to extend the qualified life. Qualified

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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

2. TAG NUMBERS

TAG NUMBERS	Elev.	Loc.	Model No.
-1A	552	H.8/5.8	WJHT8316A74
-1B	553	H.8/5.8	WJHT831654
-2A	554	H.7/8.2	WJHT8316A76
-2B	554	H.7/8.1	WJHT831654
-3A	477	H.4/6.8	WJHT831654
-3B	478	H.4/6.8	WJHT831654
-4A	507	L.4/9.3	WJHT8316A74
-4B	507	L.4/9.3	WJHT8316A54

WPPSS

QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Instrument Air TAG NUMBER CIA-MO-20 -30A -30B MANUFACTURER Limitorque MODEL NUMBER SMB-000 COMPONENT Reliance Motor AC Motor/Class RH Ins. FUNCTION/SERVICE Operate CIA Valves LOCATION: BLDG R ELEVATION 541, 543 COLUMN J3/7, J5/4.3, N7/6.9	OPERATING TIME	4320 hours	Equivalent to >6 months	7	3,4	Simultaneous Testing and Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident profile 4,11,11X	See enclosed profile	1	3	Simultaneous Testing	None
	PRESSURE (PSIA)	Normal 14.7 Accident profile 11,11X	See enclosed profile	1	3	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 max. abnormal 100 max. accident	Steam for 24 hours 100% for 15 days	1	3	Simultaneous Testing	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	8.3×10^5	2.04×10^8	2	3	Sequential Testing	None
	AGING	40 years	40 years+	1	3,4,5	Sequential Testing, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Mearns 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. EDS Study 0740-004-522H (worst case) 3. Limitorque Report 600376A dated 5/13/76 4. Calculations in QID 221001 5. Limitorque Report B0058 dated 1/11/80 6. BRI Calculation #5.51.055 7. BRI CIE list, REV 8, 6/1/83	Qualified.

1981

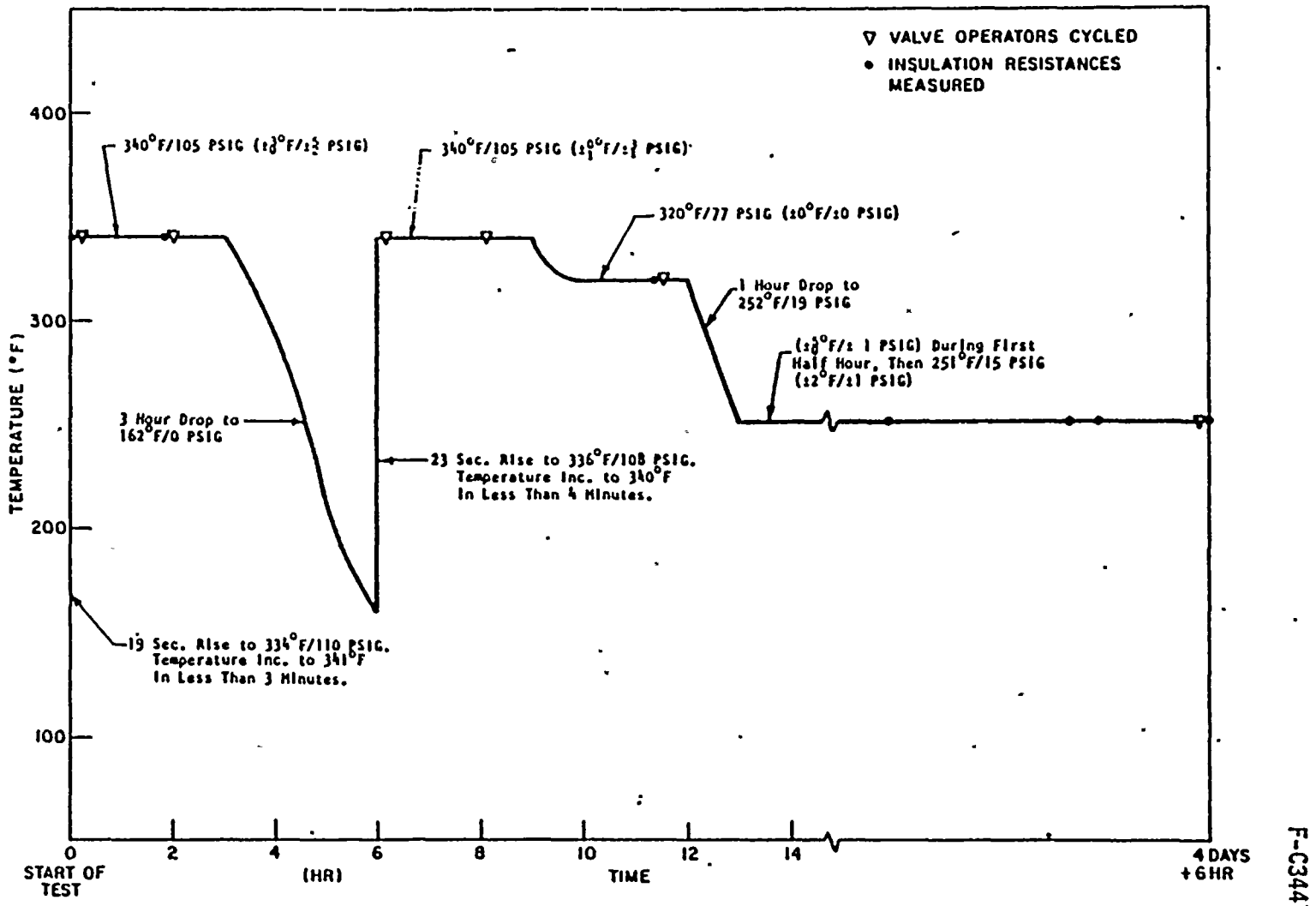

Figure 3. Actual Steam Exposure Profile

WPPSS QID#254001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-58

MPL:
PPD:

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REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Instrument Air TAG NUMBER CIA-PROG-1A, B MANUFACTURER Automatic and Timing Control, Inc. MODEL NUMBER 1820B1Q20XX 1820B01020XX COMPONENT PROG. FUNCTION/SERVICE PROGR's to N2 Bottle SPV's LOCATION: BLDG R ELEVATION 554 COLUMN M.8/5.8, H.7/8.2	OPERATING TIME	6 months	Note 1	1	4	Simultaneous Test, Engineering Analysis	
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident Profile 4 15X,32,19X		2			
	PRESSURE (PSIA)	14.7 normal Accident Profile 19X 15X,32		2			
	RELATIVE HUMITY (%)	40 normal 90 max. abnormal 100 accident		2			
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	8.5×10^4		2			
	AGING	40 years		3			
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Mevers 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, REV 8, 6/1/83 2. FSAR Paragraph 3.11 3. EDS Report 0740-004-548G, P 4. Letter #GE-02-JLS-82-016 5. BRI Calc. #5.51.055	1. These components are scheduled to be tested. Equipment justification #1 in Appendix D is provided for CIA-PROG-1A. CIA - PROG-1B is on Table B of the JIO and does not require qualification prior to fuel load.

1081

WPPSS QID #256007

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-58

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Instrument Air TAG NUMBER CIA-PS-21A CIA-PS-21B MANUFACTURER Barton MODEL NUMBER 288 COMPONENT Pressure Switch FUNCTION/SERVICE LOCATION: BLDG R ELEVATION 554 COLUMN M8/5.8 , H.7/8.1	OPERATING TIME	6 months	Equivalent to >6 months	1	4, 5	Simultaneous Test Engineering Analysis	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident 4, 15X,32	212	2	5	Simultaneous Test	None
	PRESSURE (PSIA)	Normal 14.7 Accident 15X,32	14.95	2	5	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal 100 accident	100	2	5	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	8.5×10^4	3×10^6	3	4,5	Separate Effect Engineering Analysis	None
	AGING	40 years	12 years	2	4	Engineering Analysis.	None Note 1
	ACCURACY	5%	2.4%	8	6	Engineering Analysis And Simultaneous Test	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Linda Vaccari 9/2/83 Reviewed by James Munro 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI C1E list, REV 8, 6/1/83 2. FSAR Paragraph 3.11 3. EDS Report 0740-004-548G, P 4. QID File #256007 5. Qualification Test Report for Barton 288 Switch Report No. R3-288A-1 6. Test report for Barton pressure switch 289A	Qualified 1. A preventive maintenance/surveillance program is being developed to extend the qualified life.

WPPSS QID #256001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-220

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Instrument Air TAG NUMBER CIA-PS-22A, B MANUFACTURER ASCO MODEL NUMBER SB11AKR/TG10A32 COMPONENT Pressure Switch FUNCTION/SERVICE - Remote Local PS - CIA N_2 Header Pressure IR-68[2] LOCATION: BLDG R ELEVATION 548 COLUMN H.8/5.7 H.8/5.7	OPERATING TIME	6 months	Note 1	1	1		None
	TEMPERATURE (F)	90 Normal 104 Abnormal Accident Profile 4, 15X 32, 19X		2			None
	PRESSURE (PSIA)	Normal 14.7 Accident Profile 15X 32, 19X		2			None
	RELATIVE HUMITY (%)	40 normal 90 abnormal 100 accident		2			None
	CHEMICAL SPRAY	N/A		2			None
	RADIATION (RAD)	8.5×10^4		3			None
	AGING	40 years		2			None
	ACCURACY						

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Irvine 9/2/83

DOCUMENTATION REFERENCES

1. BRI CIE list, REV 8, 6/1/83
2. FSAR Paragraph 3.11
3. EDS Report 0740-004-548P
4. QID #256001
5. BRI Calc. #5.51.055

NOTES

1. Equipment justification #2 in Appendix D is provided for CIA-PS-22A. CIA-PS-22B is on Table B of the JIO and does not require qualification prior to fuel load.

1081

WPPSS QID # 259003

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-59
MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Instrument Air TAG NUMBER CIA-PT-21A CIA-PT-21B MANUFACTURER Rosemount MODEL NUMBER 1151GP7A22T0003PB COMPONENT Pressure Transmitter FUNCTION/SERVICE CIA Header Pressure LOCATION: BLDG R ELEVATION 548 COLUMN M7/5.8 H.7/8.2	OPERATING TIME	6 months	Equivalent to>6 months	1	4,5,8	Seperate Effects and Engineering Analysis	None Note 1
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profile 4,15X,32, 19X	212°F	2	5,8	Simultaneous Test and Engineering Analysis	None
	PRESSURE (PSIA)	Normal 14.7 Accident Profile 15X,32,19X	24.7	2	8	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Profile 21X	100	2	7	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	8.5×10^4	2×10^6	3	6	Seperate Test	None
	AGING	40 years	14 years	2	8	Engineering Analysis	None See Note 2
	ACCURACY	5%	1.88%	10	8 ,5	Engineering Analysis, Simultaneous Test	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 9)

Prepared by: Linda Vaccaro 9/12/83 Reviewed by: James Means 9/12/83

DOCUMENTATION REFERENCES

1. BRI CIE list, REV 8, 6/1/83
2. FSAR Paragraph 3.11
3. EDS Report 0740-004-548 G, P
4. Rosemount Product Data Sheet 2256
5. Rosemount Report 97 215 A1 dated 2/9/72
6. Rosemount Report 127227, Rev. 6
7. Rosemount Report 37327B dated 3/28/73
8. QID file #259003

NOTES

Qualified

1. Test data and equipment production specifications indicate the component will operate 6 months at the required temperature.
2. A preventive maintenance/surveillance program is being developed to extend the qualified life.

WPPSS QID #283041

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-218
MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Instrument Air TAG NUMBER CTA-RLY-21A, B MANUFACTURER Struthers-Dunn MODEL NUMBER 219XBXP COMPONENT Relay FUNCTION/SERVICE Control relay closes on low pressure LOCATION: BLDG R ELEVATION 548, 550 COLUMN M.8/5.7, H.7/8.2	OPERATING TIME	6 months	Note 1	1			
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident Profile 4, 15X 32		2			
	PRESSURE (PSIA)	14.7 normal Accident Profile 32,15X		2			
	RELATIVE HUMITY (%)	40 normal 90 max. abnormal 100 accident		2			
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	8.5×10^4		3			
	AGING	40 years		2			
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared by Linda Vaccari 9/2/83 Reviewed by: James Munns 9/2/83

DOCUMENTATION REFERENCES

1. BRI CIE list Rev. 8, dated 6/1/83
2. FSAR Paragraph 3.11
3. EDS Report 0740-004-548G, P
4. BRI Calc. #5.51.055

NOTES

1. Vendor is currently testing the component. The data will be reviewed when it is received. Equipment justification #3 in Appendix D is provided for CIA-RLY-21A. CIA-RLY-21B is on Table B of the JIO and does not require qualification prior to fuel load.

WPPSS QID # 283052

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-218

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Instrument Air TAG NUMBER CIA-RLY-22A,B MANUFACTURER Agastat MODEL NUMBER EGPI-002 COMPONENT Relay FUNCTION/SERVICE Relay for CIA-PS-22 A,B LOCATION: BLDG R ELEVATION 548 COLUMN H.8/5.7 H.8/8.2	OPERATING TIME	4320 Hours		3			Note 1
	TEMPERATURE (F)	90 Max Normal 104 Max Abnormal Accident Profiles 4,15X,32		1			
	PRESSURE (PSIA)	14.7 Normal Accident Profiles 15X,32					
	RELATIVE HUMITY (%)	40 Normal 90 Max Abnormal 100 Accident		1			
	CHEMICAL SPRAY	N/A		1			
	RADIATION (RAD)	8.5×10^4 R		2			
	AGING	40 Years		1			
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Munroe 9/2/83

DOCUMENTATION REFERENCES

1. FSAR Paragraph 3.11
2. EDS Study 0740-004-548P
3. BRI CIE Equipment List, Rev. 8, dated 6/1/83
4. BRI Calculation # 5.51.055

NOTES

1. The equipment is not tested for 100% relative humidity. Equipment justification #4 in Appendix D is provided for CIA-RLY-22A for interim operation. CIA-RLY-22B is on Table B of the JIO so does not need qualification prior to fuel load.

WPPSS QID315023

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Instrument Air TAG NUMBER CIA-SPV- (SEE NOTE 2) MANUFACTURER Marotta MODEL NUMBER MV 252-3 COMPONENT Solenoid Pilot Valve FUNCTION/SERVICE .5" Solenoid Valve for N_2 Bottle Disch. LOCATION: BLDG Reactor ELEVATION (See Note 2) COLUMN (See Note 2)	OPERATING TIME	4320 Hours		1			Note 1
	TEMPERATURE (F)	90 normal 104 abnormal Accident-Profile 4		2			
	PRESSURE (PSIA)	14.7		2			
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4,21X		2			
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	8.2×10^3		3			
	AGING	40 years		2			
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV: (Ref. 6)
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Mearns 9/12/83

DOCUMENTATION REFERENCES

1. BRI Class 1E Equipment List Rev. 8 dated 6/1/83
2. FSAR Par. 3.11
3. EDS Study 0740-004-4410
4. QID 315023
5. Performance Specification for Harotta Solenoid Valves, Wyle Report #26411, dated 4/27/83
6. BRI Calculation #5.51.055

NOTES

1. These components are on Table B of the J10 and do not require qualification prior to fuel load.

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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

2.

TAG NUMBERS	ELEV.	COLUMN
CIA-SPV-1B	440	N.1/7.0
-10B	440	N.1/7.0
-11B	440	N.1/7.0
-12B	440	N.1/7.0
-13B	440	N.1/7.0
-14B	440	N.1/7.0
-15B	440	N.1/7.0
-16B	440	N.1/4.3
-17B	440	N.1/7.0
-18B	440	N.1/4.3
-19B	440	N.1/7.0
-2B	440	N.1/7.0
-3B	440	N.1/7.0
-4B	440	N.1/7.0
-5B	440	N.1/7.0
-6B	440	N.1/7.0
-7B	440	N.1/7.0
-8B	440	N.1/7.0
-9B	440	N.1/7.0

Prepared by: Linda Vaccani 9/12/83 Reviewed by: James Miarus 9/12/83

WPPSS QID #315023

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215
MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Instrument Air TAG NUMBER CIA-SPV- (See Note 2) MANUFACTURER Marotta MODEL NUMBER MV 252-3 COMPONENT Solenoid Pilot Valve FUNCTION/SERVICE .5" Solenoid Valve for N_2 Bottle Disch. LOCATION: BLDG Reactor ELEVATION (see Note 2) COLUMN (see Note 2)	OPERATING TIME	4320 Hours		1			Note 1
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profile 4		2			
	PRESSURE (PSIA)	14.7		2			
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4, 21X		2			
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	8.2×10^3		3			
	AGING	40		2			
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV: (Ref 6)
ABOVE FLOOD LEVEL?
YES X NO (Ref 4)

Prepared by: Linda Vaccari 9/2/83

Reviewed by: James Meaney 9/2/83

DOCUMENTATION REFERENCES

1. BRI Class 1E Equipment List, Rev. 8 dated 6/1/83
2. FSAR Par. 3.11
3. EDS Study 0740-004-441D
4. QID 315023
5. Performance Specification for Marotta Solenoid Valves, Wyle Report #26411, dated 4/27/83
6. BRI Calculation #5.51.055

NOTES

1. Equipment justification 23 in Appendix D is provided for these components. Equipment is being tested for 100% relative humidity. (Ref.5).

DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

2.

TAG NUMBERS	Elev.	Column
CIA-SPV-1A	440	N.0/4.3
-10A	440	N.1/4.3
-11A	440	N.1/4.3
-12A	440	N.1/4.3
-13A	440	N.1/4.3
-14A	440	N.1/4.3
-15A	440	N.1/4.3
-2A	440	N.1/4.3
-3A	440	N.1/4.3
-4A	440	N.1/4.3
-5A	440	N.1/4.3
-6A	440	N.1/4.3
-7A	440	N.1/4.3
-8A	440	N.1/4.3
-9A	440	N.1/4.3

WPPSS QID#283013

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC:

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Instrument Air TAG NUMBER CIA-TDS-1A, B MANUFACTURER Agastat MODEL NUMBER 7022AE COMPONENT Time Delay Relay FUNCTION/SERVICE 3 sec. delay for CIA-PROGR-1A, B LOCATION: BLDG R ELEVATION 550 548 COLUMN M.8/5.8 M.7/8.2	OPERATING TIME	6 months	Note 1	1			
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident Profile 4, 15X,32,19X		2			
	PRESSURE (PSIA)	14.7 normal Accident Profile 15X, 32, 19X		2			
	RELATIVE HUMITY (%)	40 normal 90 max. abnormal Accident Profile 21X		2			
	CHEMICAL SPRAY	N/A	N/A	N/A	N/A	N/A	None
	RADIATION (RAD)	8.5×10^4		3			
	AGING	40 years		2			
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Mearns 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, Rev. 8, dated 6/1/83 2. FSAR Paragraph 3.11 3. EDS Report 0740-004-548G, P 4. BRI Calc. #5.51.055	1. A documentation search is being performed to obtain qualification data. Requalification activities will be implemented, if required. Equipment justification #5 in Appendix D is provided for CIA-TDS-1A. CIA-TDS-1B is on Table B of the JIO and does not require qualification prior to fuel load.

WPPSS QID# 025002

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-92B
MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Monitoring System TAG NUMBER CMS-AY-1, 2, 3, 4 MANUFACTURER Beckman Instruments, Inc. MODEL NUMBER 7C(H_2) and 755 (O_2) COMPONENT H_2, O_2 Analyzer FUNCTION/SERVICE LOCATION: BLDG R ELEVATION 548 COLUMN M6/4.5	OPERATING TIME	6 months	Note 1	3			
	TEMPERATURE (F)	90 max normal 104 max abnormal 106 Accident		1			
	PRESSURE (PSIA)	14.7		1			
	RELATIVE HUMITY (%)	40 normal 90 max abnormal		1			
	CHEMICAL SPRAY	N/A		1			
	RADIATION (RAD)	1×10^6		2			
	AGING	40 years		1			
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared by: Behzad Mahini 6/24/83 Reviewed by: James Stevens 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. EDS Study 0740-004-548E, F 3. BRI CIE list, REV 8, 6/1/83 4. BRI Calculation #5.51.055	1. Equipment justification #6 in Appendix D is provided for CMS-AY-1 and 3. CMS-AY-2 and 4 are on Table B of the JIO and do not require qualification prior to fuel load.

WPPSS QID #166003

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-SS

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Monitoring System TAG NUMBER CMS-H-SR13/T5 to 8 -SR14/T5 to 8 MANUFACTURER Thermon Manufacturing Company MODEL NUMBER SSK COMPONENT Heater Cable FUNCTION/SERVICE LOCA Heat Trace LOCATION: BLDG Reactor ELEVATION 548 COLUMN Note 1	OPERATING TIME	4320 Hours	Equivalent to> 4320 Hours	1	3,5	Engineering Analysis and Sequential Tests	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Accident Profile 4	400	2	3,5	Engineering Analysis and Sequential Tests	None
	PRESSURE (PSIA)	14.7 Max.	N/A	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 Max. Normal 90 Max. Abnormal Accident Profile 4	90	2	3	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.1×10^6 (Note 2)	5.0×10^7	6	3,5	Engineering Analysis and Sequential Tests	None
	AGING	40 Years	40 Years	2	3, 5	Engineering Analysis and Sequential Tests	None
	ACCURACY	N/A	N/A	7	N/A	N/A	None

FLOOD LEVEL ELEV: (Ref. 4)
ABOVE FLOOD LEVEL?
YES X NO

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Meerns 9/12/83

DOCUMENTATION REFERENCES

1. BR1 Class 1E Equipment List, Rev. 8 , 6/1/83
2. FSAR Paragraph 3. 11
3. QID #166003
4. BR1 Calculation 5.51.055
5. Test Report #02-6430-001, Sept. 23, 1981
6. EDS Calculations 0740-004-548E & 548F
7. WPPSS Calc. #IN-02-83-01

NOTES

Qualified

1.

EPN	Column
CMS-H-SR13/T5 to CMS-H-SR13/T8	H.1/4.5
CMS-H-SR14/T5 CMS-H-SR14/T8	H.1/4.9

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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)
	2. The heater cables are attached to the piping of the containment oxygen and hydrogen monitors and the radiation level at the point of attachment was conservatively calculated to be 1.1×10^6 rads.

WPPSS QID#

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-218

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Monitoring TAG NUMBER CMS-LE-(see Note 1) MANUFACTURER Electrosyn Technology Laboratories MODEL NUMBER 616 COMPONENT Level Element FUNCTION/SERVICE Suppression Pool Level Element LOCATION: BLDG C ELEVATION (see Note 1) COLUMN	OPERATING TIME	6 months		1			Note 2
	TEMPERATURE (F)	135 Normal 150 Abnormal Accident Profile 1		2			
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Accident Profile 1		2			
	RELATIVE HUMITY-(%)	55 Normal 90 Abnormal Accident Profile 2		2			
	CHEMICAL SPRAY	Demineralized Water		2			
	RADIATION (RAD)	9×10^7		3			
	AGING	40 years		2			
	ACCURACY						

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref.4)

Prepared by: Bobby Makini 6/24/83 Reviewed by: James Means 6/24/83

DOCUMENTATION REFERENCES

1. BRI CIE list Rev.8, dated 6/1/83
2. FSAR Paragraph 3.11
3. WNP-2 Final Shielding Evaluation Report, Sept. 1982
4. BRI Calc.#5.51.005

NOTES

1.

Tag Number	Elevation	Coordinate
CMS-LE-3A	435	45 Deg. Az.
-3B	500	60 Deg. Az.
-4A	435	270 Deg.Az.
-4B	500	240 Deg.Az.
-5A	435	135 Deg.Az.
-5B	500	60 Deg.Az.

DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)
	2. Equipment justification #7 in Appendix D is provided for CMS-LE-3A and 3B. CMS-LE-4A, 4B, 5A and 5B are on Table B of the JIO and do not require qualification prior to fuel load.

Prepared by: Richard Markham 6/24/83

Reviewed by: James Munro 6/24/83

WPPSS QID #207024

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP 2
SPEC: 2808-218

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Monitor System TAG NUMBER CMS-LS-1,2,3,4 MANUFACTURER Fluid Components MODEL NUMBER 8-66 COMPONENT Level Switch Sensor Head FUNCTION/SERVICE Measure Drywell Flood Level LOCATION: BLDG Containment ELEVATION Note 1 COLUMN Note 1	OPERATING TIME	4320 Hours	Equivalent to 06 Months	1	3, 4	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	135 Ave.-Normal 150 Max-Abnormal Accident Profile 1	340	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Accident Profile 1	58	2	3, 4	Simultaneous Test and Engineering Analysis	None
	RELATIVE HUMITY (%)	55 Max-Normal 90 Max-Abnormal Accident Profile 2	100	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	Demineralized Water	Demineralized Water	2	3	Engineering Analysis	None
	RADIATION (RAD)	7.0×10^7	1×10^8	2	4	Sequential Test	None
	AGING	40 Years	7 Years	2	3, 4	Sequential Test and Engineering Analysis	None Note 2
	ACCURACY	N/A	N/A	5	N/A	N/A	N/A

FLOOD LEVEL ELEV: 570 Ft.
ABOVE FLOOD LEVEL?
YES NO X

Prepared by: [signature] 6/24/83 Reviewed by: [signature] 6/24/83

DOCUMENTATION REFERENCES

1. B&R Class 1E Equipment List, Rev. 8, 6/1/83
2. FSAR Paragraph 3.11
3. QID No. 207024
4. Fluid Components, Inc. Report 7080053
5. Supply System Calculation IN-02-83-01

NOTES

Qualified

1.

EPN	Elevation (Ft.)
CMS-LS-1	503
CMS-LS-2	518
CMS-LS-3	551
CMS-LS-4	570

DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)
	2. A preventive maintenance surveillance program is being developed to extend the qualified life.

WPPSS QID 209007

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-59

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Monitoring System TAG NUMBER CMS-LT-1,2 MANUFACTURER ROSEMOUNT MODEL NUMBER 1151DP4D22-T0003PB COMPONENT Level Transmitter FUNCTION/SERVICE Suppression Chamber Water Level Monitoring LOCATION: BLDG R ELEVATION 465 COLUMN J 5/4.3	OPERATING TIME	4320 hours	4320 hours	1	6,7	Separate Test and Engineering Analysis	None
	TEMPERATURE (F)	90 Max Normal 104 Max Abnormal Accident Profile 4, 1X	212°F	2	6	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 normal Accident Profile 1X	24.7	2	6,7	Separate Test and Engineering Analysis	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal 100 Accident	100	2	6	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.7×10^6	2×10^6	3	5	Separate Test	None Note 2
	AGING	40 years	14 years	2	7	Engineering Analysis	None Note 1
	ACCURACY	3%	1.88 FSPE	9	6,7	Engineering Analysis and Simultaneous Test	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 8)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Means 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, Rev.8, dated 6/1/83 2. FSAR Paragraph 3.11 3. EDS Report #0740-004- 548P 4. Rosemount report 97215A dated 2/9/72 5. Rosemount Report 127227 dated 12/27/72 6. Rosemount Report 37327B dated 3/28/73 7. QID# 209006 8. BRI Calc. #S.51.055 9. Supply Systems Calculation IN 02-83-01	Qualified (CMS- LT-2) 1. A preventive maintenance/surveillance program is being developed to extend the qualified life. 2. (CMS-LT-1) Options are being explored to resolve this item. This component is on Table B of the JIO and does not require qualification prior to fuel load.

WP-1081

WPPSS QID #156009

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-220

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Monitoring TAG NUMBER CMS-PT-1, CMS-PT-2 MANUFACTURER Rosemount MODEL NUMBER 1153AB5, 1153GB6 COMPONENT Pressure Transmitter FUNCTION/SERVICE Containment Pressure Monitoring LOCATION: BLDG R ELEVATION 555,551 COLUMN M.8/5.8, H.7/8.1	OPERATING TIME	4320 Hours	Equivalent to >4320 hours	1	4,6	Simultaneous Tests and Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4	203	2	6	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	14.7	2	6	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4	100	2	6	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	8.5×10^4	2×10^6	3	6	Sequential Test	None
	AGING	40 years	10 years	2	4,6	Sequential Test and Engineering Analysis	None Note 1
	ACCURACY	3.0%	CMS-PT-1 (2.25%) CMS-PT-2 (2.30%)	5	4,6	Sequential Test and Engineering Analysis	None

FLOOD LEVEL ELEV: Ref. 7
ABOVE FLOOD LEVEL?
YES X NO

Prepared by: Linda Vaccari 9/9/83 Reviewed By: James Mearns 9/12/83

DOCUMENTATION REFERENCES

1. BRI CIE Equipment List, Rev. 8
2. FSAR paragraph 3.11
3. EDS Calculation 0740-004-548P
4. QID 156009
5. SS Calculation IN-02-83-01
6. Rosemount Test Report Nos. 108025, Rev. A and 108026, Dated 2-4-81 "Rosemount Pressure Transmitter 1158 Series B for Nuclear Service."
7. BRI Calc 5.51.055

NOTES

1. A preventive maintenance/surveilance program is being developed to extend the qualified life.

Qualified

WPPSS QID #259003

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-58, 59

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Monitoring System TAG NUMBER CMS-PT-2R,3,4,5,6,6R MANUFACTURER Rosemount MODEL NUMBER 1151GP4A22MDGE3 COMPONENT Pressure Transmitter FUNCTION/SERVICE Containment Pressure Transmitter LOCATION: BLDG R ELEVATION (See Note 3) COLUMN (See Note 3)	OPERATING TIME	6 months	Equivalent to6 months	1	3,5,8	Separate Test Engineering Analysis	None Note 1
	TEMPERATURE (F)	90 normal 104 abnormal Accident profile 4	212°F	2	7	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	24.7	2	7,8	Separate Test and Engineering Analysis	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident profile 4	100	2	7	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/R	2	N/A	N/A	None
	RADIATION (RAD)	8.5×10^4	2×10^6	4	6	Separate Effects	None
	AGING	40 years	14 years	2	8	Engineering Analysis	None See Note 2
	ACCURACY	3%	1.88 FSPE	10	8,7	Engineering Analysis, Simultaneous Test	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 9)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Williams 9/12/83

DOCUMENTATION REFERENCES

1. BRI ClE list, REV 8, 6/1/83
2. FSAR Par. 3.11
3. Rosemount Product Data Sheet 2256
4. EDS Study 0740-004-548P
5. Rosemount Report 97215A dated 2/9/72
6. Rosemount Report 127227 dated 12/27/72
7. Rosemount Report 37327B dated 3/28/73
8. QID file #259003

NOTES

Qualified

1. Test data and equipment specification data ensure the component will operate 6 months at the required temperatures.
2. A preventive maintenance/surveillance program is being developed to extend the qualified life.

WPPSS QID #259003

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2 MPL:
SPEC: 2808-58, 59 PPD:

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REVISION: 5
DATE: September, 1983

DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

3.

Tag Number	Elevation	Column
CHS-PT- 2R	548	H7/8.2
3	501	H8/5.5
4	501	L4/9.3
5	555	H8/5.8
6	551	H7/8.2
6R	552	H7/8.2

WP-1083

Prepared by: Linda Vaccari 9/12/83 Reviewed by: _____

WPPSS QID #156001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC:
MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Monitoring System TAG NUMBER CMS-PT-7 -8 MANUFACTURER Rosemount MODEL NUMBER 1153-GB7 -AB5 COMPONENT Pressure Transmitter FUNCTION/SERVICE Containment Pressure Monitor LOCATION: BLDG R ELEVATION 552, 550 COLUMN M.8/5.8 N.7/8.2	OPERATING TIME	6 Months	Equivalent to > 6.6 Months	1	7	Simultaneous test Engineering Analysis	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Accident Profile 4	203	2	7	Simultaneous test	None
	PRESSURE (PSIA)	14.7	14.7	2	7	Simultaneous test	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4	100	2	7	Simultaneous test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	8.5×10^4	2×10^6	3	7	Sequential test	None
	AGING	40 Years	10 Years	2	4	Simultaneous test Engineering test	None Note 1.
	ACCURACY	3.5%	CMS-PT-7 2.3% CMS-PT-8 2.25%	6	7	Sequential Test and Engineering Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Linda Vaccari 9/12/83

Reviewed by: James Mineau 9/12/83

DOCUMENTATION REFERENCES

1. BRI CIE List, Rev. 8, 6/1/83
2. FSAR Par. 3.11
3. EDS Study C740-004-548G, P
4. QID #156009
5. BRI Calc. #5.51.055
6. WPPSS Calc. #IN-02-83-01
7. Rosemount Report 108015 , Rev. A and 108026

NOTES

1. A preventive maintenance/surveilance program is being developed to extend the qualified life.

Qualified

WPPSS QID# 277007E

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-218

MPL:
PPD:

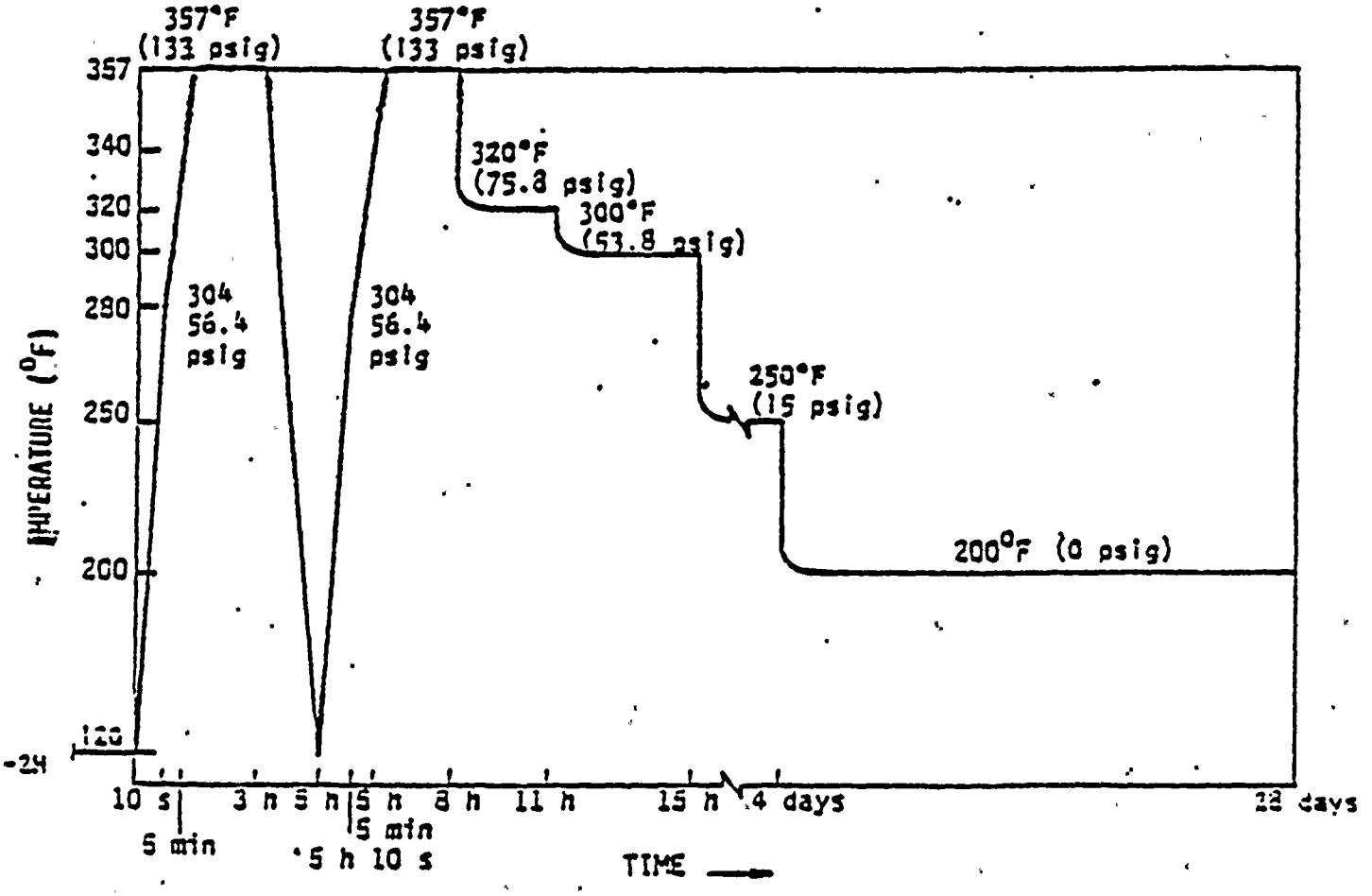
PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Monitoring System TAG NUMBER CMS-RE-27E,F MANUFACTURER Victoreen MODEL NUMBER 875 COMPONENT Radiation Monitor FUNCTION/SERVICE Containment Radiation ($1-10^5$R/hr) LOCATION: BLDG C ELEVATION 516 COLUMN 300,45 Deg Az	OPERATING TIME	4320 hours	Equivalent to 4320 hours	3	2,5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	135 Max Normal 150 Max Abnormal Accident Profile 1	See Enclosed Profile	1	5	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Accident Profile 1	See Enclosed Profile	1	5	Simultaneous Test	None
	RELATIVE HUMITY (%)	55 Normal 90 Max Abnormal Accident Profile 2	100	1	5	Simultaneous Test	None
	CHEMICAL SPRAY	Demineralized Water	Chemical Spray 24 hours	1	5	Simultaneous Test	None
	RADIATION (RAD)	7.0×10^7	2.2×10^8	1	5	Sequential Test	None
	AGING	40 years	40 years	1	5,2	Separate Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	6	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Means 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR paragraph 3.11 2. QID # 277007 E 3. BRI CIE list Rev. 8, dated 6/1/83 4. BRI Calculation #5.51.055 5. Qualification test report for class 1E Victoreen High Range Containment Radiation Monitor System. Report 950.301 6/19/81 6. SS Calc file IN-02-83-01	Qualified



Required
Test Chamber Temperature Profile for Environment Simulation
(Combined PWR/BWR)

FIGURE VI-1

WPPSS QID #285012

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808 -SS

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Monitoring TAG NUMBER CMS-RMS-HTP 71 -HTP 80 MANUFACTURER General Electric MODEL NUMBER CR2940YB203D COMPONENT Remote Manual Control Switch FUNCTION/SERVICE Control Switch for CMS LOCA heat trace LOCATION: BLDG R ELEVATION 548 COLUMN M.1/4.4 M.1/4.7	OPERATING TIME	6 months		1			Note 1
	TEMPERATURE (F)	104 Normal 106 Max. Abnormal		2			
	PRESSURE (PSIA)	14.7		2			
	RELATIVE HUMITY (%)	50 Normal 90 Max. Abnormal		2			
	CHEMICAL SPRAY	N/A	N/A	N/A	N/A	N/A	None
	RADIATION (RAD)	1.0×10^6		3			
	AGING	40 years		2			
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref.4)

Prepared by: Behzad Makini 6/24/83 Reviewed by: James Means 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list Rev. 8, dated 6/1/83 2. FSAR paragraph 3.11 3. EDS study 0740-004-548E,F 4. BRI Calc. #5.51.055	1. Equipment justification 8 in Appendix D is provided for CMS-RMS-HTP71. CMS-RMS-HTP80 is on Table B of the JIO and does not require qualification prior to fuel load.

WPPSS QID #025002

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2800-92A

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Monitoring TAG NUMBER CHS-SR-13, 14 MANUFACTURER Beckman Instruments, Incorporated MODEL NUMBER 771172 COMPONENT Sample Rack FUNCTION/SERVICE Sample Rack for H_2-O_2 Analyzer Equipment LOCATION: BLDG R ELEVATION 548 COLUMN M-3/4.5 M-3/4.7	OPERATING TIME	6 months	N/A	1	N/A	N/A	Note 1
	TEMPERATURE (F)	90 max. normal 104 max. abnormal 106 Max Accident	N/A	2	N/A	N/A	None
	PRESSURE (PSIA)	14.7	N/A	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 max. normal 90 max abnormal Accident Profile 4	N/A	2	N/A	N/A	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.0×10^6	N/A	3	N/A	N/A	None
	AGING	40 Years	N/A	2	N/A	N/A	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared By: Behzad Mahini 6/24/83 Reviewed By: James Timmons 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE List, Rev. 8, dated 6/1/83 2. FSAR paragraph 3.11 3. EDS Study 0740-004-548E, F 4. BRI Calc. #5.51.055	1. Qualified. This component is metallic and not susceptable to environmental degradation.

WPPSS QID#339003

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-218

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Monitoring TAG NUMBER CMS-TE-(see Note 1) MANUFACTURER HY-CAL Engineering Co. MODEL NUMBER TC2370CCA250TT68JXH7 COMPONENT Temperature Element FUNCTION/SERVICE Containment temperature monitor LOCATION: BLDG C ELEVATION (see Note 1) COLUMN	OPERATING TIME	6 months		1			Note 2
	TEMPERATURE (F)	135 Normal 150 Abnormal Accident Profile 1		2			
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Accident Profile 1		2			
	RELATIVE HUMITY (%)	55 Normal 90 Abnormal Accident Profile 2		2			
	CHEMICAL SPRAY	Demineralized Water		2			
	RADIATION (RAD)	7.0×10^7		3			
	AGING	40 years		2			
	ACCURACY	2%					

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref.4)

Prepared by: [signature] 6/24/83

Reviewed by: [signature] 6/24/83

DOCUMENTATION REFERENCES

1. BRI CIE list Rev.8, dated 6/1/83.
2. FSAR Paragraph 3.11
3. WNP-2 Final Shielding Evaluation Report, Sept. 1982
4. BRI Calc.#5.51.005

NOTES

1.

Tag Number	Elevation	Coordinate
CMS-TE-1	517	115 Deg.Az.
-2	517	150 Deg.Az.
-4	550	280 Deg.Az.
-24	596	330 Deg.Az.
-25	596	210 Deg.Az.
-26	596	90 Deg.Az.

1011

DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

-3	517	300 Deg.Az.
-27	553	210 Deg.Az.
-28	560	144 Deg.Az.
-29	560	72 Deg.Az.
-30	560	0 Deg.Az.
-31	560	288 Deg.Az.

2. Equipment justification #9 in Appendix D is provided for CMS-TE-1,2,26,27,29 and 30. CMS-TE-4,24,25,28 and 31 are on Table B of the JIO and do not require qualification prior to fuel load.

Prepared by: 6/24/83

Reveiwed by: 6/24/83

WPPSS QID #339025

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-216

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Monitoring TAG NUMBER CMS-TE-(see note 1) MANUFACTURER Weed Instrument Co. MODEL NUMBER COMPONENT Temperature Element FUNCTION/SERVICE Temperature elements for Containment Return Air System fans. LOCATION: BLDG C ELEVATION COLUMN (See Note 1)	OPERATING TIME	4350 hours		1			Note 2
	TEMPERATURE (F)	135 normal 150 abnormal Accident Profile 1		2			
	PRESSURE (PSIA)	14.7 normal 16.7 abnormal Accident Profile 1		2			
	RELATIVE HUMITY (%)	55 normal 90 abnormal Accident Profile 2		2			
	CHEMICAL SPRAY	Demineralized Water		2			
	RADIATION (RAD)	7.0×10^7		3			
	AGING	40 years		2			
	ACCURACY						

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref.4)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Means 9/12/83

DOCUMENTATION REFERENCES

1. BRI CIE list, Rev.8, dated 6/1/83
2. FSAR Paragraph 3.11
3. WNP-2 Final Shielding Evaluation Report, September, 1982
4. BRI Calc. #5.51.005

NOTES

1.

Tag Number	Elevation	Coordinate
CMS-TE-5	504	72 Deg. Az.
-6	504	190 Deg. AZ.
-8	560	355 Deg. AZ.
-10	512	72 Deg. AZ.
-11	520	193 Deg. AZ.
-13	549	355 Deg. AZ.

(con't on next page)

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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

Continued 1

Tag Number	Elevation	Coordinate
CMS-TE-12	520	260 Deg. AZ.
-14	544	220 Deg. AZ.
-7	504	275 Deg. AZ.
-9	547	222 Deg. AZ.

2. Qualified thermocouples have been procured. Documentation establishing qualification for this equipment has been received and is under review. The procured T/C's will be installed prior to fuel load.

By: Linda Vaccari 9/12/83 Chk'd:

WPPSS QID #355020

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-218

MPL:
PPD:

PAGE NO: 4
REVISION:
DATE: July, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Monitoring TAG NUMBER CMS-TS-4A to 4D, 5A to 5D, 8A to 8D, 9A to 9D MANUFACTURER ASCO MODEL NUMBER SC11AR/QT11A4R COMPONENT Temperature Switch FUNCTION/SERVICE Sample Rack 13 and 14 heat trace temperature switch LOCATION: BLDG R ELEVATION 548 COLUMN (See Note 1)	OPERATING TIME	6 months		1			Note 2
	TEMPERATURE (F)	104 Normal 106 Max. Abnormal		2			
	PRESSURE (PSIA)	14.7		2			
	RELATIVE HUMITY (%)	50 Normal 90 Max. Abnormal		2			
	CHEMICAL SPRAY	N/A	N/A	N/A	N/A	N/A	None
	RADIATION (RAD)	1.0×10^6		3			
	AGING	40 years		2			
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref.4)

Prepared by: Ali Nadim 6/24/83

Reviewed by: James Meares 6/24/83

DOCUMENTATION REFERENCES

1. BRI CIE list Rev. 8, dated 6/1/83.
2. FSAR Paragraph 3.11
3. EDS study 0740-004-548E,F
4. BRI Calc. #5.51.055

NOTES

1. Tag Number — Coordinate
   - CMS-TS-4A to 4D — M.7/4.3
   - 5A to 5D — M.7/4.5
   - 8A to 8D — M.7/5.0
   - 9A to 9D — M.7/5.0

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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)
	2. Equipment justification #10 in Appendix D is provided for CMS-TS-4A through 5D. CMS-TS-8A through 9D are on Table B of the JIO and do not require qualification prior to fuel load.

WPPSS QID #213037

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-67

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Return Air TAG NUMBER CRA-H - (Note 1) MANUFACTURER Reliance MODEL NUMBER Note 1 COMPONENT Fan Motor FUNCTION/SERVICE Containment Return Air Fans LOCATION: BLDG C ELEVATION Note 1 COLUMN Note 1	OPERATING TIME	6 months	6 months	1	4	Simultaneous Test	None
	TEMPERATURE (F)	135 normal 150 abnormal Accident Profile 1	See enclosed profile	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 normal 16.7 abnormal Accident Profile 1	See enclosed profile	2	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	55 normal 90 abnormal accident Profile 2	100%	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	Demineralized water	Boric acid solution	2	4	Simultaneous Test	None
	RADIATION (RAD)	7.0×10^7	8×10^8	2	4	Separate Test and Eng. Analysis	None
	AGING	40 years	40 Years	2	4	Sequential Test Eng. Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 3)

Prepared by: Bertrand Makoni 6/24/83 Reviewed by: James Mauro 6/24/83

DOCUMENTATION REFERENCES

1. BRI CIE list Rev. 8, dated 6/1/83
2. FSAR Paragraph 3.1
3. BRI Calc. #5.51.055
4. Test Report #X-604, Rev. 2, 3/20/80. Qualification testing of Joy Axial Fan and Reliance electric motor per IEEE 323-74.

NOTES

Qualified.

1.

EPN	Frame Size	ID #	Coordinates
CRA-H-FN/3A	324TCZ	1YF277146A1Q8	536', 45°, R17
-FN/3B	324TCZ	1YF277146A4Q8	535', 175, R17
-FN/3C	324TCZ	1YF277146A6Q8	536, 315, R17

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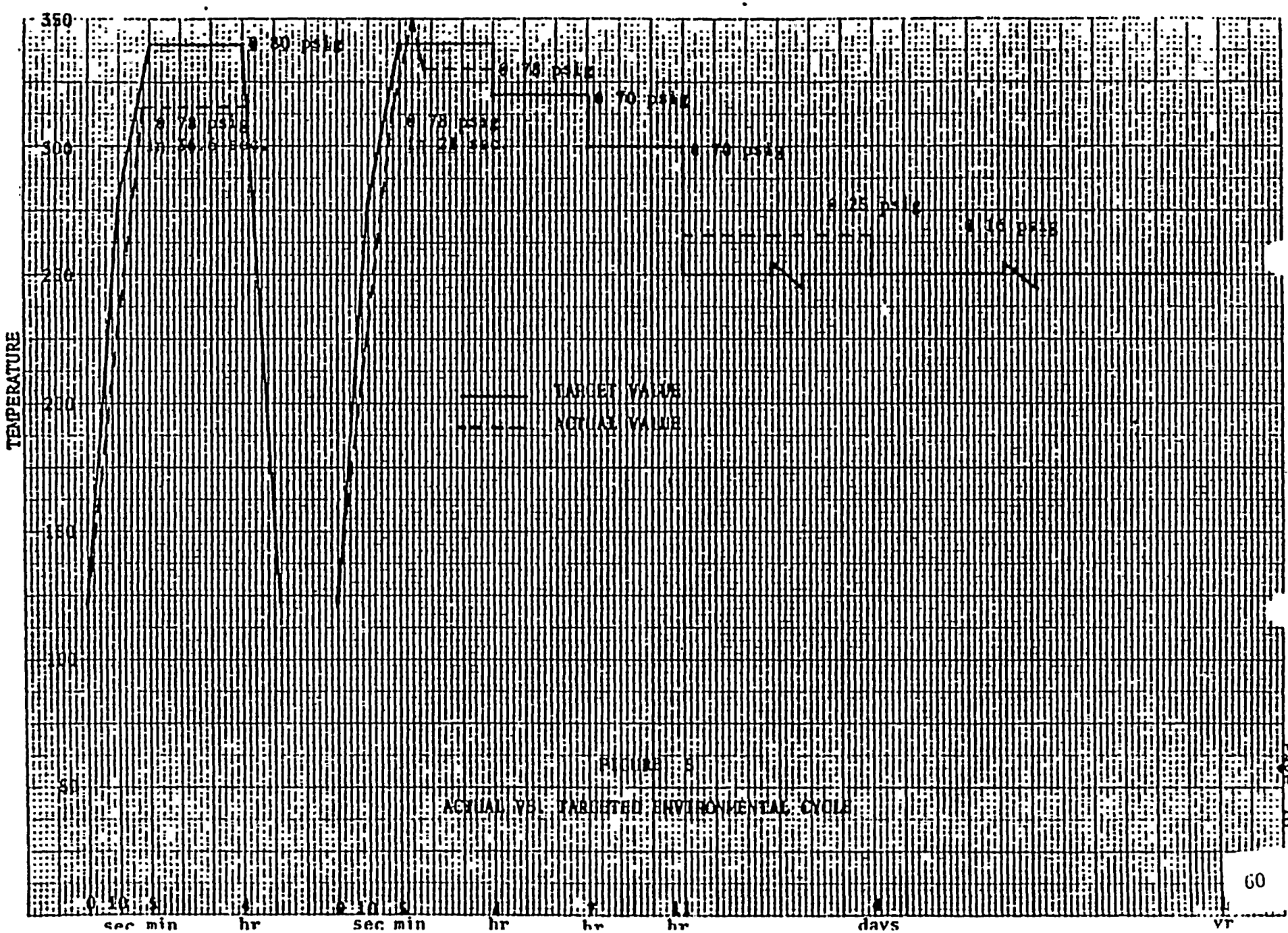

FIGURE 8

ACTUAL VS. INDICATED ENVIRONMENTAL CYCLE

WPPSS QID #213038

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-67

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Return Air TAG NUMBER CRA-M - (Note 1) MANUFACTURER Reliance MODEL NUMBER Note 1 COMPONENT Fan Motor FUNCTION/SERVICE Containment Return Air Fans LOCATION: BLDG C ELEVATION Note 1 COLUMN Note 1	OPERATING TIME	6 months	6 months	1	4	Simultaneous Test	None
	TEMPERATURE (F)	135 normal 150 abnormal Accident - profile 1	See enclosed profile	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 normal 16.7 abnormal Accident - profile 1	See enclosed profile	2	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	55 normal 90 abnormal Accident - profile 2	100%	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	Demineralized water	Boric acid solution	2	4	Simultaneous Test	None
	RADIATION (RAD)	7.0×10^7	8×10^8	2	4	Separate test and Eng. Analysis	None
	AGING	40 years	40 Years	2	4	Sequential Test Eng. Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 3)

Prepared by: Richard Makimi 6/24/83 Reviewed by: James Meaux 6/24/83

DOCUMENTATION REFERENCES

1. BRI CIE list Rev. 8, dated 6/1/83
2. FSAR Paragraph 3.1
3. BRI Calc. #5.51.055
4. Test Report #X-604, Rev. 2, 3/20/80. Qualification testing of Joy Axial Fan and Reliance electric motor per IEEE 323-74.

NOTES

Qualified.

1. EPN	Frame Size	ID #	Coordinates
CRA-M-FN/4A	254TCZ	2YF277146A2 RB	572', 330°, R17
-FN/4B	254TCZ	2YF277146A1 RB	572', 206°, R17

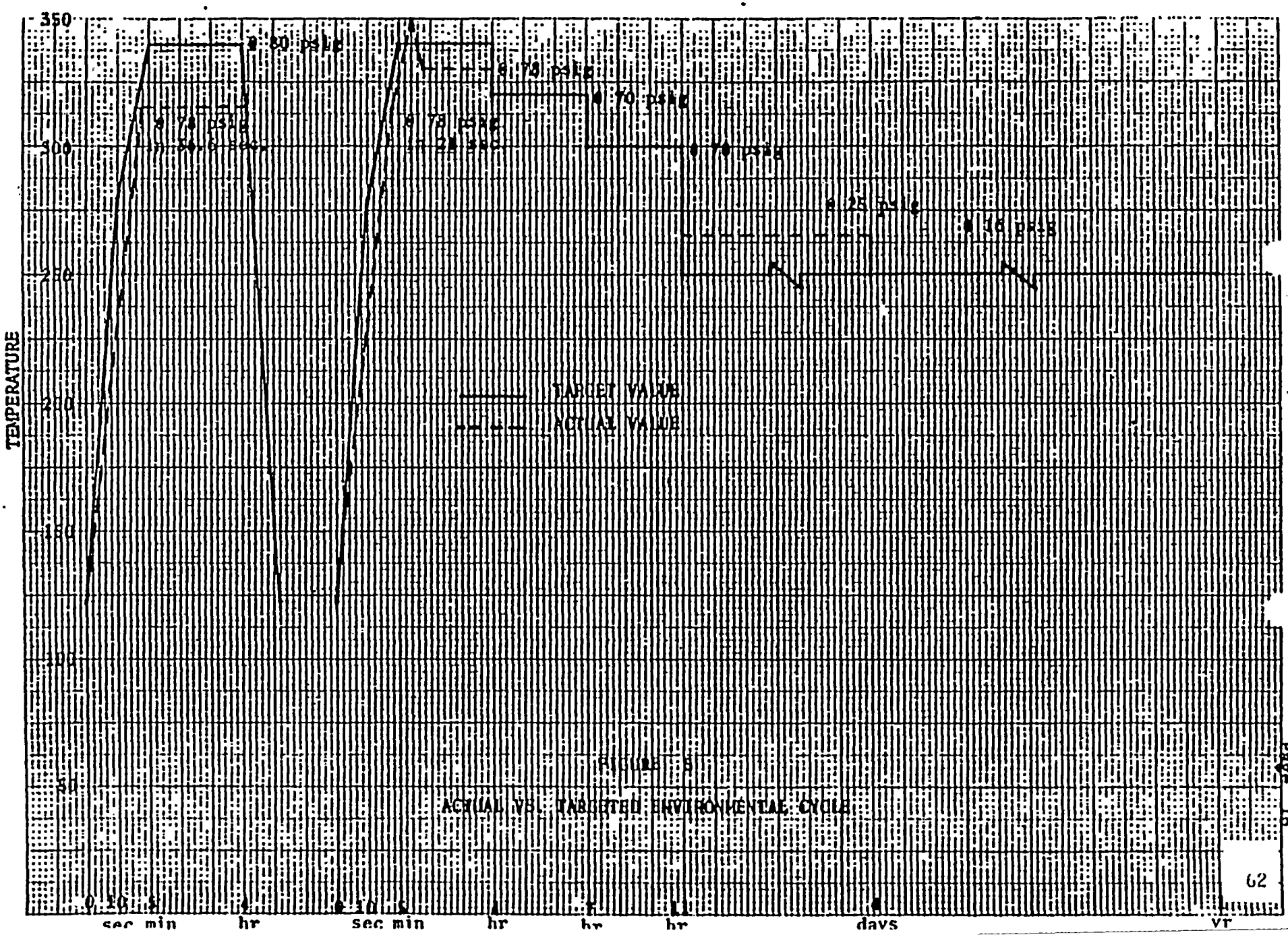

FIGURE 5

ACTUAL VS. TARGETED ENVIRONMENTAL CYCLE

WPPSS QID #213050

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2 MPL:
SPEC: 2808-67 PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Return Air TAG NUMBER CRA-H - (Note 1) MANUFACTURER Reliance MODEL NUMBER Note 1 COMPONENT Fan Motor FUNCTION/SERVICE Containment Return Air Fans LOCATION: BLDG C ELEVATION Note 1 COLUMN Note 1	OPERATING TIME	6 months	6 months	1	4	Simultaneous Test	None
	TEMPERATURE (F)	135 normal 150 abnormal Accident profile 1	See enclosed test profile	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 normal 16.7 abnormal Accident Profile 1	See enclosed test profile	2	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	55 normal 90 abnormal Accident Profile 2	100%	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	Demineralized water	Boric acid solution	2	4	Simultaneous Test	None
	RADIATION (RAD)	7.0×10^7	8×10^8	2	4	Separate tests and Eng. Analysis	None
	AGING	40 years	40 years	2	4	Sequential Test Eng. Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 3)

Prepared by: Behzad Mahini 6/24/83 Reviewed by: James Mcanus 6/24/83

DOCUMENTATION REFERENCES

1. BRI CIE list Rev. 8, dated 6/1/83
2. FSAR Paragraph 3.1
3. BRI Calc. #5.51.055
4. Test Report #X-604, Rev. 2, 3/20/80. Qualification testing of Joy Axial Fan and Reliance electric motor per IEEE 323-74.

NOTES

Qualified.

1.EPN	Frame No.	ID #	Coordinates
CRA-H-FN/5A	324TCZ	15F277146A5 Q8	572', 175°, R17
-FN/5B	324TCZ	1YF277146A2 Q8	572', 20°, R17
-FN/5C	324TCZ	1YF277146A7 Q8	572', 270°, R17
-FN/5D	324TCZ	1YF277146A3 Q8	572', 90° R17

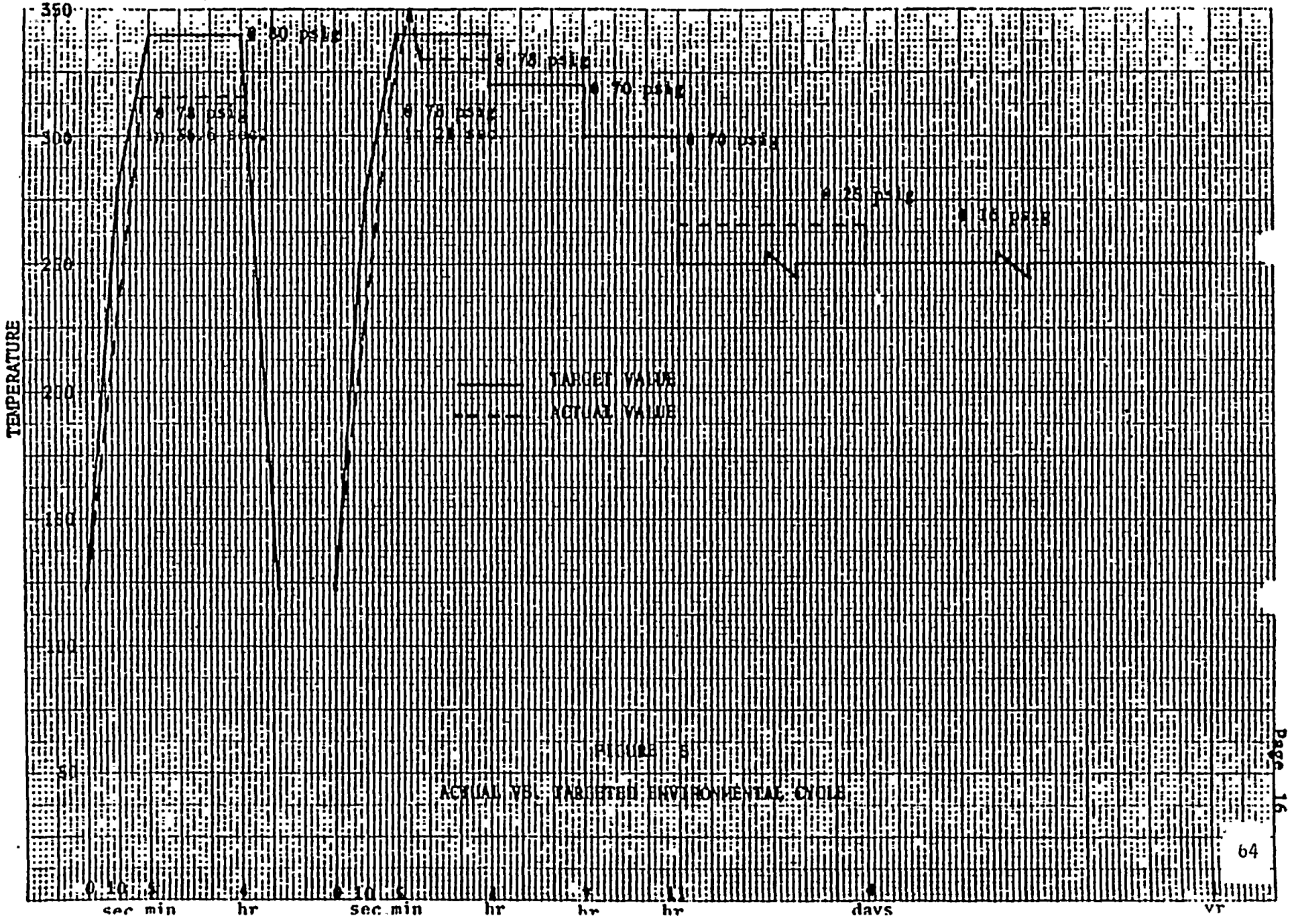

FIGURE 8

ACTUAL VS. TARGETED ENVIRONMENTAL CYCLE

WPPSS QID #315024

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Control Rod Drive TAG NUMBER CRD-IR-3 MANUFACTURER The Boeing Company MODEL NUMBER X10175EH401 COMPONENT Instrument Rack FUNCTION/SERVICE CRD Instrument Rack LOCATION: BLDG R ELEVATION 522 COLUMN M.8/3.8	OPERATING TIME	6 Months	N/A	1	N/A	N/A	Note 1
	TEMPERATURE (F)	90 Normal 104 Abnormal	N/A	2	N/A	N/A	None
	PRESSURE (PSIA)	14.7	N/A	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal	N/A	2	N/A	N/A	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	2.3×10^4	N/A	3	N/A	N/A	None
	AGING	40 Years	N/A	2	N/A	N/A	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared by: Behzad Mahtum 6/24/83 Reviewed by: James Munns 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE List, Rev. 8, dated 6/1/83 2. FSAR Paragraph 3.11 3. EDS Study 0740-004-522D 4. BRI Calculation # 5.51.055	1. Qualified. This component is metallic and not susceptable to environmental degradation.

WPPSS QID248003

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Control Rod Drive TAG NUMBER CRD-POS-126XXXX See Note 2 MANUFACTURER Micro-Switch MODEL NUMBER BZE6-2RM72 COMPONENT Position Switch FUNCTION/SERVICE Indicate Position of Scram Inlet Valve LOCATION: BLDG R ELEVATION 528 COLUMN L5/8.4 and K2/8.4	OPERATING TIME	10 minutes	1 hour	3	4	Engineering Analysis	None
	TEMPERATURE (F)	90 normal, 104 abnormal Accident Profile 4, 11, 13X	160	1	4	Materials Test and Engineering Analysis	None
	PRESSURE (PSIA)	14.7 Normal Accident Profile 11,13X	15.0	1	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal 100 accident	100	1	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	N/A	4	N/A	N/A
	RADIATION (RAD)	6.4×10^5	$1. \times 10^6$	2	4	Materials Test and Engineering Analysis	None
	AGING	40 years	40 years	1	4	Periodic Maintenance	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Linda Vaccari 9/2/83

Reviewed by: James Manus 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. Para. 3.11 FSAR 2. EDS Study 0740-004-522B (worst case) 3. BRI CIE list, REV 8, 6/1/83 4. WPPSS Calculation 248003 5. BRI Calc. #5.51.055	1. Qualified

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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

2. CRD-POS-126XXXX

0219	1803	2643	3823	5019
0223	1807	2647	3827	5023
0227	1811	2651	3831	5027
0231	1815	2655	3835	5031
0235	1819	2659	3839	5035
0239	1823	3003	3843	5039
0243	1827	3007	3847	5043
0615	1831	3011	3851	5047
0619	1835	3015	3855	5051
0623	1839	3019	3859	5415
0627	1843	3023	4203	5419
0631	1847	3027	4207	5423
0635	1851	3031	4211	5427
0639	1855	3035	4215	5431
0643	1859	3039	4219	5435
0647	2203	3043	4223	5439
1011	2207	3047	4227	5443
1015	2211	3051	4231	5447
1019	2215	3055	4235	5819
1023	2219	3059	4239	5823
1027	2223	3403	4243	5827
1031	2227	3407	4247	5831
1035	2231	3411	4251	5835
1039	2235	3415	4255	5839
1043	2239	3419	4259	5843
1047	2243	3423	4607	
1051	2247	3427	4611	
1407	2251	3431	4615	
1411	2255	3435	4619	
1415	2259	3439	4623	
1419	2603	3443	4627	
1423	2607	3447	4631	
1427	2611	3451	4635	
1431	2615	3455	4639	
1435	2619	3459	4643	
1439	2623	3803	4647	
1443	2627	3807	4651	
1447	2631	3811	4655	
1451	2635	3815	5011	
1455	2639	3819	5015	

By: Linda Vaccari 9/2/83 Chk'd: James Means 9/2/83

QI0248003

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Control Rod Drive TAG NUMBER CRD-POS-127XXXX See Note 2 MANUFACTURER Micro-Switch MODEL NUMBER BZE6-2RM72 COMPONENT Position-Switch FUNCTION/SERVICE Indicate Position of Scram Outlet Valve LOCATION: BLDG R ELEVATION 528 COLUMN L5/8.4 and K2/8.4	OPERATING TIME	10 minutes	1 hour	3	4	Engineering Analysis	None
	TEMPERATURE (F)	90 normal, 104 abnormal Accident Profile 4,11,13X	160	1	4	Materials Test and Engineering Analysis	None
	PRESSURE (PSIA)	14.7 normal Accident Profile 11,13X	15.0	1	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal 100 accident	100	1	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	1	4	N/A	N/A
	RADIATION (RAD)	6.4×10^5	1×10^6	2	4	Materials Test and Engineering Analysis	None
	AGING	40 years	40 years	1	4	Periodic Maintenance	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Linda Vaccari 9/2/83

Reviewed by: James Thomas 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. Para 3.11 FSAR 2. EDS Study 0740-004-522B (worst case) 3. BRI CIE list, Rev.8 dated 6/1/83 4. WPPSS Calculation 248003 5. BRI Calc. #5.51.055	1. Qualified

WP-1081

DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

2. CRD-POS-127XXXX

0219	1803	2643	3823	5019
0223	1807	2647	3827	5023
0227	1811	2651	3831	5027
0231	1815	2655	3835	5031
0235	1819	2659	3839	5035
0239	1823	3003	3843	5039
0243	1827	3007	3847	5043
0615	1831	3011	3851	5047
0619	1835	3015	3855	5051
0623	1839	3019	3859	5415
0627	1843	3023	4203	5419
0631	1847	3027	4207	5423
0635	1851	3031	4211	5427
0639	1855	3035	4215	5431
0643	1859	3039	4219	5435
0647	2203	3043	4223	5439
1011	2207	3047	4227	5443
1015	2211	3051	4231	5447
1019	2215	3055	4235	5819
1023	2219	3059	4239	5823
1027	2223	3403	4243	5827
1031	2227	3407	4247	5831
1035	2231	3411	4251	5835
1039	2235	3415	4255	5839
1043	2239	3419	4259	5843
1047	2243	3423	4607	
1051	2247	3427	4611	
1407	2251	3431	4615	
1411	2255	3435	4619	
1415	2259	3439	4623	
1419	2603	3443	4627	
1423	2607	3447	4631	
1427	2611	3451	4635	
1431	2615	3455	4639	
1435	2619	3459	4643	
1439	2623	3803	4647	
1443	2627	3807	4651	
1447	2631	3811	4655	
1451	2635	3815	5011	
1455	2639	3819	5015	

By: Linda Vaccari 9/2/83 Chkd: James Means 9/2/83

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #315020

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02C12

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Control Rod Drive TAG NUMBER CRD-SPV-117,118 See Note 2 MANUFACTURER Automatic Switch (ASCO) MODEL NUMBER HVA 904052-J COMPONENT Solenoid Pilot Valve FUNCTION/SERVICE Scram Solenoid Pilot LOCATION: BLDG R ELEVATION 530 COLUMN L5/8.4 and K2/8.4	OPERATING TIME	.17 hours	6 hours	1	4	Simultaneous Test	None
	TEMPERATURE (F)	90 normal 104 abnormal profile 4, 11, 13X	212	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 Normal Accident Profile 11, 13X	14.95	2	7	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal 100 accident	100	2	7	Engineering Analysis	None
	CHEMICAL SPRAY	../A	N/A	2	7	N/A	None
	RADIATION (RAD)	1.0×10^5	6×10^5	3	5	Materials Test and Engineering Analysis	None
	AGING	40 years	7 years	2	6	Operating Experience Maintenance	None Note 1
	ACCURACY	N/A	N/A	N/A	N/A	N/A	N/A

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 8)

Prepared by: Lucia Vaccari 9/2/83

Reviewed by: James Warren 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI Class 1E Equipment List, Rev. 8, 6/1/83 2. FSAR Paragraph 3.11 WPPSS Calculation NE-02-82-14-0 3. EDS Study 0740-004-522J 4. GE Spec 38 3HA820 5. Calculation QID315004-2 6. Calculation QID315004-1 7. Calculation QID315004-3 8. BRI Calculation #5.51.055	1. A preventive maintenance program is being developed to extend the qualified life. Qualified

NP-1081

WPPSS QID/ 315026

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02C12

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Control Rod Drive TAG NUMBER CRD-SPV-9,182 MANUFACTURER Valcor Engineering Corporation MODEL NUMBER V070900-45S/N10,46 COMPONENT Solenoid Pilot Valve FUNCTION/SERVICE Solenoid Valve to Control Rod Drive CRD-V-180/181 and CRD-V-10. LOCATION: BLDG R ELEVATION 525, 528 COLUMN J.1/4.8 J.2/4.6	OPERATING TIME	.17 hours	0.17 hours	1	6,5	Simultaneous Test and Engineering analysis	None
	TEMPERATURE (F)	90 Normal 104 Abnormal Accident Profile 4	See enclosed profile	2	6,5	Simultaneous Test and Engineering Analysis	None
	PRESSURE (PSIA)	14.7	See enclosed profile	2	6,5	Simultaneous Test and Eng. Analysis	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4	100	2	6,5	Simultaneous Test and Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	N/A	N/A	N/A	None
	RADIATION (RAD)	5.3×10^4	$2X10^8$	3	6,5	Sequential Test and Engineering Analysis	None
	AGING	40 years	6 years	2	5	Engineering Analysis	None Note 1
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref.4)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Meyers 9/12/83

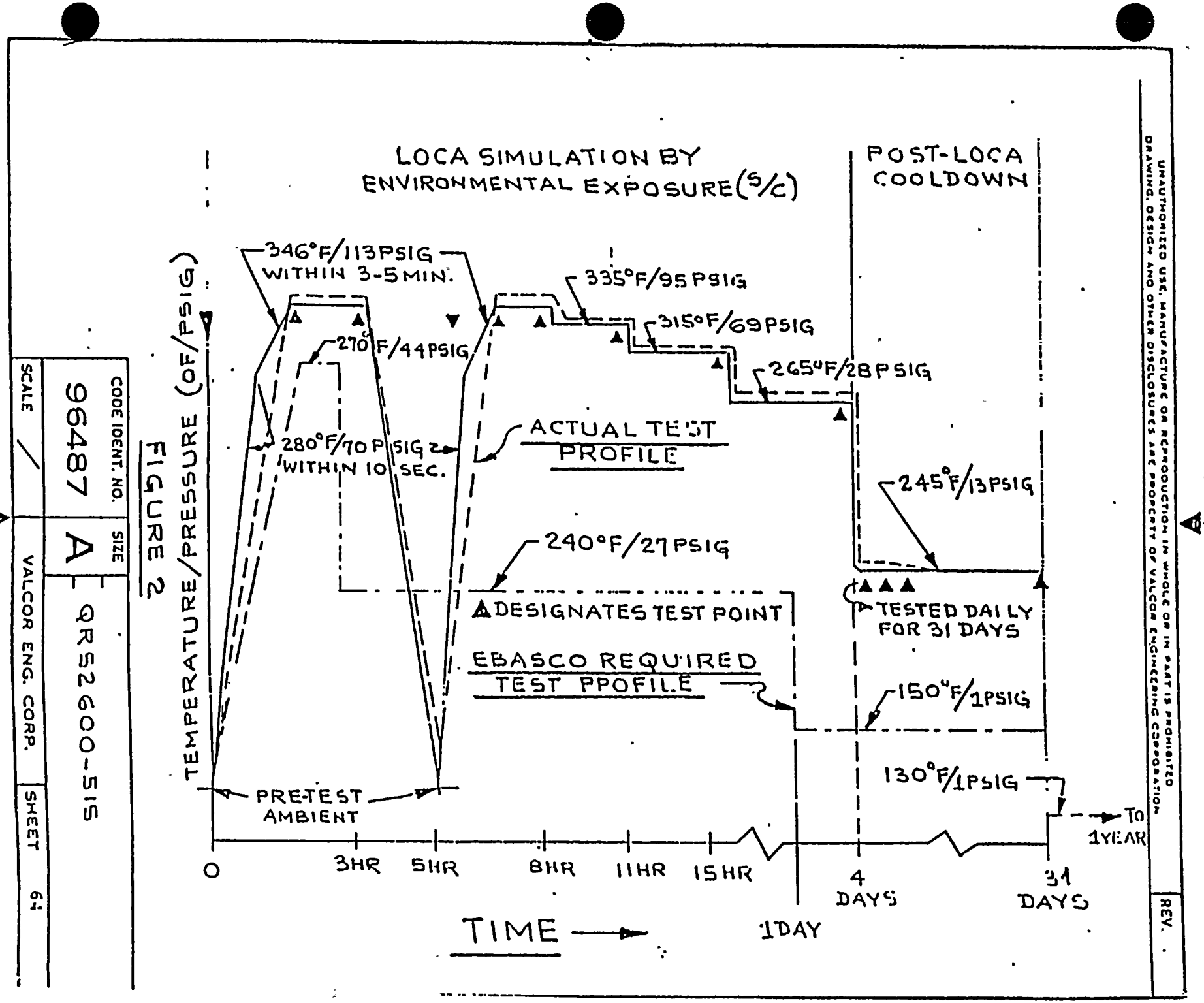
DOCUMENTATION REFERENCES

1. BRI CIE list, Rev.8, dated 6/1/83
2. FSAR Paragraph 3.11
3. EDS Report 0740-004-522P
4. BRI Calc.#5.51.005
5. QID 361014E, app.A
6. Report QR52600-5940-2, Qualification Test Report on SNUPPSS Solenoid Valves, 7/11/79, with att. I to XII

NOTES

Qualified.

1. A preventive maintenance/surveillance program is being implemented to extend the qualified life.


LOCA SIMULATION BY
ENVIRONMENTAL EXPOSURE (S/C)
POST-LOCA
COOLDOWN
346°F/113PSIG
WITHIN 3-5 MIN.
335°F/95 PSIG
315°F/69PSIG
270°F/44PSIG
265°F/28PSIG
280°F/70 PSIG
WITHIN 10 SEC.
ACTUAL TEST
PROFILE
245°F/13PSIG
240°F/27PSIG
DESIGNATES TEST POINT
TESTED DAILY
FOR 31 DAYS
EBASCO REQUIRED
TEST PPOFILE
150°F/1PSIG
130°F/1PSIG
PRE-TEST
AMBIENT
TO
1YEAR
TEMPERATURE/PRESSURE (°F/PSIG)
0
3HR
5HR
8HR
11HR
15HR
4
DAYS
31
DAYS
1DAY
TIME
FIGURE 2
CODE IDENT. NO.
96487
SIZE
A
SCALE
VALCOR ENG. CORP.
QR52600-515
SHEET 64
REV.
UNAUTHORIZED USE, MANUFACTURE OR REPRODUCTION IN WHOLE OR IN PART IS PROHIBITED
DRAWING, DESIGN AND OTHER DISCLOSURES ARE PROPERTY OF VALCOR ENGINEERING CORPORATION

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID 315024

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2803-02C12

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Control Rod Drive TAG NUMBER CRD-SPV-110A 110B MANUFACTURER Automatic Switch (ASCO) MODEL NUMBER HVA-103-632 COMPONENT Solenoid Pilot Valve FUNCTION/SERVICE 1.5" Sol. CAS-F-6 Discharge LOCATION: BLDG R ELEVATION 529, 528 COLUMN M.8/3.8 M8/3.8	OPERATING TIME	4320 Hours	Equivalent to >6 months	1	4	Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Profile 4,	185	2	4	Materials Test, Engineering Analysis	None
	PRESSURE (PSIA)	14.7 normal	14.7	2	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 max. normal 90 max. abnormal Profile 4,	90	2	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	4.0×10^5	3.0×10^6	3	4	Material Test and Engineering Analysis	None
	AGING	40 years	7 years	2	4	Operating Experience and Engineering Analysis	None Note 1
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by Linda Vaccari 9/12/83 Reviewed by James Williams 9/12/83

DOCUMENTATION REFERENCES

1 BRI CIE list, REV 8, 6/1/83
2 FSAR Para 3.11
3 EDS Study 0740-004-522C
4 Calculation G103150[illegible]- E
5. BRI Calculation #5.51.055

NOTES

1. A preventive maintenance program is being developed to extend the qualified life.

Qualified

WP-1081

DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

2. TAG NUMBERS

0219	1803	2643	3823	5019
0223	1807	2647	3827	5023
0227	1811	2651	3831	5027
0231	1815	2655	3835	5031
0235	1819	2659	3839	5035
0239	1823	3003	3843	5039
0243	1827	3007	3847	5043
0615	1831	3011	3851	5047
0619	1835	3015	3855	5051
0623	1839	3019	3859	5415
0627	1843	3023	4203	5419
0631	1847	3027	4207	5423
0635	1851	3031	4211	5427
0639	1855	3035	4215	5431
0643	1859	3039	4219	5435
0647	2203	3043	4223	5439
1011	2207	3047	4227	5443
1015	2211	3051	4231	5447
1019	2215	3055	4235	5819
1023	2219	3059	4239	5823
1027	2223	3403	4243	5827
1031	2227	3407	4247	5831
1035	2231	3411	4251	5835
1039	2235	3415	4255	5839
1043	2239	3419	4259	5843
1047	2243	3423	4607	
1051	2247	3427	4611	
1407	2251	3431	4615	
1411	2255	3435	4619	
1415	2259	3439	4623	
1419	2603	3443	4627	
1423	2607	3447	4631	
1427	2611	3451	4635	
1431	2615	3455	4639	
1435	2619	3459	4643	
1439	2623	3803	4647	
1443	2627	3807	4651	
1447	2631	3811	4655	
1451	2635	3815	5011	
1455	2639	3819	5015	

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Meaine 9/2/83

WPPSS QID #324007

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2303-G2C12

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM: Control Rod Drive TAG NUMBER: CRD- SV,-120/Note 2, -121/Note 2, -122/Note 2, -123/Note 2 MANUFACTURER: Automatic Switch (ASCO) MODEL NUMBER: HVA 1709662A COMPONENT: Solenoid Pilot Valves FUNCTION/SERVICE LOCATION: BLDG R ELEVATION 522 COLUMN K2/8.4 and L5/8.4	OPERATING TIME	0.17 Hours	6 hours	1	4,6	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 normal 104 abnormal profile 4,11,13X	212	2	4,6	Simultaneous Test, Engineering Analysis	None
	PRESSURE (PSIA)	14.7 Normal Accident Profile 11, 13X	14.95	2	4,6	Simultaneous Test and Engineering Analysis	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal 100 Accident	100	2	4,6	Simultaneous Test and Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.0×10^5	4×10^5	3	4	Materials Test and Engineering Analysis	None
	AGING	40 years	7 years	2	4	Operating Experience and Engineering Analysis	None Note 1
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Weaver 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI Class 1E List Rev. 8 dated 6/1/83 2. FSAR Paragraph 3.11 WPPSS Calculation NE-02-82-14-0 3. EDS Study 0740-004-522J 4. QID 315020-E 5. BRI Calculation #5.51.055 6. GE Spec 383IIA820	1. A preventive maintenance program is being developed to extend the qualified life. Qualified

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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

2. CRD-SV-120, 121, 122, 123

0219	1803	2643	3823	5019
0223	1807	2647	3827	5023
0227	1811	2651	3831	5027
0231	1815	2655	3835	5031
0235	1819	2659	3839	5035
0239	1823	3003	3843	5039
0243	1827	3007	3847	5043
0615	1831	3011	3851	5047
0619	1835	3015	3855	5051
0623	1839	3019	3859	5415
0627	1843	3023	4203	5419
0631	1847	3027	4207	5423
0635	1851	3031	4211	5427
0639	1855	3035	4215	5431
0643	1859	3039	4219	5435
0647	2203	3043	4223	5439
1011	2207	3047	4227	5443
1015	2211	3051	4231	5447
1019	2215	3055	4235	5819
1023	2219	3059	4239	5823
1027	2223	3403	4243	5827
1031	2227	3407	4247	5831
1035	2231	3411	4251	5835
1039	2235	3415	4255	5839
1043	2239	3419	4259	5843
1047	2243	3423	4607	
1051	2247	3427	4611	
1407	2251	3431	4615	
1411	2255	3435	4619	
1415	2259	3439	4623	
1419	2603	3443	4627	
1423	2607	3447	4631	
1427	2611	3451	4635	
1431	2615	3455	4639	
1435	2619	3459	4643	
1439	2623	3803	4647	
1443	2627	3807	4651	
1447	2631	3811	4655	
1451	2635	3815	5011	
1455	2639	3819	5015	

Prepared by: Linda Vaccari 9/12/83 Reviewed by: _____

WPPSS QID #156009

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC:

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Supply Purge System TAG NUMBER CSP-DPT-4 5,6 MANUFACTURER Rosemount MODEL NUMBER 1153DB3 COMPONENT Differential Pressure Transmitter FUNCTION/SERVICE Suppression Chamber LOCATION: BLDG R ELEVATION 501 COLUMN L.2/9.3 N.1/4.8	OPERATING TIME	6 Months	Equivalent to > 6 Months	1	4,6	Simultaneous test Engineering Analysis	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Accident Profile 4	203	2	6	Simultaneous test	None
	PRESSURE (PSIA)	14.7	14.7	2	6	Simultaneous test	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4	100	2	6	Simultaneous test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	8.3×10^4	1.0×10^6	3	6	Sequential test	None
	AGING	40 Years	10 Years	2	6	Sequential test Engineering test	None Note 2
	ACCURACY		2%		6,4	Sequential Test and Engineering Analysis	Note 1

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Linda Vaccari 9/11/83 Reviewed by: James Meams 9/12/83

DOCUMENTATION REFERENCES

1. BRI CIE List, Rev. 8, 6/1/83
2. FSAR Par. 3.11
3. EDS Study 0740-004-501F, K
4. QID #156009
5. SS IN-02-83-01
6. Pacemount Report 108025 Rev A and 108206 dated 2-4-81

NOTES

1. This equipment is on Table B of the J10 so it does not require qualification prior to fuel load.
2. A preventive maintenance/surveillance program is being developed to extend the qualified life.

WPPSS QID #200015

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-68

MPL:
PPD:

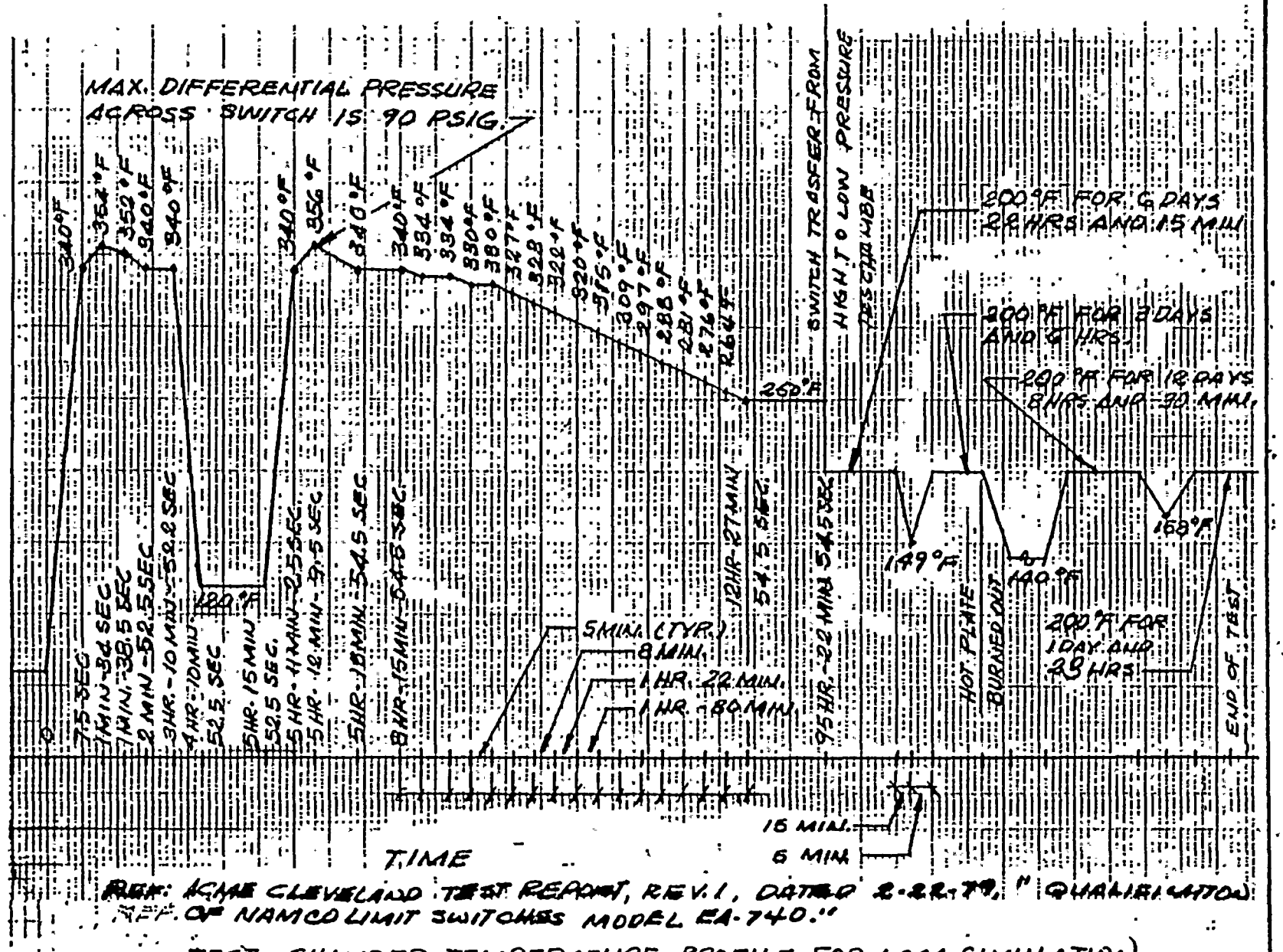
PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Supply Purge System TAG NUMBER CSP-POS-V/1 /2 MANUFACTURER NAMCO MODEL NUMBER 74080100 COMPONENT Limit Switches FUNCTION/SERVICE Limit Switches for CSP-V-1, 2 LOCATION: BLDG R ELEVATION 508 COLUMN M.5/7.5, M.5/7.4	OPERATING TIME	6 months	Equivalent To >6 months	2	4,5	Simultaneous Test Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4	See enclosed LOCA profile	1	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	N/R	1	N/A	N/A	None
	RELATIVE HUMITY (%)	40 normal 90 max abnormal Accident Profile 4	100%	1	5,6	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	1.5×10^6	2.0×10^8	3	4	Sequential Test	None
	AGING	40 years	40 years	1	4,5	Sequential Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Means 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, Rev.8 dated 6/1/83 2. FSAR Par. 3.11 3. EDS Study 0740-004-501I 4. ACME-Cleveland Report, "Qualification of NAMCO Control Limit Switch Model EA-740 dated 9/22/79 5. QID #200015 6. NAMCO Controls, Limit Switches General Catalog, copyright 1979 7. BRI Calc. #5.51.055	1. Qualified



FROM: ACME CLEVELAND TEST REPORT, REV. 1, DATED 2-22-79, "QUALIFICATION OF NAMCO LIMIT SWITCHES MODEL EA-740."

TEST CHAMBER TEMPERATURE PROFILE FOR LOCA SIMULATION

WPPSS QID #200015

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-68

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Supply Purge System TAG NUMBER CSP-POS-V/3,4,5,6 MANUFACTURER NAMCO MODEL NUMBER EA74080100 COMPONENT Limit Switches FUNCTION/SERVICE Limit Switches for CSP-V-3, 4, 5, 6 LOCATION: BLDG R ELEVATION (See Note 2) COLUMN (See Note 2)	OPERATING TIME	6 months	Equivalent To > 6 months	2	4,6	Simultaneous Test Engineering Analysis	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profile 4	See enclosed LOCA tested profile	1	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	See enclosed LOCA tested profile	1	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4	See enclosed LOCA tested profile	1	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	4.4×10^7	2.0×10^8	3	4	Sequential Test	None
	AGING	40 years	40 years	1	5	Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Mearns 9/12/83

DOCUMENTATION REFERENCES

1. FSAR Par. 3.11
2. BRI CIE list, Rev.8 dated 6/1/83
3. EDS Report 0740-004-471B, D.)
4. ACME-Cleveland Report, "Qualification of Namco Controls Limit Switch Model EA-740 dated 2/22/79
5. QID No. 200015
6. NAMCO Controls, Limit Switches General Catalog, copyright 1979
7. BRI Calc. #5.51.055

NOTES

1. Qualified
2.

Tag No.	Elev.	Column
CSP-POS-V/-3	483	H.6/7.6
-4	478	H.6/7.6
-5	477	H.7/7.6
-6	489	H.6/6.1

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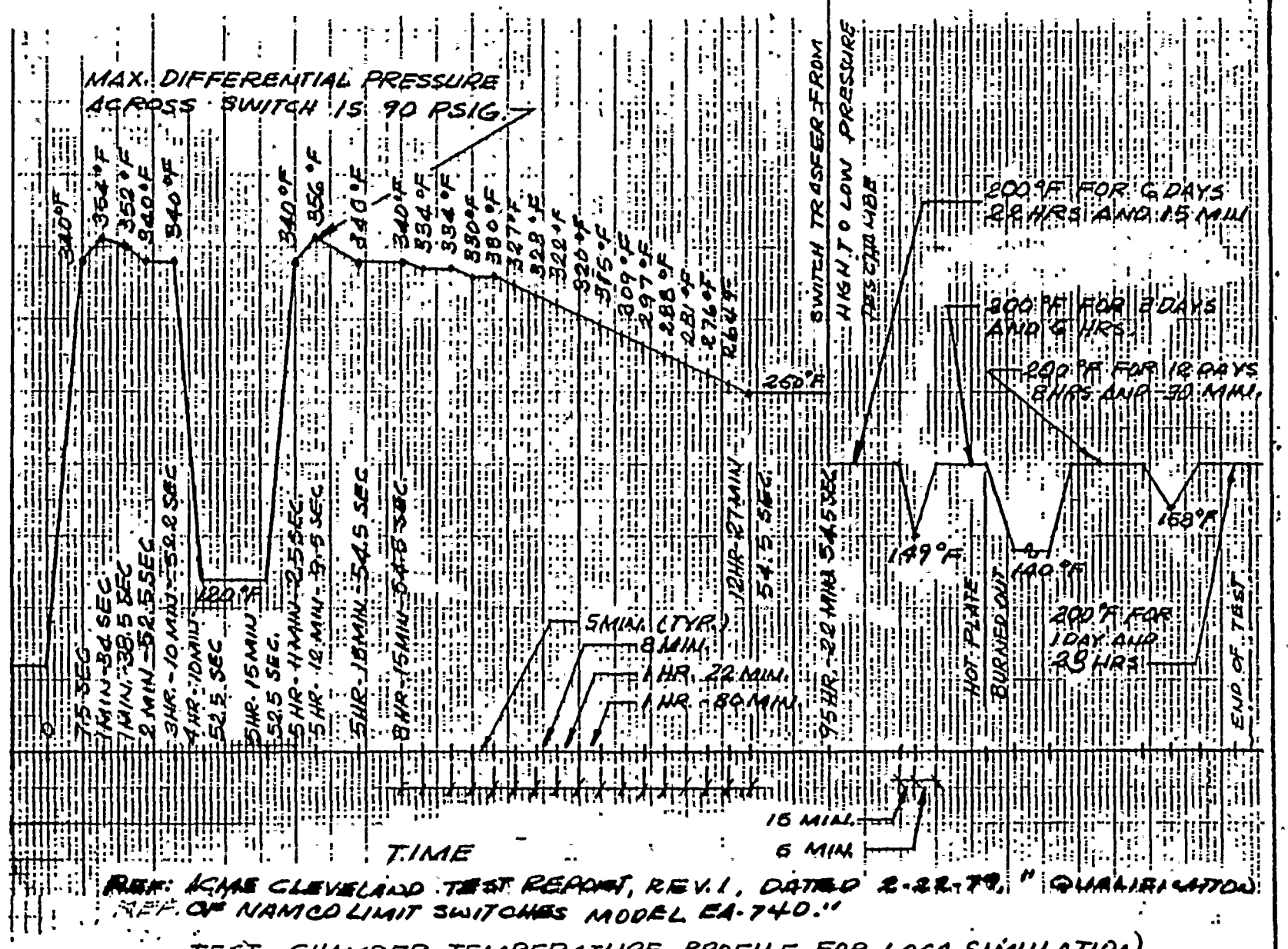

REF: ACME CLEVELAND TEST REPORT, REV. 1, DATED 2-22-79, "QUALIFICATION OF NAMCO LIMIT SWITCHES MODEL EA-740."

TEST CHAMBER TEMPERATURE PROFILE FOR LOCA SIMULATION

WPPSS QID #200009,

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-68

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Exhaust Purge System TAG NUMBER CSP-POS-V/9 MANUFACTURER Namco MODEL NUMBER D2400X COMPONENT Limit Switches FUNCTION/SERVICE Limit Switch for CSP-V-9 LOCATION: BLDG R ELEVATION 490 COLUMN M.9/5.1	OPERATING TIME	6 months	Equivalent to or >6 months	1	4,5	Simultaneous Test Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4	200°F	2	4,5	Simultaneous Test Engineering Analysis	None
	PRESSURE (PSIA)	14.7	N/A	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 normal 90 max abnormal Accident Profile 4	100%	2	4,5	Simultaneous Test and Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	N/A
	RADIATION (RAD)	5×10^5	5.0×10^7	3	4,5	Sequential Test and Engineering Analysis	None
	AGING	40 years	40 years	2	4,5	Sequential Test Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	N/A

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Means 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, Rev.8 dated 6/1/83 2. FSAR Par. 3.11 3. EDS Report 0740-004-471B 4. Qualification of NAMCO Controls Limit Switch Model EA-170 Report Revision 1 dated 7/24/78 5. QID #200009, 6. BRI Calc. #5.51.055	Qualified

WPPSS QID #248002

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC:

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Supply Purge TAG NUMBER CSP-POS-V/ (See Note 1) MANUFACTURER Anderson, Greenwood & Co. MODEL NUMBER 04-3869-001 04-3869-002 COMPONENT Positioner FUNCTION/SERVICE Valve position indication LOCATION: BLDG R ELEVATION 491 475 491 COLUMN M.9/5.1 N.5/7.7 H.6/6.0	OPERATING TIME	6 months	Equivalent or >6 months	1	4,5	Simultaneous Test Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4	146	2	5	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	>14.7	2	5	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4	100	2	4,5	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	4.4×10^7	5×10^7	3	4	Engineering Analysis	None
	AGING	40 years	40 years	2	4,5	Sequential Test Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by Linda Vaccari 9/12/83

Reviewed by James Mearns 9/12/83

DOCUMENTATION REFERENCES

1. BRI CIE list Rev.8, dated 6/1/83
2. FSAR Paragraph 3.11
3. EDS Report #0740-004-471B,D,J
4. QID #248002
5. Environmental Qualification Test Report on close switch for Anderson Greenwood Company Bellaire, Texas, Date 1/29/80,
6. BRI Calc. #5.51.055

NOTES

1. Tag #

CSP-POS-V/10P1, 10P12, 10P2, 10P3, 10P4, 10P9, 7P1, 7P12, 7P2, 7P3, 7P4, 7P9, 8P1, 8P12, 8P2, 8P3, 8P4, 8P9

Qualified

YR-1011

TEMPERATURE PROFILE

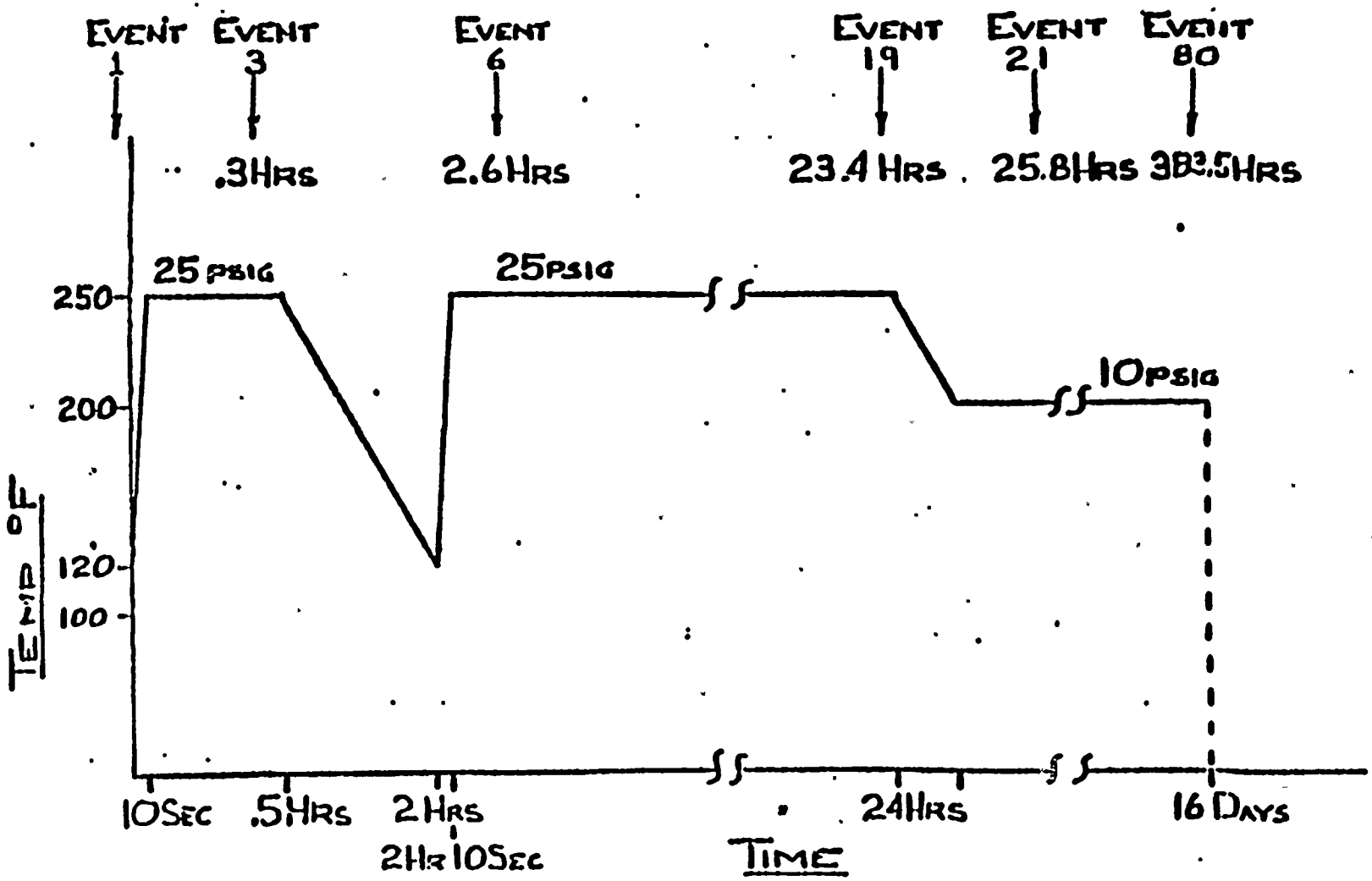

FIGURE 1

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E21

MPL: E21-F011
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Low Pressure Core Spray TAG NUMBER LPCS-MO-1 -11 -12 MANUFACTURER Limitorque MODEL NUMBER SMB-0-40/T56 SMB-000 SMB-3 COMPONENT Valve Motor Operator (Reliance Class B) AC Motor FUNCTION/SERVICE Operate LPCS Valve 1,11,12 LOCATION: BLDG R ELEVATION 452, 425, 456 COLUMN K.2/4.0 K.2/3.5 K.0/3.6	OPERATING TIME	4320 hours	Equivalent to > 6 months	4	2	Simultaneous Test	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4	See enclosed profile	1	2	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	See enclosed profile	1	N/A	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 max normal Accident Profile 4,22X	Steam for 24 hours 100% for 15 days	1	2	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	1.7×10^6	2×10^7	3	2	Sequential Test	None
	AGING	40 years	40 years	1	2,5,6	Sequential Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Williams 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. Limitorque Test Report B0003, with Addendum A, prepared 5/8/76 3. EDS Study 0740-004-422C 4. BRI CIE list Rev.8, dated 6/1/83 5. Calculations in QID 221001 6. Limitorque Test Report B0058 dated 1/11/80 7. BRI Calculation #5.51.055	Qualified.

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WPPSS QID# 283015E

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC:

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Supply Purge TAG NUMBER CSP-RLY-ARC SPV 5 -ARC SPV 6 -ARC SPV 9 MANUFACTURER ASEA MODEL NUMBER RXHK1 COMPONENT Relay FUNCTION/SERVICE Control Relay for CSP-V-5,6,9 LOCATION: BLDG R ELEVATION 501 COLUMN N.0/4.8 L.4/9.4 N.0/4.8	OPERATING TIME	4320 hrs	≥4320 hrs.	1	4	Engineering Analysis	None
	TEMPERATURE (F)	90 normal 104 abnormal Acc. Prof. 4	194	2,5	4	Materials Test and Engineering Analysis	None
	PRESSURE (PSIA)	14.7	14.7	2,5	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Acc. Prof. 4	90	2,5	4	Engineering Analysis	None
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	None
	RADIATION (RAD)	8.3×10^4	10^6	3	4	Materials Test and Engineering Analysis	None
	AGING	40 years	40 years	2	4	Engineering Analysis	None
	ACCURACY	NA	NA	NA	NA	NA	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (REf. 5)

Prepared By Behzad Mahini 6/24/83 Reviewed By James Murray 6/24/83

DOCUMENTATION REFERENCES	NOTES
1) BRI Equipment List, Rev. 8, 6/1/83 2) FSAR par 3.11 3) EDS REprot 0740-004-501K 4) QID 288015 E 5) BRI Calculation # 5.51.055	Qualified

WPPSS QID #283041

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-58

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Supply Purge TAG NUMBER CSP-RLY-CR 4 -CR 5 -CR 6 MANUFACTURER Struthers Dunn MODEL NUMBER 219XBXP COMPONENT Relay FUNCTION/SERVICE Control Relay for CSP-V-6 CSP-SPV-5 CSP-V-9 LOCATION: BLDG R ELEVATION 501 COLUMN L4/9.4 H/4.8 N/4.8	OPERATING TIME	4320 hours	4320 hours	1	4	Engineering Analysis	None
	TEMPERATURE (F)	90 Normal 104 Abnormal Accident Profile 4	150	2	4	Materials Test and Engineering Analysis	None
	PRESSURE (PSIA)	14.7 Normal	14.7	2	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4	90	2	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	N/A	N/A	N/A	None
	RADIATION (RAD)	7.9×10^4	10^5	3	4	Materials Test and Engineering Analysis	None
	AGING	40 years	40 years	2	4	Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	N/A

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Behzad Mobini 6/24/83 Reviewed by: James Nirana 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list Rev. 8, dated 6/1/83 2. FSAR paragraph 3.11 3. EDS Report 0740-004-501 K 4. QID #283041 5. BRI Calc. #5.51.055	Qualified

WPPSS QID #315004

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-58

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Supply Purge TAG NUMBER CSP-SPV-(See Note 2) MANUFACTURER Automatic Switch (ASCO) MODEL NUMBER See Note 2 COMPONENT Solenoid Pilot valve FUNCTION/SERVICE Solenoid Pilot for CSP-V-3 LOCATION: BLDG R ELEVATION See Note 2 COLUMN	OPERATING TIME	6 months	Equivalent to >6 months	1	4	Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Profile 4	185	2	4	Materials Test, Engineering Analysis	None
	PRESSURE (PSIA)	14.7	>14.7	2	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 max normal 90 max abnormal Profile 4	90	2	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	2.0×10^5	4×10^5	3	4	Materials Test and Engineering Analysis	None
	AGING	40 years	7 years	2	4	Operating Experience and Engineering Analysis	None Note 1
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Linda Vaccari 9/12/83

Reviewed by: James Mecaro 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, REV 8, 6/1/83 2. FSAR Para 3.11 3. EDS Study 0740-004-471B, 501F, 501K, 471J 4. Calculation QID315004-E 5. BRI Calculation #5.51.055	1. A preventive maintenance program is being developed to extend the qualified life. Qualified

WP-1081

DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

2.

TAG NUMBERS	ELEV.	LOCATION	MODEL
-1	501	N/5.1	
-10A	471	N/4.0	WJHT831654
-10B	471	N/4.0	WJHT831654
-2	501	L4/9.3	
-3	476	N/3.9	WJHT8316A76
-4	501	N/5.1	
-5	505	N/4.8	WJHT8316A74
-6	501	L4/9.3	
-7A	478	N/3.9	WJHT831654
-7B	476	N/3.9	WJHT831654
-8A	471	H4/6.8	
-8B	471	H4/6.8	
-9	505	N.0/4.9	WJNP8316A74E

Linda Vaccari 9/12/83

WPPSS QID# 361015

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July, 1983

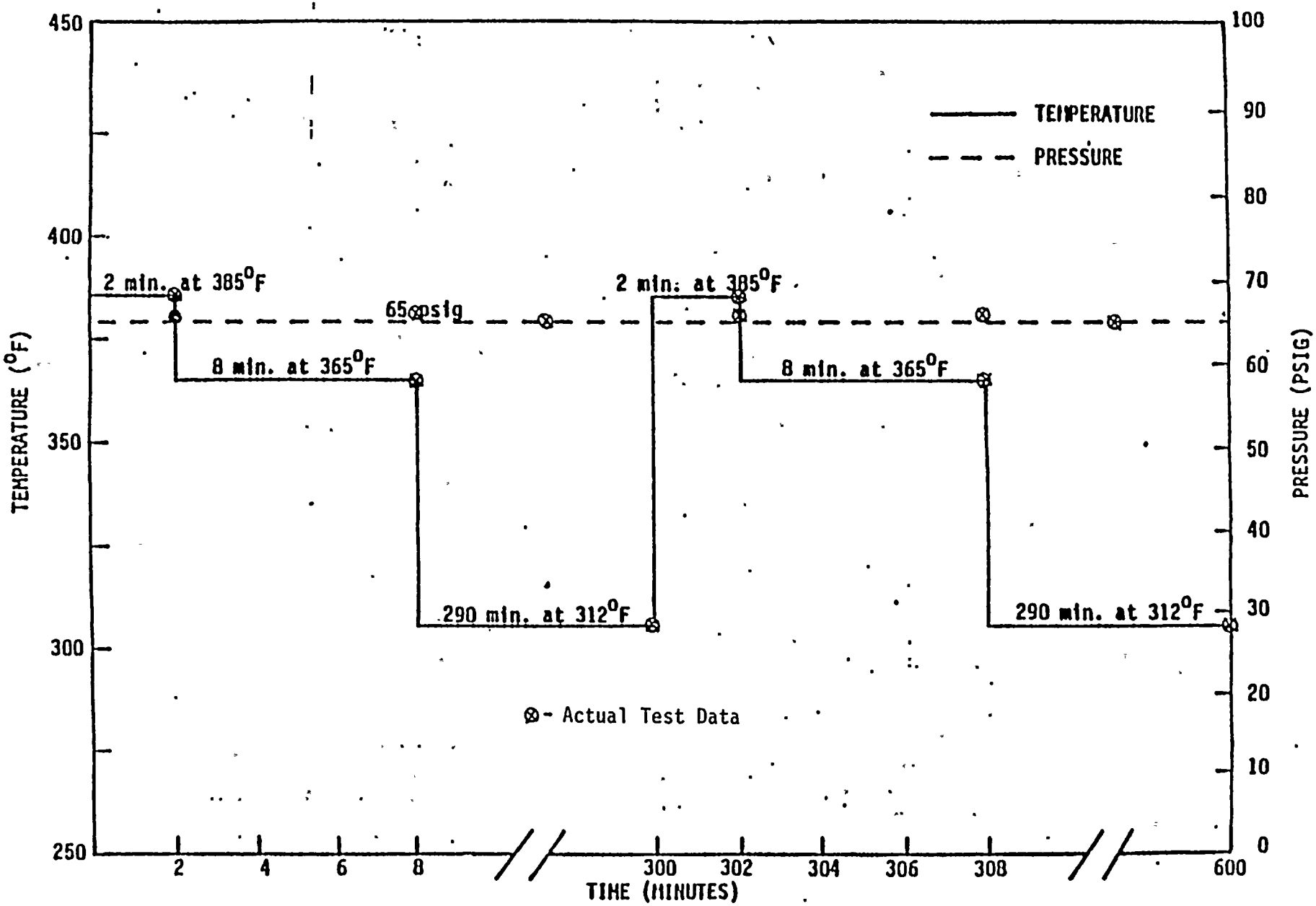
EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Supply Purge TAG NUMBER CSP-V-93 -96 -97 -98 MANUFACTURER Target Rock MODEL NUMBER 82H-002 COMPONENT Solenoid Operated Valve FUNCTION/SERVICE Solenoid Valve LOCATION: BLDG REACTOR ELEVATION 471, 501, 501, 471 COLUMN M.7/7.7	OPERATING TIME	4320 Hours	Equivalent to >4320 hours	1	3,5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident Profile 4	385	2	5	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	79.7	2	5	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 max. normal 90 max. abnormal Accident Profile 4	100	2	5	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	Chemical Spray PH 8.6 to 10.0	2	5	Simultaneous Test	None
	RADIATION (RAD)	1.5×10^6	2.2×10^8	6	5	Sequential Test	None
	AGING	40 years	40 years	2	3,5	Sequential Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared by Behzad Mobini 6/24/83 REviewed by James Miana 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. BRI Class 1E Equipment List, Revision 8, 6/1/83 2. FSAR Paragraph 3.11 3. QID # 324002-E 4. BRI Calculation 5.51.055 5. Test Report #2375A, Target Rock Corporation 6. EDS Calculation 0740-004-471D, 5011	Qualified

Revision: 2
Date: September 1982



ENVIRONMENTAL QUALIFICATION TEST PROFILE FOR TARGET ROCK SOLENOID VALVES

WPPSS QID #036003

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2802-62C

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Eletrical TAG NUMBER E-CBL- Note 1 MANUFACTURER Rockbestos MODEL NUMBER Note 1 COMPONENT Electrical Cable FUNCTION/SERVICE Note 1 LOCATION: BLDG All ELEVATION COLUMN	OPERATING TIME	6 months	Equivalent To 76 months	1	4,5	Simultaneous Test Engineering Analysis	None
	TEMPERATURE (F)	135 Max Normal 150 Max Abnormal See Profile 1 Accident	See Enclosed Profile	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal See Profile 1 Accident	See Enclosed Profile	2	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	55 Normal 90 Abnormal Accident Profile 2	100	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	Demineralized Water Spray	Boric Acid Spray	2	4,5	Simultaneous Test Engineering Analysis	None
	RADIATION (RAD)	7.0×10^7	2.0×10^8	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4,5	Sequential Test Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Mecum 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. WNP Class 1E Equipment List, dated December 1982 2. FSAR Paragraph 3.11 3. FSAR Table 3.11-4 4. Rockbestos Report "Qualification of Firewall III Class 1E Electric Cable" 11/2/79 5. QID# 036003 6. BRI Calc. #5.51.055	Qualified See Next Page

DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

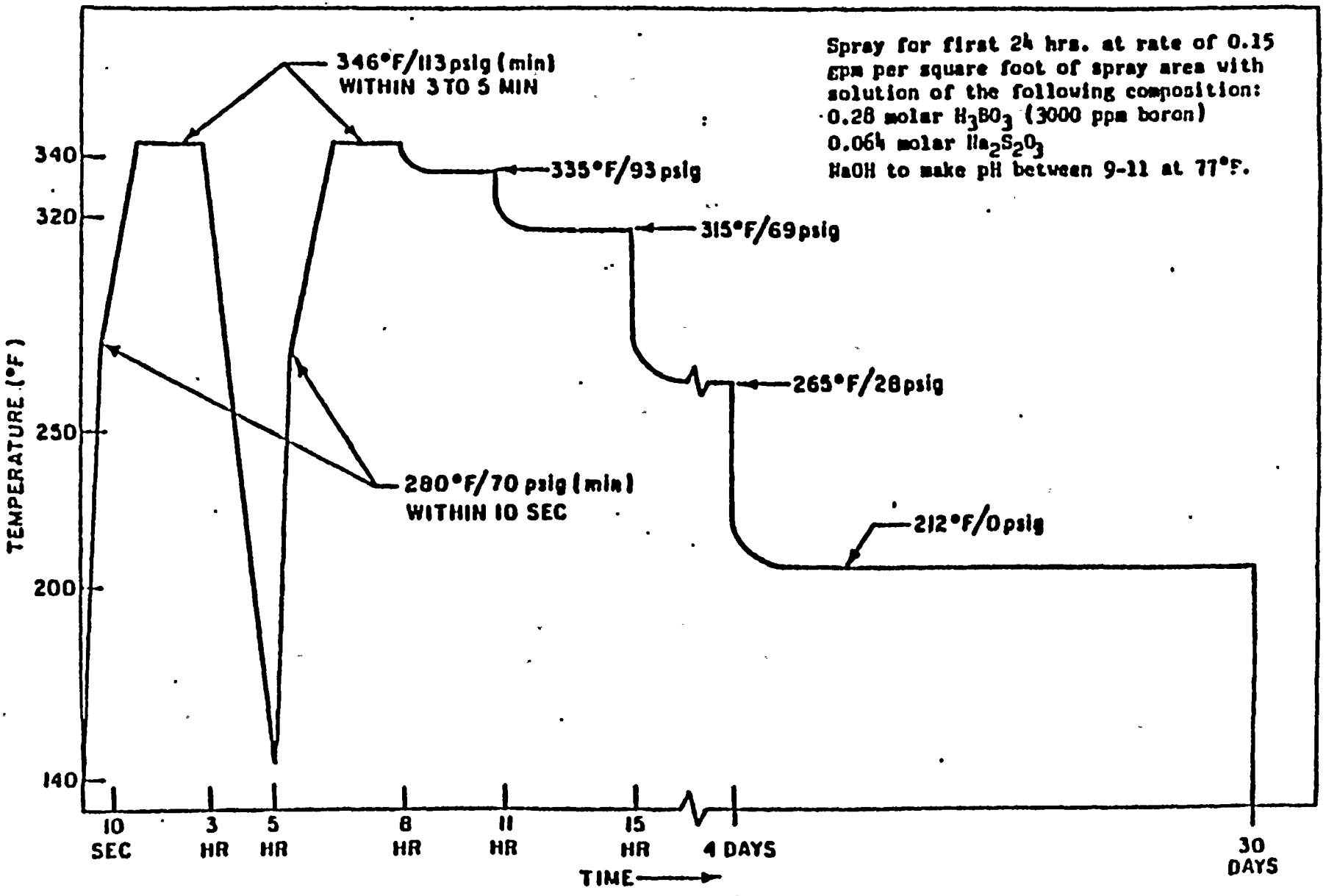
1.

TAG #	M/N	FUNCTION
E-CBL-J1/1/C	I67-3154	T/C Cable
E-CBL-K2/1/C	I46-3633	T/C, Control Rod indication cable
E-CBL-H1/9	C52-3220	120 Vac & 125 Vdc Control Cable
E-CBL-H4/1/C	I46-3632	Instrument Cable
E-CBL-G1/14/C	P62-3296	480 Vac and 250 VDC
E-CBL-G1/5/C	P62-3289	Power Cable
E-CBL-K1/1/C	C53-3244	Indication, Annunciation, SV and Logic Control Cable

Prepared by: Linda Vaccari 9/12/83 Reviewed by:

LOCA Profile

REVISION: 2
DATE: September, 1982



ROCKBESTOS CABLE

LOCA PROFILE

WPPSS QID #036001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2802-62A

MPL:
PPD:

PAGE NO:
REVISION: 3
DATE: January 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Electrical TAG NUMBER E-CBL-C/8 C/9 B/4 A/1 MANUFACTURER Okonite MODEL NUMBER 115-21-3180 115-21-3182 114-21-1013 COMPONENT 115-21-1029 Electrical Cable FUNCTION/SERVICE 14.4kV Power Cable 14.4kv Power Cable 4.16kv Power Cable 6.9kv Power Cable LOCATION: BLDG All ELEVATION COLUMN	OPERATING TIME	6 months	Equivalent to 76 months	1	4,5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	135 Max Normal 150 Max Abnormal See Profile 1 Accident	See Enclosed Profile	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal See Profile 1 Accident	See Enclosed Profile	2	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	55 Normal 90 Abnormal Accident Profile 2	100	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	Demineralized Water Spray	Chemical and Water Spray	2	4,5	Simultaneous Test and Engineering Analysis	None
	RADIATION (RAD)	7×10^7	2×10^8	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4,5	Sequential Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

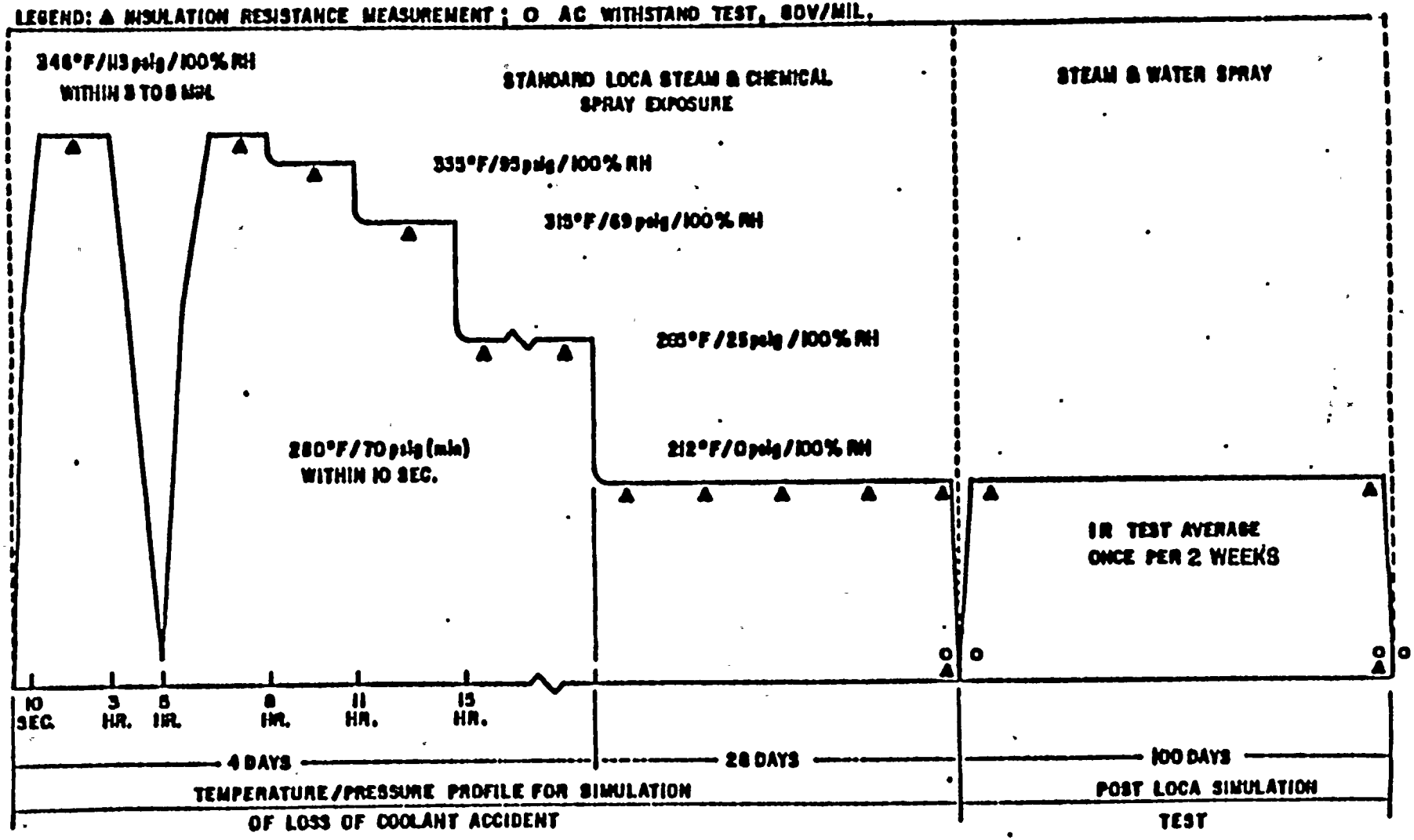
FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Behzad Mahini 6/24/83 Reviewed by James Mearns 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 Class 1E Equipment List, dated December 1982 2. FSAR Paragraph 3.11 3. FSAR Table 3.11-4 4. Okonite Engineering Summary No. 266, dated 7/17/75 5. QID #036001 6. BRI Calc. #S.51.055	Qualified

REVISION: 2
DATE: September, 1982

FIGURE II CABLE QUALIFICATION TEST PROFILE FOR LIFE & LOCA CONDITIONS



WPPSS QID #036002

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2802-62 B

MPL:
PPD:

PAGE NO:
REVISION: 3
DATE: January 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Electrical TAG NUMBER E-CBL-(Note 1) MANUFACTURER Raychem MODEL NUMBER Note 1 COMPONENT Electrical Cable FUNCTION/SERVICE Conduct Current LOCATION: BLDG General Plant ELEVATION COLUMN	OPERATING TIME	6 months	Equivalent to 76 months	1	4,6	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	135 Max Normal 150 Max Abnormal See Profile 1 Accident	See Enclosed Profile	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal See Profile 1 Accident	See Enclosed Profile	2	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	55 Normal 90 Abnormal Accident Profile 2	100	2	4,5	Simultaneous Test	None
	CHEMICAL SPRAY	Demineralized Water Spray	Chemical Spray	2	4	Simultaneous Test	None
	RADIATION (RAD)	7.0×10^7	2×10^8	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4,6	Sequential Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Bedgad Mahini 6/24/83 Reviewed by: James Meaves 6/24/83

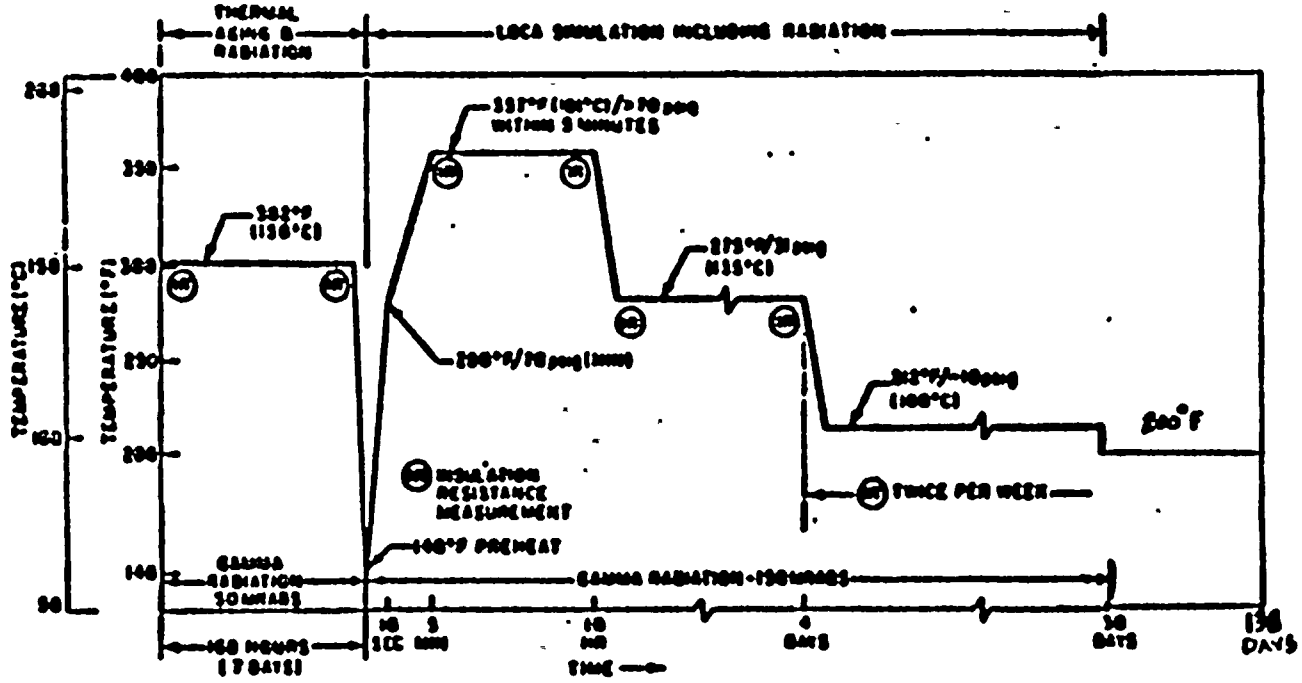
DOCUMENTATION REFERENCES	NOTES
1. WNP-2 Class 1E Equipment List, dated December 1982 2. FSAR Paragraph 3.11 3. FSAR Table 3.11-4 4. Tests of Raychem Thermofit Insulation Systems Under Simultaneous Exposure of Heat, Gamma Radiation, Steam and Chemical Spray. FIRL Report C4033-3, dated 1/75. 5. Raychem Report RABR-62B-75-028 Trans. 187-36B 6. QID# 036002	Qualified

DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

1.

Tag Number	M/N
E-CBL-G2/1	W1TC12B6
-H1/1	J2TC10B10
-K2/1	60/7174-20
-J2/1	F6T2KX18A6
-J3/1	F2T2JX16A6
-J4/1	F2EX16A6
-K1/1	J2TC14B6C1
-H4/3	60/7176-14
-J1/1	F2T2X16A6
-H3/1	F5TC10B10
-H4/1	FB/2TC16B10
-K3/3	W1TC20B20
-K4/1	60/7237
-L1/1	F1TC1686
-L1/2	J3T1TC16B6
-L1/3	J3T1TC12B10
-L2/1	J12T2TC20B6
-L4/1	B12C20B10
-M1/21	7521D3330
-M4/22	10483
-M5/22	10481
-M6/26	10567 R.F.
-M7/18	10566 R.F.
-X100A/01	10496-750HM
-X100A/02	10495-1350HM
-G1/1	W1TC750B10
-G/14	60/7175

REVISION: 2
DATE: SEPTEMBER, 82



RAYCHEM CABLE

WPPSS QID # 049001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-55
MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Electrical System TAG NUMBER E-CONN-X100 A/01 to X100 D/01 MANUFACTURER Amphenol MODEL NUMBER Jack # 82-503 COMPONENT Electrical Connector FUNCTION/SERVICE Source range NI connector LOCATION: BLDG C ELEVATION See COLUMN Note 1	OPERATING TIME	4320 hours	Equivalent to > 4320 hours	1	3,4	Engineering Analysis and Simultaneous Tests	None
	TEMPERATURE (F)	135 ave normal 150 max abnormal Accident Profile 1	392	2	3	Simultaneous Tests	None
	PRESSURE (PSIA)	14.7 normal 14.7 abnormal Accident Profile 1	135	2	3	Simultaneous Tests	None
	RELATIVE HUMITY (%)	55 max-normal 90 max-abnormal Accident Profile 2	Steam	2	3	Simultaneous Tests	None
	CHEMICAL SPRAY	Demineralized Water	Borated Water	2	3	Simutlaneous Tests	None
	RADIATION (RAD)	7×10^7	2.54×10^8	2	3	Sequential Tests	None
	AGING	40 years	40 years	2	3,4	Engineering Analysis and Sequential Tests	None Note 2
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref 5)

Prepared by: Behzad Mahini 6/24/83 Reviewed by: James Mirayes 6/24/83

DOCUMENTATION REFERENCES

1. B & R Class IE equipment list, rev. 7
2. FSAR paragraph 3.11
3. Westinghouse report PEN-TR-83-01 dated January 11, 1983
4. QID 049001-E
5. BRI Calc. 5.5/.055

NOTES

Qualified

1.

EPN	ELEV.	COLUMN
E-CONN-X100-A/01	507	98 D AZ R40
E-CONN-X100-B/01	507	102 D AZ R40
E-CONN-X100-C/01	511	315 D AZ R40
E-CONN-X100-D/01	511	322 D AZ R40

2. A preventive maintenance/surveillance program is being developed to extend the qualified life

WPPSS QID # 049002

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-55

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Electrical System TAG NUMBER E-CONN-X100 A/02 to -X100 D/02 MANUFACTURER Amphenol MODEL NUMBER Plug #28650 COMPONENT Electrical Connector FUNCTION/SERVICE Source range NI connector LOCATION: BLDG C ELEVATION See COLUMN Note 1	OPERATING TIME	4320 hours	Equivalent to > 4320 hours	1	3,4	Engineering Analysis and Simultaneous Tests	None
	TEMPERATURE (F)	135 normal 150 max abnormal Accident Profile 1	392	2	3	Simultaneous Tests	Tests
	PRESSURE (PSIA)	14.7 normal 14.7 abnormal Accident Profile 1	135	2	3	Simultaneous Tests	None
	RELATIVE HUMITY (%)	55 max-normal 90 max-normal Accident Profile 2	Steam	2	3	Simultaneous Tests	None
	CHEMICAL SPRAY	Demineralized Water	Borated Water	2	3	Simultaneous Tests	None
	RADIATION (RAD)	7×10^7	2.54×10^8	2	3	Sequential Tests	None
	AGING	40 years	40 years	2	3,4	Engineering Analysis and Sequential Tests	None Note 2
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref 5)

Prepared by: Bobzad Mahini 6/24/83 Reviewed by: James Means 6/24/83

DOCUMENTATION REFERENCES

1. BRI CIE list, Rev.8 dated 6/1/83
2. FSAR paragraph 3.11
3. Westinghouse report PEN-TR-83-01 dated January 11, 1983
4. QID 049001-E
5. BRI Calc. 5.5/.055

NOTES

Qualified

1.

EPN	ELEV.	COLUMN
E-CONN-X100-A/02	507	98 D AZ R40
E-CONN-X100-B/02	507	102 D AZ R40
E-CONN-X100-C/02	511	315 D AZ R40
E-CONN-X100-D/02	511	322 D AZ R40

2. A preventive maintenance/surveillance program is being developed to extend the qualified life

WPPSS QID #049006

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-218
MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Electrical TAG NUMBER E-CONN-X-102A/01 -X-102B/01 MANUFACTURER AMP MODEL NUMBER Solistrand 3413C COMPONENT Parallel Splice Connector FUNCTION/SERVICE Splice Wires LOCATION: BLDG C ELEVATION 534 COLUMN 185D & 219DAZ R40	OPERATING TIME	4320 hours	N/R (solid metal)	6	2,4	Engineering Analysis	None
	TEMPERATURE (F)	135 max. normal 150. max. abnormal Accident Profile 1	N/R (solid metal)	1	2,4	Materials Test and Engineering Analysis	None
	PRESSURE (PSIA)	14.7 Max. Normal 16.7 max. Abnormal Accident Profile 1-	N/R (solid metal)	1	2,4	Engineering Analysis	None
	RELATIVE HUMITY (%)	55 max. normal 90 max. abnormal Accident Profile 2	100 (salt fog)	1	3	Separate Effect	None
	CHEMICAL SPRAY	Deionized water	Salt fog	1	3	Separate Effect	None
	RADIATION (RAD)	7.0×10^7	N/R (solid metal)	1	2,4	Materials Test and Engineering Analysis	None
	AGING	40 years	N/R (solid metal)	1	2,4	Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Richard Mahini 6/24/83 Reviewed by: James Mearns 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. AMP Catalog No. 2005-8, 2/81 3. AMP technical report ELR221-11, 5/24/70 4. QID #049006 5. BRI Calculation #5.51.055 6. BRI CIE list, REV 8, 6/1/83	Qualified.

NP-1011

WPPSS QID# 049007

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC:

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Electrical TAG NUMBER E-Conn-X102A/02 E-Conn-X102B/02 MANUFACTURER Raychem MODEL NUMBER WCSF-N COMPONENT Shrink Tube FUNCTION/SERVICE Insulate and Protect Solistrand Splice Connectors LOCATION: BLDG C ELEVATION 534 COLUMN 185° R40 219° R40	OPERATING TIME	6 months	Equivalent to >6 months	6	2,4	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	135 max. normal 150 max. normal Accident profile 1	See enclosed profile	1	2	Simultaneous Test	None
	PRESSURE (PSIA)	14,7 max. normal 16.7 max. abnormal Accident Profile 1	See enclosed profile	1	2	Simultaneous Test	None
	RELATIVE HUMITY (%)	55 max. normal 90 max. abnormal accident profile 2	100	1	3	Simultaneous Test	None
	CHEMICAL SPRAY	Demineralized Water	50 ppm hydrozene to ph 10.5	1	3	Simultaneous Test	None
	RADIATION (RAD)	7.0×10^7	$.2 \times 10^8$	1	2	Sequential Test	None
	AGING	40 years	40 years	1	2,4	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	N/A

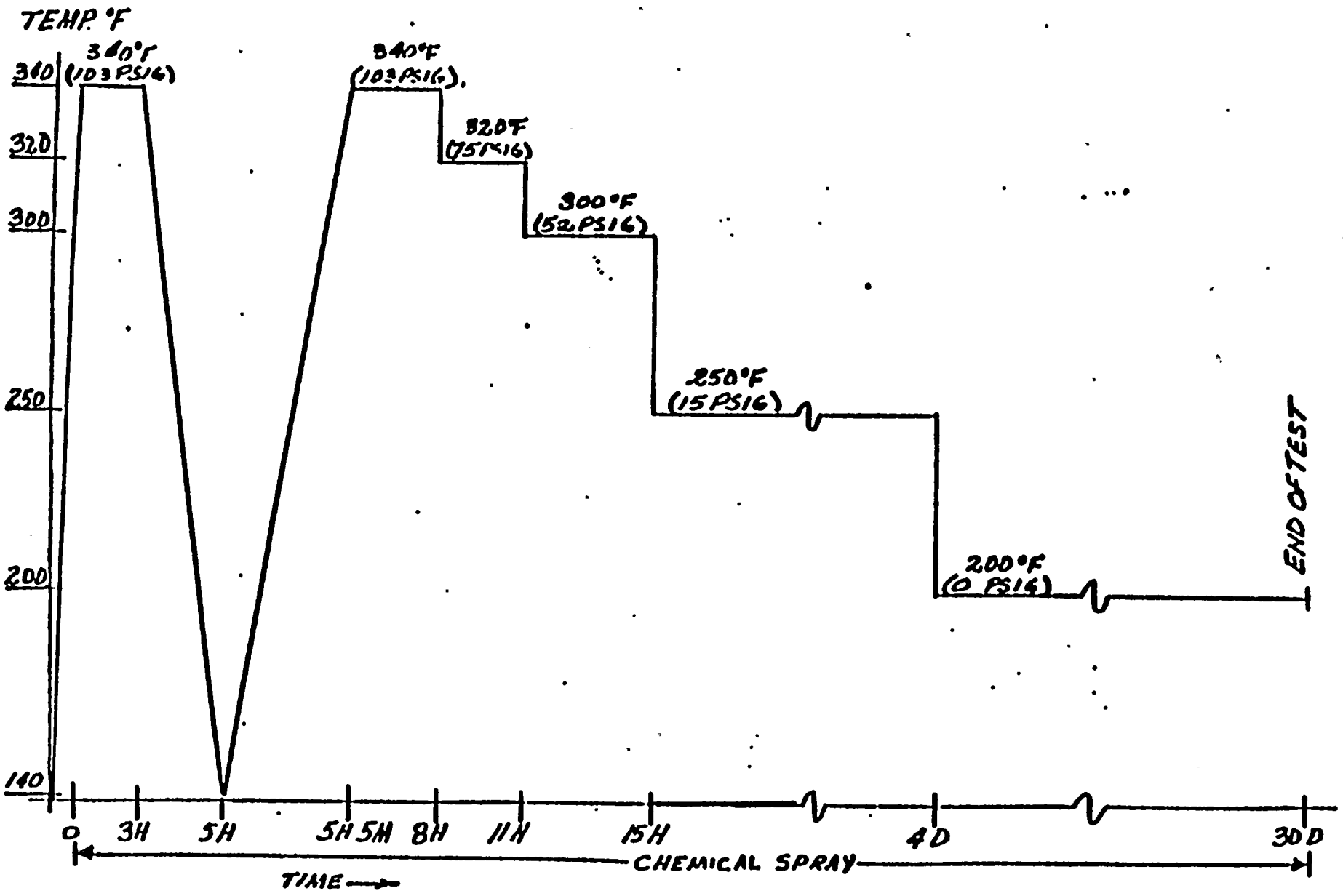
FLOOD LEVEL ELEV: N/A
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Ale Nadlin 6/24/83 Reviewed by: James Mecarro 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. Wyle 58442-1, 5/15/82 3. Raychem EDR2001, 8/10/78 4. QID # 049007 5. BRI Calculation #5.51.055 6. BRI CIE list, REV 8, 6/1/83	Qualified

WP-1081

Revision: 2
Date: September 1982



ENVIRONMENTAL QUALIFICATION TEST PROFILE FOR RAYCHEM SPLICES

WPPSS QID #315004

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-58

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Equipment Drains Radioactive TAG NUMBER EDR-SPV- 19 and 20 MANUFACTURER Automatic Switch (ASCO) MODEL NUMBER WJHT 831654 COMPONENT Solenoid Pilot Valve FUNCTION/SERVICE Containment Isolation Valve V-20 LOCATION: BLDG R ELEVATION 426,477 COLUMN R.1/3.6 R.0/3.9	OPERATING TIME	6 months	Equivalent to >6 months	1	4	Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Profile 4	185	2	4	Materials Test, Engineering Analysis	None
	PRESSURE (PSIA)	14.7	>14.7	2	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 max. normal 90 max. abnormal Profile 4	90	2	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	2.0×10^5	4.0×10^5	3	4	Materials Test and Engineering Analysis	None
	AGING	40 years	7 years	2	4	Operating Experience and Engineering Analysis	None Note 1
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by Linda Vaccari 9/12/83 Reviewed by James Vicarus 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI ClE list, REV 8, 6/1/83 2. FSAR Para 3.11 and 3. EDS Study 0700-004-471B, 422E 4. Calculation QID315004-E 5. BRI Calc. #5.51.055	1. A preventive maintenance program is being developed to extend the qualified life. Qualified

WP-1081

WPPSS QID #185002

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-58

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM: Electrical TAG NUMBER: E-IR-(note 2) MANUFACTURER: JELCO Inc MODEL NUMBER: N/A COMPONENT: Instrument Rack FUNCTION/SERVICE: Support Class 1E Instruments LOCATION: BLDG R ELEVATION Note 2 COLUMN Note 2	OPERATING TIME	6 months	N/R	1	N/A	Note 1	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident-Various Profiles	N/R	2	N/A	Note 1	None
	PRESSURE (PSIA)	14.7 Normal Accident-Various Profiles	N/R	2	N/A	Note 1	None
	RELATIVE HUMITY (%)	40 max normal 90 max abnormal 100 max accident	N/R	2	N/A	Note 1	None
	CHEMICAL SPRAY	N/A	N/R	2	N/A	Note 1	None
	RADIATION (RAD)	4.4×10^7	N/R	3	N/A	Note 1	None
	AGING	40 years	N/A	2	N/A	N/A	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared by: A. Nadeau 6/24/83 Reviewed by: James Meara 6/24/83

DOCUMENTATION REFERENCES

1. WNP-2 Class IE Equipment List, dated December, 1982
2. FSAR Paragraph 3.11
3. EDS Report 0740-002-471J (Worst Case Rad Levels)
4. BRI Calculation #5.51.055

NOTES

1. The instrument racks are metallic. Therefore, the instrument racks are not susceptible to the environmental conditions. Qualified.
2. Tag Numbers:

E-IR-61	E-IR-66	E-IR-71
-62	-67	-72
-63	-68	-73
-64	-69	-74
-65	-70	

DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

2. Continued

EPN	Elevation	Location
-61	422	N.1/3.5
-62	471	H.4/6.8
-63	501	L.4/9.4
-64	501	N.0/4.8
-65	471	N.0/4.0
-66	501	N.8/5.5
-67	548	N.8/5.7
-68	548	N.7/8.1
-69	522	N.0/8.1
-70	522	J.0/4.0
-71	522	J.0/6.9
-72	522	N.8/8.3
-73	522	N.4/4.2
-74	522	N.4/7.0

Prepared by: A. Sanchez 6/24/83
Reviewed by: James Tiemann 6/24/83

WPPSS QID #185003

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC:2808-02

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Electrical TAG NUMBER E-IR-(note 2) MANUFACTURER GE MODEL NUMBER COMPONENT Instrument Rack FUNCTION/SERVICE Support Class 1E Instruments LOCATION: BLDG R ELEVATION COLUMN Various Locations	OPERATING TIME	6 months	N/R	1	N/A	Note 1.	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident-Various Profiles	N/R	2	N/A	Note 1	None
	PRESSURE (PSIA)	14.7 Normal Accident-Various Profiles	N/R	2	N/A	Note 1	None
	RELATIVE HUMITY (%)	40 max normal 90 abnormal 100 accident	N/R	2	N/A	Note 1	None
	CHEMICAL SPRAY	N/A	N/R	2	N/A	Note 1	None
	RADIATION (RAD)	4.4×10^7	N/R	3	N/A	Note 1	None
	AGING	N/A	N/A	N/A	N/A	N/A	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared by: R.L. Nasler 6/24/83 Reviewed by: James Mesarve 6/24/83

DOCUMENTATION REFERENCES

1. BRI CIE List, Rev. 8, dated 6/1/83
2. FSAR Paragraph 3.11
3. EDS Report 0740-002-471J (worst case)
4. BRI Calculation #5.51.055

NOTES

1. The instrument racks are metallic. Therefore, the instrument racks are not susceptible to the environmental conditions. Qualified.
2. Tag Numbers

E-IR-P001	E-IR-P008	E-IR-P017	E-IR-P025	E-IR-P031
-P002	-P009	-P018	-P026	-P032
-P004	-P010	-P021	-P027	-P033
-P005	-P011	-P022	-P029	-P039
-P006	-P015	-P024	-P030	-P040

106

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-218

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Electrical TAG NUMBER E-JB-(See Note 2) MANUFACTURER Fischbach and Lord MODEL NUMBER None COMPONENT Junction Box FUNCTION/SERVICE Terminal Box LOCATION: BLDG R ELEVATION COLUMN (See Note 2)	OPERATING TIME	6 months	N/A	1	N/A	N/A	Note 1
	TEMPERATURE (F)	90 Normal 104 Abnormal Various Accident Profiles	N/A	2	N/A	N/A	None
	PRESSURE (PSIA)	14.7	N/A	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Various Accident Profiles	N/A	2	N/A	N/A	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.0×10^6	N/A	3	N/A	N/A	None
	AGING	40 yrs.	N/A	2	N/A	N/A	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared By: [signature] 6/24/83 Reviewed By: [signature] 6/24/83

DOCUMENTATION REFERENCES

1. BRI CIE List, Rev. 8, dated 6/1/83
2. FSAR Paragraph 3.11
3. EDS Study 0740-004-548E, F
4. BRI Calculation # 5.51.055

NOTES

1. Qualified. This component is metallic and not susceptible to environmental degradation.
2.

Tag Number	Elevation	Coordinate
E-JB-HTP/7B/E	548	M.1/4.4
-HTP/8B/A	548	M.1/4.7
- TB/IR68/2	548	M.8/8.2
- TB/R484	572	M.4/5.8
- TB/R485	572	M.7/8.2

WP-1081

WPPSS QID #252002

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-218
MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Electrical TAG NUMBER E-PP-7AE+ E-PP-8AE+ MANUFACTURER Square D MODEL NUMBER QH-02653-28EE COMPONENT Power Distribution Panel FUNCTION/SERVICE Instrumentation and Control Power Panel LOCATION: BLDG R ELEVATION 474 COLUMN N.2/9.3 N.0/8.5	OPERATING TIME	4320 hours	Equivalent to >4320 hours	1	3	Materials Test and Engineering Analysis	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profile 4	185	2	3	Materials Test and Engineering Analysis	None
	PRESSURE (PSIA)	14.7	14.7	2	3	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 Max. Normal 90 Max, Abnormal Accident Profile 4	90	2	3	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	7.1×10^4	1×10^5	5	3	Materials Test and Engineering Analysis	None
	AGING	40 years	19 years	2	3	Materials Test and Engineering Analysis	None Note 1
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared by: Chi-Nan Liu 6/24/83 Reviewed by: James Means 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list Rev. 8, dated 6/1/83 2. FSAR paragraph 3.11 3. QID #252002-E 4. BRI Cal. 5.51.055 5. EDS Calculation 0740-004-4710	Qualified 1. A preventive maintenance program is being developed to extend the qualified life.

WPPSS QID #382003

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-55

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Electrical TAG NUMBER E-X-(see note 2) MANUFACTURER Westinghouse MODEL NUMBER 55-00-0002 COMPONENT Primary Containment Penetration FUNCTION/SERVICE (Note 2) LOCATION: BLDGC ELEVATION (Note 2) COLUMN (Note 2)	OPERATING TIME	6 months	Equivalent To >6 months	1	4,	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	135 Max Normal 150 Max Abnormal Profile 1 Accident	340°F	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Profile 1 Accident	70.7	2	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	55 Normal 90 Abnormal Accident Profile 2	100	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	Demineralized Water Spray	Note 3	2	4	Engineering Analysis	None
	RADIATION (RAD)	7.0×10^7	1.2×10^8	3	4	Sequential Test and Engineering Analysis	None
	AGING	40 years	40 years	2	4	Separate Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Cal Nankin 6/24/83 Reviewed by: James Meares 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, REV 8, 6/1/83 2. FSAR Paragraph 3.11 3. FSAR Table 3.11-4 4. QID #382003-E 5. BRI Calculation #5.51.055	1. Qualified

YA-1981

DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

2.

Tag Number	Function/Service	Elev.	Azimuth
E-X-100A	Neu. Mont. Sys. Penetration	507	97
-100B	Neu. Mont. Sys. Penetration	507	103
-100C	Neu. Mont. Sys. Penetration	511	315
-100D	Neu. Mont. Sys. Penetration	511	327
-101A	CRD Position Ind. Penetration	511	130
-101B	CRD Position Ind. Penetration	511	138
-101C	CRD Position Ind. Penetration	511	312
-101D	CRD Position Ind. Penetration	511	318
-102A	T/C and RTD Penetration	534	189
-102B	T/C and RTD Penetration	534	218
-104A	Low Voltage Power Penetration	511	112
-104B	Low Voltage Power Penetration	511	115
-104C	Low Voltage Power Penetration	534	192
-104D	Low Voltage Power Penetration	534	222
-105A	Control & Indication Penetration	507	100
-105B	Control & Indication Penetration	511	135
-105C	Control & Indication Penetration	534	195
-105D	Control & Indication Penetration	534	225
-107A	Low Volt. Pwr./Cntl./Ind. Pene.	475	52
-107B	Low Volt. Pwr./Cntl./Ind. Pene.	475	240

3. The inboard end of the penetration is enclosed by the inboard penetration enclosure and, therefore, will not be exposed to demineralized water spray.

WPPSS QID #382001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC:

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Electrical TAG NUMBER E-X-(See note 2) MANUFACTURER Westinghouse MODEL NUMBER 55-00-0002 COMPONENT Primary Containment Penetration FUNCTION/SERVICE (Note 2) LOCATION: BLDG C ELEVATION (Note 2) COLUMN (Note 2)	OPERATING TIME	6 months	Equivalent to 6 Months	1	4	Simultaneous Test	Note 1
	TEMPERATURE (F)	135 Max Normal 150 Max Abnormal Profile 1 Accident	340°F	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Profile 1 Accident	56 psig	2	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	55 Normal 90 Abnormal Accident Profile 2	100	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	Demineralized Water Spray	Note 3	2	4	Engineering Analysis	None
	RADIATION (RAD)	7.0×10^7	1.2×10^8	3	4	Sequential Test and Engineering Analysis	None
	AGING	40 years	40 Years	2	4	Sequential Test, Engineering Analysis	Note 1
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: [signature] 6/24/83 Reviewed by: [signature] 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. BRI Class 1E List Rev. 8 dated 6/1/83 2. FSAR Paragraph 3.11 3. FSAR Table 3.11-4 4. QID #382001-E 5. BRI Calculation #5.51.055	Qualified

DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

2.

Tag Number	Function/Service	Elev.	Azimuth
E-X-103A	Med. Voltage Power Penetration	534	203
-103B	Med. Voltage Power Penetration	534	212
-103C	Med. Voltage Power Penetration	534	305
-103D	Med. Voltage Power Penetration	534	322

3. The inboard end of the penetration is enclosed by the inboard penetration enclosure and, therefore, will not be exposed to demineralized water spray.

WPPSS QID #248005

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-68

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Equipment Drains Radioactive TAG NUMBER EDR-POS-V/19 -V/20 MANUFACTURER Namco Controls MODEL NUMBER SAI-133 COMPONENT Position Switch FUNCTION/SERVICE Position Switch for Containment Isolation Valve LOCATION: BLDG R ELEVATION 468 COLUMN M.8/4.5	OPERATING TIME	6 months		1			Note 1
	TEMPERATURE (F)	90 Normal 104 Abnormal Accident Profile 4		2			
	PRESSURE (PSIA)	14.7		2			
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4		2			
	CHEMICAL SPRAY	N/A	N/A	N/A	N/A	N/A	None
	RADIATION (RAD)	1.4×10^6		3			
	AGING	40 years		2			
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared by: [signature] 6/24/83

Reviewed by: [signature] 6/24/83

DOCUMENTATION REFERENCES

1. BRI CIE list Rev. 8, dated 6/1/83
2. FSAR paragraph 3.11
3. EDS study 0740-004-441C
4. BRI Calc. #5.51.055

NOTES

1. Equipment justification #11 in Appendix D is provided for EDR-POS-V/20. EDR-POS-V/19 is on Table B of the JIO and does not require qualification prior to fuel load.

WPPSS QID#207027E

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC:
MPL:
PPD:
PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Floor Drain Radioactive TAG NUMBER FDR: LS-41,42,43,45,46 MANUFACTURER Magnetrol MODEL NUMBER BCS-751 COMPONENT Level Switch FUNCTION/SERVICE L.D.RHR Pump A-C L.D LPCS PMP.RM L.D HPCS PMP.RM LOCATION: BLDG R ELEVATION 422 COLUMN	OPERATING TIME	4320 hours	> 4320 hours	1	4,5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 Normal 104 Abnormal Accident Profile 4	300	2	5	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	N/A	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4	100	2	5	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	N/A	N/A	N/A	None
	RADIATION (RAD)	2.5×10^6	1.2×10^7	3	4	Engineering Analysis and Separate Test	None
	AGING	40 years	40 years	2	4	Engineering Analysis	None
	ACCURACY	N/A	N/A	7	4	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref.6)

Prepared by: Lurida Vaccani 9/13/83 Reviewed by James Meares 9/13/83

DOCUMENTATION REFERENCES	NOTES
1. B & R Class 1E Equipment List rev.8 2. FSAR Paragraph 3.11 3. EDS Report 0740-004-422 L 4. QID 207004E 5. Wyle Labs Type Test Program for Magnetol Level Switches 6. BIR Calc.15.51.055 7.WPPSS Calc. #IN-02-83-01	Qualified

WPPSS QID# 207027

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC:

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Floor Drain Radioactive TAG NUMBER FDR-LS-44 MANUFACTURER Magnetrol MODEL NUMBER BCS-751 COMPONENT Level Switch FUNCTION/SERVICE L.D. RCIC Pump Room LOCATION: BLDG R ELEVATION 422 COLUMN	OPERATING TIME	4320 hours	>4320 hours	1	4,5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 Normal 104 Abnormal Accident Profile 4	300	2	5	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	N/A	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4	100	2	5	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	N/A	N/A	N/A	None
	RADIATION (RAD)	1.2×10^7	1.2×10^7	3	4	Engineering Analysis and Separate Test	Note 1
	AGING	40 years	40 years	2	4	Engineering Analysis	None
	ACCURACY	N/A	N/A	7	4	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X. NO (Ref. 6)

Prepared by: Linda Vaccari 9/13/83 Reviewed by: James Maurer 9/13/83

DOCUMENTATION REFERENCES

1. B & R Class 1E Equipment List Rev. 8
2. FSAR Paragraph 3.11
3. EDS Report 0740-004-422L
4. QID 207004E
5. Wyle Labs Type Test Program for Magnetrol Level Switches
6. B & R Calc. #5.51.055
7. WPPSS Calc. #IN-02-83-01

NOTES

1. A pinpoint dose calculation will be performed to include margin for radiation qualification. The equipment is on Table B of the JIO and does not require qualification prior to fuel load.

WPPSS

QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September.. 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Fuel Pool Cooling TAG NUMBER FPC-MO-153 FPC-MO-154 FPC-MO-156 MANUFACTURER Limitorque MODEL NUMBER SMB-000-5 SMB-00 COMPONENT Reliance Motor Operator AC Motor/Class B Insulation FUNCTION/SERVICE Operate FPC Valves LOCATION: BLDG R ELEVATION 452, 468 COLUMN K/7.9, J 9/8, K2/8.2	OPERATING TIME	6 months	Equivalent to >6 months	7	3,4	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 maximum normal 104 maximum abnormal Accident Profile 4	See enclosed profile	1	3	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	See enclosed profile	1	3	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 maximum abnormal Accident Profile 4, 21X	100	1	3	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	9.94×10^5	2×10^7	2	3	Sequential Test	None
	AGING	40 years	40 years	1	3,4,5	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Mercure 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. EDS Study 0740-004-441G 3. Limitorque report B0003 with addendum A dated 5/8/76 4. QID #221001 5. Limitorque report B0058 dated 1/11/80 6. BRI Calculation #5.51.055 7. BRI CIE list, REV 8, 6/1/83	1. Qualified

TEMPERATURE PROFILE

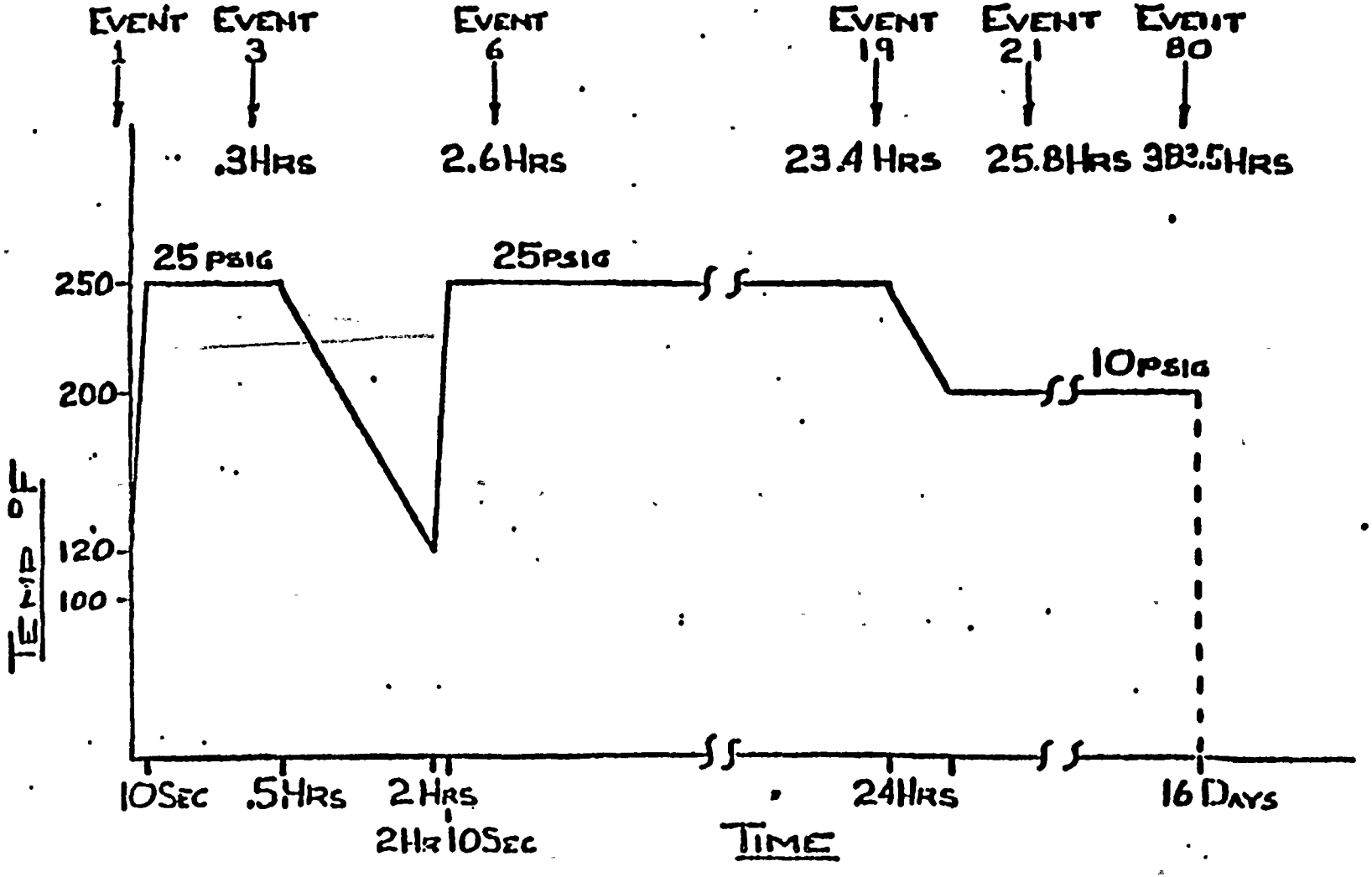

FIGURE 1

WPPSS QID #248004

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Floor Drain Radioactive TAG NUMBER FDR-POS-V/3 -V/4 MANUFACTURER Namco Controls MODEL NUMBER SAI-133 COMPONENT Position Switch FUNCTION/SERVICE Position Switch for valve LOCATION: BLDG R ELEVATION 467 COLUMN H.0/4.1	OPERATING TIME	6 months		1			Note 1
	TEMPERATURE (F)	90 Normal 104 Abnormal Accident Profile 4		2			
	PRESSURE (PSIA)	14.7		2			
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4		2			
	CHEMICAL SPRAY	N/A	N/A	N/A	N/A	N/A	None
	RADIATION (RAD)	1.4×10^6		3			
	AGING	40 years		2			
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref.4)

Prepared by: A. Nardini 6/24/83

Reviewed by: James Munro 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list Rev.8, dated 6/1/83 2. FSAR Paragraph 3.11 3. EDS Study 0740-004-441C 4. BRI Calc.#5.51.055	1. Equipment justification #12 in Appendix D is provided for FDR-POS-V/4. FDR-POS-V/3 is on Table B of the JIO and does not require qualification prior to fuel load.

WPPSS QID #315004.

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-58

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Floor Drain Radioactive TAG NUMBER FDR-SPV- 3, and 4 MANUFACTURER Automatic Switch (ASCO) MODEL NUMBER NJHT 831654 COMPONENT Solenoid Pilot Valve FUNCTION/SERVICE Solenoid Pilot for Valve EDR-V-4 LOCATION: BLDG R ELEVATION 471, 477 COLUMN N/3.9 N.0/3.9	OPERATING TIME	6 months	>6 months	1	4	Materials Test, Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Profile 4	185	2	4	Materials Test, Engineering Analysis	None
	PRESSURE (PSIA)	14.7	14.7	2	N/A	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 max. normal 90 max. abnormal Profile 4	90	2	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	2.0×10^5	4.0×10^5	3	4	Materials Test and Engineering Analysis	None
	AGING	40 years	7 years	2	4	Operating Experience and Engineering Analysis	None Note1
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared By: R. Rinker 6/24/83 Reviewed By: James Moreno 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, REV 8, 6/1/83 2. FSAR Para 3.11 3. EDS Study 0740-004-471B, 422E 4. Calculation QID315004-E 5. BRI Calculation #5.51.055	1. A preventive maintenance program is being developed to extend the qualified life. Qualified

WP-1081

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September. 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Fuel Pool Cooling TAG NUMBER FPC-TE- 7 MANUFACTURER MODEL NUMBER COMPONENT Temperature Element FUNCTION/SERVICE Fuel pool and Recirculation line temps. LOCATION: BLDG R ELEVATION 467, 572 COLUMN	OPERATING TIME	6 months	Note 1	1			
	TEMPERATURE (F)	90 normal 104 abnormal accident profile 4		2			
	PRESSURE (PSIA)	14.7		2			
	RELATIVE HUMITY (%)	40 normal 90 abnormal accident profile 4,21X		2			
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.0×10^9		2			
	AGING	40 years					
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO X

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Means 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI C1E list, REV 8, 6/1/83 2. FSAR Paragraph 3.11 3. EUS Report 0740-004-572K	1. A documentation search is being performed to obtain qualification data. Requalification activities will be implemented if required. This component is on Table B of the JIO and does not require qualification prior to fuel load.

WP-1011

WPPSS QID #140001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E22
MPL: E22-N006
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM High Pressure Core Spray TAG NUMBER HPCS-FIS-6 MANUFACTURER Barton MODEL NUMBER 289 COMPONENT Flow Indicating Switch FUNCTION/SERVICE HPCS-P-1 Discharge Flow Indication LOCATION: BLDG R ELEVATION 475 COLUMN L.2/3.9	OPERATING TIME	24 hours	Equivalent to 76 months	1	4,6	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profile 4,9	212	2	6	Simultaneous Test	None
	PRESSURE (PSIA)	Normal 14.7 Accident Profile 9	Accident Profile 9	2	4,6	Simultaneous Test, Engineering Analysis	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal 100 accident	100	2	6	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	5×10^5	3×10^6	3	4, 5	Separate Effect Engineering Analysis	None
	AGING	40 years	12 years	2	4	Engineering Analysis	None Note 1
	ACCURACY	13.4%	2.4%	8	6	Simultaneous Test	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Williams 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, REV 8, 6/1/83 2. FSAR Par. 3.11 3. EDS Report 0740-004-471B 4. QID File #140001 5. Qualification Test Report for Barton 289 Switch, Report #R3-288A-1, 6. Test report for Barton pressure switch 289A GE Rpt. 05991, Rev. 1, 12/7/73. 7. BRI Calculation #5.51.055	Qualified. 1. A preventive maintenance/surveillance program is being developed to extend the qualified life.

WP-1081

WPPSS QID #156003

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E22

MPL: E22-N005
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM High Pressure Core Spray TAG NUMBER HPCS-FT-5 MANUFACTURER GE MODEL NUMBER 50-555-111BHAA4WCF COMPONENT Flow Transmitter FUNCTION/SERVICE HPCS-P-1 Discharge Flow Transmitter LOCATION: BLDG R ELEVATION 473 COLUMN L.2/3.9	OPERATING TIME	4320 Hours	Note 1	2	4		
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profile 4,9		1			
	PRESSURE (PSIA)	Normal 14.7 Accident Profile 9		1			
	RELATIVE HUMITY (%)	40 normal 90 abnormal 100 accident		1			
	CHEMICAL SPRAY	N/A		1			
	RADIATION (RAD)	5.0×10^5		3			
	AGING	40 years		1			
	ACCURACY						

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by Linda Vaccari 9/2/83 Reviewed by: James Mowrey 9/2/83

DOCUMENTATION REFERENCES

1. FSAR Par. 3.11
2. BRI CIE list, REV 8, 6/1/83
3. EDS Report 0740-004-471B
4. WPPSS Letter GE-02-JLS-81-022
5. BRI Calculation #5.51.055

NOTES

1. This component will be replaced by a Rosemount 1153 qualified to IEEE 323-1974 and 344-1975. (Ref.4)
   Equipment justification #13 in Appendix D is provided for HPCS - FT - 5.

WP-1081

WPPSS QID/207002

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E22

MPL: E22-N002A,2B
PPD:

PAGE NO: 5
REVISION:
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM High Pressure Core Spray TAG NUMBER HPCS-LS-2A,B HPCS-LS-1A,B MANUFACTURER Magnetrol MODEL NUMBER 3.5-751-1X-MPG-M14HY COMPONENT Level Switch FUNCTION/SERVICE 2A,2B: Pool Level HPCS Valve Control 1A,1B: Emergency Switchover LOCATION: BLDG R ELEVATION (see Note 1) COLUMN	OPERATING TIME	24 hours	160 hours	1	4,5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 Max Normal 104 Max Abnormal Accident Profile 4, 1X	300	2	5	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 normal Accident Profile 1X	Accident Profile 1X	2	4,5	Simultaneous Test and Engineering Analysis	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal 100 Accident	100	2	5	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	3.1×10^6	1.2×10^7	3	4	Engineering Analysis and Separate Test	None
	AGING	40 years	40 years	2	4	Engineering Analysis and Separate Test	None
	ACCURACY	$\pm \frac{1}{2}$"	$\pm \frac{1}{2}$"	7	4	Engineering Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref.6)

Prepared by: Linda Vaccari 9/2/83

Reviewed by: James Means 9/2/83

DOCUMENTATION REFERENCES

1. BRI CIE list, Rev.8 dated 6/1/83
2. FSAR Paragraph 3.11
3. EDS Report 0740-004-441F
4. QID 2070004
5. Wyle Labs Type Test Program of Magnetrol Level Switches
6. B & R Calc.#5.51.055
7. GE Documents 23A1619AA and 28A2869AT

NOTES

Qualified

1.

EPN	Elevation	Column
HPCS-LS-1A	446	H.6/5.0
-1B	446	H.6/5.0
-2A	467	J.5/4.3
-2B	468	L.8/7.9

WPPSS QID213032

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E12

MPL: E22-C001A
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM: High Pressure Core Spray TAG NUMBER: HPCS-M-P/1 MANUFACTURER: General Electric MODEL NUMBER: 5K6357XC10A COMPONENT: Motor FUNCTION/SERVICE: Drive Pump LOCATION: BLDG R ELEVATION 430 COLUMN M2/3.7	OPERATING TIME	4320 hours	94,746 hours	5	3,4 7,8	Sequential Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4	212	1	3,4 7,8	Simultaneous Engineering Analysis	None
	PRESSURE (PSIA)	14.7	N/R	1	N/A	N/A	None
	RELATIVE HUMITY (%)	40 normal 90 max abnormal Accident Profile 4,22X	100%	1	3,4 7,8	Simultaneous Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	1.6×10^6	5.5×10^6	2	3,4 7,8	Sequential Engineering Analysis	None
	AGING	40 years	40 years	1	3, 7,8	Sequential Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 9)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Weaver 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. EDS Study 0740-004-422D 3. GE #22A4722, 3/25/80 (BWR 111-A-05) 4. GE #NEDM-10672, 8/72 (BWR 111-A-05) 5. BRI CIE list, Rev.8, dated 6/1/83 6. B&R Calculation 9-46-02 7. GE #456HA898 8. Calculations 213 032-1, -2, -3, -4 9. BRI Calc. #5.51.055	1. Qualified.

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WPPSS QID #213016

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-35A

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM High Pressure Core Spray TAG NUMBER HPCS-M-P/3 MANUFACTURER Westinghouse MODEL NUMBER 75D40786 COMPONENT Motor FUNCTION/SERVICE 15hp motor for HPCS-P-3 LOCATION: BLDG R ELEVATION 430 COLUMN L5/3.5	OPERATING TIME	6 months	6 months	1	4	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 Max Normal 104 Max Abnormal Accident Profile 4	410	2	4	Simultaneous Test and Engineering Analysis	None
	PRESSURE (PSIA)	14.7	>14.7	2	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4,22X	100	2	4	Sequential Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.9×10^6	2×10^8	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4	Simultaneous Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Means 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list Rev.8, dated 6/1/83 2. FSAR Paragraph 3.11 3. EDS Report #0740-004-422M 4. QID#213017 5. BRI Calc. #5.51.055	Qualified

1081

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E22

MPL: E22-F001
PPD: 21A1883

PAGE NO:
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DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM High Pressure Core Spray TAG NUMBER HPCS-MO-1 MANUFACTURER Limitorque MODEL NUMBER SMB-000-25/P12B COMPONENT H. K. Porter Valve Motor Operator (AC/ Class B) FUNCTION/SERVICE Operate HPCS Valve 1 LOCATION: BLDG R ELEVATION 435 COLUMN M/4	OPERATING TIME	4320 Hours	Equivalent to > 6 months	4	2,5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4	See enclosed profile	1	2	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	See enclosed profile	1	2	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 max abnormal Accident Profile 4,22X	100	1	2	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	1.6×10^6	2×10^7	3	2	Sequential Test	None
	AGING	40 years	40 years	1	2,5,6	Sequential Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Williams 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. Limitorque Test Report B0003, with Addendum A, prepared 5/8/76 3. EDS Study 0740-00-422D 4. BRI C1E list, REV 8, 6/1/83 5. Calculations in QID 221001 6. Limitorque test report B0058, dated 1/11/80 7. BRI Calculation #5.51.055	Qualified.

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #221001

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E22

MPL: E22-F012
PPD: 21A1880

EQUIPMENT DESCRIPTION	ENVIRONMENT	
	PARAMETER	FSAR
SYSTEM High Pressure Core Spray TAG NUMBER HPCS-MO-12,15 MANUFACTURER Limitorque MODEL NUMBER SMB-2-40/C184Y SMB-2-60/C184Y COMPONENT Electric Apparatus Valve Motor Operator (AC Motor Class B) FUNCTION/SERVICE Operate HPCS Valve 12 and 15 LOCATION: BLDG R ELEVATION 430, 455 COLUMN M/3.4, L.4/3.8	OPERATING TIME	4320 Hours
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4
	PRESSURE (PSIA)	14.7
	RELATIVE HUMIDITY (%)	40 normal 90 max abnormal Accident Profile 4,22X
	CHEMICAL SPRAY	N/A
	RADIATION (RAD)	1.6×10^6
	AGING	40 years
	ACCURACY	N/A
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL? YES X NO (Ref. 4)	Reference: 3. EDS Report 0740-004-441C 4. BRI Calc. #5.51.055	

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E22

MPL: E22-F010
PPD: 21A1881

EQUIPMENT DESCRIPTION	ENVIRONMENT	
	PARAMETER	FSAR
SYSTEM High Pressure Core Spray TAG NUMBER HPCS-MO-10,11 MANUFACTURER Limitorque MODEL NUMBER SMB-3-150/C215Y COMPONENT Valve Motor Operator* FUNCTION/SERVICE Operate HPCS Valve 10 LOCATION: BLDG R ELEVATION 452 COLUMN M/3.8	OPERATING TIME	24 hours
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4
	PRESSURE (PSIA)	14.7
	RELATIVE HUMIDITY (%)	40 normal 90 max abnormal Accident Profile 4,22X
	CHEMICAL SPRAY	N/A
	RADIATION (RAD)	1.4×10^6
	AGING	40 years
	ACCURACY	N/A
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL? YES X NO Ref.4		

* (Reliance Class B)

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TEMPERATURE PROFILE

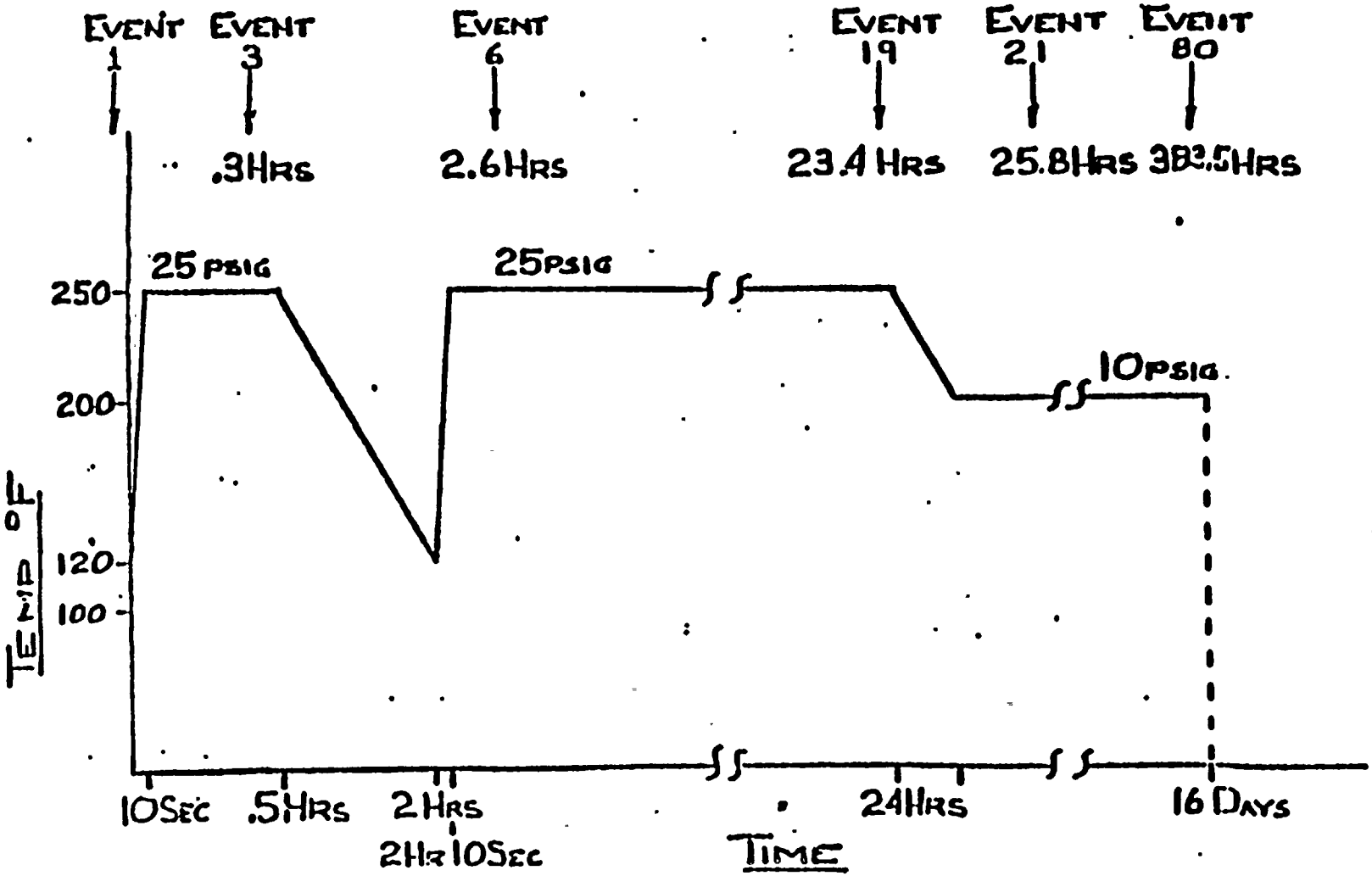

FIGURE 1

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP 2
SPEC: 2808-

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM High Pressure Core Spray TAG NUMBER HPCS-MO-23 MANUFACTURER Limitorque MODEL NUMBER SMB-4 COMPONENT FUNCTION/SERVICE Motor Operator HPCS-V-23 LOCATION: BLDG R ELEVATION 451 COLUMN L.6/3.9	OPERATING TIME	24 hours	Equivalent to >6 months	3	5, 7	Engineering Analysis, Simultaneous Test	None
	TEMPERATURE (F)	90 Max Normal 104 Max Abnormal Accident Profile 4	See Enclosed Profile	1	5	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	See Enclosed Profile	1	5	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 Normal 90 Max Abnormal Accident Profile 4,22X	100	1	5	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	1.4×10^6	2×10^7	2	5	Sequential Test	None
	AGING	40 years	40 years	1	6, 7	Sequential Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared by: Linda Vaccaro 9/2/83 Reviewed by: James Weaver 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR paragraph 3.11 2. EDS Study 0740-004-441C 3. BRI CIE list Rev. 8, dated 6/1/83 4. BRI Calculation #5.51.055 5. Limitorque Test Report B0003, with addendum A dated 5/8/76 6. Limitorque Test Report B0058 dated 1/11/80 7. QID 221001	Qualified

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TEMPERATURE PROFILE

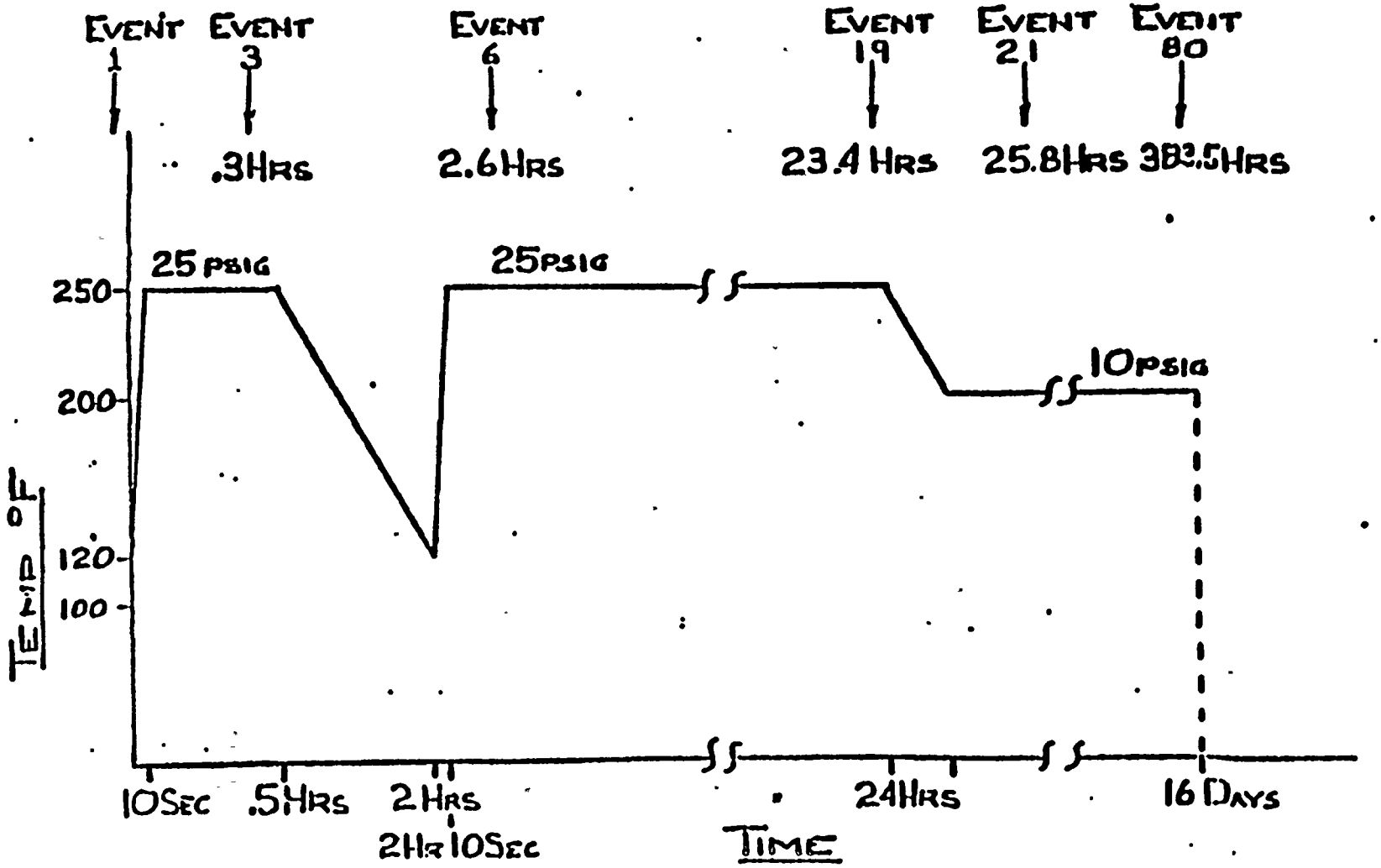

FIGURE 1

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E22

MPL: E22-F001
PPD: 21A1883

PAGE NO:
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DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM High Pressure Core Spray TAG NUMBER HPCS-MO-4 MANUFACTURER Limitorque MODEL NUMBER SMB-4 COMPONENT Valve Motor Operator (Reliance Class H) AC Motor FUNCTION/SERVICE Operate HPCS Valve 23 LOCATION: BLDG R ELEVATION 540 COLUMN M.3/7.3	OPERATING TIME	4320 Hours	Equivalent to > 6 months	4	2,5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4, 11	See enclosed profile	1	2	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 Accident Profile 11	See enclosed profile	1	2	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 max abnormal Accident Profile 21X	100%	1	2	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	2	N/A	None
	RADIATION (RAD)	8.3×10^5	1×10^7	3	2	Engineering Analysis	None
	AGING	40 years	40 years 18 years (Brake only)	1	2, 5, 6	Sequential Test and Engineering Analysis	None Note 1
	ACCURACY	N/A	N/A	N/A	N/A	N/A	Nonte

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Mearns 9/12/83

DOCUMENTATION REFERENCES

1. FSAR Par. 3.11
2. Limitorque Test Report B0003, with Addendum A, prepared 5/8/76
3. EDS Study 0740-422D
4. BRI C1E list, REV 8, 6/1/83
5. Calculations in QID 221001
6. Limitorque Test Report B0058, dated 1/11/80
7. BRI Calc #5.51.055

NOTES

Qualified

1. A preventive maintenance program is being developed to extend the qualified life of the brake

TEMPERATURE PROFILE

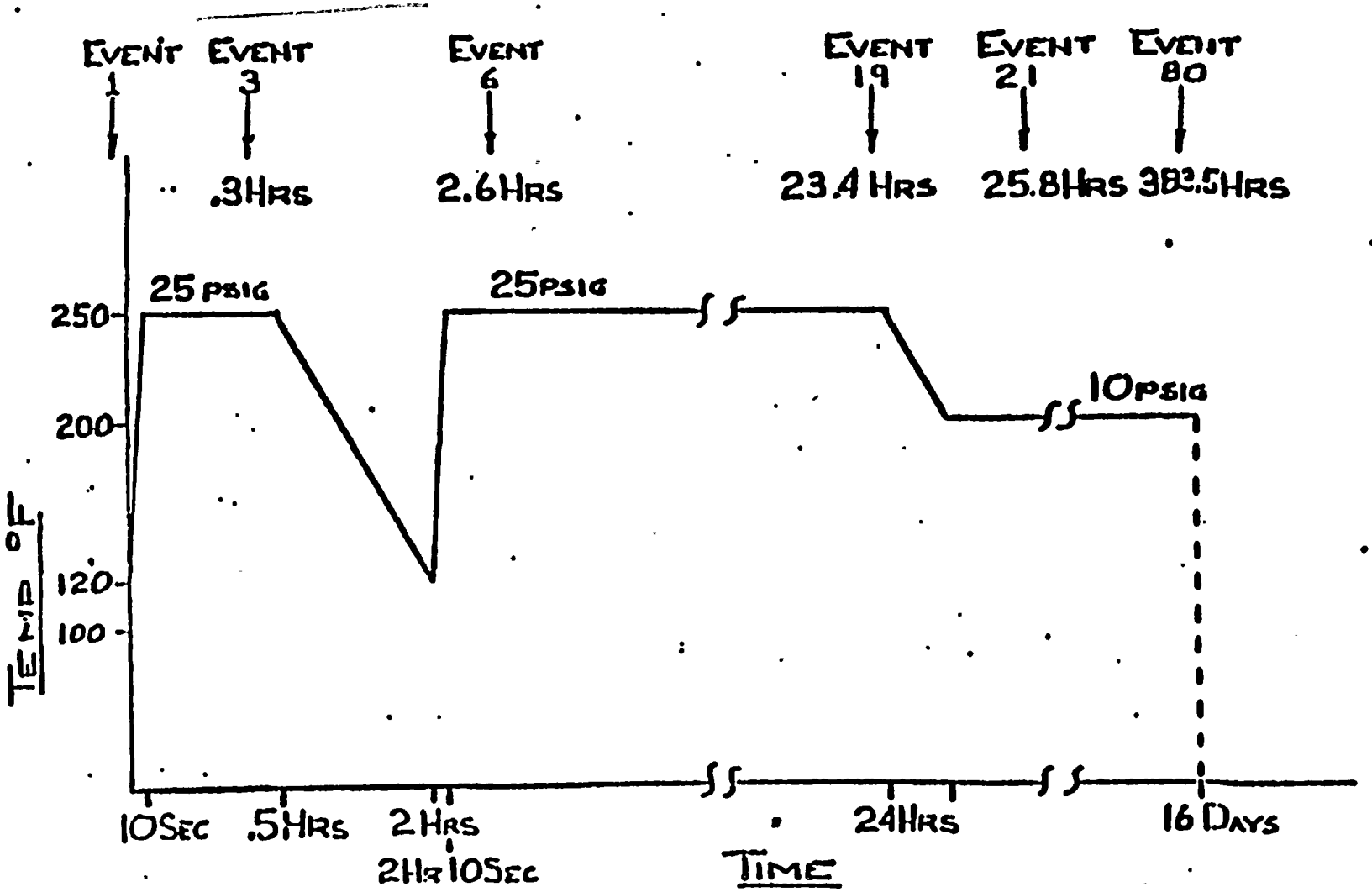

FIGURE 1

WPPSS QID# 256016

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E22

MPL: E22-N012
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM: High Pressure Core Spray TAG NUMBER: HPCS-PS-12 MANUFACTURER: Static-O-Ring MODEL NUMBER: 5N-AA3-X105TT COMPONENT: Pressure Switch FUNCTION/SERVICE: HPCS Pump Discharge Pressure Switch LOCATION: BLDG R ELEVATION 473 COLUMN L.2/3.9	OPERATING TIME	24 hours	Equivalent to>6 months	1	3,5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 Max Normal 104 Max Abnormal Accident Profile 4,9	212	2	5	Simultaneous Test	None
	PRESSURE (PSIA)	Normal 14.7 Accident Profile 9	15.2	2	3,5	Simultaneous Test and Engineering Analysis	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal 100 Accident	100	2	5	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	5.0×10^5	1.5×10^6	4	3	Materials Test and Engineering Analysis	None
	AGING	40 years	16 years	2	3	Engineering Analysis	None Note 1
	ACCURACY	3%	.4% FSPE	6	5, 3	Simultaneous Test and Engineering Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref.7)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Mecum 9/2/83

DOCUMENTATION REFERENCES

1. BRI Class 1E Equipment List, Rev. 8
2. FSAR Paragraph 3.11
3. QID file #256016
4. EDS Calculation file 0740-004-471B
5. Viking Lab, Inc. Test Letter Report #30203-2 dated November 30, 1973. Steam testing of Static-O-Ring Pressure Switch, P/N 12N-AA4-TTX10.
6. GE Document 22A1483AU
7. BRI Calculation #5.51.055

NOTES

Qualified

1. A preventive maintenance/surveillance program is being developed to extend the qualified life.

WPPSS QID #361012

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM RCC Hydraulic Control TAG NUMBER HY-V-(See Note 1) MANUFACTURER Target Rock MODEL NUMBER 82H-002 COMPONENT Solenoid Operated Valve FUNCTION/SERVICE .75" Solenoid Isolation Valve LOCATION: BLDG Reactor ELEVATION 525 COLUMN (See Note 1)	OPERATING TIME	10 Minutes	Equivalent to >4320 Hours	1	3, 5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Accident Profile 4	385	2	5	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	79.7	2	5	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 Max. Normal 90 Max. Abnormal Accident Profile 4	100	2	5	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	Chemical Spray Ph 8.6 to 10.0	2	5	Simultaneous Test	None
	RADIATION (RAD)	5.8×10^5	2.2×10^8	6	5	Sequential Test	None
	AGING	40 Years	40 Years	2	3, 5	Sequential Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV: (Ref. 4)
ABOVE FLOOD LEVEL?
YES X NO

Prepared by: Alli Carlson 6/24/83 Reviewed by: James Mearns 6/24/83

DOCUMENTATION REFERENCES

1. BRT Class 1E Equipment List, Rev. 8, 6/1/83
2. FSAR Paragraph 3.11
3. QID #324002-E
4. BRI Calculation 5.51.055
5. Test Report #2375A, Target Rock Corporation
6. EDS Calculation 0740-004-522C, J

NOTES

Qualified

1.

Tag Number	Column
HY-V-17A,B	M.0/4.5, J.8/7.3
-18A,B	M.0/4.5, J.8/7.3
-19A,B	M.0/4.5, J.8/7.3
-33A,B	M.0/4.5, J.8/7.3
-34A,B	M.0/4.5, J.8/7.3
-35A,B	M.0/4.5, J.8/7.3

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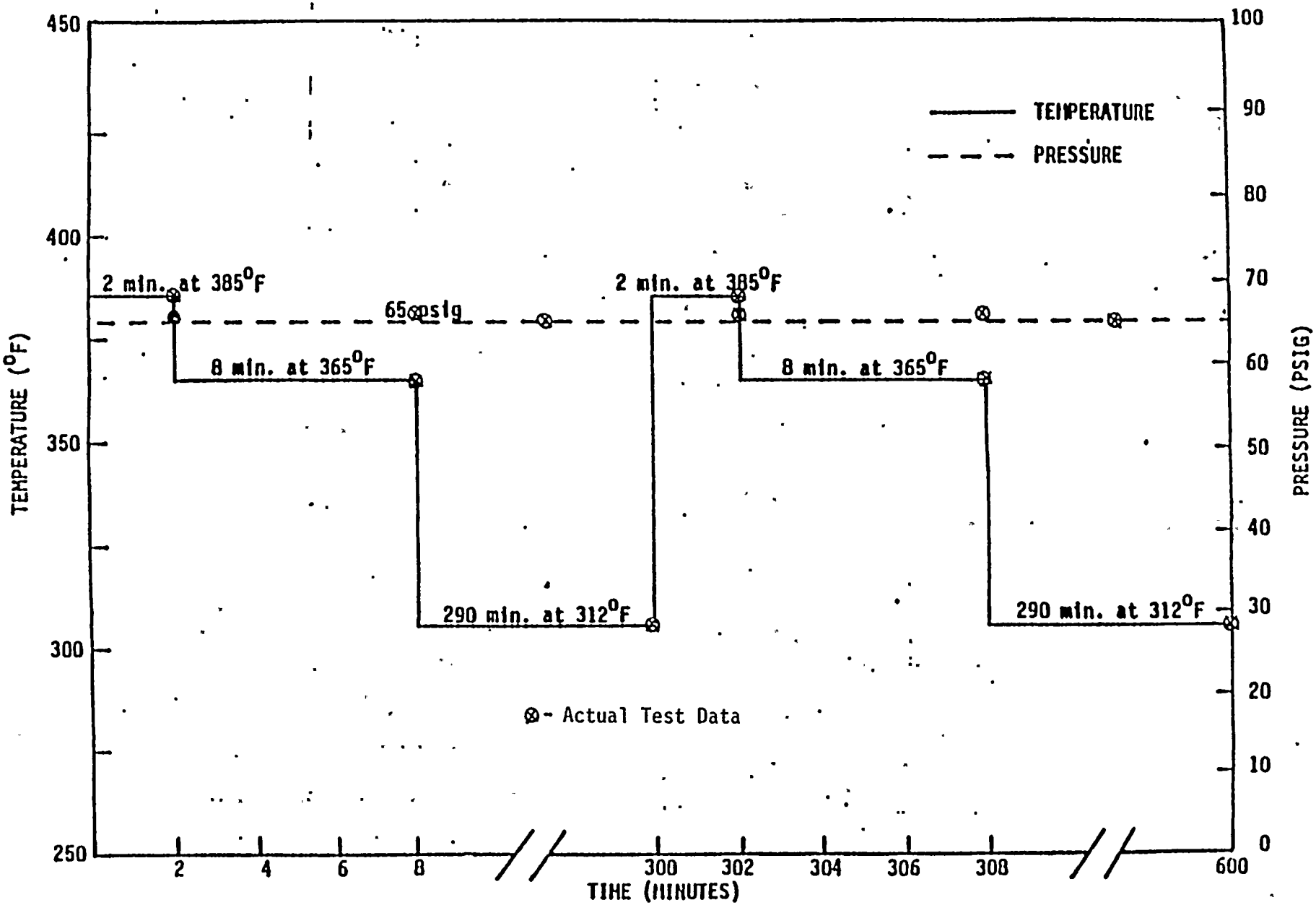
Date: September 1982



ENVIRONMENTAL QUALIFICATION TEST PROFILE FOR TARGET ROCK SOLENOID VALVES

WPPSS QID #361009

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM RCC Hydralic Control TAG NUMBER HY-V-20A -20B -36A -36B MANUFACTURER Marotta MODEL NUMBER HV250 COMPONENT Solenoid Operated Valve FUNCTION/SERVICE Solenoid Isolation Valve LOCATION: BLDG Reactor ELEVATION 525 COLUMN M.0/4.5 J.8/7.3 M.0/4.5 J.8/7.3	OPERATING TIME	10 minutes	Equivalent to>4320 hours	1	4	Engineering Analysis	None
	TEMPERATURE (F)	90 Max Normal 104 Max Abnormal Accident Profile 4	221°F	2	4	Materials Test and Engineering Analysis	None
	PRESSURE (PSIA)	14.7	14.7	2	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 Max Normal 90 Max Abnormal 68 Accident	90	2	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	5.8×10^5	5×10^6	3	4	Materials Test and Engineering Analysis	None
	AGING	40 years	1 year	2	4	Materials Test and Engineering Analysis	None Note 1
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Stevens 9/12/83

DOCUMENTATION REFERENCES

1. BRI CIE list Rev. 8, dated 6/1/83
2. FSAR paragraph 3.11
3. EDS Calc. #0740-004-522 C,J
4. QID 315023
5. Performance Specification for Marotta Solenoid Valves, Wyle Report #26411, dated 4/27/83
6. BRI Calc. #5.51.055

NOTES

Qualified

1. These components are being tested to demonstrate their qualification to IEEE stds 323-1974 and 344-1975. Qualification objectives are identified in [5].

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WPPSS QID #339004

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E31
MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Leak Detection TAG NUMBER LD-TE-1A, B, C, D, E, F MANUFACTURER NECI MODEL NUMBER (GE P/N) 145C3224P001 COMPONENT Temperature elements FUNCTION/SERVICE LOCATION: BLDG R ELEVATION 532, 554 COLUMN M.8/4.7 M.6/4.4 K.1/3.4 M.8/5.0 K.1/3.4 M.2/5.4	OPERATING TIME	24 hours	>24 hours	1	6	Simultaneous Test	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal accident profile 8X,17X	250	2	5,6	Simultaneous Test and Engineering Analysis	None
	PRESSURE (PSIA)	Normal 14.7 accident profile 8X, 17X	33.5	2	5	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal 100 accident	100	2	6	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	8.4×10^5	2.0×10^8	3	6	Sequential Test	None
	AGING	40 years	24.5 years	2	5,6	Simultaneous Test and Engineering Analysis	Note 1 None
	ACCURACY	5%	1.4%	7	6	Simultaneous Test	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X. NO (Ref. 4)

Reviewed By: Linda Vaccari 9/2/83 Prepared By: James Meara 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list for WNP-2, Rev. 8, dated 6/1/83 2. FSAR Paragraph 3.11 3. EDS Report 0740-004-522F 4. BRI Calc. #5.51.055 5. WNP-2 QID 339004, Rev. 2 6. PYCo Qualification of Class 1E Equipment for Nuclear Power Generating Stations per IEEE 323/74, Test Procedure No. 16436, Rev. 1, dated 4-5-82.	Qualified. 1. This qualified life will be factored into surveillance/preventive maintenance schedules for these components.

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WPPSS QID #339004

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E31
MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Leak Detection TAG NUMBER LD-TE (Note 2) MANUFACTURER Pyco MODEL NUMBER (Note 2) COMPONENT Temperature Element FUNCTION/SERVICE Steam leak detection in RWCU pump room, RWCU Hx room, steam tunnel, RCIC room, RHR room LOCATION: BLDG R ELEVATION COLUMN (Note 2)	OPERATING TIME	24 hours	> 24 hours	2	6	Simultaneous Test	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident profile 4 1X,2X,3X,4X,8X,17X	Profile 17	1	4,6	Simultaneous Test and Engineering Analysis	None
	PRESSURE (PSIA)	14.7 normal Accident profile 1X,2X,3X,4X,8X,17X	33.5	1	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 max. normal 90 max. abnormal 100 accident	100	1	6	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	4×10^6	2.0×10^8	3	6	Sequential Test	None
	AGING	40 years	24.5 years	1	4,6	Simultaneous Test and Engineering Analysis	Note 1
	ACCURACY	5%	1.4%	7	6	Simultaneous Test	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Mears 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. BRI CIE list, Rev. 8, dated 6/1/83 3. EDS Report 0740-004-4411 4. QID 339004, Rev. 2 5. BRI Calc. #5.51.055 6. PYCO "Qualification Test Report - Air Temperature Thermocouple PYCO Model #02-9036", Document #122675, 12/26/75 7. Supply System Calculation IN-02-83-01.	Qualified. 1. This qualified life will be factored into surveillance/preventive maintenance schedules for these components.

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DOCUMENTATION REFERENCES (Cont'd)

NOTES (Cont'd)

2.

EPN	Elevation	Column	Model Number
LD-TE-18A	R466	M.0/9.0	145C3224P001*
-18B	R466	L.8/9.0	
-18C	R466	M.7/9.0	
-18D	R466	K.0/9.0	145C3224P001*
-27A,C	R429	L.5/9.3	102-9039-08
-27B,D	R430	K.7/9.4	102-9039-08
-28A	R466	L.3/9.3	145C3224P001*
-28B	R465	K.9/9.3	
-28C	R466	L.3/9.3	
-28D	R465	K.9/9.3	145C3224P001*
-2A	R532	M.3/4.7	102-9039-08
-2B	R532	M.3/4.7	
-2C	R532	M.8/5.4	
-2D	R532	M.8/5.4	102-9039-08
-2E	R563	L.9/4.4	02-9039-08-6
-2F	R563	L.9/4.4	02-9039-08-6
-30A	R526	J.0/5.9	102-9039-08
-30B	R526	J.0/5.9	
-30C	R526	J.0/6.4	
-30D	R526	J.0/6.1	
-3A	R532	M.5/4.6	
-3B	R532	M.5/4.6	
-3C	R532	M.8/5.3	
-3D	R532	M.8/5.3	102-9039-08
-3E	R563	L/4.1	145C3224P001*
-3F	R563	L/4.1	145C3224P001*
-4A	R467	J.0/7.5	102-9039-08
-4B	R467	J.0/7.5	102-9039-08
-6A	R467	M.4/7.5	145C3224P001*
-6B	R466	M.4/7.5	145C3224P001*
-5A	R436		145C3224PI*
-5B	R436		145C3224PI*

*General Electric purchase part drawing number.

QID #339004

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E31
MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Leak Detection TAG NUMBER LD-TE-(Note 2) MANUFACTURER Pyco MODEL NUMBER (GE PPD#) 145C3224P001 COMPONENT Temperature Element FUNCTION/SERVICE Steam Leak Detection in the Steam Tunnel LOCATION: BLDG R ELEVATION 502 COLUMN (Note 2)	OPERATING TIME	24 hours	Equivalent to >24 hours	1	5,6	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	125 Normal 140 Max. Abnormal Accident Profile 3	250	2	5,6	Materials Test and Engineering Analysis	None Note 1
	PRESSURE (PSIA)	14.7 normal	>14.7	2	5	Simultaneous Test	None
	RELATIVE HUMITY (%)	50 Max.Normal 98 Max. Abnormal 100 Accident	100	2	5	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	R/A	R/A	None
	RADIATION (RAD)	4.2×10^6	2.0×10^8	3	5	Sequential Test	None
	AGING	40 years	2.43 years	2	5,6	Simultaneous Test and Engineering Analysis	None Note 2
	ACCURACY	5%	1.4%	7	5	Simultaneous Testing and Engineering Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref.8)

Prepared by: Linda Vaccari 9/12/83

Reviewed by: James Weems 9/12/83

DOCUMENTATION REFERENCES

1. BRI CIE list, Rev. 8, 6/1/83
2. FSAR Paragraph 3.11
3. EDS Report 0740-004-5010
4. BRI Calc. #5.51.055
5. PYCO "Qualification Test Report Air Temperature Thermocuple PYCO Model #02-9036", Document 122675 dated 12/26/75
6. QID #339004-E
7. ~~Supply System Calculation III-02-83-01~~
8. BRI Calc.#5.51.055

NOTES

Qualified

1. These Thermocouples perform their safety function(steam leak detection) when temperatures in the area reach 160°F, and are not required to operate thereafter:

EPN	Column	EPN	Column
LD-TE-29A	H.4/5.8	LD-TE-31A	H.7/5.8
-29B	H.4/5.8	-31B	H.7/5.6
-29C	H.4/6.6	-31C	H.7/6.6
-29D	H.4/6.2	-31D	H.7/6.2

2. These items are currently being retested. The aging life is sufficient for the interim period. The results of the test will be incorporated in this file when they are received.

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WPPSS QID # 140001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E21
MPL: E21-N004
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Low Pressure Core Spray TAG NUMBER LPCS-FIS-4 MANUFACTURER Barton MODEL NUMBER 289A COMPONENT Flow Indication Switch FUNCTION/SERVICE LPCS-P-1 Discharge Flow Indication LOCATION: BLDG R ELEVATION 475 COLUMN K.0/4.2	OPERATING TIME	24 hours	Equivalent to>6 months	1	4, 6	Simultaneous Test Engineering Analysis	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profile 4	212	2	6	Simultaneous Test	None
	PRESSURE (PSIA)	Normal 14.7	14.95	2	6	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Acident Profile 4.21X	100	2	6	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	5.0×10^5	3×10^6	3	4,5	Separate Test, Engineering Analysis	None
	AGING	40 years	12 Years	2	4	Engineering Analysis	None Note 1
	ACCURACY	17.9%	2.4 %	8	5	Simultaneous Test, Engineering Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Minnis 9/2/83

DOCUMENTATION REFERENCES

1. BRI CIE list, REV 8, 6/1/83
2. FSAR Par. 3.11
3. EDS Report 0740-004-471A
4. QID File #140001
5. Qualification Test Report for Barton 289 Switch, Report #R3-288A-1
6. Qualification Text report for 289, Radiation, Seismic. GE Rpt. 05991, Rev.1,12/7/73.
7. BRI Calculation #5.51.055

NOTES

Qualified
1. A preventive maintenance/surveillance program is being developed to extend the qualified life.

WPPSS QID #156005

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E21

MPL: E21-N003
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Low Pressure Core Spray TAG NUMBER LPCS-FT-3 MANUFACTURER Rosemount MODEL NUMBER 1151DPSE22-PB COMPONENT Flow Transmitter FUNCTION/SERVICE LPCS Discharge Flow Indication Pump 1 LOCATION: BLDG R ELEVATION 473 COLUMN K.0/4.2	OPERATING TIME	4320 Hours	Equivalent to >4320 hours	2	4,6	Sequential Test and Engineering Analysis	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profile 4	212	1	6	Simultaneous Test	None
	PRESSURE (PSIA)	Normal 14.7	24.7	1	4,6	Separate Test and Engineering Analysis	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profiles 4,22X	100	1	6	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	5.0×10^5	2×10^6	3	6	Separate Test	None
	AGING	40 years	14 years	1	4	Engineering Analysis	None Note 1
	ACCURACY	2.5%	1.88%	7	6	Sequential Test	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES x NO (Ref. 5)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Mearns 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. BRI CIE list, REV 8, 6/1/83 3. EDS Report #0740-004-471A 4. QID #156005 5. BRI Calculation #5.51.055 6. Rosemount Test Reports 97215A, dated 2/9/72; 127227 dated 12/27/72; 37327 dated 3/28/73 7. GE Document 22A2905AW	1. A preventive maintenance program is being developed to extend the qualified life Qualified

1081

WPPSS

QID213032

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC:2808-02E21

MPL: E21-C001 A
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Low Pressure Core Spray TAG NUMBER LPCS-M-P/1 MANUFACTURER General Electric MODEL NUMBER 5K6347XC65A/PZ42 COMPONENT Motor FUNCTION/SERVICE Drive Pump LOCATION: BLDG R ELEVATION 429 COLUMN K2/3.8	OPERATING TIME	4320 hours	94,746 hours	5	3,4 7,8	Sequential Test Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4	212	1,6	3,4 7, 8	Simultaneous Test Engineering Analysis	None
	PRESSURE (PSIA)	14.7	N/R	1	N/A	N/A	None
	RELATIVE HUMITY (%)	40 normal 90 max abnormal Accident Profile 4, 22X	100% & Steam	1	3,4 7,8	Simultaneous Test Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	1.7×10^6	5.5×10^6	2	3,4 7,8	Sequential Test Engineering Analysis	None
	AGING	40 years	40 years	1	3, 7,8	Sequential Test Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 9)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Williams 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. EDS Study 0740-004-422C 3. GE #22A4722 (BWR 11-A-05) 4. GE #NEDM-10672, 8/72 (BWR 111-A-05) 5. BRI CIE list Rev 8, dated 6/1/83 6. B&R Calculation 9-46-02 7. GE #456HA898 8. Calculations 213032-1, -2, -3, -4 9. BRI Calc. #5.51.055	1. Qualified.

WP-1081

WPPSS QID #213016

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-35A

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Low Pressure Core Spray TAG NUMBER LPCS-M- P/2 MANUFACTURER Westinghouse MODEL NUMBER 7504786 COMPONENT FUNCTION/SERVICE 15hp motor for LPCS-P-2 LOCATION: BLDG R ELEVATION 424 COLUMN J.7/3.6	OPERATING TIME	6 months	Equivalent to > 6 months	1	4	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 Mx Normal 104 Max Abnormal Accident Profile 4	410	2	4	Simultaneous Test and Engineering Analysis	None
	PRESSURE (PSIA)	Normal 14.7	> 14.7	2	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4,22X	100	2	4	Sequential Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.9×10^6	2×10^8	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4	Simultaneous Test Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: Dennis Mecrea 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list Rev.8, dated 6/1/83 2. FSAR Paragraph 3.11 3. EDS Report #0740-004-422 C 4. QID #213017 5. BRI Calc. #5.51.055	Qualified

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

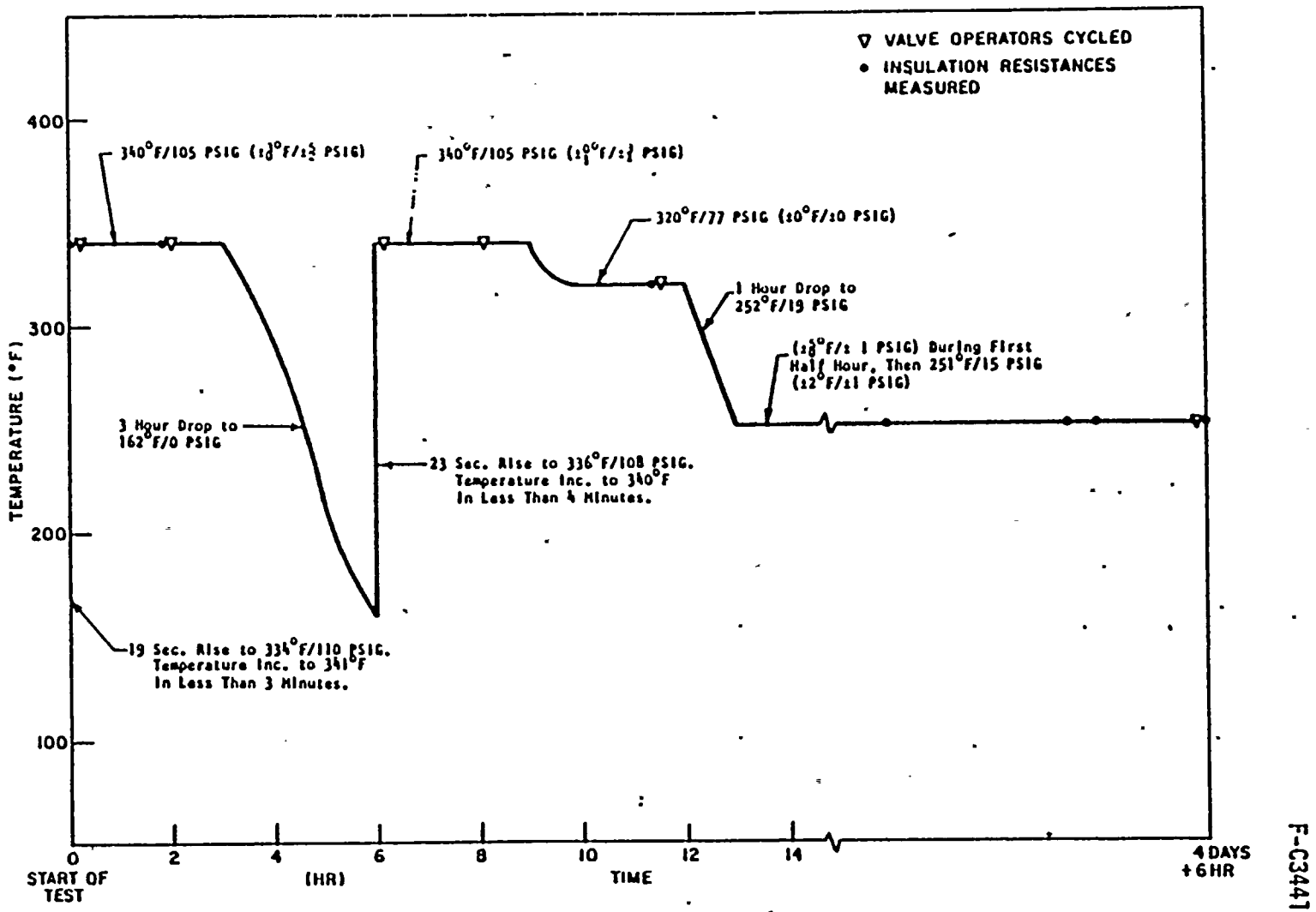
PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Low Pressure Core Spray TAG NUMBER LPCS-MO-5 MANUFACTURER Limitorque MODEL NUMBER SMB-3-100/254UR3 COMPONENT Motor Operator - Reliance, RH insulation/AC Motor FUNCTION/SERVICE Operates LPCS injection valve (isolation valve) LOCATION: BLDG R ELEVATION 525 COLUMN L8/4.3	OPERATING TIME	4320 Hours	Equivalent to >6 months	4	3,5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident Profile 4,13X	See enclosed profile	1	3	Simultaneous Test	None
	PRESSURE (PSIA)	Normal 14.7 Accident Profile 13X	See enclosed profile	1	3	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 max. normal 90 max. abnormal Accident Profile 21X	100	1	3	Simultaneous Test	
	CHEMICAL SPRAY	N/A	N/R	N/A	N/A	N/A	None
	RADIATION (RAD)	6.4×10^5	2.04×10^8	5	3	Sequential Test	None
	AGING	40 years	40 years +	1	2, 3 5	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Linda Vaccari 9/12/83. Reviewed by: James Mecarsi 9/12/83.

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. Limitorque Report B0058 dated 1/11/80 3. Limitorque Report B600376A dated 5/13/76 4. BRI Class 1E List Rev. 8, dated 6/1/83 5. QID #221001 6. BRI Calculation #5.51.055	Qualified.



F-C3441

Figure 3. Actual Steam Exposure Profile

WPPSS QID #245003

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02, 02H22

MPL: E21-N005
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Low Pressure Core Spray TAG NUMBER LPCS-PIS-1 MANUFACTURER Robertshaw MODEL NUMBER SP-222-C COMPONENT Pressure Indicating Switch FUNCTION/SERVICE LPCS Pump 1 Pressure Indicating Switch LOCATION: BLDG R ELEVATION 475 COLUMN K/4.2	OPERATING TIME	24 hours		1			Note 1
	TEMPERATURE (F)	90 Max Normal 104 Max Abnormal Accident Profile 4,		2			
	PRESSURE (PSIA)	Normal 14.7		2			
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4,21X		2			
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	5×10^5		3			
	AGING	40 years		2			
	ACCURACY						

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared by: Linda Vaccari 9/14/83 Reviewed by: James Mercurio 9/12/83

DOCUMENTATION REFERENCES

1. BRI CIE list, Rev.8, dated 6/1/83
2. FSAR Paragraph 3.11
3. EDS Report #0740-004-471A
4. BRI Calc. #5.51.055

NOTES

1. No suitable test has been conducted for these components. Replacement options are being evaluated. These components are on Table B of the JIO so do not require qualification prior to fuel load.

WPPSS QID#256005

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E21
MPL: E21-N009
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Low Pressure Core Spray TAG NUMBER LPCS-PS-9 MANUFACTURER Barksdale MODEL NUMBER P1H-M340SS-V COMPONENT Pressure Switch FUNCTION/SERVICE LPCS Pump discharge to ADS LOCATION: BLDG R ELEVATION 471 COLUMN K/4.2	OPERATING TIME	24 hours	Equivalent to>6 months	1	4,5	Engineering Analysis and Simultaneous Test	None
	TEMPERATURE (F)	90 Max Normal 104 Max Abnormal Accident Profile 4,	212	2	5	Simultaneous Test	None
	PRESSURE (PSIA)	Normal 14.7	14.95	2	.5	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4,21X	100	2	5	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	5×10^5	2×10^6	3	4	Engineering Analysis	None
	AGING	40 years	16 years	2	4	Engineering Analysis	None Note 1
	ACCURACY	4%	1.9%	7	5	Simultaneous Test	None
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL? YES X NO (Ref. 6)	Prepared by: Linda Vaccari 9/2/83		Reviewed by: James Mirens 9/2/83				

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE 11st Rev, 8, dated 6/1/83 2. PSAR Paragraph 3.11 3. EDS Report #0740-004-471A 4. QID# 256005 5. Barksdale Environmental (Steam) Test Delaval Turbine Inc., Barksdale Controls Division Test Procedure 9993, dated August 13, 1975. 6. BRI Calc. #5.51.055 7. GE Document 22A2905AC	Qualified 1. A preventive maintenance/surveillance program is being developed to extend the qualified life.

WPPSS QID #067002

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02C51

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Local Power Range Monitor TAG NUMBER LPRM-DET- (see Note 1) MANUFACTURER General Electric MODEL NUMBER 163C1154G1 COMPONENT Detector FUNCTION/SERVICE Power Range Detector Assembly LOCATION: BLDG C ELEVATION 501 COLUMN (See Note 1)	OPERATING TIME	.17 hours		1			Note 2
	TEMPERATURE (F)	135 Normal 150 Abnormal Accident Profile 1		2			
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Accident Profile 1		2			
	RELATIVE HUMITY (%)	55 Normal 90 Abnormal Accident Profile 2		2			
	CHEMICAL SPRAY	Demineralized Water		2			
	RADIATION (RAD)	2.04×10^8		3			
	AGING	40 years		2			
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL? YES X NO (Ref. 4)	By: [illegible] 6/24/83		Ckd: Behzad Makini 6/24/83				

DOCUMENTATION REFERENCES

1. BRI CIE list Rev. 8, dated 6/1/83
2. FSAR paragraph 3.11
3. WNP-2 Final Shielding Evaluation Report, Sept. 1982.
4. BRI Calc. #5.51.055

NOTES

1.

Tag Numbers	Coordinate
LPRM-DET-12BCD	In Reactor Pressure Vessel
-13CDA	In Reactor Pressure Vessel
-14ABD	In Reactor Pressure Vessel
-15ABC	In Reactor Pressure Vessel
-16BCD	In Reactor Pressure Vessel
-21ABC	In Reactor Pressure Vessel
-22DAB	In Reactor Pressure Vessel

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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)
	-23CDA In Reactor Pressure Vessel -24BCD In Reactor Pressure Vessel -25ABC In Reactor Pressure Vessel -26DAB In Reactor Pressure Vessel -27CDA In Reactor Pressure Vessel -31CDA In Reactor Pressure Vessel -32DAB In Reactor Pressure Vessel -33ABC In Reactor Pressure Vessel -34BCD In Reactor Pressure Vessel -35CDA In Reactor Pressure Vessel -36DAB In Reactor Pressure Vessel -37ABC In Reactor Pressure Vessel -41CDA In Reactor Pressure Vessel -42BCD In Reactor Pressure Vessel -43ABC In Reactor Pressure Vessel -44DAB In Reactor Pressure Vessel -45CDA In Reactor Pressure Vessel -46BCD In Reactor Pressure Vessel -47ABC In Reactor Pressure Vessel -51ABC In Reactor Pressure Vessel -52BCD In Reactor Pressure Vessel -53CDA In Reactor Pressure Vessel -54DAB In Reactor Pressure Vessel -55ABC In Reactor Pressure Vessel -56BCD In Reactor Pressure Vessel -57CDA In Reactor Pressure Vessel -61ABC In Reactor Pressure Vessel -62DAB In Reactor Pressure Vessel -63CDA In Reactor Pressure Vessel -64BCD In Reactor Pressure Vessel -65ABC In Reactor Pressure Vessel -66DAB In Reactor Pressure Vessel -72DAB In Reactor Pressure Vessel -73ABC In Reactor Pressure Vessel -74BCD In Reactor Pressure Vessel -75CDA In Reactor Pressure Vessel 2. Equipment justification #14 in Appendix D is provided for the above LPRM detectors.

Prepared by: Ali Naderi 6/24/83 Reviewed by: Bahram Mahini 6/24/83

WPPSS QID#049003

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02B13

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Local Power Range Monitor TAG NUMBER LPRM-CONN-(See Note 1) MANUFACTURER Amphenol MODEL NUMBER X901-200 COMPONENT Connector FUNCTION/SERVICE Connector for LPRM detector LOCATION: BLDG C ELEVATION 501 COLUMN Beneath Reactor Pressure Vessel	OPERATING TIME	.17 hours		1			Note 2
	TEMPERATURE (F)	135 Normal 150 Abnormal Accident Profile 1		2			
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Accident Profile 1		2			
	RELATIVE HUMITY (%)	55 Normal 90 Abnormal Accident Profile 2		2			
	CHEMICAL SPRAY	Demineralized Water		2			
	RADIATION (RAD)	7.0×10^7		3			
	AGING	40 years		2			
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref.4)

Prepared by: Alexander 6/24/83

Reviewed by: James Meaux 6/24/83

DOCUMENTATION REFERENCES

1. BRI CIE list Rev.8, dated 6/1/83.
2. FSAR Paragraph 3.11
3. WNP-2 Final Shielding Evaluation Report, Sept. 1982
4. BRI Calc.#5.51.055

NOTES

1. Tag Numbers — Coordinate

LPRM-CONN-12BCD	Beneath Reactor Pressure Vessel
-13CDA	Beneath Reactor Pressure Vessel
-14ABD	Beneath Reactor Pressure Vessel
-15ABC	Beneath Reactor Pressure Vessel
-16BCD	Beneath Reactor Pressure Vessel
-21ABC	Beneath Reactor Pressure Vessel

EP-1081

DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)
	-22DAB Beneath Reactor Pressure Vessel -23CDA Beneath Reactor Pressure Vessel -24BCD Beneath Reactor Pressure Vessel -25ABC Beneath Reactor Pressure Vessel -26DAB Beneath Reactor Pressure Vessel -27CDA Beneath Reactor Pressure Vessel -31CDA Beneath Reactor Pressure Vessel -32DAB Beneath Reactor Pressure Vessel -33ABC Beneath Reactor Pressure Vessel -34BCD Beneath Reactor Pressure Vessel -35CDA Beneath Reactor Pressure Vessel -36DAB Beneath Reactor Pressure Vessel -37ABC Beneath Reactor Pressure Vessel -41CDA Beneath Reactor Pressure Vessel -42BCD Beneath Reactor Pressure Vessel -43ABC Beneath Reactor Pressure Vessel -44DAB Beneath Reactor Pressure Vessel -45CDA Beneath Reactor Pressure Vessel -46BCD Beneath Reactor Pressure Vessel -47ABC Beneath Reactor Pressure Vessel -51ABC Beneath Reactor Pressure Vessel -52BCD Beneath Reactor Pressure Vessel -53CDA Beneath Reactor Pressure Vessel -54DAB Beneath Reactor Pressure Vessel -55ABC Beneath Reactor Pressure Vessel -56BCD Beneath Reactor Pressure Vessel -57CDA Beneath Reactor Pressure Vessel -61ABC Beneath Reactor Pressure Vessel -62DAB Beneath Reactor Pressure Vessel -63CDA Beneath Reactor Pressure Vessel -64BCD Beneath Reactor Pressure Vessel -65ABC Beneath Reactor Pressure Vessel -66DAB Beneath Reactor Pressure Vessel -72DAB Beneath Reactor Pressure Vessel -73ABC Beneath Reactor Pressure Vessel -74BCD Beneath Reactor Pressure Vessel -75CDA Beneath Reactor Pressure Vessel 2. Equipment justification #15 in Appendix D is provided for the above LPRM connectors.

Prepared by: C.L. Sadler 6/24/83

Reviewed by: James Mearns 6/24/83

WPPSS QID # 049008 E

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC:

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS-CONN-(Note 1) MANUFACTURER CONAX MODEL NUMBER N-11111-01 COMPONENT Electrical connector seal assemblies FUNCTION/SERVICE Electrical connectors for position switches for main steam valves LOCATION: BLDG See ELEVATION Note 1 COLUMN	OPERATING TIME	4320 hours	Equivalent to >4320 hours	1	3,4	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	135 normal 150 abnormal Accident Profile 1	See enclosed profile	2	4	Simultaneous Tests	None
	PRESSURE (PSIA)	14.7 normal 16.7 abnormal Accident Profile 1	See enclosed profile .	2	4	Simultaneous Tests	None
	RELATIVE HUMITY (%)	55 normal 90 abnormal Accident Profile 2	100%	2	4	Simultaneous Tests	None
	CHEMICAL SPRAY	Demineralized water	Chemical spray 24 hrs. demin. H_2O 29 days	2	4	Simultaneous Tests	None
	RADIATION (RAD)	7×10^7	2.238×10^8	2	4	Sequential Test	None
	AGING	40 years	40 years	2	3	Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref 5)

Prepared by: Linda Vaccari 9/8/83 Reviewed by: James Meanna 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, Rev 8, dated 6/1/83 2. FSAR paragraph 3.11 3. QID 049008 E 4. CONAX IPS 409 Qualification report for conductor modules for Arkansas Nuclear 1, unit 2, 5/21/79, Rev,A 5. BRI Calc. #5.51.055	Qualified See Note 1 Next Page

DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

1.

EPN	LOCATION
MS-CONN-V22A/J1	C 513 5 D AZ R27
-V22A/J2	C 513 5 D AZ R27
-V22A/J3	C 513 5 D AZ R27
-V22A/J4	C 513 5 D AZ R27
-V22B/J1	C 513 5 D AZ R27
-V22B/J2	C 513 15 D AZ R27
-V22B/J3	C 513 15 D AZ R27
-V22B/J4	C 513 15 D AZ R27
-V22C/J1	C 513 345 D AZ R27
-V22C/J2	C 513 345 D AZ R27
-V22C/J3	C 513 345 D AZ R27
-V22C/J4	C 513 345 D AZ R27
-V22D/J1	C 513 355 D AZ R27
-V22D/J2	C 513 355 D AZ R27
-V22D/J3	C 513 355 D AZ R27
-V22D/J4	C 513 355 D AZ R27
-V28A/J1	R 513 H.7/5.9
-V28A/J2	R 513 H.7/5.9
-V28A/J3	R 513 H.7/5.9
-V28B/J1	R 513 H.7/5.8
-V28B/J2	R 513 H.7/5.8
-V28B/J3	R 513 H.7/5.8
-V28C/J1	R 513 H.7/5.6
-V28C/J2	R 513 H.7/5.6
-V28C/J3	R 513 H.7/5.6
-V28D/J1	R 513 H.7/6.1
-V28D/J2	R 513 H.7/6.1
-V28D/J3	R 513 H.7/6.1

By: Linda Vaccari 9/12/83 ckd:

FORM NO. 0036

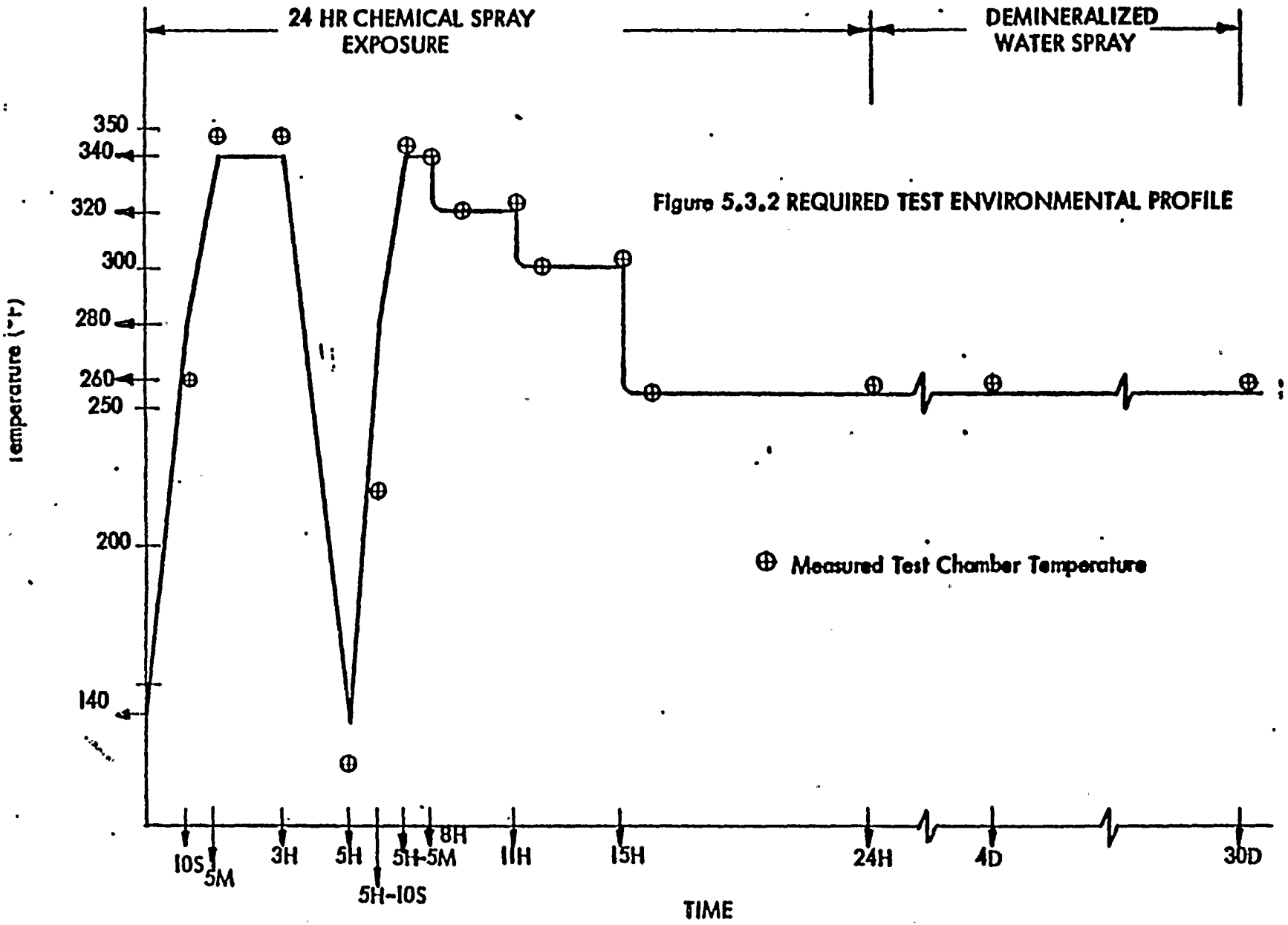

Figure 5.3.2 REQUIRED TEST ENVIRONMENTAL PROFILE

CONAX
CONAX CORPORATION
2300 Walden Ave., Buffalo, New York 14225

WPPSS QID #086001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E31
MPL: E31-N010D
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM: Main Steam TAG NUMBER: MS-DPIS-11A, B, C, D MANUFACTURER: Barton MODEL NUMBER: 288A, 288 COMPONENT: Differential Pressure Indicating Switch FUNCTION/SERVICE: Isolation Valve Control LOCATION: BLDG R ELEVATION (See Note 2) COLUMN (See Note 2)	OPERATING TIME	.17 Hours	Equivalent to > 6 months	1	4	Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4	Profile 4	2	4	Engineering Analysis	None
	PRESSURE (PSIA)	14.7	N/R	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4	Profile 4	2	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	5×10^5	3×10^6	3	4, 5	Separate Effect Engineering Analysis	None
	AGING	40 years	12 years	2	4	Engineering Analysis	None Note 1
	ACCURACY	1.8%	1.5%	7	4	Engineering Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Kearns 9/12/83

DOCUMENTATION REFERENCES

1. BRI CIE list, REV 8, 6/1/83
2. FSAR Par. 3.11
3. EDS Report 0740-004-471B
4. QID File #086001
5. Qualification Test Report for Barton 288 Switch, Report #R3-288A-1
6. BRI Calculation #5.51.055
7. BRI Calculation #5.52.001

NOTES

Qualified

1. A preventative maintenance program is being developed to extend the qualified life.
2.

EPN	ELEV.	COLUMN
MS-DPIS-11A	506	M.6/7.3
-11B	475	M.6/8.1
-11C	475	M.5/4.5
-11D	505	L.9/3.6

WPPSS QID #086001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E31

MPL: E31-N008A,B,C,D,9A,B,C,D
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS-DPIS-8A, B, C, D 9A, B, C, D MANUFACTURER ITT Barton MODEL NUMBER 288A, 0288 (8A,9A) COMPONENT Differential Pressure Indicating Switch FUNCTION/SERVICE PCIS Hi Steam Flow Line A LOCATION: BLDG R ELEVATION (See Note 2) COLUMN H.6/7.3 N.5/7.9 M.5/4.5 L.9/3.6	OPERATING TIME	17 Hours	Equivalent to > 6 months	1	4	Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident Profile 4	Profile 4	2	4	Engineering Analysis	None
	PRESSURE (PSIA)	14.7	N/R	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 normal 90 max. abnormal Accident Profile 4	Profile 4	2	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	5.0×10^5	3×10^6	3	4, 5	Separate Effect Engineering Analysis	None
	AGING	40 years	12 years	2	4	Engineering Analysis	None Note 1
	ACCURACY	1.8%	1.5 %	7	4,	Engineering Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Means 9/12/83

DOCUMENTATION REFERENCES

1. BRI C1E list, REV 8, 6/1/83
2. FSAR Par. 3.11
3. EDS Study 0740-004-471B, E, -571B, K
4. QID File #086001
5. Qualification Test Report for Barton 288 Switch, Report #R3-288A-1
6. BRI Calculation #5.51.055
7. BRI Calculation #5.52.001

NOTES

Qualified.

1. A preventive maintenance/surveillance program is being developed to extend the qualified life.
2.

EPN	ELEV.	EPN	ELEV.
MS-DPIS-8A	505	MS-DPIS-9A	504
-8B	475	-9B	475
-8C	475	-9C	475
-8D	505	-9D	475

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WPPSS QID #086001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC:

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS-DPIS-810A -810B -810C -810D MANUFACTURER ITT Barton MODEL NUMBER 288A COMPONENT Diff. Press. Indicating Switch FUNCTION/SERVICE Main Steam Line C High Flow LOCATION: BLDG R ELEVATION 501,471,471,505 COLUMN H.7/7.3 L.9/3.7 M.5/7.9 M.5.4.5	OPERATING TIME	.17 hours	Equivalent to>6 months	1	4	Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4	Profile 4	2	4	Engineering Analysis	None
	PRESSURE (PSIA)	14.7	N/A	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4	Profile 4	2	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	8.3×10^4	3.0×10^6	3	4,5	Separate Test and Engineering Analysis	None
	AGING	40 years	12 years	2	4	Engineering Analysis	None Note 1
	ACCURACY	1.8%	1.5%	7	4	Engineering Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Means 9/12/83

DOCUMENTATION REFERENCES

1. BRI CIE list for WNP-2, Rev. 8 dated 6/1/83
2. WNP-2 FSAR paragraph 3.11
3. EDS report 0740-004-501K,-471D
4. QID file #086001
5. Qualification test report for Barton 288A switch, report #R3-288A-1
6. BRI Calculation #5.51.055
7. BRI Calculation #5.52.001

NOTES

Qualified
1. A preventive maintenance/surveillance program is being developed to extend the qualified life.

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WPPSS QID #198001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02B22

MPL: B22-N037A,B,C,D
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS-LIS-37A, B, C, D -38A, B MANUFACTURER Barton MODEL NUMBER 288A COMPONENT Level Indicating Switch FUNCTION/SERVICE Main Steam Level Indication LOCATION: BLDG R ELEVATION 526 COLUMN J.7/4.7,M.8/6.6,J.7/4.7,M.7/6.8 J.9/4.5,M.7/6.8	OPERATING TIME	24 hours	Equivalent to >24 hours	1	4, 5	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4,11,11X	212	2	5	Simultaneous Test	None
	PRESSURE (PSIA)	Normal 14.7 Accident Profile 11,11X	14.95	2	5	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal 100 accident	100	2	5	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	8.3×10^5	3×10^6	3	4, 5	Separate Effect Engineering Analysis	None
	AGING	40 years	12 years	2	4	Engineering Analysis	None Note 1
	ACCURACY	3.3%	2.4%	8	4,6	Simultaneous Test, Engineering Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Means 9/12/83

DOCUMENTATION REFERENCES

1. BRI CIE list, REV 8, 6/1/83
2. FSAR Par. 3.11
3. EDS Report 0740-004-522H
4. QID File #198001,3,6
5. Qualification Test Report for Barton 288 Switch, Report #R3-288A-1
6. Test report for Barton pressure switch 289A
   GE Report 05991, rev.1, 12/7/73.

NOTES

Qualified
1. A preventive maintenance/surveillance program is being developed to extend the qualified life.

WPPSS QID #086001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC:

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS-LIS-100A,B MANUFACTURER ITT Barton MODEL NUMBER 288A COMPONENT Level Indicating Switch FUNCTION/SERVICE Reactor High Level LOCATION: BLDGR ELEVATION 526 COLUMN J.5/7.2,N.7/5.8	OPERATING TIME	24 hours	Equivalent to >24 hours.	1	4,6	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4,10X,11,12X	212	2	6	Simultaneous Test	None
	PRESSURE (PSIA)	Normal 14.7 Accident Profile 10X,11,12X	14.95	2	6	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal 100 accident	100	2	6	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	5.8×10^5	3.0×10^6	3	4,5	Separate Test and Engineering Analysis	None
	AGING	40 years	12 years	2	4	Engineering Analysis	None Note 1
	ACCURACY	2.5%	2.4%	8	4,6	Simultaneous Test Engineering Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Meares 9/2/83

DOCUMENTATION REFERENCES

1. BRI CIE list for WNP-2, Rev. 8 dated 6/1/83
2. WNP-2 FSAR paragraph 3.11
3. EDS report 0740-004-522K,C
4. QID file #086001
5. Qualification test report for Barton 288A switch, report #R3-288A-1
6. Test report for Barton pressure switch 289A, GE report 05991, Rev. 1, 12/7/73
7. BRI Calc. #5.51.055

NOTES

Qualified

1. A preventive maintenance/surveillance program is being developed to extend the qualified life.

WPPSS QID #198001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02B22

MPL: B22-N024A,B,C,D: B22-N031A,B,C,D
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS-LIS-24A, B, C, D -31A, B, C, D MANUFACTURER Barton MODEL NUMBER 288A COMPONENT Level Indicating Switch FUNCTION/SERVICE Main Steam Level Indication LOCATION: BLDG R ELEVATION 526 COLUMN J.5/7.2,J.7/4.0,N.7/5.8,M.8/6.8 J.5/7.4,N.8/5.8,J.5/7.1,N.7/5.8	OPERATING TIME	24 hours	Equivalent to > 6 months	1	4, 5	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 10X,12X 4,11	212	2	5	Simultaneous Test	None
	PRESSURE (PSIA)	normal 14.7 Accident Profile 11, 10X, 12 X	14.90	2	4, 5	Simultaneous Test, Engineering Analysis	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal 100 accident	100	2	5	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	8.3×10^5	3×10^6	3	4, 5	Separate Effect Engineering Analysis	None
	AGING	40 years	12 years	2	4	Engineering Analysis	None Note 1
	ACCURACY	3.3 %	2.4 %	8	4,6	Simultaneous Test, Engineering Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Leida Vaccari 9/2/83 Reviewed by: James Meams 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, REV 8, 6/1/83 2. FSAR Par. 3.11 3. EDS Report 0740-004-522H 4. QID File #198001,3,4,5 5. Qualification Test Report for Barton 288 Switch, Report #R3-288A-1 6. Test report for Barton pressure switch 289A GE Report 05991, Rev. 1, 12/7/73 7. BRI Calculation #5.51.055 8. GE Document 22A2887AB and BRI Calc. #5.52.001	Qualified 1. A preventive maintenance/surveillance program is being developed to extend the qualified life.

WPPSS QID #199001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02B22

MPL: B22-H026A
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS-LITS-26A MANUFACTURER Barton MODEL NUMBER 760 COMPONENT Level Indicating Transmitter Switch FUNCTION/SERVICE MS Level LOCATION: BLDG R ELEVATION 530 COLUMN J.0/4.5	OPERATING TIME	4320 hours		1			Note 1
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4,11		2			
	PRESSURE (PSIA)	14.7 normal Accident Profile 11		2			
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4,21X		2			
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	9.6×10^3		3 Note 2			
	AGING	40 years		2			
	ACCURACY	3.3%		6			

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared By: Linda Vaccaro 9/2/83 Reviewed By: James Meares 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, Rev. 8, dated 6/1/83 2. FSAR Paragraph 3.11 3. EDS Report 0740-004-522K 4. BRI Calc. #5.51.055 5. QID File #199001 6. BRI Document 22A2887AB, Rev. 10	1. Equipment justification No.24 in Appendix D is provided for MS-LITS-26A. 2. A component specific dose calculation was performed to determine the required TID.

WP-1081

WPPSS QID #199001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02B22

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS-LITS-26C,D -44B MANUFACTURER Barton MODEL NUMBER 760 COMPONENT Level Indicating Transmitter Switch FUNCTION/SERVICE MS Level LOCATION: BLDG R ELEVATION 526,475 COLUMN M.7/5.7 M.7/6.8 J.7/8.0	OPERATING TIME	6 months		1			Note 1
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profile 4,11,11X		2			
	PRESSURE (PSIA)	14.7 normal Accident Profile 11,11x		2			
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 21X		2			
	CHEMICAL SPRAY	N/A	N/A	N/A	N/A	N/A	None
	RADIATION (RAD)	8.3×10^5		3			
	AGING	40 years		2			
	ACCURACY	3.3%		6			

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Williams 9/12/83

DOCUMENTATION REFERENCES

1. BRI CIE list. Rev. 8, dated 6/1/83
2. FSAR Paragraph 3.11
3. EDS Report 0740-004-522II
4. BRI Calc. #5.51.055
5. QID File #199001
6. BRI Document 22A2887AB , Rev. 10

NOTES

1. These components are on Table B of the JIO and do not require qualification prior to fuel load.

WPPSS QID #199001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02B22

MPL: B22-H0268
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	PARAMETER	ENVIRONMENT FSAR	ENVIRONMENT QUALIFICATION	DOCUMENT REF. FSAR	DOCUMENT REF. QUAL.	QUALIFICATION METHOD	OUTSTANDING ITEMS
SYSTEM Main Steam TAG NUMBER MS-LITS-26B MANUFACTURER Barton MODEL NUMBER 760 COMPONENT Level Indicating Transmitter Switch FUNCTION/SERVICE MS Level LOCATION: BLDG R ELEVATION 527 COLUMN J.7/4.8	OPERATING TIME	6 months	Equivalent to >6 months	1	5, 7	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 Max Normal 104 Max Abnormal Accident Profile 4	156	2	7	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 normal	14.7	2	7	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4	90	2	7	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	9.6×10^3	5×10^4	3 Note2	5	Separate Test and Engineering Analysis	None
	AGING	40 years	1.7 years	2	5, 7	Simultaneous Test and Engineering Analysis	None Note 1
	ACCURACY	3.3%	2.5%	6	7	Simultaneous Test	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Mearns 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, Rev.8, dated 6/1/83 2. FSAR Paragraph 3.11 3. EDS Report 0740-004-522P 4. BRI Calc.#5.51.055 5. QID File#199001 6. BRI Document 22A2887AB, Rev. 10 7. Barton Test Report # 9999.1212.2, Rev. 1, 11/21/72	1. A preventive maintenance program is being implemented to extend the qualified life. 2. A component specific dose calculation was performed to determine the required TID. Qualified

WP-1081

WPPSS QID #156011

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02B

MPL: B22-N044A
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS -LITS-44A MANUFACTURER Rosemount MODEL NUMBER 1153 Series D COMPONENT Level Indicating Transmitting Switch FUNCTION/SERVICE Main Steam Level Trip LOCATION: BLDG Reactor ELEVATION 475 COLUMN M.7/4.7	OPERATING TIME	4320 Hours	Equivalent to 4320 hours	1	3,5	Engineering Analysis and Simultaneous Tests	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4	Profile 4	2	5	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 Max	N/A	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 max normal 90 max abnormal Accident Profile 4	Profile 4	2	5	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	$5X10^5$	2×10^6	6	5	Sequential Test	None
	AGING	40 years	24 years	2	3,5	Engineering Analysis and Sequential Test	Note 1 None
	ACCURACY	Full Scale% Error = 6.0	Full Scale % Error = 1.79	7	5	Sequential Test	None

FLOOD LEVEL ELEV: (Rev.4)
ABOVE FLOOD LEVEL?
YES X NO

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Meaume 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CLASS IE EQUIPMENT LIST, REVISION 8 2. FSAR PARAGRAPH 3.11 3. QID # 156011 4. BRI CALCULATION 5.51.055 5. TEST REPORT #45592-3,5-4-83 "NUCLEAR ENVIRONMENTAL TEST FOR ROSEMOUNT 1153 SERIES D" BY WYLE LABORATORIES. 6. EDS CALCULATION 0740-004-471B 7. BRI DOCUMENT 22A2887AB, REV. 10	1. A PREVENTIVE MAINTENANCE/SURVEILANCE PROGRAM IS BEING DEVELOPED TO EXTEND THE QUALIFIED LIFE. QUALIFIED

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WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL: B22-F016
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM: Main Steam TAG NUMBER: MS-MO-16 MANUFACTURER: Limitorque MODEL NUMBER: SMB-00-7.5/L56 COMPONENT: Motor Operator - Reliance, RH insulation /AC Motor FUNCTION/SERVICE: Operates drain isolation valve LOCATION: BLDG C ELEVATION 504 COLUMN 2° AZ	OPERATING TIME	4320 Hours	Equivalent to> 6 months	4	3,5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	135 max. normal 150 max. abnormal Accident: see profile 1	See enclosed profile	1	3	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 normal 16.7 abnormal Accident: see profile 1	See enclosed profile	1	3	Simultaneous Test	None
	RELATIVE HUMITY (%)	55 max. normal 90 max. abnormal Accident profile 2	100	1	3	Simultaneous Test	None
	CHEMICAL SPRAY	Demineralized water	Chemical Spray pH 10	1	3,5	Simultaneous Test	None
	RADIATION (RAD)	7.0×10^7	2.04×10^8	1	3	Sequential Test	None
	AGING	40 years	40 years	1	2,3,5	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Mearns 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. Limitorque Report B0058 dated 1/11/80 3. Limitorque Report 600376A dated 5/13/76 4. BRI CIE list, REV 8, 6/1/83 5. QID #221001 6. BRI Calculation #5.51.055	Qualified.

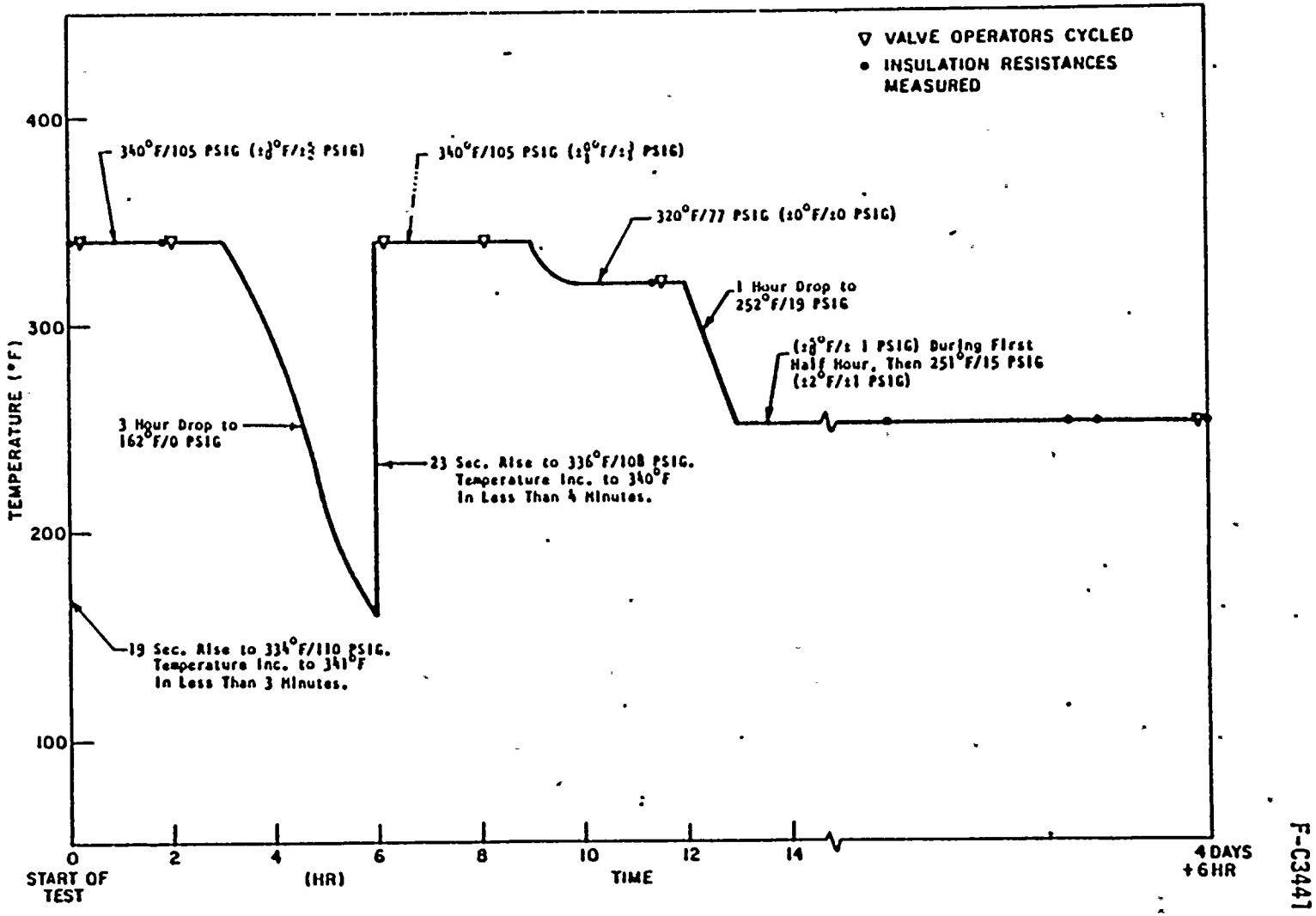

Figure 3. Actual Steam Exposure Profile

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP 2
SPEC: 2808-41A

MPL: B22-F019
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS-MO-19 MANUFACTURER Limitorque MODEL NUMBER SMB-000 -5/D56A COMPONENT Porter Peerless Valve Motor Operator DC Motor/Class H Ins. FUNCTION/SERVICE Operate HS Valve 19 LOCATION: BLDG R ELEVATION 504 COLUMN H7/6	OPERATING TIME	4320 Hours	Equivalent to 6 months	1	3,4	Simultaneous Testing	None
	TEMPERATURE (F)	125 normal 140 max. abnormal . accident--profile 3,4	See enclosed profile	1	3	Simultaneous Testing	None
	PRESSURE (PSIA)	Normal 14.7 Accident profile 3	See enclosed profile	1	3	Simultaneous Testing.	None
	RELATIVE HUMITY (%)	50 normal 98 max. abnormal 100 accident	100	1	3	Simultaneous Testing	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	4.2×10^6	1×10^7	2	3	Sequential Testing	None
	AGING	40 years	40 years+	1	3,4	Sequential Testing, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Al Nadeau 6/24/83 Reviewed by: Richard Makipa 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. EDS Study 0740-004-5010 3. Limitorque Report B0009, 4/30/76 4. Applicability calculations in QID #221001 5. BRI C1E list, REV 8, 6/1/83 6. BRI Calculation #5.51.055	Qualified.

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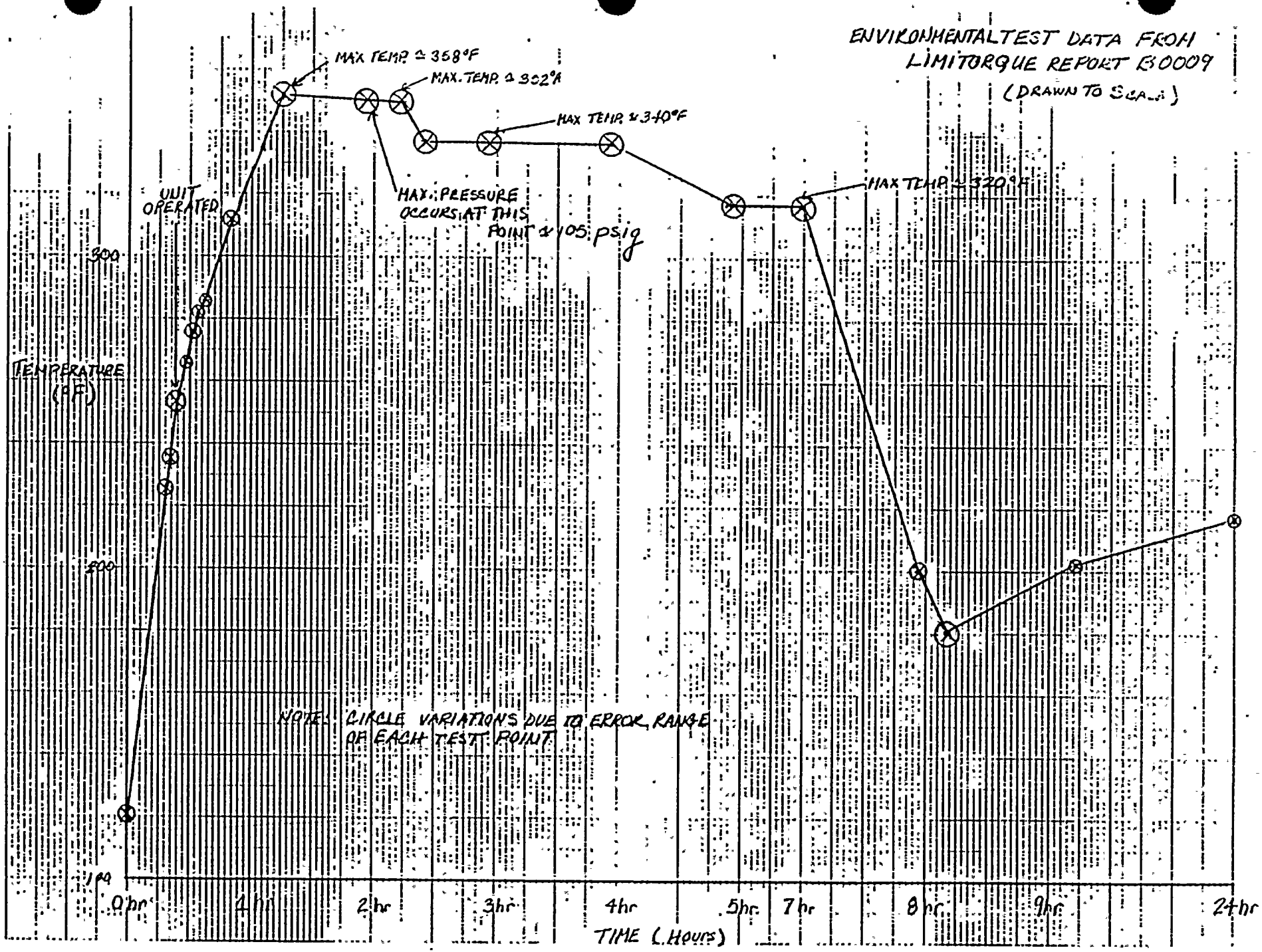

ENVIRONMENTAL TEST DATA FROM
LIMITORQUE REPORT B0009
(DRAWN TO SCALE)
MAX TEMP. ≈ 358°F
MAX. TEMP. ≈ 352°F
MAX TEMP. ≈ 340°F
MAX TEMP. ≈ 320°F
MAX. PRESSURE OCCURS AT THIS POINT ≈ 105 psig
UNIT OPERATED
TEMPERATURE (°F)
300
200
100
NOTE: CIRCLE VARIATIONS DUE TO ERROR RANGE OF EACH TEST POINT
0 hr
1 hr
2 hr
3 hr
4 hr
5 hr
7 hr
8 hr
9 hr
24 hr
TIME (Hours)

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL: B22-F067A, B, C, D
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS-MO-67A 67B 67C 67D MANUFACTURER Limitorque MODEL NUMBER SMB-000 COMPONENT Reliance Valve Motor Operator AC/Class RI Insulation FUNCTION/SERVICE Operate MS Valves 67A, 67B, 67C and 67D LOCATION: BLDG R ELEVATION 505 COLUMN H.2/5.9, H.2/5.3, H.2/6.1 H.2/6.1	OPERATING TIME	24 hours	Equivalent to > 6 months	1	3,4	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	125 normal 140 max. abnormal accident--profile 3,4	See enclosed profile	1	3	Simultaneous Test	None
	PRESSURE (PSIA)	Normal 14.7 Accident Profile 3	See enclosed profile	1	3	Simultaneous Test	None
	RELATIVE HUMITY (%)	50 normal 98 max. abonrmal 100 accident	100	1	3	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	4.2×10^6	2.04×10^8	2	3	Sequential Test	None
	AGING	40 years	40 years+	1	3,4	Sequential Test Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Lexida Vaccari 9/12/83 Reviewed by: James Mearns 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list Rev. 8 dated 6/1/83 2. EDS Study 0740-004-5010 3. Limitorque Report 600376A, 5/13/76, B0058 dated 1/11/80 4. QID #221001 5. BRI Calculation #5.51.055	Qualified.

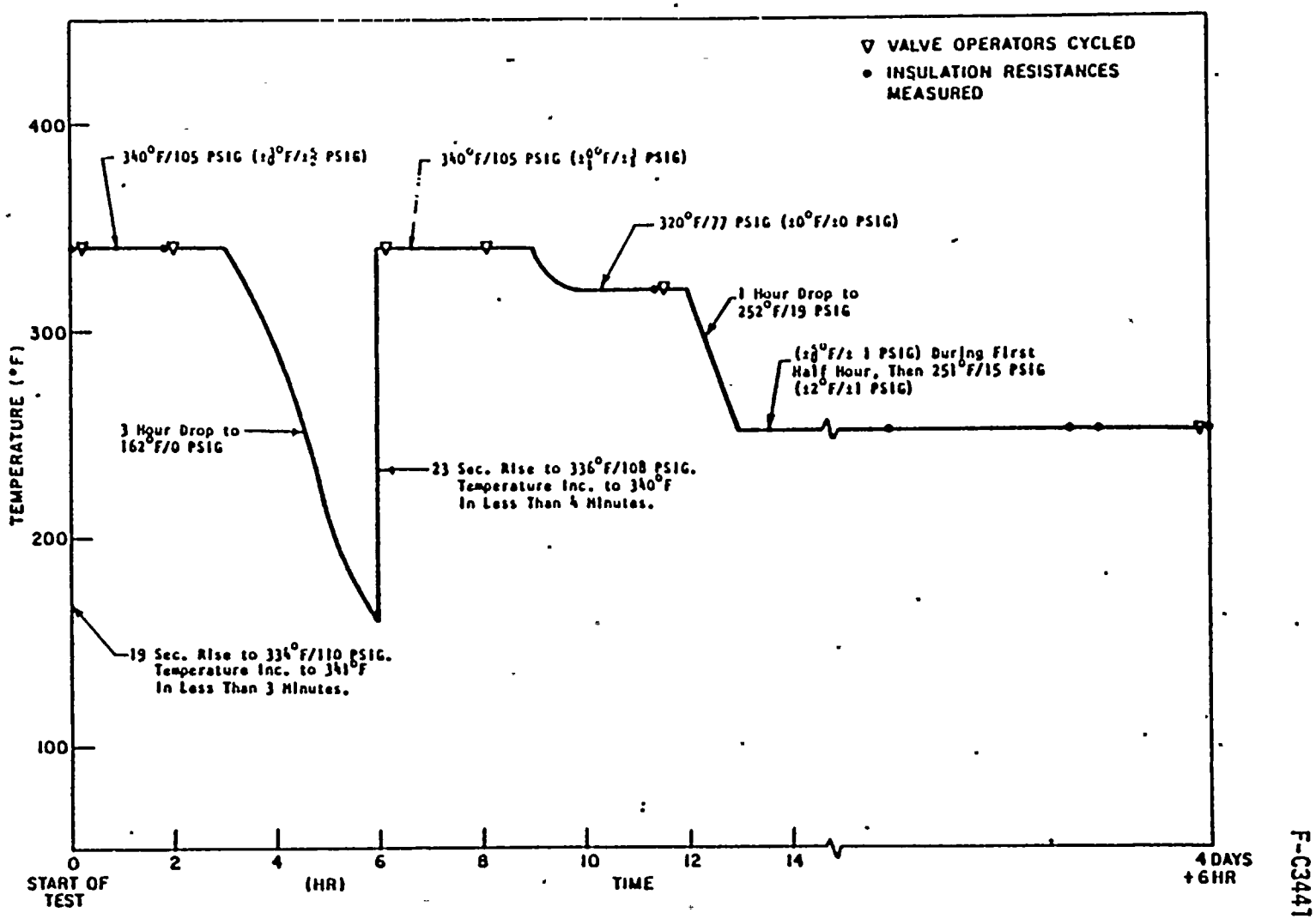


Figure 3. Actual Steam Exposure Profile

WPPSS QID#246001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-C0442

MPL:
PPD:

PAGE NO.
REVISION: 4
DATE: July, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS-POE-(Note 1) MANUFACTURER Technology for Energy Corporation MODEL NUMBER BBN-424-ISO COMPONENT Accelerometer (sensor) FUNCTION/SERVICE To monitor the safety/ relief valves positions LOCATION: BLDG Containment ELEVATION COLUMN Note 1	OPERATING TIME	6 months	Equivalent to >6 months	1	3,5	Engineering Analysis and Sequential Tests	None
	TEMPERATURE (F)	135 Ave. Normal 150 Max. Abnormal Accident Profile 1	510	2	5	Simultaneous Tests	None
	PRESSURE (PSIA)	14.7 Max. Normal 14.7 Max. Abnormal Accident Profile 1	98	2	5	Simultaneous Tests	None
	RELATIVE HUMITY (%)	55 Max. Normal 90 Max. Abnormal Accident Profile 2	100	2	5	Simultaneous Tests	None
	CHEMICAL SPRAY	Demineralized Water	Borated Water	2	5	Simultaneous Tests	None
	RADIATION (RAD)	7×10^7	4.22×10^8	2	5	Sequential Tests	None
	AGING	40 years	40 years	2	3,5	Engineering Analysis and Sequential Tests	None
	ACCURACY	N/A	N/A	6	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref.4)

Prepared by: Ali Naiki 6/24/83 Reviewed by: [signature] 6/24/83

DOCUMENTATION REFERENCES

1. BRI CIE Equipment list, Rev.8 dated 6/1/83
2. FSAR Paragraph 3.11
3. QID#246001
4. BRI Calc.#5.51.055
5. Test Report #517-TR-03, Rev.2
6. SS Calculation IN-02-83-01

NOTES

Qualified

1.

EPN	Elevation	Column
MS-POE-1A	547	24 D AZ
-1B	547	45 D AZ
-1C	547	313 D AZ
-1D	547	333 D AZ
-2A	547	35 D AZ
-2B	547	60 D AZ

WPPSS QID#246001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2 MPL:
SPEC: 2808-C0442 PPD:

DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)		
	HS-POE -2C	547	305 D AZ
	-2D	547	32 D AZ
	-3A	547	45 D AZ
	-3B	547	67 D AZ
	-3C	547	293 D AZ
	-3D	547	315 D AZ
	-4A	547	60 D AZ
	-4B	547	75 D AZ
	-4C	547	288 D AZ
	-4D	547	305 D AZ
	-5B	547	80 D AZ
	-5C	547	279 D AZ

WP-1083

By: ali Nasken 6/24/83

Ckd: Aejl Pl — 6/24/83

WPPSS QID #200015E

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02B
MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS-POS-(Note 2) MANUFACTURER Namco MODEL NUMBER EA740-86010 COMPONENT Limit Switches FUNCTION/SERVICE Limit Switches for Main Steam Valves MS-V-22A thru 22D LOCATION: BLDG ELEVATION COLUMN]Note 2	OPERATING TIME	4320 hours	Equivalent to) 4320 hours	1	3,5	Engineering Analysis and Simultaneous Test	None
	TEMPERATURE (F)	135 ave. normal 150 max abnormal Accident Profile 1	See Enclosed LOCA Profile	2	5	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 max normal 16.7 max abnormal Accident Profile 1	See Enclosed LOCA Profile	2	5	Simultaneous Test	None
	RELATIVE HUMITY (%)	55 max normal 90 max abnormal Accident Profile 2	100	2	5	Simultaneous Test	None
	CHEMICAL SPRAY	Demineralized Water	Boric Acid, Water Sodium Thiosulfate Sodium Hydroxide	2	5	Simultaneous Test	None
	RADIATION (RAD)	7×10^7	2×10^8	2	5	Sequential Test	None
	AGING	40 years	2 years	2	3,5	Engineering Analysis and Sequential Test	None Note 1
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV: (Ref.4)
ABOVE FLOOD LEVEL?
YES X NO

Prepared By: Linda Vaccari 9/2/83 Reviewed by: James Means 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI Class 1E Equipment List, Revision 8 2. FSAR Paragraph 3.11 3. QID #200015 E 4. BRI Calculation 5.51.055 5. Test report by Acme Cleveland Report "Qualification of Namco Control Limit Switch Model EA-740,2-22-79	1. A preventive maintenance/ surveillance program is being developed to extend the qualified life. Qualified

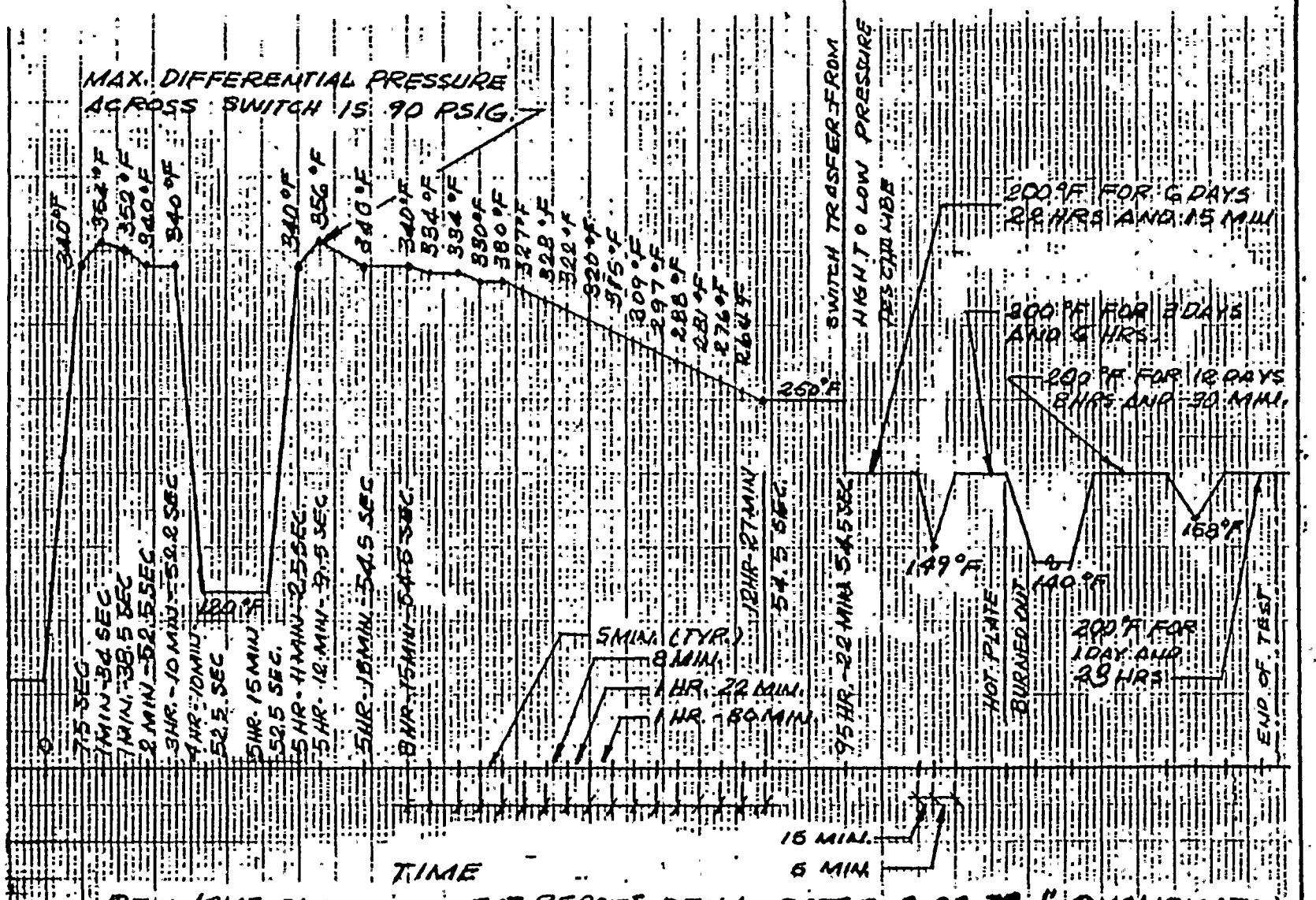
WP-1081

DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

2.

TAG NUMBER	ELEV.	COLUMN
MS-POS-V/22A/1	513	5D AZ R27
V/22A/2	513	5D AZ R27
V/22A/3	513	5D AZ R27
V/22A/4	513	5D AZ R27
V/22B/1	513	315D AZ R27
V/22B/2	513	315D AZ R27
V/22B/3	513	315D AZ R27
V/22B/4	513	315D AZ R27
V/22C/1	513	345D AZ R27
V/22C/2	513	345D AZ R27
V/22C/3	513	345D AZ R27
V/22C/4	513	345D AZ R27
V/22D/1	513	355D AZ R27
V/22D/2	513	355D AZ R27
V/22D/3	513	355D AZ R27
V/22D/4	513	355D AZ R27

By: Linda Vaccari 9/2/83 Chk'd: James Mearns 9/2/83



REF: ACME CLEVELAND TEST REPORT, REV. 1, DATED 2-22-79, "QUALIFICATION REP. OF NAMCO LIMIT SWITCHES MODEL EA-740."

TEST CHAMBER TEMPERATURE PROFILE FOR LOCA SIMULATION

WPPSS QID #200015 E

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02B

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS-POS- (Note 2) MANUFACTURER Namco MODEL NUMBER EA 740-86010 COMPONENT Limit Switches FUNCTION/SERVICE Limit Switches for Main Steam Valves MS-V-28A thru 28D LOCATION: BLDG R ELEVATION]Note 2 COLUMN	OPERATING TIME	4320 hours	Equivalent to > 4320 hours	1	3,5	Engineering Analysis and Simultaneous Test	None
	TEMPERATURE (F)	125 max normal 140 max abnormal Accident Profiles 4 and 3	See enclosed LOCA Profile	2	5	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 max	See enclosed LOCA Profile	2	5	Simultaneous Test	None
	RELATIVE HUMITY (%)	50 max normal 98 max abnormal 100 max accident	100	2	5	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	4.2×10^6	2×10^8	6	5	Sequential Test	None
	AGING	40 years	6 years	2	3,5	Engineering Analysis and Sequential Test	None Note 1
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV: (Rev. 4)
ABOVE FLOOD LEVEL?
YES X NO

Prepared by: Linda Vaccari 9/2/83 Reviewed by: Jim Means 9/2/83

DOCUMENTATION REFERENCES

1. BRI Class IE Equipment List, Revision 8
2. FSAR Paragraph 3,11
3. QID #200015 E
4. BRI Calculation 5.51.055
5. Test Report by Acme Cleveland Report "Qualification of Namco Control Limit Switch Model EA-740,2-22-79
6. EDS Calculation 0740-004-5010

NOTES

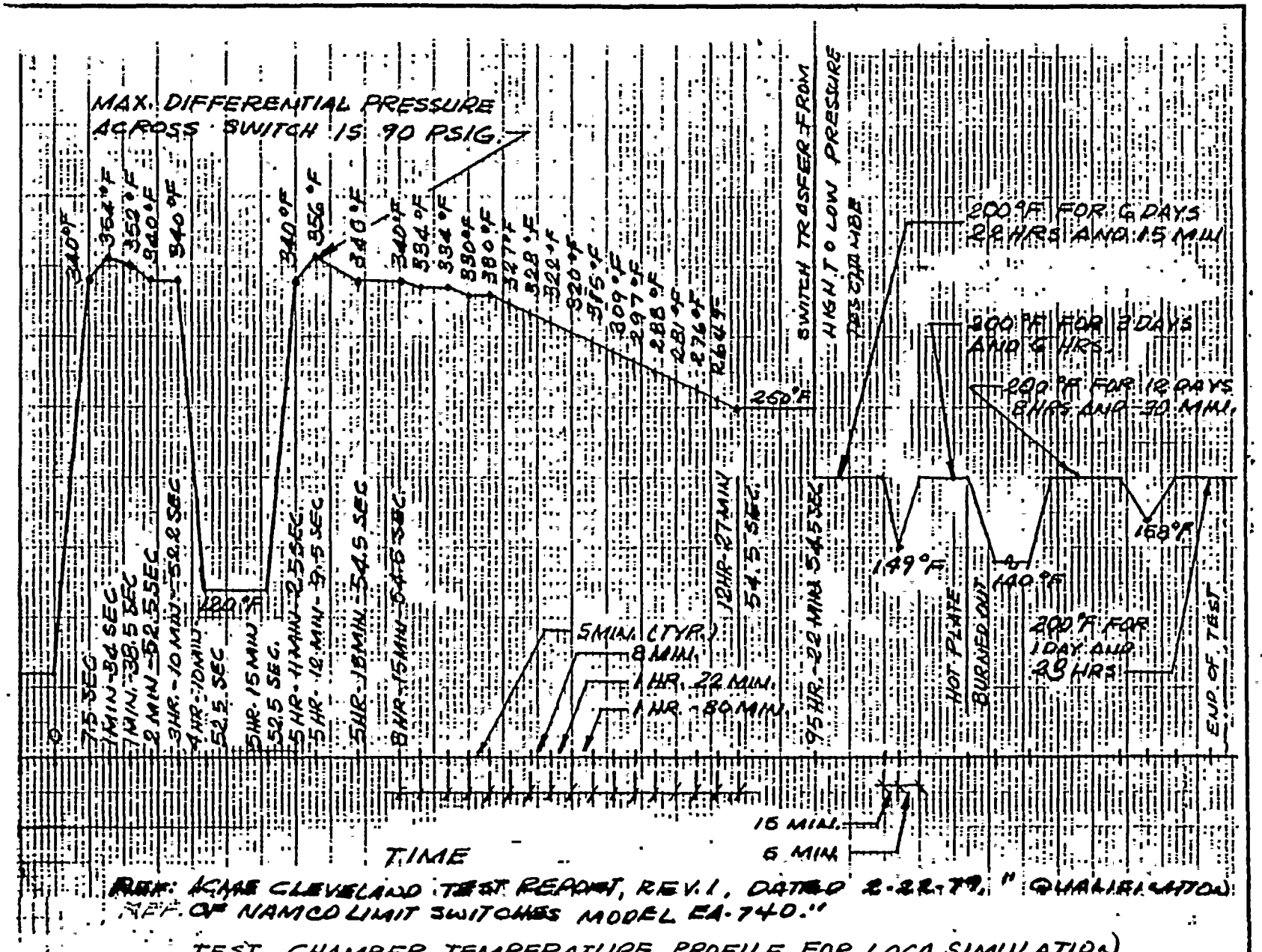
1. A preventive maintenance/ surveillance program is being developed to extend the qualified life.

Qualified

DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

2.

TAG NUMBER	ELEVATION	COLUMN
MS-POS-V/28A/1	513	H.7/5.9
V/28A/2	513	H.7/5.9
V/28A/3	513	H.7/5.9
V/28B/1	513	H.7/5.8
V/28B/2	513	H.7/5.8
V/28B/3	513	H.7/5.8
V/28C/1	513	H.7/5.6
V/28C/2	513	H.7/5.6
V/28C/3	513	H.7/5.6
V/28D/1	513	H.7/6.1
V/28D/2	513	H.7/6.1
V/28D/3	513	H.7/6.1



REF: ACME CLEVELAND TEST REPORT, REV. 1, DATED 2-22-79, "QUALIFICATION OF NAMCO LIMIT SWITCHES MODEL EA-740."

TEST CHAMBER TEMPERATURE PROFILE FOR LOCA SIMULATION

WPPSS QID#249002

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-C0442

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS-POT-(Note 2) MANUFACTURER Technology for Energy Corporation MODEL NUMBER 504B COMPONENT Sensor Preamplifier (Charge Converter) FUNCTION/SERVICE To monitor the safety/ relief valves positions LOCATION: BLDG Containment ELEVATION COLUMN Note 2	OPERATING TIME	6 months	Equivalent to > 6 months	1	3,5	Engineering Analysis and Simultaneous Test	None
	TEMPERATURE (F)	135 Ave. Normal 150 Max. Abnormal Accident Profile 1	510	2	5	Simultaneous Tests	None
	PRESSURE (PSIA)	14.7 Max. Normal 14.7 Max. Abnormal Accident Profile 1	98	2	5	Simultaneous Tests	None
	RELATIVE HUMITY (%)	55 Max. Normal 90 Max. Abnormal Accident Profile 2	Steam	2	5	Simultaneous Tests	None
	CHEMICAL SPRAY	Demineralized Water	Borated Water	2	5	Simultaneous Tests	None
	RADIATION (RAD)	7×10^7	2.22×10^8	2	5	Sequential Tests	None
	AGING	40 years	1.40	2	3,5	Engineering Analysis and Sequential test	None Note 1
	ACCURACY	N/A	N/A	6	N/A	N/A	None

FLOOD LEVEL ELEV: (Ref.4)
ABOVE FLOOD LEVEL?
YES X NO

Prepared by: Lida Vaccari 9/12/83

Reviewed by: James M. Hanna 9/12/83

DOCUMENTATION REFERENCES

1. BRI CIE equipment list, Rev.8 dated 6/1/83
2. FSAR Paragraph 3.11
3. QID#249002
4. BRI Calc.#5.51.055E
5. Test Report #517-TR-03, Rev.2, Technology for Energy Corporation
6. WPPSS Calculation 1N-02-83-01

NOTES

Qualified

1. A preventative maintenance/surveillance program is being developed to extend the qualified life.

DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

2.

EPN	Elevation	Column
MS-POT-1A	547	24 D AZ
-1B	547	45 D AZ
-1C	547	313 D AZ
-1D	547	333 D AZ
-2A	547	35 D AZ
-2B	547	60 D AZ
-2C	547	305 D AZ
-2D	547	321 D AZ
-3A	547	45 D AZ
-3B	547	67 D AZ
-3C	547	293 D AZ
-3D	547	293 D AZ
-4A	547	60 D AZ
-4B	547	75 D AZ
-4C	547	288 D AZ
-4D	547	305 D AZ
-5B	547	D AZ
-5C	547	279 D AZ

MPL: B22-N020A-D
B22-N023A-D

WPPSS QID# 256002

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02B22

MPL: (See Above)
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS-PS-20A-D MS-PS-23A-D MANUFACTURER Barksdale MODEL NUMBER B1T-H12SS COMPONENT Pressure Switch FUNCTION/SERVICE See Note 2 LOCATION: BLDG R ELEVATION See Note 3 COLUMN See Note 3	OPERATING TIME	24 hours	Equivalent to>6 months	1	4	Engineering Analysis	None
	TEMPERATURE (F)	90 Max Normal 104 Max Abnormal Accident Profile 4	Profile 4	2	4,5	Separate Test and Engineering Analysis	None
	PRESSURE (PSIA)	Normal 14.7	N/R	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4	Profile 4	2	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	8.3×10^5	2×10^6	3	4	Materials Test and Engineering Analysis	None
	AGING	40 years	16 years	2	4	Engineering Analysis	None Note 1
	ACCURACY	1.00%	0.42%	7	4,5	Separate Test and Engineering Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Meares 9/12/83

DOCUMENTATION REFERENCES

1. BRI CIE list Rev. 8, dated 6/1/83
2. FSAR paragraph 3.11
3. EDS Report No. 0740-004-522H
4. QIR 256002
5. Wyle lab test report no. 12625, dated 6/5/62
6. BRI Calc. #5.51.055
7. GE Document 22A2887AC

NOTES

Qualified

1. A preventive maintenance/surveillance program is being developed to extend the qualified life.

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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

2. Function/Service

MS-PS-20A-D Main Steam Isolation Valve Scram Interlock

MS-PS-23A-D High Vessel Pressure

3.

Tag Number	Elevation	Column
MS-PS-20A	524	J.5/7.1
-20B	526	J.8/4.7
-20C	524	N.8/5.8
-20D	524	M.8/6.6
-23A	524	J.5/7.1
-23B	524	J.8/4.7
-23C	526	N.8/5.8
-23D	524	M.8/6.7

WPPSS QID# 256002

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02B22

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS-PS-39A-H -39J-N -39P,R,S U,V MANUFACTURER Barksdale MODEL NUMBER B1T-M12SS-GE COMPONENT Pressure Switch FUNCTION/SERVICE Relief Valve Pressure Switch LOCATION: BLDG R ELEVATION See Note 3 COLUMN See Note 3	OPERATING TIME	4320 hours	Equivalent to >6 months	1	4,5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 Max Normal 104 Max Abnormal Accident Profile 4,11	212	2	5	Simultaneous Test	None
	PRESSURE (PSIA)	Normal 14.7 Accident Profile 11	14.95	2	5	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4,21X	100	2	5	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	5.3×10^4	2×10^6	3	4	Engineering Analysis	None
	AGING	40 years	16 years	2	4	Engineering Analysis	None Note 1
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None Note 2

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Means 9/12/83

DOCUMENTATION REFERENCES

1. BRI CIE list Rev. 8, dated 6/1/83
2. FSAR paragraph 3.11
3. EDS Report No. 0740-004-522P
4. QID #256002
5. Barksdale Environmental Test. Delaval Turbine Inc. Test Procedure 9993 Report dated August 13, 1975.
6. BRI Calc. #5.51.055

NOTES

Qualified

1. A preventive maintenance/surveillance program is being developed to extend the qualified life.
2. The equipment has passive function (Use Code 2). Therefore, accuracy is not applicable.

P-1081

WPPSS QID#256002

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2 MPL:
SPEC: 2808-02B22 PPD:

PAGE NO: 2
REVISION: 5
DATE: September, 1983

DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

3.

Tag Number	Elevation	Column
MS-PS-39-H,J,K,L	526	J.9/4.5
MS-PS-39A,B,C,D,E F,G,M,N,P R,S,U,V	524	J.9/4.5

WP-1083

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Means

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #256016

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02B22
MPL: B22-N047A-D, N048A-D
PPD:

REVISION:
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS-PS-47A-D MS-PS-48A-D MANUFACTURER Static-O-Ring MODEL NUMBER See Note 2 COMPONENT Pressure Switch FUNCTION/SERVICE Drywell Pressure Switch LOCATION: BLDG R ELEVATION See Note 2 COLUMN See Note 2	OPERATING TIME	24 hours	Equivalent to>6 months	1	4	Engineering Analysis	None
	TEMPERATURE (F)	90 Max Normal 104 Max Abnormal Accident Profile 4	156	2	5	Separate Test	None
	PRESSURE (PSIA)	Normal 14.7	Profile 4	2	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4	92	2	5	Separate Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.5×10^5	1.5×10^6	3	4	Material Tests and Engineering Analysis	None
	AGING	40 years	16 years	2	4	Engineering Analysis	None
	ACCURACY	± 1%	1%	6	5	Separate Test	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Meairs 9/12/83

DOCUMENTATION REFERENCES

1. BRI Class 1E Equipment List, Rev. 8, 6/1/83
2. FSAR Paragraph 3.11
3. EDS Report 0740-004-522H
4. QID 256016
5. INDEX #38 of GE DRF #A00-1084, PPD #145C3012
6. Supply System Calculation IN-02-83-01
7. BRI Calculation #5.51.055

NOTES

Qualified

1. A preventive maintenance/surveillance program is being developed to extend the qualified life.
2.

Tag#	Model #	Column	Elevation
MS-PS-47A	12N-AA5-X10TT	J.5/7.1	526
MS-PS-47C	12N-AA5-X10TT	J.3/7.0	524
MS-PS-47B,D	12N-AA5-X10TT	N.8/5.8	524
MS-PS-48A,C	12N-AA5-X1051TT	J.5/4.5	529
MS-PS-48B,D	12N-AA5-X1051TT	N.7/6.8	526

WPPSS QID #156011

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: #2808-02B22

MPL: B22-N051
PPD: 163C1292

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS-PT-51A -51B MANUFACTURER Rosemount MODEL NUMBER 1153, Series D COMPONENT Pressure Transmitter FUNCTION/SERVICE Main Steam Pressure. Transmitter for H22-P026 and H22-P027 LOCATION: BLDG R ELEVATION 523 COLUMN K.0/4.5 M-7/6.8	OPERATING TIME	4320 Hours	4320 Hours	3	6,7	Engineering Analysis and Simultaneous Test	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident Profile 4,11,11X	176	1	7	Simultaneous Test	None
	PRESSURE (PSIA)	Normal 14.7 Accident Profile 11,11X	18.7	1	7	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 max. abnormal 100 max. accident	100	1	7	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	8.3×10^5	2×10^6	2	7	Sequential Test	None
	AGING	40 years	24 years	1	6,7	Sequential Test and Engineering Analysis	None Note 1
	ACCURACY	2.5%	1.79%	5	7	Sequential Test	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Williams 9/12/83

DOCUMENTATION REFERENCES

1. FSAR PAR 3.11
2. EDS Study 0740-004-522P, H
3. BRI CIE list, REV 8, 6/1/83
4. BRI Calc. #5.51.055
5. WPPSS Calculation No. IN-02-83-01
6. QID #156011
7. Test Report #45592-3, 5-4-83 "Nuclear Environmental Test for Rosemount 1153 Series D" by Wyle Laboratories.

NOTES

1. A preventive maintenance/ surveillance program is being developed to extend the qualified life.

Qualified

WPPSS QID #277002

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02D17

MPL: D17-N003
PPD: 237X731

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS-RE-3A, B, C, D MANUFACTURER General Electric MODEL NUMBER 237X731G001 COMPONENT Radiation Element FUNCTION/SERVICE Main steam lines radiation monitors LOCATION: BLDG R ELEVATION 508 COLUMN 117/5.9,5.6,6.4,6.1	OPERATING TIME	0.17 hours	Note 1	3			
	TEMPERATURE (F)	125 normal 140 max. abnormal Accident - profile 4		1			
	PRESSURE (PSIA)	14.7		1			
	RELATIVE HUMITY (%)	50 max. normal 98 max. abnormal Accident Profile 4		1			
	CHEMICAL SPRAY	N/A		1			
	RADIATION (RAD)	4.2×10^6		2			
	AGING	40 years		1			
	ACCURACY						

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared by: Ale Nardia 6/24/83 Reviewed by: Alf Tpl — 6/24/83

DOCUMENTATION REFERENCES

1. FSAR Par. 3.11
2. EDS Study 0740-004-501 0
3. BRI CIE list, REV 8, 6/1/83
4. BRI Calc. #5.51.055

NOTES

1. Discussions are being held with General Electric to obtain qualification data. Requalification activities will be implemented, if required.

- Equipment justification #16 in Appendix D is provided for MS-RE-3A and 3B. MS-RE-3C and 3D are on Table B of the JIO and do not require qualification prior to fuel load.

WP-1081

WPPSS QID #315011

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2608-02

MPL: B22-F022
PPD: 732E150V

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS-SPV-(See Note 1) MANUFACTURER Asco MODEL NUMBER NP8323A20E COMPONENT Solenoid Pilot Valve FUNCTION/SERVICE Operate Inboard Main Steam Isolation Valves LOCATION: BLDG C ELEVATION 515 COLUMN 5^0, 15^0, 345^0, 355^0	OPERATING TIME	.17 hours	Equivalent > 0.17 hours	1	3,5	Engineering Analysis and Simultaneous Tests	None
	TEMPERATURE (F)	135 normal 150 max abnormal Accident - profile 1	450	2	5	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Accident Profile 1	78.7	2	5	Simultaneous Tests	None
	RELATIVE HUMITY (%)	55 normal 90 max abnormal Accident Profile 2	100	2	5	Simultaneous Tests	None
	CHEMICAL SPRAY	Demineralized water	Borated Water	2	5	Simultaneous Tests	None
	RADIATION (RAD)	7.0×10^7	2×10^8	2	5	Sequential Tests	None Note 2
	AGING	40 years	1.51 years	2	3,5	Engineering Analysis and Sequential Tests	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 3)

Prepared by: [signature] 6/24/83

Reviewed by: [signature] 6/24/83

DOCUMENTATION REFERENCES

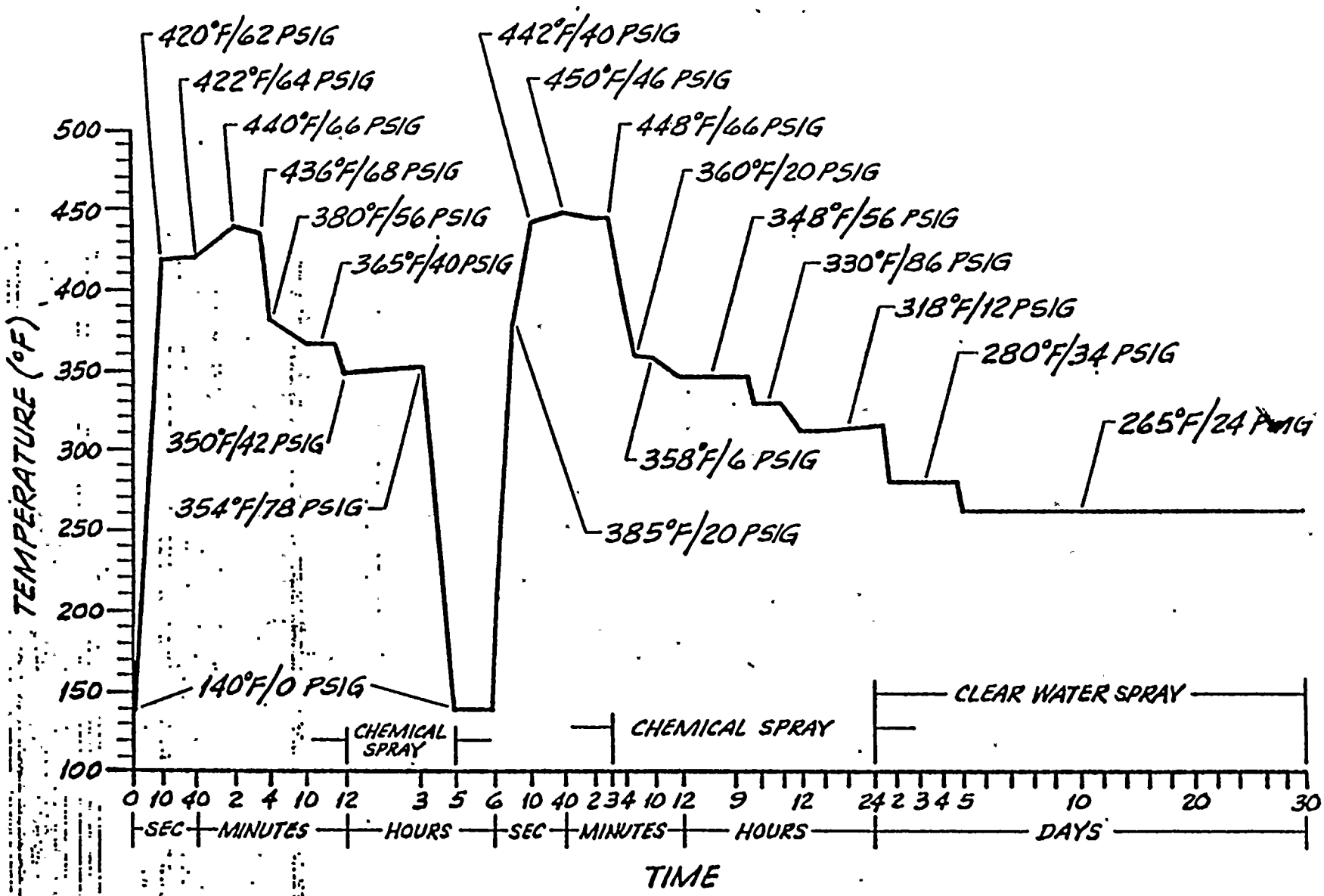
1. BRI CIE list Rev. 8 dated 6/1/83
2. FSAR Para 3.11
3. QID # 315006
4. BRI Calculation #5.51.055
5. Test report #AQR-67368, Rev 0.

NOTES

1. MS-SPV-
   -22A2, -22A3
   MS-SPV-22B2, -22B3
   MS-SPV-22C2, -22C3
   MS-SPV-22D2, -22D3

2. A preventive maintenance/surveillance program is being developed to extend the qualified life.

WP-1061



ACTUAL TEMPERATURE/PRESSURE PARAMETERS FOR GROUP II LOCA/HELB SIMULATION

FIGURE 4.2

WPPSS QID # 315011

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02B22

MPL: B22-F028
PPD: 732E150V

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS-SPV-(see Note 1) MANUFACTURER Asco MODEL NUMBER COMPONENT Solenoid Pilot Valve FUNCTION/SERVICE Operate Outboard Main Steam Isolation Valves LOCATION: BLDG R ELEVATION 513 COLUMN 11.3/5.9,5.6,6.4,6.1	OPERATING TIME	.17 hours		1			Note 2
	TEMPERATURE (F)	125 normal 140 max abnormal Accident Profile 3,4		2			
	PRESSURE (PSIA)	14.7 normal		2			
	RELATIVE HUMITY (%)	55 max normal 100 max accident		2			
	CHEMICAL SPRAY	N/A		N/A			
	RADIATION (RAD)	4.2×10^6		3			
	AGING	40 years		2			
	ACCURACY	N/A					
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL? YES X NO Ref.4)	Prepared by: Linda Vaccari 9/2/83		Reviewed by: James Meavins 9/2/83				

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list Rev. 8, dated 6/1/83 2. FSAR Para 3.11 3. EDS Study 0740-00405010 4. BRI Calculation #5.51.055	1. MS-SPV -28A2, -28A3; MS-SPV -28B2, -28B3; MS-SPV -28C2, -28C3; MS-SPV -28D2, -28D3 2. Qualified equipment is being sought with Asco. This equipment is on Table B of J10 and does not require qualification priorto fuel load.

WP-1081

WPPSS QID #315008

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02B22

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS-SPV-(See Note 1) MANUFACTURER Crosby Valve and Gage Co. MODEL NUMBER IHF-2 COMPONENT Solenoid Pilot Valve FUNCTION/SERVICE Solenoid Pilot Valves for Main Steam Relief Valves LOCATION: BLDG C ELEVATION COLUMN Various	OPERATING TIME	4320 Hours	Equivalent to >4320 hours	1	3,5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	135 normal 150 max. abnormal Accident - profile 1	344	2	5	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Accident - profile 1	128	2	5	Simultaneous Test	None
	RELATIVE HUMITY (%)	55 normal 90 max. abnormal Accident Profile 2	100	2	5	Simultaneous Test	None
	CHEMICAL SPRAY	Demineralized water	Demineralized Water	2	3	Engineering Analysis	None
	RADIATION (RAD)	3.0×10^7	3.0×10^7	6	3,5	Sequential Test	None Note 2
	AGING	40 years	6.5	2	2	Sequential Test and Engineering Analysis	None Note 2
	ACCURACY	N/A	N/A	N/A	N/A	N/A	N/A

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Meares 9/12/83

DOCUMENTATION REFERENCES

1. BRI Class 1E Equipment list, Revision 8
2. FSAR Paragraph 3.11
3. QID #315008
4. BRI Calculation 5.51.055
5. Test Report #3977, May 6, 1982 "Qualification Test Report for the Crosby IMF-2 Solenoid Pilot Valve."
6. Burns and Roe calculation 5.01.78

NOTES

1. EPN: MS-SPV-3DA, 3DB, 4AA, 4AB, 4BA, 4BB, 4CA, 4CB, 4DA, 4DB, 5BA, 5BB, 5CA, 5CB

2. A preventive maintenance/surveillance program is being developed to extend the qualified life. The specified (FSAR) radiation dose for this item includes the following: 30 year normal dose, LOCA accident dose, and 10% margin.

Qualified

WP-1081

WPPSS QID #156001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam Leakage Control TAG NUMBER MSLC-FT-3A, B, C, D MANUFACTURER Rosemount MODEL NUMBER 1153 DB3 COMPONENT Flow Transmitter FUNCTION/SERVICE Loops A,B,C, and D to manifold LOCATION: BLDG R ELEVATION 477 (A,C), 474 COLUMN H.4/5.7 (A,B) H.4/5.8 (C,D)	OPERATING TIME	4320 hours	4320 hours	1	4	Simultaneous Test Engineering Analysis	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Accident Profile 4	318	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	87.7	2	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 Normal 90 Max. Abnormal Accident Profile 4	100	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	4.4×10^7	2.4×10^7	3	4,5	Sequential Test	Note 1
	AGING	40 years	10 years	2	4	Simultaneous Test Engineering Analysis	None
	ACCURACY	4.0%	7.1 FSPE	7	4	Simultaneous Test Engineering Analysis	Note 1

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared By: Linda Vaccari 9/2/83 Reviewed By: James Means 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list Rev. 8, dated 6/1/83 2. FSAR Par. 3.11 3. EDS Study 0740-004-471J, Rev. 5 4. QID 156009 5. ROC between C. Speck and R. Chin, 2/2/83. 6. BRI Calculation #5.51.055 7. SS Calculation IH-02-83-01	1. Options are being explored to resolve this item. These components are on Table B of the JIO and do not require qualification prior to fuel load.

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WPPSS QID/ 164004

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam Leakage Control TAG NUMBER MSLC-H-A,B,C,D MANUFACTURER Chromalox MODEL NUMBER 14HTV1-CT COMPONENT FUNCTION/SERVICE Heater LOCATION: BLDG ELEVATION 477 COLUMN H.4/5.3 H.4/5.7	OPERATING TIME	24 hr.		3			Note 1
	TEMPERATURE (F)	40 max normal 90 max abnormal Accident Profile 4		1			
	PRESSURE (PSIA)	14.7					
	RELATIVE HUMITY (%)	40 normal 90 max abnormal Accident Profile 4		1			
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	4.4×10^7		2			
	AGING	40 years		1			
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL? YES X NO (Ref. 4)	By: [illegible] 6/24/83		Okd by: [illegible] 6/24/83				

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. EDS Study 0740-004-471J 3. BRI Class 1E Equipment List, Revision 8, 6/1/83 4. BRI Calculation #5.51.055	1. A documentation search is currently being performed. These components are on Table B of the JIO in Appendix D so qualification is not required prior to fuel load.

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WPPSS QID #213020

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-28

MPL:
PPD: QID 213020

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam Leakage Control TAG NUMBER MSLC-M-FN/1 -FN/2 MANUFACTURER Westinghouse MODEL NUMBER TBFC/76D56668 COMPONENT 1.5 hp Motor FUNCTION/SERVICE Motor for MSLC fans LOCATION: BLDG R ELEVATION 473,512 COLUMN H.4/6.3 H.6/7.3	OPERATING TIME	6 months	Equivalent to 6 months	1	4	Simultaneous Test and Engineering Analysis	none
	TEMPERATURE (F)	90 Max Normal 104 Max Abnormal Accident profile 4	410	2	4	Simultaneous Test and Engineering Analysis	none
	PRESSURE (PSIA)	14.7	14.7	2	4	Engineering Analysis	none
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4	100	2	4	Sequential test	none
	CHEMICAL SPRAY	N/A	N/A	N/A	N/A	N/A	None
	RADIATION (RAD)	4.4×10^7	2×10^8	3	4	Sequential Testing	none
	AGING	40 years	40 years	2	4	Simultaneous Test and Engineering Analysis	none
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES x NO (Ref. 5)

Prepared by: Linda Vaccaro 9/12/83 Reviewed by: James Mirarus 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI Class 1E Equipment List, Rev. 8 dated 6/1/83 2. FSAR Paragraph 3.11 3. EDS Report #0740-004-471J 4. QID 213017 5. BRI Calculation #5.51.055	Qualified

WPPSS

QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam Leakage Control TAG NUMBER MSLC-MO-1A -1B -1C -1D MANUFACTURER Limitorque MODEL NUMBER SMC-04-3/42 COMPONENT Valve Motor Operator (Reliance Class B) FUNCTION/SERVICE Operate MSLC Valves LOCATION: BLDG R ELEVATION COLUMN H5/5.5	OPERATING TIME	4320 hours	Equivalent to > 4320 hours	6	3	Simultaneous Test	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident profile 4	See enclosed profile	1	3	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	See enclosed profile	1	3	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 max abnormal Accident Profile 4	100	1	3	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	4.4×10^7	2×10^7	2	3	Sequential Test	Note 1
	AGING	40 years	40 years +	1	3,4	Sequential Test Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Stearns 9/2/83

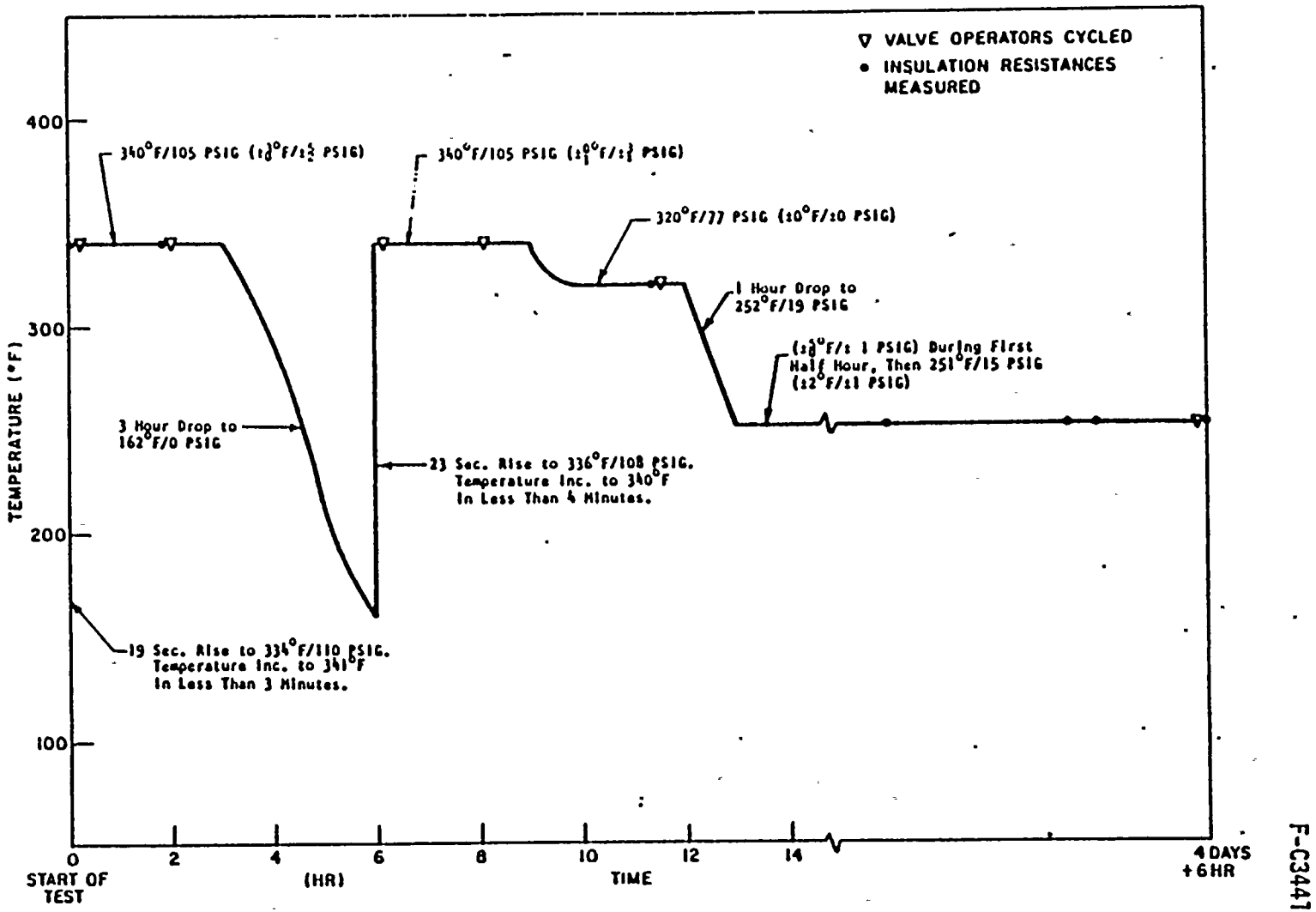
DOCUMENTATION REFERENCES

1. FSAR paragraph 3.11
2. EDS Study 0740-004-471J
3. Limitorque 600376A, dated 5/13/76, B0058 dated 1/11/80
4. QID #221001
5. BRI Calculation #5.51.055
6. BRI CIE list Rev. 8 dated 6/1/83

NOTES

1. These components are on Table B of the JIO and do not require qualification prior to fuel load. Radiation is being evaluated for this component.

WP-1061



F-C3441

Figure 3. Actual Steam Exposure Profile

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam Leakage Control TAG NUMBER MSLC-MO-See Note 1 MANUFACTURER Limitorque MODEL NUMBER COMPONENT Reliance Motor Operator AC/Class RII Insulation FUNCTION/SERVICE Operate MSLC Valves LOCATION: BLDG R ELEVATION COLUMN See Note 1	OPERATING TIME	6 months	Equivalent to >6 Months	1	3,4	Engineering Analysis and Simultaneous Test	None
	TEMPERATURE (F)	125 Normal 140 Max. Abnormal Accident Profile 3	See enclosed profile	1	3	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 Normal Accident Profile 3	See enclosed profile	1	3	Simultaneous Test	None
	RELATIVE HUMITY (%)	50 Normal 98 Max. Abnormal 100 Accident	100	1	3	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	4.2×10^6	2.04×10^8	2	3	Simultaneous Test	None
	AGING	40 Years	40 Years +	1	3,4	Simultaneous Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Means 9/12/83

DOCUMENTATION REFERENCES

1. FSAR Paragraph 3.11
2. EDS Study 0740-004-5010
3. Limitorque Report 600376A, 5/13/76, B0058 dated 1/11/80
4. QID #221001
5. BRI Calculation #5.51.055
6. BRI CIE List, Rev. 8, 6/1/83

NOTES

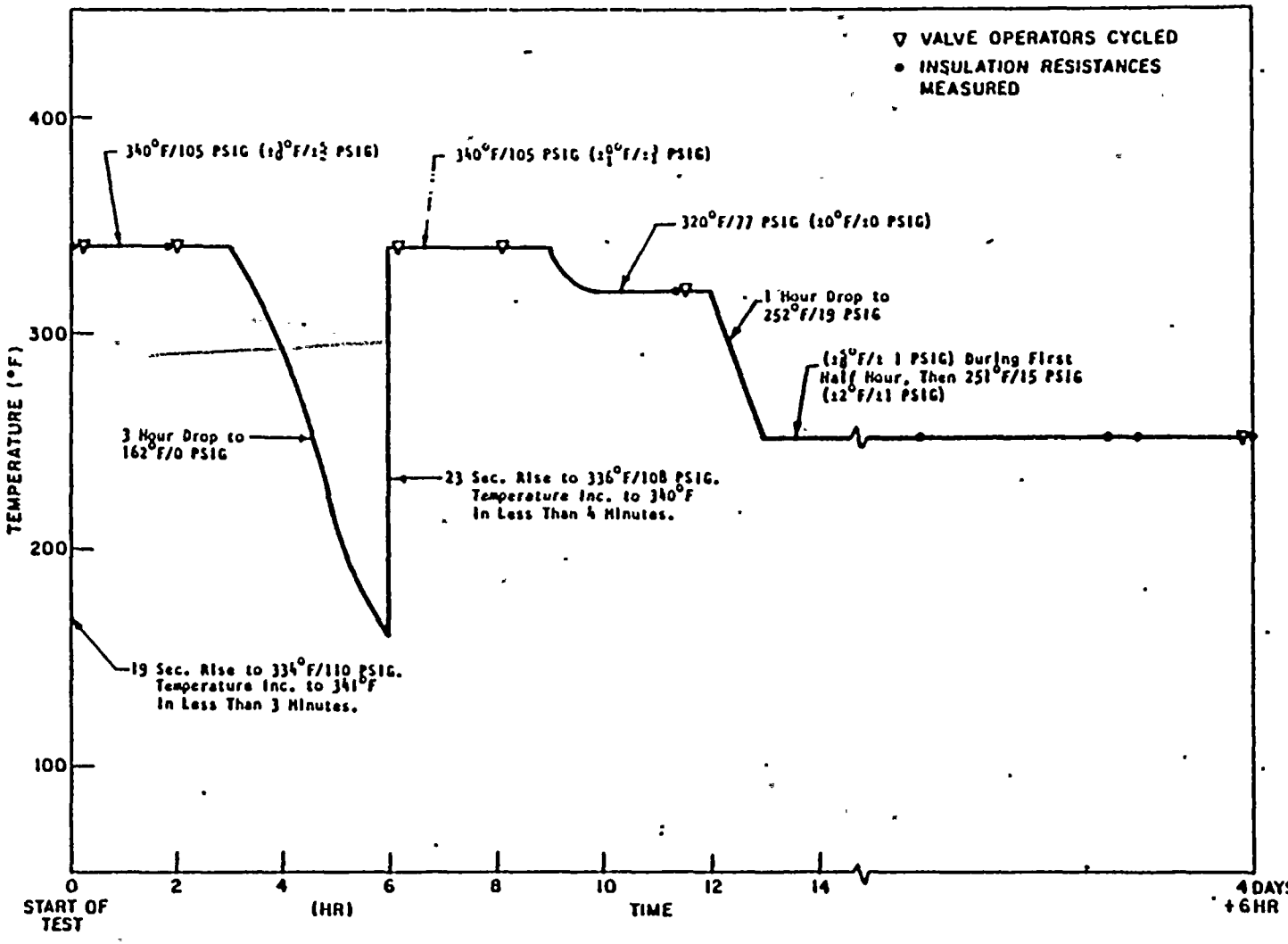
Qualified

1.

EPN	Elev.	Coordinates
MSLC-MO-10	504	H.4/6.6
-2A	505	H.4/5.7

DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

EPN	Elev.	Coordinates
MSLC-HO-2B	505	H.4/5.3
-2C	505	H.7/6.4
-2D	505	H.5/6.1
-3A	505	H.3/5.9
-3B	505	H.3/5.3
-3C	505	H.7/6.4
-3D	505	H.3/6.1
-4	504	H.3/6.4
-5	504	H.3/6.3
-9	504	H.3/6.2



F-C3441

Figure 3. Actual Steam Exposure Profile

WPPSS QID #256007

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-58

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam Leakage Control TAG NUMBER MSLC-PS-20, 24, 25, 60, 7A, 7B, 7C, 7D, 70A, 70B 70C, 70D, 8A,B,C,D MANUFACTURER Barton MODEL NUMBER 288A, 288 COMPONENT Pressure Switch FUNCTION/SERVICE LOCATION: BLDG R ELEVATION (See Note 2) COLUMN (See Note 2)	OPERATING TIME	6 months	Equivalent to >6 months	1	4, 6	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4	212	2	6	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	14.95	2	4, 6	Simultaneous Test, Engineering Analysis	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4	100	2	6	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	5.3×10^4	3×10^6	3	4, 5	Separate Effect, Engineering Analysis	None
	AGING	40 years	12 years	2	4	Engineering Analysis	None Note 1
	ACCURACY	4.0%	2.4%	8	4,6	Simultaneous Test and Engineering Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Bowers 9/12/83

DOCUMENTATION REFERENCES

1. BRI CIE list, Rev 8, 6/1/83
2. FSAR Par. 3.11
3. EDS Report 0740-004-522K, 522P
4. QID File #256007
5. Qualification Test Report for Barton 288 Switch, Report #R3-288A-1,
6. Test report for Barton pressure Switch 289A GE report 05991, Rev. 1, 12/7/73.
7. BRI Calc. #5.51.055
8. Supply System Calc.#In-02-83-01

NOTES

Qualified

1. A preventive maintenance/surveillance program is being developed to extend the qualified life.
2.

EPN	ELEV.	COLUMN	EPN	ELEV.	COLUMN
MSLC-PS-20,24,60	528	H.4/7.1	MSLC-PS-8AtoD	528	H.4/4.2
-25	526	H.4/7.1	-70C	526	H.4/4.2
-70A,B,D	528	H.4/4.2	-7B	528	H.4/3.2
-7A,C	528	H.4/4.2	-7D	522	H.4/4.2

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WPPSS QID #4156001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam Leakage Control TAG NUMBER MSLC-PT/10A-D 12A-D MANUFACTURER Rosemount MODEL NUMBER 1153-GB5 GB6 COMPONENT Pressure Transmitter FUNCTION/SERVICE Leakage Pressure Transmitter LOCATION: BLDG R ELEVATION 528, 526 COLUMN H.3/3.7	OPERATING TIME	6 Months	Equivalent to > 6.6 Months	1	7	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 Max Normal 104 Max Abnormal Accident Profile 4	203	2	7	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	14.7	2	7	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4	100	2	7	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	5.3×10^4	2.4×10^7	3	4	Sequential Test	None
	AGING	40 Years	10 Years	2	4	Simultaneous Test, Engineering Test	None Note 1
	ACCURACY	4.0%	MSLC-PT-10A to D (2.25%) MSLC-PT-12A to D (2.30%)	6	4	Engineering Analysis	None

FLOOD LEVEL ELEV: (Ref. 5)
ABOVE FLOOD LEVEL?
YES X NO

Prepared by: Linda Vaccaro 9/1/83 Reviewed by: James Williams 9/2/83

DOCUMENTATION REFERENCES

1. BRI CIE List, Rev. 8, dated 6/1/83
2. FSAR Paragraph 3.11
3. EDS Study 0740-004-471J, Rev. 5
4. QID # 156009
5. BRI Calculation # 5.51.055
6. SS Calculation IN-02-83-01
7. Rosemount Report 108025, Rev. A and 108026 Dated 2-4-81

NOTES

Qualified

1. A preventive maintenance/surveillance program is being developed to extend the qualified life.

WPPSS QID #156001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC:

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DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam Leakage Control TAG NUMBER HSLC-PT-11 13 MANUFACTURER Rosemount MODEL NUMBER 1153-GB4 1153-GB6 COMPONENT Pressure Transmitter FUNCTION/SERVICE Valve Hydraulic Pressure LOCATION: BLDG R ELEVATION 529 COLUMN H.3/6.7	OPERATING TIME	6 Months	Equivalent to > 6 months	1	4,7	Simultaneous test Engineering Analysis	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Accident Profile 4	203	2	7	Simultaneous test	None
	PRESSURE (PSIA)	14.7	14.7	2	7	Simultaneous test	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4	100	2	7	Simultaneous test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	5.3×10^4	2.4×10^7	3	7	Sequential test	None
	AGING	40 Years	10 Years	2	4,7	Sequential test Engineering Analysis	None Note 1
	ACCURACY	4%	HSLC-PT-11 2.25% FSPE HSLC-PT-13 2.3% FSPE	6	4,7	Sequential Test and Engineering Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Linda Vaccari 9/12/83

Reviewed by: James Mirra 9/12/83

DOCUMENTATION REFERENCES

1. BRI CIE List, Rev. 8, 6/1/83
2. FSAR Para. 3.11
3. EDS Study 0740-004-522K
4. QID #156009
5. BRI Calc. #5.51.055
6. WPPSS Calc. #IN-02-83-01
7. Rosemount Report 108025, REv. A and 108026, dated 2-4-81

NOTES

Qualified

1. A preventive maintenance/surveillance program is being developed to extend the qualified life.

WPPSS QID #283041

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-218
MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam Leakage Control TAG NUMBER MSLC-RLY-CR/5 MANUFACTURER Struthers Dunn MODEL NUMBER 219XDXP COMPONENT Relay FUNCTION/SERVICE Atmosphere pressure control interlock LOCATION: BLDG R ELEVATION 522 COLUMN H.4/7.1	OPERATING TIME	4320 hours	Equivalent to >4320 hours	1	4	Engineering Analysis	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident - profile 4	150	2	4	Materials Test and Engineering Analysis	None
	PRESSURE (PSIA)	14.7	>14.7	2	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4	90	2	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	N/A	N/A	N/A	None
	RADIATION (RAD)	2.0×10^4	10^5	3	4	Materials Test and Engineering Analysis	None
	AGING	40 years	40 years	2	4	Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared By: Lucia Vaccari 9/12/83 Reviewed By: James Myers 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list Rev. 8, dated 6/1/83 2. FSAR Paragraph 3.11 3. EDS Report 0740-004-522K 4. QID 283041 5. BRI Calc. #5.51.055	Qualified

WPPSS QID # 283011 E
283015 E

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC:

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DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam Leakage Control TAG NUMBER MSLC-RLY-(See Note 1) MANUFACTURER ASEA MODEL NUMBER See Note 1 COMPONENT Relay FUNCTION/SERVICE Control interlock LOCATION: BLDG R ELEVATION See COLUMN Note 1	OPERATING TIME	4320 hours	> Equivalent to 4320 hours	1	4	Engineering Analysis	None
	TEMPERATURE (F)	90° normal 104° abnormal Accident Profile 4	194	2	4	Material Test and Engineering Analysis	None
	PRESSURE (PSIA)	14.7	>14.7	2	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4	90	2	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A			N/A	None
	RADIATION (RAD)	5.3×10^4	10^5	3	4	Material Test and Engineering Analysis	None
	AGING	40 years	> 40 years	2	4	Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	N/A

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Mayns 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, Rev.8, dated 6/1/83 2. FSAR paragraph 3.11 3. EDS report 0740-004-522P 4. QID 283015-E	Qualified

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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

NOTE 1

EPN	MODEL #	LOCATION
MSLC-RLY-CR/1	RXMH2	R 526 H.4/7.1
-CR/3	"	R 526 H.4/7.1
-CR/4	"	R 522 H.4/7.1
-CR/10	"	R 527 H.4/4.2
-CR/11	"	R 527 H.4/4.2
-CR/12	"	R 527 H.4/4.2
-CR/13	"	R 527 H.4/4.2
-CR/1A	"	R 528 H.4/4.2
-CR/1B	"	R 528 H.4/4.2
-CR/1C	"	R 527 H.4/4.2
-CR/1D	"	R 527 H.4/4.2
-CR/5A1	"	R 528 H.4/4.2
-CR/5A2	RXMK1	R 527 H.4/4.2
-CR/5B1	"	R 527 H.4/4.2
-CR/5B2	"	R 527 H.4/4.2
-CR/5C1	RXMH2	R 527 H.4/4.2
-CR/5C2	RXMK1	R 528 H.4/4.2
-CR/5D1	RXMH2	R 527 H.4/4.2
-CR/5D2	RXMK1	R 528 H.4/4.2
-CR/6A1	RXMH2	R 528 H.4/4.2
-CR/6A2	RXMK1	R 528 H.4/4.2
-CR/6B1	RXMH2	R 528 H.4/4.2
-CR/6B2	RXMK1	R 528 H.4/4.2
-CR/6C1	RXMH2	R 527 H.4/4.2
-CR/6C2	RXMK1	R 528 H.4/4.2
-CR/6D1	RXMH2	R 527 H.4/4.2
-CR/6D2	RXMK1	R 528 H.4/4.2
-CR/8	RXMK2	R 528 H.4/4.2
-CR/9	RXMH2	R 528 H.4/4.2

By: Linda Vaccari 9/12/83 Chk'd: James Ikaros 9/12/83

WPPSS QID#283013E

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC:

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam Leakage Control TAG NUMBER MSLC-TD-(note 1) MANUFACTURER Agastat MODEL NUMBER 7012AE COMPONENT Time Delay FUNCTION/SERVICE Time Delay Pickup Relay LOCATION: BLDG R ELEVATION COLUMN see Note 1	OPERATING TIME	4320 hours	>4320 hours	1	4	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 Normal 104 Abnormal Accident Profile 4,11	160	2	5	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	14.7	2	5	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 11	95	2	5	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	N/A	N/A	N/A	None
	RADIATION (RAD)	5.3×10^4	1×10^7	3	5	Sequential Test	None
	AGING	40 years	40 years	2	5	Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV: (Ref.6)
ABOVE FLOOD LEVEL?
YES X NO

Prepared by: Ali Sadeni 6/24/83

Reviewed by: [signature] 6/24/83

DOCUMENTATION REFERENCES

1. BRI CIE list, Rev.8, dated 6/1/83
2. FSAR Paragraph 3.11
3. EDS Report 0740-004-522P
4. QID 283013E
5. MCC Powers Report, Rev. Sept. 3, 1979, "Environmental Qualification of the Safety Related Instruments for La Salle Nuclear Power Station"
6. BRI Calc. file#5.51.055

NOTES

Qualified

	EPN	LOCATION	
1.	MSLC-TD-TK/2	526'	H.4/7.1
	-TK/2A	528'	H.4/4.2
	-TK/2B	528'	H.4/4.2
	-TK/2C	528'	H.4/4.2
	-TK/2D	528'	H.4/4.2

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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)
	MSLC-TD -TK/3A 528' H.4/4.2 -TK/3B 527' H.4/4.2 -TK/3C 548' H.4/4.2 -TK/3D 528' H.4/4.2 -TK/4A 528' H.4/4.2 -TK/4B 528' H.4/4.2 -TK/4C 528' H.4/4.2 -TK/4D 528' H.4/4.2

By: Ali Naderi

Okd: [signature] 6/24/83

WPPSS QID# 339003

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam Leakage Control TAG NUMBER HSLC-TE-10A, B, C, D MANUFACTURER Hycal MODEL NUMBER TC-2370-C-A-250-TT COMPONENT Temperature Element FUNCTION/SERVICE HSLC heater control LOCATION: BLDG R ELEVATION 477 COLUMN H.4/5.7 H.4/5.8	OPERATING TIME	24 hr.		3			Note 1
	TEMPERATURE (F)	40 max normal 90 max abnormal Accident Profile 4		1			
	PRESSURE (PSIA)	14.7					
	RELATIVE HUMITY (%)	40 normal 90 max abnormal Accident Profile 4		1			
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	4.4×10^7		2			
	AGING	40 years		1			
	ACCURACY	N/A					

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

By: [signature] 6/24/83

Ckd: [signature] 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. EDS Study 0740-004-471J 3. BRI Class 1E Equipment List, Revision 8, 6/1/83 4. BRI Calculation #5.51.055	1. A documentation search is currently being performed. These components are on Table B of the J10 in Appendix B so do not require qualification prior to fuel load.

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WPPSS QID #324002

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-220
MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Process Instrumentation TAG NUMBER PI-V-X-250, 251, 253, 256, 257, 259, 262, 263, 264, 266, 267, 268 MANUFACTURER Target Rock MODEL NUMBER 1021010-1-8-1-S COMPONENT Root Value FUNCTION/SERVICE LOCATION: BLDG R ELEVATION Note 1 COLUMN	OPERATING TIME	4320 hours	Equivalent to > 6 months	4	3,5	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 max.normal 104 max. abnormal Accident Profile 4	See enclosed profile.	1	3	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	79.7	1	3	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 max. abnormal Accident Profile 4	100	1	3	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	Chemical Spray PH 8.6 to 10.0	1	3	Simultaneous Test	None
	RADIATION (RAD)	8.3×10^5	2.2×10^8	2	3	Sequential Test	None
	AGING	40 years	40 years	1	3,5	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: [signature] 6/24/83 Reviewed by: [signature] 6/24/83

DOCUMENTATION REFERENCES

1. FSAR Par. 3.11
2. EDS Report 0740-004-522P, 522H
3. TRC Report 2375A, QID 324002
4. BRI C1E list, REV 8, 6/1/83
5. QID #324002
6. BRI Calc. #5.51.055

NOTES

Qualified

1. PI-SV-

EPN	Elev.	Column
250,251	537	M.8/6.3
253	536	J.0/4.1
256,257		J.5/4.8
259		K/15
262,263		M.8/6.3
264,266		
267		
268		J.8/4.5

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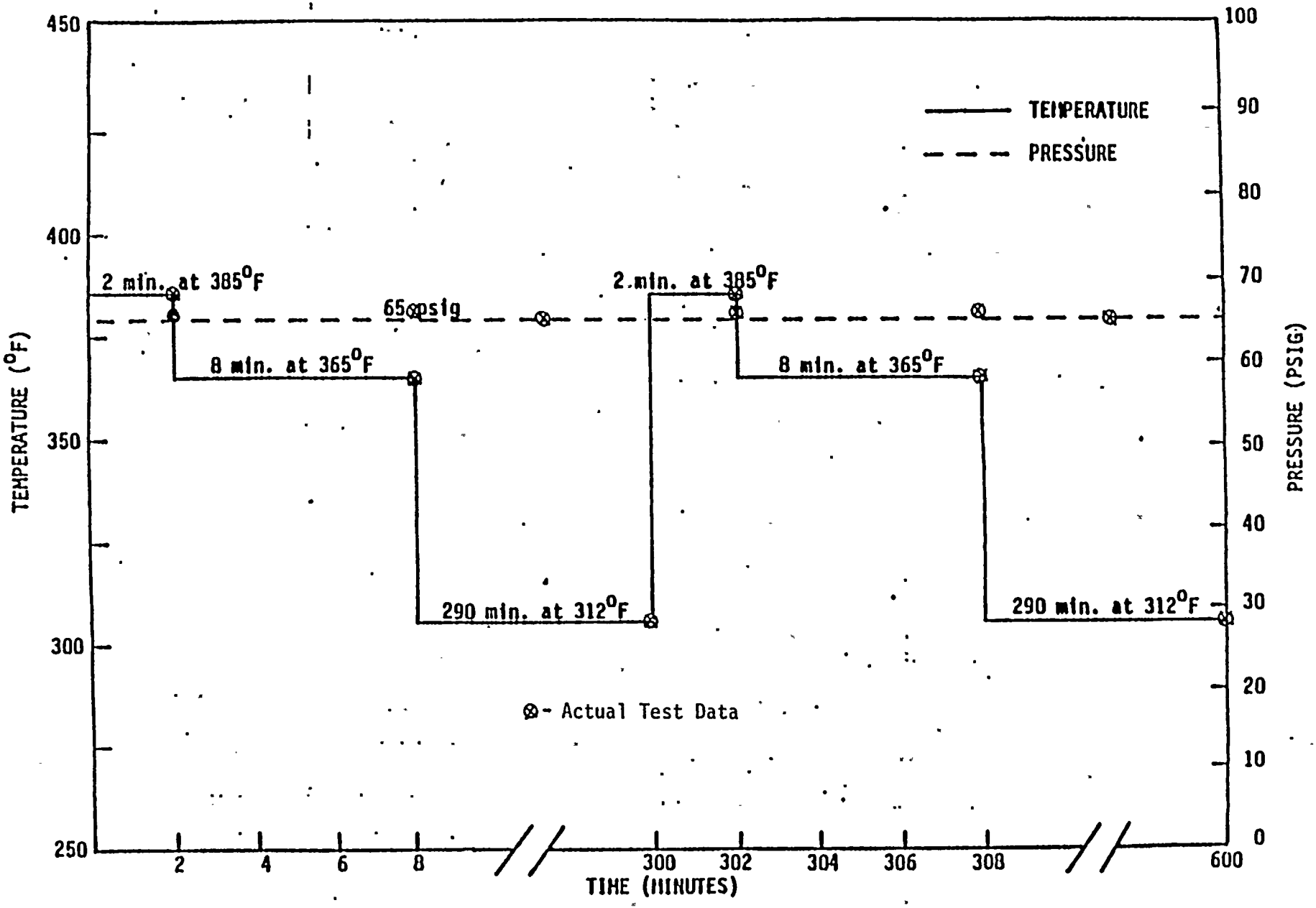
Revision: 2
Date: September 1982



ENVIRONMENTAL QUALIFICATION TEST PROFILE FOR TARGET ROCK SOLENOID VALVES

WPPSS QID #324002

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-220

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Process Instrumentation TAG NUMBER PI-V-X-265, 269 MANUFACTURER Target Rock MODEL NUMBER 1021010-3-8-1-S COMPONENT Root Valve FUNCTION/SERVICE LOCATION: BLDG R ELEVATION 479 COLUMN See Note 1	OPERATING TIME	6 months	Equivalent to >. 6 months	4	3,5	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident Profile 4	See enclosed profile	1	3	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 PSIA	79.7	1	3	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 max. normal 90 max. abnormal Accident Profile 4	100	1	3	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	Chemical Spray PH 8.6 to 10.0	1	3	Simultaneous Test	None
	RADIATION (RAD)	5.0×10^5	2.2×10^8	2	3	Sequential Test	None
	AGING	40 years	40 years	1	3,5	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: [signature] 6/24/83

Reviewed by: [signature] 6/24/83

DOCUMENTATION REFERENCES

1. FSAR Par. 3.11
2. EDS Report 0740-004-471A, 471D
3. TRC Report 2375A, QID 324002
4. BRI CIE list, REV 8, 6/1/83
5. QID #324002
6. BRI Calc. #5.51.055

NOTES

Qualified

1.

EPN	Elev.	Column
PI-SV-265	479	J.1/4.6
PI-SV-269	479	J.1/4.6

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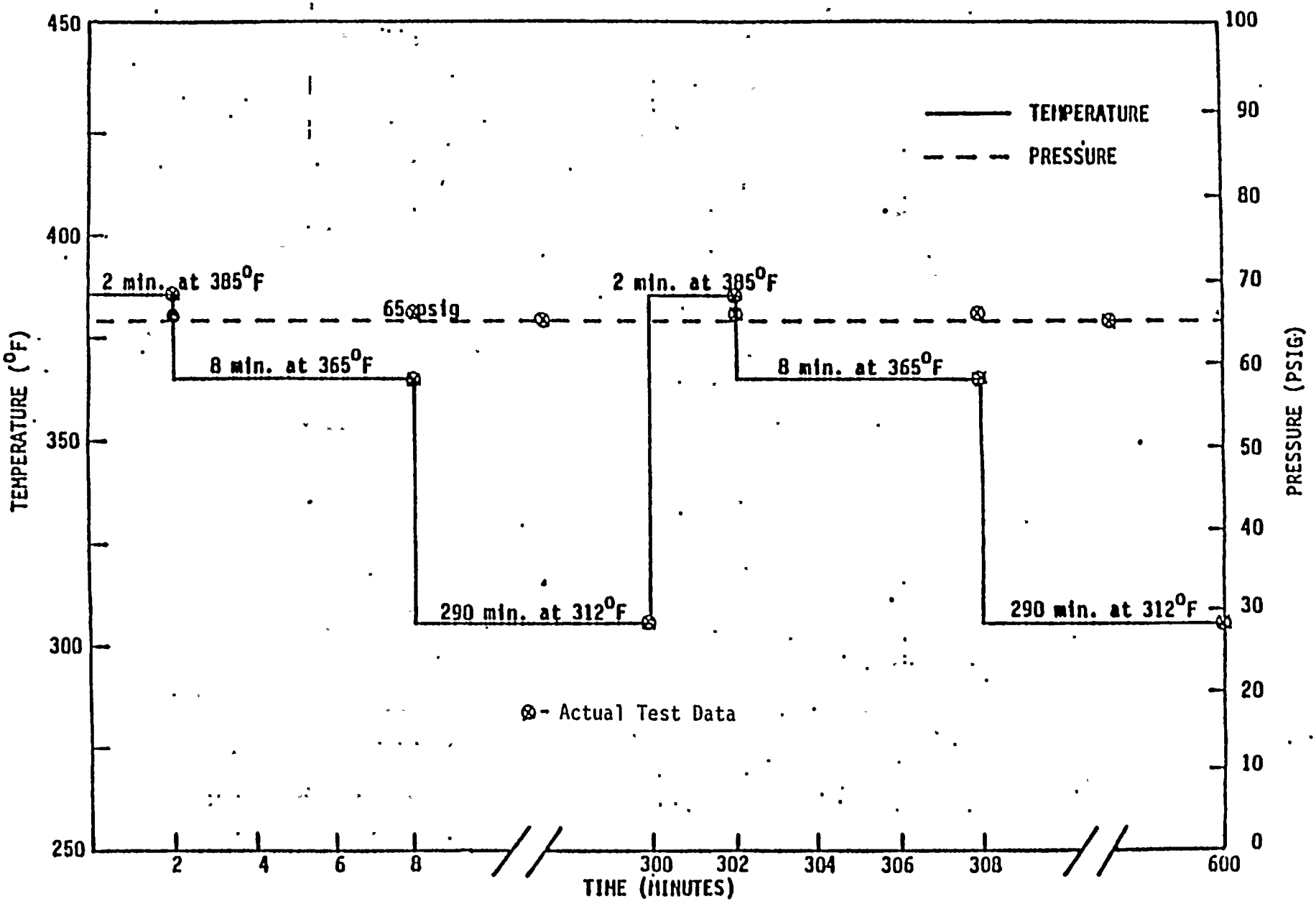
Revision: 2
Date: September 1982



ENVIRONMENTAL QUALIFICATION TEST PROFILE FOR TARGET ROCK SOLENOID VALVES

WPPSS QID# 361015

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-220
MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Process Sampling Radioactive TAG NUMBER PSR-V-003/A -003/B MANUFACTURER Target Rock MODEL NUMBER 82 M-001 COMPONENT Solenoid Operated Valve FUNCTION/SERVICE 3/8" Solenoid Valve RHR Loop A,B system boundary LOCATION: BLDG Reactor ELEVATION 432,431 COLUMN K.9/8.7,L.1/8.8	OPERATING TIME	4320 hours	Equivalent to >4320 hours	1	3,5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Accident Profile 4	385	2	5	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	79.7	2	5	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 Max. Normal 90 Max. Abnormal Accident Profile 4	100	2	5	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	Chemical Spray Ph 8.6 to 10.0	2	5	Simultaneous Test	None
	RADIATION (RAD)	2.6×10^6	2.2×10^8	6	5	Sequential Test	None
	AGING	40 years	40 years	2	3,5	Sequential Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared by: [signature] 6/24/83

Reviewed by: [signature] 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, Rev. 8, dated 6/1/83 2. FSAR paragraph 3.11 3. QID# 324002 4. BRI Calculation 5.51.055 5. Test Report #2375A Target Rock Corporation 6. EDS Calculation 0740-004-422 11,J1	Qualified

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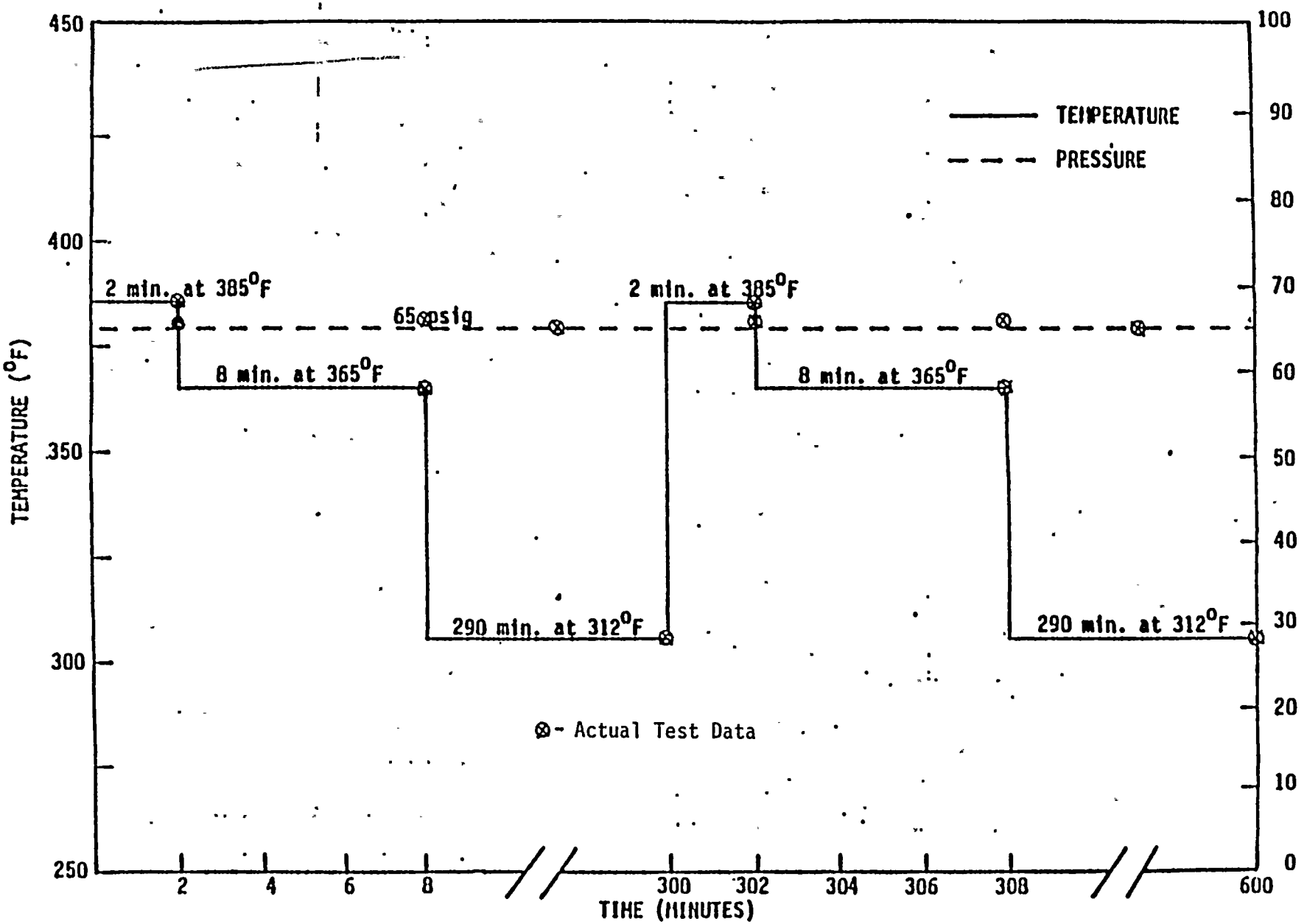
Revision: 2
Date: September 1982



ENVIRONMENTAL QUALIFICATION TEST PROFILE FOR TARGET ROCK SOLENOID VALVES

WPPSS QID # 361014

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-220

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Process Sampling Radioactive TAG NUMBER PSR-V-(Note 1) MANUFACTURER Valcor MODEL NUMBER 526-5940 COMPONENT Solenoid Valve FUNCTION/SERVICE Containment Isolation Solenoid Valve LOCATION: BLDG C ELEVATION COLUMN Note 1	OPERATING TIME	4320 hours	Equivalent to >4320 hours	2	3,4	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	135 Max. Normal 150 Max. Abnormal Accident Profile 1	See Enclosed Profile	1	3	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Accident Profile 1	See Enclosed Profile	1	3	Simultaneous Test	None
	RELATIVE HUMITY (%)	55 Max. Normal 90 Max. Abnormal Accident Profile 2	100	1	3	Simultaneous Test	None
	CHEMICAL SPRAY	Demineralized Water	Borated Water	1	3	Simultaneous Test	None
	RADIATION (RAD)	7.1×10^7	2×10^8	1	3	Sequential Test	None
	AGING	40 years	40 years Note 2	1	3,4	Sequential Test and Engineering Analysis	None Note 2
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Ali Nasir 6/24/83

Reviewed by: [signature] 6/24/83

DOCUMENTATION REFERENCES

1. FSAR paragraph 3.11
2. BRI CIE list Rev. 8, dated 6/1/83
3. Report QR 52600-5940-2, Qualification Test Report on SNUPPS Solenoid Valves, 7/11/79, with Attachments I through XII
4. QID # 361014
5. BRI Calc. #5.51.055

NOTES

Qualified

1.

EPN	Elev.	Coordinates
PSR-V-X73/1	C522	
-X73/2	R534	H.5/4.8
-X80/1	C522	
-X80/2	R534	H.2/7.4
-X82/1	R476	H.7/7.7
-X82/2	R476	H.7/7.7

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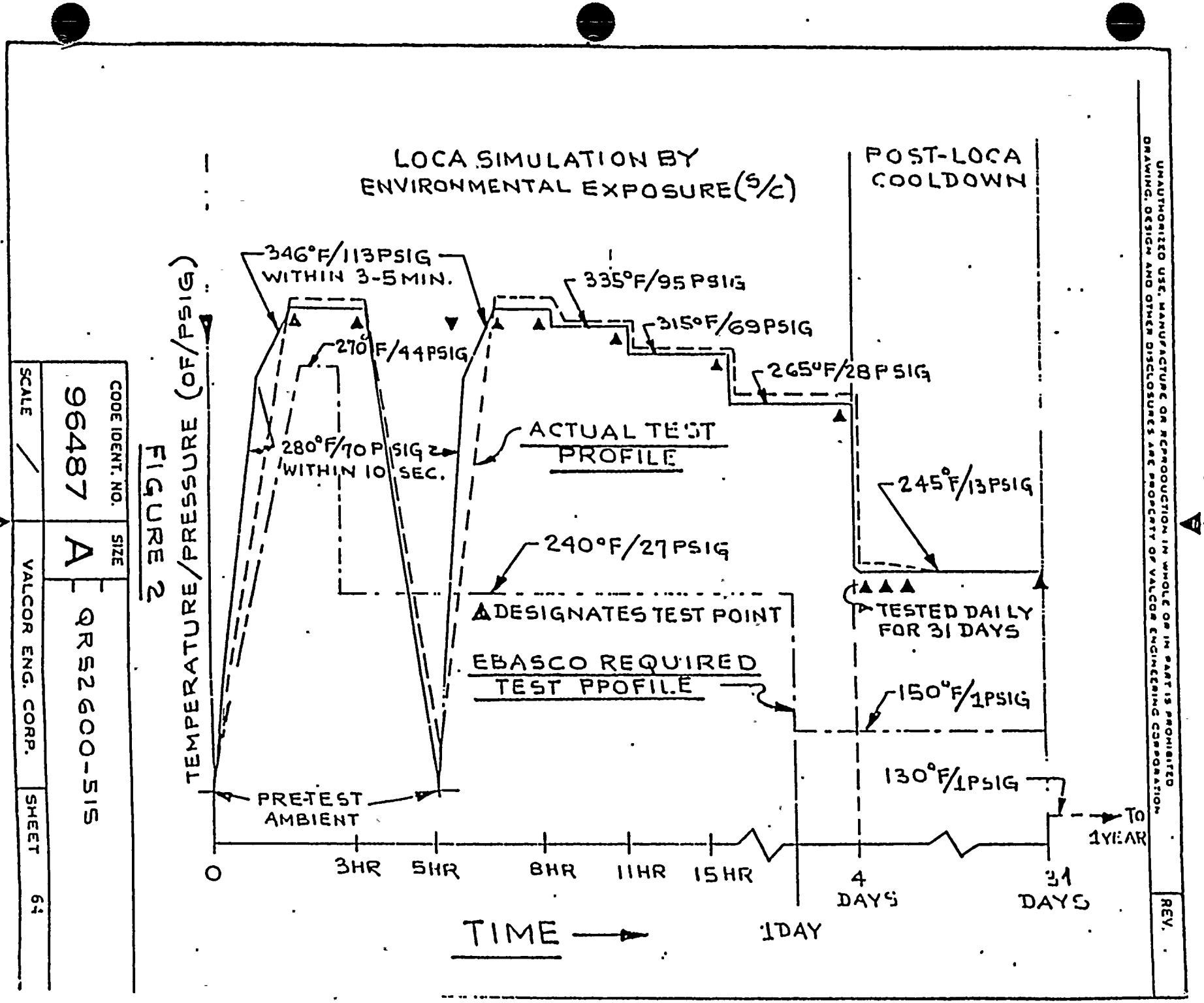
DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

1. Continued

EPN	Elev.	Corordinates
PSR-V-X82/7	R476	M.4/7.7
-X82/8	R476	M.6/7.7
-X83/1	R476	M.4/7.7
-X83/2	R476	M.6/7.7
-X84/1	R477	J.0/4.9
-X84/2	R477	J.0/4.9
-X88/1	R455	N.2/6.1
-X88/2	R455	N.2/6.2

2. PSR-V-X73/1 and X80/1 are in containment and are qualified to 19 years. A preventive maintenance and surveillance program is being developed to extend the aging.

By: ali Nanbi 6/24/83 Ckd: Alyl Pal 6/24/83


LOCA SIMULATION BY
ENVIRONMENTAL EXPOSURE(S/C)
POST-LOCA
COOLDOWN
346°F/113PSIG
WITHIN 3-5 MIN.
335°F/95 PSIG
315°F/69PSIG
270°F/44PSIG
265°F/28 PSIG
280°F/70 PSIG
WITHIN 10 SEC.
ACTUAL TEST
PROFILE
245°F/13PSIG
240°F/27PSIG
DESIGNATES TEST POINT
TESTED DAILY
FOR 31 DAYS
EBASCO REQUIRED
TEST PROFILE
150°F/1PSIG
130°F/1PSIG
TO
1YEAR
PRE-TEST
AMBIENT
TEMPERATURE/PRESSURE (°F/PSIG)
0
3HR
5HR
8HR
11HR
15HR
4
DAYS
31
DAYS
1DAY
TIME
FIGURE 2
SCALE
CODE IDENT. NO.
96487
SIZE
A
VALCOR ENG. CORP.
QR52600-515
SHEET 64
REV.
UNAUTHORIZED USE, MANUFACTURE OR REPRODUCTION IN WHOLE OR IN PART IS PROHIBITED
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WPPSS QID 361015

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-220

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Process Sampling Radioactive TAG NUMBER PSR-V-(See Note 2) MANUFACTURER Target Rock MODEL NUMBER 82H-001 COMPONENT Solenoid Operated Valve FUNCTION/SERVICE Containment Isolation Solenoid Valve, Penetration X77AC, AD LOCATION: BLDG Reactor ELEVATION (See Note 2) COLUMN (See Note 2)	OPERATING TIME	4320 Hours	Equivalent to 4320 Hours	1	3, 5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Accident Profile 4	See enclosed Profile	2	5	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	See enclosed Profile	2	5	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 Max. Normal 90 Max. Abnormal Accident Profile 4	100	2	5	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	Chemical Spray PH 8.6 to 10.0	2	5	Simultaneous Test	None
	RADIATION (RAD)	1.1×10^6	2.2×10^8	6	5	Sequential Test	None
	AGING	40 Years	40 Years	2	3, 5	Sequential Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV: (Ref. 4)
ABOVE FLOOD LEVEL?
YES X NO

Prepared by: Lucida Vaccari 9/12/83 Reviewed by: James Mecane 9/12/83

DOCUMENTATION REFERENCES

1. BRT Class 1E Equipment List, Rev. 8, 6/1/83
2. FSAR Paragraph 3, 11
3. QID #324002
4. BRI Calculation 5.51.055
5. Test Report #2375A, Target Rock Corporation
6. EDS Calculation 0740-004-501K1

NOTES

Qualified (All except PSR-V-X77A/1,3)

1. (PSR-V-X-77A/1,3): These EPN are on Table B of the JIO and do not require qualification prior to fuel load.

2.

Tag Numbers	Bldg.	Elevation	Column	Function/Service
PSR-V-X77A/1	C	501		ISO.Pene. X77AC
-X77A/2	R	503	J.6/8.0	ISO.Pene. X77AC
-X77A/3	C	501		ISO.Pene. X77AD
-X77A/4	R	503	J.6/7.4	ISO.Pene. X77AD

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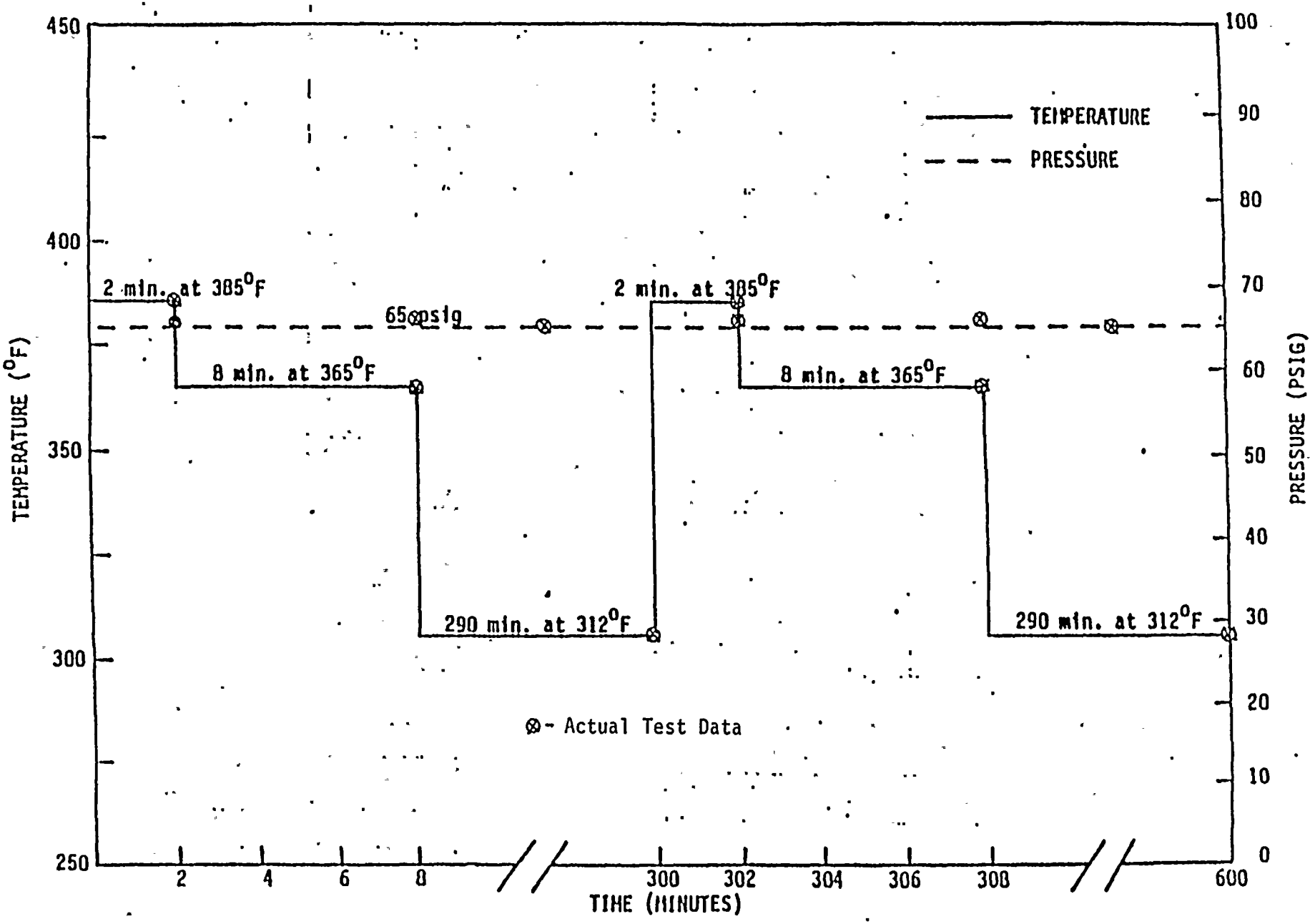
Revision: 2
Date: September 1982



ENVIRONMENTAL QUALIFICATION TEST PROFILE FOR TARGET ROCK SOLENOID VALVES

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Closed Cooling Water TAG NUMBER RCC-MO-104 MANUFACTURER Limitorque MODEL NUMBER SMB-0 COMPONENT Reliance Motor Operator AC/Class RH Insulation FUNCTION/SERVICE Motor Operator for RCC-V-104 LOCATION: BLDG R ELEVATION 517 COLUMN K.0/4.3	OPERATING TIME	4320 Hours	Equivalent to > 6 months	1	4,6	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident profile 4	See enclosed profile	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	See Enclosed profile	2	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident profile 4	100	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	N/A
	RADIATION (RAD)	2.6×10^6	2.04×10^8	3	4	Sequential Test	None
	AGING	40 years	N/A	2	4,5,6	Separate Effects and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	N/A

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Bernard Mahieu 6/24/83 Reviewed by: James Means 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, REV 8, 6/1/83 2. FSAR Par. 3.11 3. EDS Study 0740-004-501S 4. Limitorque Report 600376A dated 5/13/76 5. Limitorque Report B0058 dated 1/11/80 6. QID # 221001 7. BRI Calculation #5.51.055	Qualified

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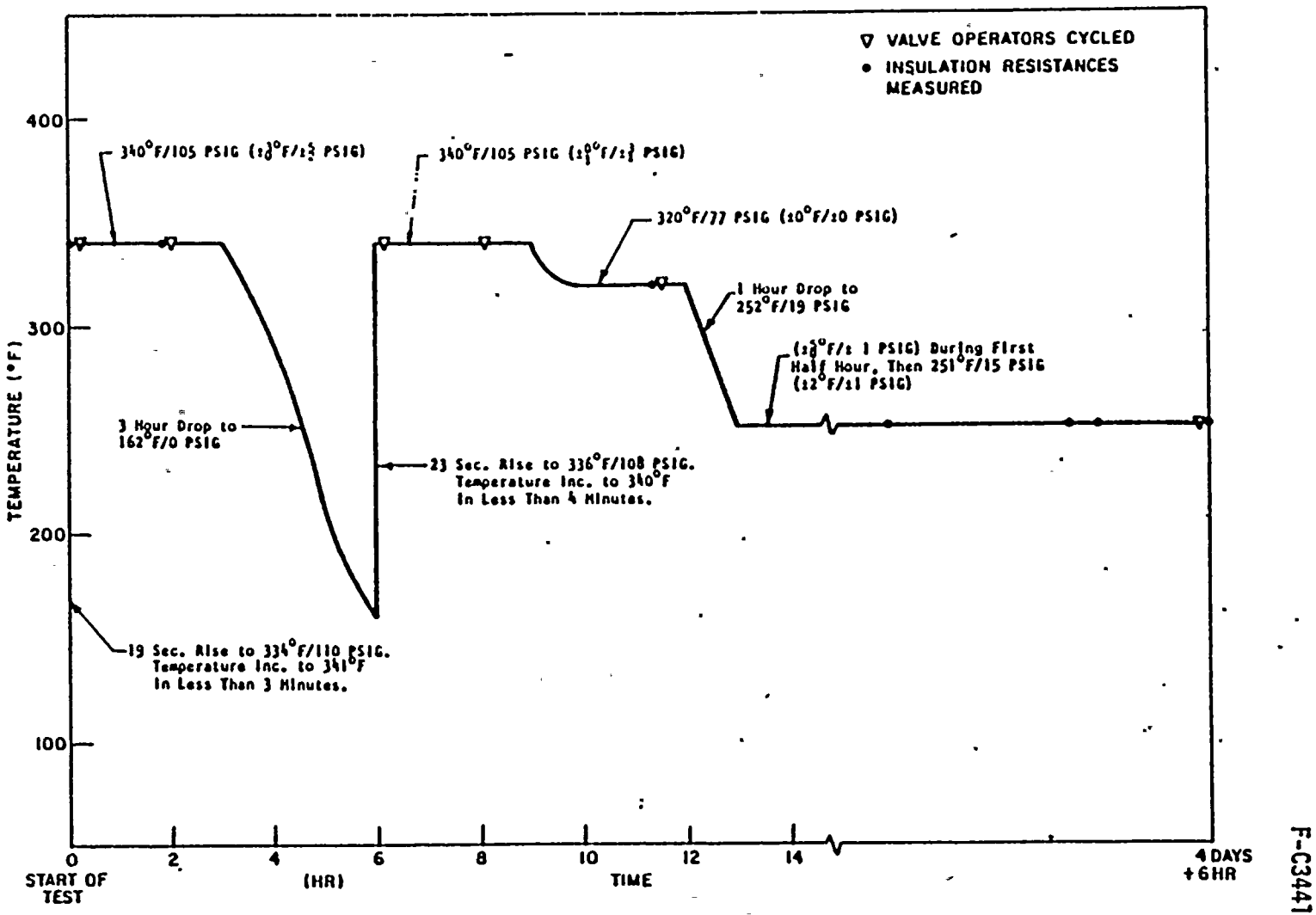

Figure 3. Actual Steam Exposure Profile

WPPSS

QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Closed Cooling Water TAG NUMBER RCC-MO-129 -130 -131 MANUFACTURER Limitorque MODEL NUMBER SMB COMPONENT Reliance AC Motor Class B Insulation FUNCTION/SERVICE Operate RCC Valves LOCATION: BLDG R ELEVATION 559 COLUMN 129 130 K.6/9.3 131 K.5/9.2	OPERATING TIME	4320 hours	Equivalent to > 6 months	1	3,4	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4	See enclosed profile	1	3	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	N/A	1	N/A	N/A	None
	RELATIVE HUMITY (%)	40 normal 90 max abnormal Accident Profile 4	100	1	3	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	1.5×10^5	2×10^7	2	3	Sequential Test	None
	AGING	40 years	40 years	1	3,4	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Behzad Mobini 6/24/83 Reviewed by: James Means 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, Rev 6, 6/1/83 2. EDS Study 0740-004-548L 3. Limitorque Report B0003 with Addendum A dated 5/8/76 in BHR-054-C-04 4. Calculations in QID 221001 5. BRI Calc. #5.51.055	1. Qualified

NP-1081

TEMPERATURE PROFILE

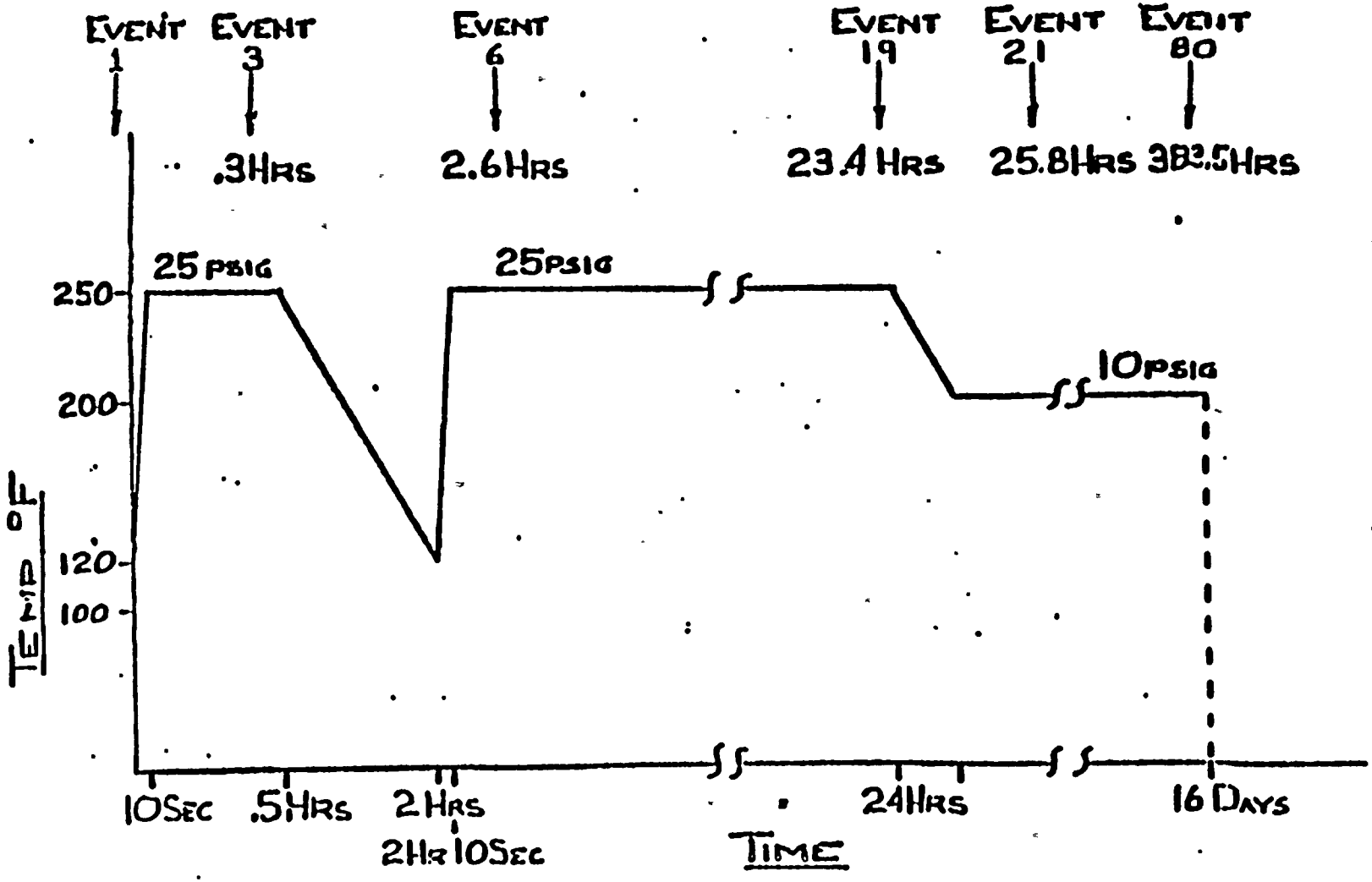

FIGURE 1

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #221001

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A
MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Closed Cooling Water TAG NUMBER RCC-MO-5 RCC-MO-21 MANUFACTURER Limitorque MODEL NUMBER SMB-0-15/M56 COMPONENT AC Motor Operator Reliance, Ins. B FUNCTION/SERVICE 1HP 2.8A Motor Operator RCC-V-5 LOCATION: BLDG R ELEVATION 516 COLUMN K5/4.1, K4/2.2	OPERATING TIME	4320 hours	Equivalent to > 4320 hours	1	4	Engineering Analysis, Sequential Test	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident Profile 4	see enclosed profile	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	see enclosed profile	2	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4	100	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	2.6×10^6	2×10^7	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4, 5	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Ali Rankin 6/24/83

Reviewed by: James Means 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. BRI C1E list, REV 8 6/1/83 2. FSAR Par. 3.11 3. EDS Study 0740-004-501 S 4. Limitorque Test Report B0003, 5/8/76 5. QID 221001 6. BRI Calc. #5.51.055	Qualified.

TEMPERATURE PROFILE

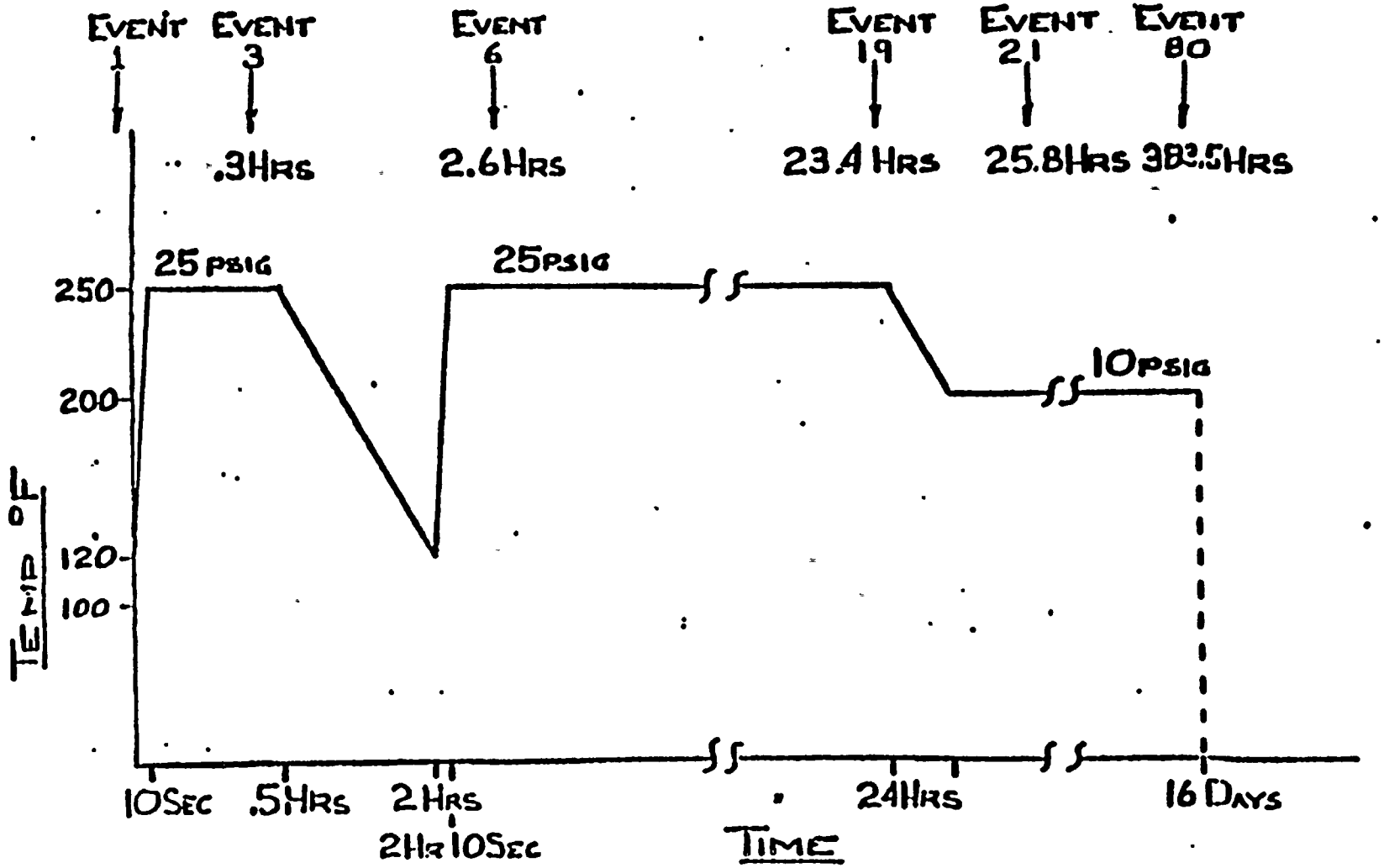

FIGURE 1

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Closed Cooling Water TAG NUMBER RCC-MO-40 MANUFACTURER Limitorque MODEL NUMBER SMB-0-10/L56 COMPONENT Motor Operator Motor Reliance, Class RH Insulation/AC Motor FUNCTION/SERVICE 0.7 HP 2.3A Motor Operator RCC-V-40 LOCATION: BLDG C ELEVATION 517 COLUMN 78° AZ	OPERATING TIME	4320 hours	Equivalent to > 6 months	1	3,4	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	135 normal 150 abnormal Accident--profile 1	See enclosed profile	2	3	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 normal 16.7 abnormal Accident--profile 1	See enclosed profile	2	3	Simultaneous Test	None
	RELATIVE HUMITY (%)	55 normal 90 abnormal Accident--profile 2	100	2	3	Simultaneous Test	None
	CHEMICAL SPRAY	Demineralized Water	Chemical Spray pH 10	1	3	Simultaneous Test	None
	RADIATION (RAD)	7.0×10^7	2.04×10^8	2	3	Sequential Test	None
	AGING	40 years	40 years +	2	3,4	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL? (Ref. 6)
YES X NO

Prepared by: Behzad Mobini 6.24.83 Reviewed by: James Mearns 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, REV 8, 6/1/83 2. FSAR Par. 3.11 3. Limitorque Test Report 600376A dated 5/13/76 4. QID 221001 5. Limitorque Test Report B0058 dated 1/11/80 6. BRI Calculation #5.51.055	Qualified

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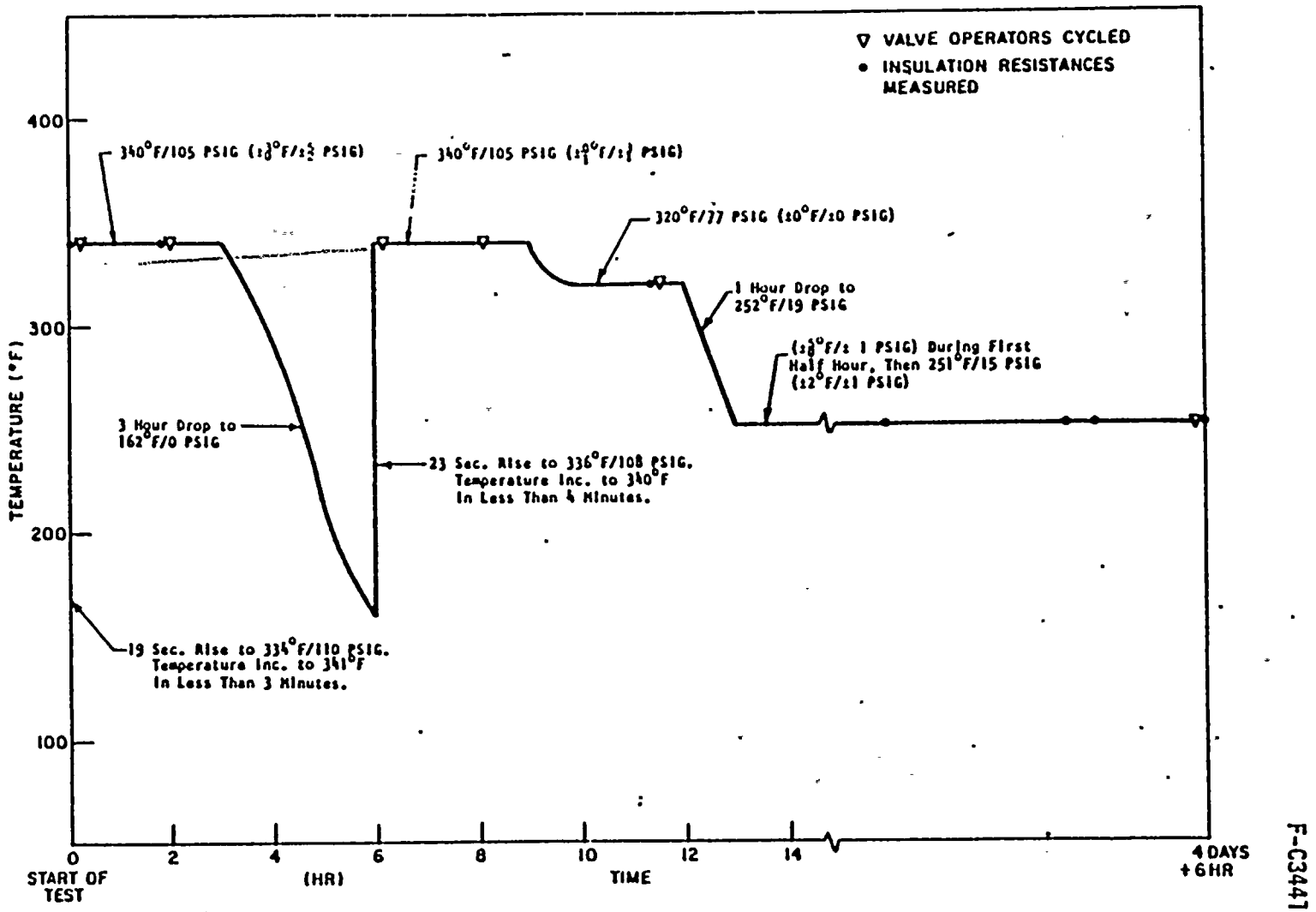

F-C3441

Figure 3. Actual Steam Exposure Profile

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Core Isolation Cooling TAG NUMBER RCIC-CNTR-C002 - EHO-C002 - SE-C002 - SS-1 - SV-C002 MANUFACTURER (See Note 2) MODEL NUMBER (See Note 2) COMPONENT (See Note 2) FUNCTION/SERVICE RCIC Turbine Control LOCATION: BLDG R ELEVATION 422 COLUMN (See Note 2)	OPERATING TIME	24 hr		3			Note 1
	TEMPERATURE (F)	40 max normal 90 max abnormal		1			
	PRESSURE (PSIA)	14.7		1			
	RELATIVE HUMITY (%)	40 normal 90 max abnormal		1			
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)			2			
	AGING	40 years		1			
	ACCURACY	N/A					

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared by: Behzad Mahoni 6-24-83 Reviewed by: James Williams 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. EDS Study 0740-004-422L 3. BRI CIE List, Rev. 8, dated 6/1/83 4. BRI CAlculation #5.51.055	1. Qualification options are currently being explored with General Electric. These components are on Table B of the JIO in Appendix D so qualification is not required prior to fuel load.

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DOCUMENTATION REFERENCES (Cont'd)

NOTES (Cont'd)

2.

Tag	Man	Model	Component	Column
RCIC-CNTR-C002	Square D	HCG-1	Contactor	H.6/7.4
_EHO-C002	Woodward Govenor	EGR	Hydraulic Actuator	H.6/7.4
_SE-C002	Woodward Govenor	1680-622	Magnetic Pickup Sensor	H.6/7.4
_SS-1	Micro-switch	BZLNZ	Overspeed Trip	H.7/6.9
-SV-C002	GE	CR9503	Throttle Valve	H.3/71

Prepared By: Linda Vaccari 6/24/83

Reviewed By: James D. Kearns 6/24/83

WPPSS QID #086001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E51
MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Core Isolation Cooling TAG NUMBER RCIC-DPIS-13 A, B -7 A, B MANUFACTURER Barton MODEL NUMBER 288A COMPONENT Differential pressure switch FUNCTION/SERVICE RCIC Steam high flow LOCATION: BLDG R ELEVATION 471 COLUMN L.0/8.0 K.9/3.9	OPERATING TIME	24 hours	Equivalent to >6 months	1	4	Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal accident profile 4	Profile 4	2	4	Engineering Analysis	None
	PRESSURE (PSIA)	14.7	N/A	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 normal 90 max. abnormal accident profile 4	Profile 4	2	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	5.0×10^5	3×10^6	3	4,5	Separate Test Engineering Analysis	None
	AGING	40 years	12 years	2	4	Engineering Analysis	None Note 1
	ACCURACY	1.5%	1.5%	6	4	Engineering Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Luide Vaccari 9/12/83 Reviewed by: James Mearns 9/12/83

DOCUMENTATION REFERENCES

1. BRI CIE list Rev. 8, dated 6/1/83
2. FSAR Paragrapn 3.11
3. EDS Report 0740-004-471A, D
4. QID File #086001
5. Qualification Test Report for Barton 288 Switch, Report #R3-288A-1
6. G.E. Document 22A2870AC
7. BRI Calculation #5.51.055

NOTES

Qualified

1. A preventive maintenance/surveillance program is being developed to extend the qualified life.

WPPSS QID #140001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC:

MPL:
PPD:

PAGE NO:
REVISION:4
DATE: July, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Core Isolation Cooling TAG NUMBER RCIC-FIS-2 MANUFACTURER ITT Barton MODEL NUMBER 289A COMPONENT Flow Indicating Switch FUNCTION/SERVICE RCIC System Flow LOCATION: BLDG R ELEVATION 471 COLUMN L.0/8.0	OPERATING TIME	24 hours	Equivalent to>24 hours	1	4,6	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4,9	212	2	6	Simultaneous Test	None
	PRESSURE (PSIA)	Normal 14.7 Accident Profile 9	Accident Profile 9	2	4,6	Simultaneous Test and Engineering Analysis	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal 100 accident	100	2	6	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	7.1×10^4	3.0×10^6	3	4,5	Separate Test and Engineering Analysis	None
	AGING	40 years	12 years	2	4	Engineering Analysis	None Note 1
	ACCURACY		2.4%		6	Simultaneous Test	None Note 2

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Bidyal Mahini 6-24-83 Reviewed by: James Meares 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. BRI ClE list for WNP-2, Rev. 8, dated 6/1/83 2. WNP-2 FSAR paragraph 3.11 3. EDS report 0740-004-471D 4. QID file #086001 5. Qualification test report for Barton 288A switch, report #R3-288A-1 6. Test report for Barton pressure switch 289A, GE report 05991, Rev. 1, 12/7/73 7. PRT Calc. #5.51.055	Qualified 1. A preventive maintenacne/surveillance program is being developed to extend the qualified life. 2. Required accuracy is being investigated. This equipment is on Table B of J10 and does not require qualification prior to fuel load.

WPPSS QID #156005.

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Core Isolation Cooling TAG NUMBER RCIC-FT-3 MANUFACTURER Rosemount MODEL NUMBER 1151DP5A22HBX COMPONENT Flow Transmitter FUNCTION/SERVICE Flow Transmitter to H22-P017 LOCATION: BLDG R ELEVATION 474 COLUMN L.0/8.0	OPERATING TIME	6 Months	Equivalent to >6 Months	1	4,5,7	Engineering Analysis, Separate Effects	None
	TEMPERATURE (F)	90 Normal 104 Abnormal Accident Profile 4	212°F	2	6	Sequential Effect	None
	PRESSURE (PSIA)	Normal 14.7	24.7	2	6	Sequential Effect	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4	100	2	6	Sequential Effect	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	
	RADIATION (RAD)	7.1×10^4	2×10^6	3	5	Separate Effects	None
	AGING	40 Years	14 Years	2	7	Engineering Analysis	None Note 1
	ACCURACY		1.88%		7	Simultaneous Test	Note 2

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 8)

Prepared by: [signature] 6/21/83

Reviewed by: [signature] 6/24/83

DOCUMENTATION REFERENCES

1. BRI CIE Equipment List, Rev. 8, dated 6/1/83
2. FSAR Paragraph 3.11
3. EDS Study 0740-004-471D
4. Rosemount Report 97215A dated 2/9/72
5. Rosemount Report 127227 dated 12/27/72
6. Rosemount Report 37327B dated 3/28/73
7. QID file 156005
8. BRI Calculation # 5.51.055

NOTES

1. A preventive maintenance/surveillance program is being developed to extend the qualified life.
2. This component is on Table B of the JIO, so it does not require qualification prior to fuel load.

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WPPSS QID# 207004E, 207002E, 207011E, 207020E

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC:
MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Core Isolation Cooling TAG NUMBER RCIC-LS-(note 1) MANUFACTURER Magnetrol MODEL NUMBER Note 1 COMPONENT Level Switch FUNCTION/SERVICE Note 2 LOCATION: BLDG R ELEVATION Note 1 COLUMN	OPERATING TIME	24 hours	24 hours	1	4,5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 Normal 104 Abnormal Accident Profile 4	300°	2	5	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 Normal	N/A	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4	100	2	5	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	N/A	N/A	N/A	None
	RADIATION (RAD)	1.2×10^7	1.2×10^7	3	4, 5	Engineering Analysis and Separate Test	None
	AGING	40 years	40 years	2	4	Engineering Analysis	None Note 3
	ACCURACY	± ½"	± ½"	7	4	Engineering Analysis	None Note 4

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL? (Ref.6)
YES X NO

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Weaver 9/2/83

DOCUMENTATION REFERENCES

1. Burns and Roe Electrical Equipment List Rev.8
2. FSAR paragraph 3.11
3. EDS-Report-0740-004-422L Rev.2
4. QID 207004E
5. Hyle Labs Type Test Program of Magnetrol Level Switches 43235-1 5/2/77 Rev.A
6. BRI Calc.#5.51.055
7. GE Documents 23A1619AA and 28A2869 AT

NOTES

Qualified

1.

	Model#	Loc.
RCIC-LS-3	751-SPX-M14	426' H.4/7.4-422L
-4	402-XXS-SP-M14	565' J.0/9.0-N
-5	402-XXS-SP-M14	563' N.0/9.0-J
-6	402-XXS-S1-M14	550' L.8/4.3-548B

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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)
	-10 5.0-751-1X-MPG M13HY 426' J.7/7.3 -15A 3.5-751-1X-MPG-M14HY 446' H.4/5.0 -15B 3.5-751-1XOMPG-M14HY 446' J.4/5.0 RCIC-LS-11 is on Table B of JIO. The qualification prior to fuel load is not required. 2. RCIC-LS-3 Level Switch for Turb Exhaust Drip. -4-6 Level Switch for RCIC Steam Trips -10 Level Switch for Drip Pot -11 Level Switch for RCIC Bar.Cond. Vacuum Tank Lev. -15A,B Emergency Switchover 3. Qualified Life for RCIC-LS-3 is 16 years. See QID 207011. 4. Accuracy only applies to EPN's RCIC-LS-15A,B,10. Other EPN's are passive. Accuracy is not required for passive equipment.
Prepared by: Lusida Vaccari 9/2/83	Reviewed by: James Means 9/2/83

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC:

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Core Isolation Cooling TAG NUMBER RCIC-MO-1, 10, -22, 45, 46 -59 MANUFACTURER Limitorque MODEL NUMBER SMB-000 COMPONENT DC or AC Motor W/B Insulation FUNCTION/SERVICE Motor operator for RCIC-V-1, 10, 22, 45, 46, 59 LOCATION: BLDG R ELEVATION Note 1 COLUMN	OPERATING TIME	24 hours	6 Months	1	4, 5	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90° Normal 104° Abnormal Accident Profile 4	See Enclosed Profile	2	5	Simultaneous Test, Engineering Analysis	None
	PRESSURE (PSIA)	14.7	See Enclosed Profile	2	5	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4	100%	2	5	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	N/A	N/A	N/A	None
	RADIATION (RAD)	1.2×10^7	2×10^7	2	4	Sequential Test	None
	AGING	40 Years	40 Years	2	4	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL? (Ref. 6)
YES X NO

Prepared by: Richard Mathis 6.24.83 Reviewed by: James Meadows 6/24/83

DOCUMENTATION REFERENCES

1. Burns & Roe Class 1E Electrical Equipment Generic List Rev. 6
2. FSAR Paragraph 3.11
3. EDS report 0740-004-422L
4. QID 221001 E
5. Limitorque Report B0003 with Add. A dated 5/8/76
6. BRI Calculation # 5.51.055

NOTES

Qualified

1.

EPN	Elevation	Coordinates
RCIC-MO-1	430	H6/7.2
-10	430	H4/6.6
-22	448	H6/8.0
-45	430	H3/7.2
-46	430	H3/7.2
-59	446	H5/8.2

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TEMPERATURE PROFILE

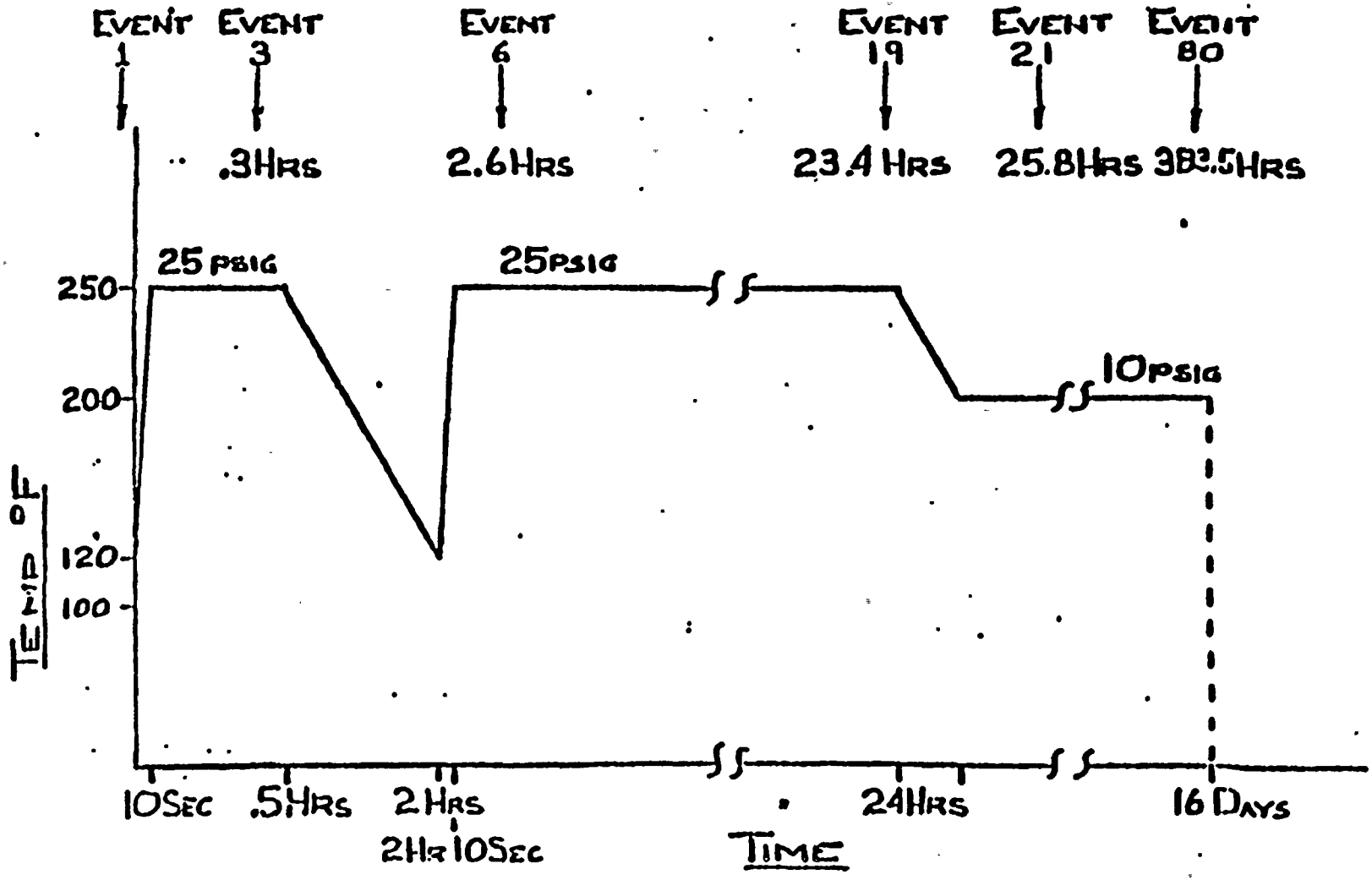

FIGURE 1

WPPSS

QID#221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Core Isolation Cooling TAG NUMBER RCIC-MO-19 MANUFACTURER Limitorque MODEL NUMBER SMB-000-5/p56 COMPONENT Motor operator AC Motor/Class B Insulation FUNCTION/SERVICE Motor operator for RCIC-V-19 LOCATION: BLDG R 467 ELEVATION COLUMN J.4/7.7	OPERATING TIME	4320 hours	Equivalent to > 6 months	1	4,5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal accident profile 4, 1X,4X	See enclosed profile	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	Nomnal 14.7 accident profile 1X,4X	See enclosed profile	2	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 max. abnormal Accident Profile 21X	100	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	4.0×10^6	2×10^7	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4,5,6	Sequential Test & Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Mearns 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI C1E list, REV 8, 6/1/83 2. FSAR Paragraph 3.11 3. EDS Report 0740-004-4411 4. Limitorque Test Report B0003, with Addendum A dated 5/8/76 5. Calculations in QID# 221001 6. Limitorque Test Report B0058 dated 1/11/80 7. BRI Calculation #5.51.055	Qualified

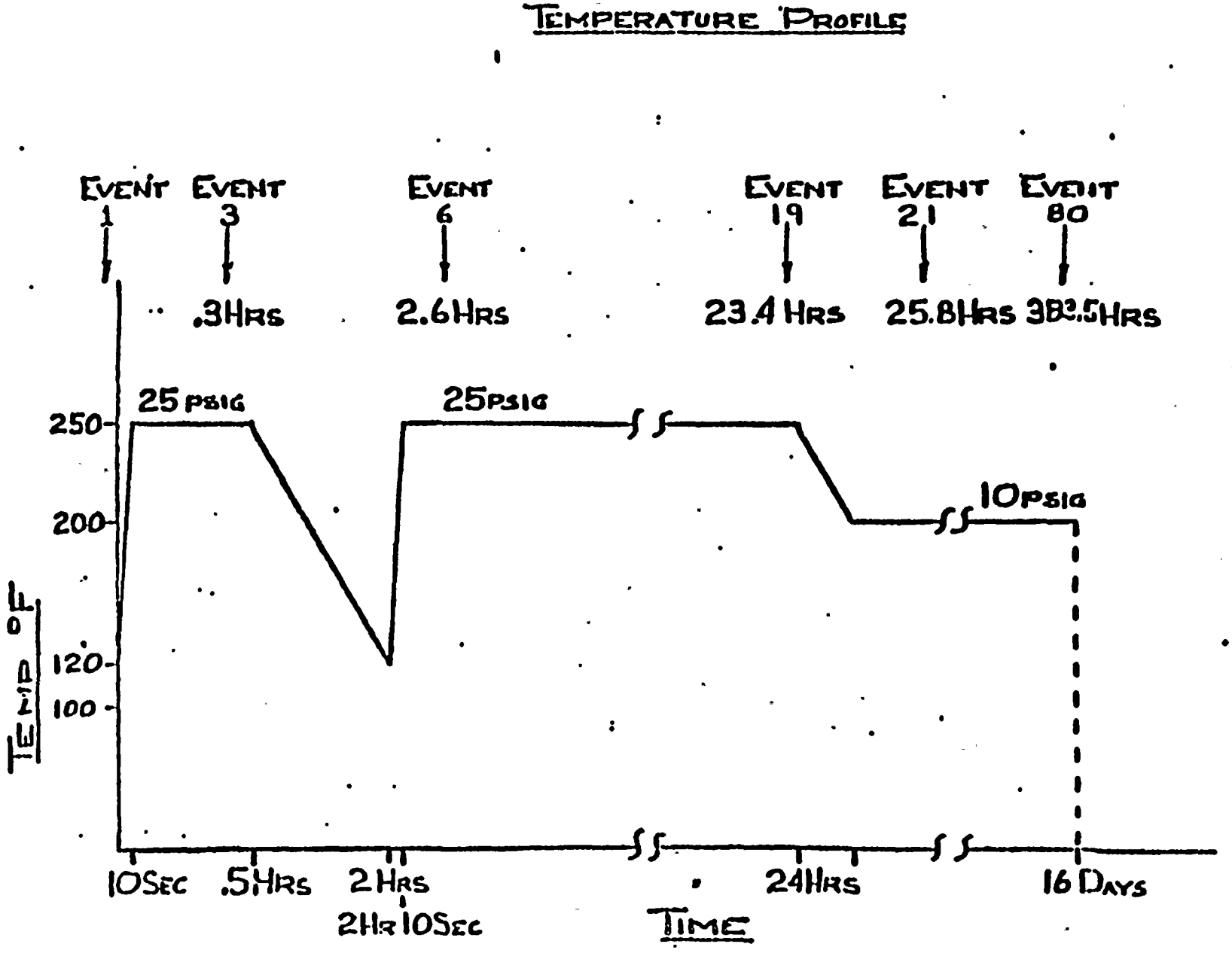
TEMPERATURE PROFILE
EVENT 1
EVENT 3
EVENT 6
EVENT 19
EVENT 21
EVENT 80
.3HRS
2.6HRS
23.4 HRS
25.8HRS
38?.5HRS
25 PSIG
25PSIG
10PSIG
250
200
120
100
TEMP °F
10SEC
.5HRS
2 HRS
2HR 10SEC
24HRS
16 DAYS
TIME

FIGURE 1

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Core Isolation Cooling TAG NUMBER RCIC-MO-31 MANUFACTURER Limitorque MODEL NUMBER SMB-00-15/B56 COMPONENT - Motor Operator Motor: Reliance Insulation: Class B FUNCTION/SERVICE AC Motor Operates suppression pool suction valve 31 LOCATION: BLDG R ELEVATION 450 COLUMN H.7/6.8	OPERATING TIME	4320 hours	Equivalent to > 6 months	1	4,5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident Profile 4,1X,4X	see enclosed profile	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	Normal 14.7 Accident Profile 1X,4X	see enclosed profile	2	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 21X	100	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	4.0×10^6	2.0×10^7	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4,5,6	Sequential Test Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Mearns 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI ClE list, REV 8, 6/1/83 2. FSAR Par. 3.11 3. EDS Study 0740-004-4411 4. Limitorque Test Report B0003, with Addendum A dated 5/8/76 5. QID 221001 6. Limitorque test report B0058 dated 1/11/80 7. BRI Calculation #5.51.055	Qualified.

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TEMPERATURE PROFILE

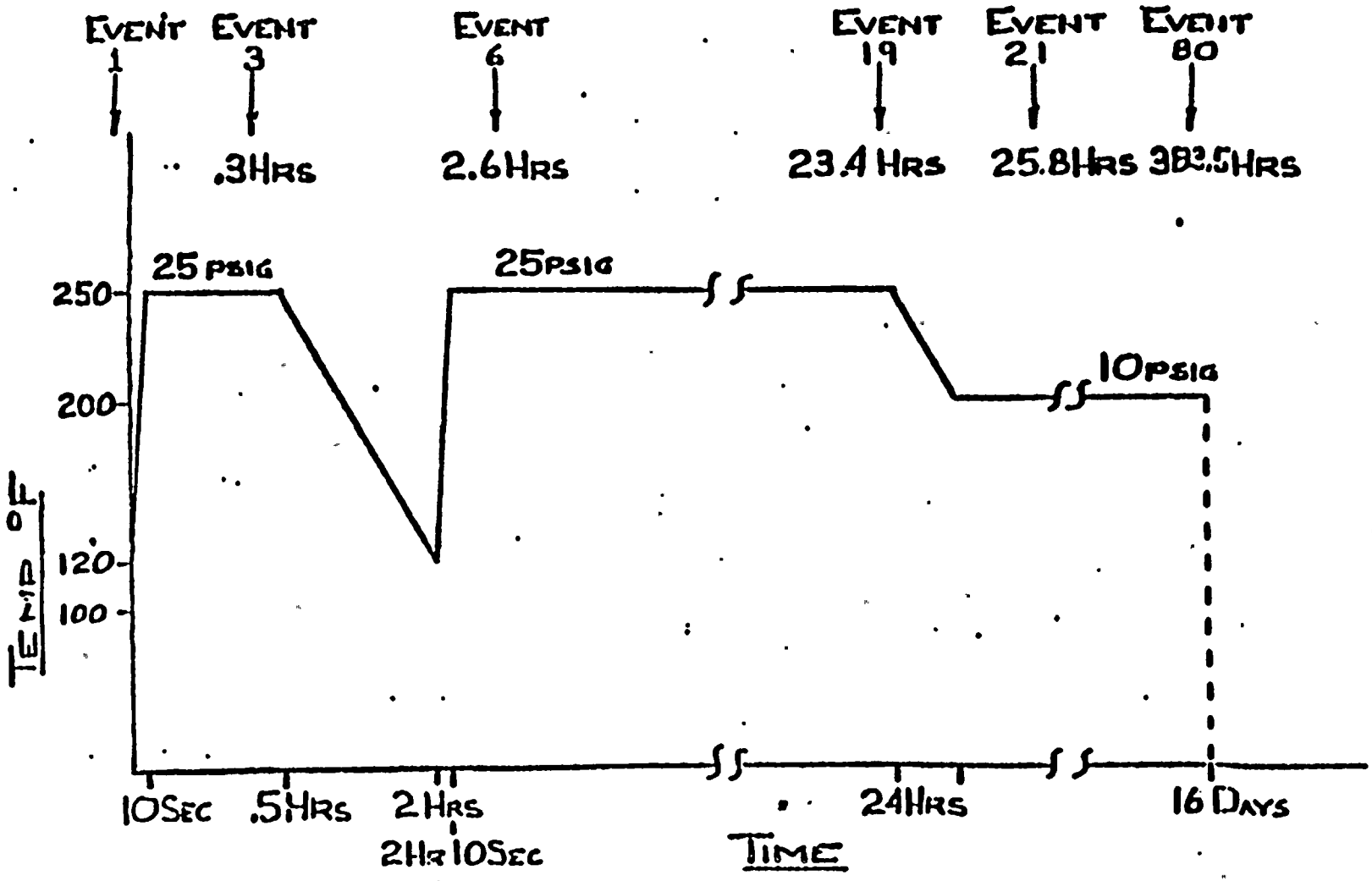


FIGURE 1

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE September, 1983

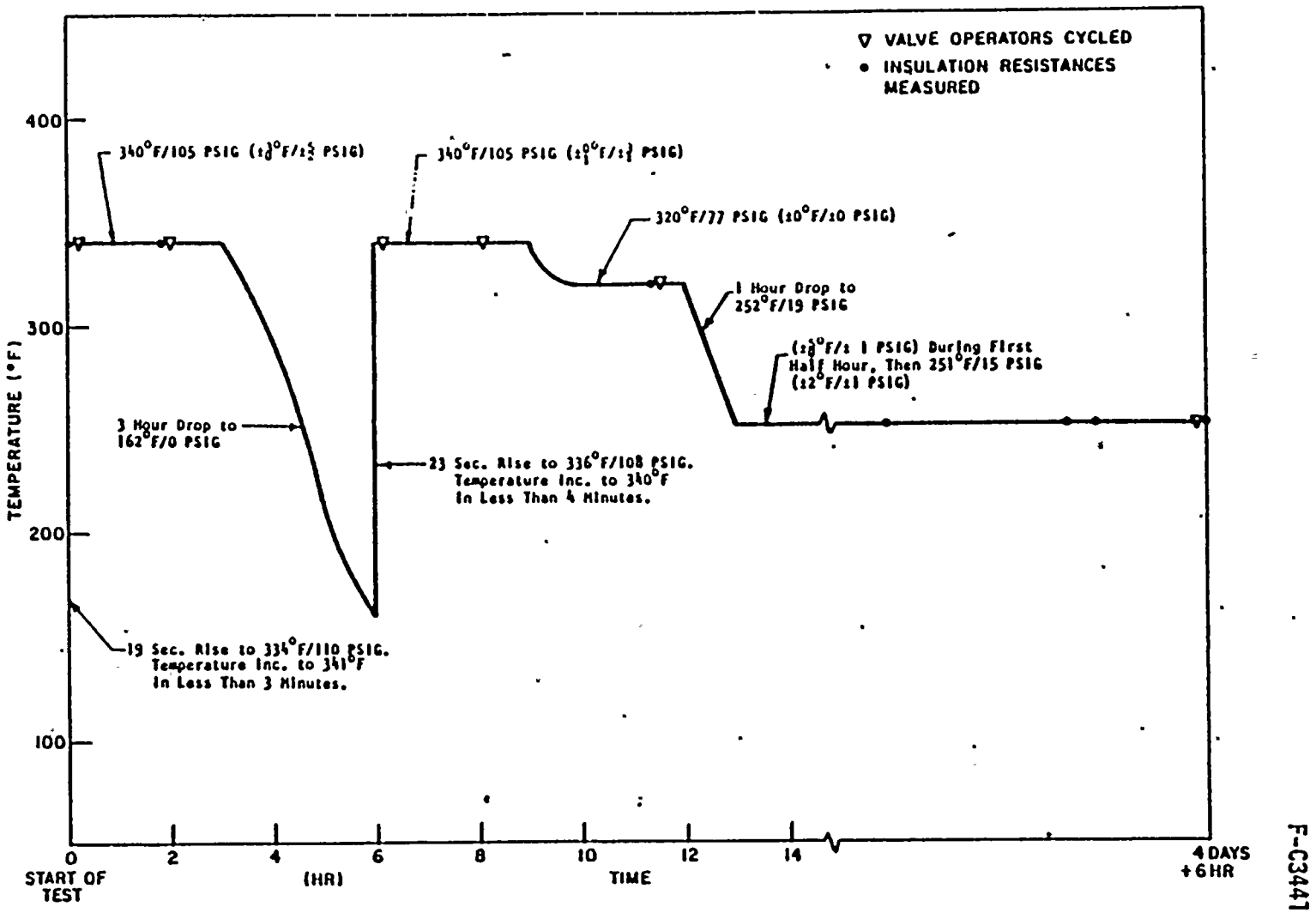
EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Core Isolation Cooling TAG NUMBER RCIC-MO-63 MANUFACTURER Limitorque MODEL NUMBER SMB-2-60/D215R2 COMPONENT Motor Operator - Reliance, RH insulation/AC Motor FUNCTION/SERVICE Operates RCIC Steam Supply LOCATION: BLDG C ELEVATION 556' COLUMN 131 Deg.	OPERATING TIME	4320 Hours	Equivalent to > 6 months	4	3,5	Engineering Analysis and Simultaneous Test	None
	TEMPERATURE (F)	135 max. normal 150 max. abnormal Accident - see profile 1	See enclosed profile	1	3	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 max. normal 16.7 max. abnormal Accident - see profile 1	See enclosed profile	1	3	Simultaneous Test	None
	RELATIVE HUMITY (%)	55 max. normal 90 max. abnormal Accident Profile 2	100	1	3	Simultaneous Test	None
	CHEMICAL SPRAY	Demineralized water	Chemical Spray pH 10	1	3, 5	Simultaneous Test	None
	RADIATION (RAD)	7.0×10^7	2.04×10^8	1	3	Sequential Test	None
	AGING	40 years	40 years	1	2, 5	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Mears 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. Limitorque Report B0058 dated 1/11/80 3. Limitorque Report B600376A dated 5/13/76 4. BRI CIE list, REV 8, 6/1/83 5. QID #221001 6. BRI Calculation #5.51.055	Qualified.

WP-1081



F-C3441

Figure 3. Actual Steam Exposure Profile

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

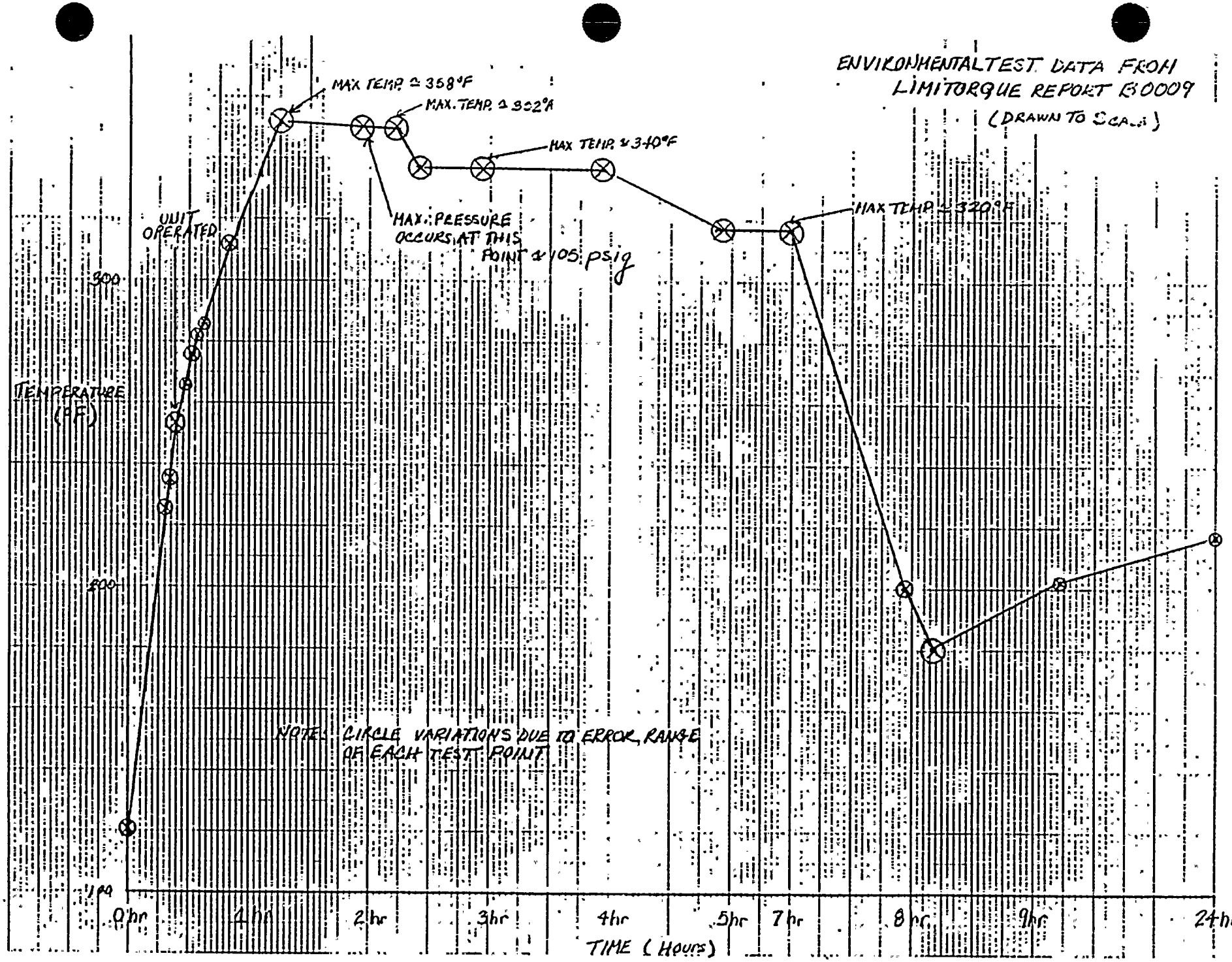
PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Core Isolation Cooling TAG NUMBER RCIC-MO-13 RCIC-MO-64 MANUFACTURER Limitorque MODEL NUMBER SMB-0-40/D202G SMB-2-80/DS224B COMPONENT Porter Peerless Valve Motor Operator DC Motor/Class RH Ins. DC Motor/Class H Ins. FUNCTION/SERVICE Operate RCIC valves LOCATION: BLDG R ELEVATION 551 548 COLUMN M5/5.7 L7/4.6	OPERATING TIME	4320 hours	Equivalent to > 6 months	5	3,4	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 maximum normal 104 maximum abnormal Accident Profile 4	See enclosed profile	1	3	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	See enclosed profile	1	N/A	N/A	None
	RELATIVE HUMITY (%)	40 normal 90 maximum abnormal Accident Profile 4,21	100	1	3	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	3.4×10^6	1×10^7	2	3	Sequential Test	None
	AGING	40 years	40+ years	1	3, 4	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Means 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. EDS Study 0740-004-548B 3. Limitorque Report B0009, 4/30/76 4. Application calculations in QID 221001 5. BRI C1E list, REV 8, 6/1/83 6. BRI Calculation #5.51.055	Qualified.


ENVIRONMENTAL TEST DATA FROM
LIMITORQUE REPORT B0009
(DRAWN TO SCALE)
MAX TEMP. ≈ 358°F
MAX. TEMP. ≈ 362°F
MAX TEMP. ≈ 340°F
MAX TEMP. ≈ 320°F
MAX. PRESSURE OCCURS AT THIS POINT ≈ 105 psig
UNIT OPERATED
TEMPERATURE (°F)
300
200
100
0 hr
1 hr
2 hr
3 hr
4 hr
5 hr
7 hr
8 hr
9 hr
24 hr
TIME (Hours)
NOTE: CIRCLE VARIATIONS DUE TO ERROR RANGE OF EACH TEST POINT

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM - Reactor Core Isolation Cooling TAG NUMBER RCIC-MO-68 MANUFACTURER Limitorque MODEL NUMBER SMB-015/DTS6F COMPONENT - Motor Operator Motor: DC Insulation: Class B Porter Peerless FUNCTION/SERVICE Operator Turbine Exhaust Isolation Valve LOCATION: BLDG R ELEVATION 477 COLUMN J.9/6.7	OPERATING TIME	4320 hours	Equivalent to >6 months	1	4, 5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident Profile 4	See enclosed profile	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	N/A e	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4 ,21X	100	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	4.8×10^6	1×10^7	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4,5,6	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Means 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, REV 8, 6/1/83 2. FSAR Par. 3.11 3. EDS Study 0740-004-471I 4. Limitorque Test Report B0003 dated 5/8/76 5. QID 221001 6. Limitorque Test Report B0058 dated 1/11/80 7. BRI Calculation #5.51.055	Qualified.

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TEMPERATURE PROFILE

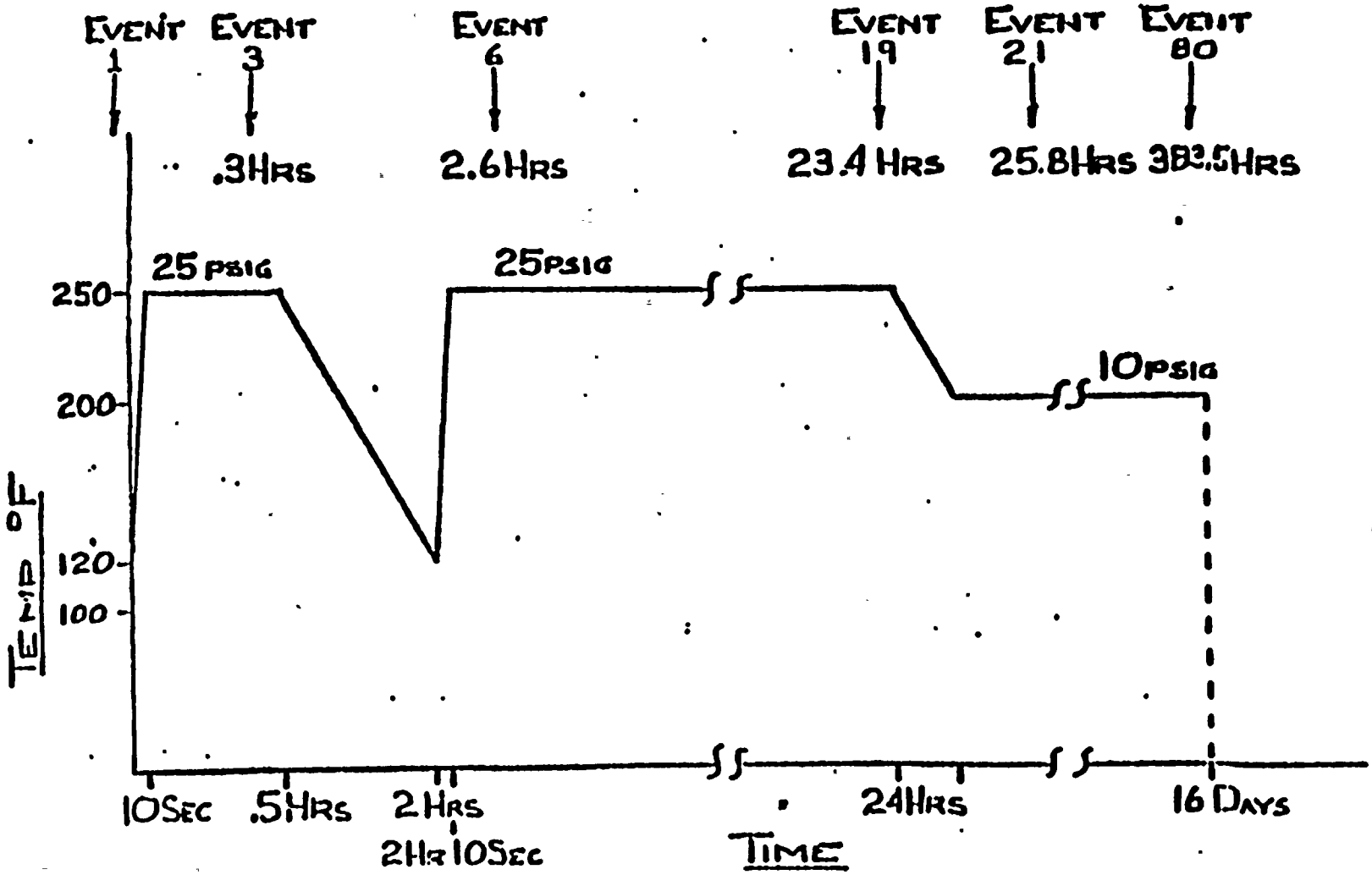


FIGURE 1

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

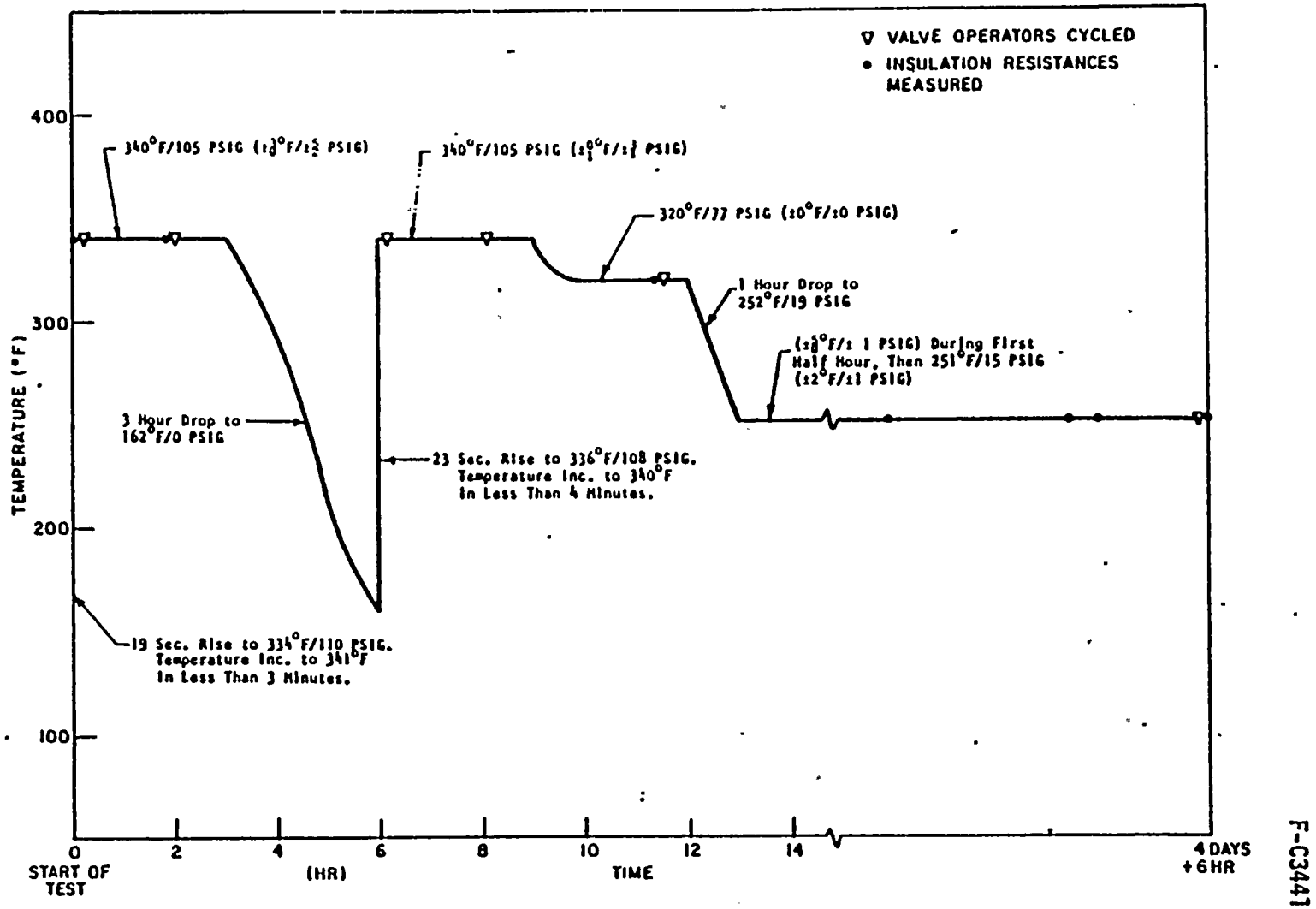
PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Core Isolation Cooling TAG NUMBER RCIC-MO-69 MANUFACTURER Limitorque MODEL NUMBER SMB-000 COMPONENT Porter-peerless Motor Operator DC Motor/ Class RH FUNCTION/SERVICE LOCATION: BLDG R ELEVATION 466 COLUMN H6/6.6	OPERATING TIME	4320 hours	Equivalent to > 6 months	1	4, 5	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profile 4,1X,4X	See enclosed profile	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	Normal 14.7 Accident Profile 1X,4X	See enclosed profile	2	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 21X	100	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	4×10^6	2.04×10^8	3	4	Sequential Test	None
	AGING	40 years	40 years+	2	4,5,6	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Means 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, REV 8, 6/1/83 2. FSAR Par. 3.11 3. EDS Study 0740-004-4911 4. Limitorque Report 600376A, 5/13/76 5. QID221001 6. Limitorque Report B0058 dated 1/11/80 7. BRI Calculation #5.51.055	Qualified.



F-C3441

Figure 3. Actual Steam Exposure Profile

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215
MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Core Isolation Cooling TAG NUMBER RCIC-MO-76 MANUFACTURER Limitorque MODEL NUMBER SMB-000 COMPONENT Reliance Motor Operator .33 HP MO for RCIC-V-76 AC Motor Class RH INS FUNCTION/SERVICE LOCATION: BLDG C ELEVATION 556 COLUMN 125 AZ	OPERATING TIME	24 hours	Equivalent to > 6 months	2	4,5	Simultaneous Test Engineering Analysis	None
	TEMPERATURE (F)	135 normal 150 abnormal accident--profile 1	See enclosed profile	1	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 normal 16.7 abnormal accident--profile 1	See enclosed profile	1	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	55normal 90 abnormal Accident Profile 2	100	1	4	Simultaneous Test	None
	CHEMICAL SPRAY	Demineralized water	Chemical Spray ph 10	1	4	Simultaneous Test	None
	RADIATION (RAD)	7.0×10^7	2.04×10^8	1	4	Sequential. Test	None
	AGING	40 years	40 years	1	4,5	Sequential Test and Engineering Analysis	None
	ACCURACY	N/A	N/A		N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Richard Makini 6/24/83 Reviewed by: James Means 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. BRI C1E list, REV 8, 6/1/83 3. Limitorque Report B0058 dated 1/11/80 4. Limitorque Report 600376A dated 5/13/76 5. QID# 221001 6. BRI Calculation #5.51.055	Qualified

WP-1081

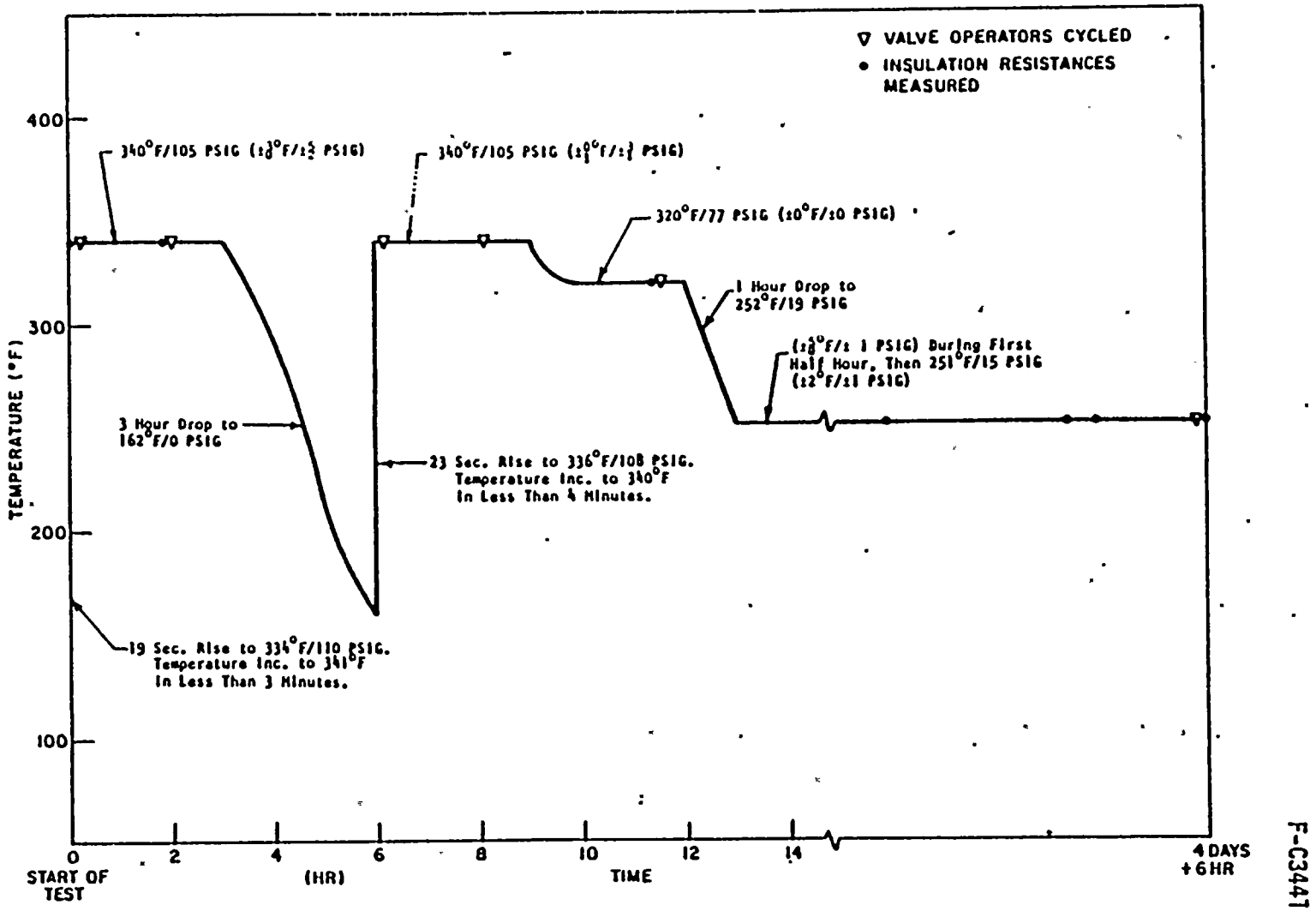


Figure 3. Actual Steam Exposure Profile

WPPSS

QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

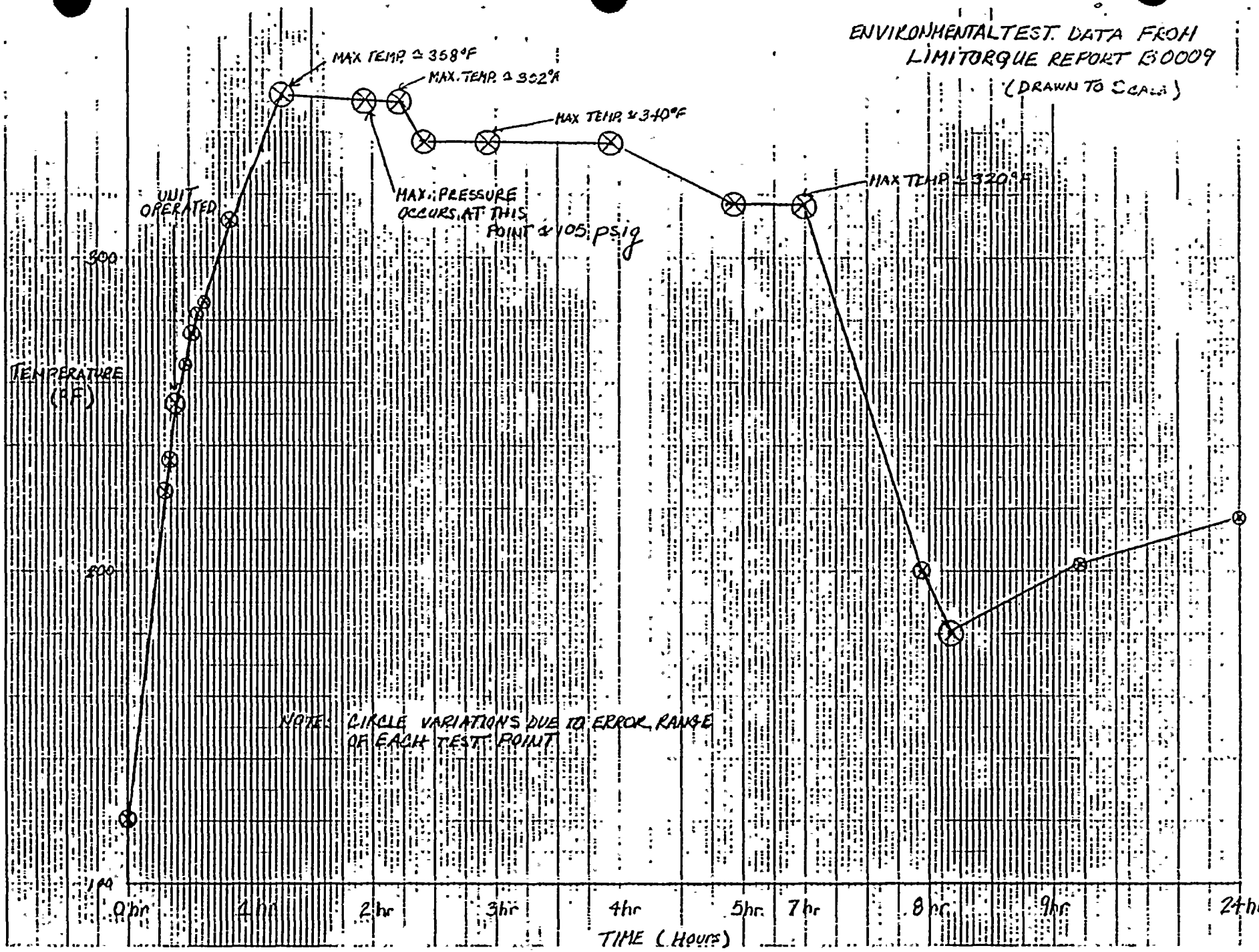
PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Core Isolation Cooling TAG NUMBER RCIC-MO-8 MANUFACTURER Limitorque MODEL NUMBER SMB-00-7.5/D56C COMPONENT Porter - Peerless Valve motor operator DC Motor/Class 1E FUNCTION/SERVICE Operate RCIC Valves LOCATION: BLDG R ELEVATION 510 COLUMN J.1/4.9	OPERATING TIME	4320 hours	Equivalent to > 6 months	1	3,4	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident Profile 4,6X	See enclosed profile	1	3	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 normal Accident profile 6X	See enclosed profile	1	N/A	N/A	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 21X	100	1	3	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	2.6×10^6	1×10^7	2	3	Sequential Test	None
	AGING	40 years	40 years+	1	3, 4	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Williams 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI C1E list, REV 8, 6/1/83 2. EDS Study 0740-004-501S 3. Limitorque Report B0009, 4/30/76 4. QID 221001 5. BRI Calculation #5.51.055	Qualified.


ENVIRONMENTAL TEST DATA FROM
LIMITORQUE REPORT 60009
(DRAWN TO SCALE)
MAX TEMP. ≈ 358°F
MAX. TEMP. ≈ 352°F
MAX TEMP. ≈ 340°F
MAX TEMP. ≈ 320°F
UNIT OPERATED
MAX. PRESSURE OCCURS AT THIS POINT ≈ 105 psig
TEMPERATURE (°F)
300
200
100
NOTE: CIRCLE VARIATIONS DUE TO ERROR RANGE OF EACH TEST POINT
0 hr
1 hr
2 hr
3 hr
4 hr
5 hr
7 hr
8 hr
9 hr
24 hr
TIME (Hours)

WPPSS

QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC:

MPL:
PPD:

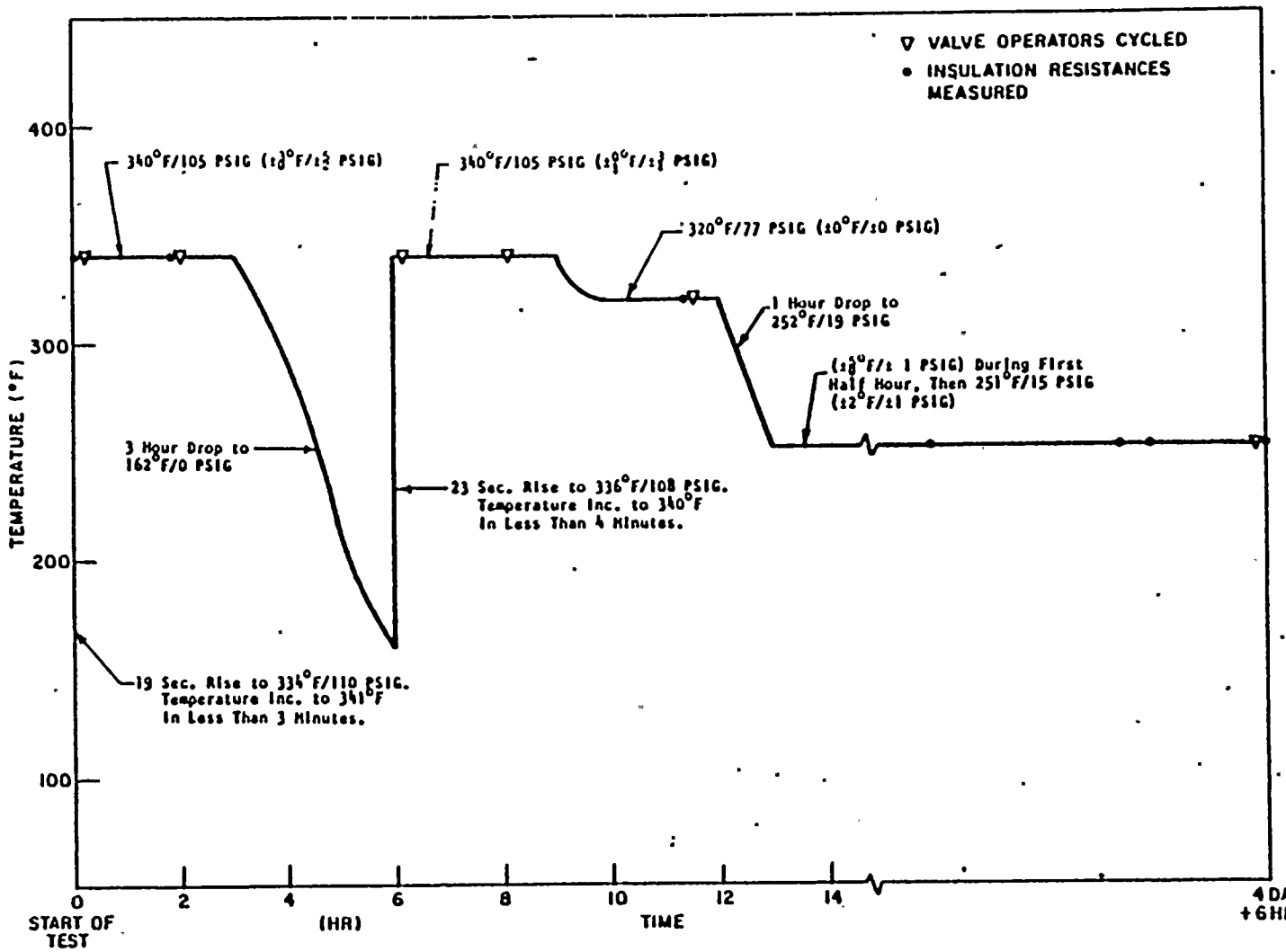
PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Core Isolation Cooling TAG NUMBER RCIC-MO- 80,86 MANUFACTURER Limitorque MODEL NUMBER SMB-000-5 COMPONENT Reliance Motor Operator AC Motor Class RH Ins. FUNCTION/SERVICE Operators for Valves RCIC-V-110 and 113 LOCATION: BLDG R ELEVATION 476 COLUMN J.4/7.5	OPERATING TIME	4320 Hours	Equivalent to >6 months	1	4, 5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident profile 4	See enclosed profile	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	See enclosed profile	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4,21X	100	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	4.8×10^6	2.04×10^8	3	4	Sequential Test	None
	AGING	40 years	40 years +	2	4,5,6	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Williams 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI ClE list, REV 8, 6/1/83 2. FSAR Par. 3.11 3. EDS Study 0740-004-4711 4. Limitorque Test Report 600376A dated 5/13/76 5. QID 221001 6. Limitorque Test Report B0058 dated 1/11/80 7. BRI Calculation #5.51.055	Qualified



F-C3441

Figure 3. Actual Steam Exposure Profile

WPPSS QID#200006

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02
MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Core Isolation Cooling TAG NUMBER RCIC-POS-(see Note 1) MANUFACTURER NAMCO MODEL NUMBER EA-18031302 COMPONENT Position Switch FUNCTION/SERVICE Valve position indication for RCIC-V-25,26,4,5,54 LOCATION: BLDG R ELEVATION 423 COLUMN (see Note 1)	OPERATING TIME	24 hours	>24 hours	1	4	Simultaneous Test	None
	TEMPERATURE (F)	90 Max.Normal 104 Max.Abnormal Accident Profile 4	340	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	84.7	2	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 Normal 90 Max.Abnormal Accident Profile 4	100	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.2×10^7	2.04×10^8	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4,5	Sequential test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref.6)

Prepared by: Linda Vaccari 9/12/83

Reviewed by: James Mearns 9/12/83

DOCUMENTATION REFERENCES

1. BRI CIE list, Rev.8 dated 6/1/83
2. FSAR Paragraph 3.11
3. EDS Calculation 0740-004-422L
4. "Qualification of NAMCO Controls Limit Switch Model EA-180 to IEEE Standards 344 ('75),323 ('74) and 382 ('72)" Rev.1 dated September 5, 1978.
5. QID#200006-E
6. BRI Calc.#5.51.055

NOTES

1. Qualified

Tag Number	Column
RCIC-POS-V/25	H.5/7.0
-V/26	H.5/7.0
-V/4	N.5/6.8
-V/5	H.3/6.8
-V/54	H.7/7.0

WPPSS QID # 256005

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-220

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor core isolation cooling TAG NUMBER RCIC-PS-9A,9B, 12A-D, 20,21 MANUFACTURER Barksdale MODEL NUMBER Note 3 COMPONENT Pressure Switch FUNCTION/SERVICE Pressure Switch for Turbine Discharge LOCATION: BLDG R ELEVATION COLUMN Note 3	OPERATING TIME	24 hours	Equivalent to > six months	1	3,4	Engineering Analysis and Simultaneous Test	None
	TEMPERATURE (F)	90 max normal 104 max abnormal	212	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	N/A	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal	100	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	5.0×10^5	2×10^6	6	3	Engineering Analysis	None
	AGING	40 years	16 years	2	3	Engineering Analysis	None Note 1
	ACCURACY		1.91% of full scale		3,4	Simultaneous Test and Engineering Analysis	Note 2

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Mearns 9/12/83

DOCUMENTATION REFERENCES

1. BRI CIE list, Rev.8, dated 6/1/83
2. FSAR paragraph 3.11
3. QID 256002
4. Barksdale environmental test/delaval turbines inc. test report # 9993, dated 8/13/75
5. BRI Calc. 5.51.055
6. EDS Calculation 0740-004-471A

NOTES

1. A preventive maintenance/surveillance program is being developed to extend the qualified life
2. The required accuracy is being investigated. This equipment is on Table B of the JIO and qualification is not required prior to fuel load.

DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

3.

Tag Number	Elevation	Column	Model No.
RCIC-PS-9A,B	427	H.4/8.5	P1H-M85SS-V
-12A	475	L.0/8.0	P1H-M85SS-V
-12B	475	L.0/4.0	P1H-M85SS-V
-12C	473	L.0/8.0	P1H-M85SS-V
-12D	473	L.0/4.0	P1H-M85SS-V
-20	474	L.0/8.0	P1H-M340SS-V
-21	473	L.1/8.2	P1H-M83SS-V

Prepared by: Linda Vaccaro 9/12/83

Reviewed by: James Means 9/12/83

WPPSS QID #256005

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E31
MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Core Isolation Cooling TAG NUMBER RCIC-PS-22A,B,C,D MANUFACTURER Barksdale MODEL NUMBER P1H-M85SS-V COMPONENT Pressure Switch FUNCTION/SERVICE Steam line pressure penetration monitoring LOCATION: BLDG R ELEVATION 474 COLUMN L.0/8.0 L.0/4.0	OPERATING TIME	24 Hours	Equivalent to > 6 months	1	4,5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal	212° F.	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	14.95	2	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 max. abnormal	100%	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	5.0×10^5	2.0×10^6	3	5	Engineering Analysis	None
	AGING	40 years	16 years	2	5	Engineering Analysis	None See Note 1
	ACCURACY	30.0%	1.91%	7	5,4	Simultaneous Test	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared By: Linda Vaccari 9/12/83 Reviewed By: James Meems 9/12/83

DOCUMENTATION REFERENCES

1. BRI C1E list, REV 8, 6/1/83
2. FSAR Paragraph 3.11
3. EDS Report 0740-004-471A,D
4. Barksdale Environmental Test Procedure No. 9993, 6/23/75.
5. QID File #256005
6. BRI Calc. #5.51.055

NOTES

Qualified

1. A preventive maintenance/surveillance program is being developed to extend the qualified life.

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Core Isolation Cooling TAG NUMBER RCIC- (See Note 2) MANUFACTURER Note 2 MODEL NUMBER Note 2 COMPONENT FUNCTION/SERVICE -Valve Position Switch -Aux. Cooling Supply -Suction Pressure -Lube Oil Pressure Switch -Pump Motor LOCATION: BLDG R ELEVATION Note 2 COLUMN Note 2	OPERATING TIME	24 hours		3			Note 1
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Accident Profile 4		1			
	PRESSURE (PSIA)	14.7					
	RELATIVE HUMITY (%)	40 Normal 90 Max. Abnormal Accident Profile 4		1			
	CHEMICAL SPRAY	N/A		1			
	RADIATION (RAD)	1.2×10^7		2			
	AGING	40 Years		1			
	ACCURACY						

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO / (Ref. 4)

Prepared by: Bchgad Makini 6/24/83 Reviewed by: James Mcarus 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Paragraph 3.11 2. EDS Study 0740-004-471D 3. BRI CIE List, Rev. 8, 6/1/83 4. BRI Calculation # 5.51.055	1. This equipment is on Table B of the JIO so it does not require qualification prior to fuel load.

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DOCUMENTATION REFERENCES (Cont'd)

NOTES (Cont'd)

2.

Tag Number	Manufacturer	Model Number	Elevation	Location
RCIC-POS-V/1	NAMCO	D1200G	427	H.6/7.4
RCIC-PS-1	ASCO	SC11AR	424	H.6/7.3
RCIC-PS-34	ROBERT SHAW	613	437	H.7/7.3
RCIC-PS-7	SQUARE D	9012ACW	422	-
RCIC-PT-4,7	BAILEY	556	473	K.9/8.2
-5	BAILEY	556	473	L.1/8.2
-8	BAILEY	556	473	L.0/8.2
RCIC-RLY-CR1,2	STRUTHERS DUNN	219BBXP,DC	422	H.4/7.1
RCIC-M-P/3	WESTINGHOUSE	TBDP/256T	422	J.0/8.3

Prepared by: Linda Vaccaro 6/24/83 Reviewed by: [illegible] 6/24/83

WPPSS QID#256016

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E51

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Core Isolation Cooling TAG NUMBER RCIC-PS-6 MANUFACTURER Static-O-Ring MODEL NUMBER 6N-AA21-X10-VSTT COMPONENT Pressure Switch FUNCTION/SERVICE RCIC pump suction pressure LOCATION: BLDG R ELEVATION 471 COLUMN L/8	OPERATING TIME	24 hours	> 6 months	1	4	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 Normal 104 Abnormal Accident Profile 4	212°	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	15.3	2	4	Simultaneous Test and Engineering Analysis	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4	100	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	N/A	N/A	N/A	None
	RADIATION (RAD)	7.1×10^4	1.5×10^6	3	4	Materials Test and Engineering Analysis	None
	AGING	40 years	16 years	2	4	Engineering Analysis	Note 1 - None
	ACCURACY						Note 2

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref.6)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Meserve 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, Rev.8, dated 6/1/83 2. FSAR paragraph 3.11 3. EDS Report 0740-004-471D 4. QID 256016 E 5. Viking Lab, Inc. Test Letter Report 30203-2 11/20/73 6. BRI Calc.#5.51.055	1. A preventative maintenance/surveillance program is being developed to extend the qualified life. 2. The equipment is on table B of J10 so, does not require qualification prior to fuel load.

NP-1081

WPPSS QID #315006

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-58
MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Core Isolation Cooling System TAG NUMBER RCIC-SPV-(see note 1) MANUFACTURER Automatic Switch (ASCO) MODEL NUMBER NP831654E COMPONENT Solenoid Pilot Valve FUNCTION/SERVICE (See Note 1) LOCATION: BLDG R ELEVATION COLUMN (See Note 1)	OPERATING TIME	24 hours	Equivalent to >6 months	1	5,6	Simultaneous Test Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident Profile 4	450	2	5	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	80.7	2	5	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 max. normal 90 max. abnormal Accident Profile 4	100	2	5	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	8.3×10^4	2.3×10^7	3	5	Sequential test	None
	AGING	40 years	10 years	2	5,6	Simultaneous Test and Engineering Analysis	None Note 2
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref.6)

Prepared by: Behzad Mahini 6/24/83 Reviewed by: James Means 6/24/83

DOCUMENTATION REFERENCES

1. 3RI CIE list, Rev.8, dated 6/1/83
2. FSAR Para3.11
3. EDS Study 0740-004-501K,471J
4. Calculation QID315004
5. ASCO Test Report No.AQS 21678/TR, Rev.A, July, 1979.
6. 3RI Calculation #5.51.055

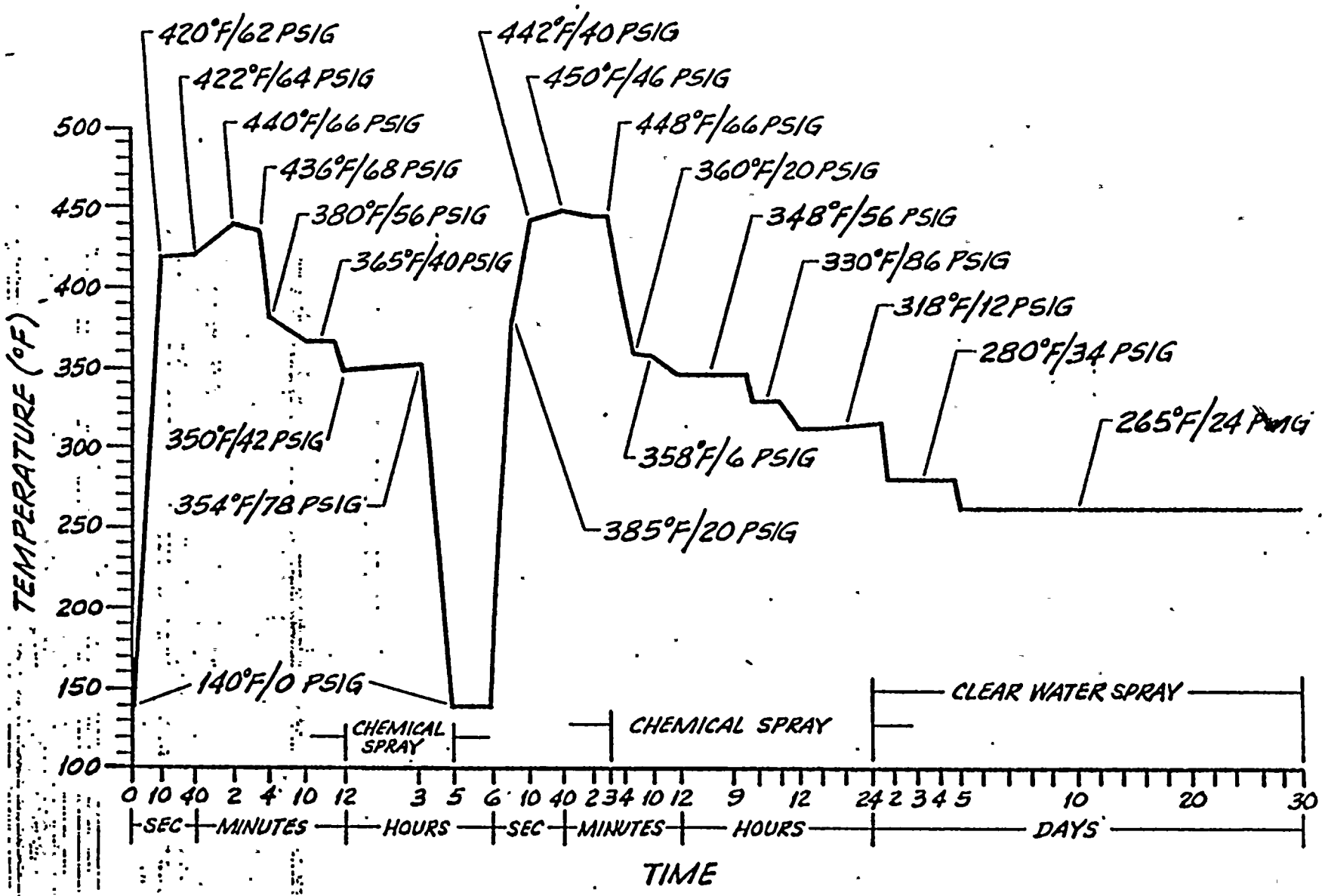
NOTES

Qualified

1.Tag Number	Function/Service	Elev.	Column
RCIC-SPV-25	Pilot Valve for RCIC-V-25	478	H.4/6.8
-26	Pilot Valve for RCIC-V-26	504	L.4/9.3
- 4	Pilot Valve for RCIC-V- 4	428	H.4/6.8
- 5	Pilot Valve for RCIC-V- 5	506	L.4/9.3
-54	Pilot Valve for RCIC-V-54	477	H.4/6.8

2. A preventive maintenance/surveillance program is being developed to extend the qualified life.

WP-1081



ACTUAL TEMPERATURE/PRESSURE PARAMETERS FOR GROUP II LOCA/HELB SIMULATION

FIGURE 4.2

WPPSS QID 342009

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02
MPL:
PPD:

REVISION:
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Core Isolation Cooling TAG NUMBER RCIC-TIS-10A, B MANUFACTURER Ashcroft MODEL NUMBER 1165 COMPONENT Temperature switch FUNCTION/SERVICE Turbine governer and coupling temperature LOCATION: BLDG R. ELEVATION 422 COLUMN	OPERATING TIME	24 hours		3			Note 1
	TEMPERATURE (F)	40 max normal 90 max abnormal Accident Profile 4		1			
	PRESSURE (PSIA)	14.7					
	RELATIVE HUMITY (%)	40 normal 90 max abnormal Accident Profile 4		1			
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)			2			
	AGING	40 years		1			
	ACCURACY	N/A					

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Williams 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. EDS Study 0740-004-422L 3. BRI Class 1E Equipment List, Revision 8, 6/1/83 4. BRI Calculation #5.51.055	1. A documentation search is currently being performed. These components are on Table B of the JIO in Appendix D and do not require qualification prior to fuel load.

WP-1081

WPPSS QID #091001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-59
MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Building Exhaust Air TAG NUMBER REA-DPT-(Note 2) MANUFACTURER Rosemont MODEL NUMBER 1151DP3022MBGE01 COMPONENT Differential pressure transmitter FUNCTION/SERVICE Secondary containment pressure control LOCATION: BLDG R ELEVATION 576 COLUMN Note 2	OPERATING TIME	6 months	Equivalent to>6 months	1	4,5,7	Engineering Analysis, Separate effects	None
	TEMPERATURE (F)	90 normal 104 abnormal accident profile 4	212°F	2	5	Sequential Test	None
	PRESSURE (PSIA)	14.7	24.7 PSIA	2	6,7	Sequential Test	None
	RELATIVE HUMITY (%)	40 normal 90 max. abnormal accident profile 4,21X	100	2	7	Sequential Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.2×10^6	2×10^6	3	5	Separate effects	None
	AGING	40 years	14 years	2	7	Engineering Analysis	None See Note 1
	ACCURACY	2%	1.88%	9	7	Simultaneous Test and Engineering Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 8)

Prepared By: Linda Vaccari 9/2/83

Reviewed By: James Mecca 9/2/83

DOCUMENTATION REFERENCES

1. BRI CIE list Rev. 8, dated 6/1/83
2. FSAR Paragraph 3.11
3. EDS Report 0740-004-572 C, F, I, L, N
4. Rosemont Report 97215A, 2/9/72
5. Rosemont Report 127227, 12/27/72
6. Rosemont Report 37327B dated 3/28/73
7. QID File #091001
8. BRI Calculation #5.51.055
9. Supply System Calculation IN-02-83-01

NOTES

Qualified

1. A Preventive maintenance/surveillance program is being developed to extend the qualified life.

DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

2.

EPN	Column
REA-DPT-1A1	H.3/8.2
REA-DPT-1A2	H.7/3.5
REA-DPT-1A3	N.8/3.9
REA-DPT-1A4	H.8/9.4
REA-DPT-1B1	H.3/5.2
REA-DPT-1B2	N.7/3.5
REA-DPT-1B3	H.8/7.6
REA-DPT-1B4	N.1/9.4

Prepared by: Linda Vaccari 9/2/83

Reviewed by: James Morris 9/2/83

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC:

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Exhaust Air TAG NUMBER REA-M-AD/8 -POS-AD/8 MANUFACTURER Barber Coleman/Namco MODEL NUMBER HA410/EA700 COMPONENT Motor Position Switch FUNCTION/SERVICE Motor and Position Indication for REA-AD/8 LOCATION: BLDG R ELEVATION 559 COLUMN L.0/8.1	OPERATING TIME	4320 hr		3			Note 1
	TEMPERATURE (F)	40 max normal 90 max abnormal Accident Profile 4		1			
	PRESSURE (PSIA)	14.7		1			
	RELATIVE HUMITY (%)	40 normal 90 max abnormal Accident Profile 4		1			
	CHEMICAL SPRAY	N/A		1			
	RADIATION (RAD)	1.0×10^5		2			
	AGING	40 years		1			
	ACCURACY	N/A					

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared by: Bobby Makino 6/24/83 Reviewed by: James Mirarchi 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. EDS Study 0740-004-548K 3. BRI CIE List, Rev. 8, dated 6/1/83 4. BRI Calculation #5.51.055	1. A documentation search is currently being performed. These components are on Table B of the JIO in Appendix B so qualification is not required prior to fuel load.

WP-1081

WPPSS QID #200015

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-68
MPL:
PPD:

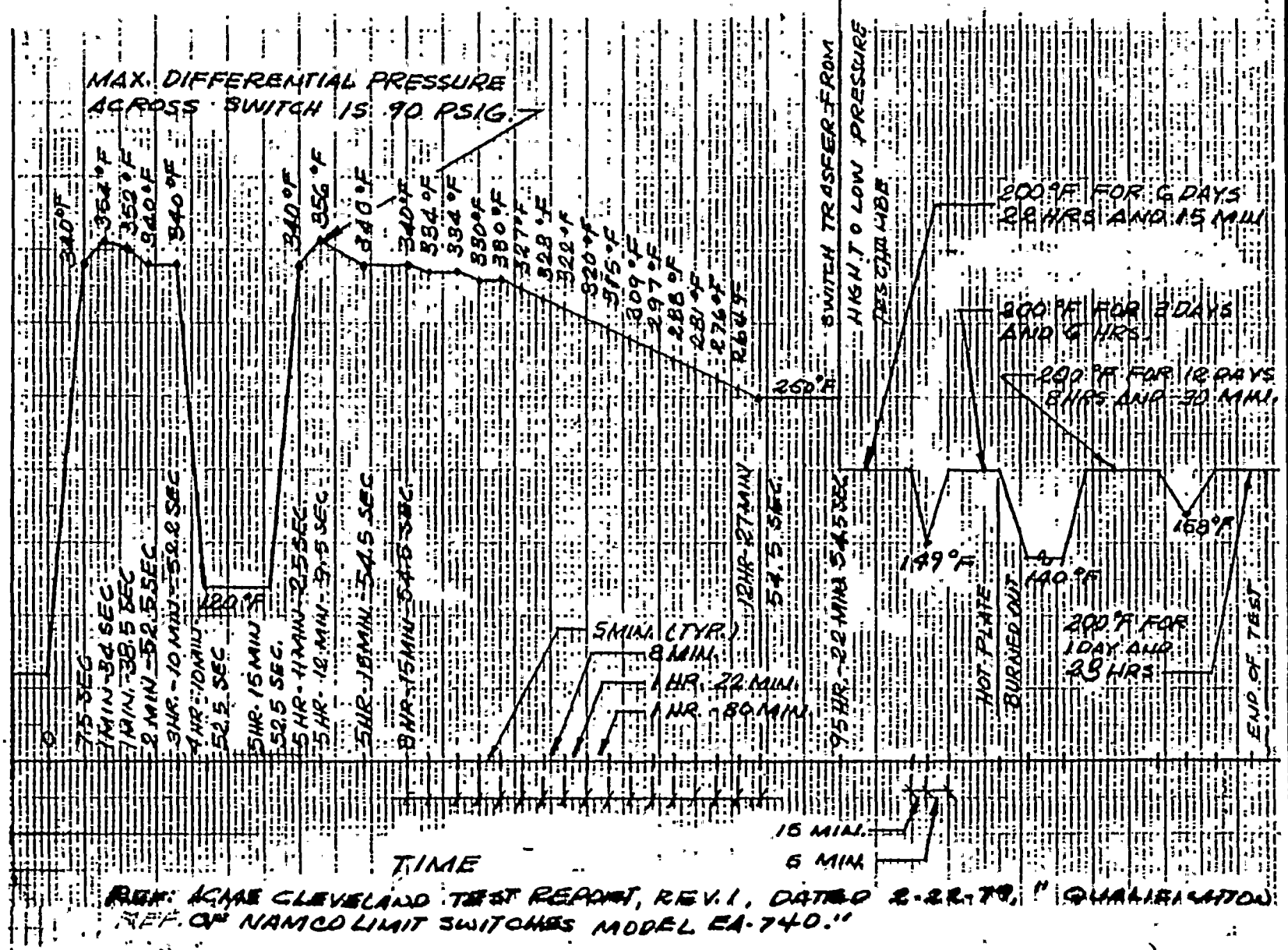
PAGE NO: 4
REVISION:
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Building Exhaust Air TAG NUMBER REA-POS-V/1,2 MANUFACTURER Namco MODEL NUMBER 74080100 COMPONENT Limit Switches FUNCTION/SERVICE Limit Switch on REA-V-1 and REA-V-2 LOCATION: BLDG R ELEVATION 593 COLUMN H.5/6.2, H.4/6.4	OPERATING TIME	6 months	Equivalent To or > 6 months	1	4,5	Simultaneous Test Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4	340	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	N/A	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 normal 90 max abnormal Accident Profile 4	100	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	4.4×10^7	2×10^8	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4,5	Sequential Test Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: [signature] 6/24/83 Reviewed by: [signature] 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list Rev. 8, dated 6/1/83 2. FSAR Par. 3.11 3. EDS Report 0740-004-572N 4. Qualification of NAMCO Controls Limit Switch Model EA-740 to IEEE Stds. 344 (1975), 323 (1974) and 382 (1972), Rev. 1, dated 2/22/79; Rev. 0, dtd. 2/20/78 5. QID #200010 6. BRI Calc. #5.51.055	Qualified.



REF: ACME CLEVELAND TEST REPORT, REV. 1, DATED 2-22-79, "QUALIFICATION REF. OF NAMCO LIMIT SWITCHES MODEL EA-740."

TEST CHAMBER TEMPERATURE PROFILE FOR LOCA SIMULATION

WPPSS QID #277001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02D17

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Exhaust Air TAG NUMBER REA-RE-9A,B,C,D MANUFACTURER General Electric MODEL NUMBER 194 X 927G COMPONENT Radiation Monitor FUNCTION/SERVICE Rx Vent Radiation Exhaust Air Plenum Radiation LOCATION: BLDGR ELEVATION 591 COLUMN M.1/4.3 M.5/4.3	OPERATING TIME	4320 Hours	6 hours	3	5,6	Simultaneous Test and Systems Analysis	None Note 1
	TEMPERATURE (F)	90 Max Normal 104 Max Abnormal Accident Profile 4	212	1	6	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	14.7	1	5	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 Normal 90 Max Abnormal Accident Profile 4,21X	100	1	5	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	3.0×10^4	1.4×10^4	2	5	Engineering Analysis and Materials Test	None Note 2
	AGING	40 years	40 years	1	5	Engineering Analysis and Materials Test	None
	ACCURACY	132%	36%	7	7	Engineering Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Williams 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR paragraph 3.11 2. EDS Study 0740-004-572C 3. BRI CIE list Rev. 8, dated 6/1/83 4. BRI Calculation #5.51.055 5. QID #277001 6. GE Report 248A9178, 6/30/72 7. BRI Calc. Letter BRWP-RO-83-235	Qualified 1. These radiation elements are active, use code 1, for the first hour of the accident and passive, use code 2, for 4319 hours thereafter. (Ref. 6) 2. For the first hour of the accident the accident radiation dose will be $<10^4$ rads. The TID for 4320 hrs. is 3×10^4. Failure of the component after the first hour will not affect safe shutdown. (Ref. 5)

WP-1081

WPPSS QID # 283011E

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC:

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Exhaust Air TAG NUMBER REA-RLY-CR1 CR2 MANUFACTURER ASEA MODEL NUMBER RXMK1 COMPONENT Relay FUNCTION/SERVICE Control relay for isolation valves LOCATION: BLDG R ELEVATION 527, 554' COLUMN J/O/6.9 H.7/8.2	OPERATING TIME	4320 hours	Equivalent to >4320 hours	1	4	Engineering Analysis	None
	TEMPERATURE (F)	90° normal 104° abnormal Accident Profile 4	194	2	4	Material Test and Engineering Analysis	None
	PRESSURE (PSIA)	14.7	14.7	2	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4	90	2	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A			N/A	None
	RADIATION (RAD)	8.5×10^4	10^6	3	4	Material Test and Engineering Analysis	None
	AGING	40 years	> 40 years	2	4	Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	N/A

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (ref 5)

Prepared by: Linda Vaccari 9/12/83

Reviewed by: James Mearns 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, Rev.8, dated 6/1/83 2. FSAR paragraph 3.11 3. EDS report 0740-004-548P 4. QID 283045E	Qualified

WPPSS QID #315004

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-58

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Building Exhaust Air TAG NUMBER REA-SPV-V/1,2 MANUFACTURER Automatic Switch (ASCO) MODEL NUMBER WJHT8316E35 WJHT3318E32 COMPONENT Solenoid Pilot Valve FUNCTION/SERVICE Reactor Building Normal Exhaust Isolation LOCATION: BLDG R ELEVATION 523 554 COLUMN J.0/6.9, H.7/8.2	OPERATING TIME	6 months	Equivalent to >6 months	1	4	Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Profile 4	185	2	4	Materials Test, Engineering Analysis	None
	PRESSURE (PSIA)	14.7	$\geq$14.7	2	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 max. normal 90 max. normal Profile 4	90	2	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	8.5×10^4	4.0×10^5	3	4	Materials Test and Engineering Analysis	None
	AGING	40 years	7 years	2	4	Operating Experience and Engineering Analysis	None Note 1
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared By: Linda Vaccari 9/12/83 Reviewed By: James Meares 9/12/83

DOCUMENTATION REFERENCES

1. BRI CIE list, REV 8, 6/1/83
2. FSAR Para 3.11
3. EDS Study 0740-004-548P, 522K
4. Calculation QID 315004-E
5. BRI Calculation #5.51.055

NOTES

1. A preventive maintenance program is being developed to extend the qualified life.

Qualified

WP-1081

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

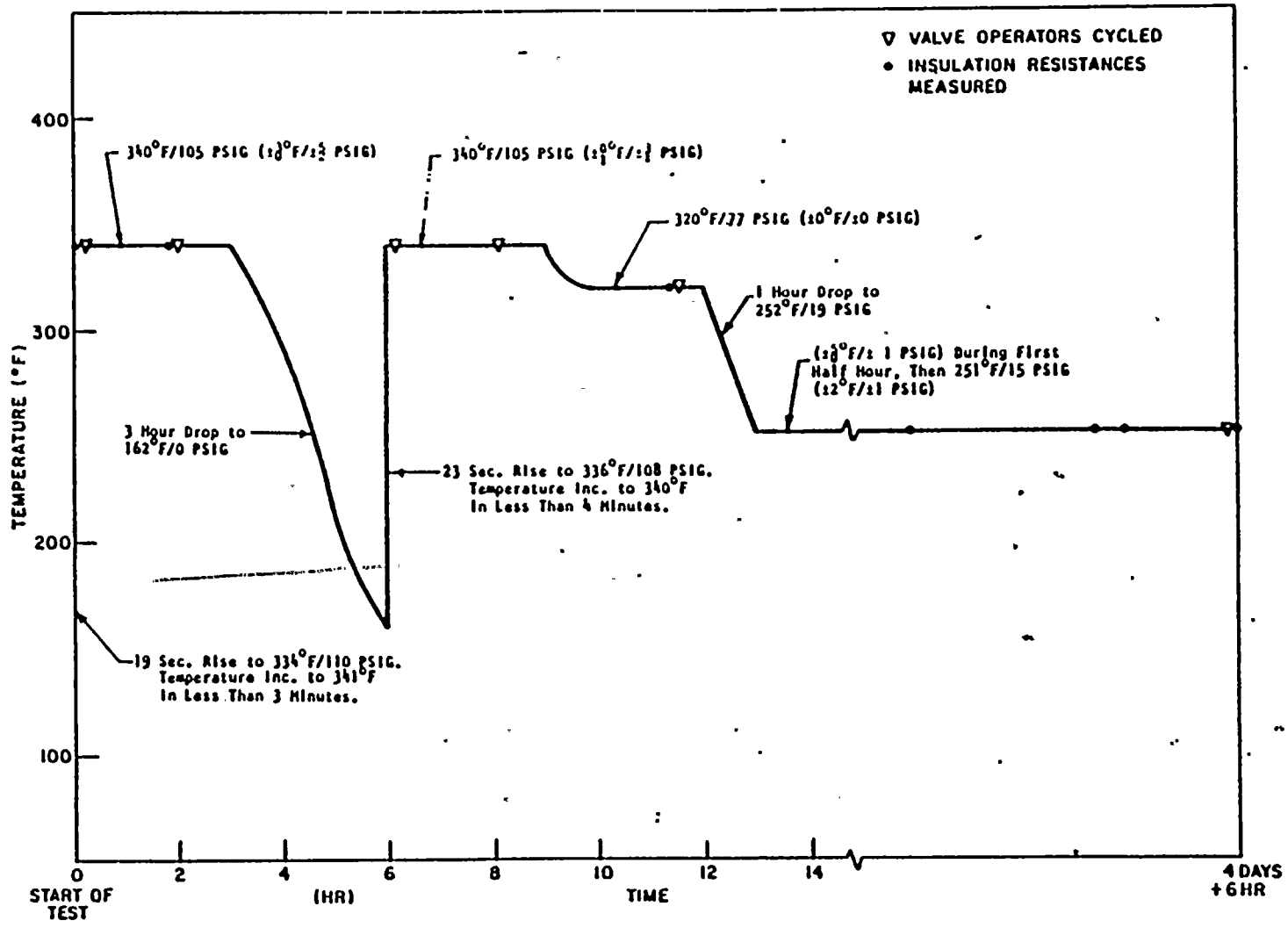
EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Feedwater TAG NUMBER RFW-MO-65A RFW-MO-65B MANUFACTURER Limitorque MODEL NUMBER SMB-4-250/326UR4 COMPONENT Reliance Motor Operator RH Insulation AC Motor FUNCTION/SERVICE Motor Operator for RFW-V-65A RFW-V-65B LOCATION: BLDG R ELEVATION 504 COLUMN H5/6.3 H5/5.7	OPERATING TIME	6 months	Equivalent to>6 months	1	4,5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident profile 3, 4	See enclosed profile	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	Normal 14.7 Accident profile 3	See enclosed profile	2	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal 100 accident	100	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	4.2×10^6	2.04×10^8	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4,5	Separate Effect, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Means 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, REV 8, 6/1/83 2. FSAR Paragraph 3.11 3. EDS Report 0740-004-5010 4. Limitorque Reports, 60037(A dated 5/13/76 5. QID#221001 6. Limitorque Report B0058 dated 1/11/80 7. BRI Calculation #5.5].055	Qualified

WP-1081



F-C3441

Figure 3. Actual Steam Exposure Profile

WPPSS QID. #315004

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-58

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Feedwater TAG NUMBER RFW-SPV-32A1 -32A2 -32B1 -32B2 MANUFACTURER Automatic Switch (ASCO) MODEL NUMBER NJHT831654 COMPONENT Solenoid Pilot Valve FUNCTION/SERVICE Solenoid Pilot for RFW-V-32A -32B LOCATION: BLDG R ELEVATION 505, 506 COLUMN N.0/4.9	OPERATING TIME	6 months	Equivalent to >6 months	1	4	Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Profile 4	185	2	4	Materials Test, Engineering Analysis	None
	PRESSURE (PSIA)	14.7	>14.7	2	N/A	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 max. normal 90 max. abnormal Profile 4	90	2	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	4.6×10^4	4×10^5	3	4	Materials Test and Engineering Analysis	None
	AGING	40 years	7 years	2	4	Operating Experience and Engineering Analysis	None Note1
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Meares 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, REV 8, 6/1/83 2. FSAR Para 3.11 3. EDS Study 0740-004-501P (Pinpoint Study) 4. Calculation QID315004- E 5. BRI Calculation #5.51.055	1 A preventive maintenance program is being developed to extend the qualified life. Qualified

WP-1081

QID #086001

WASHINGTON PUBLIC [illegible] SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02 E12

MPL: E31-N012A,B,29A,B,9A,B,C
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM: Residual Heat Removal TAG NUMBER: RHR-DPIS-12A, RHR-DPIS-12B MANUFACTURER: Barton MODEL NUMBER: 288 A COMPONENT: Differential Pressure Indicating Switch FUNCTION/SERVICE: Measure Differential Pressure for Suction Flow LOCATION: BLDG R ELEVATION (See Note 2) COLUMN (See Note 2)	OPERATING TIME	6 months	Equivalent to > 6 months	1	4,6	Engineering Analysis, Simultaneous Test	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profile 4,10,7X	212	2	6	Simultaneous Test	None
	PRESSURE (PSIA)	Normal 14.7 Accident Profile 10 ,7X	14.95	2	6	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Profiles 4, 21X	100	2	6	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	4.7×10^5	3.0×10^6	3	4, 5	Separate Effect, Engineering Analysis	None
	AGING	40 years	12 years	2	4	Engineering Analysis	None Note 1
	ACCURACY	2.5%	2.4%	8	4, 6	Engineering Analysis and Simultaneous Test	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Means 9/12/83

DOCUMENTATION REFERENCES

1. BRI Class 1E Equipment List, Rev. 8 , 6/1/83
2. FSAR Paragraph 3.11
3. EDS Report 0740-004-501B and 501K
4. QID File #086001
5. Qualification Test Report .#R3-288A-1 (QSR-027-01)
6. Test Report for Barton Pressure Switch GE Report 05991, Rev. 1, 12/7/73.
7. BRI Calculation #5.51.055
8. BRI Calc. Letter BRHP-RO-83-235

NOTES

Qualified

1. A preventive maintenance/surveillance program is being developed to extend the qualified life.

2.

EPN	ELEV.	COLUMN
RHR-DPIS-12A	501	J.6/3.6
-12B	505	H.8/9.3

WP-1081

WPPSS QID #140001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E12

MPL: E12-N010A,B,C
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-FIS-10A, B, C MANUFACTURER ITT Barton MODEL NUMBER 288 COMPONENT Flow Indicating Switch FUNCTION/SERVICE Shutdown Cooling Loop "A", "B" flow; Loop "C" flow to vessel LOCATION: BLDG R ELEVATION 505,503,505 COLUMN J.6/3.6 H.9/9.3 H.7/9.3	OPERATING TIME	6 months	Equivalent to > 6 months	1	4,6	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident Profile 4, 10 ,7X	212	2	6	Simultaneous Test	None
	PRESSURE (PSIA)	Normal 14.7 Accident Profile 10,7X	14.95	2	6	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 max. abnormal Profiles 4, 21X	100	2	6	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	4.7×10^5	3×10^6	3	4, 5	Separate Effect, Engineering Analysis	None
	AGING	40 years	12 years	2	4	Engineering Analysis	None Note 1
	ACCURACY	7.5%	2.4%	8	4 ,6	Simultaneous Test and Engineering Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by Linda Vaccari 9/12/83 Reviewed by: James Means 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, REV 8, 6/1/83 2. FSAR Par. 3.11 3. EDS Study 0740-004-501B,K 4. QID File #140001 5. Qualification Test Report #R3-288A-1 6. Test report of Barton pressure switch 289A GE Report 05991, Rev. 1, 12/7/73. 7. BRI Calculation #5.51.055	Qualified 1. A preventive maintenance/surveillance program is being developed to extend the qualified life.

WPPSS QID #156005

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02

MPL: E12-N015A
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RIIR-FT-15A MANUFACTURER Rosemount MODEL NUMBER 1151DPSE22 COMPONENT Flow Transmitter FUNCTION/SERVICE Flow Transmitter to Cooling Loop A LOCATION: BLDG R ELEVATION 503 COLUMN J.6/3.6	OPERATING TIME	6 months	Equivalent to >6 months	1	4,5,7	Engineering Analysis, Separate Test	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident profile 4,7X,10	212	2	6	Sequential Test	None
	PRESSURE (PSIA)	Normal 14.7 Accident profile 10,7X	24.7	2	6	Sequential Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal 100 Accident	100	2	6	Sequential Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	4.7×10^5	2×10^6	3	5	Separate Test	None
	AGING	40 years	14 years	2	7	Engineering Analysis	None Note 1
	ACCURACY	2.5%	1.88%	9	5,7	Simultaneous Test and Engineering Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 8)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Mann 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI C1E list, REV 8, 6/1/83 2. FSAR Par. 3.11 3. FDS Study 0740-004-501B 4. Rosemount Report 97215A dated 2/9/72 5. Rosemount Report 127227 dated 12/27/72 6. Rosemount Report 37327B dated 3/28/73 7. QID file 156005 8. BRI Calc. #5.51.055 9. GE Document 22A2905 AW	1. A preventive maintenance/surveillance program is being developed to extend the qualified life. Qualified

WP-1081

WPPSS QID #156003

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02

MPL: E12-N015A
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-FT-15B,C MANUFACTURER Bailey MODEL NUMBER 555111 BMAA4WBM 555111 BMAA4WCF COMPONENT Flow Transmitter FUNCTION/SERVICE Flow Transmitter to Cooling Loop B,C LOCATION: BLDG R ELEVATION 503 COLUMN H8/9.3 H.9/9.3	OPERATING TIME	6 months	Note 1	1			
	TEMPERATURE (F)	90 normal 104 abnormal Accident profile 4,10		2			
	PRESSURE (PSIA)	Normal 14.7 Accident profile 10		2			
	RELATIVE HUMITY (%)	40 normal 90 abnormal 100 accident		2			
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	8.3×10^4		3			
	AGING	40 years		2			
	ACCURACY						

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Linda Vaccari 9/2/83 : Reviewed by: James Means 9/2/83

DOCUMENTATION REFERENCES

1. BRI CIE list, REV 8, 6/1/83
2. FSAR Par. 3.11
3. FDS Study 0740-004-501K
4. WPPSS Letter GE-02-JLS-81-022
5. BRI Calculation #5.51.055

NOTES

1. These components are being replaced by transmitters qualified to IEEE 323-74 and 344-75. (Ref.4) These components are on Table B of the JIO and do not require qualification prior to fuel load.

WPPSS QID #207011

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215
MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-LS-10A RHR-LS-11C RHR-LS-10B RHR-LS-11D RHR-LS-10C RHR-LS-10D RHR-LS-11A RHR-LS-11B MANUFACTURER Magnetrol MODEL NUMBER 751-SPX-M14 COMPONENT Level Switch FUNCTION/SERVICE RHR Drain Pot Loop B (LS-10A,B,C,D) Loop A (LS-11A,B,C,D) LOCATION: BLDG R ELEVATION 474 COLUMN 10A,C,D M.2/7.8 10B M.0/7.8 11A,B,C,D K.0/8.0	OPERATING TIME	4320 Hours	Equivalent to>4320 hours	1	4,5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profile 4	300	2	5	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	14.7	2	5	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4,21X	100	2	5	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	2.2×10^6	1.2×10^7	3	4	Material Test and Engineering Analysis	None
	AGING	40 years	16 years	2	4	Engineering Analysis	None Note 1
	ACCURACY	N/A	N/A	7	N/A	N/A	None Note 2

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Means 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI Class 1E Equipment List, Rev. 8 , 6/1/83 2. FSAR Paragraph 3.11 3. EDS Report 0740-004-471E and 471F 4. QID# 207011 5. BHR Equipment Qualification Summary Report QSR-030-H-1 6. BRI Calc. #5.51.055 7. SS\Calculation File #IN-02-83-01	Qualified 1. A preventive maintenance/surveillance program is being implemented to extend the qualified life. 2. These components are passive. Accuracy is not required for passive equipment.

WP-1021

WPPSS

Q10213032

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E12

MPL: E12-C002
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-M-P/-2A -2B -2C MANUFACTURER General Electric MODEL NUMBER 5K6339XC122A COMPONENT Motor FUNCTION/SERVICE Drive Pumps LOCATION: BLDG R ELEVATION 429 COLUMN K2/8.5, L8/8.5, H7/4.6	OPERATING TIME	4320 hours	94,746 hours	5	3,4 7,8	Sequential Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4 ,2X	212	1,6	3,4 7,8	Simultaneous Engineering Analysis	None
	PRESSURE (PSIA)	14.7 Accident Profile 2X	> 17.5	1	8	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 normal 90 max abnormal 100 max accident	100% & Steam	1	3,4 7,8	Simultaneous Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	2.5×10^6	5.5×10^6	2	3, 7,8	Sequential Engineering Analysis	None
	AGING	40 years	40 years	1	3,4	Sequential Testing Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 9)

Prepared by: Frederick J. Bailey 9/12/83 Reviewed by: James Meares 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. EDS Study 0740-004-4221 (worst case) 3. GE #22A4722 (BWR 111-A-05) 4. GE #NEDM-10672, 8/72 (BWR 111-A-05) 5. BRI CIE list, REV 8, 6/1/83 6. B&R Calculation 9-46-02 7. GE #456IIA898 8. Calculations 213032-1, -2, -3, -4 9. BRI Calc. #5.51.055	1. Qualified.

WPN1081

WPPSS QID #213016

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-35A

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-M-P/3 MANUFACTURER Westinghouse MODEL NUMBER 75D40786 COMPONENT Motor FUNCTION/SERVICE 15hp motor for RHR-P-3+ LOCATION: BLDG R ELEVATION 429 COLUMN 11.4/4.8	OPERATING TIME	6 months	Equivalent to >6 months	1	4	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 Max Normal 104 Max Abnormal Accident Profile 4,2X	410	2	4	Simultaneous Test and Engineering Analysis	None
	PRESSURE (PSIA)	Normal 14.7 Accident Profile 2X	>17.5	2	4,	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal 100 Accident	100	2	4	Sequential Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.9×10^6	2×10^8	3	4	Sequential Test	None
	AGING	40 years	40 Years	2	4	Simultaneous Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Frederick J. Bailey 9/12/83 Reviewed by: James Wiearna 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI C1E list, REV 8, 6/1/83 2. FSAR Paragraph 3.11 3. EDS Report #0740-004-422H 4. QID# 213017 5. BRI Calc. #5.51.055	Qualified

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-MO-11A -MO-11B MANUFACTURER Limitorque MODEL NUMBER SMB-000-5/K48 COMPONENT - Motor Operator Motor: Reliance, B insulation, AC Motor FUNCTION/SERVICE Operate HX to suppression pool valve 11A, 11B LOCATION: BLDG R ELEVATION 476 COLUMN K.2/8.2 L.8/8.0	OPERATING TIME	24 hours	Equivalent to >6 months	1	4	Engineering Analysis Simultaneous Test	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident profile 4	see enclosed profile	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	see enclosed profile	2	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident profile 4,21X	100	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	2.2×10^6	2×10^7	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4,5,6	Sequential Test Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by Linda Vaccari 9/2/83 Reviewed by: James Murray 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, Rev.8 dated 6/1/83 2. FSAR Par. 3.11 3. EDS Study 0740-004-471F, E 4. Limitorque Test Report B0003, with Addendum A dated 5/8/76 5. QID #221001 6. Limitorque Test report B0058 dated 1/11/80 7. BRI Calculation #5.51.055	Qualified

TEMPERATURE PROFILE

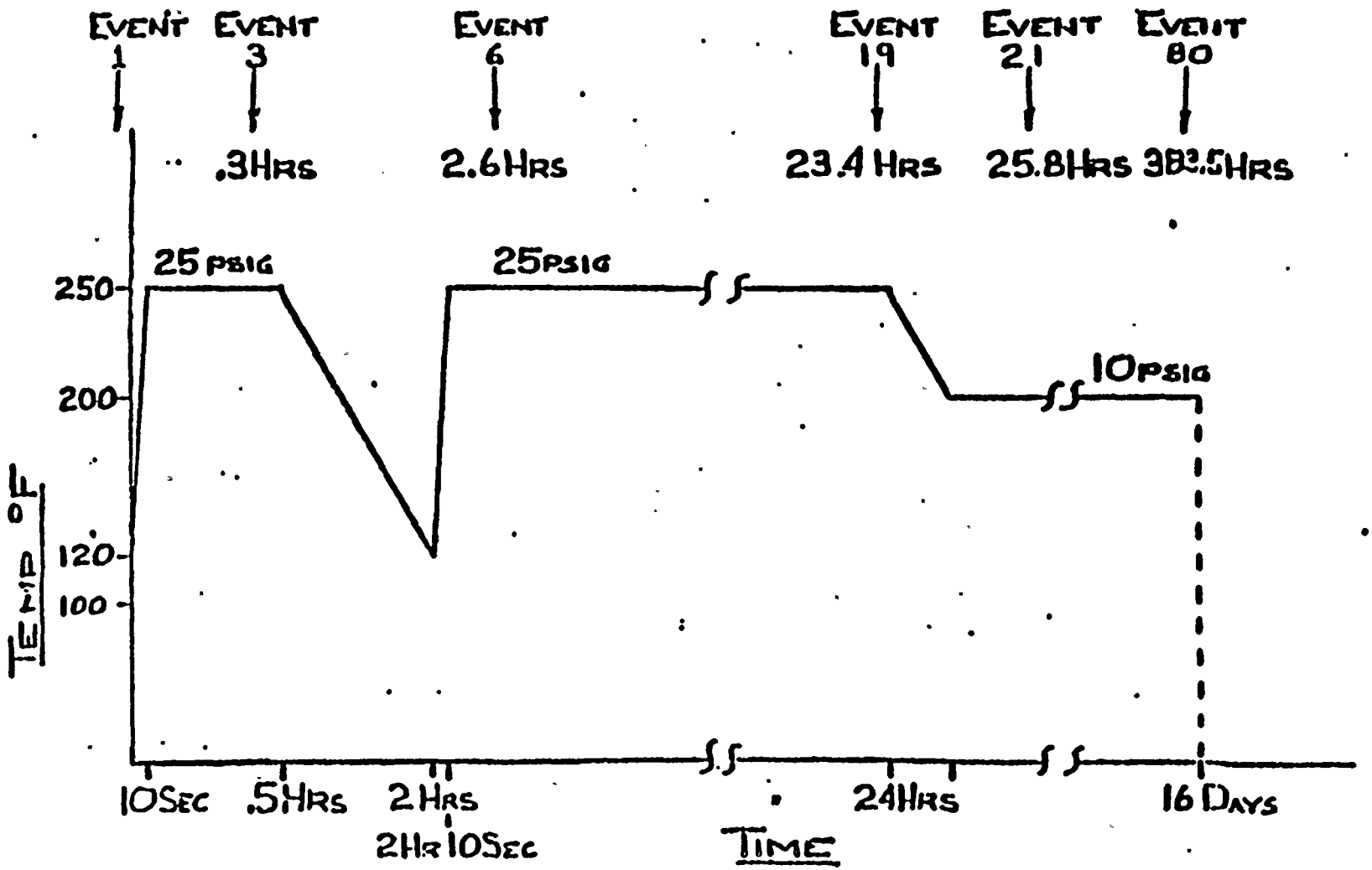


FIGURE 1

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215
MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-MO-124A -124B -125A -125B MANUFACTURER Limitorque MODEL NUMBER SMC-04-5/42 COMPONENT Reliance Motor Operator AC Motor/Class B Ins. FUNCTION/SERVICE Operate RHR Valves -124A -124B -125A -125B LOCATION: BLDG R ELEVATION 473 COLUMN K3/8.1, K9/8.1 L5/8, L4/8	OPERATING TIME	24 Hours	Equivalent to > 6 months	3	4,5	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4	See enclosed profile	1	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	See enclosed profile	1	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 max abnormal Accident Profile 4,21X	Steam for 24 hours 100% for 15 days	1	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	2.2×10^6	2×10^7	2	4,5	Sequential Test	None
	AGING	40 years	40 years	1	4,5	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Meares 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. EDS Study 0740-004-471F (worst case) 3. BRI C1E list, REV 8, 6/1/83 4. Limitorque Reports B0003, 5/76; B0058, 1/11/80 5. QID #221001 6. BRI Calculation #5.51.055	Qualified.

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TEMPERATURE PROFILE

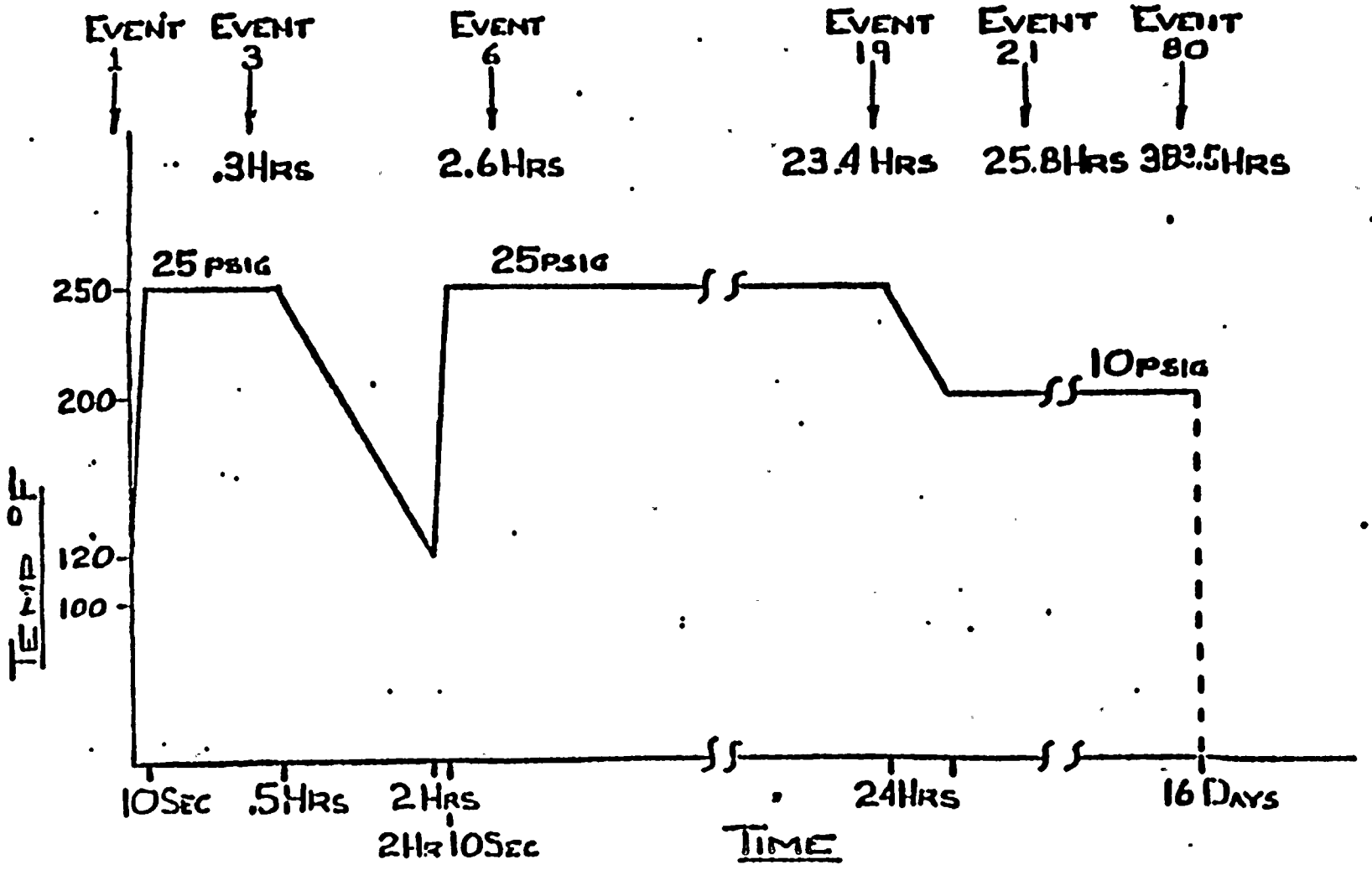

FIGURE 1

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-MO-134A, 134B MANUFACTURER Limitorque MODEL NUMBER SMC-04-5 COMPONENT Motor Operator Motor: Reliance, B insulation/AC motor FUNCTION/SERVICE RHR-V-139A, 139B LOCATION: BLDG R ELEVATION 548, 551 COLUMN K.1/9.0 L.5/9.2	OPERATING TIME	6 months	Equivalent to>6 months	1	4,5	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident Profile 4,32	See enclosed profile	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	See enclosed profile	2	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Profile 21X	100	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.5×10^5	2×10^7	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4, 5	Sequential Test and Engineering, Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Al Vaden 9/12/83

Reviewed by: James Meeuwsen 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, REV 8, 6/1/83 2. FSAR Par. 3.11 3. EDS Study 0740-004-548L, M 4. Limitorque Test Report B0003, B0058 5. QID 221001 6. BRI Calculation #5.51.055	Qualified.

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TEMPERATURE PROFILE

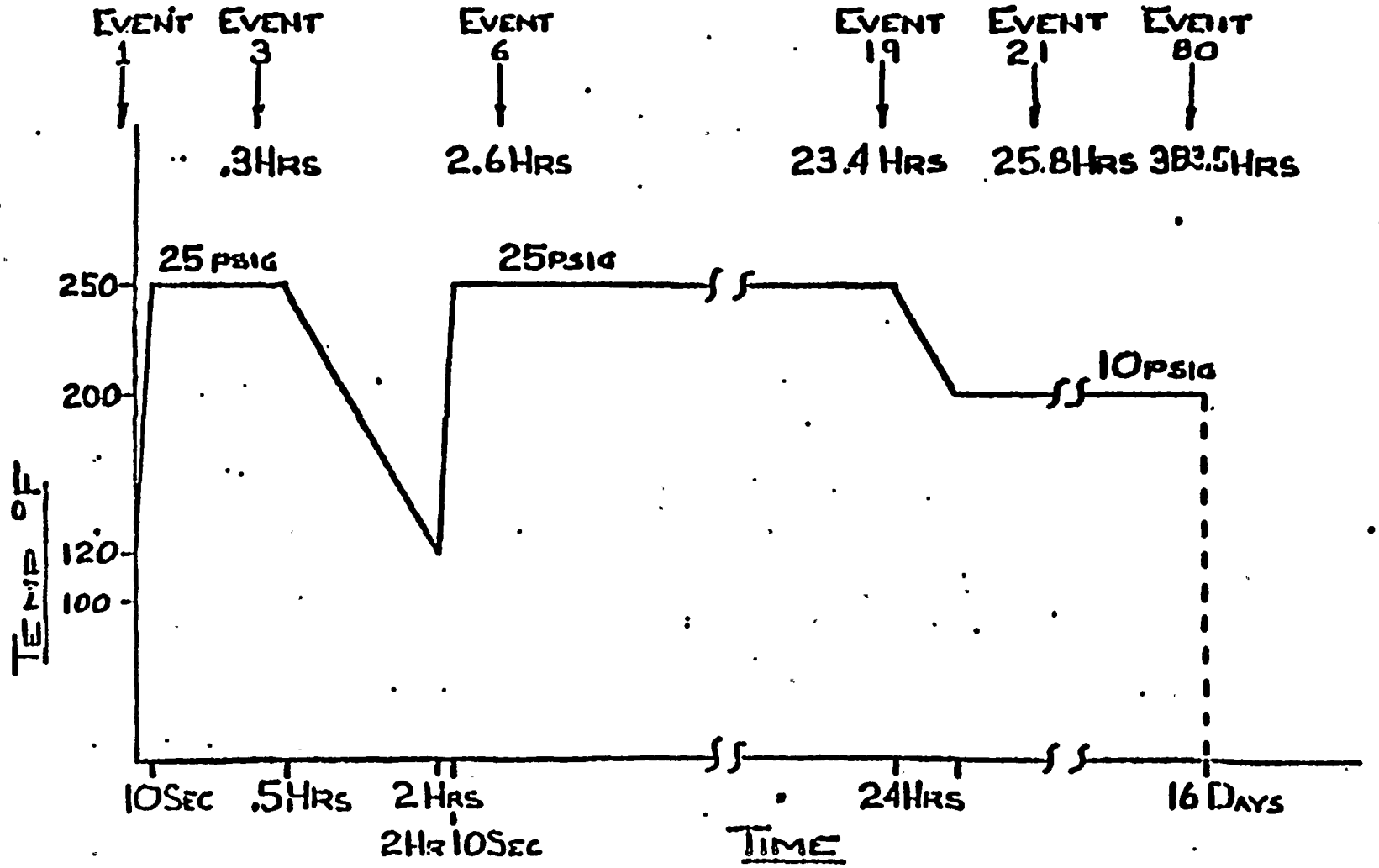

FIGURE 1

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A
MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-MO-16A,B -17A,B MANUFACTURER Limitorque MODEL NUMBER SMB-2-80/C215Y COMPONENT Electric Apparatus Valve Motor Operator AC Motor/Class B Ins. FUNCTION/SERVICE Operate RHR Valve LOCATION: BLDG R ELEVATION 556,516 COLUMN L/4.4, J.7/8.1 L/4.4, J.5/8.0	OPERATING TIME	24 hours	Equivalent to >6 months	5	3,4	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4	See enclosed profile	1	3	Simultaneous	None None
	PRESSURE (PSIA)	14.7	See enclosed profile	1	3	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 max abnormal Accident Profile 4	100	1	3	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	3.4×10^6	2×10^7	2	3	Sequential Test	None
	AGING	40 years	40 years +	1	3,4,6	Sequential Test Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Frederick J. Bailey 9/12/83 Reviewed by: James Morris 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. EDS Study 0740-004-548B 3. Limitorque Report B0003 with Addendum A (BWR-054-C-04) 4. QID #221001 5. BRI CIE list, REV 8, 6/1/83 6. Limitorque Report B0058 dated 1/11/80 7. BRI Calculation #5.51.055	Qualified

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TEMPERATURE PROFILE

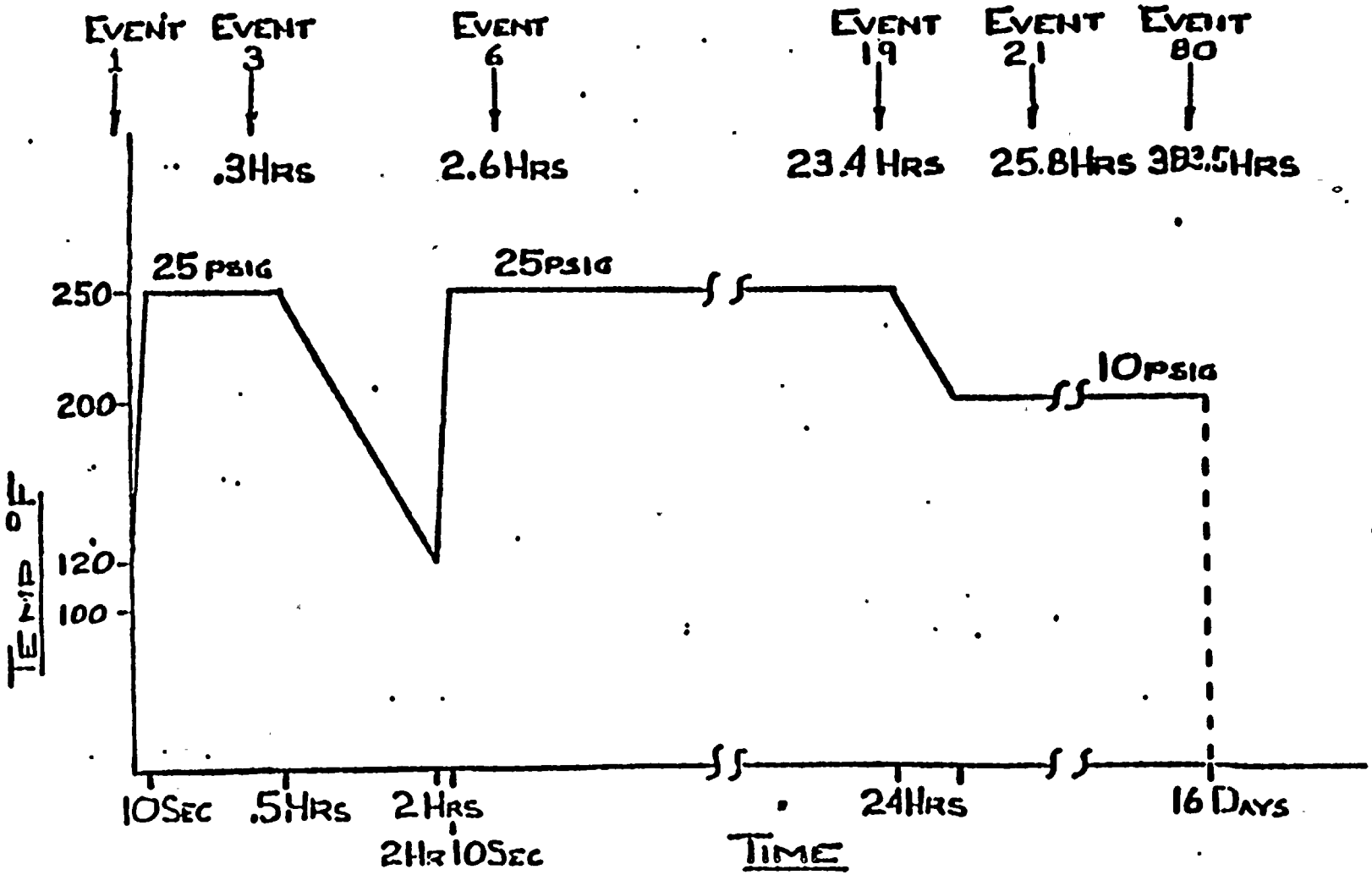


FIGURE 1

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41B

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-MO-21 MANUFACTURER Limitorque MODEL NUMBER SMB-3-80/213R3 COMPONENT Motor Operator Motor: Reliance B Insulation/AC Motor FUNCTION/SERVICE Operates Loop Test Return Valve 21 LOCATION: BLDG R ELEVATION 450 COLUMN H.4/5.7	OPERATING TIME	24 Hours	Equivalent to>6 months	1	4,5	Engineering Analysis, Simultaneous Test	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident Profile 4,1X	see enclosed profile	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	Normal 14.7 Accident Profile 1X	see enclosed profile	2	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal 100 accident	100	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	3.1×10^6	2×10^7	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4;5,6	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Hearn 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI C1E list, REV 8, 6/1/83 2. FSAR Par. 3.11 3. EDS Study 0740-004-441J 4. Limitorque Test Report B0003 with Addendum A dated 5/76 5. QID 221001 6. Limitorque test Report B0058 dated 1/11/80 7. BRI Calculation #5.51.055	Qualified.

TEMPERATURE PROFILE

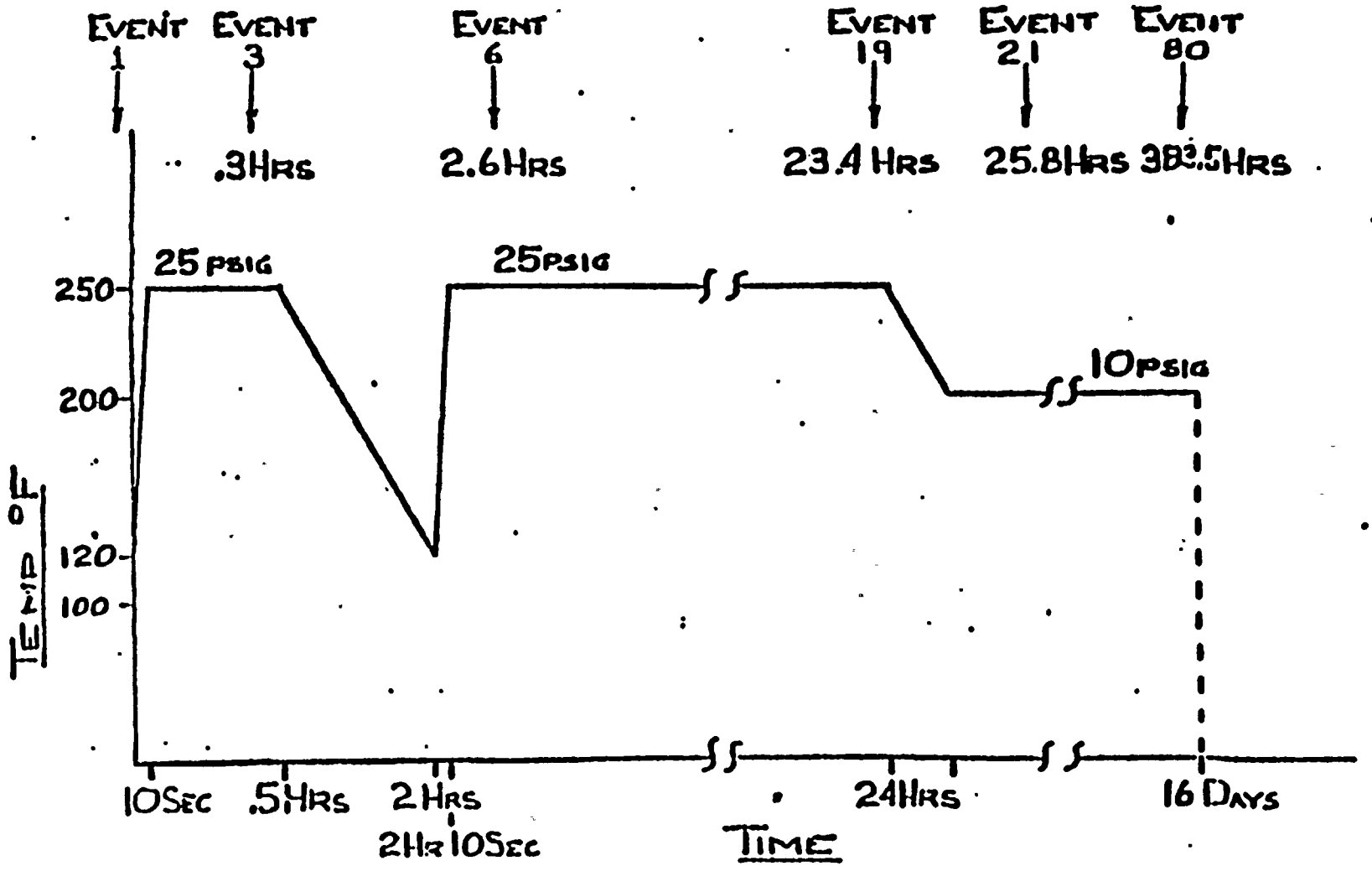


FIGURE 1

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41B
MPL:
PPD:

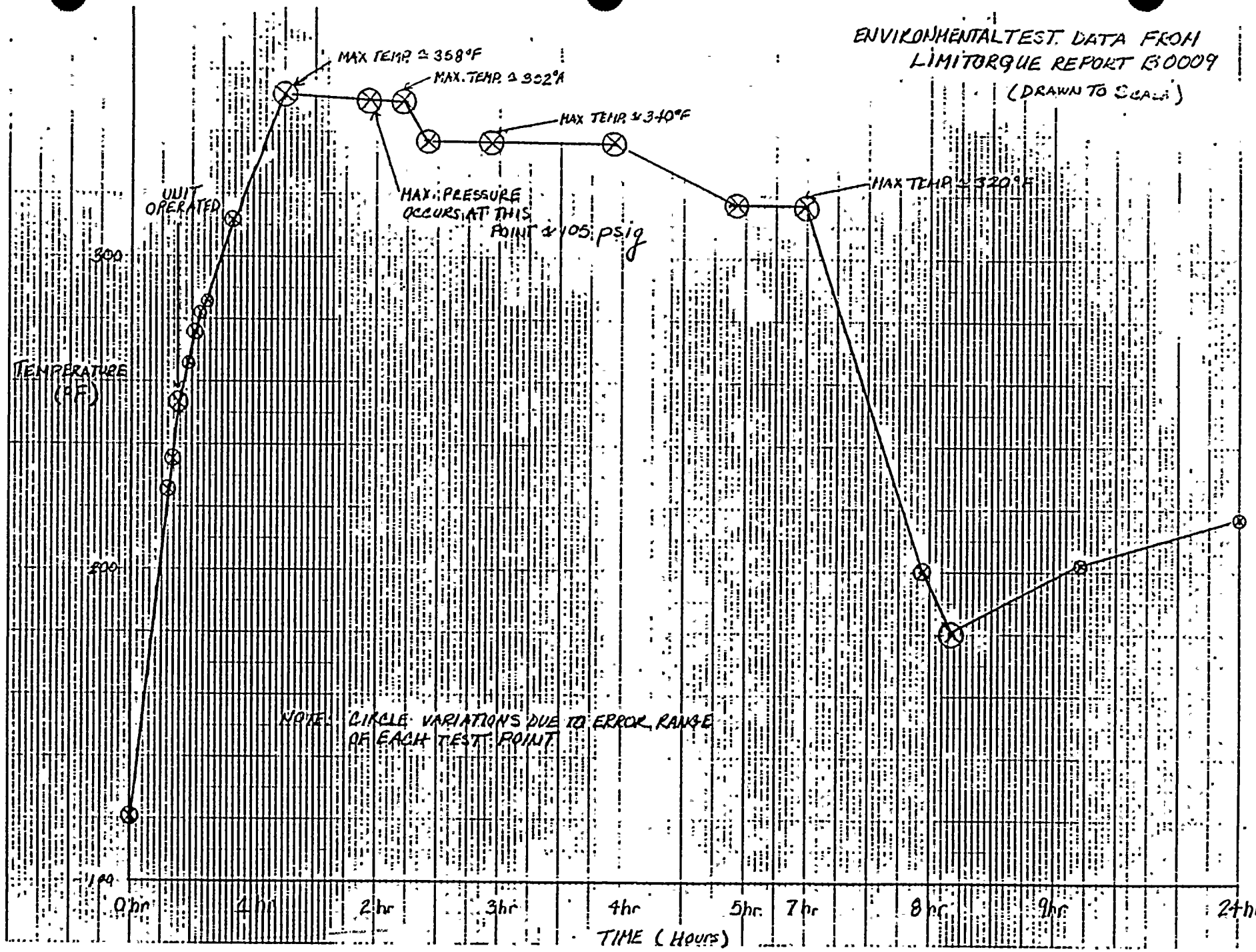
PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-MO-23 MANUFACTURER Limitorque MODEL NUMBER SMB-0-15/D56F COMPONENT Porter Peerless Valve Motor Operator DC Motor/Class H Ins. FUNCTION/SERVICE Operate RHR Valve LOCATION: BLDG R ELEVATION 555. COLUMN M.4/5.4	OPERATING TIME	24 Hours	Equivalent to > 6 months	5	3,4	Simultaneous Testing, Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident Profile 4	See enclosed profile	1	3	Simultaneous Testing	None
	PRESSURE (PSIA)	14.7	See enclosed profile	1	3	Simultaneous Testing	None
	RELATIVE HUMITY (%)	40 normal 90 max. abnormal Accident Profile 4	100	1	3	Simultaneous Testing	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	1.6×10^6	1×10^7	2	3	Sequential Testing	None
	AGING	40 years	40 years	1	3,4	Sequential Testing, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Behzad Mobini 6.24.83 Reviewed by: James Mearns 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. EDS Study 0740-004-548 H 3. Limitorque Report B0009, 4/30/76 4. QID #221001 5. BRI CIE list, REV 8, 6/1/83 6. BRI Calculation #5.51.055	Qualified.


ENVIRONMENTAL TEST DATA FROM
LIMITORQUE REPORT B0009
(DRAWN TO SCALE)
MAX TEMP ≈ 358°F
MAX. TEMP ≈ 302°F
MAX TEMP ≈ 340°F
MAX TEMP ≈ 320°F
MAX. PRESSURE OCCURS AT THIS POINT ≈ 105 psig
UNIT OPERATED
TEMPERATURE (°F)
300
200
100
0 hr
1 hr
2 hr
3 hr
4 hr
5 hr
7 hr
8 hr
9 hr
24 hr
TIME (Hours)
NOTE: CIRCLE VARIATIONS DUE TO ERROR RANGE OF EACH TEST POINT

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41B
MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-MO-24A -MO-24B MANUFACTURER Limitorque MODEL NUMBER SMB-3-80/213R3 COMPONENT Motor Operator Motor: Reliance, B insulation AC Motor FUNCTION/SERVICE Operates Loop Test Return Valve LOCATION: BLDG R ELEVATION 479 COLUMN K.1/8.2 L.8/8.2	OPERATING TIME	6 months	Equivalent to>6 months	1	4,5	Engineering Analysis, Simultaneous Test	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident Profile 4	see enclosed profile	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	see enclosed profile	2	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4	100	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	2.2×10^6	2×10^7	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4,5,6	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Richard Mahone 6-24-83 Reviewed by: James Means 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. BRI C1E list, REV 8, 6/1/83 2. FSAR Par. 3.11 3. EDS Study 0740-004-471F, E 4. Limitorque Test Report B0003 with Addendum A dated 5/76 5. QID 221001 6. Limitorque test Report B0058 dated 1/11/80 7. BRI Calculation #5.51.055	Qualified

1081

TEMPERATURE PROFILE

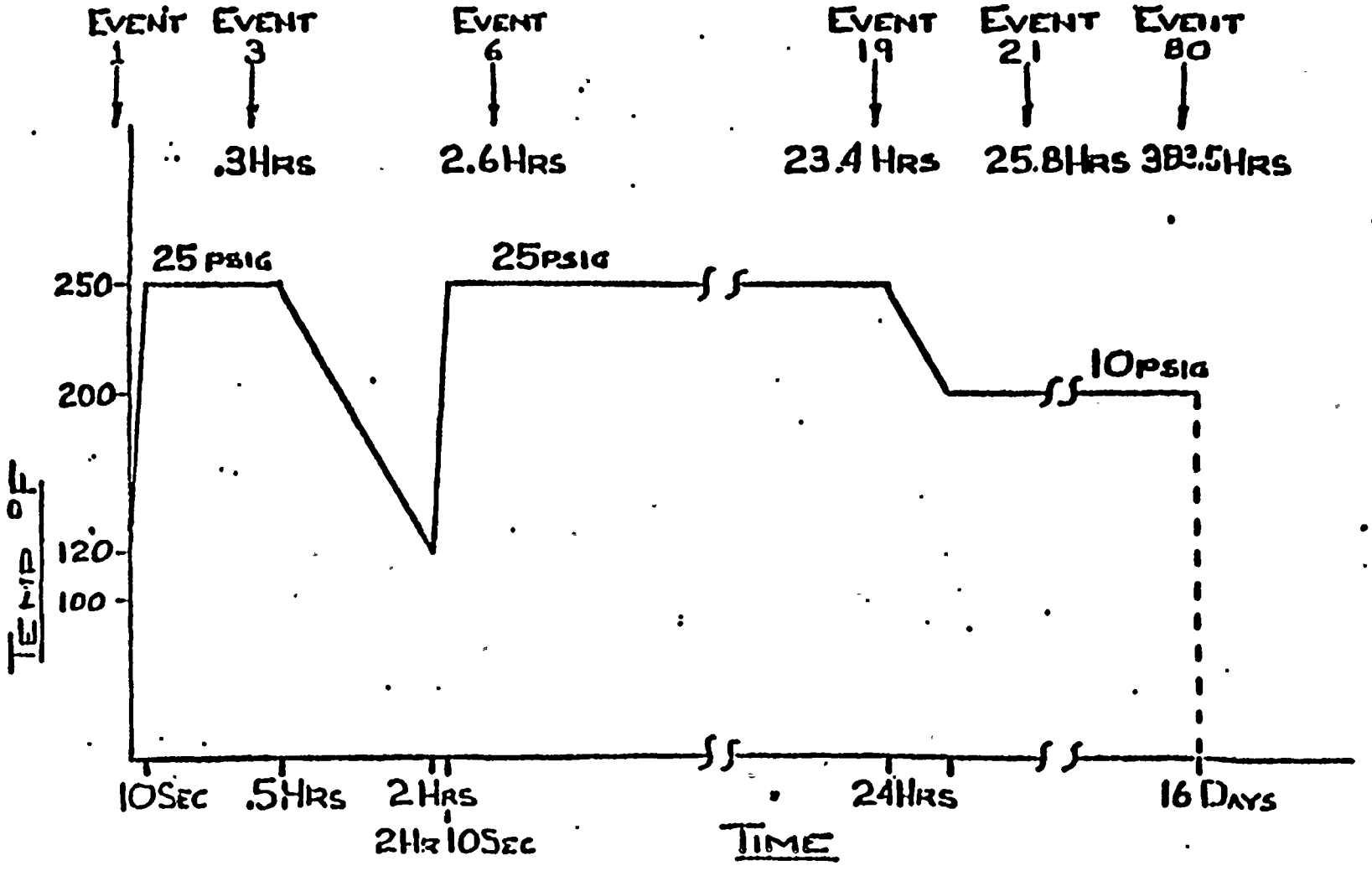


FIGURE 1

WPPSS QID #221001 E

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC:

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-HO-26A -26B MANUFACTURER Limitorque MODEL NUMBER SMN-000-5/K48 COMPONENT 3 Phase Reliance AC Motor W/B Insulation FUNCTION/SERVICE Motor Operator for RHR-V-26A -26B LOCATION: BLDG R ELEVATION 476, 474 COLUMN K.5/8.2 L.2/8.1	OPERATING TIME	24 hours	6 months	4	4,5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profile 4	See Enclosed Profile	2	5	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	See Enclosed Profile	2	5	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4,21X	100	2	5	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	N/A	N/A	N/A	None
	RADIATION (RAD)	2.2×10^6	2×10^7	2	5	Sequential Test	None
	AGING	40 years	40 years	2	4	Sequential Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Morris 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list Rev. 8, dated 6/1/83 2. FSAR paragraph 3.11 3. EDS Report 0740-004-471F 4. QID 221001E 5. Limitorque Report B0003 with Add A dated 5/8/76 6. BRI Calc. #5.51.055	Qualified

TEMPERATURE PROFILE

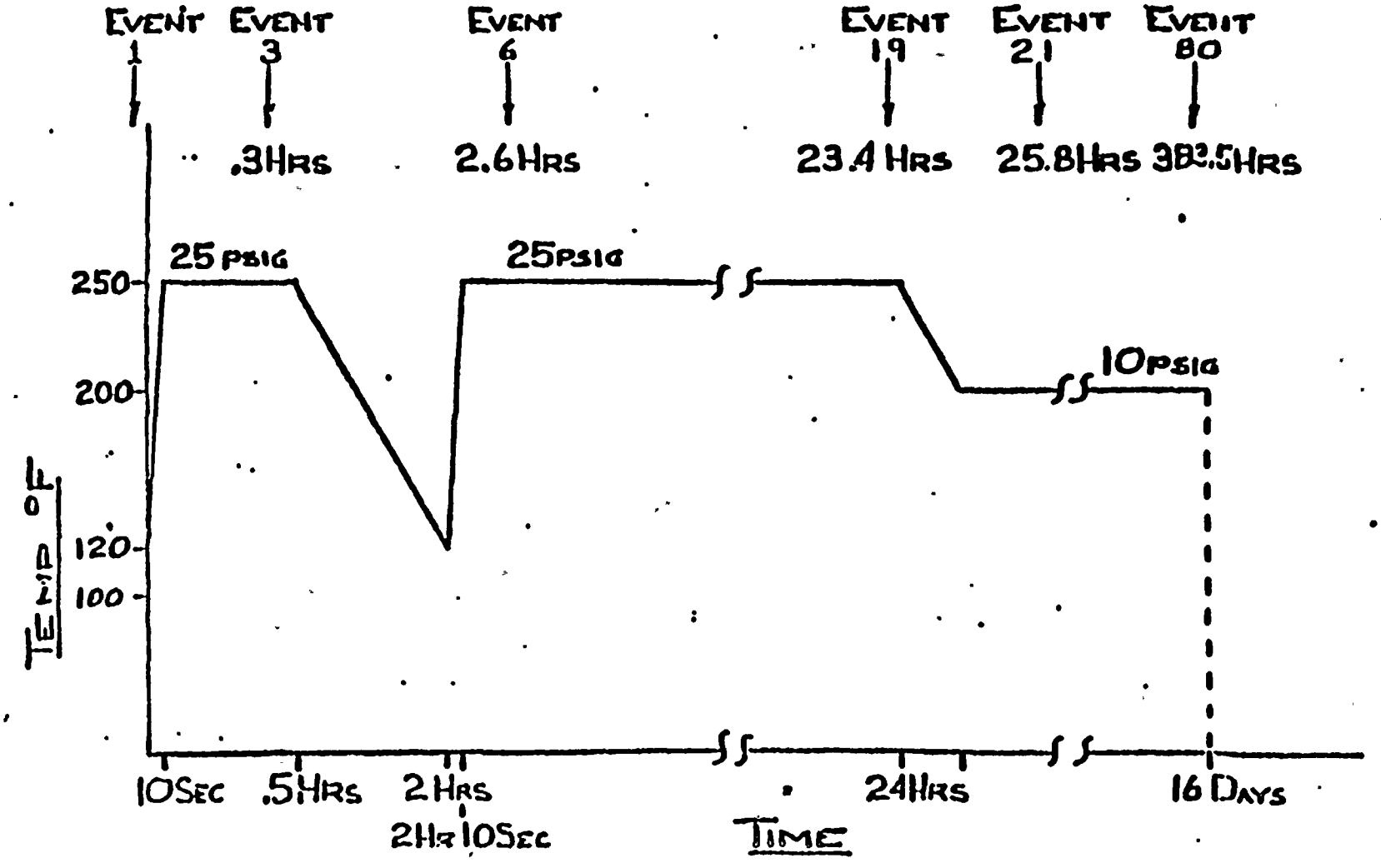


FIGURE 1

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-MO-27A -MO-27B MANUFACTURER Limitorque MODEL NUMBER SMB-00-7.5/L56 COMPONENT - Motor Operator Motor: Reliance, B insulation/AC Motor FUNCTION/SERVICE Operates wetwell spray valve LOCATION: BLDG R ELEVATION 493 COLUMN K.2/4.1 M2/7.9	OPERATING TIME	24 hours	Equivalent to>6 months	1	4	Engineering Analysis, Simultaneous Test	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident Profile 4,9	see enclosed profile	2	4,5	Simultaneous Test	None
	PRESSURE (PSIA)	Normal 14.7 Accident Profile 9	see enclosed profile	2	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Profile 21X	100	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	2.2×10^6	2×10^7	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4,5,6	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Frederick J. Butler 9/12/83 Reviewed by: James Meares 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI C1E list, REV 8, 6/1/83 2. FSAR Par. 3.11 3. EDS Study 0740-004-471A, E 4. Limitorque Test Report B0003 with Addendum A dated 5/76 5. QID 221001 6. Limitorque Test Report B0058 dated 1/11/80 7. BRI Calculation #5.51.055	Qualified

TEMPERATURE PROFILE

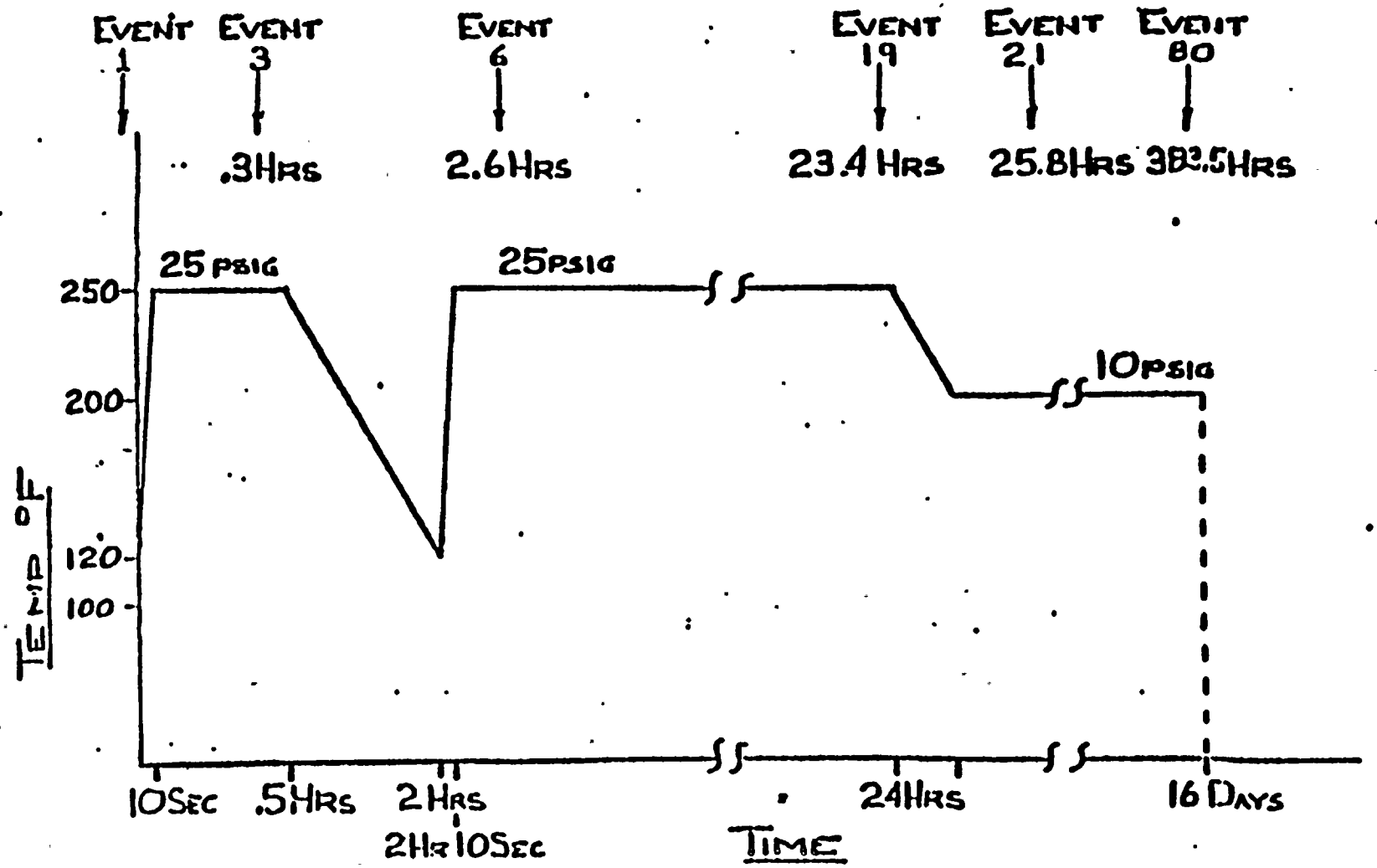


FIGURE 1

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-MO-4A,B MANUFACTURER Limitorque MODEL NUMBER SMB-0-40/T56 COMPONENT Reliance Valve Motor Operator AC Motor/Class B Insulation FUNCTION/SERVICE LOCATION: BLDG R ELEVATION 450 COLUMN K8/8.3	OPERATING TIME	6 months	Equivalent to > 6 months	1	4,6	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profile 4	See enclosed profile	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	See enclosed profile	2	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4,21X	100	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.7×10^6	2×10^7	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4,5,6	Sequential Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Munroe 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, REV 8, 6/1/83 2. FSAR Paragraph 3.11 3. EDS Report 0740-004-441G,F 4. Limitorque Report B0003 dated 5/8/76 5. Limitorque Report B0058 dated 1/11/80 6. QID #221001 7. BRI Calc. #5.51.055	Qualified

TEMPERATURE PROFILE

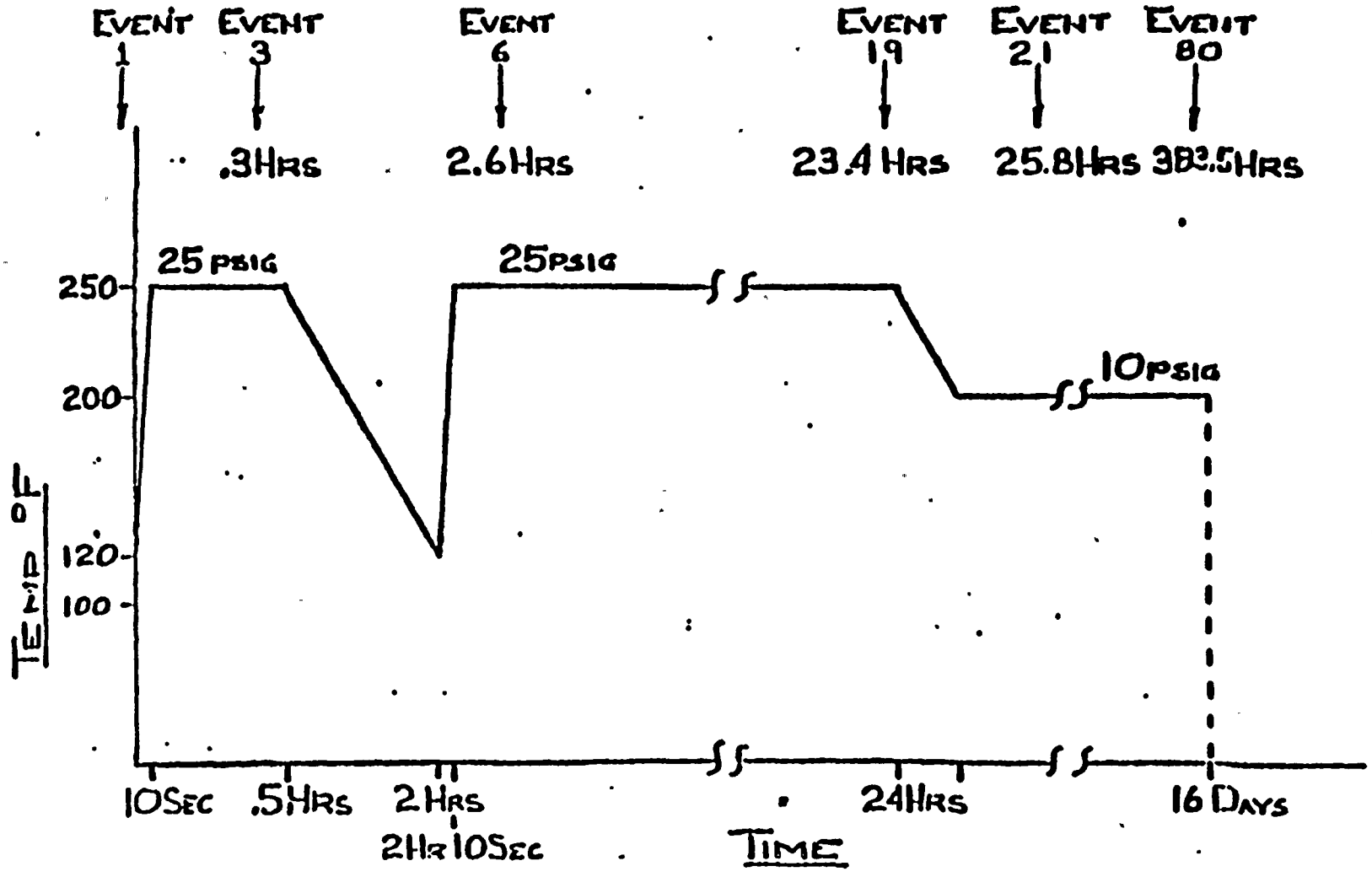


FIGURE 1

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-MO-40 MANUFACTURER Limitorque MODEL NUMBER SMB-000-2/D56AA COMPONENT Porter Peerless Valve Motor Operator DC Motor/Class B FUNCTION/SERVICE Operate RHR Valve 40 LOCATION: BLDG R ELEVATION 553 COLUMN M.3/85	OPERATING TIME	6 months	Equivalent to> 6 months	1	3,5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profile 4,16X	See enclosed profile	2	3	Simultaneous Test	None
	PRESSURE (PSIA)	Normal 14.7	See enclosed profile	2	3	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal 100 Accident	100	2	3	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	3.1×10^6	1×10^7	6	3	Materials Test and Engineering Analysis	None
	AGING	40 years	40 years	2	3,4,5	Sequential test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Divarco 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, REV 8, 6/1/83 2. FSAR Paragraph 3.11 3. Limitorque Report B0003 with Addendum A dated 5/8/76 4. Limitorque Report B0058 dated 1/11/80 5. QID #221001 6. EDS Study 0740-004-548J 7. BRI Calculation #5.51.055	Qualified.

TEMPERATURE PROFILE

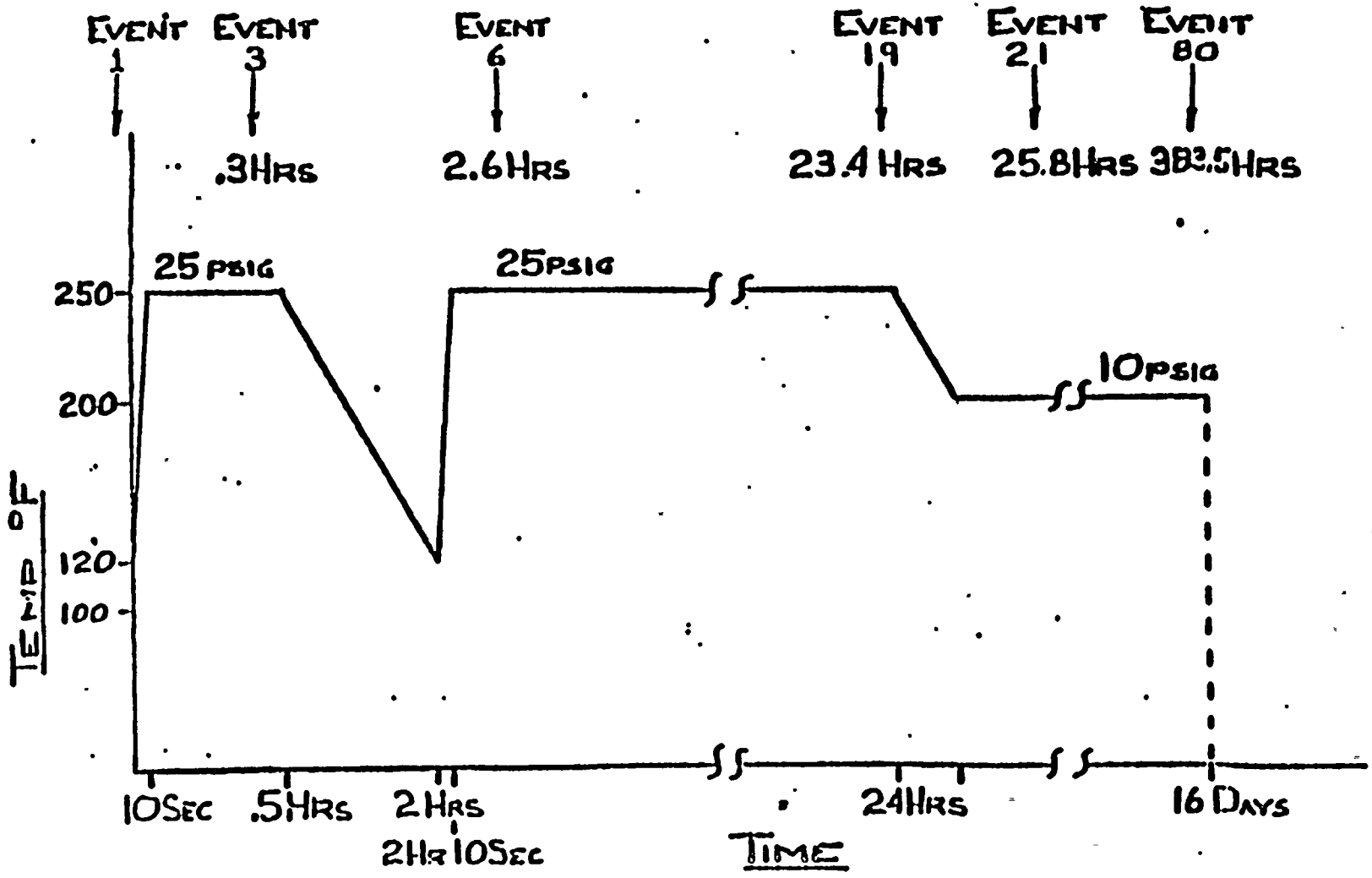


FIGURE 1

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual heat removal TAG NUMBER RHR-MO-(See Note 1) MANUFACTURER Limitorque MODEL NUMBER SMB-1-40/T56 SMB-3-150/256VR3 SMB-0-40/T56 COMPONENT Motor Operator - Reliance, RH insulation AC Motor FUNCTION/SERVICE Operates LPCI injection valve LOCATION: BLDG R ELEVATION See Note 1 COLUMN See Note 1	OPERATING TIME	6 months	Equivalent to>6 months	4	3,6	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 max. Normal 104 max. abnormal Accident Profile 4, 1X, 9X,16X,20X	See enclosed profile	-1	3	Simultaneous Test	None
	PRESSURE (PSIA)	Normal 14.7 Accident Profile 1X,9X,16X 20X	See enclosed profile	1	3	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 max. normal 90 max. abnormal Profile 21X	100	1	3	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	3.1×10^6	2.04×10^8	5	3	Sequential Test	None
	AGING	40 years	40 years	1	2, 3 6	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Frederick P. Bailey 9/12/83 Reviewed by: James McCarns 9/12/83

DOCUMENTATION REFERENCES

1. FSAR Par. 3.11
2. Limitorque Report B0058 dated 1/11/80
3. Limitorque Report B600376A dated 5/13/76
4. BRI C1E list, REV 8, 6/1/83
5. EDS Study 0740-004-548 J,N
6. QID #221001
7. BRI Calculation #5.51.055

NOTES

Qualified

1.

Tag #	Elevation	Column
RHR-MO-3A	558	J7/8.6
-3B	558	M2/8.6
-42A	522	H8/5.7
-42B	522	N.0/5.8
-42C	529	H8/6.1
-4C	454	J/4.1
-47A	582	J6/8.6
-47B	582	H3/8.6

WP-1081

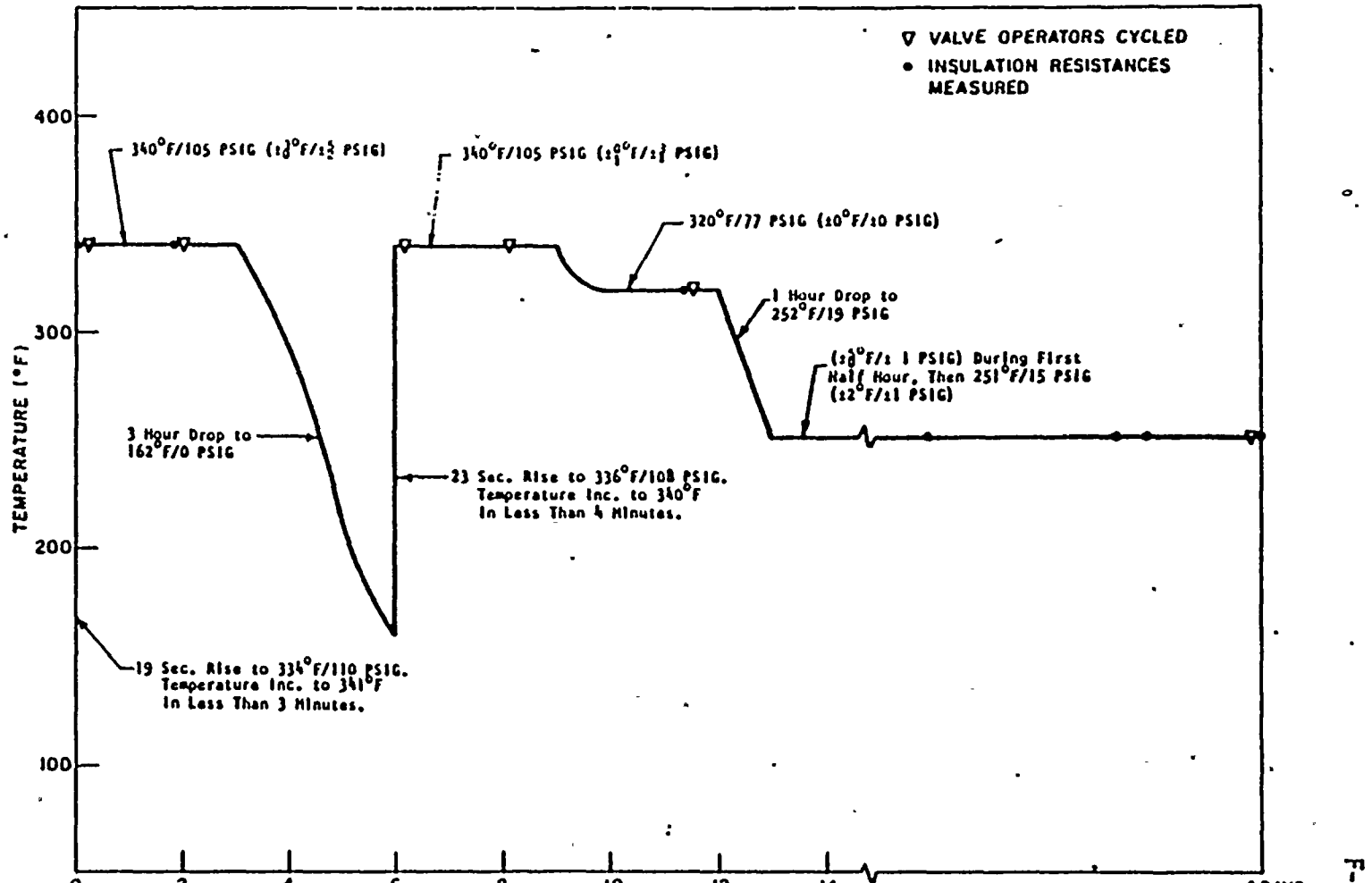


Figure 3. Actual Steam Exposure Profile

WPPSS

QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-MO-49 MANUFACTURER Limitorque MODEL NUMBER SMB-000-5/K48 COMPONENT - Motor Operator Motor: Reliance, B insulation/AC Motor FUNCTION/SERVICE Operates RHR discharge to Radwaste LOCATION: BLDG R ELEVATION 553 COLUMN M5/8.5	OPERATING TIME	6 months	Equivalent to>6 months	1	4,5	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident profile 4,16X	see enclosed profile	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 Accident Profile 16X	see enclosed profile	2	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Profile 21X	100	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	3.1×10^6	2×10^7	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4,5,6	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Frederick J. Bailey 9/12/83 Reviewed by: James Mearns 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, REV 8, 6/1/83 2. FSAR Par. 3.11 3. EDS study 0740-004-548J 4. Limitorque Test Report B0003 with Addendum A dated 5/76 5. QID 221001 6. Limitorque test report B0058 dated 1/11/80 7. BRI Calculation #5.51.055	Qualified.

TEMPERATURE PROFILE

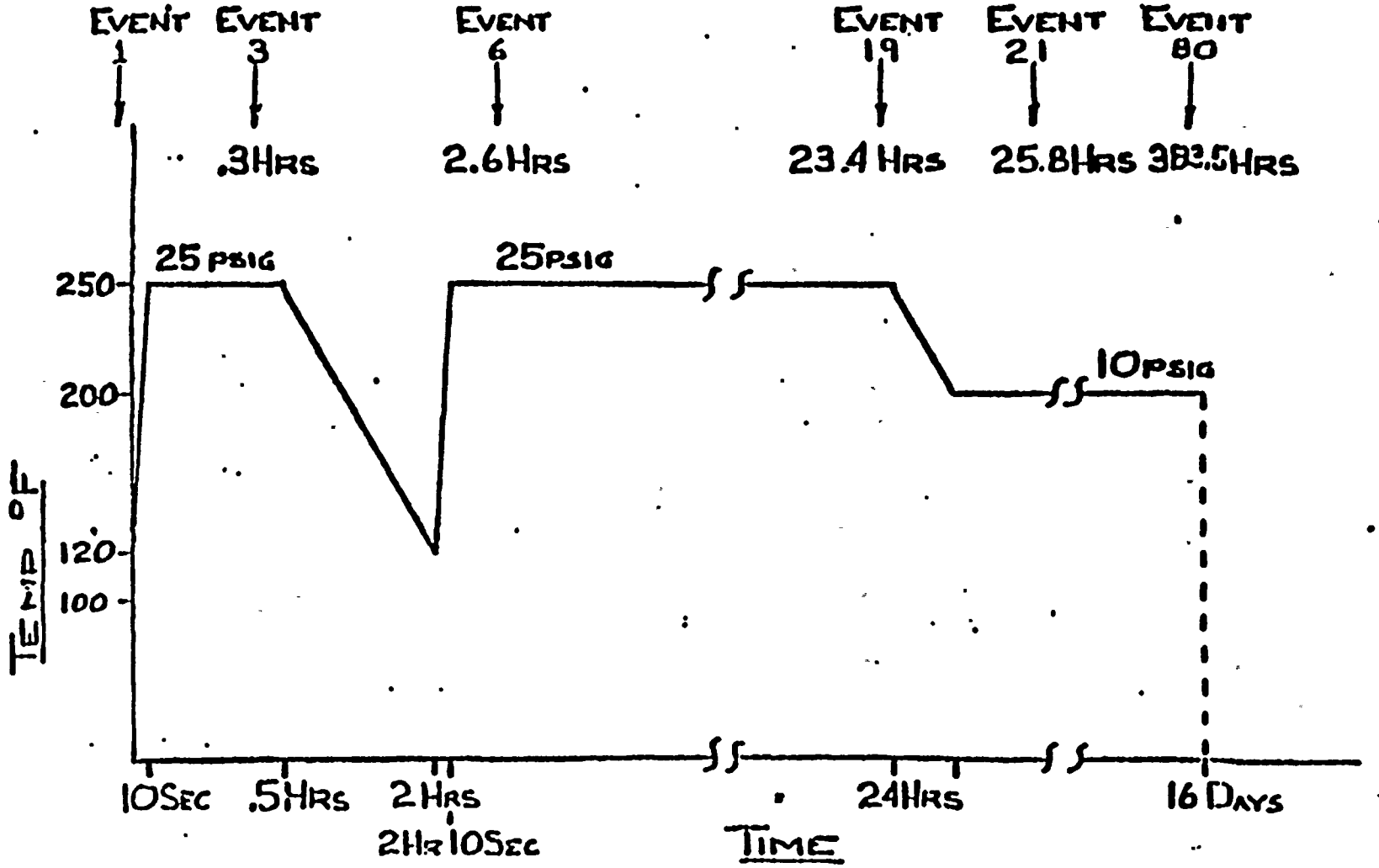


FIGURE 1

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #221001

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-42A

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-MO-52A -52B -48A -48B MANUFACTURER Limitorque MODEL NUMBER SMB-00-10/L56 SMB-3-80/213R3 COMPONENT - Motor Operator Motor: Reliance, B insulation/AC Motor FUNCTION/SERVICE LOCATION: BLDG R ELEVATION 580,555 COLUMN H.8/9 N/9 J/8.7 M.8/8.7	OPERATING TIME	4320 hours	Equivalent to>6 months	1	4,5	Engineering Analysis Simultaneous Test	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident Profile 4,16X	see enclosed profile	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 Accident Profile 16X	see enclosed profile	2	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Profile 21X	100	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	3.1×10^6	2×10^7	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4,5,6	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Frederick J. Briley 9/12/83

Reviewed by: James Means 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI C1E list, REV 8, 6/1/83 2. FSAR Par. 3.11 3. EDS Study 0740-004-548J 4. Limitorque Test Report B0003 with addendum A dated 5/76 5. QID 221002 6. Limitorque Test Report B0058 dated 1/11/80 7. BRI Calculation #5.51.055	Qualified.

TEMPERATURE PROFILE

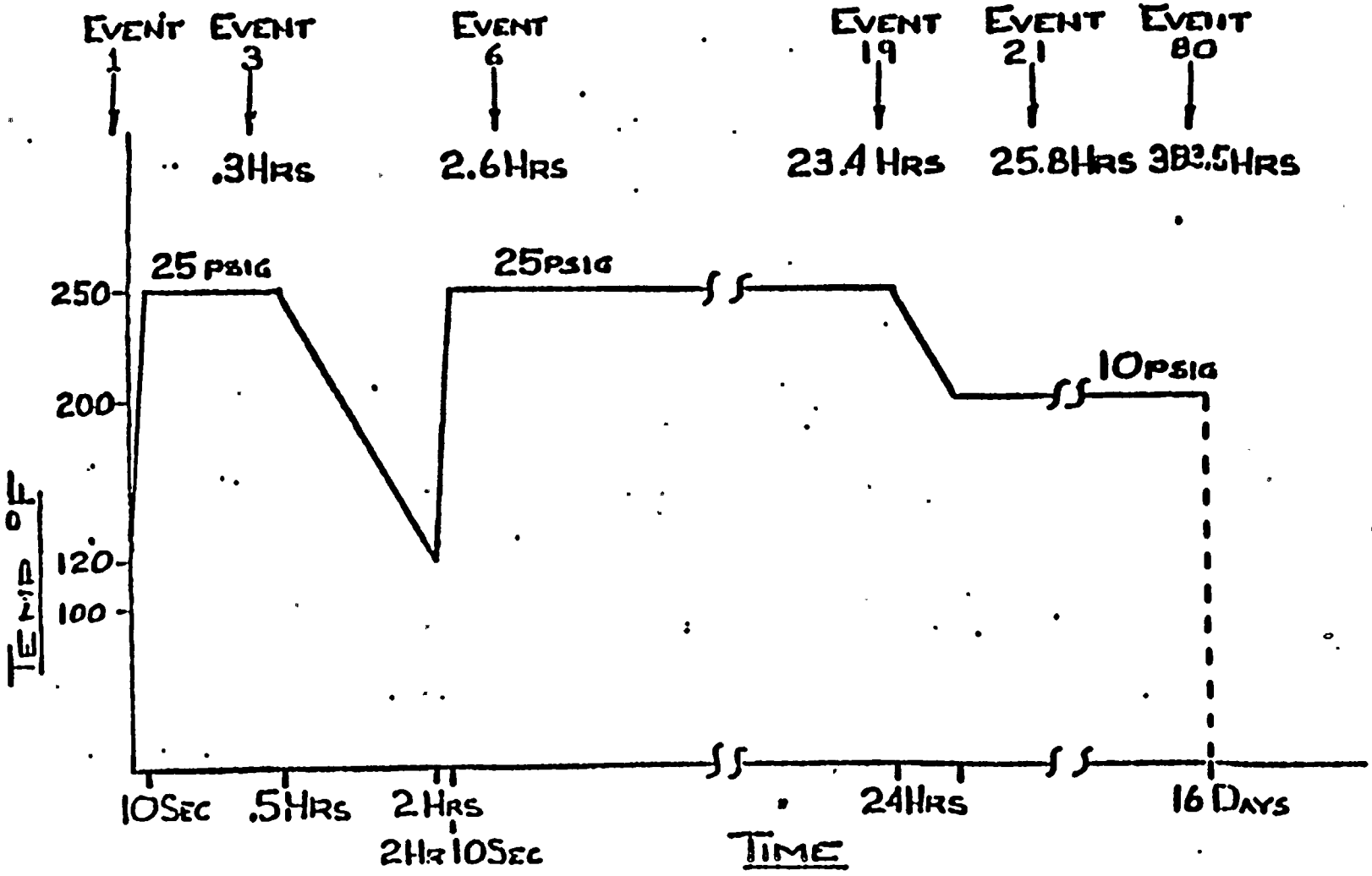


FIGURE 1

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #221001

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41B, 41A

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-MO-53A -MO-53B -MO-6A -MO-6B MANUFACTURER Limitorque MODEL NUMBER SMB-0-25/R56 SMB-2-60/215RZ COMPONENT Motor Operator - Reliance, RII insulation AC Motor FUNCTION/SERVICE Operates SD cooling injection valve LOCATION: BLDG R ELEVATION 516, 435 COLUMN K8/4.1 L.2/8.2 K6/8 L3/8.3	OPERATING TIME	6 months	Equivalent to>6 months	4	3, 6	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident Profile 4,6X,20X	See enclosed profile	1	3	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 Accident Profile 6X,20X	See enclosed profile	1	3	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 max. normal 90 max. abnormal Profile 21X	100	1	3	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	2.6×10^6	2.04×10^8	5	3	Sequential Test	None
	AGING	40 years	40 years +	1	2, 3 6	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Frederick S. Bailey 9/12/83 Reviewed by: James Means 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. Limitorque Report B0058 dated 1/11/80 3. Limitorque Report 600376A dated 5/13/76 4. BRI CIE list, REV 8, 6/1/83 5. EDS Study 0740-004-501M,S 6. QID #221001 7. BRI Calculation #5.51.055	Qualified.

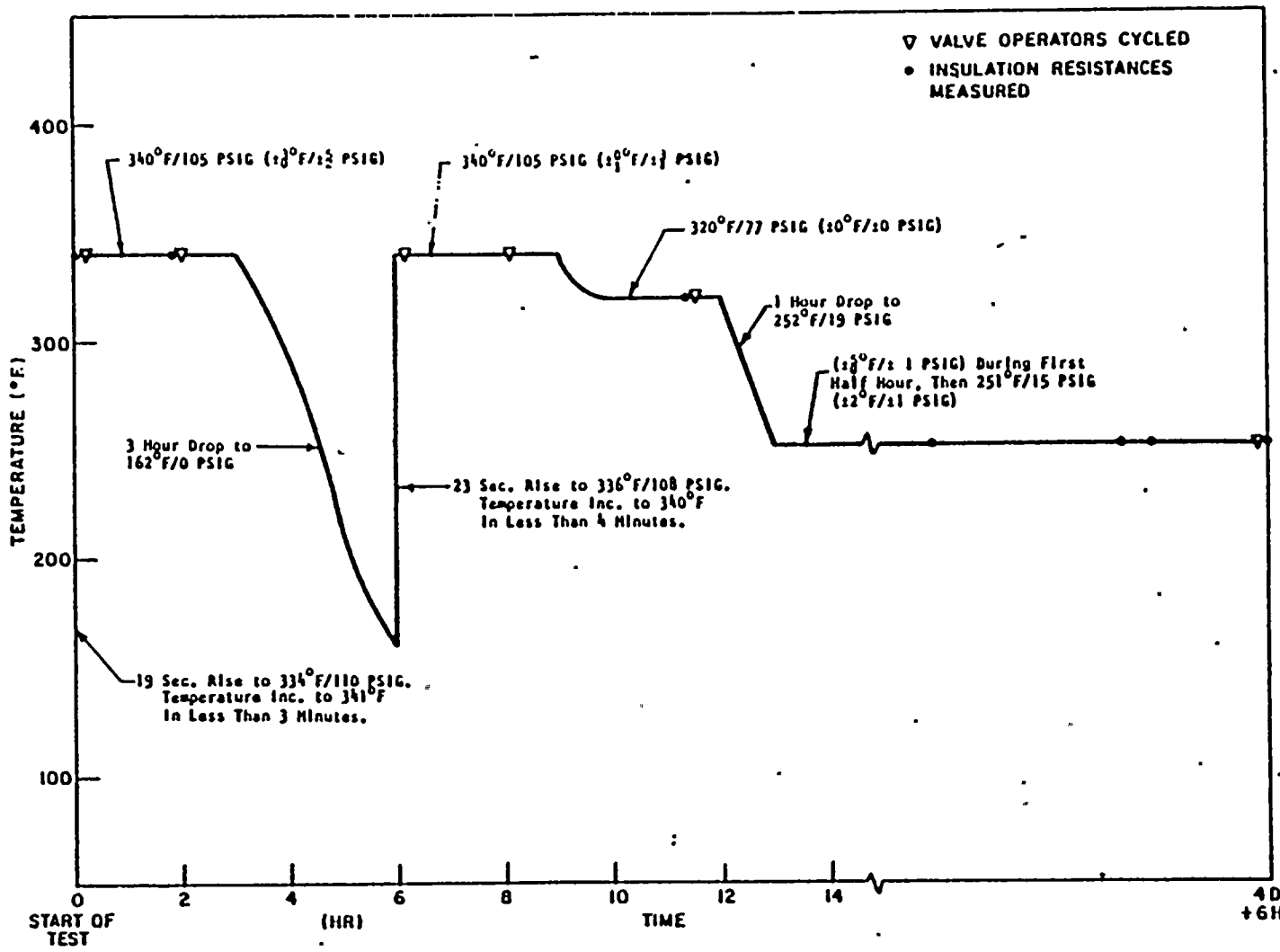


Figure 3. Actual Steam Exposure Profile

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215
MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-MO-64A -64B -64C MANUFACTURER Limitorque MODEL NUMBER SMB-000 -5/K48 COMPONENT Reliance Motor Operator AC Motor/Class B Ins. FUNCTION/SERVICE Operate RHR Valves LOCATION: BLDG R ELEVATION 448,444,446 COLUMN K/9.0,M/7.4,J/4.9	OPERATING TIME	6 months	Equivalent to > 6 months	1	3,4	Simultaneous Testing, Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident Profile 4 ,1X	See enclosed profile	1	3	Simultaneous Testing	None
	PRESSURE (PSIA)	Normal 14.7 Accident Profile 1X	See enclosed profile	1	3	Simultaneous Testing	None
	RELATIVE HUMITY (%)	40 normal 90 max. abnormal Profile 21X	100	1	3	Simultaneous Testing	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	3.1×10^6	2×10^7	2	3	Sequential Testing	None
	AGING	40 Years	40 Years	1	3,4,5	Sequential Testing, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Frederick J. Bailey 9/12/83 Reviewed by: James Means 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, REV 8, 6/1/83 2. EdS Study 0740-004-441J (worst case) 3. Limitorque Report B0003 with addendum A, 5/8/76 in BWR054-C-04 4. Calculations in QID 221001 5. Limitorque Report B0058 dated 1/11/80 6. BRI Calculation #5.51.055	Qualified.

WP-1081

TEMPERATURE PROFILE

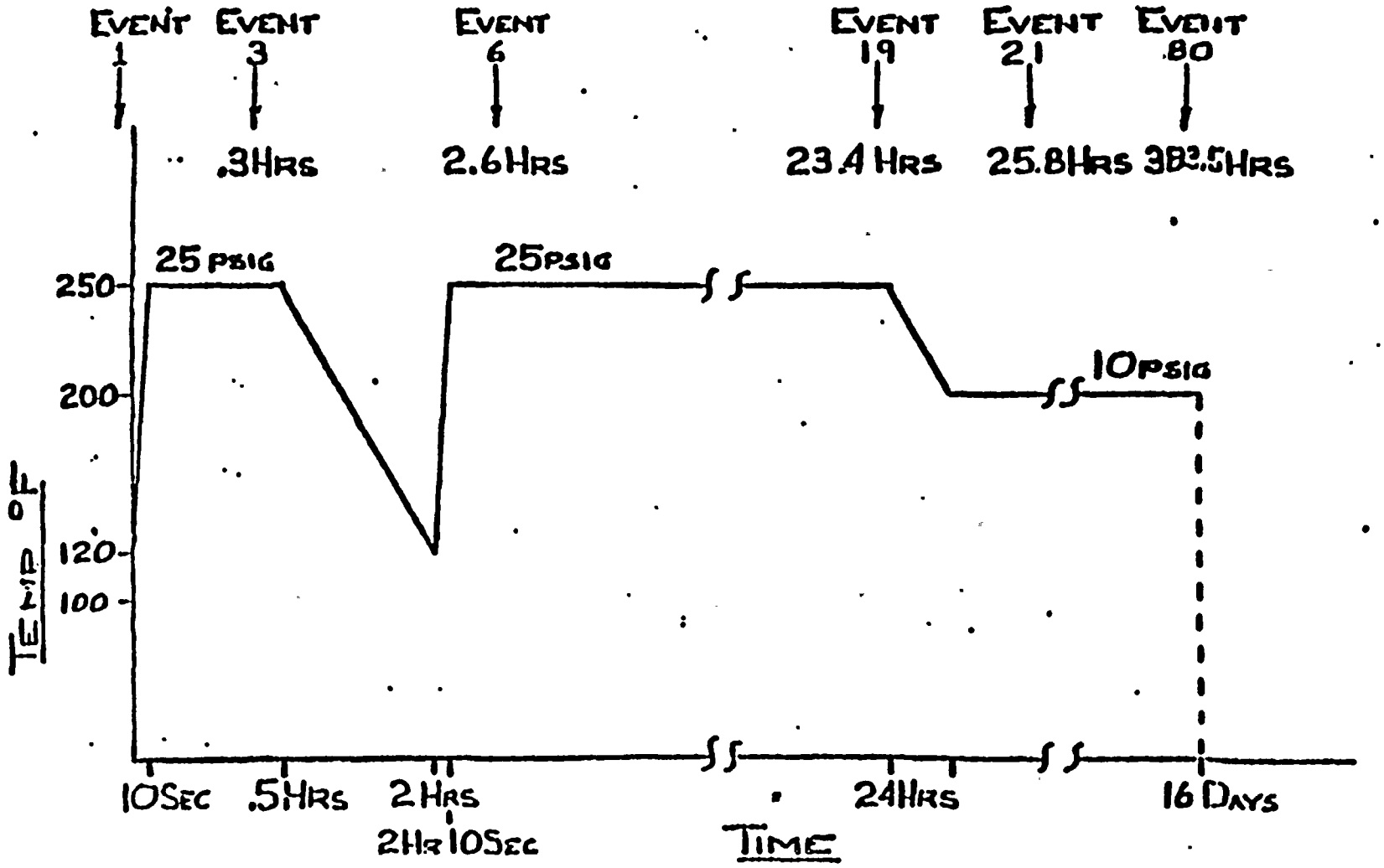


FIGURE 1

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A
MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual heat removal TAG NUMBER RHR-MO-68A RHR-MO-68B MANUFACTURER Limitorque MODEL NUMBER SMB-0-40/T56 COMPONENT Motor Operator- Reliance, RH insulation AC Motor FUNCTION/SERVICE Operates RHR heat exchanger inlet valve LOCATION: BLDG R ELEVATION 548 COLUMN J/9.2 M.8/9.3	OPERATING TIME	6 months	Equivalent to>6 months	4	3,6	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident profile 4,16X	See enclosed profile	1	3	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 Accident Profile 16X	See enclosed profile	1	3	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 max. normal 90 max. abnormal Profile 21X	100	1	3	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/R	1	N/A	N/A	None
	RADIATION (RAD)	3.1×10^6	2.04×10^8	5	3	Sequential Test	None
	AGING	40 years	40 years +	1	2, 3, 6	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Frederick J Bailey 9/12/83 Reviewed by: James Mecum 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. Limitorque Report B0058 dated 1/11/80 3. Limitorque Report B600376A dated 5/13/76 4. BRI CIE list, REV 8, 6/1/83 5. EDS Study 0740-004-548J, N 6. QID #221001 7. BRI Calculation #5.51.055	Qualified.

WP-1081

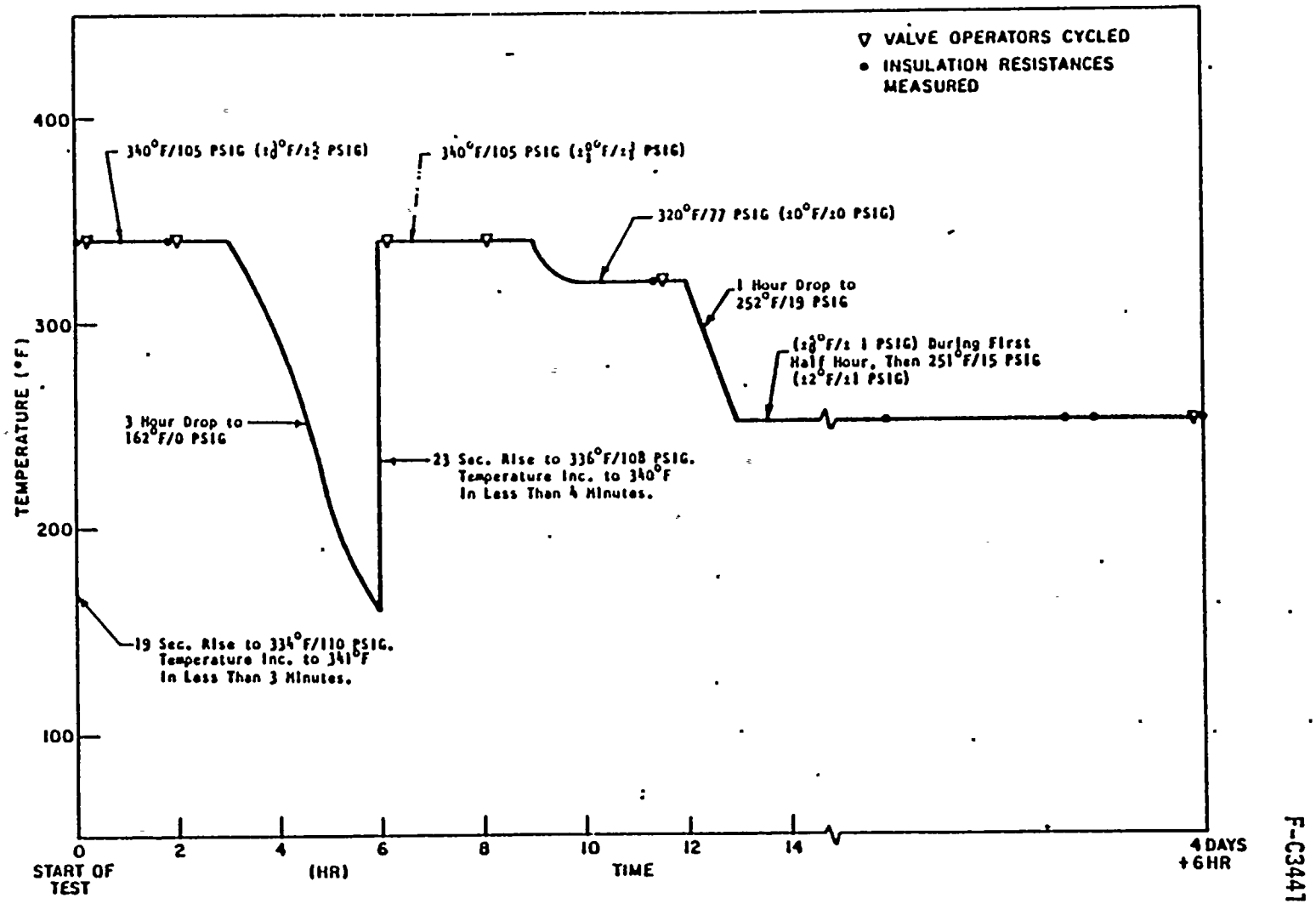


Figure 3. Actual Steam Exposure Profile

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #221001

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-MO-73A, B 74A, B MANUFACTURER Limitorque MODEL NUMBER SMC-04-5 COMPONENT Motor Operator Reliance, Class B Insulation AC Motor FUNCTION/SERVICE LOCATION: BLDG R ELEVATION 590 COLUMN J.9/9.2,H.2/9.1 J.9/9.1,H.3/9.1	OPERATING TIME	6 months	Equivalent to>6 months	1	4,5	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profile 4	See enclosed profile	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	See enclosed profile	2	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4 ,21X	100	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.2×10^6	2×10^7	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4, 5	Sequential Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Meeuwsen 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, REV 8, 6/1/83 2. FSAR Par. 3.11 3. EDS Study 0740-004-572L, I 4. Limitorque Test Report B0003, B0058 5. QID 221001 6. BRI Calculation #5.51.055	Qualified.

TEMPERATURE PROFILE

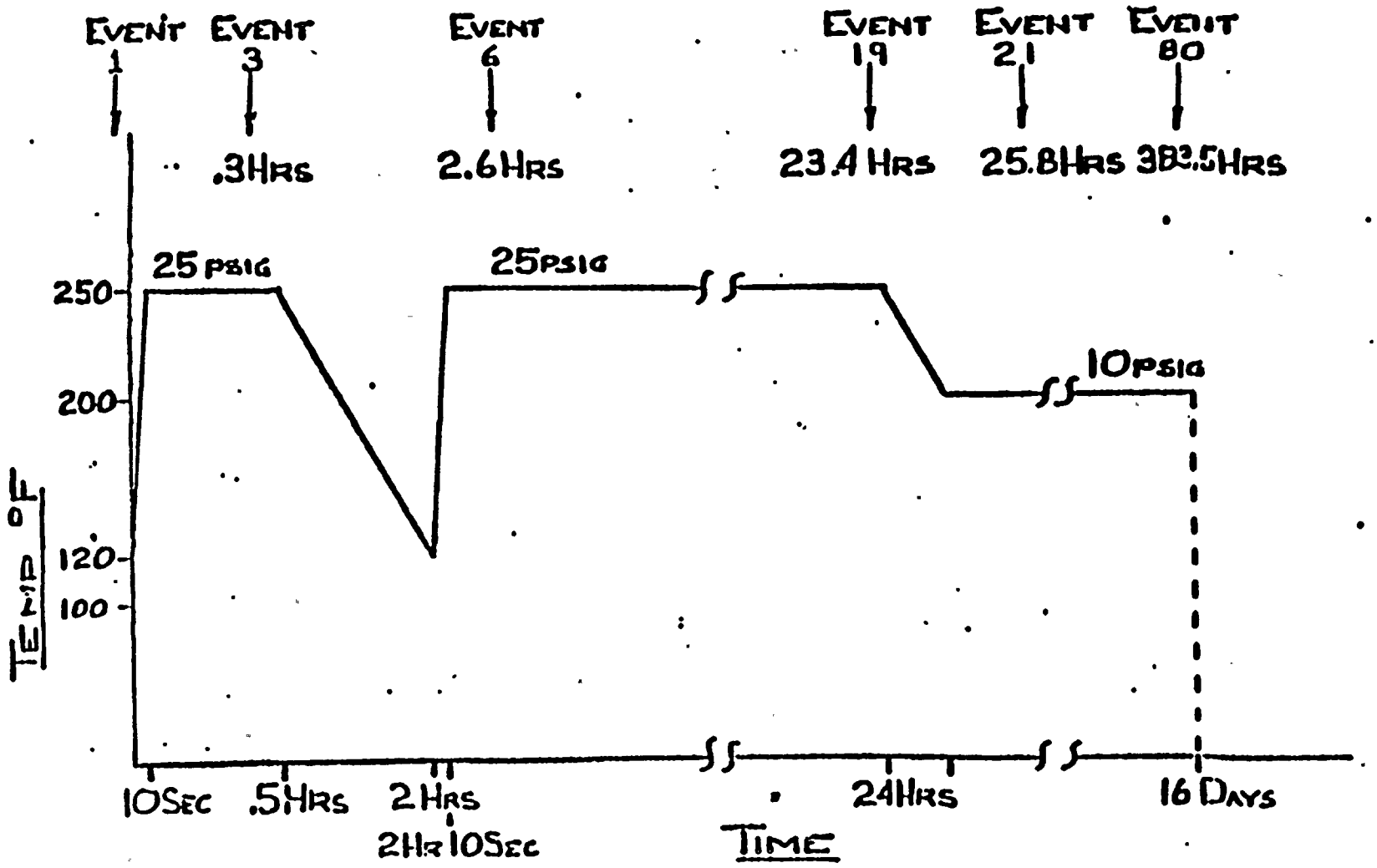


FIGURE 1

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #221001

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A
MPL:
PPD:

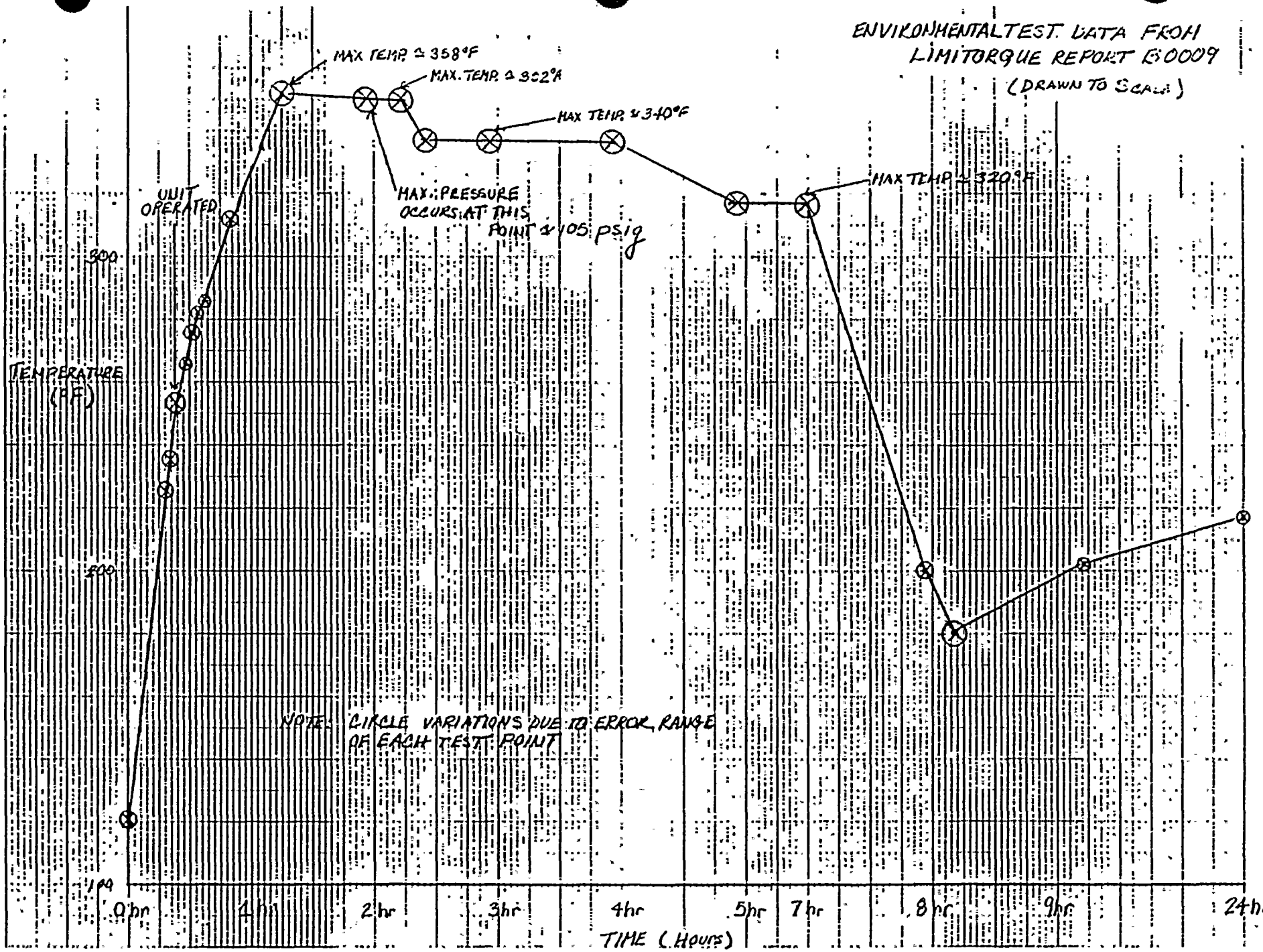
PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-MO-8 MANUFACTURER Limitorque MODEL NUMBER SMB-2-80/DS224B COMPONENT Porter-Peerless Valve Motor Operator DC Motor/Class H Ins. FUNCTION/SERVICE Operate RHR Valves LOCATION: BLDG R ELEVATION 501 COLUMN M8/7.4	OPERATING TIME	6 months	Equivalent to > 6 months	5	3, 4	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 maximum normal 104 maximum abnormal Accident Profile 4	See enclosed profile	1	3	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	See enclosed profile	1	N/A	N/A	None
	RELATIVE HUMITY (%)	40 normal 90 maximum abnormal Accident Profile 4,21X	100%	1	3	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	1.5×10^6	1×10^7	2	3	Sequential Test	None
	AGING	40 years	40+ years	1	3, 4	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Linda Vaccari 9/2/83. Reviewed by: James Nivens 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. EDS Study 0740-004-501I 3. Limitorque Report B0009, 4/30/76 Section E 4. QID #221001 5. BRI C1E list, REV 8, 6/1/83 6. BRI Calculation #5.51.055	1. Qualified


ENVIRONMENTAL TEST DATA FROM LIMITORQUE REPORT E0009
(DRAWN TO SCALE)
MAX TEMP. ≈ 358°F
MAX. TEMP. ≈ 352°F
MAX TEMP. ≈ 340°F
MAX TEMP. ≈ 320°F
UNIT OPERATED
MAX. PRESSURE OCCURS AT THIS POINT ≈ 105 psig
TEMPERATURE (°F)
300
200
100
NOTE: CIRCLE VARIATIONS DUE TO ERROR RANGE OF EACH TEST POINT
0hr
1hr
2hr
3hr
4hr
5hr
7hr
8hr
9hr
24hr
TIME (Hours)

WPPSS QID# 221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2802-42A

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-MO-87A,B MANUFACTURER Limitorque MODEL NUMBER SMB-00-10/L56 COMPONENT Valve Motor Operator AC Motor/Class B Insulation FUNCTION/SERVICE Operate RHR Valve LOCATION: BLDG R ELEVATION 578 COLUMN J/9.3 M.8/8.6	OPERATING TIME	24 Hours	Equivalent to > 6 months	5	3,4	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident profile 4	See enclosed profile	1	3	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	See enclosed profile	1	3	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 max abnormal Accident profile 4,21X	100	1	3	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	1.2×10^6	2×10^7	2	3	Sequential Test	None
	AGING	40 years	40 years	1	3,4,6	Sequential Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Linda Paccari 9/2/83 Reviewed by: James Mearns 9/2/83

DOCUMENTATION REFERENCES

1. FSAR Par. 3.11
2. EDS Study 07400-004-572L
3. Limitorque Report B0003 with Addendum A (BWR-054-C-04)
4. QID #221001
5. BRI CIE list, REV 8, 6/1/83
6. Limitorque Report B0058 dated 1/11/80
7. BRI Calculation #5.51.055

NOTES

Qualified

1081

TEMPERATURE PROFILE

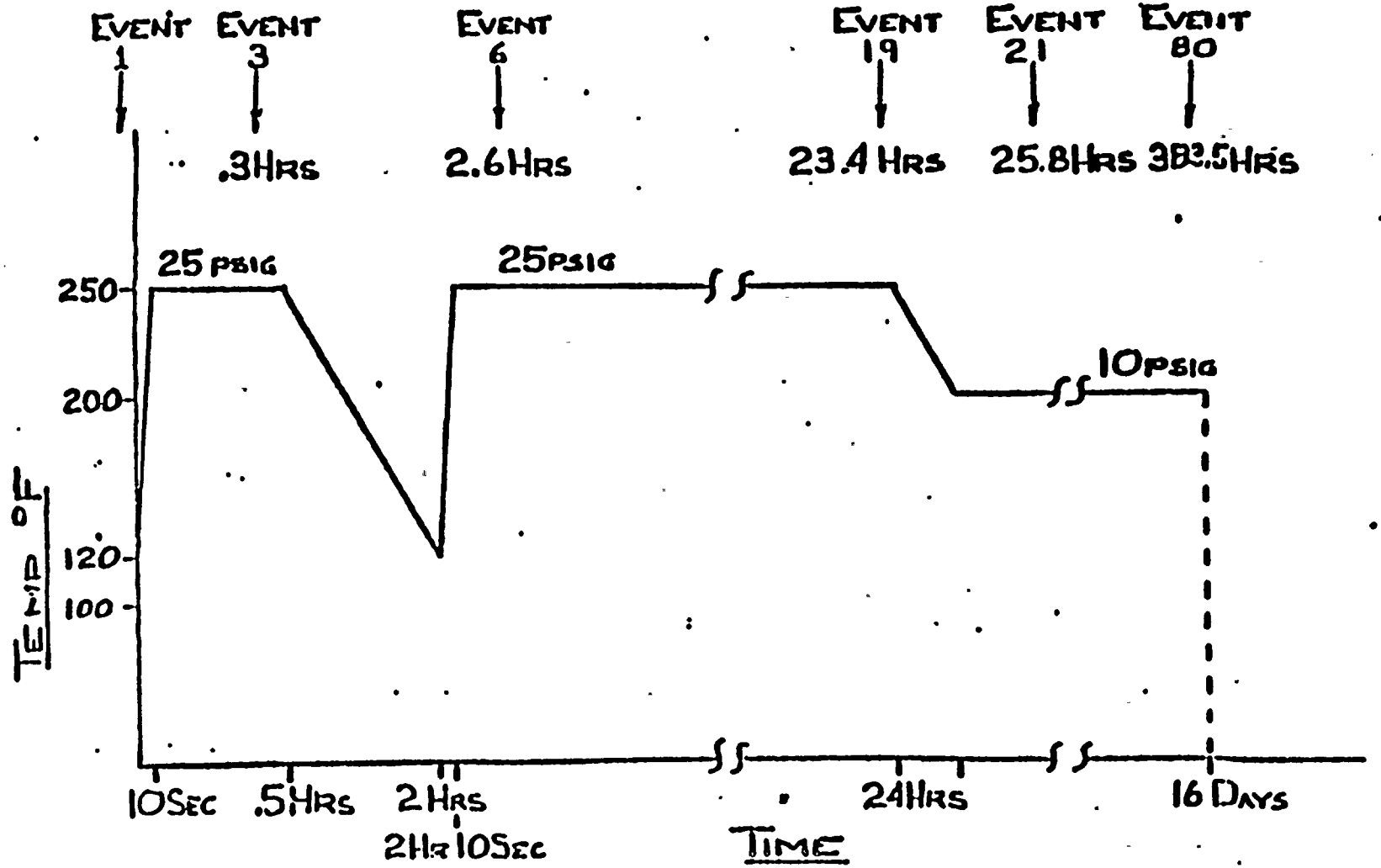


FIGURE 1

WPPSS

QID#221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-MO-9 MANUFACTURER Limitorque MODEL NUMBER SMB-2601215R2 COMPONENT Reliance Motor Operator AC/RH Motor FUNCTION/SERVICE LOCATION: BLDG C ELEVATION 511 COLUMN 160°AZ R23	OPERATING TIME	6 months	Equivalent to > 6 months	2	4,5	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	135 Normal 150 abnormal Accident - Profile 1	See enclosed profile	1	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Accident - Profile 1	See enclosed profile	1	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	55 normal 90 abnormal Accident Profile 2	100	1	4	Simultaneous Test	None
	CHEMICAL SPRAY	Demineralized water	Chemical Spray pH 10	1	4	Simultaneous Test	None
	RADIATION (RAD)	7.0×10^7	2.04×10^8	1	4	Sequential Test	None
	AGING	40 years	40 years +	1	4,5	Sequential Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Bernard Mahini 6/24/83 Reviewed by: James Mearns 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. BRI CIE list, REV 8, 6/1/83 3. Limitorque Report B0058 dated 1/11/80 4. Limitorque Report B600376A dated 5/13/76 5. QID #221001 6. BRI Calculation #5.51.055	Qualified

WP-1081

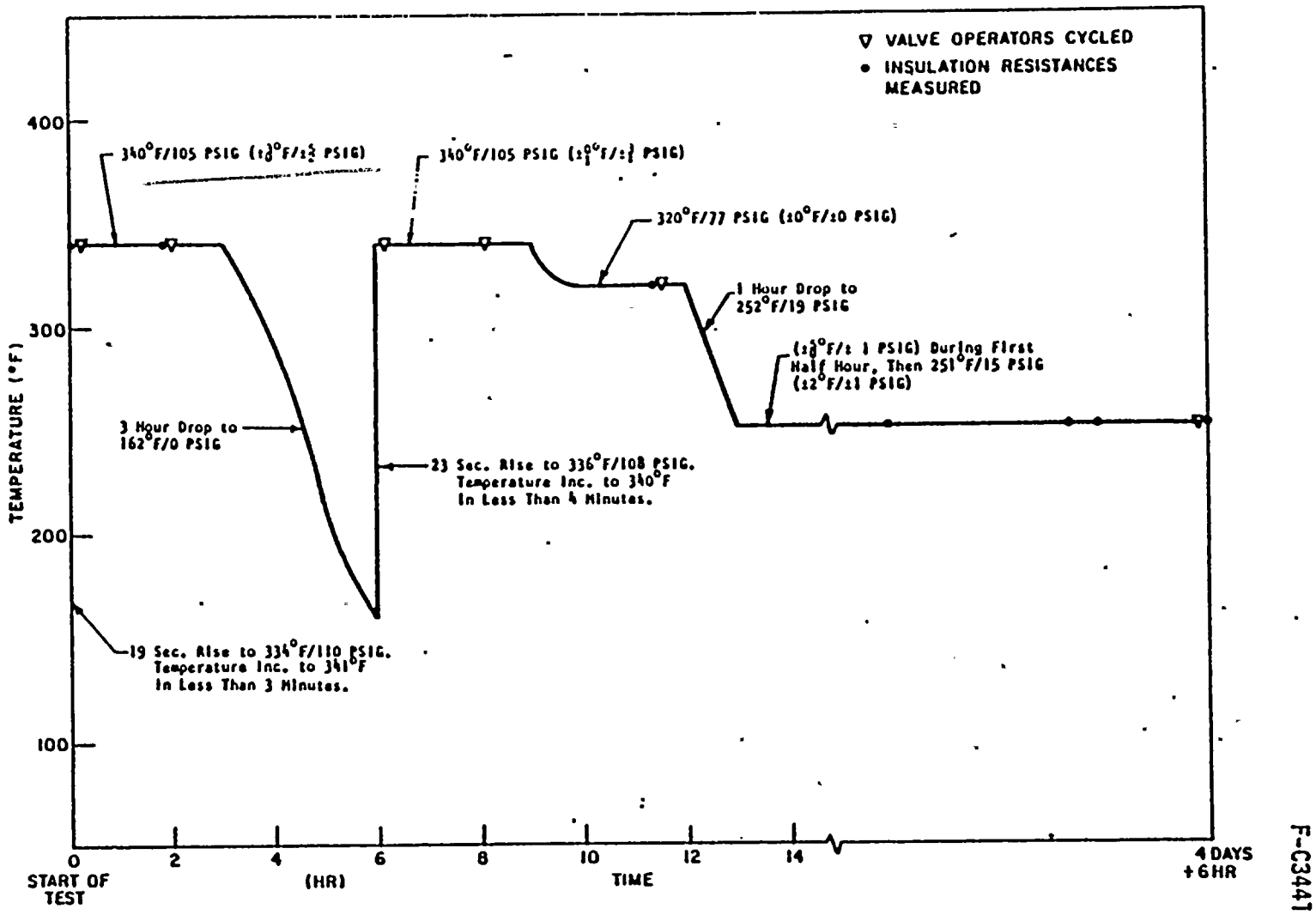


Figure 3. Actual Steam Exposure Profile

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #221001

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02G11

MPL: G11-F093 and G11-F094
PPD: 21A1883

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-MO-93 -94 MANUFACTURER Limitorque MODEL NUMBER SMB-0-40/T56 COMPONENT Valve Motor Operator (Reliance Class B) AC Motor FUNCTION/SERVICE Operate RHR/SSW Crosstie Valve LOCATION: BLDG R ELEVATION 552 COLUMN N/8.6, N/9	OPERATING TIME	6 months	Equivalent to > 6 months	4	2,5	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4 ,16X	See enclosed profile	1	2	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	See enclosed profile	1	N/A	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 max abnormal Profile 21X	Steam for 24 hours 100% for 15 days	1	2	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	3.1×10^6	2×10^7	3	2	Sequential Test	None
	AGING	40 years	40 years	1	2,5,6	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Frederick J. Bailey 9/12/83 Reviewed by: James Meares 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. Par. 3.11 2. Limitorque Test Report B0003, with Addendum A, prepared 5/8/76 3. EDS Study 0740-004-548J 4. BRI CIE list, REV 8, 6/1/83 5. Calculations in QID 221001 6. Limitorque Test Report B0058 dated 1/11/80 7. BRI Calculation #5.51.005	Qualified

1001

TEMPERATURE PROFILE

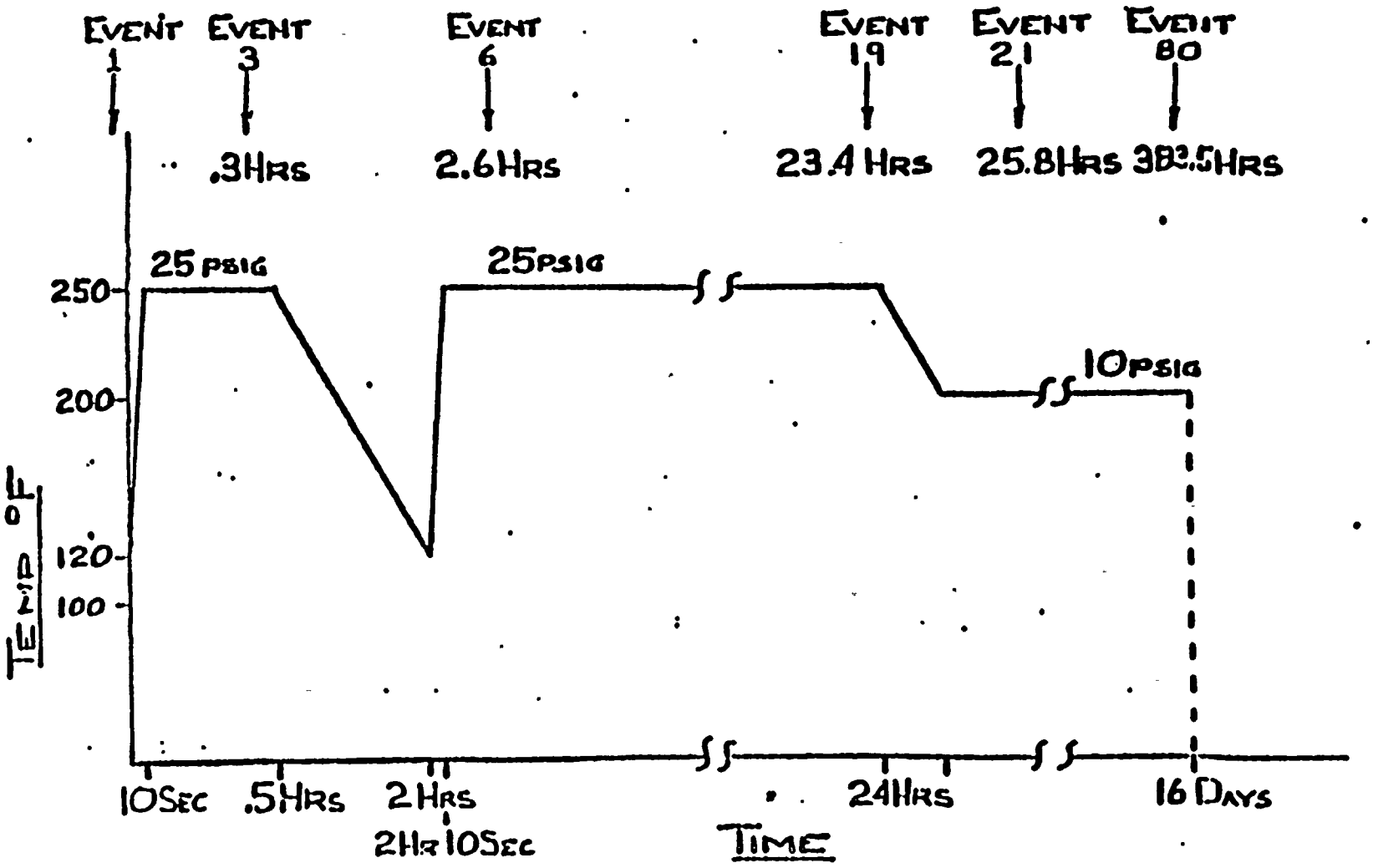


FIGURE 1

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215
MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-MO-99A RHR-MO-99B MANUFACTURER Limitorque MODEL NUMBER SMB-000-5/P48 COMPONENT Reliance Valve Motor Operator AC/Class RH Insulation FUNCTION/SERVICE Operate RHR Valves LOCATION: BLDG C ELEVATION 514, 510 COLUMN 95° 270°	OPERATING TIME	6 months	Equivalent to > 6 months	5	2, 3	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	135 normal 150 maximum abnormal Accident - profile 1	See enclosed profile	1	2	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Accident - Profile 1	See enclosed profile	1	2	Simultaneous Test	None
	RELATIVE HUMITY (%)	55 normal 90 maximum abnormal Accident Profile 2	100	1	2	Simultaneous Test	None
	CHEMICAL SPRAY	Demineralized water	Chemical spray with pH 10	1	4	Simultaneous Test	None
	RADIATION (RAD)	7.0×10^7	2.04×10^8	1	2	Sequential Test	None
	AGING	40 years	40+ years	1	2, 3	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Bckyd Makine 6/24/83 Reviewed by: Ali Nadim 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. Limitorque Report 600376A, 5-13-76 3. QID #221001 4. Limitorque Report B0058 dated 1/11/80 5. BRI CIE list, REV 8, 6/1/83 6. BRI Calculation #5.51.055	1. Qualified

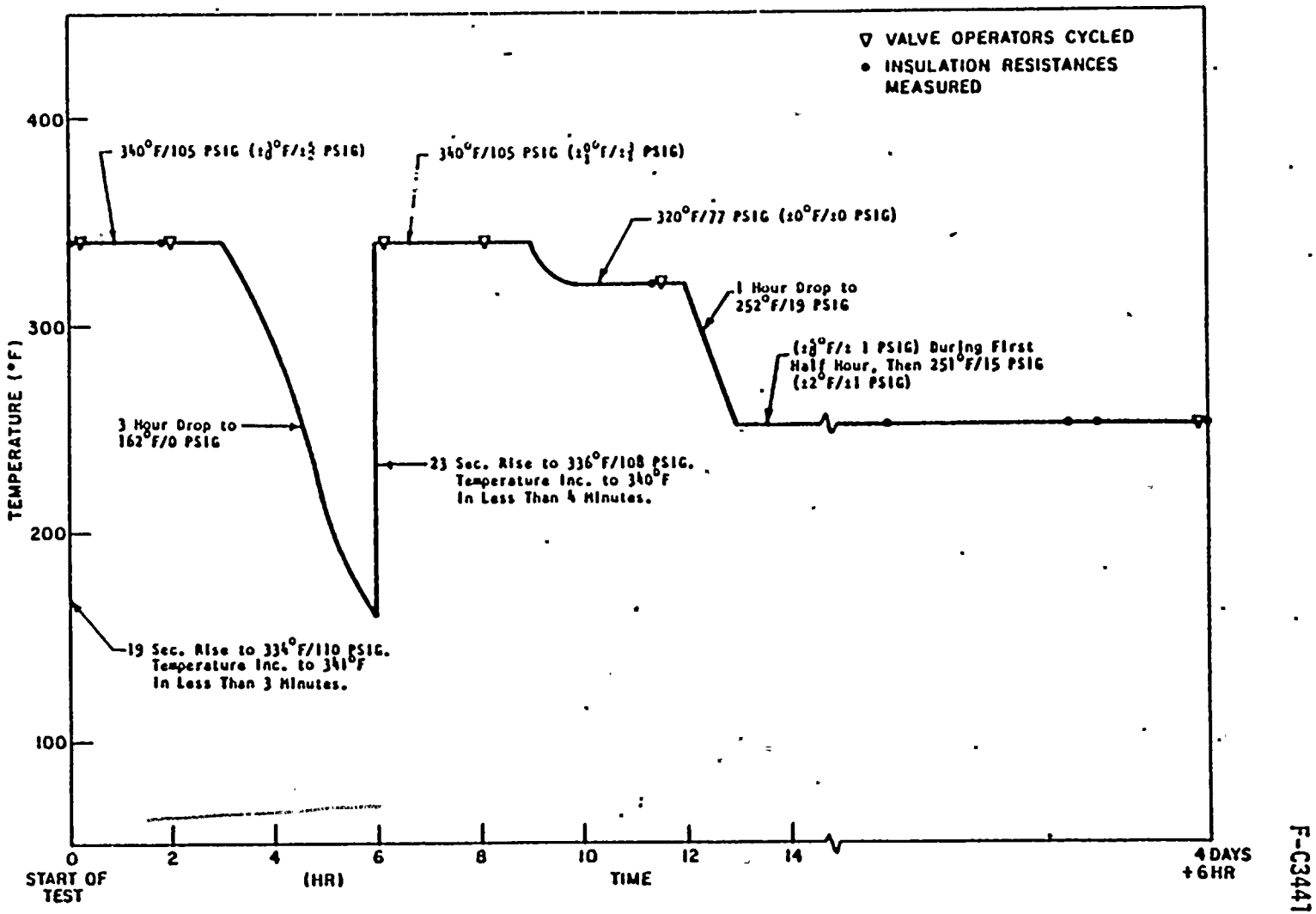


Figure 3. Actual Steam Exposure Profile

WPPSS QID #256016

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E12

MPL: E12-N016A,B,C,E12-N019
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-PS-16 A-C PS-19 A-C MANUFACTURER Static-O-Ring MODEL NUMBER 5H-AA3-X10STT COMPONENT FUNCTION/SERVICE RHR: ADS Permissive (10-240 psig) Pump LOCATION: BLDG R ELEVATION See Note 2 COLUMN See Note 2	OPERATING TIME	24 hours	Equivalent to >6 months	1	4,5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 Max Normal 104 Max Abnormal Accident Profile 4, 10,7X	212	2	5	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 Normal Accident Profile 10, 7X	15.2	2	4,5	Simultaneous Test and Engineering Analysis	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Profiles 4, 21X	100	2	5	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	4.6×10^5	1.5×10^6	3	4	Engineering Analysis	None
	AGING	40 years	16 years	2	4	Engineering Analysis	None Note 1
	ACCURACY	2%	0.8%	7	4,5	Simultaneous Test and Engineering Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Frederick J Britig 9/12/83 Reviewed by: James Means 9/12/83

DOCUMENTATION REFERENCES

1. BRI CIE list, Rev.8, dated 6/1/83
2. FSAR Paragraph 3.11
3. EDS Report 0740-004-501B
4. QID 256016
5. Viking Lab. Inc. Test Letter Report #30203-2 dated 11/20/73. Steam testing of Static-O-Ring Pressure Switch, P/N 12N-AA4-TTX10.
6. BRI Calc. #5.51.055

NOTES

Qualified

1. A preventive maintenance/surveillance program is being developed to extend the qualified life.
2.

Tag #	Column	Elevation
RHR-PS-16A	J.6/3.6	503
RHR-PS-16B-C	H.8/9.3	503
RHR-PS-19A	J.7/3.7	503
RHR-PS-19B	H.8/9.3	503
RHR-PS-19C	H.8/9.3	505

WPPSS QID324006

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

PAGE NO:
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DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-V -60A -60B MANUFACTURER Marotta MODEL NUMBER MV36RP-H3 COMPONENT Solenoid Valve FUNCTION/SERVICE RHR Sample Line Isolation Valve LOCATION: BLDG R ELEVATION (See Note 2) COLUMN (" ")	OPERATING TIME	4320 hours	Equivalent to 4320. hours	1	4	Engineering Analysis	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profile 4,16X	221	2	4	Materials Test and Engineering Analysis	None
	PRESSURE (PSIA)	14.7	14.7	2	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 Max Normal 90 Max. Abnormal 100 Accident	90	2	4	Engineering Analysis	Note 2
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	3.1×10^6	5×10^6	3	4	Materials test and Engineering Analysis	None
	AGING	40 years	40 years	2	4	Materials test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV: (Ref. 6)
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Means 9/2/83

DOCUMENTATION REFERENCES

1. BRI Class 1E Equipment List, Rev 8 , 6/1/83
2. FSAR Paragraph 3.11
3. EDS Calc. #0740-Q04-548J.N
4. QID 315023
5. Performance Specification for Marotta Solenoid Valves, Wyle Report #26411, dated 4/27/83
6. BRI Calc. #5.51.055

NOTES

1. These components are being tested to demonstrate their qualification to IEEE Stds 323-1974 and 344-1975. Qualification objectives are identified in [5].
2. RHR-V-60A,B are on table B of the J10 and do not require qualification prior to Fuel Load.

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WPPSS QID #324006

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215
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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

2.

Tag Number	Elev.	Column
RHR-V-60A	560	J.8/8.5
-60B	560	M.4/8.4

WP-1083

Prepared by: Linda Vaccari 9/2/83

Reviewed by: James Mearns 9/2/83

WPPSS QID #324006

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

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PAGE NO:
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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-V-75A RHR-V-75B MANUFACTURER Marotta MODEL NUMBER MV36RP-113 COMPONENT Solenoid Valve FUNCTION/SERVICE RHR Sample Line Isolation Valve LOCATION: BLDG R ELEVATION 561 COLUMN J.8/8.5, M.4/8.5	OPERATING TIME	4320 Hours		1			Note 1
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profile 4,16X		2			
	PRESSURE (PSIA)	14.7 Accident Profile 16X		2			
	RELATIVE HUMITY (%)	40 Max Normal 90 Max Abnormal 100 Accident		2			
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	3.1×10^6		3			
	AGING	40 Years		2			
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV: (Ref 6)
ABOVE FLOOD LEVEL?
YES X NO (Ref 4)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Means 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI Class IE Equipment List, Rev 8, 6/1/83 2. FSAR Paragraph 3.11 3. EDS Calc. #0740-004-548J.N 4. QID #315023 5. Performance Specification for Marotta Solenoid Valves, Wyle Report #26411, dated 4/27/83 6. BRI Calc. #5.51.055	1. The equipment is being tested for 100% relative humidity [5]. Justification No. 25 in Appendix D of JIO is provided for RHR-V-75 A,B.

WP-1881

WPPSS QID #221002

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-64

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REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Building Outside Air TAG NUMBER ROA-M-AD/19 MANUFACTURER Barber-Colman Co. MODEL NUMBER MA 418 COMPONENT FUNCTION/SERVICE Motor for ROA-AD-19 LOCATION: BLDG R ELEVATION 560 COLUMN L.9/8.2	OPERATING TIME	4320 hours		3			Note 1
	TEMPERATURE (F)	90 Max Normal 104 Max Abnormal Accident Profile 4		1			
	PRESSURE (PSIA)	14.7		1			
	RELATIVE HUMITY (%)	40 Normal 90 Max Abnormal Accident Profile 4		1			
	CHEMICAL SPRAY	N/A		1			
	RADIATION (RAD)	1.0×10^5		2			
	AGING	40 years		1			
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL? YES X NO (Ref. 4)	Prepared by: Behzad Mahini 6/24/83		Reviewed by: James Mearns 6/24/83				

DOCUMENTATION REFERENCES

1. FSAR paragraph 3.11
2. EDS Study 0740-004-548K
3. BRI CIE list Rev. 8, dated 6/1/83
4. BRI Calculation #5,51.055

NOTES

1. This component is on Table B of the JIO and it does not require qualification prior to fuel load.

WPPSS QID #200014

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-

MPL:
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PAGE NO:
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DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Building Outside Air (HVAC) TAG NUMBER ROA-POS-V/1 -V/2 MANUFACTURER Namco Controls MODEL NUMBER 70050100 COMPONENT Position Switch FUNCTION/SERVICE Position Switch for Isolation Valves LOCATION: BLDG R ELEVATION 578 COLUMN N.7/5.7 /5.0	OPERATING TIME	6 months		1			Note 1
	TEMPERATURE (F)	90 Normal 104 Abnormal Accident Profile 4		2			
	PRESSURE (PSIA)	14.7		2			
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4		2			
	CHEMICAL SPRAY	N/A	N/A	N/A	N/A	N/A	None
	RADIATION (RAD)	1.0×10^6		3			
	AGING	40 years		2			
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared by: Behzad Makini 6/24/83 Reviewed by: A.L. Neals 6/24/83

DOCUMENTATION REFERENCES

1. BRI CIE list Rev. 8, dated 6/1/83
2. FSAR paragraph 3.11
3. EDS study 0740-004-572F
4. BRI Calc. #5.51.055

NOTES

1. Equipment justification #17 in Appendix D is provided for ROA-POS-V/1. ROA-POS-V/2 is on Table B of the JIO and does not require qualification prior to fuel load.

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WPPSS QID # 283011E

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC:

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Outside Air TAG NUMBER ROA-RLY-CR1A CR200 MANUFACTURER ASEA MODEL NUMBER RXMK1 COMPONENT Relay FUNCTION/SERVICE Control isolation valve ROA-V-1, control isolation valve ROA-V-2 LOCATION: BLDG R ELEVATION 556, 528 COLUMN N.O/6.0 N.O/8.3	OPERATING TIME	4320 hours	Equivalent to > 4320 hours	1	4	Engineering Analysis	None
	TEMPERATURE (F)	90° normal 104° abnormal Accident Profile 4	194	2	4	Material Test and Engineering Analysis	None
	PRESSURE (PSIA)	14.7	>14.7	2	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4	90	2	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A			N/A	None
	RADIATION (RAD)	8.3×10^5	10^6	3	4	Material Test and Engineering Analysis	None
	AGING	40 years	40 years	2	4	Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	N/A

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref 5)

Prepared by: Frederick A. Bailey 9/12/83

Reviewed by: James Mearns 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, Rev.8, dated 6/1/83 2. FSAR paragraph 3.11 3. EDS report 0740-004-522H 4. QID 283015E	Qualified

QID #315002

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-216
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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Building Outside Air TAG NUMBER ROA-SPV-(See Note 2) MANUFACTURER Automatic Switch (ASCO) MODEL NUMBER HBX8320A1 COMPONENT Solenoid Pilot Valve FUNCTION/SERVICE Operate HVAC Dampers LOCATION: BLDG R ELEVATION See Note 2 COLUMN	OPERATING TIME	6 months	Equivalent to >6 months	1	4	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Profile 4, 11, 31	185	2	4	Materials Test, Engineering Analysis	None
	PRESSURE (PSIA)	14.7 Normal Accident Profile 11, 31	Profile 31	2	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 max. normal 90 max. abnormal Profile 21X	100	2	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.0×10^6	3×10^6	3	4	Materials Test and Engineering Analysis	None
	AGING	40 years	7 years	2	4	Operating Experience Engineering Analysis	None Note 1
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Frederick J. Bailey 9/12/83 Reviewed by: James Meares 9/12/83

DOCUMENTATION REFERENCES

1. WNP-2 CIE Equipment List dated 12/82
2. FSAR Para 3.11 and WPPSS Calculation NE-02-82-14-0
3. EDS Study 0740-004-572F (worst case)
4. Calculation QID #315004-E
5. BRI Calc. #5.51.055

NOTES

1. A preventive maintenance program is being developed to extend the qualified life.

Qualified

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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

2. TAG NUMBER

-10	544	M.5/3.9
-11	543	M.8/8.1
-12	486	M.7/8.1
-13	593	M.4/5.7
-14	600	M.4/8.1
-15	563	M.8/4.4
-17	563	M.8/4.4

WPPSS QID #315004

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-216

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Building Outside Air TAG NUMBER R0A-SPV-100 MANUFACTURER Automatic Switch (ASCO) MODEL NUMBER HJIIT831654 COMPONENT Solenoid Pilot Valve FUNCTION/SERVICE Solenoid Pilot for R0A-V-1 LOCATION: BLDG R ELEVATION 553 COLUMN M.8/5.7	OPERATING TIME	6 months	Equivalent to > 6 months	1	4	Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Profile 4	185	2	4	Materials Test, Engineering Analysis	None
	PRESSURE (PSIA)	14.7	$\geq$ 14.7	2	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 max normal 90 max abnormal Profile 4	90	2	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2,	N/A	N/A	None
	RADIATION (RAD)	6.5×10^4	4.0×10^5	3	4	Materials Test and Engineering Analysis	None
	AGING	40 years	7 years	2	4	Operating Experience and Engineering Analysis	None Note 1
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Frederick A Bailey 9/12/83 Reviewed by: James Means 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI C1E list, REV 8, 6/1/83 2. FSAR Para 3.11 and WPPSS Calculation NE-02-82-14-0 3. EDS Study 0740-004-548G 4. Calculation QID315004-E 5. BRI Calculation #5.51.055	Qualified 1. A preventive maintenance program is being developed to extend the qualified life.

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #315004

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-216

MPL:
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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Building Outside Air TAG NUMBER ROA-SPV-200 MANUFACTURER Automatic Switch (ASCO) MODEL NUMBER WJHT8316E35F COMPONENT Solenoid Pilot Valve FUNCTION/SERVICE LOCATION: BLDG R ELEVATION 529 COLUMN N/8.2	OPERATING TIME	6 months	$\geq$ 6 months	1	4	Materials Test Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Profile 4	185	2	4	Materials Test Engineering Analysis	None
	PRESSURE (PSIA)	14.7	14.7	2	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 max normal 90 max abnormal Profile 4	90	2	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	6.5×10^4	4.0×10^5	3	4	Materials Test and Engineering Analysis	None
	AGING	40 years	7 years	2	4	Operating Experience and Engineering Analysis	None Note 1
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Frederick J. Bartig 9/12/83

Reviewed by: James Meerno 9/12/83

DOCUMENTATION REFERENCES	Qualified	NOTES
1. BRI CIE list. REV 8. 6/1/83 2. FSAR Para 3.11 3. EDS Study 0740-004-522H 4. Calculation QID315004-E 5. BRI Calculation #5.51.055		1. A preventive maintenance program is being developed to extend the qualified life.

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WPPSS QID# 256016

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02C72

MPL: C72-N002A,B,C,D
PPD:

PAGE NO:
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DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Protection System TAG NUMBER RPS-PS-2A-D MANUFACTURER Static-O-Ring MODEL NUMBER 12N-AA5-X10TT 12N-AA4-X10TT COMPONENT Pressure Switch FUNCTION/SERVICE Drywell High Pressure LOCATION: BLDG R ELEVATION See Note 2 COLUMN See Note 2	OPERATING TIME	.17 hours	Equivalent to >6 Months	1	4,5	Engineering Analysis and Separate Test	None
	TEMPERATURE (F)	90 Max Normal 104 Max Abnormal Accident Profile 4	156	2	5	Separate Test	None
	PRESSURE (PSIA)	14.7	N/A	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4	Profile 4	2	5	Separate Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	3.2×10^3	1.5×10^6	3	4	Engineering Analysis	None
	AGING	40 years	16 yrs.	2	4	Engineering Analysis	None Note 1
	ACCURACY	$\pm$ 1%	1%	6	5	Separate Test	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES x NO (Ref. 7)

Prepared by Frederick J. Bailey 9/12/83 Reviewed by James Means 9/12/83

DOCUMENTATION REFERENCES

1. BRI Class 1E Equipment List, Rev.8, 6/1/83
2. FSAR Paragraph 3.11
3. EDS Report 0740-004-522H
4. QID 256016
5. Index #38 of GE DRF #A00-1084, PPD #145C3012
6. Supply System Calculation EE-02-83-01
7. BRI Calc. # 5.51.055

NOTES

Qualified

1. A preventive maintenance/surveillance program is being developed to extend the qualified life.
2.

Component	Column	Elevation
RPS-PS-2A	J.5/7.1	525
RPS-PS-2B	M.8/6.6	525
RPS-PS-2C	N.8/5.8	524
RPS-PS-2D	H.4/4.2	529

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WPPSS QID #213012

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-67
MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Building Return Air TAG NUMBER RRA-M-(See Note 1) MANUFACTURER Westinghouse MODEL NUMBER See Note 1 COMPONENT Motors FUNCTION/SERVICE See Note 1 LOCATION: BLDG R ELEVATION See Note 1 COLUMN	OPERATING TIME	6 months	Equivalent to>6 months	1	4	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 Max Normal 104 Max Abnormal Accident Profiles 4, 1X	410	2	4	Simultaneous Test and Engineering Analysis	None
	PRESSURE (PSIA)	14.7 Normal Accident Profiles 1X	17.5	2	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal 100 Accident	100	2	4	Sequential Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	3.1×10^6	1×10^8	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4	Simultaneous Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Means 9/2/83

DOCUMENTATION REFERENCES

1. BRI CIE list, REV 8, 6/1/83
2. FSAR Paragraph 3.11
3. EDS Report 0740-004-441J
4. QID #213017
5. BRI Calc. #5.51.055

NOTES

Qualified

1.

Tag Number	Model	Function/Service	Elevation	Column
RRA-M-FN/1	SBFC	Motor for RRA-FN-1	441	H.7/4.3
RRA-M-FN/2	SBFC	Motor for RRA-FN-2	445	L.0/8.3
RRA-M-FN/3	SBFC	Motor for RRA-FN-3	442	L.8/8.3

WPPSS QID #213025

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-67

MPL:
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PAGE NO:
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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Building Return Air TAG NUMBER RRA-M-FN/4 MANUFACTURER Westinghouse MODEL NUMBER TBFC COMPONENT Motors FUNCTION/SERVICE Motor for RRA-FN-4 LOCATION: BLDG R ELEVATION 444 COLUMN M.1/4.5	OPERATING TIME	6 months	Equivalent to>6 months	1	4	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 Max Normal 104 Max Abnormal Accident Profiles 4	410	2	4	Simultaneous Test and Engineering Analysis	None
	PRESSURE (PSIA)	14.7 Normal	14.7	2	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4,22X	100	2	4	Sequential Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.4×10^6	2×10^8	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4	Simultaneous Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by Linda Vaccari 9/2/83 Reviewed by: James Morris 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list Rev. 8, dated 6/1/83 2. FSAR Paragraph 3.11 3. EDS Report 0740-004-441C 4. QID #213017 5. BRI Calc. #5.51.055	Qualified

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WPPSS QID #213013

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-35A

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Building Return Air TAG NUMBER RRA-H-FN/5 MANUFACTURER Westinghouse MODEL NUMBER SBFC COMPONENT Motor FUNCTION/SERVICE Motor for RRA-FN-5 LOCATION: BLDG R ELEVATION 441 COLUMN K.7/3.9	OPERATING TIME	4320 Hours	Equivalent to >4320 hours	1	4	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 Max Normal 104 Max Abnormal Accident profile 4	410	2	4	Simultaneous Test and Engineering Analysis	None
	PRESSURE (PSIA)	14.7	14.7	2	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident profile 4,22X	100	2	4	Sequential test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.5×10^6	2×10^8	3	4	Sequential test	None
	AGING	40 years	40 years	2	4	Simultaneous Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Mearns 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI ClE list, REV 8, 6/1/83 2. FSAR Paragraph 3.11 3. EDS Report #0740-004-441B 4. QID #213017 5. BRI Calc. #5.51.055.	Qualified

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WPPSS QID #213021

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-67

MPL:
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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Building Return Air TAG NUMBER RRA-M-6 MANUFACTURER Westinghouse MODEL NUMBER TBFC COMPONENT Motors FUNCTION/SERVICE Motor for RRA-FN-6 LOCATION: BLDG R ELEVATION 442 COLUMN H.8/7.7	OPERATING TIME	24 hours	Equivalent to > 6 months	1	4	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 Max Normal 104 Max Abnormal Accident Profiles 4	410	2	4	Simultaneous Test and Engineering Analysis	None
	PRESSURE (PSIA)	14.7	N/A	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4	100	2	4	Sequential Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	4.0×10^6	2×10^8	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4	Simultaneous Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Mowrey 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, REV 8, 6/1/83 2. FSAR Paragraph 3.11 3. EDS Report 0740-004-441 I 4. QID #213017 5. BRI Calc. #5.51.055	Qualified

WP-1081

WPPSS QID # 213023

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC:
MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Recirculation Air TAG NUMBER RRA-M-FN/10 -FN/11 MANUFACTURER WESTINGHOUSE MODEL NUMBER SBFC COMPONENT Fan Motor FUNCTION/SERVICE Fan Motors for PRA-FC-10,11 LOCATION: BLDG R ELEVATION 542 COLUMN N.3/3.8 H.5/8.0	OPERATING TIME	6 months	Equivalent to>6 months	1	4,5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 Max Normal 104 Max Abnormal Accident Profile 4	374	2	4	Simultaneous Tests	None
	PRESSURE (PSIA)	14.7	14.7	2	4	Simultaneous Tests	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4,22X	100	2	4	Sequential Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	2.3×10^4	2.0×10^6	3	4	Separate Test	None
	AGING	40 years	Equivalent to>40 years	2	4,5	Simultaneous Test and Engineering Analysis	None Note 1
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Meares 9/2/83

DOCUMENTATION REFERENCES

1. BRI Class 1E equipment list for WNP-2, Rev. 8 dated 6/1/83
2. WNP-2 FSAR paragraph 3.11
3. EDS Calc. #0740-004-548D,N
4. Westinghouse letter report from J. J. Courtin dated 4/3/81
5. QID 213023
6. BRI Calc. #5.51.055

NOTES

Qualified

1. Qualification for 40 years will be achieved provided bearing lubricant is changed every 20 months and manufacturer's recommended maintenance is performed (Ref. 5).

WA-1881

WPPSS QID #213015

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-67

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Building Return Air TAG NUMBER RRA-M-(See Note 1) MANUFACTURER Westinghouse MODEL NUMBER (See Note 1) COMPONENT Motors FUNCTION/SERVICE See Note 1 LOCATION: BLDG R ELEVATION See Note 1 COLUMN	OPERATING TIME	6 months	Equivalent to>6 months	1	4	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 Max Normal 104 Max Abnormal Accident Profile 4	410	2	4	Simultaneous Test and Engineering Analysis	None
	PRESSURE (PSIA)	14.7 Normal	14.7	2	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4, 22X	100	2	4	Sequential Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	5.7×10^4	2×10^8	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4	Simultaneous Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Linda Vacca 9/2/83 Reviewed by: James Mercer 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI C1E list, REV 8, 6/1/83 2. FSAR Paragraph 3.11 3. EDS Report 0740-004-548E,F 4. QID #213017 5. BRI Calc. #5.51.055	Qualified

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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

Note 1

EPN	Model	Function	Elev.	Col.
RRA-M-FN/12	TBAN	Motor for RRA-FN-12	490	H.7/8.0
RRA-M-FN/13	TBAN	Motor for RRA-FN-13	585	H3/6.1
RRA-M-FN/14	TBAN	Motor for RRA-FN-14	585	H7/8.0
RRA-M-FN/15	TBAN	Motor for RRA-FN-15	560	H5/4.5
RRA-M-FN/17	TBAN	Motor for RRA-FN-17	560	H5/4.7

WPPSS QID #213011

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-67

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Building Return Air TAG NUMBER RRA-M-FN/19, FN/20 MANUFACTURER Westinghouse MODEL NUMBER TBFC/213T-SBFC COMPONENT Motors FUNCTION/SERVICE Motor for RRA-FC-19, 20 LOCATION: BLDG R ELEVATION 445 COLUMN L.0/8.3 M.0/8.3	OPERATING TIME	6 months	See Note 1	1			
	TEMPERATURE (F)	90 Max Normal 104 Max Abnormal Accident Profile 4		2			
	PRESSURE (PSIA)	14.7		2			
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4,21X		2			
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.5×10^5		3			
	AGING	40 years		2			
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES x NO (Ref. 4)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Means 9/2/83

DOCUMENTATION REFERENCES

1. BRI CIE list, REV 8, 6/1/83
2. FSAR Paragraph 3.11
3. EDS Report 0740-004-548L
4. BRI Calc #5.51.055

NOTES

1. Vendor is being contacted to obtain qualification data. These components are on Table B of the JIO and do not require qualification prior to fuel load.

WP-1081

WPPSS QID #285002-E

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-218

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Building Return Air TAG NUMBER RRA-RMS-FN/1,FN/2,FN/3 MANUFACTURER Square D MODEL NUMBER KYC-1 COMPONENT Remote Manual Switch FUNCTION/SERVICE Local Control Switches LOCATION: BLDG R ELEVATION 447 COLUMN H.7/4.3,L.0/8.3, h.0/8.3	OPERATING TIME	6 months		3			Note 1
	TEMPERATURE (F)	90 Max Normal 104 Max Abnormal Accident Profile 4, 1X		1			
	PRESSURE (PSIA)	14.7 Normal Accident Profile 1X		1			
	RELATIVE HUMITY (%)	40 Max Normal 90 Max Abnormal Profiles 4, 21X, 22X		1			
	CHEMICAL SPRAY	N/A		1		N/A	None
	RADIATION (RAD)	3.1×10^6		2			
	AGING	40 years		1			
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO

Prepared by: Frederick J. Bailey 9/12/83 Reviewed by: James Meares 9/12/83

DOCUMENTATION REFERENCES

1. FSAR paragraph 3.11
2. EDS Report 0740-004-441J , 441G,441F
3. BRI CIE list Rev. 8, dated 6/1/83

NOTES

1. The equipment is not evaluated for 100% relative humidity. Justification #26 in Appendix D of the JIO's provided for RRA-RMS-FN/2. RRA-RMS-FN/1,3 are on Table B of JIO and do not require qualification prior to fuel load.

P-1081

WPPSS QID #285002-E

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-218
MPL:
PPD:

PAGE NO:
REVISION 5
DATE: 6 September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Building Return Air TAG NUMBER RRA-RMS- FN/4 FN/5 FN/6 MANUFACTURER Square D MODEL NUMBER KYC-1 COMPONENT Remote Manual Switch FUNCTION/SERVICE Local Control Switches LOCATION: BLDG R ELEVATION 447 COLUMN H.4/4.1,K.7/3.8,H.6/7.7	OPERATING TIME	6 months	6 months	3	4	Materials Testing and Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4	128	1	4	Materials Testing and Engineering Analysis	None
	PRESSURE (PSIA)	14.7	Atmospheric	1	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 max normal 90 max abnormal Accident Profile 4 ,22X	95	1	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	4.0×10^6	4×10^6	2	4	Materials Testing and Engineering Analysis	None
	AGING	40 years	11 years	1	4	Materials Testing and Engineering Analysis	None Note 2
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Means 9/2/83

DOCUMENTATION REFERENCES

1. FSAR Par. 3.11
2. EDS Report 0740-004-441C, 444B 444 I
3. BRI CIE list Rev. 8, dated 6/1/83
4. EDS Calculation QID 285002-E
5. BRI Calculation #5.51.055

NOTES

Qualified

1. These components are Use Code 2 and are, therefore, not required to perform an active safety function following an accident. The components will not spuriously function. See Ref. 4.
2. Preventive maintenance/surveillance program is being developed to extend the qualified life.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID#221001

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Circulation TAG NUMBER RRC-HO-16A, 16B MANUFACTURER Limitorque MODEL NUMBER SMC-04 COMPONENT Motor Operator AC/Class B Insulation FUNCTION/SERVICE 2 HP m.o. for valves RRC-V-16A, 16B LOCATION: BLDG R ELEVATION 505 COLUMN J.2/7.3	OPERATING TIME	24 Hours	Equivalent to>6 months	1	4,5	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident profile 4	See enclosed profile	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	See enclosed profile	2	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident profile 4	100	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	8.3×10^4	2×10^7	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4,5	Separate Effect, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES x NO (Ref. 6)

Prepared by: Behzad Mahini 6/24/83 Reviewed by: Ali Nadiri 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. BRI C1E list, REV 8, 6/1/83 2. FSAR Par. 3.11 3. EDS Study 0740-004-501K 4. Limitique Report, B0003, 5/76, B0058 5. QID#221001 6. BRI Calculation #5.51.055	Qualified

WP-1081

TEMPERATURE PROFILE

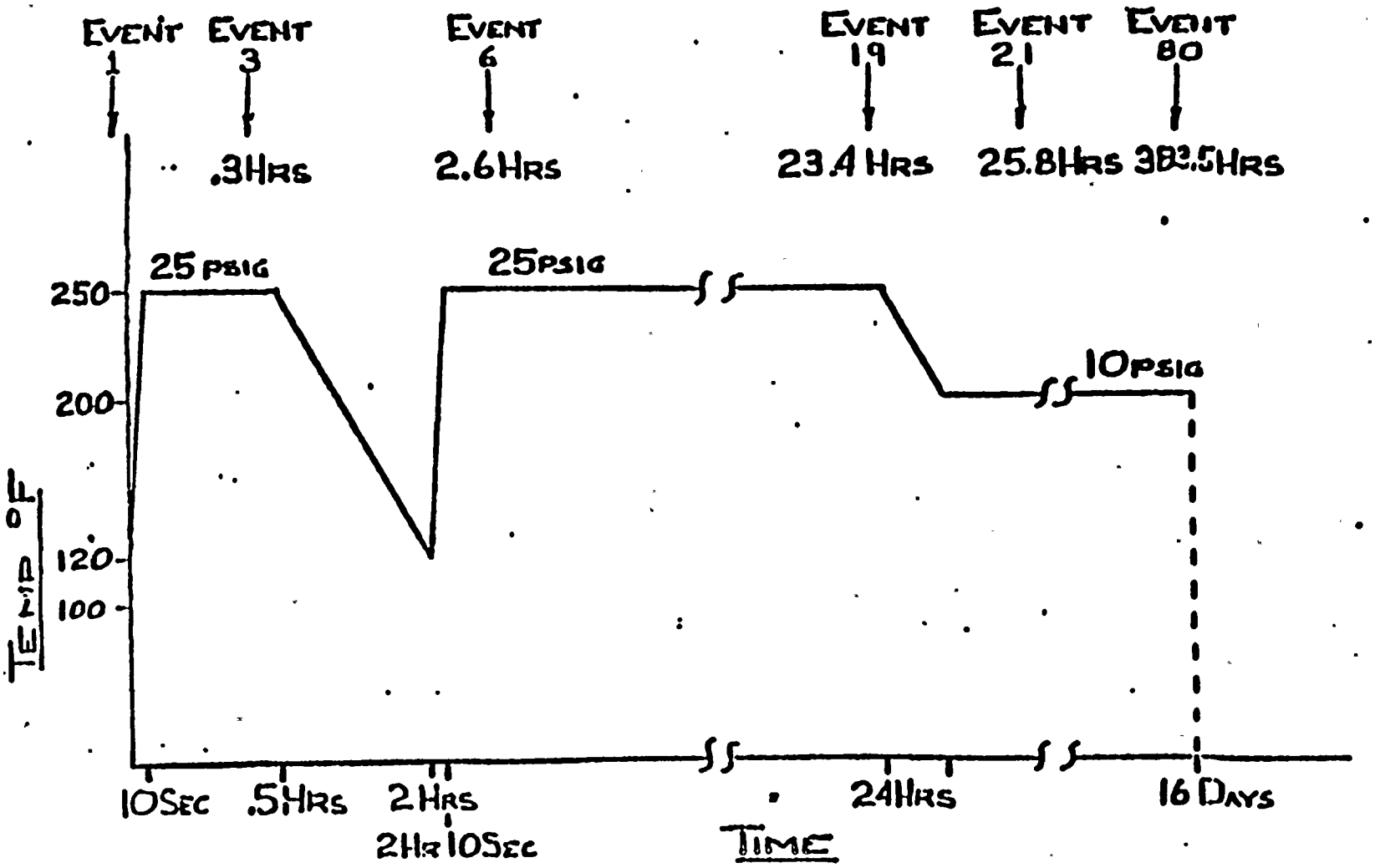


FIGURE 1

WPPSS QID#256016

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC:

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Recirculation Cooling TAG NUMBER RRC-PS-18A MANUFACTURER Static-O-Ring MODEL NUMBER 5N-AA3-X105TT COMPONENT Pressure Switch FUNCTION/SERVICE Pressure Switch non.ind. H22-P006 LOCATION: BLDG R ELEVATION 475' COLUMN L.6/4.0	OPERATING TIME	6 months	> Equivalent to 6 months	1	4,5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 Normal 104 Abnormal Accident Profile 4	212	2	5	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 Normal	> 14.7	2	5	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4	100	2	5	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	N/A	N/A	N/A	None
	RADIATION (RAD)	5.0×10^5	1.5×10^6	3	4	Material Test and Engineering Analysis	None
	AGING	40 years	16 years	2	4	Engineering Analysis	None Note 1
	ACCURACY	4%	0.4% FSPE	6	5	Simultaneous Test	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO

Prepared by: Frederick J. Bailey 9/12/83

Reviewed by: James Means 9/12/83

DOCUMENTATION REFERENCES

1. Burns and Roe 1E Electrical Equipment List Rev.6
2. FSAR paragraph 3.11
3. EDS Report 0740-004-471B
4. QID 256016 E
5. Viking Lab, Inc. Test Letter Report 30203-2 11/20/73
6. Supply System Calculation IN-02-83-01

NOTES

Qualified

1. A preventative maintenance surveillance program is being developed to extend the qualified life.

WPPSS QID #256002

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02B35
MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Recirculation Cooling TAG NUMBER RRC-PS-18B MANUFACTURER Barksdale MODEL NUMBER B1T-M12SS-GE COMPONENT Pressure Switch FUNCTION/SERVICE LOCATION: BLDG R ELEVATION 475 COLUMN M.6/8.1	OPERATING TIME	6 months	Equivalent to >6 months	1	4	Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal accident profile 4	Profile 4	2	4,5	Engineering Analysis and Separate Test	None
	PRESSURE (PSIA)	14.7	N/R	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 normal 90 max. abnormal accident profile 4	Profile 4	2	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	7.1×10^4	2×10^6	3	4	Material Test and Engineering Analysis	None
	AGING	40 years	16 years	2	4	Engineering Analysis	None Note 1
	ACCURACY	4.0%	0.42%	7	4,5	Engineering Analysis and Separate Test	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Linda Vaccari 9/12/83 Reviewed by: James Meems 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list Rev. 8, dated 6/1/83 2. FSAR Paragraph 3.11 3. EDS Report 0740-004-471D 4. QID #256002 5. Wyle lab test report no. 12625, dated 6/5/62 6. BRI Calc. #5.51.055 7. SS Calculation IN-02-83-01	Qualified 1. A preventive maintenance/surveillance program is being developed to extend the qualified life.

VP-1081

WPPSS QID# 361015

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-220

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Recirculation TAG NUMBER RRC-V-19 MANUFACTURER Target Rock MODEL NUMBER 82H-001 COMPONENT Solenoid Operated Valve FUNCTION/SERVICE • 1.0" Solenoid Sample Valve LOCATION: BLDG Containment ELEVATION 509 COLUMN 319DAZR35	OPERATING TIME	24 hours		1			Note 1
	TEMPERATURE (F)	135 Ave. Normal 150 Max. Abnormal Accident Profile 1		2			
	PRESSURE (PSIA)	14.7 Max. Normal 16.7 Max. Abnormal Accident Profile 1		2			
	RELATIVE HUMITY (%)	55 Max. Normal 90 Max. Abnormal Accident Profile 2		2			
	CHEMICAL SPRAY	Demineralized Water		2			
	RADIATION (RAD)	7×10^7		2			
	AGING	40 years		2			
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV: (Ref. 4)
ABOVE FLOOD LEVEL?
YES X NO

Prepared by: Behzad Mahini 6/24/83 Reviewed by: Ali Nasseri 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, Rev. 8, dated 6/1/83 2. FSAR paragraph 3.11	1. This component is on Table B of the JIO and does not require qualification prior to fuel load.

WP-1081

WPPSS QID #361003

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Recirculation Cooling TAG NUMBER RRC-V- 20 MANUFACTURER Marotta MODEL NUMBER MV36RP-113 COMPONENT Solenoid Valve FUNCTION/SERVICE RRC Sample Line Isolation Valve LOCATION: Bldg Reactor ELEVATION 506 COLUMN J.0/6.9	OPERATING TIME	24 Hours	Equivalent to >4320 Hours	1	4	Engineering Analysis	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profile 4	221	2	4	Materials Test and Engineering Analysis	None
	PRESSURE (PSIA)	14.7	>14.7	2	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4	90	2	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	7.9×10^4	5×10^6	3	4	Materials Test and Engineering Analysis	None
	AGING	40 years	40 years	2	4	Engineering Analysis	None
	ACCURACY	N/ A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref.6)

Prepared by: Frederick J. Bailey 9/12/83 Reviewed by: James Means 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI Class 1E Equipment List, Rev. 8 , 6/1/83 2. FSAR Par. 3.11 3. EDS Study 0740-004-501K 4. QID 315023 5. Performance Specification for Marotta Solenoid Valves, Wyle Report #26411, dated 4/27/83 6. BRI Calc. #5.51.055	Qualified 1. These components are being tested to demonstrate their qualification to IEEE Stds 323-1974 and 344-1975. Qualification objectives are identified in [5].

WPPSS QID #156003

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E31

MPL: E31-N036, E31-N015, E31-N041
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Water Cleanup TAG NUMBER RHCU-FT-15 RHCU-FT-36 RHCU-FT-41 MANUFACTURER G.E. MODEL NUMBER 50-555111BLAA4HCJ -555111BHAA4HBP, 555111BHAA4HBN COMPONENT Flow Transmitter FUNCTION/SERVICE 36: FE 35 Pressure Boundary 37: Pressure Boundary Exr. 41: Flow Transmitter LOCATION: BLDG R ELEVATION 522, 524 COLUMN N.8/5.0	OPERATING TIME	24 Hours	Equivalent to 24 Hours	1	4, 6	Separate Test and Engineering Analysis	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profile 10x,12x	212	2	6	Separate Test	None
	PRESSURE (PSIA)	14.7 Normal 14.7 Abnormal Accident Profile 10X,12X	15.0	2	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal 100 accident	100	2	7	Separate Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	5300	5850	3	4	Engineering Analysis	None
	AGING	40 years	5 years	2	4	Engineering Analysis	None Note 1
	ACCURACY	± 5 FSPE	± 5 FSPE	8	4, 6	Separate Test and Engineering Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES x NO (Ref. 5)

Prepared by: Frederick J. Bailey 9/12/83 Reviewed by: James Mearns 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE List, Rev. 8, 6/1/83 2. FSAR Paragraph 3.11 3. EDS Report 0740-004-522C 4. QID 156003 5. BRI Calculation #5.51.055 6. GE Test Report #430, dated 12/6/71 7. GE Test Report #327, dated 3/23/67 8. Supply System Calculation # IN-02-83-01	Qualified 1. A preventive maintenance program is being developed to extend the qualified life.

WP-1081

WPPSS

QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

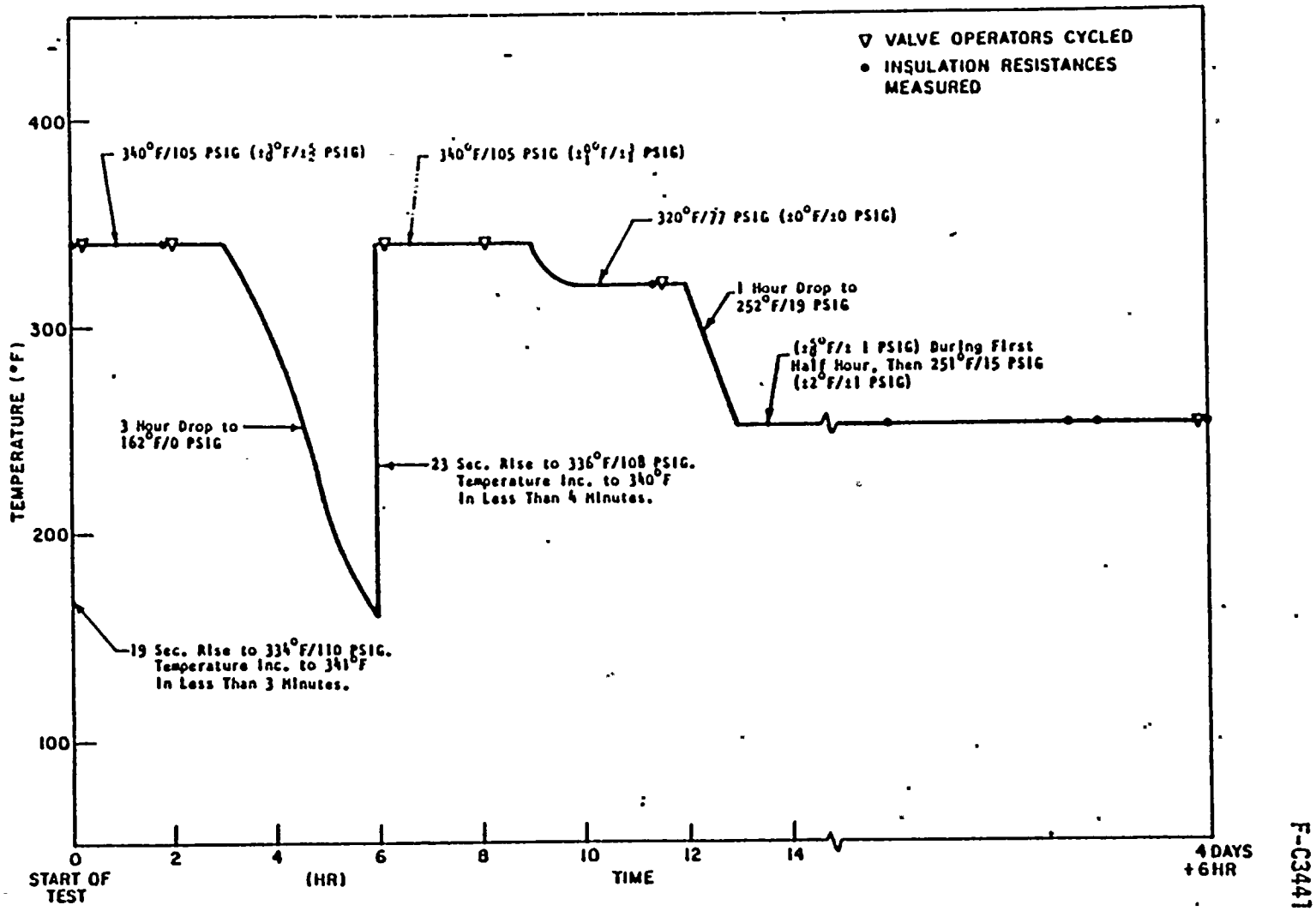
EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor water clean-up TAG NUMBER RHCU-MO-1 MANUFACTURER Limitorque MODEL NUMBER SMB-0-25/R56 COMPONENT Motor Operator - Reliance RH insulation AC Motor FUNCTION/SERVICE Operates Containment Isolation valve LOCATION: BLDG C ELEVATION 540 COLUMN 150 Degrees	OPERATING TIME	24 hours	Equivalent to > 6 months	4	3,5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	135 max. normal 150 max. abnormal accident: see profile 1	See enclosed profile	1	3	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 normal 16.7 abnormal accident: see profile 1	See enclosed profile	1	3	Simultaneous Test	None
	RELATIVE HUMITY (%)	55 normal 90 abnormal Accident Profile 2	100	1	3	Simultaneous Test	None
	CHEMICAL SPRAY	Demineralized water	Chemical spray pH 10	1	3	Simultaneous Test	None
	RADIATION (RAD)	7.0×10^7	2.04×10^8	1	3	Sequential Test	None
	AGING	40 years	40 years	1	2, 3, 5	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Frederick A. Bailey 9/12/83 Reviewed by: James Mowrey 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. Limitorque Report B0058 dated 1/11/80 3. Limitorque Report 600376A dated 5/13/76 4. BRI CIE list, REV 8, 6/1/33 5. QID #221001 6. BRI Calculation #5.51.055	Qualified

WP-1081



F-C3441

Figure 3. Actual Steam Exposure Profile

WPPSS

QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

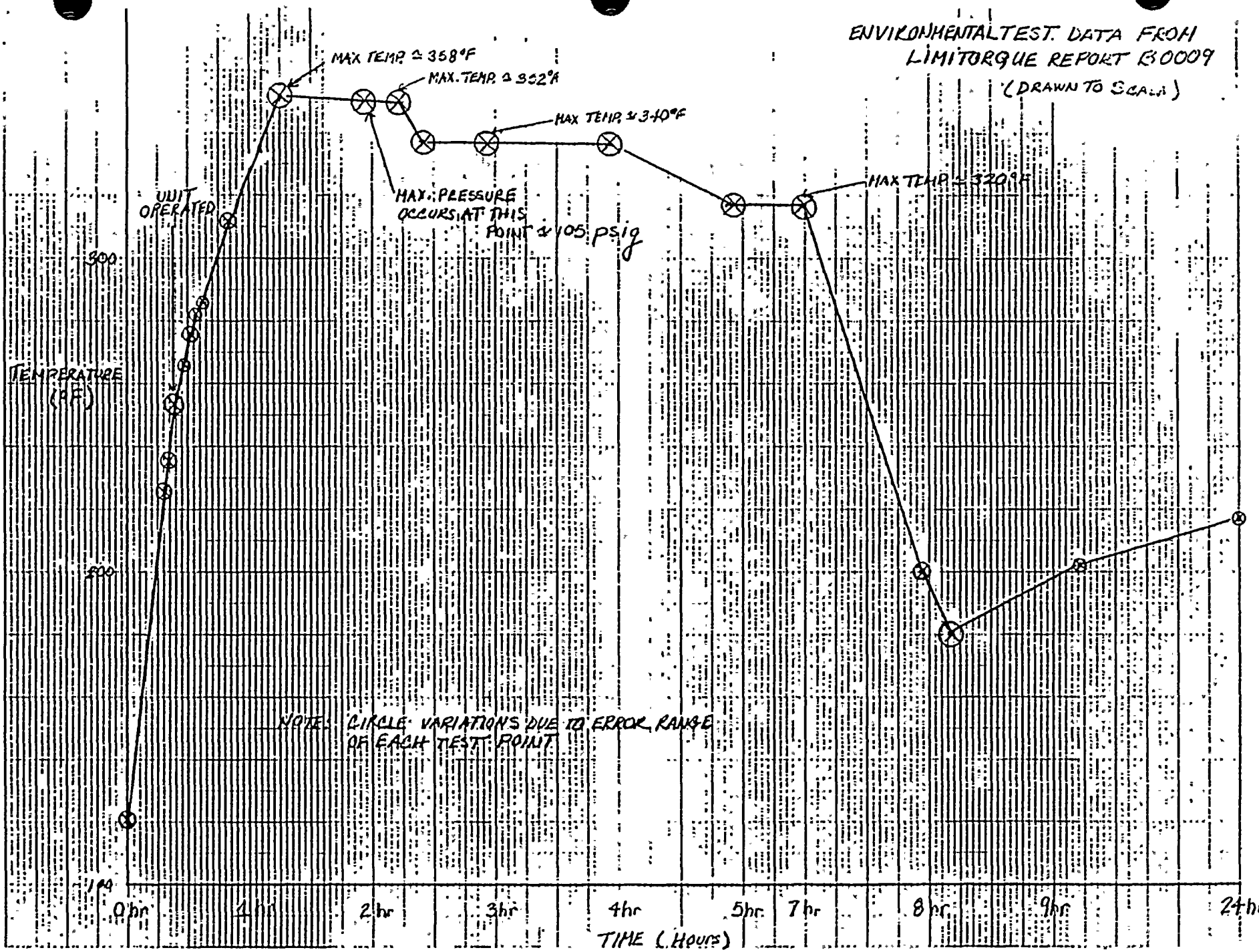
EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Water Clean Up TAG NUMBER RWCU-MO-4 MANUFACTURER Limitorque MODEL NUMBER SMB-0-25/DK56H COMPONENT Porter Peerless Valve Motor Operator DC Motor /Class H FUNCTION/SERVICE Operate RWCU Valve 4 LOCATION: BLDG R ELEVATION 540 COLUMN H.4/5.1	OPERATING TIME	24 hours	Equivalent to > 6 months	5	3,4	Simultaneous Testing, Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident Profile 4,8X	See enclosed profile	1	3	Simultaneous Testing	None
	PRESSURE (PSIA)	Normal 14.7 Accident Profile 8X	See Enclosed Profile	1	3	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 max normal 90 max abnormal Profile 21X	100%	1	3	Simultaneous Testing	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	8.4×10^5	1×10^7	2	3	Sequential Testing	None
	AGING	40 years	40 years	1	3,4	Sequential Testing, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Frederick J. Bailey 9/12/83 Reviewed by: James Mearns 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. EDS Study 074-004-522F 3. Limitorque Report B0009, 4/30/76 4. Applicability calculations in QID #221001 5. Bri ClE list, REV 8, 6/1/83 6. BRI Calculation #5.51.055	Qualified.

WA-1081


ENVIRONMENTAL TEST DATA FROM LIMITORQUE REPORT B0009
(DRAWN TO SCALE)
MAX TEMP. ≈ 358°F
MAX. TEMP. ≈ 352°F
MAX TEMP. ≈ 340°F
MAX TEMP. ≈ 320°F
UNIT OPERATED
MAX. PRESSURE OCCURS AT THIS POINT ≈ 105 psig
TEMPERATURE (°F)
300
200
100
0 hr
1 hr
2 hr
3 hr
4 hr
5 hr
7 hr
8 hr
9 hr
24 hr
TIME (HOURS)
NOTE: CIRCLE VARIATIONS DUE TO ERROR RANGE OF EACH TEST POINT

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A
MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Water Clean Up TAG NUMBER RHCU-MO-40 MANUFACTURER Limitorque MODEL NUMBER SMB-0-25/R56 COMPONENT Motor Operator Reliance, RH Insulation/AC Motor FUNCTION/SERVICE LOCATION: BLDG R ELEVATION 510 COLUMN J8/4.3	OPERATING TIME	24 hours	Equivalent to > 6 months	4	2,3,6	Sequential Test and Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4,20X	See enclosed profile	1	2,3	Simultaneous Test	None
	PRESSURE (PSIA)	Normal 14.7 Accident Profile 20X	See enclosed profile	1	2,3	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 max normal 90 max abnormal Accident Profile 21X	100	1	2,3	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	2.6×10^6	2.04×10^8	5	2,3	Sequential Test	None
	AGING	40 years	40 years	1	2,3,6	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Frederick J. Bailey 9/12/83 Reviewed by: James Mearns 9/12/83

DOCUMENTATION REFERENCES

1. FSAR Par. 3.11
2. Limitorque Report B0058
3. Limitorque Report 600376A
4. BRI C1E list, REV 8, 6/1/83
5. EDS Study 0740-004-510S
6. QID #221001
7. BRI Calculation #5.51.055

NOTES

Qualified

IP-1081

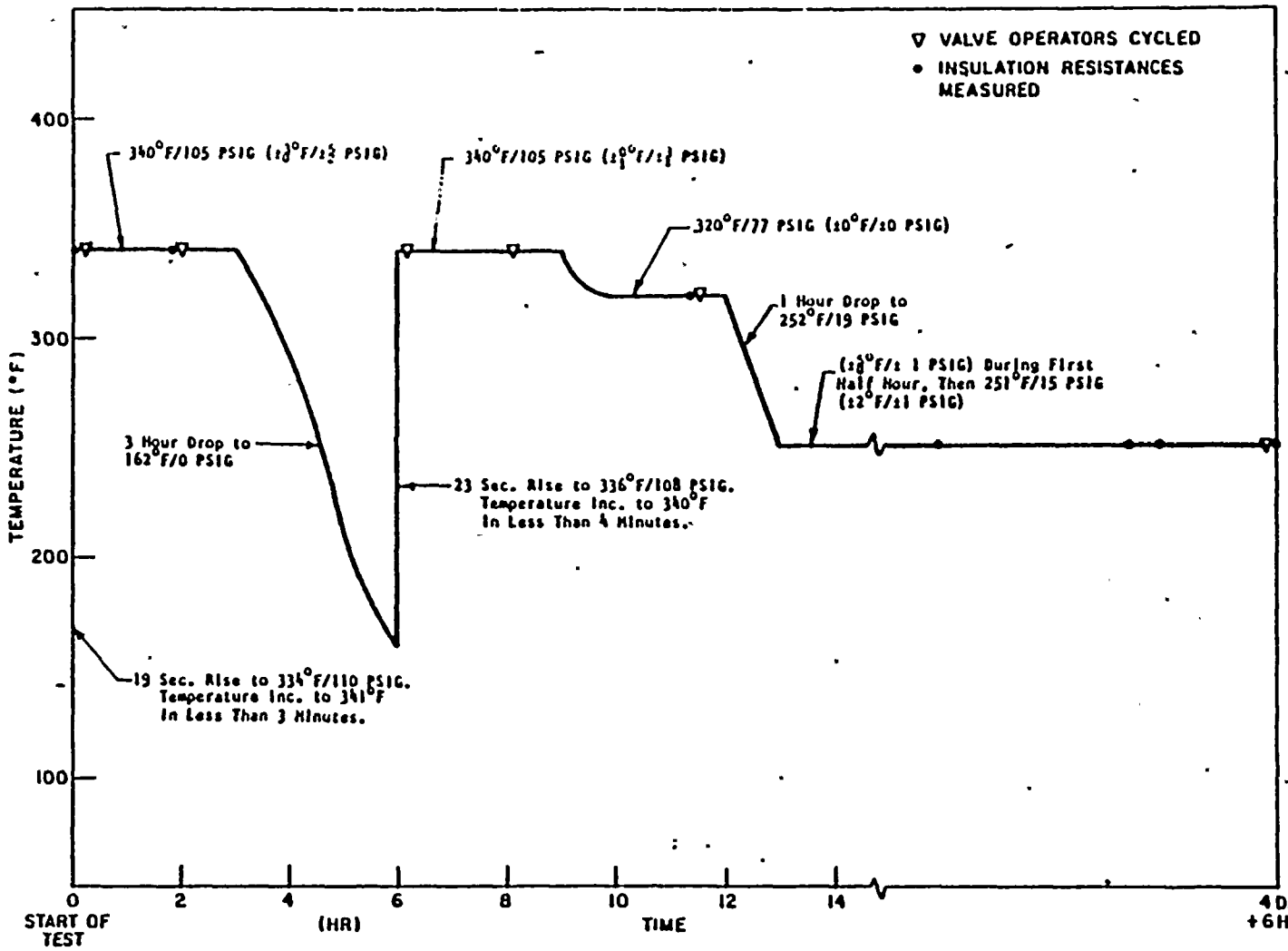


Figure 3. Actual Steam Exposure Profile

WPPSS QID #109008

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-18
MPL:
PPD:

PAGE NO.
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Standby Gas Treatment TAG NUMBER SGT-EHC-1A1, 1A2 -1B1, 1B2 MANUFACTURER Chromalox MODEL NUMBER 27-47499 COMPONENT Heater FUNCTION/SERVICE Limit Relative Humidity LOCATION: BLDG R ELEVATION 576 COLUMN H7/5.6, J.3/5.6	OPERATING TIME	6 months	Equivalent To >6 months	1	4,5	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4	248 (de-energized) heater test	2	4	Sequential Test	None
	PRESSURE (PSIA)	14.7	N/R	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 normal 90 max abnormal Accident Profile 4,22X	100%	2	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	N/A
	RADIATION (RAD)	4.4×10^7	2×10^8	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4,5	Sequential Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	N/A

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Mecum 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI C1E list, REV 8, 6/1/83 2. FSAR Par. 3.11 3. EDS Report 0740-004-572N 4. ANCO Test Report A-000021, Plant specific environment study. 5. QID File 109008 6. BRI Calculation #5.51.055	Qualified.

VP-1081

WPPSS QID #110004

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-28

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Standby Gas Treatment TAG NUMBER SGT-EH0-1A1 -1A2 -1B1 -1B2 MANUFACTURER ITT-General Controls MODEL NUMBER NH91G2073E1F-2H20 COMPONENT Electro-Hydraulic Operator FUNCTION/SERVICE Operate inlet vanes for SGT Fans LOCATION: BLDG R ELEVATION 575 COLUMN H.5/7.7 (1A1) J.1/7.7 (1B1) J.4/7.7 (1B2) H.8 /7.7 (1A2)	OPERATING TIME	6 months	Equivalent to >6 months	5	3,4	Sequential Test and Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident Profile 4	200	1	3	Sequential Test	None
	PRESSURE (PSIA)	14.7	N/R	1	N/A	N/A	None
	RELATIVE HUMITY (%)	40 normal 90 max. abnormal Accident Profile 4,22X	95	1	3,4	Engineering Analysis and Sequential Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	3.0×10^5	2×10^6	2	3	Sequential Test	None
	AGING	40 years	11 years	1	3,4	Sequential Test Engineering Analysis	None Note 1
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared By: Frederick J. Bailey 9/12/83

Reviewed By: James Williams 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. EDS Calc.#0740-004-572N 3. ITT Gen. Controls Letter No. HIE 83.06-21, 6-24-63 4. Calculation QID 110001 5. BRI Class 1E 6. BRI Calculation #5.51.055	1. A preventive maintenance/surveilance program is being developed to extend the qualified life. Qualified

WPA1081

WPPSS QID # 154005E

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-220

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Standby Gas Treatment TAG NUMBER SGT-FS-2A2 -2B1 MANUFACTURER ITT Barton MODEL NUMBER 289A COMPONENT Flow Switch FUNCTION/SERVICE SGT-FN-1A-2 and -1B-1 discharge-local alarm LOCATION: BLDG R ELEVATION 572 COLUMN II.9/7.8 J.2/8.0	OPERATING TIME	4320 hours	Equivalent to>6 months	1	4,6	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4	212	2	6	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	14.95	2	6	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4,22X	100	2	6	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.1×10^6	3.0×10^6	3	4,5	Separate Test and Engineering Analysis	None
	AGING	40 years	12 years	2	4	Engineering Analysis	None Note 1
	ACCURACY	N/A	N/A	8	N/A	N/A	None Note 2

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Frederick A. Bailey 9/12/83 Reviewed by: James Mearns 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list for WNP-2, Rev. 8 dated 6/1/83 2. WNP-2 FSAR paragraph 3.11 3. EDS report 0740-004-572N4 4. QID file #086001 5. Qualification test report #R3-288A-1 6. Test report for Barton pressure switch 289A, GE report 05991, Rev. 1, 12/7/73	Qualified 1. A preventive maintenance/surveillance program is being developed to extend the qualified life. 2. These flow switches register gross changes in SGT system air flow. Accuracy is not required (Ref. 8)

WPPSS QID #156010

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-220
MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Standby Gas Treatment TAG NUMBER SGT-FT-1A1, 1A2, 1B1, 1B2 MANUFACTURER Tavis MODEL NUMBER P8C(S) COMPONENT FUNCTION/SERVICE Transmit Fan Flow Signal for Associated SGT Fans LOCATION: BLDG R ELEVATION 585 COLUMN 118/7.1	OPERATING TIME	6 Months	Equivalent to >6 months	1	5,6	Sequential test and Engineering Analysis	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Accident profile 4	221	2	6	Sequential Test	None
	PRESSURE (PSIA)	14.7	14.7	2	6	Sequential Test	None
	RELATIVE HUMITY (%)	40 Normal 90 Max. Abnormal Accident profile 4,22X	95	2	5,6	Engineering Analysis and Sequential Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	9.7×10^5	1.4×10^6	3	6	Sequential Test	None
	AGING	40 Years	7 Years	2	5,6	Sequential Test, Engineering Analysis	None Note 1
	ACCURACY	± 5 FSPE	± 5 FSPE	4	5,6	Sequential test and Engineering Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Linda Vaccari 9/2/83

Reviewed by James Mirenna 9/2/83

DOCUMENTATION REFERENCES

1. BRI CIE List, Rev. 8, 6/1/83
2. FSAR Para. 3.11
3. EDS Calc. 0740-004-572N2
4. Supply System Calc. No. IN-02-83-01
5. QID 156005-E
6. Acton Test Report No. 15030-5A, Rev. 3, dated 12/8/81.
7. BRI Calc. No. 5.51.055

NOTES

1. A preventive maintenance/surveillance program is being developed to extend the qualified life.

Qualified

VP-1081

WPPSS QID #213017

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-28

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Standby Gas Treatment TAG NUMBER SGT-M-FN/1A1,2 -FN/1B1,2 MANUFACTURER Westinghouse MODEL NUMBER TBDP COMPONENT Fan Motor FUNCTION/SERVICE Motor for SGT-FN-1A1 -1A2 -1B1 -1B2 LOCATION: BLDG R ELEVATION 576 COLUMN H.5/7.6 H 9/7.6 J2/7.6 J.5/7.6	OPERATING TIME	6 months	Equivalent to >6 months	1	4	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident profile 4	410	2	4	Simultaneous Test, Engineering Analysis	None
	PRESSURE (PSIA)	14.7	N/R	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 normal 90 max abnormal Accident profile 4 ,22X	100	2	4	Sequential Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	N/A
	RADIATION (RAD)	3.03×10^5	2×10^8	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4	Simultaneous Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	N/A

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Mearns 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, REV 8, 6/1/83 2. FSAR Par. 3.11 3. EDS Report 0740-004-572N 4. QID #213017 5. BRI Calc. #5.51.055	Qualified.

P-1081

WPPSS QID #217001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-18

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Standby Gas Treatment TAG NUMBER SGT-ME-6A1,A2,A3 -7A1,A2,A3 -6B1,B2,B3 -7B1,B2,B3 MANUFACTURER Hygrometrix MODEL NUMBER XHS/7AP COMPONENT Xeristat Moisture Control System FUNCTION/SERVICE Heater control to limit relative hum. LOCATION: BLDG R ELEVATION 572 COLUMN Note 1	OPERATING TIME	6 months	Equivalent to >6 months	1	4,5	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident Profile 4	250	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	N/A	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 normal 90 max. abnormal Accident profile 4,22X	95	2	4,5	Simultaneous Test and Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	4.4×10^7	5.0×10^7	3	4	Sequential Test	None
	AGING	40 years	+ 40 years	2	4,5	Sequential Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Enrico Vaccari 9/12/83 Reviewed by: James Meares 9/12/83

DOCUMENTATION REFERENCES

1. BRI CIE list Rev. 8, dated 6/1/83
2. FSAR Par. 3.11
3. EDS Report 0740-004-572N
4. Work Release Order No. 002, Contract No. C-0608, from WPPSS to ANCO Engineers, Document No. A-000021
5. QID File #217001
6. BRI Calc. #5.51.055
7. SS Calc. file #IN-02-83-01

NOTES

Qualified

1. Tag No. — Location

Tag No.	Location
SGT-ME -6A1,A2,A3 -7A1,A2,A3	H.8/5.5
SGT-ME -6B1,B2,B3 -7B1,B2,B3	J.4/5.5

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-68
MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Standby Gas Treatment TAG NUMBER SGT-MO-See Note 1 MANUFACTURER Limitorque MODEL NUMBER SMB-00-10/P56 COMPONENT Reliance Motor Operator AC Motor Class B Ins. FUNCTION/SERVICE Various Valve Operators LOCATION: BLDG R ELEVATION COLUMN See Notes Below	OPERATING TIME	6 months	Equivalent to>6 months	1	3,5	Sequential Test Engineering Analysis	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profile 4	See enclosed profile	2	3	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	See enclosed profile	2	3	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4,22X	100	2	3	Simultaneous	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.1×10^6	2×10^7	6	3	Sequential Test	None
	AGING	40 years	40 years 18 years (Brake only)	2	3,5,4	Sequential Test	None Note 1
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 7)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Munns 9/2/83

DOCUMENTATION REFERENCES

1. BRI CIE list Rev. 8, dated 6/1/83
2. FSAR Par. 3.11
3. Limitorque Test Report B003 with Addendum A dated 5/8/76
4. Limitorque Test Report B0058, 1/11/80
5. QID #221001
6. EDS Report 0740-004-572H
7. BRI Calculation #5.51.055

NOTES

Qualified 1. A preventive maintenance program is being developed to extend the qualified life of the brake.

Tag Number	Location	Tag Number	Location	Tag Number	Location
SGT-MO-1A	H.8/5.2,582	SGT-MO-4A1	H.4/7.0,588	SGT-MO-5A1	H.4/7.0
1B	J.4/5.2,584	4A2	J.0/7.0,588	-5A2	H.9/7.0
3A1	H.7/7.7,578	4B1	J.0/7.0,587	-5B1	J.1/7.0
3A2	H.8/7.7,578	4B2	J.8/7.0,587	-5B2	J/6/7.0
3B1	J.3/7/7,578				
3B2	J.6/7.7,578				

WP-108:

TEMPERATURE PROFILE

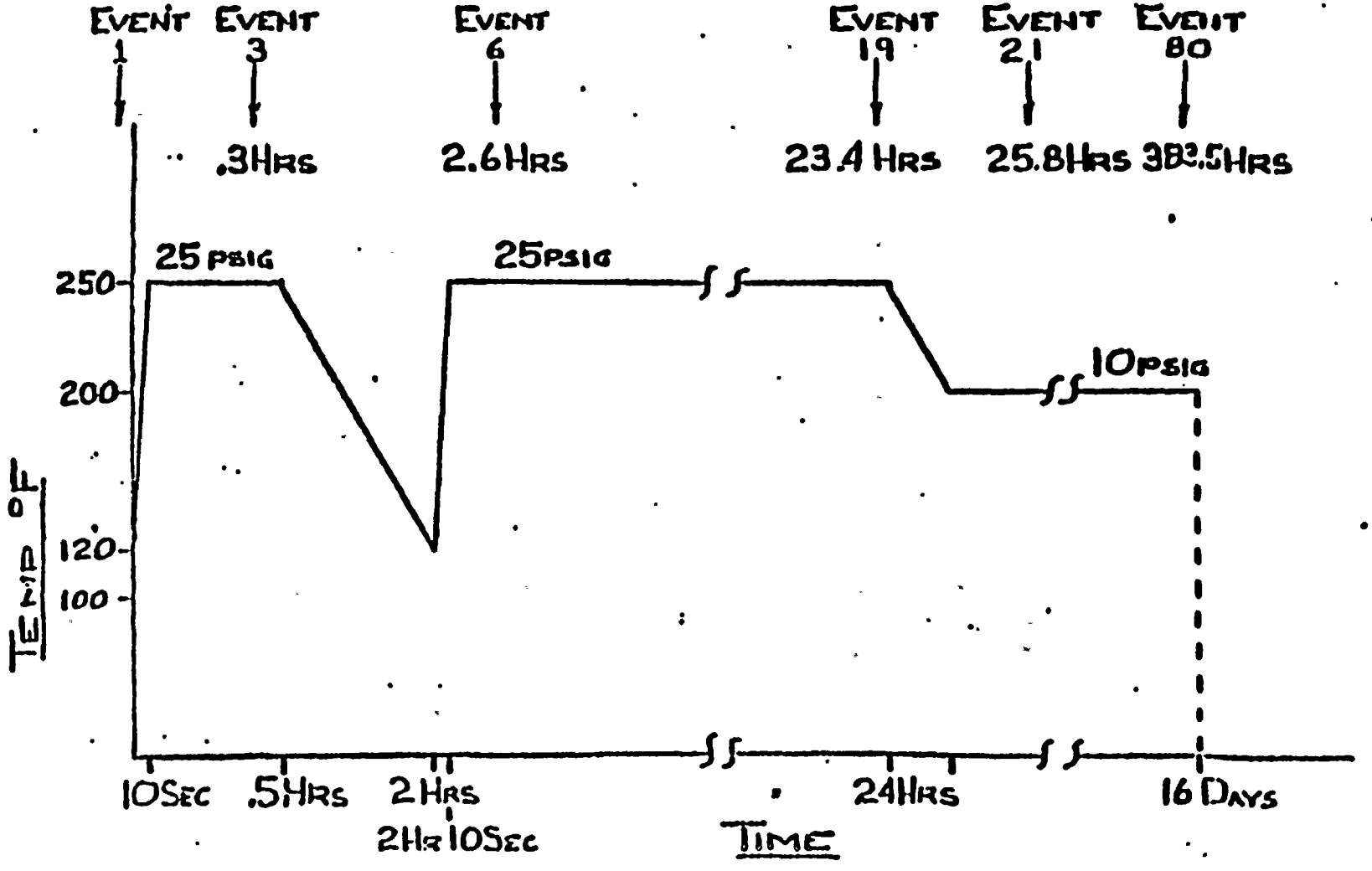


FIGURE 1

WPPSS QID #200015

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-68

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

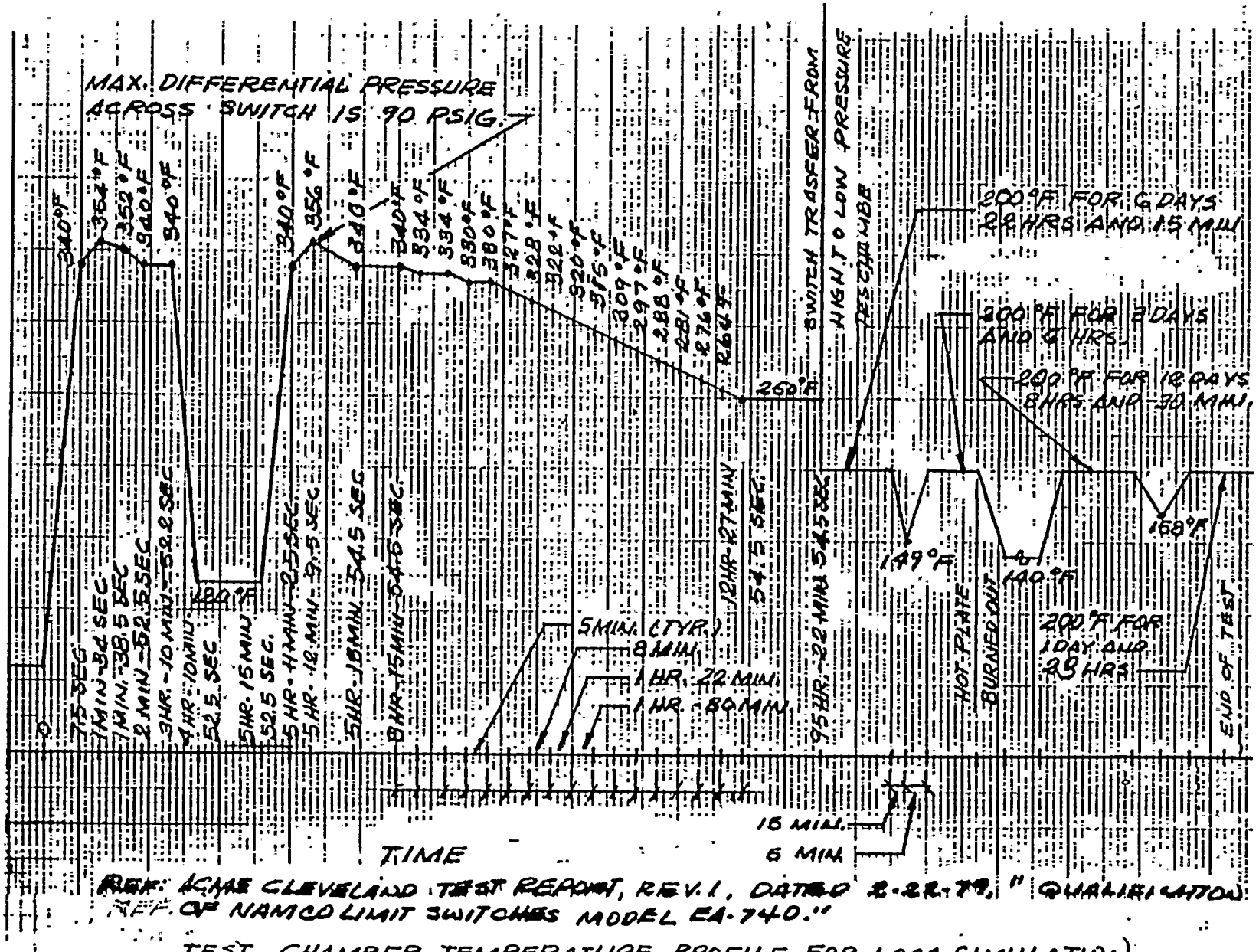
EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Standby Gas Treatment TAG NUMBER SGT-POS-V/2A 2B MANUFACTURER Namco MODEL NUMBER 74080100 COMPONENT Limit Switches FUNCTION/SERVICE V-2A,B Position Indicator LOCATION: BLDG R ELEVATION 583 COLUMN J.3/5.5, J.4/5.2	OPERATING TIME	6 months	Equivalent to or > 6 months	1	4,5	Simultaneous Test Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Profile 4 Accident	See enclosed LOCA test.	2	4,5	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	See enclosed LOCA test	2	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 max abnormal Accident Profile 4, 22X	See enclosed. LOCA test.	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	N/A
	RADIATION (RAD)	4.4×10^7	2×10^8	3	4	Sequential Test	None
	AGING	40 years	40 years	2	4,5	Sequential Test Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	N/A

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Means 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, Rev.8 dated 6/1/83 2. FSAR Par. 3.11 3. EDS Report 0740-004-572N 4. Qualification of NAMCO Controls Limit Switch Model EA-740 to IEEE Stds. 344 (1975), 323 (1974) and 382 (1972), Rev. 1, dtd 2/22/79; Rev. 0, dtd 2/20/78 5. QID #200015 6. BRI Calc. #5.51.055	Qualified.

WP-1081



REF: ACME CLEVELAND TEST REPORT, REV. 1, DATED 2-22-79, "QUALIFICATION OF NAMCO LIMIT SWITCHES MODEL EA-740."

TEST CHAMBER TEMPERATURE PROFILE FOR LOCA SIMULATION

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #315006

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-220

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Standby Gas Treatment TAG NUMBER SGT-SPV-2A, 2B MANUFACTURER Automatic Switch (ASCO) MODEL NUMBER HJNP 8316 64E COMPONENT Solenoid Pilot Valve FUNCTION/SERVICE LOCATION: BLDG R ELEVATION 576, 577 COLUMN H.9/5.2 J.1/5.2	OPERATING TIME	6 months	Equivalent to >6 months	1	5,6	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4	450	2	5	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	100.7	2	5	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 max normal 90 abnormal Accident Profile 4,22X	100	2	5	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	N/A	N/A	N/A	None
	RADIATION (RAD)	6.8×10^4	2.3×10^7	3	5	Sequential Test	None
	AGING	40 years	10 years	2	5,6	Sequential test and Engineering Analysis	None Note 1
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared by: Linda Maccani 9/2/83 Reviewed by James Meaney 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, Rev.8, dated 6/1/83 2. FSAR Para 3.11 and 3. EDS Study 0740-004-572N1 4. BRI Calculation #5.51.055 5. ASCO Test Report No.AQS21678/TR, Rev.A, July 1979 6. QID 315004-E	Qualified 1. A preventive maintenance/surveilance program is being developed to extend the qualified life.

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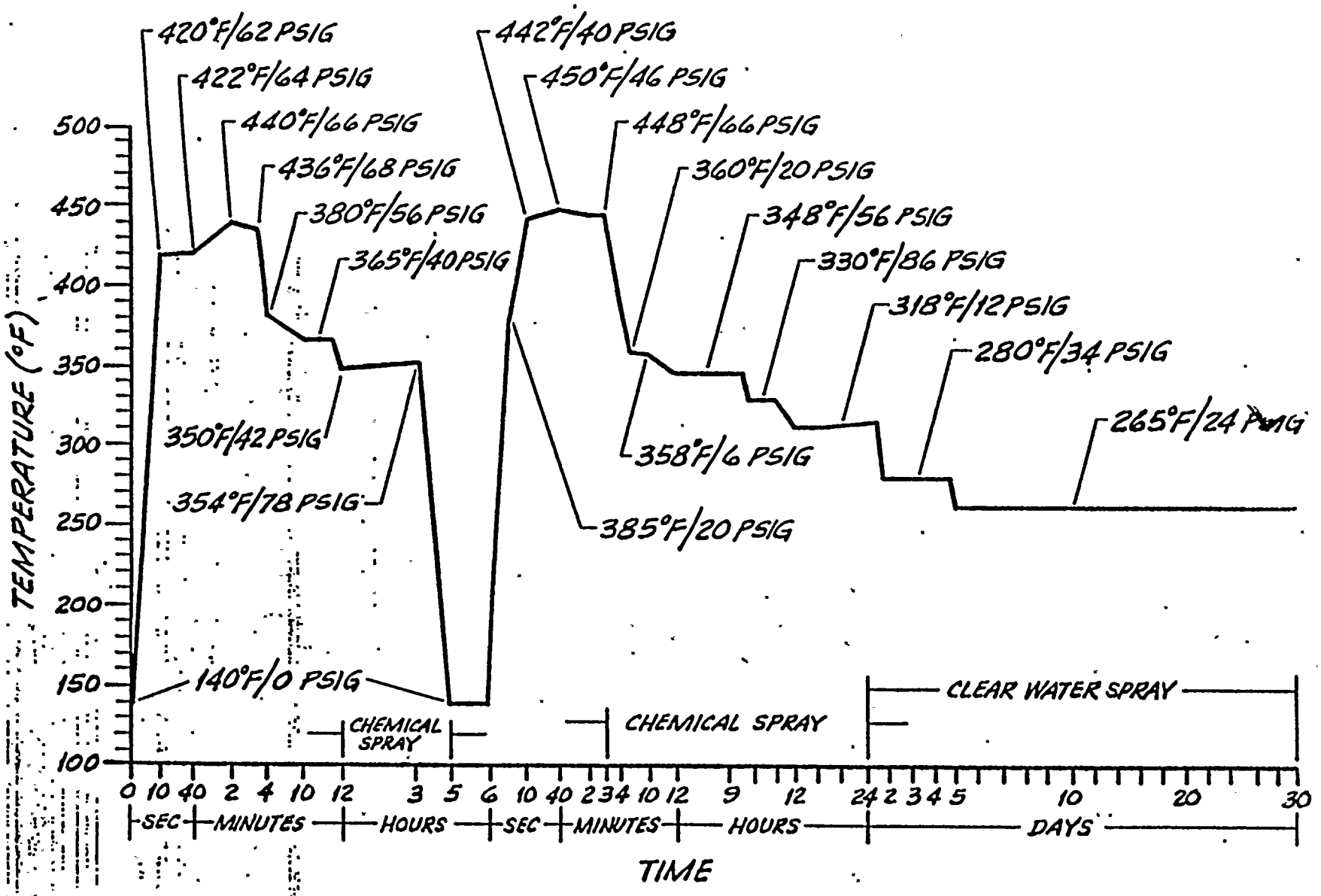

ACTUAL TEMPERATURE/PRESSURE PARAMETERS FOR GROUP II LOCA/HELB SIMULATION

FIGURE 4.2

WPPSS QID #315007

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-18

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Standby Gas Treatment TAG NUMBER SGT-SPV-F1, F2, F3, F4, F5, F6 MANUFACTURER Automatic Switch (ASCO) MODEL NUMBER 8211 D2H0 COMPONENT Solenoid Pilot Valve FUNCTION/SERVICE ½" S. O. Deluge Valve Assy SGT-DV-1B LOCATION: BLDG R ELEVATION See Note 2 COLUMN See Note 2	OPERATING TIME	6 months	>6 months	1	4	Materials Test, and Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Profile 4	185	2	4	Materials Test, and Engineering Analysis	None
	PRESSURE (PSIA)	14.7	14.7	2	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 max. normal 90 max. normal Profile 4,22X	95	2	4	Engineering Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	6.8×10^4	4×10^5	3	4	Materials Test and Engineering Analysis	None
	AGING	40 years	7 years	2	4	Operating Experience and Engineering Analysis	None Note 1
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Linda Vaccari 9/12/83

Reviewed by: James Mooney 9/12/83

DOCUMENTATION REFERENCES

1. BRI CIE list, REV 8, 6/1/83
2. FSAR Para 3.11 and WPPSS Calculation NE-02-82-14-0
3. EDS Study 0740-004-572111
4. Calculation QID315004-E
5. BRI Calculation #5.51.055

NOTES

Qualified

1. The solenoid valves will be rebuilt on a schedule based on the 7 year qualified life and coils will be changed to Class H prior to plant operation.

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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

2.

EPN	ELEV.	COLUMN
SGT-SPV-F1	579	H.4/3.8
-F2	579	H.4/3.9
-F3	576	H.4/3.9
-F4	576	H.4/3.8
-F5	576	H.6/3.8
-F6	579	H.6/3.8

By: Fausto Vaccari 9/12/83

ckd: James Meares 9/12/83

WPPSS QID #355003

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-18
MPL:
PPD:

PAGE NO:
REVISION 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Standby Gas Treatment TAG NUMBER SGT-TS-(see note 1) MANUFACTURER Fenwal MODEL NUMBER 18000-0 COMPONENT Temperature switch FUNCTION/SERVICE Control of heater LOCATION: BLDG R ELEVATION 572' COLUMN H4/5.9 H.8/6 J.5/6 J.2/6	OPERATING TIME	6 months	Equivalent to>6 months	1	4	Simultaneous Test Engineering Analysis	None
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident Profile 4	248	2	4	Simultaneous Test	None
	PRESSURE (PSIA)	14.7	N/A	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 normal 90 max. abnormal Accident Profile 4 , 22X	65	2	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	4.4×10^7	2×10^8	3	4	Simultaneous Test	None
	AGING	40 years	40 years	2	4	Sequential Test Engineering Analysis	None
	ACCURACY	N/A	N/A	6	N/A	N/A	N/A

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Linda Taccari 9/2/83 Reviewed by: James Means 9/2/83

DOCUMENTATION REFERENCES

1. BRI CIE list for WNP-2, Rev. 8 dated 6/1/83
2. FSAR Par. 3.11
3. EDS Report 0740-004-572N
4. Work Release Order No. 002, Contract No. C-0608, from WPPSS to ANCO Engineers, Document No. A-000021
5. BRI Calc. #5.51.055
6. SS Calc. IN-02-83-01

NOTES

Qualified

See next page for note 1

DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

1. TAG NUMBERS

SGT-TS-EH1A110
-EH1A11
-EH1A111
-EH1A112
-EH1A113
-EH1A114
-EH1A115
-EH1A116
-EH1A117
-EH1A118
-EH1A12
-EH1A13
-EH1A14
-EH1A15
-EH1A16
-EH1A17
-EH1A18
-EH1A19
-EH1A21
-EH1A210
-EH1A211
-EH1A212
-EH1A213
-EH1A214
-EH1A215
-EH1A216
-EH1A217
-EH1A218
-EH1A22
-EH1A23
-EH1A24
-EH1A25
-EH1A26
-EH1A27
-EH1A28
-EH1A29
-EH1B110
-EH1B11
-EH1B111
-EH1B112

SGT-TS-EH1B113
-EH1B114
-EH1B115
-EH1B116
-EH1B117
-EH1B118
-EH1B12
-EH1B13
-EH1B14
-EH1B15
-EH1B16
-EH1B17
-EH1B18
-EH1B19
-EH1B21
-EH1B210
-EH1B211
-EH1B212
-EH1B213
-EH1B214
-EH1B215
-EH1B217
-EH1B218
-EH1B22
-EH1B23
-EH1B24
-EH1B25
-EH1B26
-EH1B27
-EH1B28
-EH1B29
-EH1B216

WPPSS QID 0301003

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02 C41

MPL: C41-F004
PPD: 21A9370

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Standby Liquid Control TAG NUMBER SLC-V-4A -4B MANUFACTURER Conax MODEL NUMBER 1832159 COMPONENT Valve and Trigger Assembly FUNCTION/SERVICE SLC Inlet Valve LOCATION: BLDG R ELEVATION 554 COLUMN M.2/3.7	OPERATING TIME	6 months	Equivalent to > 6 months	4	2,5	Simultaneous Testing Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4	185 maximum	1	2	Simultaneous Testing	None
	PRESSURE (PSIA)	14.7	14.7	1	5	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 normal 90 max abnormal Accident Profile 4	100	1	2	Simultaneous Testing	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	1.1×10^4	2.2×10^4	3	2	Sequential Testing	None
	AGING	40 years	2 years	1	5	Engineering Analysis	None Note 1
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES x NO (Ref. 6)

Prepared by: Behzad Mahini 6/24/83 Reviewed by: Ali Naderi 6/24/83

DOCUMENTATION REFERENCES

1. FSAR Par. 3.11
2. Conax TR-39, 12/22/76
3. EDS Study 0740-004-548C
4. BRI C1E list, REV 8, 6/1/83
5. Calculations in QID No. 361003
6. BRI Calculation #5.51.055

NOTES

Qualified.

1. The qualified life was calculated based on a conservative activation energy of 0.5 ev. Materials data is being obtained to determine a realistic life.

WP-1081

WPPSS QID #339002

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-218

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Suppression Pool Temperature Monitoring TAG NUMBER SPTM-TE-(Note 2) MANUFACTURER Hy-Cal Engineering MODEL NUMBER TC-113X-T-A-24-3 COMPONENT Thermocouple FUNCTION/SERVICE Suppression Pool Temp., Operator info. LOCATION: BLDG C ELEVATION Note 2 COLUMN Suppression Pool	OPERATING TIME	6 months	Equivalent to >6 months	1	3,4	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	95 normal Accident: Enclosed Profile	365	7	4	Simultaneous Test	None
	PRESSURE (PSIA)	15.45 normal 32.85 Accident	140	7	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	100	100	7,3'	4	Simultaneous Test	None
	CHEMICAL SPRAY	yes	yes	3	3	Engineering Analysis	None
	RADIATION (RAD)	9.0×10^7	2×10^8	6	3,4	Separate Test and Engineering Analysis	None
	AGING	40 years	40 years	2	3	Engineering Analysis	None
	ACCURACY	±2.0°F	±1.8°F	5	4	Simultaneous Test	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 3)

Prepared by: Linda Vaccari 9/2/83

Reviewed by: James Morris 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list Rev. 8, dated 6/1/83 2. FSAR Par. 3.11 3. QID 339002 4. Qualification testing by Wyle Labs. 3 TE-1F Thermocouples for Fischbach /Lord. 12/31/79 Report No. 58486 5. Supply System Calc. IN-02-83-01 6. FSAR, Vol.20, App. J 7. Plant Design Assessment Report for SRV and LOCA Loads. WNP-2, Rev.2, Aug. 1979.	Qualified

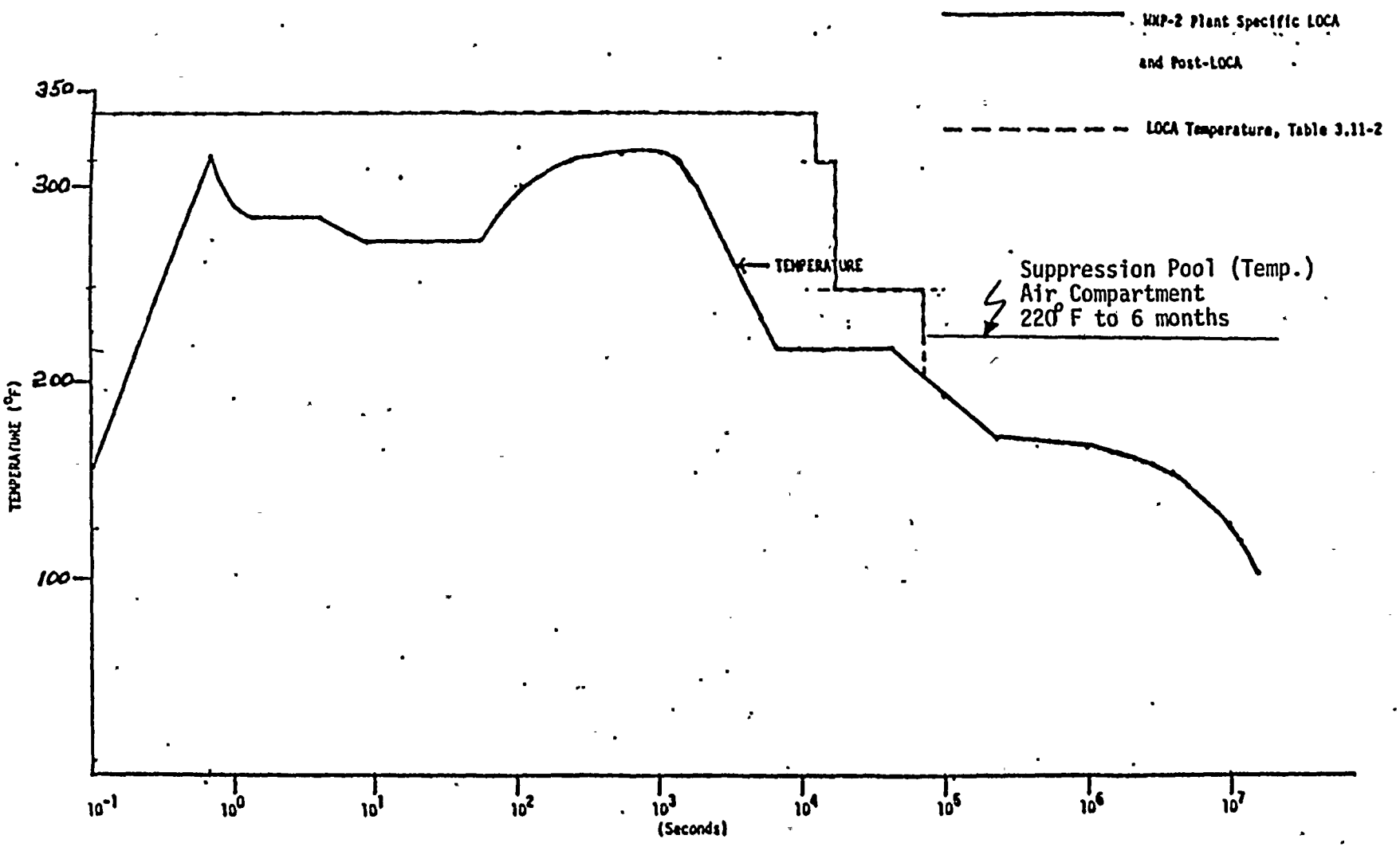
WP-1081

DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

2.

TAG NUMBERS	ELEV.
SPTM-TE-1A	466
-1B	466
-10	448
-11	448
-12	447
-13	447
-14	447
-15	447
-16	447
-2A	446
-2B	446
-3A	446
-3B	446
-4A	446
-4B	446
-5A	446
-5B	446
-6A	446
-6B	446
-7A	446
-7B	446
-8A	446
-8B	446
-9	447

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Meares



Profile 1: Temperature profile due to LOCA in containment and in suppression pool air compartment

WPPSS QID #049009

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02C51

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Source Range Monitor TAG NUMBER SRM-CONN-01 02 03 04 MANUFACTURER General Electric Co. MODEL NUMBER 114B5388G004 COMPONENT Connector FUNCTION/SERVICE Connectors for SRM-DET LOCATION: BLDG C ELEVATION Beneath RPV COLUMN	OPERATING TIME	6 months		1			Note 1
	TEMPERATURE (F)	135 normal 150 abnormal Accident profile 1		2			
	PRESSURE (PSIA)	14.7 normal 16.7 abnormal Accident profile 1		2			
	RELATIVE HUMITY (%)	55 normal 90 abnormal Accident profile 2		2			
	CHEMICAL SPRAY	Demineralized water		2			
	RADIATION (RAD)	7.0×10^7		2			
	AGING	40 Years		2			
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 3)

Prepared By: Linda Vaccari 9/1/83

Reviewed By: James Meyers 9/2/83

DOCUMENTATION REFERENCES

1. BRI Class 1E Equipment List, Rev. 8
2. FSAR Paragraph 3.11
3. BRI Calc. #5.51.055

NOTES

1. Qualification data is being obtained from General Electric. Justification No. 27 is provided in Appendix D of JIO for SRM-CONN-04. SRM-CONN-01,02,03 are on Table B of JIO and do not require qualification prior to fuel load.

VP-1081

WPPSS QID # 067003

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Source Range Monitor TAG NUMBER SRM-DET-1A, B, C, D MANUFACTURER General Electric MODEL NUMBER 807E162TC COMPONENT Radiation Monitor FUNCTION/SERVICE LOCATION: BLDG C ELEVATION COLUMN In RPV	OPERATING TIME	6 months	Note 1	1			
	TEMPERATURE (F)	135 max. normal 150 abnormal Accident - see profile 1		2			
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Accident - see profile 1		2			
	RELATIVE HUMITY (%)	55 normal 90 abnormal Accident Profile 2		2			
	CHEMICAL SPRAY	Demineralized water		2			
	RADIATION (RAD)	7.0×10^7		2			
	AGING	40 years		2			
	ACCURACY	8%		4			

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 3)

Prepared by: Behzad Mahini 6/24/83 Reviewed by: Ali Naderi 6/24/83

DOCUMENTATION REFERENCES

1. FSAR Par. 3.11
2. BRI CIE list Rev. 8, dated 6/1/83.
3. BRI Calc. #5.51.055
4. SS Calculation IN-02-83-01

NOTES

1. Discussions are being held with General Electric to obtain qualification data. Requalification activities will be implemented, if required.

   Equipment justification #18 in Appendix D is provided for SRM-DET-1D. SRM-DET-1A, 1B, and 1C are on Table B of the JIO and do not require qualification prior to fuel load.

WPPSS QID #106002

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02C51
MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Source Range Monitor TAG NUMBER SRM-EAMP-1A,B,C,D MANUFACTURER G.E. MODEL NUMBER 112C2276G001 COMPONENT Voltage Amplifier FUNCTION/SERVICE Amps for SRM-DET LOCATION: BLDG R ELEVATION 501 COLUMN L.6/3.5 L.5/3.5 H.4/7.7 H.8/8.3	OPERATING TIME	6 months		1			Note 1
	TEMPERATURE (F)	90 max. normal 104 max. abnormal accident profile 4,10,7X		2			
	PRESSURE (PSIA)	14.7 Normal Accident Profile 10,7X		2			
	RELATIVE HUMITY (%)	40 normal 90 max. abnormal 100 Accident		2			
	CHEMICAL SPRAY	N/A	N/A	N/A	N/A	N/A	None
	RADIATION (RAD)	4.7×10^5		3			
	AGING	40 years		2			
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared By: Linda Vaccaii 9/2/83

Reviewed By: James Means 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI Class 1E Equipment List, Rev. 8 dated 6/1/83 2. FSAR Paragraph 3.11 3. EDS Report 0740-004-501K, B 4. BRI Calculation #5.51.055	1. Qualification data is being obtained from General Electric. Justification # 28 is provided in App.D of JIO for SRM-EAMP-1D SRM-EAMP-1A to C are on Table B of JIO and do not require qualification prior to fuel load.

WP-1021

WPPSS QID 221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A
MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Service Water TAG NUMBER SW-MO-187A SW-MO-187B SW-MO-188A SW-MO-188B MANUFACTURER MODEL NUMBER SMB -00 COMPONENT Motor Operator FUNCTION/SERVICE MO Service Water LOCATION: BLDG R ELEVATION 554, 560 552, 552 COLUMN K.6/8.4 L.4/9.1 K.6/9.1 L.4/9.1	OPERATING TIME	6 months	Note 1	1	5		
	TEMPERATURE (F)	90 normal 104 abnormal Accident profile 4		2			
	PRESSURE (PSIA)	Normal 14.7		2			
	RELATIVE HUMITY (%)	40 normal 90 normal Accident Profile 4 . 21X		2			
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.5×10^5		3			
	AGING	40 years		2			
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Mearns

DOCUMENTATION REFERENCES

1. BRI C1E list, REV 8, 6/1/83
2. FSAR Paragraph 3.11
3. EDS Study 0740-004-548L
4. BRI Calc. #5.51.055
5. QID 221001

NOTES

1. The components were shipped with the wrong motors. Qualified motors are being obtained from the vendor. Equipment justification #19 in Appendix D is provided for SW-MO-187A and 188 A. SW-MO-187B and 188B are on Table B of the JIO and do not require qualification prior to fuel load.

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215
MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Service Water TAG NUMBER SW-MO-24A -24B -24C -44 -54 MANUFACTURER Limitorque MODEL NUMBER SMC-04-5/42 COMPONENT Reliance Motor Operator AC Motor/Class B Insulation FUNCTION/SERVICE Operate SW Valves LOCATION: BLDG R ELEVATION 448,450,450,450 COLUMN K6/8,L8/8.3,H7/4.4,M8/3.9 K.6/3.8	OPERATING TIME	4320 hours	Equivalent to > 6 months	3	4,5	Simultaneous Test, Engineering Analysis	None
	TEMPERATURE (F)	90 max normal 104 max abnormal Accident Profile 4 ,1X	See enclosed profile	1	4	Simultaneous Test	None
	PRESSURE (PSIA)	Normal 14.7 Accident Profile 1X	See enclosed profile	1	4	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 normal 90 max abnormal Profile 21X, 22X	Steam for 24 hours 100% for 15 days	1	4	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	3.1×10^6	2×10^7	2	4	Sequential Test	None
	AGING	40 year	40 years	1	4,5	Sequential Test, Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 6)

Prepared by Frederick J. Bailey 9/12/83 Reviewed by: James Mearns 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. EDS Study 0740-004-441J (worst case) 3. BRI C1E list, REV 8, 6/1/83 4. Limitorque Reports B0003, 5/76; B0058, 1/11/80 5. QID #221001 6. BRI Calculation #5.51.055	Qualified.

WP-1081

TEMPERATURE PROFILE

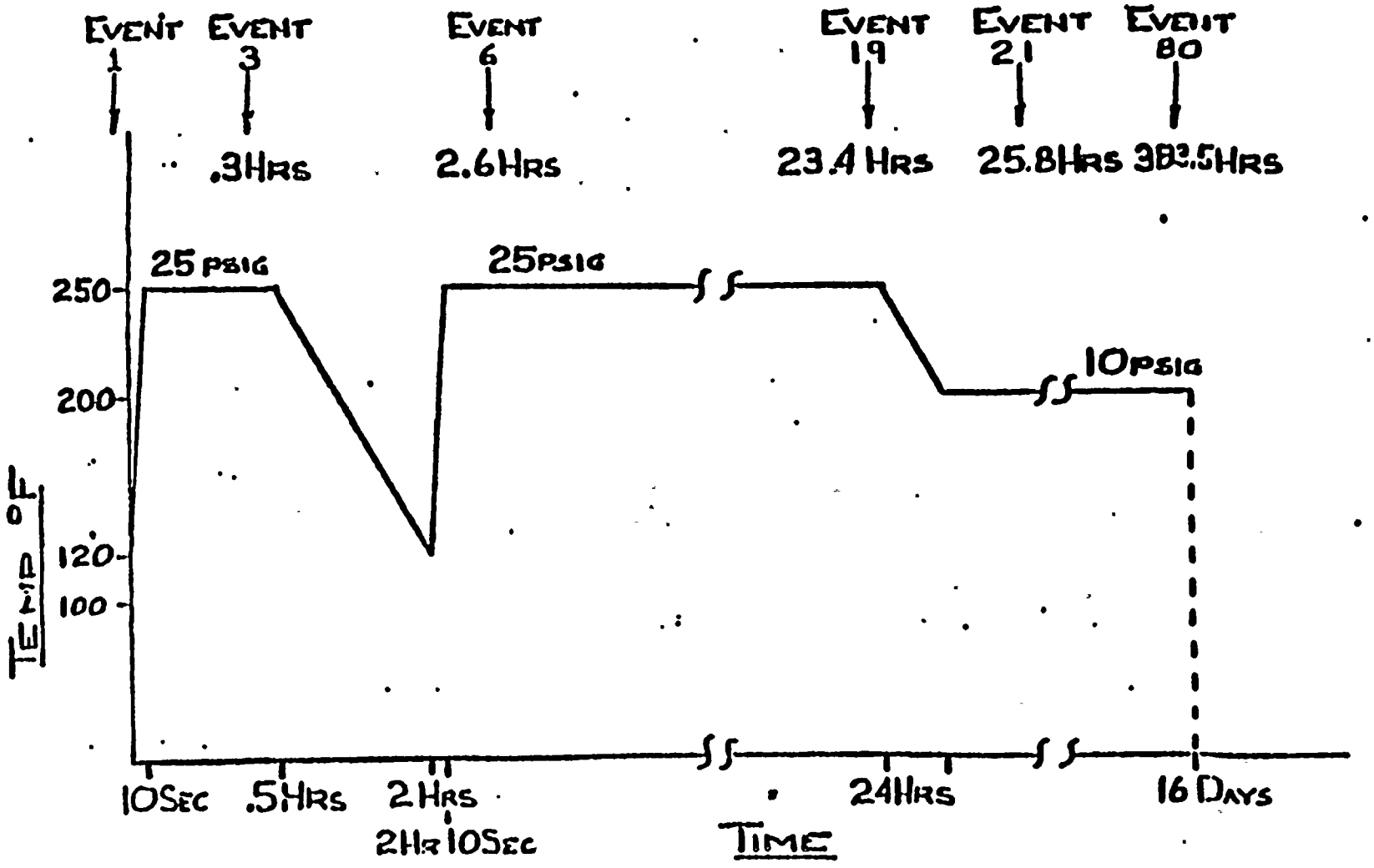


FIGURE 1

WPPSS QID #221001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Standby Service Water TAG NUMBER SW-MO-75A -75B MANUFACTURER Limitorque MODEL NUMBER SMB-00 COMPONENT Motor Operator Class H/AC FUNCTION/SERVICE Motor Operator for SW-V-75A -75B LOCATION: BLDG R ELEVATION 534, 531 COLUMN K.2/9.2 M.2/9.2	OPERATING TIME	6 months	Equivalent to >6 months	3	4,6	Simultaneous Test and Engineering Analysis	None Note 1
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profile 4,11, 11X	See Enclosed Profile	1	6	Simultaneous Test	None
	PRESSURE (PSIA)	Normal 14.7 Accident Profile 11,11X	See Enclosed Profile	1	6	Simultaneous Test	None
	RELATIVE HUMITY (%)	40-70 normal 90 abnormal Profile 21X	100	1	6	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	None
	RADIATION (RAD)	8.3×10^5	2×10^7	2	6	Sequential Test	None
	AGING	40 years	40 years	1	4,6,7	Sequential Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Frederick A. Bailey 9/12/83 Reviewed by: James Meavers 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. EDS Study 0740-004-522H (worst case) 3. BRI CIE list Rev. 8, dated 6/1/83 4. QID #221001 5. BRI Calculation #5.51.055 6. Limitorque Report B0003, 5/76 7. Limitorque Report B00058 dated 1/11/80	Qualified

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TEMPERATURE PROFILE

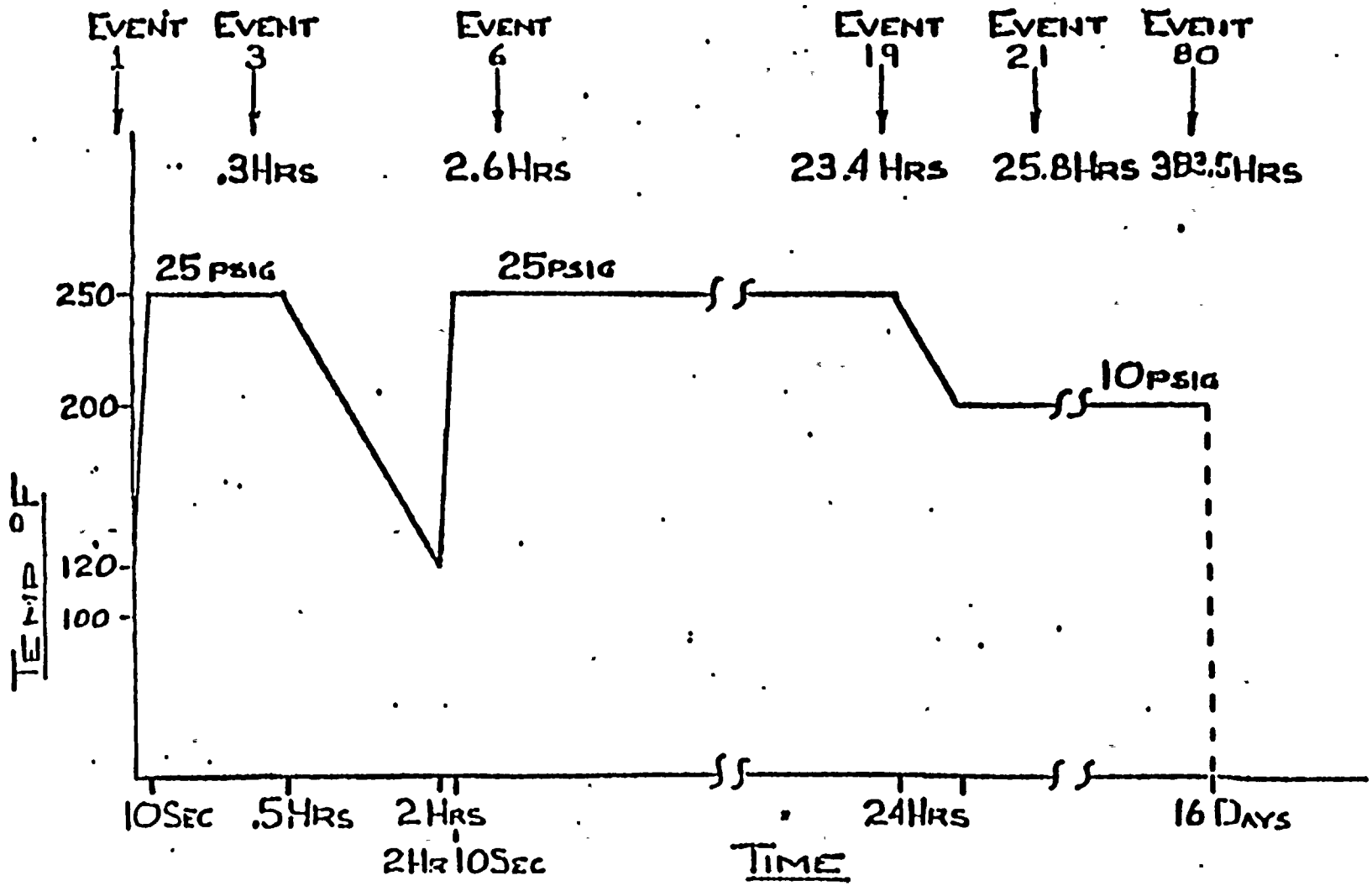

FIGURE 1

WPPSS QID #256001

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-220

MPL:
PPD:

PAGE NO:
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DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Service Water TAG NUMBER SW-PS-1014 -1015 MANUFACTURER Asco MODEL NUMBER SC11AR/TG10A44R COMPONENT Switch FUNCTION/SERVICE Supply to H_2 - O_2 analyzer LOCATION: BLDG R ELEVATION 554 COLUMN M.7/4.5 M.6/4.9	OPERATING TIME	4320 hours		2			Note 1
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profile 4		1			
	PRESSURE (PSIA)	14.7	N/A	1	N/A	N/A	
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4,22X		1			
	CHEMICAL SPRAY	N/A	N/A	1	N/A	N/A	
	RADIATION (RAD)	1×10^6		3			
	AGING	40 years					
	ACCURACY	N/A	N/A	N/A	N/A	N/A	

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 4)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Means 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR Par. 3.11 2. BRI CIE list, REV 8, 6/1/83 3. EDS Study 0740-004-548E 4. BRI Calc. #5.51.055	1. The vendor is currently testing this component. Equipment justification #20 in Appendix D is provided for SW-PS-1014. SW-PS-1015 is on Table 8 of the JIO and does not require qualification prior to fuel load.

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WPPSS

QID324004

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-220

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Service Water TAG NUMBER SW- V-201, 206, 211, 213 MANUFACTURER Marotta MODEL NUMBER MV229MS-L2 COMPONENT Solenoid Valve FUNCTION/SERVICE LOCATION: BLDG R ELEVATION 548 COLUMN M.6/4.3 M.6/5.0 N.0/4.3 M.6/4.3	OPERATING TIME	4320 hours		1			Note 1
	TEMPERATURE (F)	90 Normal 104 Abnormal Accident Profile 4		2			
	PRESSURE (PSIA)	14.7		2			
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Accident Profile 4, 22X		2			
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	5.0×10^4		3			
	AGING	40 years		2			
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Mearns 9/2/83

DOCUMENTATION REFERENCES

1. BRI CIE list, REV 8, 6/1/83
2. FSAR Paragraph 3.11
3. EDS Study 0740-004-548 E1, F1.
4. QID 315023
5. WNP-2 Justification for Interim Operation, Rev 1, June 1983
6. BRI Calc. #5.51.055

NOTES

1. Required radiation level is being revised. Tag Numbers SW-V-206,211 don't require qualification prior to the first refueling outage, since they appear on Table B of the WNP-2 JIO [5]. Justification #21 in [5] is provided for SW-V-201 and 213.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID324004

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-220

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Service Water TAG NUMBER SW- V-204, 209, 210, 212 MANUFACTURER Marotta MODEL NUMBER MV229MQ-L2 COMPONENT Solenoid Valve FUNCTION/SERVICE LOCATION: BLDG R 548 ELEVATION COLUMN M.6/4.3 M.6/5.0 M.6/5.0 M.6/4.3	OPERATING TIME	4320 hours		1			Note 1
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profile 4		2			
	PRESSURE (PSIA)	14.7		2			
	RELATIVE HUMITY (%)	40 normal 90 abnormal Accident Profile 4,22X		2			
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	5.0×10^4		3			
	AGING	40 years		2			
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Linda Vaccari 9/2/83 Reviewed by: James Measures 9/2/83

DOCUMENTATION REFERENCES	NOTES
1. BRI CIE list, REV 8, 6/1/83 2. FSAR Para 3.11 3. EDS Study 0740-004-548E1, F1 4. QID 315023 5. WNP-2 Justification for Interim Operation, Rev 1, June 1983 6. BRI Calc #5.51.055	1. Required radiation level is being revised. Tag Numbers SW-V-209,210 don't require qualification prior to the first refueling outage, since they appear on Table B of the WNP-2 JIO [5]. Justification #21 in [5] is provided for SW-V-204 and 212.

WPPSS QID 361005

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Service Water TAG NUMBER SW-V-34 MANUFACTURER Marotta MODEL NUMBER HV252-1 COMPONENT Solenoid Valve FUNCTION/SERVICE Operate SW-V-34, RCIC Pump Room Return LOCATION: BLDG R ELEVATION 452 COLUMN H.7/8.0	OPERATING TIME	24 Hours	Equivalent to >4320 Hours	1	4	Engineering Analysis	None
	TEMPERATURE (F)	90 normal 104 abnormal Accident Profiles 4, 1X, 4X	221° F	2	4	Materials Test and Engineering Analysis	None
	PRESSURE (PSIA)	14.7 Accident Profiles 1X, 4X	14.7	2	4	Engineering Analysis	None
	RELATIVE HUMITY (%)	40 normal 90 abnormal Profile 21X	90	2	4	Engineering Analysis	Note 2
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	4.0×10^6	5×10^6	3	4	Materials test and Engineering Analysis	None
	AGING	40 years	1 year	2	4	Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV: (Ref. 6)
ABOVE FLOOD LEVEL?
YES x NO (Ref. 4)

Prepared by: Frederick J. Bailey 9/12/83 Reviewed by: James Mearns 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. BRI Class 1E Equipment List, Rev. 8 dated 6/1/83 2. FSAR Paragraph 3.11 3. EDS Calc. #0740-004-441I 4. QID 315023 5. Performance Specification for Marotta Solenoid Valves, Wyle Report #26411, dated 4/27/83 6. BRI Calc. #5.51.055	1. These components are being tested to demonstrate their qualification to IEEE Stds 323-1974 and 344-1975. Qualification objectives are identified in [5]. 2. SW-V-34 is on Table B and does not require qualification prior to Fuel Load.

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WPPSS QID #361014

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-220
MPL:
PPD:

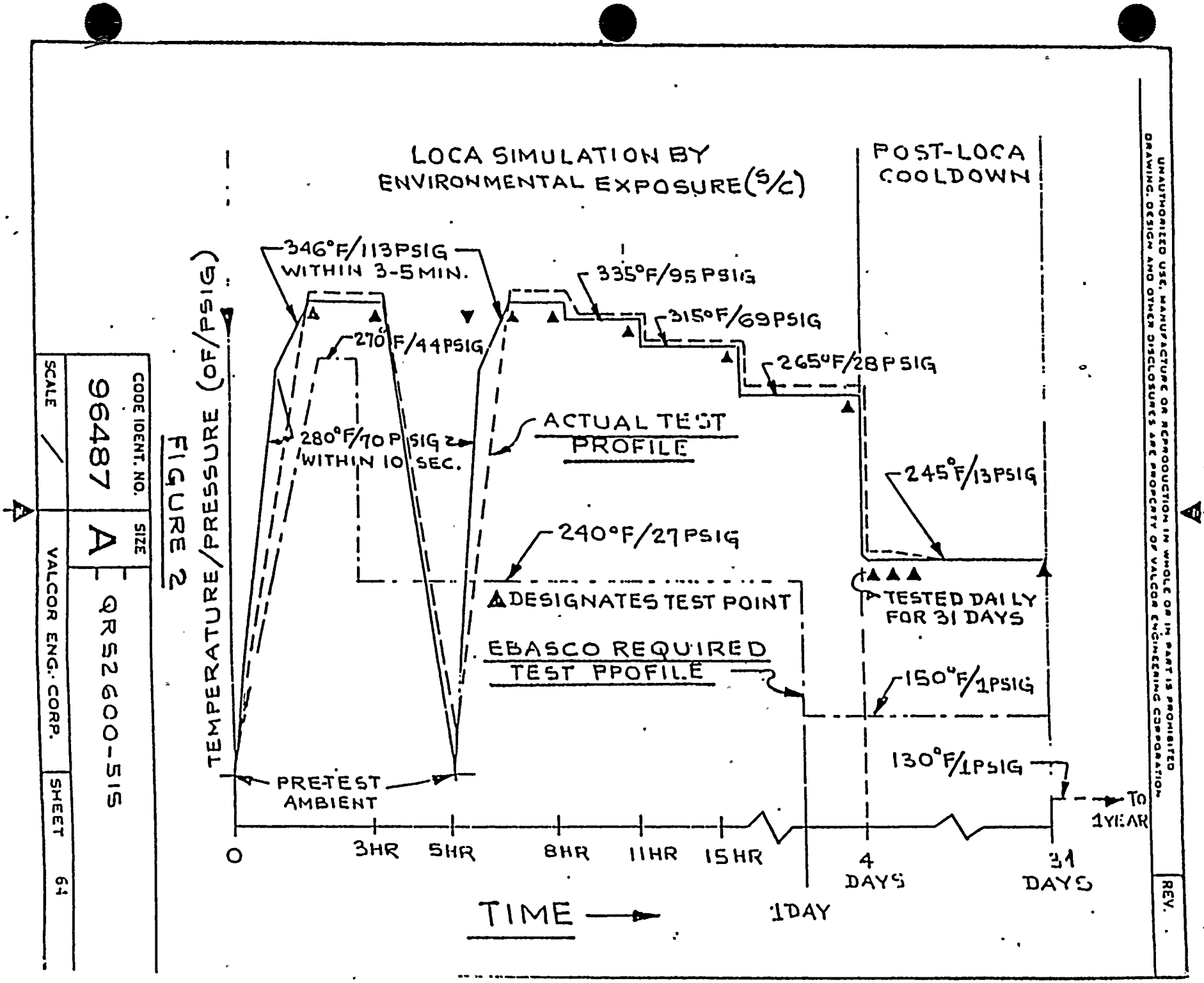
PAGE NO:
REVISION: 5
DATE: September, 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Service Water TAG NUMBER SW-V-840 -842 -844 -846 MANUFACTURER Valcor MODEL NUMBER V526-5683 COMPONENT Solenoid Valve FUNCTION/SERVICE SW System Boundary LOCATION: BLDG R ELEVATION 479 COLUMN L.9/9.2	OPERATING TIME	4320 hours	Equivalent to >4320 hours	2	3,4	Simultaneous Test and Engineering Analysis	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Accident Profile 4,9	See Enclosed Profile	1	3	Simultaneous Test	None
	PRESSURE (PSIA)	14.7 Normal, Accident Profile 9	See Enclosed Profile	1	3	Simultaneous Test	None
	RELATIVE HUMITY (%)	40 Normal 90 Abnormal Profile 21X	100	1	3	Simultaneous Test	None
	CHEMICAL SPRAY	N/A	N/A	N/A	N/A	N/A	None
	RADIATION (RAD)	7.1×10^4	2×10^8	6	3	Sequential Test	None
	AGING	40 years	40 years	1	3,4	Sequential Test and Engineering Analysis	None
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES X NO (Ref. 5)

Prepared by: Frederick J. Bailey 9/12/83 Reviewed by: James McCarns 9/12/83

DOCUMENTATION REFERENCES	NOTES
1. FSAR paragraph 3.11 2. BRI CIE list Rev. 8, dated 6/1/83 3. Report QR52600-5940-2, Qualification Test Report on SNUPPS Solenoid Valves, 7/11/79,with Attachments I through XII. 4. QID #361014 5. BRI Calc. #5.51.055 6. EDS Study 0740-004-471D	Qualified



WPPSS QID f324008

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02C51

MPL:
PPD:

PAGE NO:
REVISION: 4
DATE: July 1983

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Traversing Incore Probe TAG NUMBER TIP-V-1,2,3,4,5 -SV-1,2,3,4,5,6 MANUFACTURER G.E. MODEL NUMBER P136B1302G002 COMPONENT Valve FUNCTION/SERVICE Explosive valve for isolation shear valve LOCATION: BLDG R ELEVATION 501 COLUMN J.0/4.5	OPERATING TIME	6 months		1			Note 1
	TEMPERATURE (F)	90 max. normal 104 max. abnormal Accident Profile 4		2			
	PRESSURE (PSIA)	14.7		2			
	RELATIVE HUMITY (%)	40 normal 90 max. abnormal accident profile 4		2			
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.1×10^6		3			
	AGING	40 years		2			
	ACCURACY	N/A	N/A	N/A	N/A	N/A	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES x NO (Ref. 4)

Prepared By: Richard Makino 6/24/83 Reviewed By: Ali Vaderi 6/24/83

DOCUMENTATION REFERENCES	NOTES
1. BRI C1E list, REV 8, 6/1/83 2. FSAR Paragraph 3.11 3. EDS Report 0740-004-501P 4. BRI Calc. #5.51.055	1. Qualification options are being explored with General Electric. Equipment justification #22 in Appendix D is provided for TIP - V - 1,2,3,4, and 5. TIP-SV are on Table B of the JIO and do not require qualification prior to fuel load.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #145018
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-67

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

Pkg. 1

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Bldg. Return Air (HVAC) TAG NUMBER RRA-FN-4 (HPCS Pump Rm. #6) MANUFACTURER H. K. Porter, INc. Peerless Electric Div. MODEL NUMBER 245 COMPONENT Fan FUNCTION/SERVICE RRA-FC-4 LOCATION: BLDG R ELEVATION 444 COLUMN H.5/4.1	OPERATING TIME	24 Hours	24 Hours	1	4	Analysis	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Profile 4	2	5	Analysis	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	5	Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.4×10^6	4.1×10^6	3	5	Analysis	None
	AGING	40 Years	40 Years	2	5	Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STOUT RUEBSTER

Reviewed By: M. L. Robinson

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-441C. 4. QID 145012 (Engineering Analysis Sheet, EAS-67-145012-1 thru 4). 5. QID 145018 (Subcomponent Data Sheet, SDS-67-145018-1).	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #145011
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-67

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

Pkg. 1
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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Building Return Air (HVAC) TAG NUMBER RRA-FN-1, 2, 3, 5, 10, 11 MANUFACTURER H. K. Porter Inc. Peerless Electric Div. MODEL NUMBER 150 COMPONENT Fan FUNCTION/SERVICE Emergency Cooling System Fan Coil Units LOCATION: BLDG R ELEVATION COLUMN	OPERATING TIME	4320 Hours	4320 Hours	1	4	Analysis	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4, 1X	Profile 4, 1X	2	5	Analysis	None
	PRESSURE (PSIA)	14.7 Normal Profile 1X	Profile 1X	2	5	Analysis	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	5	Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	3.1×10^6	4.1×10^6	3	5	Analysis	None
	AGING	40 Years	40 Years	2	5	Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Steve Webster (for M. P. Downing)

Reviewed By: Dennis A. Kimsey 8/16/83

DOCUMENTATION REFERENCES

1. WNP-2 SRM Equipment List dated 10/05/82.
2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0.
3. EDS Study 0740-004-441J.
4. QID 145012 (Engineering Analysis Sheet, EAS-67-145012-1 through 4)
5. QID 145012 (Subcomponent Data Sheet, SDS-67-145018-1).

NOTES

Qualified.

1.

Tag Number	Elev.	Location
RRA-FN-1	443	H.7/4.3 (RHR #4)
RRA-FN-2	441	K.2/8.2 (RHR #2)
RRA-FN-3	441	L.8/8.0 (RHR #1)
RRA-FN-5	441	K.7/3.8 (LPCS #5)
RRA-FN-10	522	N.3/3.8 (HCC Div. II)
RRA-FN-11	522	H.5/8.0 (HCC Div. I)

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #145011

EQUIPMENT QUALIFICATION REPORT

Pkg. 1

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-67

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Building Return Air (HVAC) TAG NUMBER RRA-FN-6 (RCIC Pump Rm. #3) MANUFACTURER H. K. Porter, Inc. Peerless Electric Div. MODEL NUMBER 135 COMPONENT Fan FUNCTION/SERVICE RRA-FC-6 LOCATION: BLDG R ELEVATION 441 COLUMN H.6/7.7	OPERATING TIME	24 Hours	24 Hours	1	4	Analysis	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4, 1X	Profile 4, 1X	2	5	Analysis	None
	PRESSURE (PSIA)	14.7 Normal Profile 1X	Profile 1X	2	5	Analysis	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	5	Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	4.0×10^6	4.1×10^6	3	5	Analysis	None
	AGING	40 Years	40 Years	2	5	Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Stone & Webster/Ref Advisor Rev. 1

Reviewed By: Dennis C. Abramowicz 8/16/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-441I. 4. QID 145012 (Engineering Analysis Sheet, EAS-67-145012-1 thru 4). 5. QID 145011 (Subcomponent Data Sheet, SDS-67-145011-1).	Qualified.

WPA-1081

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #145009
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-28

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

Pkg. 2
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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam Leakage Control TAG NUMBER MSLC-FN-1 MANUFACTURER Buffalo Forge Co. MODEL NUMBER 2RE COMPONENT Fan FUNCTION/SERVICE MS Line Depress Fan LOCATION: BLDG R ELEVATION 473 COLUMN H.3/6.3	OPERATING TIME	4320 Hours	4320 Hours	1	4,6	Design Spec Analysis	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Profile 4	2	4,6	Design Spec Analysis	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100% RH Profile 4	2	4	Design Spec	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.7×10^5	1.0×10^6	3	5,6	Analysis	None
	AGING	40 Years	40 Years	2	5	Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Stone Ellerstep/A.A. Robinson Rev 2

Reviewed By: Dennis Mahoney 8/16/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-471J (Letter BRWP-RO-83-85). 4. QID 145009 (Burns and Roe Design Spec. 2808-28). 5. QID 145009 (SWEC Subcomponent Data Sheet, SDS-28-145009-1). 6. Calculation 145009-1.	Qualified

WP-1081

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID 145009
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-28

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam Leakage Control TAG NUMBER MSLC-FN-2 MANUFACTURER Buffalo Forge Co. MODEL NUMBER 2RS COMPONENT Fan FUNCTION/SERVICE MS LC Depress Fan LOCATION: BLDG R ELEVATION 511 COLUMN H.3/7.0	OPERATING TIME	4320 Hours	4320 Hours	1	4,5	Design Specifications	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Profile 4	2	4,6	Design Specifications	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100% RH Profile 4	2	.4	Design Specifications	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	7.9×10^4	1.0×10^6	3	5,6	Analysis	None
	AGING	40 Years	40 Years	2	5	Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Stone & Webster/M.S. Robinson Rev 2 Reviewed By: Dennis C. Armitage 8/16/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRH Equipment List, dated 10/5/82. 2. FSAR Paragraph 3.11 and WPPSS Calculation NE-02-82-14-0. 3. EDS Study 0740-004-501K 4. QID 145009 (Burns & Roe Design Specification 2808-28). 5. QID 145009 (SWEC Subcomponent Data Sheet, SDS-28-145009-1). 6. Calculation 145009-1.	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #145014
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-28

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Standby Gas Treatment TAG NUMBER SGT-AO-1A1, 1A2, 1B1, 1B2 MANUFACTURER Buffalo Forge MODEL NUMBER COMPONENT Air Damper FUNCTION/SERVICE Exhaust, SGT-FU-1A1, -1A2, 1B1, 1B2 LOCATION: BLDG R ELEVATION 576 COLUMN H.6/7.7 J.1/7.7	OPERATING TIME	4320 Hours	Note 1	1			None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Note 1	2			None
	PRESSURE (PSIA)	14.7 Normal	Note 1	2			None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Note 1	2			None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	3.0×10^5	Note 1	3			None
	AGING	40 Years	Note 1	2			None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER

Reviewed By: M. L. Mannion

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Report 01.0740-1152.	Qualified. 1. See qualification for SGT-FN-1A1, 1A2, 1B1, 1B2 (QID 145014).

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

Pkg. 2

QID 145013
OWNER: WPPSS
FACILITY: WNP-2
SPEC: See Note 1

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Building Return Air (HVAC) TAG NUMBER RRA-FN (See Note 1) MANUFACTURER Buffalo Forge MODEL NUMBER COMPONENT Fan FUNCTION/SERVICE RRA-Fan Coolers LOCATION: BLDG R ELEVATION COLUMN See Note 1	OPERATING TIME	4,320 Hours	4,320 Hours	1	4	Design Specifications	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Profile 4	2	5	Analysis	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	5	Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.5×10^5	1×10^9	3	5	Analysis.	None
	AGING	40 Years	40 Years	2	4	Design Specifications	None

FLOOD LEVEL ELEV: _____
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Stone & Webster

Reviewed By: M. L. Adams

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List, dated 10/5/82. 2. FSAR Paragraph 3.11 and WPPSS Calculation NE-02-82-14-0. 3. EQS Study 0740-009-548L. 4. QID 145013 (Burns & Roe Design Spec. 2808-216 and 2808-28). 5. QID 145013 (SWEC Subcomponent Data Sheet, SDS-216-145013-1).	Qualified. See Page 2.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID 145013
OWNER: WPPSS
FACILITY: WNP-2
SPEC: See Note 1

EQUIPMENT QUALIFICATION REPORT

MPL:
PPD:

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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

1. Location

Tag No.	Elevation	Location	Contract
RRA-FN-12	471	H5/8	2808-216
RRA-FN-13	572	H3/6	2808-216
RRA-FN-14	572	H7/8	2808-216
RRA-FN-15	548	H5/4.5	2808-216
RRA-FN-17	548	H5/4.7	2808-216
RRA-FN-19	548		2808-28
RRA-FN-20	548		2808-28

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #145014
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-28

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Standby Gas Treatment TAG NUMBER SGT-FN-1A1, -1A2, -1B1, -1B2 (See Note 1) MANUFACTURER Buffalo Forge Co. MODEL NUMBER 45AI7 COMPONENT Fan FUNCTION/SERVICE Exhaust LOCATION: BLDG R ELEVATION 576 COLUMN H.6/7.7 J.1/7.7	OPERATING TIME	4320 Hours	4320 Hours	1	6	Analysis	Note 2
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	4/5	Design Spec. and Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	3×10^5	8.7×10^4	3	5	Analysis	Note 2
	AGING	40 Years	40 Years	2	5	Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER

Reviewed By: M. L. Robinson

DOCUMENTATION REFERENCES

1. WNP-2 SRM Equipment List dated 10/05/82.
2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0.
3. EDS Report 01.0740-1152.
4. QID 145014 (Burns and Roe Design Spec. 2808-28).
5. QID 145014 (SWEC Subcomponent Data Sheet, SDS-28-145014-1).
6. QID 145014 (SWEC Engineering Analysis Sheet, EAS-28-145014-1).

NOTES

1. Includes Variable Inlet Vane (VIV) dampers - SGT-AD-1A1, -1A2, -1B1, and -1B2.
2. Inlet vane bearings will be inspected, and those with nylon bearing cases will be replaced with metal caged bearings. (Ref: Letter GE-02-MSR-83-001).

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WPPSS

QID #145021
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-71

MPL:
PPD:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

PKG. 3

PAGE NO: 1 of 1
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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Atmosphere Control TAG NUMBER CAC-FN-1A, -1B MANUFACTURER Air Products EQ Co. MODEL NUMBER 01.14 3006 COMPONENT Fan FUNCTION/SERVICE Air Blower LOCATION: BLDG R ELEVATION 572 COLUMN M.5/6.6, 7.4	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY. (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.0×10^6	1.8×10^6	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER

Reviewed By: M. S. Robinson

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRH Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-572F. 4. QID 145021 (Burns and Roe Design Spec. 2808-71). 5. QID 145021 (SWEC Subcomponent Data Sheet, SDS-71-145021-1).	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID 145002
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-22A

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Return Air TAG NUMBER See Note 2 MANUFACTURER Joy Mfg. Co. MODEL NUMBER 421-171-860 COMPONENT Fan FUNCTION/SERVICE Recirc. Fan LOCATION: BLDG C ELEVATION COLUMN	OPERATING TIME	4,320 Hours	4,320 Hours	1	3	Analysis	None
	TEMPERATURE (F)	135 Normal 150 Abnormal Profile 1	Profile 1	2	3	Analysis	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Profile 1	Profile 1	2	3	Analysis	None
	RELATIVE HUMIDITY (%)	55 Normal 90 Abnormal Profile 2	Profile 2	2	3	Analysis	None
	CHEMICAL SPRAY	Demineralized Water	Demineralized Water	2	3	Analysis	None
	RADIATION (RAD)	7.0×10^7	1×10^9	2	3	Analysis	None
	AGING	40 Years	40 Years	2	3	Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared by: STONE & WEBSTER Reviewed by: M. L. Nelson

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRH Equipment List, dated 10/5/82. 2. FSAR Paragraph 3.11. 3. QID 145002 (SWEC Subcomponent Data Sheet SDS-22A-145002-1).	Qualified. See Page 2

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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

2.

Tag Number	Elevation	Location
CRA-FN-3A	534	50° AZ R17
" " 3B	"	140° AZ R17
" " 3C	"	60° AZ R17
" " 5A	572	180° AZ R17
" " 5B	"	20° AZ R17
" " 5C	"	270° AZ R17
" " 5D	"	90° AZ R17

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #145001
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-22A

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Return Air TAG NUMBER CRA-FN-4A, -4B MANUFACTURER Joy Mfg. Co. MODEL NUMBER 21-1/4-14-1750 COMPONENT Fan FUNCTION/SERVICE Mixing Fan LOCATION: BLDG C ELEVATION 572 COLUMN 330° Az R17 206° Az R17	OPERATING TIME	4320 Hours	4320 Hours	1	3	Analysis	None
	TEMPERATURE (F)	135 Normal 150 Abnormal Profile 1	Profile 1	2	3	Analysis	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Profile 1	Profile 1	2	3	Analysis	None
	RELATIVE HUMIDITY (%)	55 Normal 90 Abnormal Profile 2	Profile 2	2	3	Analysis	None
	CHEMICAL SPRAY	Demineralized Water	Demineralized Water	2	3	Analysis	None
	RADIATION (RAD)	7.0×10^7	1×10^9	2	3	Analysis	None
	AGING	40 Years	40 Years	2	3	Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STEVE WEBSTER

Reviewed By: [signature]

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11. 3. QID 145001 (SWEC Subcomponent Data Sheet, SDS-22A-145001-1).	Qualified.

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WPPSS

QID #361944
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-71

MPL:
PPD:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Atmosphere Control TAG NUMBER CAC-V-2A, 2B MANUFACTURER ITT Grinnell MODEL NUMBER NH-91C2070F3L2 COMPONENT Valve FUNCTION/SERVICE CAC Return LOCATION: BLDG R- ELEVATION 572 COLUMN M.6/6.4, 7.5	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (°F)	90 Max. Normal 104 Max. Abnormal Profile 4	120 Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	90 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.0×10^6	8.8×10^6	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV: N/A
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER

Reviewed By: M. L. DeLamin

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-572F. 4. QID 361944 (APCI Specification 4-1371-1200-10A Dated 12/20/74 5. QID 361944 (SWEC Subcomponent Data Sheet SDS-71-361944-1)	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361943
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-71

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Atmosphere Control TAG NUMBER CAC-V-1A, 1B MANUFACTURER ITT Grinnell MODEL NUMBER NH-95C2670F3L2 COMPONENT Valve FUNCTION/SERVICE CAC-AW-1A, 1B (EHO) LOCATION: BLDG R ELEVATION 572, 573 COLUMN M.6/7.5, 6.4	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (°F)	90 Max. Normal 104 Max. Abnormal Profile 4	120 Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal	90	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.0×10^6	8.8×10^6	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV: N/A
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER

Reviewed By: M. L. Mumm

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-572F. 4. QID 361943 APCI Specification 4-1371-1200-09A Dated 12/19/7[illegible] 5. QID 361943 (SWEC Subcomponent Data Sheet SDS-71-361943-1)	Qualified.

wn1041

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361945
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-71

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Atmosphere Control TAG NUMBER CAC-V-3A, 3B MANUFACTURER ITT Grinnell MODEL NUMBER NH-95C1670F3L3 COMPONENT Valve FUNCTION/SERVICE CAC-MS-1A, 1B Drain LOCATION: BLDG R ELEVATION 572, 573 COLUMN M.6/6.4, 7.5	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (°F)	90 Max. Normal 104 Max. Abnormal Profile 4	120 Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	90 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.0×10^6	8.8×10^6	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV: N/A
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Stone & Webster

Reviewed By: [signature]

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-572F. 4. QID 361945 (APCI Specification 4-1371-1200-11A Dated 1/7/75) 5. QID 361945 (SWEC Subcomponent Data Sheet SDS-71-361945-1)	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID 361402

EQUIPMENT QUALIFICATION REPORT

Pkg. 6

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02C12

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Control Rod Drive TAG NUMBER CRD-V-10, 11 MANUFACTURER Hammel Dahl Company MODEL NUMBER V-502L-2, V-502L-1 COMPONENT Valve FUNCTION/SERVICE Scram Discharge Volume Vent (V-10) and Drain (V-11) LOCATION: BLDG R ELEVATION 543, 523 COLUMN J.1/5.1, J.1/4.9	OPERATING TIME	4,320 Hours	4,320 Hours	1	5	Analysis	None
	TEMPERATURE (°F)	90 Max. Normal 104 Max. Abnormal Profile 4, 11	150 Profile 4, 11	2	4	Analysis	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4, 11	100 Profile 4, 11	2	4	Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	5.3×10^4	3.8×10^5	3	4	Analysis	None
	AGING	40 Years	40 Years	2	4	Analysis	None

FLOOD LEVEL ELEV: N/A
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER

Reviewed By: M. S. Johnson

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS Calculation NE-02-82-14-0. 3. EDS Study 0740-004-522P. 4. QID 361402 (SWEC Subcomponent Data Sheet SDS-02C12-361402-1). 5. QID 361402 (SWEC Engineering Analysis Sheet EAS-02C12-361402-1).	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361402/018001
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-68

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

Pkg. 7

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Exhaust Purge TAG NUMBER (CEP-AO-1B, 2B) CEP-V-1B, 2B MANUFACTURER ITT Hammel Dahl MODEL NUMBER 502L-119 COMPONENT Valve and A.O. FUNCTION/SERVICE Bypass LOCATION: BLDG R ELEVATION 558 COLUMN J.4/5.3	OPERATING TIME	4320 Hours	4320 Hours	1	5	Analysis	None
	TEMPERATURE (°F)	90 Max. Normal 104 Max. Abnormal Profile 4, 20X	Process Fluid Design 150°F Profile 4,20X	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal Profile 20X	Profile 20X	2	4	Design Specification Analysis	None.
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	90% Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.0×10^6	1.5×10^6	3	5	Analysis	None
	AGING	40 Years	40 Years	2	5	Analysis	None

FLOOD LEVEL ELEV: N/A
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Steve Sweester (Rev 2 w/ Admin) Reviewed By: Dennis Akerlund 8/16/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-548Q. (Letter BRWP-RO-83-85.) 4. QID 361402 (Burns and Roe Design Spec. 2808-68). 5. QID 361402 (SWEC Subcomponent Data Sheet, SDS-68-361402-1)	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361402/018001
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-68

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Exhaust Purge TAG NUMBER (CEP-EO-3B, 4B) CEP-V-3B, 4B MANUFACTURER ITT Hammel Dahl MODEL NUMBER 502L-119 COMPONENT Valve and A.O. FUNCTION/SERVICE Bypass LOCATION: BLDG R ELEVATION 495 COLUMN H.7/5.6	OPERATING TIME	4320 Hours	4320 Hours	1	6	Analysis	None
	TEMPERATURE (°F)	90 Max. Normal 104 Max. Abnormal Profile 4	Process Fluid Design 150°F Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	90% Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.3×10^5	1.5×10^6	3	5	Analysis	None
	AGING	40 Years	40 Years	2	6	Analysis	None

FLOOD LEVEL ELEV: N/A
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Stone & Webster/M. P. Morrison (Rev. 1) Reviewed By: Dennis Armstrong 6/6/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRH Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-471J. (Letter BRWP-RO-83-85) 4. QID 361402 (Burns and Roe Spec. 2808-68). 5. QID 361402 (SWEC Engineering Analysis Sheet, EAS-68-361402-1). 6. QID 361402 (SWEC Subcomponent Data Sheet, SDS-68-361402-3).	Qualified

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID 361401
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02B35

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Recirculation TAG NUMBER RRC-V-60A, 60B MANUFACTURER ITT Hammel Dahl MODEL NUMBER V999L-20I COMPONENT Valve FUNCTION/SERVICE RRC Return to RPV LOCATION: BLDG C ELEVATION 506 COLUMN 115 DAz R24 293 DAz R24	OPERATING TIME	4,320 Hours	4,320 Hours	1	3	Design Specification	None
	TEMPERATURE (°F)	135 Normal 150 Abnormal Profile 1	Process Fluid Design 575° F Profile 1	2	3	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Profile 1	65 psig Profile 1	2	3	Design Specification	None
	RELATIVE HUMIDITY (%)	55 Normal 90 Abnormal Profile 2	100% Profile 2	2	3	Design Specification	None
	CHEMICAL SPRAY	Demineralized Water	Demineralized Water	2	5	Analysis	None
	RADIATION (RAD)	7.0×10^7	9.1×10^8	2	4	Analysis	None
	AGING	40 Years	40 Years	2	3	Design Specification	None

FLOOD LEVEL ELEV: N/A
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Steve Rubster

Reviewed By: M. L. Johnson

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List, dated 10/5/82. 2. FSAR Paragraph 3.11. 3. QID 361401 (G.E. Specification 21A9352, Rev. 4). 4. QID 361401 (SWEC Subcomponent Data Sheet SDS-02B35-361401-1). 5. QID 361401 (SWEC Engineering Analysis Sheet EAS-02B35-361401-1).	Qualified.

WP-1001

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID 361964
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02B22

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS-V-28A, 28B, 28C, 28D MANUFACTURER Rockwell Mfg. Co. MODEL NUMBER 1612 JMNTY COMPONENT Valve FUNCTION/SERVICE MSIV (Outboard) LOCATION: BLDG R ELEVATION 506 COLUMN H.8/5.8, 6.4	OPERATING TIME	4,320 Hours	4,320 Hours	1	5	Design Specification	None
	TEMPERATURE (F)	125 Max. Normal 140 Max. Abnormal Profile 3.4	Profile 3 & 4	2	5	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	50 Max. Normal 98 Max. Abnormal Profile 3.4	100% Profiles 3 & 4	2	4	Analysis.	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.4×10^8	1×10^{10}	3	4	Analysis	None
	AGING	40 Years	40 Years	2	5	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared by: STONE & WEBSTER / [illegible] (Rev. 1) Reviewed by: [signature] 6/25/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRH Equipment List, dated 10/5/82. 2. FSAR Paragraph 3.11 and WPPSS Calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 361964 (SWEC Subcomponent Data Sheet SDS-02B22-361964-2). 5. QID 361964 (General Electric Specification 21A9257, Rev. 4).	Qualified.

WP-1881

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID 361964
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02822

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS-V-22A, 22B, 22C; 22D MANUFACTURER Rockwell Mfg. Co. MODEL NUMBER 1612 JMMNTY COMPONENT Valve FUNCTION/SERVICE MSIV (Inboard) LOCATION: BLDG C ELEVATION S06 COLUMN A2 5,15,315, 355, R32	OPERATING TIME	4,320 Hours	4,320 Hours	1	5	Design Specification	None
	TEMPERATURE (°F)	135 Normal 150 Abnormal Profile 1	Process Fluid Design = 575 Profile 1	2	5	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Profile 1	16.7 Profile 1	2	5	Design Specification	None
	RELATIVE HUMIDITY (%)	55 Normal 90 Abnormal Profile 2	100% Profile 2	2	5	Design Specification	None
	CHEMICAL SPRAY	Demineralized Water	Demineralized Water	2	6	Analysis	None
	RADIATION (RAD)	1.4×10^8	1×10^{10}	3	4	Analysis	None
	AGING	40 Years	40 Years	2	5	Design Specification	None

FLOOD LEVEL ELEV: N/A
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Stone & Webster

Reviewed By: M. L. Robinson

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRH Equipment List, dated 10/5/82. 2. FSAR Paragraph 3.11. 3. EDS Report No. 01-0740-1152. 4. QUID 361964 (SWEC Subcomponent Data Sheet, SDS-02822-361964-1). 5. QID 361964 (General Electric Specification 21A9257, Rev. 4). 6. QID 36196A (SWEC Engineering Analysis Sheet EAS-02822-361964-1)	Qualified.

WA-1081

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #018002
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02B22

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MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS-AO-28A, 28B, 28C, 28D MANUFACTURER Sheffer MODEL NUMBER SA-A022 COMPONENT Air Operator FUNCTION/SERVICE MS-V-28A, 28B, 28C, 28D LOCATION: BLDG R ELEVATION 515 COLUMN H.3/6.0	OPERATING TIME	24 Hours	24 Hours	1,2	5	Design Specification	None
	TEMPERATURE (°F)	125 Max. Normal 140 Max. Abnormal Profile 3, 4	150 Profile 3, 4	2	5	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	50 Max. Normal 98 Max. Abnormal Profile 3, 4	100% Profile 3, 4	2	4	Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	4.2×10^6	Note 1	3	4	Analysis	None
	AGING	40 Years	40 Years	2	4	Analysis	None

FLOOD LEVEL ELEV: N/A
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Stone & Webster/W.R.Allen (Rev.1) Reviewed By: Dennis A. Fennell 6/25/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-5010. 4. QID 018002 (SWEC Subcomponent Data Sheet, SDS-02B22-018002-7). 5. QID 018002 (General Electric Specification 21A9257, Rev. 4).	Qualified. 1. Operator nonmetallics do not meet the radiation parameter. However, the operator design ensures the valve moves to its fail safe position in the event of a loss of air or failure of a nonmetallic subcomponent. Therefore, it is not necessary to qualify the operator's nonmetallics. (Section 3.8. of Procedure).

WP-1061

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #018002
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02B22

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS-AO-22A, 22B, 22C, 22D MANUFACTURER Sheffer MODEL NUMBER SA-A022 COMPONENT Air Operator FUNCTION/SERVICE MS-V-22A, 22B 22C, 22D LOCATION: BLDG C ELEVATION 510 COLUMN Az 10,17,344,350 R30	OPERATING TIME	24 Hours	24 Hours	1,2	5	Design Specification	None
	TEMPERATURE (°F)	135 Normal 150 Abnormal Profile 1	150° Profile 1	2	5	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Profile 1	16.7 Profile 1	2	5	Design Specification	None
	RELATIVE HUMIDITY (%)	55 Normal 90 Abnormal Profile 2	100% Profile 2	2	3	Analysis	None
	CHEMICAL SPRAY	Demineralized Water	Demineralized Water	2	4	Analysis	None
	RADIATION (RAD)	7.0×10^7	Note 1	2	3	Analysis	None
	AGING	40 Years	40 Years	2	3	Analysis	None

FLOOD LEVEL ELEV: N/A
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Steve Alverson

Reviewed By: M. S. Robinson

DOCUMENTATION REFERENCES

1. WNP-2 SRM Equipment List dated 10/05/82.
2. FSAR Paragraph 3.11.
3. QID 018002 (SWEC Subcomponent Data Sheet, SDS-02B22-018002-1).
4. QID 018002 (SWEC Engineering Analysis Sheet, EAS-02B22-018002-1).
5. QID 018002 (General Electric Specification 21A9257, Rev. 4).

NOTES

Qualified.

1. Operator nonmetallics do not meet the required radiation parameter. However, the operator design ensures the valve moves to its fail safe position in the event of a loss of air or failure of a nonmetallic subcomponent. Therefore, it is not necessary to qualify the operator's nonmetallics. (Section 3.8 of Procedure).

WPP-1981

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361024
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41B

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-V-53A -53B MANUFACTURER Anchor-Darling Valve MODEL NUMBER 2658-3 COMPONENT Valve FUNCTION/SERVICE Shutdown Cool Loop A, B LOCATION: BLDG R ELEVATION 516, 512 COLUMN K.3/4.1, L/7.9	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4, 6X, 20X	Process Fluid Design 575 Profile 4, 6X, 20X	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal Profile 6X, 20X	Process Fluid Design 1550 Profile 6X, 20X	2	4	Design Specification	None
	RELATIVE HUMIDITY (%)	40 Max. Normal. 90 Max. Abnormal Profile 4	100 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.2×10^7	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Stone & Webster (Revised 4.8.84) Reviewed By: Dennis Altemus 4/16/84

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 361024 (Design Spec. 41B.00). 5. QID 361024 (Subcomponent Data Sheet, SDS-41B-361024-1).	Qualified.

WP-1001

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361027
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41B

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-V-21 -24A, B -48A, B MANUFACTURER Anchor Valve MODEL NUMBER 2648-3 COMPONENT Valve FUNCTION/SERVICE Loop C Return to Supp. Pool LOCATION: BLDG R ELEVATION)See Note 1 COLUMN	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4, 1X, 16X	Process Fluid Design Temp. 358 Profile 4, 1X, 16X	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal Profile 1X, 16X	Process Fluid Design Press. 500 Profile 1X, 16X	2	4	Design Specification	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.3×10^7	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared by: Steve Ruiesle (Pul. S. d. Admin.) Reviewed By: Dennis Armstrong 8/16/83

DOCUMENTATION REFERENCES

1. WNP-2 SRM Equipment List dated 10/05/82.
2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0.
3. EDS Report No. 01-0740-1152.
4. QID 361027 (Burns & Roe Design Specification 2808-41B).
5. QID 361027 (SWEC Subcomponent Data Sheet, SDS-41B-361027-1).

NOTES

Qualified.

1.

Tag No.	Elevation	Column
RHR-V-21	446	H.4/5.8
RHR-V-24A	474	K/8.1
RHR-V-24B	474	M/8.3
RHR-V-48A	552	J/8.7
RHR-V-48B	553	M.9/8.9

WP-1881

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361021
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41B

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-V-23 MANUFACTURER Anchor Valve MODEL NUMBER 2654-3 COMPONENT Valve FUNCTION/SERVICE RHR to Rx Head Spray LOCATION: BLDG R ELEVATION 550 COLUMN H.2/5.1	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4, 14X	Process Fluid Design Temp. 575 Profile 4, 14X	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal Profile 14X	Profile 14X	2	4	Design Specification	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	8.7×10^6	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Steve Everett (Real w.P.N.P.Mann)

Reviewed By: Dennis A. Einsiedel 8/16/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 361021 (Design Spec. 41B.00). 5. QID 361021 (Subcomponent Data Sheet, SDS-41B-361021-1).	Qualified.

WP-1041

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361020
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41B

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-V-40 MANUFACTURER Anchor Valve MODEL NUMBER 2645-3 COMPONENT Valve FUNCTION/SERVICE Loop B to Floor Drain Tank LOCATION: BLDG R ELEVATION 552 COLUMN M.7/8.3	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4, 16X	Process Fluid Design Temp. 358 Profile 4, 16X	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal Profile 16X	Profile 16X	2	4	Design Specification	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Normal Profile 4	100 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	7.3×10^6	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Steve Forester (Rad. Mat. Engineer)

Reviewed By: [signature] 8/16/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 361020 (Design Spec. 41B.00). 5. QID 361020 (Subcomponent Data Sheet, SDS-41B-361020-1).	Qualified.

WP-1661

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361024
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41B

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Low Pressure Core Spray TAG NUMBER LPCS-V-12 MANUFACTURER Anchor Valve MODEL NUMBER 2647-3 COMPONENT Valve FUNCTION/SERVICE Test Line to Supp. Pool LOCATION: BLDG R ELEVATION 450 COLUMN J.9/3.9	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Process Fluid Design Temp. 212 Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.3×10^7	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER

Reviewed By: M. P. Adams

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 361024 (Design Spec. 41B.00). 5. QID 361024 (Subcomponent Data Sheet SDS-41B-361024-2).	Qualified.

WP-1001

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID 361047
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41B

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM High Pressure Core Spray TAG NUMBER HPCS-V-16 MANUFACTURER Anchor Valve MODEL NUMBER 2621-3 COMPONENT Valve FUNCTION/SERVICE Supp. Pool Suction LOCATION: BLDG R ELEVATION 449 COLUMN L.3/3.5	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Process Fluid Design Temp. 212 Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.3×10^7	1×10^{10}	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Steve Webster

Reviewed By: M. S. Minor

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 361047 (Design Spec. 41B.00). 5. QID 361047 (Subcomponent Data Sheet, SDS-41B-361047-1).	Qualified.

WP-1861

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361045
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41B

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM High Pressure Core Spray TAG NUMBER HPCS-V-2 MANUFACTURER Anchor Valve MODEL NUMBER 2620-3 COMPONENT Valve FUNCTION/SERVICE HPCS-P-1 SCT Suction LOCATION: BLDG R ELEVATION 430 COLUMN M.7/3.8	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Process Fluid Design Temp. 212 Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.3×10^7	1×10^{10}	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER

Reviewed By: M. S. Abrams

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 361045 (Design Spec. 41B.00). 5. QID 361045 (Subcomponent Data Sheet SDS-41B-361045-1).	Qualified.

WP-1081

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361040
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41B

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-V-105 MANUFACTURER Anchor Valve MODEL NUMBER 2623-3 COMPONENT Valve FUNCTION/SERVICE Check FPC Syst. Return to RHR LOCATION: BLDG R ELEVATION 434 COLUMN M.3/8.2	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4, 8B	Process Fluid Design Temp. 358 Profile 4, 8B	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal Profile 8B	Process Fluid Design Press. 220 Profile 8B	2	4	Design Specification	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4, 8B	100 Profile 4, 8B	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.1×10^7	1×10^{10}	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Steve Rwfester

Reviewed By: M. S. Johnson

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 361040 (Design Spec. 41B.00) 5. QID 361040 (Subcomponent Data Sheet, SDS-41B-361040-1).	Qualified.

WP-1041

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361004
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41B

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor water Cleanup TAG NUMBER RHCU-V-102 MANUFACTURER Anchor Darling Valve MODEL NUMBER 4513-47 COMPONENT Valve FUNCTION/SERVICE From Recirc. Pump LOCATION: BLDG C ELEVATION 502 COLUMN 59DAzR20	OPERATING TIME	4320 Hours	4320 Hours	1	3	Design Specification	None
	TEMPERATURE (F)	135 Normal 150 Abnormal Profile 1	Process Fluid Design Temp. 575 Profile 1	2	3	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Profile 1	Process Fluid Design Press. 1250 Profile 1	2	3	Design Specification	None
	RELATIVE HUMIDITY (%)	55 Normal 90 Abnormal Profile 2	100 Profile 2	2	3	Design Specification	None
	CHEMICAL SPRAY	Demineralized Water	Demineralized Water	2	3	Analysis	None
	RADIATION (RAD)	7.0×10^7	9.1×10^8	2	4	Analysis	None
	AGING	40 Years	40 Years	2	3	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Stone & Webster

Reviewed By: M. L. Adams

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11. 3. QID 361004 (Design Spec. 41B.00, Engineering Analysis Sheet EAS-41B-361004-1). 4. QID 361004 (Subcomponent data sheet SDS-41B-361004-1).	Qualified.

WP-1041

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

Pkg. 11

QID 361065
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E22

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM High Pressure Core Spray TAG NUMBER HPCS-V-4 MANUFACTURER Anchor Darling Valve MODEL NUMBER 94-13401 COMPONENT Valve FUNCTION/SERVICE Containment Isolation LOCATION: BLDG R ELEVATION 538 COLUMN H.3/7.3	OPERATING TIME	4,320 Hours	4,320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4, 11X.	500 Profile 4, 11X	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.1×10^7	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared by: STONE & WEBSTER/G.E. Review Rev 1 Reviewed by: Dennis C. Armstrong 8/16/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRH Equipment List, dated 10/5/82. 2. FSAR Paragraph 3.11 and WPPSS Calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 361065 (G.E. Design Spec. 21A8657). 5. QID 361065 (SWEC Subcomponent Data Sheet E22-361065-1).	Qualified.

WP-1061

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID 361070
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E22

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM High Pressure Core Spray TAG NUMBER HPCS-V-1 MANUFACTURER Anchor Darling Valve MODEL NUMBER 5310-2-1 COMPONENT Valve FUNCTION/SERVICE Cond. Water into HPCS LOCATION: BLDG R ELEVATION 435 COLUMN M.0/3.9	OPERATING TIME	24 Hours	4,320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	500 Profile	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.2×10^7	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared by: STONE & WEBSTER Reviewed by: M. P. Monsen

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRH Equipment List, dated 10/5/82. 2. FSAR Paragraph 3.11 and WPPSS Calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 361070 (G.E. Design Spec. 21A8657). 5. QID 361070 (SWEC Subcomponent Data Sheet E22-361070-1).	Qualified.

WPA-1961

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID 361006
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E22

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM High Pressure Core Spray TAG NUMBER HPCS-V-10, -11 MANUFACTURER Anchor Darling Valve MODEL NUMBER 1927-3 COMPONENT Valve FUNCTION/SERVICE HPCS Return to CST LOCATION: BLDG R ELEVATION 448 COLUMN L.9/3.7	OPERATING TIME	4,320 Hours	4,320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal. Profile 4	700 Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.1×10^7	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared by: STONE & WEBSTER

Reviewed by:

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List, dated 10/5/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 351006 (General Electric Design Spec. 21A8657). 5. QID 361006 (SWEC Subcomponent Data Sheet 02-E22-3610064).	

WPA-1041

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID 361060
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E22

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM High Pressure Core Spray TAG NUMBER HPCS-V-12 MANUFACTURER Anchor Darling Valve MODEL NUMBER 94-13306 COMPONENT Valve FUNCTION/SERVICE HPCS-P-1 Minimum Flow LOCATION: BLDG R ELEVATION 430 COLUMN M.0/3.7	OPERATING TIME	4,320 Hours	4,320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	500 Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	7.0×10^6	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES .NO

Prepared by: Stone & Webster Reviewed by: M. L. Adamson

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List, dated 10/5/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 361060 (G.E. Design Spec. 21A8657). 5. QID 361060 (SWEC Subcomponent Data Sheet E22-361060-1).	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID 361075
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E22

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM High Pressure Core Spray TAG NUMBER HPCS-V-15 MANUFACTURER Anchor Darling Valve MODEL NUMBER 94-13272 COMPONENT Valve FUNCTION/SERVICE Suppression Pool Outlet to HPCS LOCATION: BLDG R ELEVATION 449 COLUMN L.3/3.9	OPERATING TIME	4,320 Hours	4,320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	500 Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.3×10^7	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared by: STONE & WEBSTER

Reviewed by: M. P. Mann

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List, dated 10/5/82. 2. FSAR Paragraph 3.11 and WPPSS Calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 361075 (G.E. Design Spec. 21A8657). 5. QID 361075 (SWEC Subcomponent Data Sheet E22-361075).	Qualified.

WP-1081

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID 361007
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E22

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM High Pressure Core Spray TAG NUMBER HPCS-V-23 MANUFACTURER Anchor Darling Valve MODEL NUMBER 1928-3 COMPONENT Valve FUNCTION/SERVICE HPCS Test Line LOCATION: BLDG R ELEVATION 450 COLUMN L.5/3.7	OPERATING TIME	4,320 Hours	4,320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	700 Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.1×10^7	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared by: STONE & WEBSTER Reviewed by: M. P. Marcin

DOCUMENTATION REFERENCES	NOTES
1. WNP-2-SRH Equipment List, dated 10/5/82. 2. FSAR Paragraph 3.11 and WPPSS Calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 361007 (GE Design Spec. 21A8657). 5. QID 351007 (SWEC Subcomponent Data Sheet E22-361007-1).	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361744
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Closed Cooling Water TAG NUMBER RCC-V-104 MANUFACTURER Velan Valve Corp. MODEL NUMBER P2-3311-NF-61 COMPONENT Valve FUNCTION/SERVICE HT Exch. Disch. to Cont. Isol. Valve LOCATION: BLDG R ELEVATION 514 COLUMN K.0/4.3	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specifcatfon	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4, 6X	Process Fluid Design Temp. 150 Profile 4, 6X	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.1×10^7	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER (Rev. 1 to S.A. Dimin) Reviewed By: Dennis A. Kennedy 8/16/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 361701 (Burns & Roe Design Spec. 2808-41A). 5. QID 361744 (SWEC Subcomponent Data Sheet, 41A-361744-1).	Qualified.

wpk-1041

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID 361745
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM See Note 1 TAG NUMBER See Note 1 MANUFACTURER Velan Valve Corp. MODEL NUMBER P2-3311-NP-62 COMPONENT Valve FUNCTION/SERVICE See Note 1 LOCATION: BLDG R ELEVATION See Note 1 COLUMN	OPERATING TIME	4,320 Hours	4,320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Process Fluid Design Temp. 250 Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.0×10^7	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER (Raul M. P. Marin) Reviewed By: Dennis A. Swanson 8/16/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List, dated 10/5/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NI-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 361701 (Burns and Roe Design Specification 2808-41A). 5. QID 361745 (SWEC Subcompartment Data Sheet SDS-41A-361745-1).	Qualified.

WP-1461

DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

1. Location:

System	Tag No.	El.	Column	Function
Fuel Pool Cooling	FPC-V-172	471	K.9/9	PHP Disch. to Demineralizer
" " "	-173	471	L.9/9/4	PHP Disch. to Demineralizer
" " "	-184	471	K.9/9	Demineralizer Effluent Isol. Valve
" " "	-175	548	K/9	PHP Disch. Demineralizer Bypass
" " "	-181A	548	L.5/9	FPC-P-1A Suction
" " "	-181B	548	L.5/9	FPC-P-1B Suction
Closed Cooling Water	RCC-V-129	556	L.0/9	HXS Inlet
" " "	-130	548	L.0/9	HXS Inlet
" " "	-131	556	L.0/9	HXS Outlet
Standby Service Water	SW-V-187A	548	K.8/8.6	SW into FPC HX1A
" " "	-187B	548	L.1/8.6	SW into FPC HX1B
" " "	-188A	548	K.8/8.8	SW Out FPC HX1A
" " "	-188B	548	L.1/8.8	SW Out FPC HX1B

WPPSS

QID #361704
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM See Note 1 TAG NUMBER RWCU-V- RCIC-V- } See Note 1 MANUFACTURER Velan Valve Corp. MODEL NUMBER P2-3311-N-4 COMPONENT Valve FUNCTION/SERVICE See Note 1 LOCATION: BLDG R ELEVATION See Note 1 COLUMN	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max Normal 104 Max Abnormal Profile 6X, 8X, 14X, 20X	Process Fluid Design Temp. 450 Profile 1	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Profile 6X,8X,14X,20X	Process Fluid Design Pressure 1350 psig Profile 1	2	4	Design Specification	None
	RELATIVE HUMIDITY (%)	40 Max Normal 90 Max Abnormal Profile 4	100 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.6×10^6	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Steve Ruegsegger (Prod. Mgt. Admin) Reviewed By: Dennis A. Armstrong 8/16/83

DOCUMENTATION REFERENCES

1. WNP-2 SRH Equipment List dated 10/05/82.
2. FSAR Paragraph 3.11.
3. EDS Study 0740-004-548H.
4. QID 361701 (Burns and Roe Design Spec. 2808-41A).
5. QID 361704 (SWEC Subcomponent Data Sheet, SDS-41A-361704-1).

NOTES

Qualified.

1.

System	Tag No.	El.	Column	Function
Reactor Water Cleanup	RWCU-V-4	538	M.7/5.0	Containment Iso.
Reactor Water Cleanup	RWCU-V-40	515	K.0/4.3	Return to RFW Line
Reactor Core Isolation Cooling	RCIC-V-13	548	M.3/5.5	Pump Disch. Cont. Isol.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID 361712
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A
MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM See Note 1 TAG NUMBER RCIC-V-68 RCC-V-5, 21 MANUFACTURER Velan Valve Corp. MODEL NUMBER P2-3311-N-11 COMPONENT Valve FUNCTION/SERVICE See Note 1 LOCATION: BLDG R ELEVATION See Note 1 COLUMN	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4, 6X.	Process Fluid Design Temp. 150 Profile 4, 6X	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.1×10^7	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Steve Swisher (Nuc. Mech. Engr.)

Reviewed By: Dennis A. Stemberg 8/16/83

DOCUMENTATION REFERENCES

1. WNP-2 SRH Equipment List dated 10/05/82.
2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0.
3. EDS Report No. 01-0740-1152.
4. QID 361701 (Burns and Roe Design Spec. 2808-41A).
5. QID 361712 (SWEC Subcomponent Data Sheet, SDS-41A-361712-1).

NOTES

Qualified.

1.

System	Tag No.	El.	Column	Function
Reactor Core Isolation Cooling	RCIC-V-68	474	J.1/7.5	Turbine Exh. to Supp. Pool
Closed Cooling Water	RCC-V-5	514	K.3/4.1	Primary Cont. Outlet
Closed Cooling Water	RCC-V-21	514	K.3/4.1	Primary Cont. Inlet

WP-1881

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID 361714
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Core Isolation Cooling TAG NUMBER RCIC-V-64 MANUFACTURER Velan Valve Corp. MODEL NUMBER P2-3311-N-14 COMPONENT Valve FUNCTION/SERVICE RHR Steam Condensing Mode Steam Supply Cont. Isol. Valve LOCATION: BLDG R ELEVATION 548 COLUMN H.1/4.3	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4, 17X	Process Fluid Design Temp. 575 Profile 4, 17X	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 normal Profile 17X	Profile 17X	2	4	Design Specification	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.1×10^7	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER (Revised Mailing) Reviewed By: Dennis A. Adamson 8/16/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 361701 (Burns and Roe Design Spec. 2808-41A). 5. QID 361714 (SWEC Subcomponent Data Sheet, SDS-41A-361714-2).	Qualified.

WA-1661

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361710
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM See Note 1 TAG NUMBER FPC-V- RCIC-V-] See Note 1 MANUFACTURER Velan Valve Corp. MODEL NUMBER P2-3311-N-9 COMPONENT Valve FUNCTION/SERVICE See Note 1 LOCATION: BLDG R ELEVATION COLUMN See Note 1	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4, 1X	212 Profile 4, 1X	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal Profile 1X	Process Fluid Design Press. 125 psig Profile 1X	2	4	Design Specification	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	8.6×10^6	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Steve Ellessee (Env. Qual. Admin.) Reviewed By: Dennis Armstrong 8/16/83

DOCUMENTATION REFERENCES

1. WNP-2 SRM Equipment List dated 10/05/82.
2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0.
3. EDS Report No. 01-0740-1152.
4. QID 361701 (Burns and Roe Design Spec. 2808-41A).
5. QID 361710 (SWEC Subcomponent Data Sheet, SDS-41A-361710-1).

NOTES

Qualified.

1.

System	Tag No.	El.	Column	Function
Fuel Pool Cooling	FPC-V-153	448	J.9/8.0	Suppression Pool Suction and Return
Fuel Pool Cooling	-154	441	K/8.3	" " " "
Fuel Pool Cooling	-156	466	K.2/8.2	" " " "
Reactor Core Isolation Cooling	RCIC-V-31	452	H.8/7	Suppression Pool Isolation

WP-1981

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361702
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Core Isolation Cooling TAG NUMBER RCIC-V-8 MANUFACTURER Velan Valve Corp. MODEL NUMBER P2-3311-N-2 COMPONENT Valve FUNCTION/SERVICE Turbine Steam Supply Containment Isolation LOCATION: BLDG R ELEVATION 512 COLUMN J.1/5.0	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4, 6X	Process Fluid Design Temp. 575 Profile 4, 6X	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal Profile 4, 6X	Process Fluid Design Press. 1850 psig Profile 4, 6X	2	4	Design Specification	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	7.4×10^6	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Stone & Webster (R.W.L. M.P.A.Norris) Reviewed By: Dennis A. Armstrong 8/16/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 361701 (Burns & Roe Design Spec. 2808-41A). 5. QID 361702 (SWEC Subcomponent Data Sheet, SDS-41A-361702-1).	Qualified.

WP-1001

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361725
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-V-16A, -16B, -17A, -17B MANUFACTURER Velan Valve Corp. MODEL NUMBER P2-3313-N-35 COMPONENT Valve FUNCTION/SERVICE Drywell Spray Header LOCATION: BLDG R ELEVATION See Note 1 COLUMN	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4, 17X	Process Fluid Design Temp. 212 Profile 4, 17X	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal Profile 17X	Profile 17X	2	4	Design Specification	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.3×10^7	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Steve Ellerbee (Burns & Roe) Reviewed By: 8/16/83

DOCUMENTATION REFERENCES

1. WNP-2 SRM Equipment List dated 10/05/82.
2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0.
3. EDS Report No. 01-0740-1152.
4. QID 361701 (Burns & Roe Design Spec. 2808-41A).
5. QID 361725 (SWEC Subcomponent Data Sheet, SDS-41A-361725-1).

NOTES

Qualified.

1.

Tag No.	Elev.	Column
RHR-V-16A	550	L.0/4.5
-17A	550	L.1/4.5
-16B	513	K.1/7.9
-17B	508	K.0/8.3

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361715
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Low Pressure Core Spray TAG NUMBER LPCS-V-5 MANUFACTURER Velan Valve Corp. MODEL NUMBER P2-3311-N-15 COMPONENT VALVE FUNCTION/SERVICE Reactor Vessel Injection Line LOCATION: BLDG R ELEVATION 525 COLUMN H.0/4.5	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4, 13X	Process Fluid Design Temp. 575 Profile 4, 13X	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal Profile 13X	Process Fluid Design Press. 1250 psig Profile 13X	2	4	Design Specification	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.2×10^7	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER (Mrs. W. R. Adams)

Reviewed By: [signature] 8/16/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRH Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 361701 (Burns & Roe Design Spec. 2808-41A). 5. QID 361715 (SWEC Subcomponent Data Sheet, SDS-41A-361715-1).	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID 361736

EQUIPMENT QUALIFICATION REPORT

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OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM See Note 1 TAG NUMBER See Note 1 MANUFACTURER Velan Valve Corp. MODEL NUMBER P2-3313-N-40 COMPONENT Valve FUNCTION/SERVICE See Note 1 LOCATION: BLDG R ELEVATION COLUMN See Note 1	OPERATING TIME	4,320 Hours	4,320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4, 1X, 16X	Process Fluid Design Temp. 212 Profile 4, 1X, 16X	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal Profile 1X, 16X	Process Fluid Design Press. 100 psig Profile 1X, 16X	2	4	Design Specification	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.3×10^7	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None
	ACCURACY						

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Steve Lancaster (Env. Qual. Admin.)

Reviewed By: Dennis Williams 8/15/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List, dated 10/5/82. 2. FSAR, Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 361701 (Burns & Roe Design Specification 2808-41A). 5. QID 361736 (SMEC Subcomponent Data Sheet, SDS-41A-361736-1).	See Page 2.

WP-1681

DOCUMENTATION REFERENCES (Cont'd)

NOTES (Cont'd)

Qualified.

1. Location:

System	Tag No.	Elevation	Column	Function
Residual Heat Removal	RHR-V-3A	544	J.9/8.5	Hx A Outlet Isolation
" " "	RHR-V-3B	557	M.1/8.4	Hx B Outlet Isolation
" " "	RHR-V-4A	447	L.0/8.8	Suppr. Pool Loop A Supply
" " "	RHR-V-4B	522	L.2/8.3	Suppr. Pool Loop B Supply
" " "	RHR-V-4C	449	J.0/4.2	Suppr. Pool Loop C Supply
" " "	RHR-V-6A	435	K.3/8.2	RHR Pump A Inlet Block
" " "	RHR-V-6B	434	L.0/8.3	RHR Pump B Inlet
" " "	RHR-V-47A	575	J.7/8.7	RHR Hx Inlet Isolation
" " "	RHR-V-47B	576	M.3/8.4	RHR Hx Inlet Isolation
Low Pressure Core Spray	LPCS-V-1	450	K.0/4.7	Suppression Pool Isolation

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361711
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-V-27A -27B MANUFACTURER Velan Valve Corp. MODEL NUMBER P2-3311-N-10 COMPONENT Valve FUNCTION/SERVICE Loop A & B to Supp. Pool Spray LOCATION: BLDG R ELEVATION 495 COLUMN R.3/4.1, H.1/7.7	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Process Fluid Design Temp. 358 Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	8.6×10^6	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Stone & Webster (Richland) Reviewed By: Dennis Atkinson 8/16/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRH Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152 4. QID 361701 (Burns and Roe Design Spec. 2808-41A). 5. QID 361711 (SWEC Subcomponent Data Sheet, SDS-41A-361711-1).	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID 361726
OWNER: WPPSS
FACILITY: WNP 2
SPEC: 2808-41A

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-V-42A, 42B, 42C MANUFACTURER Velan Valve Corp. MODEL NUMBER P2-3311-N-36 COMPONENT Valve FUNCTION/SERVICE Outboard Return to RPV LOCATION: BLDG R ELEVATION See Note 1 COLUMN	OPERATING TIME	4,320 Hours	4,320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4, 9X, 20X	Process Fluid Design Temp. 575 Profile 4, 9X, 20X	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal Profile 9X, 20X	Process Fluid Design Press. 1,250 psig Profile 9X, 20X	2	4	Design Specifications	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100 Profile 4	2	4	Design Specifications	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.2×10^7	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Stone & Webster (Rev.) m.l. Adams

Reviewed By: Dennis C. Armstrong 8/16/83

DOCUMENTATION REFERENCES

1. WNP-2 SRM Equipment List dated 10/05/82.
2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0.
3. EDS Report No. 01-0740-1152.
4. QID 361701 (Burns & Roe Design Specification 2808-41A).
5. QID 361726 (SWEC Subcomponent Data Sheet SDS-41A-361726-1).

NOTES

Qualified

1. Location:

Tag No.	Elevation	Column
RHR-V-42A	527	J.0/5.8
RHR-V-42B	525	N.0/5.6
RHR-V-42C	527	J.0/6.0

WPA-1001

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361735
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A
MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-V-68A, 68B MANUFACTURER Velan Valve Corp. MODEL NUMBER P2-3313-N-39 COMPONENT Valve FUNCTION/SERVICE RHR Hx SW Isol. LOCATION: BLDG R ELEVATION See Note 1 COLUMN	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4, 16X	Process Fluid Design Temp. 150 Profile 4, 16X	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal Profile 16X	Profile 16X	2	4	Design Specification	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.3×10^7	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Stone & Webster (Rev.) W.A. Johnson

Reviewed By: W.A. Johnson 8/16/83

DOCUMENTATION REFERENCES

1. WNP-2 SRM Equipment List dated 10/05/82.
2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0.
3. EDS Report No. 01-0740-1152.
4. QID 361701 (Burns & Roe Design Spec. 2808-41A).
5. QID 361735 (SWEC Subcomponent Data Sheet, SDS-41A-361735-1).

NOTES

Qualified.

1.

Tag No.	Elev.	Column
RHR-V-68A	551	M.7/9.3
RHR-V-68B	553	M.9/9.3

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361731

EQUIPMENT QUALIFICATION REPORT

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OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-V-115, -116 MANUFACTURER Velan Valve Corp. MODEL NUMBER P2-3313-N-31 COMPONENT Valve FUNCTION/SERVICE From SW LOCATION: BLDG R ELEVATION 553 COLUMN N.0/9.0, 9.1	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4, 16X	Process Fluid Design Temp. 150°F Profile 4, 16X	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal Profile 16X	Profile 16X	2	4	Design Specification	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.2×10^7	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER (Rev. 1, 2, & 3 Mainline) Reviewed By: [signature] 8/18/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRH Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 361701 (Burns & Roe Design Spec. 2808-41A). 5. QID 361731 (SWEC Subcomponent Data Sheet, SDS-41A-361731-1).	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361708
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM See Note 1 TAG NUMBER CAC-V RHR-V)See Note 1 MANUFACTURER Velan Valve Corp. MODEL NUMBER P2-3311-N-7 COMPONENT Valve FUNCTION/SERVICE See Note 1 LOCATION: BLDG R ELEVATION COLUMN See Note 1	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 14X, 16X, 20X	Process Fluid Design Temp. 340 Profile 14X, 16X, 20X	2	4	Design Specification	None.
	PRESSURE (PSIA)	14.7 Normal Profile 14X, 16X	Profile 14X, 16X	2	4	Design Specification	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	7.4×10^6	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER (Rev. 2, 4.8.Admin) Reviewed By: Dennis Hamilton 8/16/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 361701 (Burns and Roe Design Spec. 2808-41A). 5. QID 361708 (SWEC Subcomponent Data Sheet, SDS-41A-361708-1).	Qualified. 1. See Page 2 of 2.

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DOCUMENTATION REFERENCES (Cont'd)

NOTES (Cont'd)

1.

System	Tag No.	El.	Column	Function
Containment Atmosphere Control	CAC-V-2	560	L.2/7.1	CAC Line to X-96
" "	-4	491	H.9/8.7	CAC Line to X-102
" "	-6	574	L.7/5.5	CAC Line from X-99
" "	-8	492	H.7/4.7	CAC Line from X-105
" "	-11	558	H.4/6.4	CAC Line to X-98
" "	-13	495	N.4/6.0	CAC Line to X-103
" "	-15	564	J.6/6.8	CAC Line from X-97
" "	-17	496	J.0/7.4	CAC Line from X-104
Residual Heat Removal	RHR-V-11A	474	K.2/8.1	RHR Hx A Drain
" " "	-11B	474	L.8/8.1	RHR Hx A Drain
" " "	-49	552	H.7/8.4	Loop B to Floor Drain Tank
" " "	-26A	475	K.5/8.2	HxA Outlet
" " "	-26B	473	L.2/8.1	HxB Outlet

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

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QID #361701
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS-V-19 MANUFACTURER Velan Valve Corp. MODEL NUMBER P2-3311-N-1 COMPONENT Valve FUNCTION/SERVICE Drain Block LOCATION: BLDG R ELEVATION 504 COLUMN H.3/6.0	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	125 Max. Normal 140 Max. Abnormal Profile 3, 4	Process Fluid Design Temp. 575 Profile 3, 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	50 Max. Normal 98 Max. Abnormal Profile 3, 4	100 Profile 3, 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	4.4×10^7	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Steve Rupersberger (Rev. 1) Reviewed By: Dennis Armstrong 6/25/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 361701 (Burns & Roe Design Spec. 2808-41A). 5. QID 361701 (SWEC Subcomponent Data Sheet, SDS-41A-361701-1).	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID 361732
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal Reactor Feedwater TAG NUMBER RHR-V-8 RFW-V-65A, 65B MANUFACTURER Velan Valve Corp. MODEL NUMBER P2-3313-N-33 COMPONENT Valve FUNCTION/SERVICE See Note 1 LOCATION: BLDG R ELEVATION COLUMN See Note 1	OPERATING TIME	4,320 Hours	4,320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	125 Max. Normal 140 Max. Abnormal Profile 4, 3	Process Fluid Design Temp. 575 Profile 4, 3	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	50 Max. Normal 98 Max.Abnormal Profile 4, 3	100 Profile 4, 3	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.3×10^7	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Steve Quester/W. P. Quinn (Rev. 1) Reviewed By: Dennis Armstrong 6/25/83

DOCUMENTATION REFERENCES

1. WNP-2 SRM Equipment List dated 10/05/82.
2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0.
3. EDS Report No. 01-0740-1152.
4. QID 361701 (Burns & Roe Design Specification 2808-41A).
5. QID 361732 (SWEC Subcomponent Data Sheet SDS-41A-361732-1).

NOTES

Qualified

1. Location:

Tag No.	Elevation	Column	Function
RHR-V-8	504	H.9/7.3	Shutdown Cooling Supply
RFW-V-65A	501	H.4/5.7	RFW Inlet to RPV
RFW-V-65B	512	H.3/6	RFW Inlet to RPV

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361702
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM See Note 1 TAG NUMBER See Note 1 MANUFACTURER Velan Valve Corp. MODEL NUMBER P2-3311-N-1 COMPONENT Valve FUNCTION/SERVICE See Note 1 LOCATION: BLDG C ELEVATION See Note 1 COLUMN	OPERATING TIME	4320 Hours	4320 Hours	1	3	Design Specification	None
	TEMPERATURE (F)	135 Normal 150 Abnormal Profile 1	Process Fluid Design Temp. 575 Profile 1	2	3	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Profile 1	Process Fluid Design Pressure 1350 psig Profile 1	2	3	Design Specification	None
	RELATIVE HUMIDITY (2)	55 Normal 90 Abnormal Profile 2	100 Profile 2	2	3	Design Specification	None
	CHEMICAL SPRAY	Demineralized Water	Demineralized Water	2	5	Analysis	None
	RADIATION (RAD)	7.0×10^7	9.1×10^8	2	4	Analysis	None
	AGING	40 Years	40 Years	2	3	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER

Reviewed By: M. P. Mancini

DOCUMENTATION REFERENCES

1. WNP-2 SRM Equipment List dated 10/05/82.
2. FSAR Paragraph 3.11.
3. QID 361701 (Burns and Roe Design Spec. 2808-41A).
4. QID 361702 (SWEC Subcomponent Data Sheet, SDS-41A-361702-1).
5. QID-361702 (SWEC Engineering Analysis Sheet EAS-41A-361702-1)

NOTES

Qualified.

1.

System	Tag No.	El.	Column	Function
Main Steam	MS-V-16	502	Az-360-R36	From Primary Cont.
Reactor Water Cleanup	RWCU-V-100	500	Az-69D-R18	From Recirc. Pump
" " "	RWCU-V-101	514	Az-22D-R18	From RPO Drain
" " "	RWCU-V-106	501	Az-30D	Water From Recirc.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID 361712
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Closed Cooling Water TAG NUMBER RCC-V-40 MANUFACTURER Velan Valve Corp. MODEL NUMBER P2-3311-N-11 COMPONENT Valve FUNCTION/SERVICE RCC Ret. from Primary LOCATION: BLDG C ELEVATION 514 COLUMN 78 DAz R33	OPERATING TIME	4320 Hours	4320 Hours	1	3	Design Specification	None
	TEMPERATURE (F)	135 Normal 150 Abnormal Profile 1	340 Profile 1	2	3	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Profile 1	Process Fluid Design Pressure 150 psig Profile 1	2	3	Design Specification	None
	RELATIVE HUMIDITY (%)	55 Normal 90 Abnormal Profile 2	100 Profile 2	2	3	Design Specification	None
	CHEMICAL SPRAY	Demineralized Water	Demineralized Water	2	5	Analysis	None
	RADIATION (RAD)	7.0×10^7	9.1×10^8	2	4	Analysis	None
	AGING	40 Years	40 Years	2	3	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER

Reviewed By: M.P. Mannion

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRH Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11. 3. QID 361701 (Burns and Roe Design Spec. 2808-41A). 4. QID 361712 (SWEC Subcomponent Data Sheet, SDS-41A-361712-1). 5. QID 361712 (SWEC Engineering Analysis Sheet EAS-41A-361712-1).	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID 361714
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Core Isolation Cooling TAG NUMBER RCIC-V-63 MANUFACTURER Velan Valve MODEL NUMBER P2-3311-N-14 COMPONENT Valve FUNCTION/SERVICE HS to RIR Hx RCIC Turb. LOCATION: BLDG C ELEVATION: 551 COLUMN 130 DAz R19	OPERATING TIME	4320 Hours	4320 Hours	1	3	Design Specification	None
	TEMPERATURE (F)	135 Normal 150 Abnormal Profile 1	Process Fluid Design Temp. 575 Profile 1	2	3	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Profile 1	Process Fluid Design Press. 1337 psig Profile 1	2	3	Design Specification	None
	RELATIVE HUMIDITY (%)	55 Normal 90 Abnormal Profile 2	100 Profile 2	2	3	Design Specification	None
	CHEMICAL SPRAY	Demineralized Water	Demineralized Water	2	5	Analysis	None
	RADIATION (RAD)	7.0×10^7	9.1×10^8	2	4	Analysis	None
	AGING	40 Years	40 Years	2	3	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER

Reviewed By: M. P. Morrison

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11. 3. QID 361701 (Burns and Roe Design Spec. 2808-41A). 4. QID 361714 (SWEC Subcomponent Data Sheet, SDS-41A-361714-1). 5. QID 361714 (SWEC Engineering Analysis Sheet EAS-41A-361714-1)	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361704
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Water Cleanup TAG NUMBER RWCU-V-1 MANUFACTURER Velan Valve Corp. MODEL NUMBER P2-3311-N-4 COMPONENT Valve FUNCTION/SERVICE Inboard Isol. LOCATION: BLDG C ELEVATION 540 COLUMN	OPERATING TIME	4320 Hours	4320 Hours	1	3	Design Specification	None
	TEMPERATURE (F)	135 Normal 150 Abnormal Profile 1	Process Fluid Design Temp. 450 Profile 1	2	3	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Profile 1	Process Fluid Design Pressure 1350 psig Profile 1	2	3	Design Specification	None
	RELATIVE HUMIDITY (%)	55 Normal 90 Abnormal Profile 2	100 Profile 2	2	3	Design Specification	None
	CHEMICAL SPRAY	Demineralized Water	Demineralized Water	2	5	Analysis	None
	RADIATION (RAD)	7.0×10^7	9.1×10^8	2	4	Analysis	None
	AGING	40 Years	40 Years	2	3	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Stone & Webster

Reviewed By: M. L. Robinson

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRH Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11. 3. QID 361701 (Burns & Roe Specification 2808-41A). 4. QID 361704 (SWEC Subcomponent Data Sheet, SDS-41A-361704-1). 5. QID 361704 (SWEC Engineering Analysis Sheet EAS-41A-361704-1).	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID 361732

OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RIIR-V-9 MANUFACTURER Velan Valve corp. MODEL NUMBER P2-3313-N-33 COMPONENT Valve FUNCTION/SERVICE Shutdown Cooling Supply LOCATION: BLDG C ELEVATION 509 COLUMN 120 DAz R27	OPERATING TIME	4,320 Hours	4,320 Hours	1	3	Design Specification	None
	TEMPERATURE (F)	135 Normal 150 Abnormal Profile 1	Process Fluid Design Temp. 575 Profile 1	2	3	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Profile 1	Process Fluid Design Press. 1,250 psig Profile 1	2	3	Design Specification	None
	RELATIVE HUMIDITY (%)	55 Normal 90 Abnormal Profile 2	100 Profile 2	2	3	Design Specification	None
	CHEMICAL SPRAY	Demineralized Water	Demineralized Water	2	5	Analysis	None
	RADIATION (RAD)	7.0×10^7	9.1×10^8	2	4	Analysis	None
	AGING	40 Years	40 Years	2	3	Design Specification	None
	ACCURACY						

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Stone & Webster

Reviewed By: M. L. Adamson

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List, dated 10/05/82. 2. FSAR Paragraph 3.11. 3. QID 361701 (Burns & Roe Design Specification 2808-41A). 4. QID 361732 (SWEC Subcomponent Data Sheet SDS-41A-361732-1). 5. QID 361732 (SWEC Engineering Analysis Sheet EAS-41A-361732-1).	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361718
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-41A

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS*
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Equipment & Floor Drains Radioactive TAG NUMBER EDR-V-19, 20 FDR-V-3, 4 MANUFACTURER Velan Valve Corp. MODEL NUMBER P2-3311-N-21 COMPONENT Valve FUNCTION/SERVICE See Note 1 LOCATION: BLDG R ELEVATION COLUMN See Note 1	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Process Fluid Design Temp. 212 Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.4×10^6	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER

Reviewed By: M. L. Adamson

DOCUMENTATION REFERENCES

1. WNP-2 SRM Equipment List dated 10/05/82.
2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0.
3. EDS Study 0740-004-441C.
4. QID 361701 (Burns & Roe Design Spec. 2808-41A).
5. QID 361718 (SWEC Subcomponent Data Sheet, SDS-41A-361718-1).

NOTES

Qualified.

1.

Tag No.	Elev.	Column	Function
EDR-V-19	467	H.5/4.7	Dry Well Sump
-20	467	H.5/4.7	Dry Well Sump
FDR-V-3	467	H.0/4.1	Cont. Drain to Sump
-4	467	H.0/4.1	Cont. Drain to Sump

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID 018007
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2803-50-41A

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Equipment Drains Radioactive TAG NUMBER EDR-AO-19,20 FDR-AO-3,4 MANUFACTURER Kieley & Mueller Co. MODEL NUMBER 60CSR10SP176 COMPONENT Air Operator FUNCTION/SERVICE Operator for EDR-V-19,20 FDR-V-3,4 LOCATION: BLDG R ELEVATION 467 COLUMN H.5/4.7 H.0/4.1	OPERATING TIME	4,320 Hours	4,320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	150 Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100 Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.4×10^6	5×10^7	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared by: STONE & WEBSTER Reviewed by: [signature]

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List, dated 10/5/82. 2. FSAR Paragraph 3.11 and WPPSS Calculation NE-02-82-14-0. 3. EDS Study 0740-004-441C. 4. QID 361701 (Burns and Roe Design Spec. 2808-41A). 5. QID 018007 (SWEC Subcomponent Data Sheet SDS-41A-018007).	Qualified.

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WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361901
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-213

EQUIPMENT QUALIFICATION REPORT

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Vacuum Breaker TAG NUMBER CVB-V- (See Note 1) MANUFACTURER Anderson Greenwood MODEL NUMBER CVIL-24 COMPONENT Valve FUNCTION/SERVICE Vacuum Relief to Drywell LOCATION: BLDG C ELEVATION See Note 1 COLUMN	OPERATING TIME	4320 Hours	4320 Hours	1	4	Analysis	None
	TEMPERATURE (F)	135 Normal 150 Abnormal Profile 1	Profile 1	2	3	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Profile 1	Profile 1	2	3	Design Specification	None
	RELATIVE HUMIDITY (%)	55 Normal 90 Abnormal Profile 2	Profile 2	2	3	Design Specification	None
	CHEMICAL SPRAY	Demineralized Water	Demineralized Water	2	4	Analysis	None
	RADIATION (RAD)	9.0×10^7	1.0×10^8	2	5	Analysis	None
	AGING	40 Years	40 Years	2	3	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Stone & Webster

Reviewed By: M. D. Adams

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11. 3. QID 361901 (Burns and Roe Design Spec. 2808-213). 4. QID 361901 (SWEC Engineering Analysis Sheet, EAS-213-361901-1A). 5. QID 361901 (SWEC Subcomponent Data Sheet, SDS-213-361901-1A).	Qualified. 1. See Page 2 of 2.

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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

1.

Tag Number	Elev.	Location
CVB-V-1A	492	60 DAz R35
-1B	"	60 DAz R35
-1C	"	27 DAz R35
-1D	"	27 DAz R35
-1E	"	90 DAz R35
-1F	"	90 DAz R35
-1G		153 DAz R35
-1H	"	153 DAz R35
-1J	"	175 DAz R35
-1K	"	175 DAz R35
-1L	"	196 DAz R35
-1M	"	196 DAz R35
-1N	"	260 DAz R35
-1P	"	260 DAz R35
-1Q	"	344 DAz R35
-1R	"	344 DAz R35
-1S	"	281 DAz R35
-1T	"	281 DAz R35

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361901
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-213
MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Supply Purge TAG NUMBER CSP-V-7, 10 CSP-AO-7, 10 MANUFACTURER Anderson Greenwood MODEL NUMBER CVIL-24 COMPONENT Valve FUNCTION/SERVICE Containment Isolation Vacuum Relief LOCATION: BLDG R ELEVATION 475, 491 COLUMN N.5/7.7, 151 DEG. AZ.	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	Maximum Limiting Exposure: 5.0×10^5	1.0×10^6	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER

Reviewed By: M. J. Adams

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-471B. 4. QID 361901 (Burns and Roe Design Spec. 2808-213). 5. QID 361901 (SWEC Subcomponent Data Sheet, SDS-213-361901-1B).	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361901
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-213

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Supply Purge TAG NUMBER CSP-V-8 CSP-AO-8 MANUFACTURER Anderson Greenwood MODEL NUMBER CVIL-24 COMPONENT Valve FUNCTION/SERVICE Containment Isolation Vacuum Relief LOCATION: BLDG R ELEVATION 484 COLUMN Az 0	OPERATING TIME	4320 Hours	4320 Hours	1	5	Analysis	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	4.4×10^7	1.0×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Steve Leicester

Reviewed By: G. L. Adams

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-471J. 4. QID 361901 (Burns and Roe Design Spec. 2808-213). 5. QID 361901 (SWEC Subcomponent Data Sheet, SDS-213-361901-1C).	Qualified.

WP-1961

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #018008
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02B22

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS-AO- (See Note 1) MANUFACTURER Crosby Valve & Gage Co. MODEL NUMBER HB-65-BP COMPONENT Air Operator FUNCTION/SERVICE Operate MS-RV- LOCATION: BLDG C ELEVATION COLUMN (See Note 1)	OPERATING TIME	4320 Hours	4320 Hours	1	4	Analysis	None
	TEMPERATURE (F)	135 Normal 150 Abnormal Profile 1	Profile 1	2	5	Test	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Profile 1	Profile 1	2	5	Test	None
	RELATIVE HUMITY (%)	55 Normal 90 Abnormal Profile 2	Saturated Steam	2	5	Test	None
	CHEMICAL SPRAY	Demineralized Water	Demineralized Water	2	4	Analysis	None
	RADIATION (RAD)	3.1×10^7	Note 2	6	4,6	Analysis	None
	AGING	40 Years	40 Years	2	3	Design Specification	None
	ACCURACY						

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Steve Ruenger/M.S. Admire (Acnl)

Reviewed By: [signature] 6/24/83

DOCUMENTATION REFERENCES

1. B&R WNP-2 SRM Equipment List Dwg. E553-2 Rev. 4 dated 1/26/83.
2. FSAR Paragraph 3.11.
3. QID 018008 (GE Design Specification 21A9247).
4. QID 018008 (SWEC Subcomponent Data Sheet, SDS-2B22-018008-2).
5. QID 018008 (GE Qualification Summary Report, QSR-165-A-01).
6. BRWP-RO-83-096, dated 3/28/83.

NOTES

Qualified
1. See Page 2 of 2.
2. Maintenance replacement of Viton seals is required every five years of plant life.

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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

1.

Tag No.	Elev.	Location
MS-AO-13V	547	Az 315 R18
-13S	"	Az 60 R18
-13R	"	Az 75 R22
-13H	"	Az 268 R22
-13P	"	Az 305 R18
-13U	"	Az 80 R22
-13N	"	Az 279 R22

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #018008
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02B22
MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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DATE: 8/1/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER HS-AO- (See Note 1) MANUFACTURER Crosby Valve & Gage Co. MODEL NUMBER HB-65-BP COMPONENT Air Operator FUNCTION/SERVICE Operate HS-RV- LOCATION: BLDG C ELEVATION (See Note 1) COLUMN	OPERATING TIME	24 Hours	4 Days	1	5	Test	None
	TEMPERATURE (°F)	135 Normal 150 Abnormal Profile 1	Profile 1	2	5	Test	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Profile 1	Profile 1	2	5	Test	None
	RELATIVE HUMIDITY (%)	55 Normal 90 Abnormal Profile 2	Saturated Steam	2	5	Test	None
	CHEMICAL SPRAY	Demineralized Water	Demineralized Water	2	4	Analysis	None
	RADIATION (RAD)	3.1×10^7	Note 2	6	4	Analysis	None
	AGING	40 Years	40 Years	2	3	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STEVE QUEISTER / W.P. Robinson (Rev 2)

Reviewed By: Dennis A. Armstrong 8/1/83

DOCUMENTATION REFERENCES

1. WNP-2 SRM Equipment List dated 10/05/82.
2. FSAR Paragraph 3.11
3. QID 018008 (GE Design Specification 21A9247).
4. QID 018008 (SWEC Subcomponent Data Sheet, SDS-2B22-018008-1).
5. QID 018008 (GE Qualification Summary Report, QSR-165-A-01).
6. Burns and Roe Letter, BRWP-RO-83-096, 3/28/83.

NOTES

Qualified.

1. See Page 2 of 2.
2. Maintenance replacement of Viton seals is required every five years of plant life.

WPA-1081

DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

1.

Tag No.	Elev.	Location
MS-AO-13A	547	Az 35 R18
-13B	"	Az 45 R18
-13J	"	Az 24 R18
-13E	"	Az 45 R22
-13L	"	Az 313 R22
-13K	"	Az 333 R18
-13F	"	Az 60 R22
-13D	"	Az 305 R22
-13C	"	Az 321 R18
-13H	"	Az 67 R22
-13G	"	Az 293 R22

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #297009
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02B22

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

Pkg. 15

REVISION: 0
DATE: 01/14/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Main Steam TAG NUMBER MS-RV- (See Note 1) MANUFACTURER Crosby Valve & Gage Co. MODEL NUMBER 6R10 HB-65-BP COMPONENT Relief Valve FUNCTION/SERVICE MS Safety Relief LOCATION: BLDG C ELEVATION See Note 1 COLUMN	OPERATING TIME	4320 Hours	4320 Hours	1	3	Design Specification	None
	TEMPERATURE (F)	135 Normal 150 Abnormal Profile 1	Process Fluid 575	2	3	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Profile 1	Profile 1	2	3	Design Specification	None
	RELATIVE HUMIDITY (%)	55 Normal 90 Abnormal Profile 2	Profile 2	2	3	Design Specification	None
	CHEMICAL SPRAY	Demineralized Water	Demineralized Water	2	4	Analysis	None
	RADIATION (RAD)	7.0×10^7	1.0×10^8	2	5	Analysis	None
	AGING	40 Years	40 Years	2	3	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER

Reviewed By: M. P. Alvin

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11. 3. QID 297009 (GE Design Spec. 21A9247). 4. QID 297009 (SWEC Engineering Analysis Sheet, EAS-2B22-297009-1). 5. QID 297009 (SWEC Subcomponent Data Sheet, SDS-2B22-297009-1).	Qualified. 1. See Page 2.

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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

1.

Tag No.	Elev.	Location
MS-RV-3C	547	Az 293 R22
-3D	"	Az 315 R18
-4A	"	Az 60 R18
-4B	"	Az 75 R22
-4C	"	Az 288 R22
-4D	"	Az 305 R18
-5B	"	Az 86 R22
-5C	"	Az 279 R22
-1A	"	Az 24 R18
-1B	"	Az 45 R22
-1C	"	Az 313 R22
-1D	"	Az 333 R18
-2A	"	Az 35 R18
-2B	"	Az 60 R22
-2C	"	Az 305 R22
-2D	"	Az 321 R18
-3A	"	Az 45 R18
-3B	"	Az 67 R22

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #133002

EQUIPMENT QUALIFICATION REPORT

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OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-42A

MPL:
PPD:

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DATE: 8/15/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal Low Pressure Core Spray TAG NUMBER RHR-FCV-64A, B, C LPCS-FCV-11 MANUFACTURER Fisher Controls MODEL NUMBER SMB-000-5-ES COMPONENT Flow Control Valve FUNCTION/SERVICE Minimum flow to respective pumps LOCATION: BLDG R ELEVATION)See Note 1 COLUMN)	OPERATING TIME	4320 Hours	4320 Hours	1	5	Analysis	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Maximum Limiting Profile 4, 1X	Profile 4, 1X	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal Profile 1X	Profile 1X	2	4	Design Specification Analysis	None
	RELATIVE	40 Max. Normal 90 Max. Abnormal Maximum Limiting Profile 4	Profile 4	2	5	Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	Maximum Limiting Exposure 6.0×10^6	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	5	Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER (Rev. 1 by P.M.)

Reviewed By:

DOCUMENTATION REFERENCES

1. WNP-2 SRM Equipment List dated 10/05/82.
2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0.
3. EDS Report No. 01-0740-1152.
4. QID 133002 (Burns and Roe Design Specification 2808-42).
5. QID 133002 (SWEC Subcomponent Data Sheet SDS-42A-133002-1).

NOTES

Qualified

1.

Tag No.	Elevation	Column
RHR-FCV-64A	443	K.0/9.1
-64B	443	M.0/9.1
-64C	443	J.0/4.9
LPCS-FCV-11	423	K.1/3.5

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WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #133001
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-42A

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Atmosphere Control TAG NUMBER (See Note 1) MANUFACTURER Fisher Controls MODEL NUMBER AH-91-ES COMPONENT Flow Control Valve FUNCTION/SERVICE (EHO) Flow Control LOCATION: BLDG R ELEVATION COLUMN) See Note 1	OPERATING TIME	4320 Hours	4320 Hours	1	5	Analysis	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4, 14X, 20X	Profile 4, 14X, 20X	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal Profile 14X, 20X	Profile 14X, 20X	2			None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	5	Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	Maximum Limiting Exposure 1.7×10^6	1.0×10^{10}	3	5	Analysis	None
	AGING	40 Years	40 Years	2	5	Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER/Ind. Opinion Rev. 1 Reviewed By: [signature] 8/16/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 07400-004-471E. 4. QID 133001 (Burns & Roe Design Specification 2808-42). 5. QID 133001 (SWEC Subcomponent Data Sheet, SDS-42A-133001-1).	Qualified Continued on next page.

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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

1.

Tag No.	Elevation	Column
CAC-FCV-1A	575	H.2/5.2
1B	564	J.6/6.7
2A	560	H.1/7.7
2B	558	H.5/6.6
3A	495	H.8/4.7
3B	496	J.0/7.4
4A	495	N.4/6.0
4B	495	N.4/6.0

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID 361931
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-42A

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-V-87A, 87B MANUFACTURER Fisher Controls Co. MODEL NUMBER SMB-00-10-EWP COMPONENT Globe Valve, 8" FUNCTION/SERVICE RCIC Steam Condensing LOCATION: BLDG R ELEVATION 574, 575 COLUMN H.8/8.7, H.8/9.0	OPERATING TIME	4320 Hours	4320 Hours	1	5	Analysis	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	5	Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.2×10^7	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	5	Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: M. S. Robinson

Reviewed By: [signature] 6/15/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 6/10/83. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-572L. 4. QID 361931 (Burns & Roe Design Specification 3808-42). 5. QID 361931 (SHEC Subcomponent Data Sheet, SDS-42A-361931-1).	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

Pkg. 17

QID #361931
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-42A

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-V-52A -52B MANUFACTURER Fisher Controls MODEL NUMBER SNB-00-10-EWP COMPONENT Valve FUNCTION/SERVICE RCIC Steam to RHR Hx LOCATION: BLDG R ELEVATION 574, 575 COLUMN H.8/8.7, N.0/9.2	OPERATING TIME	4320 Hours	4320 Hours	1	5	Analysis	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	5	Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.0×10^7	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	5	Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Stone & Webster

Reviewed By:

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152 4. QID 361931 (Burns & Roe Design Specification 2808-42) 5. QID 361931 (SWEC Subcomponent Data Sheet, SDS-42A-361931-1)	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #236004
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-42A

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-PCV-51A -51B MANUFACTURER Fisher Controls MODEL NUMBER 667-EHP COMPONENT Pressure Control Valve FUNCTION/SERVICE PIC Sonic Flow Specialty LOCATION: BLDG R ELEVATION 578, 575 COLUMN J/9.3, H.8/9.3	OPERATING TIME	4320 Hours	4320 Hours	1	5	Analysis	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	5	Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.0×10^7	5.0×10^7	3	5	Analysis	None
	AGING	40 Years	40 Years	2	5	Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Stone & Webster

Reviewed By: [signature]

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRH Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 193001 (Burns and Roe Design Spec. 2808-42). 5. QID 236004 (SWEC Subcomponent Data Sheet, SDS-42A-236004-1).	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #133005
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-71

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Atmosphere Control TAG NUMBER CAC-FCV-6A, 6B -5A, 5B MANUFACTURER Crane Co. MODEL NUMBER 49, 50, 47, 48 COMPONENT Flow Control Valve FUNCTION/SERVICE Recirc. Flow LOCATION: BLDG R ELEVATION 572,573 COLUMN H.5/6.6, H.5/7.4 H.6/6.4, H.6/7.5	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	N/A
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.0×10^6	1.5×10^6	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL? YES NO

Prepared By: Steve Lorraster

Reviewed By: M. L. Atkinson

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-572 F. 4. QID 133005 (Air Products and Chemicals Design Specification 4-1371-1200-13A&14A). 5. QID 133005 (SWEC Subcomponent Data Sheet, SDS-71-133005-1).	Qualified

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #335002
OWNER: WPPSS
FACILITY: WNP 2
SPEC: 2808-71
MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Atmosphere Control TAG NUMBER CAC-TCV-4A, 4B MANUFACTURER Crane Co. MODEL NUMBER 46 COMPONENT Temperature Control Valve FUNCTION/SERVICE SW Inlet LOCATION: BLDG R ELEVATION 572, 573 COLUMN M.6/6.4, 7.5	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.0×10^6	1.5×10^6	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Steve L Ulleter

Reviewed By: M. L. Munin

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-572 F. 4. QID 335002 (Air Products and Chemicals Design Specification 4-1371-1200-12A). 5. QID 335002 (SWEC Subcomponent Data Sheet SDS-71-335002-1).	Qualified

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #018001
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-68
MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

Pkg. 19

REVISION: 1
DATE: 8/15/83

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM See Note 2 TAG NUMBER See Note 2 MANUFACTURER Miller Fluid Power MODEL NUMBER A83B COMPONENT Air Operator FUNCTION/SERVICE See Note 2 LOCATION: BLDG R ELEVATION COLUMN See Note 2	OPERATING TIME	4320 Hours	4320 Hours	1	4	Analysis	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4, 20X	Profile 4, 20X	2	4	Analysis	None
	PRESSURE (PSIA)	14.7 Normal Profile 20X	Profile 20X	2	4	Analysis	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	4	Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A.	None
	RADIATION (RAD)	Maximum Limiting Exposure: 4.4×10^7	Note 1	3	4	Analysis	None
	AGING	40 Years	40 Years	2	4	Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STEVE WEBSTER (Rev 1, 8/15/83) Reviewed By: Dennis Armstrong 8/16/83

DOCUMENTATION REFERENCES

1. WNP-2 SRM Equipment List dated 10/05/82.
2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0.
3. EDS Study 0740-004-471J.
4. QID 018001 (SWEC Subcomponent Data Sheet, SDS-68-018001-1A).

NOTES

Qualified.

1. Subcomponents susceptible to radiation damage are not required for the actuator to perform its safety function.
2. See Page 2 of 2.

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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

2.

System	EPN No.	Elev.	Column	Function
Containment Supply Purge	CSP-AO-1	508	N.0/7.7	Valve Operator
" " "	-2	508	N.0/7.7	" "
" " "	-3	478	M.6/7.6	" "
" " "	-4	478	M.6/7.6	" "
Containment Exhaust Purge	CEP-AO-1A	558	J.4/5.3	" "
" " "	-2A	560	J.4/5.3	" "
" " "	-3A	495	H.5/5.4	" "
" " "	-4A	498	H.5/5.7	" "
Reactor Bldg. Exhaust Air (HVAC)	REA-AO-1	597	H.2/6.2	" "
Reactor Bldg. Exhaus Air (HVAC)	-2	597	H.4/6.2	" "
Reactor Bldg. Outside Air (HVAC)	ROA-AO-1	572	D.0/4.0	" "
Reactor Bldg. Outside Air (HVAC)	-2	572	D.0/4.0	" "

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #018001
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-68

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	PARAMETER	ENVIRONMENT FSAR	ENVIRONMENT QUALIFICATION	DOCUMENT REF. FSAR	DOCUMENT REF. QUAL.	QUALIFICATION METHOD	OUTSTANDING ITEMS
SYSTEM Containment Supply Purge TAG NUMBER CSP-AO-9 MANUFACTURER Hiller Fluid Power MODEL NUMBER AU3B COMPONENT Air Operator FUNCTION/SERVICE Operator for CSP-V-9 LOCATION: BLDG R ELEVATION 490 COLUMN M.9/5.1	OPERATING TIME	4320 Hours	4320 Hours	1	4	Analysis	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Profile 4	2	4	Analysis	None
	PRESSURE (PSIA)	14.7 Normal	N/A	2	N/A	N/A	None
	RELATIVE HUMITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	4	Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.6×10^5	2×10^5	3	4,5	Analysis	None
	AGING	40 Years	40 Years	2	4	Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: [signature]

Reviewed By: [signature] 6/23/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-471B (Letter BRWP-RO-83-85). 4. QID 018001 (SWEC Subcomponent Data Sheet, SDS-68-018001-1C). 5. Calculation QID 018001-1.	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #018001
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-68

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Supply Purge TAG NUMBER CSP-A0-6 MANUFACTURER Hiller Fluid Power MODEL NUMBER A838 COMPONENT Air Operator FUNCTION/SERVICE Operator for CSP-V-6 LOCATION: BLDG R ELEVATION 480 COLUMN N.5/7.7	OPERATING TIME	4320 Hours	4320 Hours	1	4	Analysis	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Profile 4	2	4	Analysis	None
	PRESSURE (PSIA)	14.7 Normal	N/A	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	4	Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	9.4×10^4	2×10^5	3	4,5	Analysis	None
	AGING	40 Years	40 Years	2	4	Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER

Reviewed By:

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRH Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-471J (Letter BRWP-RO-83-85). 4. QID 018001 (SWEC Subcomponent Data Sheet, SDS-68-018001-1C). 5. Calculation QID 018001-1.	Qualified

WP-1081

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #018001
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-68

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Supply Purge TAG NUMBER CSP-AO-5 MANUFACTURER Hiller Fluid Power MODEL NUMBER A 83B COMPONENT Air Operator FUNCTION/SERVICE Operator for CSP-V-5 LOCATION: BLDG R ELEVATION 475 COLUMN M.7/8.3	OPERATING TIME	4320 Hours	4320 Hours	1	4	Analysis	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Profile 4	2	4	Analysis	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	4	Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	7.1×10^6	8.77×10^6	3	4	Analysis	None
	AGING	40 Years	40 Years	2	4	Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER

Reviewed By: M. P. Robinson

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-471D. 4. QID 018001 (SWEC Subcomponent Data Sheet, SDS-68-018001-1B).	Qualified.

WP-1061

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #018003
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-68

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Supply Purge TAG NUMBER CSP-AO-7 MANUFACTURER Milwaukee Cylinder MODEL NUMBER B-4544 COMPONENT Air Operator FUNCTION/SERVICE Operator for CSP-V-7 LOCATION: BLDG R ELEVATION 475 COLUMN N.5/7.7	OPERATING TIME	4320 Hours	Note 1	1			None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Note 1	2			None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal	Note 1	2			None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	7.1×10^4	Note 1	3			None
	AGING	40 Years	Note 1	2			None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER

Reviewed By: W. A. Williams

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-471D.	Qualified. 1. Air operator is qualified as a subcomponent of CSP-V-7 (QID 361901).

WA-1881

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #018003
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-68

MPL:
PPD:

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	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Supply Purge TAG NUMBER CSP-A0-8 MANUFACTURER Milwaukee Cylinder MODEL NUMBER B-4544 COMPONENT Operator FUNCTION/SERVICE CSP-V-8 LOCATION: BLDG R ELEVATION 484 COLUMN 0 DEG Az	OPERATING TIME	4320 Hours	Note 1	1			None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Note 1	2			None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Note 1	2			None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	4.4×10^7	Note 1	3			None
	AGING	40 Years	Note 1	2			None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: S Tous Forester

Reviewed By: M. Johnson

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-471J.	Qualified. 1. Air operator is qualified as a subcomponent of CSP-V-8 (QID 361901).

WP-1001

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #018001
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-68

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Supply Purge TAG NUMBER CSP-A0-10 MANUFACTURER Milwaukee Cylinder MODEL NUMBER B-4544 COMPONENT Air Operator FUNCTION/SERVICE Operator for CSP-V-10 LOCATION: BLDG R ELEVATION 490 COLUMN H.9/5.1	OPERATING TIME	4320 Hours	Note 1	1			None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Note 1	2			None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Note 1	2			None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	5.0×10^5	Note 1	3			None
	AGING	40 Years	Note 1	2			None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Steve Rubottom

Reviewed By: W. P. Adams

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-471B.	Qualified. 1. Air operator is qualified as a subcomponent of CSP-V-10 (QID 361901).

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M-03

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #018009
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-68

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Standby Gas Treatment TAG NUMBER SGT-A0-2A, -2B MANUFACTURER Hiller Fluid Power MODEL NUMBER A 50B COMPONENT Air Operator FUNCTION/SERVICE SGT-V-2A, -2B LOCATION: BLDG R ELEVATION 580 COLUMN H.6/5.3	OPERATING TIME	4320 Hours	4320 Hours	1	4	Analysis	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Profile 4	2	4	Analysis	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	4	Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.1×10^6	Note 1	3	4	Analysis	None
	AGING	40 Years	40 Years	2	4	Analysis	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Stone & Webster

Reviewed By: [illegible]

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRH Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Report 010740-1157 4. QID 018009 (SWEC Subcomponent Data Sheet, SDS-68-018009-1).	Qualified. 1. Subcomponents susceptible to radiation damage are not required for the actuator to perform its safety function.

WA-1001

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID 233006
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-35A

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM High, Low Pressure Core Spray; Residual Heat Removal TAG NUMBER HPCS-P-3 LPCS-P-2 RHR-P-3 MANUFACTURER Crane-Deming Pump MODEL NUMBER 3065-1055 COMPONENT Pump FUNCTION/SERVICE Water legs for HPCS, LPCS and RHR Systems LOCATION: BLDG R ELEVATION 423 COLUMN L.6/3.5, J.7/3.6 H.3/4.7	OPERATING TIME	4,320 Hours	4,320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4, 2X	Profile 4, 2X	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal Profile 2X	Profile 2X	2	4	Design Specification	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	90% Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.3×10^7	2.3×10^7	3	5	Engineering Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Stone Rwebster (Rev) 8/16/83

Reviewed By: Dennis A. Hunting 8/16/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List, dated 10/5/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 233006 (Burns & Roe Design Spec. 2808-35A). 5. QID 233006 (SWEC Subcomponent Data Sheet SDS-35A-233006-1).	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #233011
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E12

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-P-2A, B, C MANUFACTURER Ingersoll Rand MODEL NUMBER 29APKD-3 COMPONENT Pumps FUNCTION/SERVICE Loop Hx Supply LOCATION: BLDG R ELEVATION COLUMN	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4, 2X	Profile 4, 2X	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal Profile 2X	Profile 2X	2	4	Design Specification	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100%	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.3×10^7	1.0×10^8	3	5	Engineering Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Stone&Webster (Rowland Johnson) Reviewed By: Dennis Armstrong 8/16/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 233011 (Burns and Roe Design Spec. 2808-2). 5. QID 233011 (SWEC Subcomponent Data Sheet, SDS-2-233011-EA).	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #233011
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E21

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Low Pressure Core Spray TAG NUMBER LPCS-P-1 MANUFACTURER Ingersoll Rand MODEL NUMBER 29APKD-5 COMPONENT Pump FUNCTION/SERVICE Low Pressure Core Spray LOCATION: BLDG R ELEVATION 426 COLUMN K.0/4.0	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	100% Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.3×10^7	1.0×10^8	3	5	Engineering Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Steve Webster

Reviewed By: W. L. Adams

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 233011 (Burns and Roe Design Spec. 2808-2). 5. QID 233011 (SWEC Subcomponent Data Sheet, SDS-2-233011-1A).	Qualified.

WP-1681

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #233008
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02E22

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM High Pressure Core Spray TAG NUMBER HPCS-P-1 MANUFACTURER Ingersoll Rand MODEL NUMBER 12X20KD-8 COMPONENT Pump FUNCTION/SERVICE High Pressure Core Spray LOCATION: BLDG R ELEVATION 423 COLUMN R.3/3.6	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal	100%	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.3×10^7	1.0×10^8	3	5	Engineering Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER

Reviewed By: M. A. Blair

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRH Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 233008 (Burns and Roe Design Spec. 2808-2). 5. QID 233008 (SWEC Subcomponent Data Sheet, SDS-2-223008-1).	Qualified.

wn1981

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361244
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Instrument Air TAG NUMBER CIA-V-30A -308 MANUFACTURER Borg-Warner Co. MODEL NUMBER 82110 COMPONENT Valve FUNCTION/SERVICE N_2 Outer Isolation LOCATION: BLDG R ELEVATION 540 COLUMN H.5/7.6, J.5/4.3	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4, 11X	Profile 4, 11X	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7Normal Profile 11X	Profile 11X	2	4	Design Specification Analysis	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	8.3×10^5	1×10^{10}	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Stone & Webster Engineering Corp. Reviewed By: Dennis M. Armstrong 8/11/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-522H. 4. QID 361244 (Bovee and Crail Spec. 2808-215-Division 15-Section 15F). 5. QID 361244 (SWEC Subcomponent Data Sheet, SDS-215-361244-1).	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361252
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Instrument Air TAG NUMBER CIA-V-20 MANUFACTURER Borg-Warner Co. MODEL NUMBER P304CAB3-001 COMPONENT Valve FUNCTION/SERVICE Outer Isolation LOCATION: BLDG R ELEVATION 540 COLUMN J.5/7.1	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	2.0×10^4	1×10^{10}	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Steve B Wagoner (for J Wilkerson) Reviewed By: Dennis A Armstrong 8/16/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-522K. 4. QID 361252 (Bovee and Crail Spec. 2808-215-Division 15-Section 15F) 5. QID 361252 (SWEC, Subcomponent Data Sheet, SDS-215-361252-1).	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361225
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Standby Service Water TAG NUMBER SW-V-75A SW-V-75B MANUFACTURER Borg-Warner Co. MODEL NUMBER P 76630-2 COMPONENT Valve FUNCTION/SERVICE To Fuel Pool LOCATION: BLDG R ELEVATION 530 COLUMN N.0/9.4 - H.1/9.4	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal - 104 Max. Abnormal Profile 4, 11X	Profile 4, 11X	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	8.3×10^5	1×10^{10}	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Stone & Webster (Pw'r. Supply Division)

Reviewed By: Dennis A. Armstrong 8/16/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRH Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-522H. 4. QID 361225 (Bovee and Crail Spec. 2808-215-Division 15-Section 15F). 5. QID 361225 (SWEC Subcomponent Data Sheet, SDS-215-361225-1).	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361242
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM See Note 1 TAG NUMBER See Note 1 MANUFACTURER Borg-Warner Co. MODEL NUMBER 79020-001 COMPONENT Valve FUNCTION/SERVICE See Note 1 LOCATION: BLDG See Note 1 ELEVATION COLUMN	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4, 1X	Profiles 4, 1X	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal Profile 1X	Profile 1X	2	4	Design Specification	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profiles 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	4.4×10^7	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Stone & Webster (Engineering) Reviewed By: Dennis Armstrong

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-471J. 4. QID 361242 (Bovee and Crail Spec. 3808-215-Division 15-Section 15F). 5. QID 361242 (SWEC Subcomponent Data Sheet, SDS-215-361242-1).	Qualified. See Note 1 attached.

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DOCUMENTATION REFERENCES (Cont'd)

NOTES (Cont'd)

1.

EPN #	Elev.	Column	Loc.	Function
MSLC-V-1A	471	H.5/5.5	R	Vent Bypass
-1B	471	H.5/5.5	R	Vent Bypass
-1C	471	H.5/5.5	R	Vent Bypass
-1D	471	H.5/5.5	R	Vent Bypass
SW-V-24A	446	L.7/8.3	R	RHR Pump Motor
-24B	447	L.7/8.3	R	RHR Pump Motor
-24C	446	H.7/4.3	R	RHR Pump Motor
-44	446	K.9/3.8	R	LPCS Pump Rm. Isol.
-54	450	H.8/3.0	R	SW RTN HPCS Cooling Coil
RRC-V-16A	501	H.4/4.4	R	Pump Surge Inlet
-16B	501	J.0/7.3	R	RRC Pump Seal Purge Inlet

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361243
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215
MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Core Isolation Cooling TAG NUMBER RCIC-V-69, 110, 113 MANUFACTURER Borg-Warner Co. MODEL NUMBER P79360 COMPONENT Valve FUNCTION/SERVICE See Note 1 LOCATION: BLDG R ELEVATION See Note 1 COLUMN	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4, 1X	Profiles 4, 1X	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal Profile 1X	Profile 1X	2	4	Design Specification	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profiles 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	5.6×10^6	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER (Nuclear Licensing) Reviewed By: Dennis A. Kimberling 8/14/83

DOCUMENTATION REFERENCES

1. WNP-2 SRH Equipment List dated 10/05/82.
2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0.
3. EDS Report No. 01-0740-1152.
4. QID 361243 (Bovee and Crail Spec. 2808-215 Division 15 Section 15F).
5. QID 361243 (SWEC Subcomponent Data Sheet, SDS-215-361243-1).

NOTES

Qualified.

1.

EPN #	Elev.	Column	Loc.	Function
RCIC-V-69	465	345 D Az	R	Vlv to Supp
RCIC-V-110	475	J.6/7.4	R	Vac Brkr
RCIC-V-113	475	J.6/7.4	R	Cont Isol..

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361258
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM See Note 1 TAG NUMBER MS-V- HSLC-V-) See Note 1 MANUFACTURER Borg-Warner Co. MODEL NUMBER P 76890-1 COMPONENT Valve FUNCTION/SERVICE See Note 1 LOCATION: BLDG R ELEVATION See Note 1 COLUMN See Note 1	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	125 Max. Normal 140 Max. Abnormal Profile 3, 4	Profile 3, 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	50 Max. Normal 98 Max. Abnormal Profile 3, 4	Profiles 3, 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/R	2	N/A	N/A	None
	RADIATION (RAD)	4.0×10^7	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STEVE RUEGSEGGER/[illegible] (Rev 1) Reviewed By: [illegible]

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 361258 (Bovee & Crail Spec. 2808-215-Division 15-Section 15F). 5. QID 361258 (SWEC Subcomponent Data Sheet SDS-215-361258-1).	Qualified. See Note 1 attached.

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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

1.

EPN #	Elev.	Column	Loc.	Function
HS-V-67A	506	H.8/5.8, 6.4	R	Drain Valve
-67B	"	" "	"	" "
-67C	"	" "	"	" "
-67D	"	" " "	"	" "
HSLC-V-2A	501	H.1, H.6/5.3, 6.4	R	Bypass Valve
-2B	"	"	"	" "
-2C	"	"	"	" "
-2D	"	"	"	" "
-3A	"	"	"	" "
-3B	"	"	"	" "
-3C	"	"	"	" "
-3D	"	"	"	" "
-4	"	"	"	" "
-5	"	"	"	" "
-9	"	"	"	" "
-10	"	"	"	" "

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361254
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-V- (See Note 1) MANUFACTURER Borg-Warner Co. MODEL NUMBER P 304FAB3-001-2 COMPONENT Valve FUNCTION/SERVICE See Note 1 LOCATION: BLDG R ELEVATION See Note 1 COLUMN	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4, 32	Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4, 32	Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	5.6×10^6	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Steve Bennett/Wyle Labs (Rev 1). Reviewed By: [signature] 6/20/83

DOCUMENTATION REFERENCES

1. WNP-2 SRM Equipment List dated 10/05/82.
2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0.
3. EDS Report No. 01-0740-1152.
4. QID 361254 (Bovee and Crail Spec. 2808-215-Division 15-Section 15F).
5. QID 361254 (SWEC Subcomponent Data Sheet SDS-215-361254-1).

NOTES

Qualified.

1.

Tag No.	Elev.	Column	Loc.	Function
RHR-V-73A	572	J.8/9	R	RHR HX Shell Vent
RHR-V-73B	572	J.8/9	R	RHR HX Shell Vent
RHR-V-134A	548	K.1/9.0	R	CAC Tie to RHR
RHR-V-134B	548	L.5/9.2	R	CAC Tie to RHR
RHR-V-74A	572	J.9/9.2	R	Hx A Vent
RHR-V-74B	572	J.9/9.2	R	Hx B Vent

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

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QID #361253
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-V-124A, -124B, -125A, -125B MANUFACTURER Borg-Warner Co. MODEL NUMBER P304EAB3-001 COMPONENT Valve FUNCTION/SERVICE RHR Drip Pot Drain to Pool and LOCATION: BLDG R ELEVATION 472 COLUMN K.8/8.1	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	2.2×10^6	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Steve Webster

Reviewed By:

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRH Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-471F. 4. QID 361253 (Bovee and Crail Spec. 2808-215-Division 15-Section 15F). 5. QID 361253 (SWEC Subcomponent Data Sheet SDS-215-361253-1).	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361248
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Core Isolation Cooling TAG NUMBER RCIC-V-76 MANUFACTURER Borg-Warner Co. MODEL NUMBER 106DAA3-001 COMPONENT Valve FUNCTION/SERVICE RCIC-V-63 Bypass LOCATION: BLDG C ELEVATION 556 COLUMN 120DAz	OPERATING TIME	4320 Hours	4320 Hours	1	3	Design Specification	None
	TEMPERATURE (F)	135 Normal 150 Abnormal Profile 1	Profile 1	2	3	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Profile 1	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	55 Normal 90 Abnormal Profile 2	Profile 2	2	3	Design Specification	None
	CHEMICAL SPRAY	Demineralized Water	Demineralized Water	2	4	Analysis	None
	RADIATION (RAD)	7.0×10^7	9.1×10^8	2	5	Analysis	None
	AGING	40 years	40 years	2	3	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER

Reviewed By: W. L. Adams

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11. 3. QID 361248 (Bovee and Crail Spec. 2808-215-Division 15-Section 15F). 4. QID 361248 (SWEC Engineering Analysis Sheet, EAS-215-361248-1). 5. QID 361248 (SWEC Subcomponent Data Sheet SDS-215-361248-1).	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

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QID #361258
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215

MPL:
PPO:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Residual Heat Removal TAG NUMBER RHR-V-123A, -123B MANUFACTURER Borg-Warner Co. MODEL NUMBER P 76890-2 COMPONENT Valve FUNCTION/SERVICE RHR-V-50 Bypass LOCATION: BLDG C ELEVATION 513, 509 COLUMN 93 DAz R31 270 DAz R27	OPERATING TIME	4320 Hours	4320 Hours	1	3	Design Specification	None
	TEMPERATURE (F)	135 Normal 150 Abnormal Profile 1	Profile 1	2	3	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Profile 1	Profile 1	2	3	Design Specification	None
	RELATIVE HUMIDITY (%)	55 Normal 90 Abnormal Profile 2	Profile 2	2	3	Design Specification	None
	CHEMICAL SPRAY	Demineralized Water	Demineralized Water	2	5	Analysis	None
	RADIATION (RAD)	7.0×10^7	9.1×10^8	2	4	Analysis	None
	AGING	40 years	40 years	2	3	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER

Reviewed By: W. P. Adams

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11. 3. QID 361258 (Bovee & Crail Spec. 2808-215-Division 15-Section 15F). 4. QID 361258 (SWEC Subcomponent Data Sheet SDS-215-361258-1). 5. QID 361258 (SWEC Engineering Analysis Sheet EAS-215-361258-1).	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361231
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-215
MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Core Isolation Cooling TAG NUMBER RCIC-V-19 MANUFACTURER Borg-Warner Co. MODEL NUMBER P 78560 COMPONENT Valve FUNCTION/SERVICE LOCATION: BLDG R ELEVATION 467 COLUMN J.4/7.7	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4, 6, 7A	Profiles 4, 6, 7A	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal Profile 7A	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4, 6, 7A	Profiles 4, 6, 7A	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	5.6×10^6	9.1×10^8	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER Reviewed By: M. S. Mansion

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Report No. 01-0740-1152. 4. QID 361231 (Bovee and Crail Spec. 2808-215-Division 15-Section 15F). 5. QID 361231 (SWEC Subcomponent Data Sheet, SDS-215-361231-2).	Qualified.

WN-1061

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361104
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-68
MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Exhaust Purge TAG NUMBER CEP-V-1A, -2A MANUFACTURER BIF MODEL NUMBER BIF Dwg. A-206763 COMPONENT Valve FUNCTION/SERVICE Drywell Exhaust LOCATION: BLDG R ELEVATION 558 COLUMN J.4/5.4	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4, 20X	Profile 4, 20X	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal Profile 20X	Profile 20X	2	4	Design Specification	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.0×10^6	8.7×10^6	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Steve Forster/w.f.Robinson Rev 1 Reviewed By: Dennis A. Kimberling 3/16/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-548Q. 4. QID 361103 (Burns and Roe Design Spec. 2808-68). 5. QID 361104 (SWEC Subcomponent Data Sheet, SDS-68-361104-1).	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361106
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-68

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Exhaust Purge TAG NUMBER CEP-V-3A, -4A MANUFACTURER BIF MODEL NUMBER BIF Dwg. A-206764 COMPONENT Valve FUNCTION/SERVICE Supp. Chamber Exhaust LOCATION: BLDG R ELEVATION 495 COLUMN H.5/5.4	OPERATING TIME	4320 Hours	4320 Hours	1	5	Analysis	Note 1
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.3×10^5	8.7×10^6	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER /s/ [illegible] (Rev.1)

Reviewed By: [illegible]

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-471J. (Letter BRWP-RO-83-85) 4. QID 361103 (Burns and Roe Design Spec. 2808-68). 5. QID 361106 (SWEC Subcomponent Data Sheet, SDS-68-361106-2).	Qualified

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361106
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-68
MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Supply Purge TAG NUMBER CSP-V-6 MANUFACTURER BIF MODEL NUMBER BIF Dwg. A-206765 COMPONENT Valve FUNCTION/SERVICE Containment Isolation LOCATION: BLDG R ELEVATION 480 COLUMN N.5/7.7	OPERATING TIME	4320 Hours	4320 Hours	2	5	Analysis	Note 1
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.3×10^5	8.7×10^6	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Stout Rubester/[illegible] (Rev. 1) Reviewed By: [illegible]

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRH Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-471J. (Letter BRWP-RO-83-85). 4. QID 361103 (Burns and Roe Design Spec. 2808-68). 5. QID 361106 (SWEC Subcomponent Data Sheet, SDS-68-361106-1).	Qualified

WP-1081

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361104
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-68

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Supply Purge TAG NUMBER CSP-V-1, -2 MANUFACTURER BIF MODEL NUMBER BIF Dwg. A 206763 COMPONENT Valve FUNCTION/SERVICE Containment Isolation LOCATION: BLDG R ELEVATION 508 COLUMN M.5/7.6	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.5×10^6	8.7×10^6	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER

Reviewed By: W. S. Adams

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-5011. 4. QID #361103 (Burns and Roe Design Spec. 2808-68). 5. QID #361104 (SWEC Subcomponent Data Sheet, SDS-68-361104-2).	Qualified.

WA-1661

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID 361106
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-68

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Supply Purge TAG NUMBER CSP-V-3,4,5 MANUFACTURER : BIF MODEL NUMBER BIF DWG. A-206764 COMPONENT Valve FUNCTION/SERVICE Containment Isolation LOCATION: BLDG R ELEVATION 475-478 COLUMN H.6, H.7/7.6, 8.3	OPERATING TIME	4,320 Hours	4,320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	7.1×10^4	1.0×10^6	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER

Reviewed By: M. S. Robinson

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List, dated 10/5/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-471D. 4. QID No. 361103 (Burns & Roe Design Spec. 2808-68). 5. QID 361106 (SWEC, Subcomponent Data Sheet SDS-68-361106-1).	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID 361106
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-68
MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Containment Supply Purge TAG NUMBER CSP-V-9 MANUFACTURER BIF MODEL NUMBER BIF Dwg. A-206764 COMPONENT Valve FUNCTION/SERVICE Suppression Chamber Relief LOCATION: BLDG R ELEVATION 490 COLUMN R.9/5.1	OPERATING TIME	4,320 Hours	4,320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	5.0×10^5	1×10^6	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Stone & Webster

Reviewed By: M. S. Adams

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRH Equipment List, dated 10/5/82. 2. FSAR Paragraph 3.11 and WPPSS Calculation NE-02-82-14-0. 3. EDS Study 0740-004-471B. 4. QID 361103 (Burns & Roe Design Spec. 2808-68). 5. QID 361106 (SWEC Subcomponent Data Sheet SDS-69-361106-1).	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361102
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-68

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Bldg. Exhaust Air (HVAC) TAG NUMBER REA-V-1, -2 MANUFACTURER BIF MODEL NUMBER BIF DWG A-206766 COMPONENT Valve FUNCTION/SERVICE R Bld Isol. Valve LOCATION: BLDG R ELEVATION 597 COLUMN H.2/6.2	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.1×10^6	2×10^6	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO :

Prepared By: STONE & WEBSTER

Reviewed By: M. L. Mann

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-572N4. 4. QID 361103 (Burns and Roe Design Spec. 2808-68). 5. QID 361102 (SWEC Subcomponent Data Sheet, SDS-62-361102-1).	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361101
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-68

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Reactor Bldg. Outside Air (HVAC) TAG NUMBER ROA-V-1, -2 MANUFACTURER BIF MODEL NUMBER BIF DWG A-206766 COMPONENT Valve FUNCTION/SERVICE R Bldg. Iso. Valve LOCATION: BLDG R ELEVATION 578 COLUMN N.7/5.0, 5.7	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.0×10^6	2×10^6	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Steve Wessel

Reviewed By: W. L. Adams

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRH Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-572F. 4. QID 361103 (Burns and Roe Design Spec. 2808-68). 5. QID 361101 (SWEC Subcomponent Data Sheet, SDS-68-361101-1).	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361103
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-68
MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Standby Gas Treatment TAG NUMBER SGT-V- (See Note 1) MANUFACTURER BIF MODEL NUMBER BIF DWG A-206767 COMPONENT Valve FUNCTION/SERVICE SGT Tie SGT-FN LOCATION: BLDG R ELEVATION COLUMN (See Note 1)	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	90 Max. Normal 104 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.1×10^6	8.7×10^6	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER

Reviewed By: [signature]

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRH Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-572N4. 4. QID 361103 (Burns and Roe Design Spec. 2808-68). 5. QID 361103 (SWEC Subcomponent Data Sheet, SDS-68-361103-1).	Qualified. 1. See Page 2 of 2.

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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

1.

Tag Number	Elev.	Coord.
SGT-V-1A	583	H.8/5.3
-1B	583	J.3/5.3
-3A1	576	H.8/7.7
-3A2	576	J.0/7.7
-3B1	576	J.3/6.8
-3B2	576	J.3/7.4
-4A1	587	H.8/7.1
-4A2	587	J.0/7.0
-4B1	585	J.2/5.1
-4B2	585	J.6/7.1
-5A1	587	H.6/7.0
-5A2	587	J/7.1
-5B1	587	J.2/7
-5B2	585	J.6/7

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361110
OWNER: WPPSS
FACILITY: WNP-2
SPEC:

MPL:
PPD:

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Standby Gas Treatment TAG NUMBER SGT-V-2A, -2B MANUFACTURER BIF MODEL NUMBER BIF DWG. A-206761 COMPONENT Valve FUNCTION/SERVICE SGT-FU-1A & B LOCATION: BLDG R ELEVATION 580 COLUMN H.7/5.3, J.3/5.3	OPERATING TIME	4320 Hours	4320 Hours	1	4	Design Specification	None
	TEMPERATURE (F)	Profile 4	Profile 4	2	4	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal	N/A	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Max. Normal 90 Max. Abnormal Profile 4	Profile 4	2	4	Design Specification	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A.	None
	RADIATION (RAD)	1.1×10^6	8.7×10^6	3	5	Analysis	None
	AGING	40 Years	40 Years	2	4	Design Specification	None

FLOOD LEVEL ELEV:
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER

Reviewed By: M. L. Johnson

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-572N4. 4. QID 361103 (Burns and Roe Design Spec. 2808-68). 5. QID 361110 (SWEC Subcomponent Data Sheet, SDS-68-361110-1).	Qualified.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

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QID #361961
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02C12

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Control Rod Drive TAG NUMBER CRD-V-126, 127 (See Note 2) MANUFACTURER Robertshaw Controls MODEL NUMBER 83470-A1, B2 COMPONENT Valve FUNCTION/SERVICE Scram Inlet & Exhaust LOCATION: BLDG R ELEVATION 522 COLUMN L.5/3.7, K.2/3.7	OPERATING TIME	4320 Hours	4320 Hours	1	5	Analysis	None
	TEMPERATURE (°F)	90 Normal 104 Abnormal Profile 4, 13X	104 Profile 4, 13X	2	4	Analysis	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Normal 90 Abnormal Profile 4	90 Profile 4	2	4	Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	6.4×10^5	Note 1	3	4	Analysis	None
	AGING	40 Years	40 Years	2	5	Analysis	None

FLOOD LEVEL ELEV: N/A
ABOVE FLOOD LEVEL?
YES NO

Prepared By: Steve Swessel/M. Feldman Rev 1 Reviewed By: Dennis McConnell 8/15/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-522B. 4. QID 361961 (SWEC Engineering Analysis Sheet, EAS-02C12-361961-1). 5. QID 361961 (SWEC Subcomponent Data Sheet, SDS-02C12-361961-1).	Qualified. 1. Accident response time for the CRD Scram Valves is less than five seconds post transient. After five seconds the rods are inserted and permanently latched in position. Any degradation of the properties of the nonmetallic subcomponents of the valves due to radiation that might occur in less than five seconds post transient would not impact on the safety-related functions of the valves. 2. See Page 2 of 2.

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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

2. Tag Numbers

0219	1431	2247
0223	1435	2251
0227	1439	2255
0231	1443	2259
0235	1447	2603
0239	1451	2607
0243	1455	2611
0615	1803	2615
0619	1807	2619
0623	1811	2623
0627	1815	2627
0631	1819	2631
0635	1823	2635
0639	1827	2639
0643	1831	2643
0647	1835	2647
1011	1839	2651
1015	1843	2655
1019	1847	2659
1023	1851	3003
1027	1855	3007
1031	1859	3011
1035	2203	3015
1039	2207	3019
1043	2211	3023
1047	2215	3027
1051	2219	
1407	2223	
1411	2227	
1415	2231	
1419	2235	
1423	2239	
1427	2243	

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #167001
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02C12

EQUIPMENT QUALIFICATION REPORT

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Control Rod Drive TAG NUMBER CRD-HCU-(See Note 2) MANUFACTURER General Electric MODEL NUMBER 761E500G1 COMPONENT Hydraulic Control Unit FUNCTION/SERVICE CRD Hydraulic Control LOCATION: BLDG R ELEVATION 522 COLUMN L.5/3.7, K.2/3.7	OPERATING TIME	1.17 Hours	1.17 Hours	2	5	Analysis	None
	TEMPERATURE (°F)	90 Normal 104 Abnormal Profile 4, 13X	104 Profile 4, 13X	2	4	Analysis	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Normal 90 Abnormal Profile 4	90 Profile 4	2	4	Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	6.4×10^5	Note 1	3	4	Analysis	None
	AGING	40 Years	40 Years	2	5	Analysis	None

FLOOD LEVEL ELEV: N/A
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER/[illegible] Reviewed By: [signature] 8/16/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-522B. 4. QID 167001 (SWEC Engineering Analysis Sheet, EAS-02C12-167001-1). 5. QID 167001 (SWEC Subcomponent Data Sheet, SDS-02C12-167001-1).	Qualified. 1. Accident response time for the CRD Hydraulic Control Units is less than five seconds post transient. After five seconds the rods are inserted and permanently latched in position. Any degradation of the properties of the non metallic subcomponents of the units due to radiation that might occur in less than five seconds post transient would not impact on the safety-related functions of the units. 2. See Page 2 of 2.

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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)
	2. Tag Numbers 0219 1431 2247 0223 1435 2251 0227 1439 2255 0231 1443 2259 0235 1447 2603 0239 1451 2607 0243 1455 2611 0615 1803 2615 0619 1807 2619 0623 1811 2623 0627 1815 2627 0631 1819 2631 0635 1823 2635 0639 1827 2639 0643 1831 2643 0647 1835 2647 1011 1939 2651 1015 1843 2655 1019 1847 2659 1023 1851 3003 1027 1855 3007 1031 1859 3011 1035 2203 3015 1039 2707 3019 1043 2211 3023 1047 2215 3027 1051 2219 1407 2223 1411 2227 1415 2231 1419 2235 1423 2239 1427 2243

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #167001
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02C12

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Control Rod Drive TAG NUMBER CRD-HCU- (See Note 2) MANUFACTURER General Electric MODEL NUMBER 761E500G1 COMPONENT Hydraulic Control Unit FUNCTION/SERVICE CRD Hydraulic Control LOCATION: BLDG R ELEVATION 522 COLUMN L.5/8.4, K.2/8.4	OPERATING TIME	1.17 Hours	1.17 Hours	2	5	Analysis	None
	TEMPERATURE (°F)	90 Normal 104 Abnormal Profile 4	104 Profile 4	2	4	Analysis	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Normal 90 Abnormal Profile 4	90 Profile 4	2	4	Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.0×10^5	Note 1	3	4	Analysis	None
	AGING	40 Years	40 Years	2	5	Analysis	None

FLOOD LEVEL ELEV: N/A
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER Pittsfield [illegible] . Reviewed By: [signature] 8/16/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EDS Study 0740-004-522J. 4. QID 167001 (SWEC Engineering Analysis Sheet, EAS-02C12-167001-1). 5. QID 167001 (SWEC Subcomponent Data Sheet, SDS-02C12-167001 1).	Qualified. 1. Accident response time for the CRD Hydraulic Control Units is less than five seconds post transient. After five seconds the rods are inserted and permanently latched in position. Any degradation of the properties of the non metallic subcomponents of the units due to radiation that might occur in less than five seconds post transient would not impact on the safety-related functions of the units. 2. See Page 2 of 2.

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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

2. Tag Numbers

3031	3843	5011
3035	3847	5015
3039	3851	5019
3043	3855	5023
3047	3859	5027
3051	4203	5031
3055	4207	5035
3059	4211	5039
3403	4215	5043
3407	4219	5047
3411	4223	5051
3415	4227	5415
3419	4231	5419
3423	4235	5423
3427	4239	5427
3431	4243	5431
3435	4247	5435
3439	4251	5439
3443	4255	5443
3447	4259	5447
3451	4607	5819
3455	4611	5823
3459	4615	5827
3803	4619	5831
3807	4623	5835
3811	4627	5839
3815	4631	5843
3819	4635	
3823	4639	
3827	4643	
3831	4647	
3835	4651	
3839	4655	

WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #361961
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02C12

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Control Rod Drive TAG NUMBER CRD-V-126, 127 (See Note 2) MANUFACTURER Robertshaw Controls MODEL NUMBER 83470-A1, B2 COMPONENT Valve FUNCTION/SERVICE Scram Inlet and Exhaust LOCATION: BLDG R ELEVATION 522 COLUMN L.5/8.4, K.2/8.4	OPERATING TIME	4320 Hours	4320 Hours	1	5	Analysis	None
	TEMPERATURE (°F)	90 Normal 104 Abnormal Profile 4	104 Profile 4	2	4	Analysis	None
	PRESSURE (PSIA)	14.7 Normal	N/R	2	N/A	N/A	None
	RELATIVE HUMIDITY (%)	40 Normal 90 Abnormal Profile 4	90 Profile 4	2	4	Analysis	None
	CHEMICAL SPRAY	N/A	N/A	2	N/A	N/A	None
	RADIATION (RAD)	1.0×10^5	Note 1	3	4	Analysis	None
	AGING	40 Years	40 Years	2	5	Analysis	None

FLOOD LEVEL ELEV: N/A
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STEVE WEBSTER (Envl. Qual. Engr.)

Reviewed By: [signature] 8/16/83

DOCUMENTATION REFERENCES	NOTES
1. WNP-2 SRM Equipment List dated 10/05/82. 2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0. 3. EQS Study 0740-004-522J. 4. QID 361961 SWEC Engineering Analysis Sheet, EAS-02C12-361961-1). 5. QID 361961 SWEC Subcomponent Data Sheet, SDS-02C12-351961-1).	Qualified. 1. Accident response time for the CRD Scram Valves is less than five seconds post transient. After five seconds the rods are inserted and permanently latched in position. Any degradation of the properties of the nonmetallic subcomponents of the valves due to radiation that might occur in less than five seconds post transient would not impact on the safety-related functions of the units. 2. See Page 2 of 2.

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WPPSS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

QID #092001
OWNER: WPPSS
FACILITY: WNP-2
SPEC: 2808-02B13

MPL:
PPD:

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EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	FSAR	QUALIFICATION	FSAR	QUAL.		
SYSTEM Control Rod Drive TAG NUMBER CRD-DRVE- (See Note 2) MANUFACTURER GE MODEL NUMBER 7RD8144C COMPONENT Drive FUNCTION/SERVICE Control Rod Drive Assy LOCATION: BLDG C ELEVATION 501 COLUMN Under Vessel	OPERATING TIME	4320 Hours	4320 Hours	1	5	Analysis	None
	TEMPERATURE (°F)	135 Normal 150 Abnormal Profile 1	575° Profile 1	2	3	Design Specification	None
	PRESSURE (PSIA)	14.7 Normal 16.7 Abnormal Profile 1	1250 Profile 1	2	3	Design Specification	None
	RELATIVE HUMIDITY (%)	55 Normal 90 Abnormal Profile 2	100% Profile 2	2	3	Design Specification	None
	CHEMICAL SPRAY	Demineralized Water	Demineralized Water	2	4	Analysis	None
	RADIATION (RAD)	7.0×10^7	Note 1	2	4	Analysis	None
	AGING	40 Years	40 Years	2	5	Analysis	None

FLOOD LEVEL ELEV: N/A
ABOVE FLOOD LEVEL?
YES NO

Prepared By: STONE & WEBSTER

Reviewed By: M. A. Johnson

DOCUMENTATION REFERENCES

1. WNP-2 SRM Equipment List dated 10/05/82.
2. FSAR Paragraph 3.11 and WPPSS calculation NE-02-82-14-0.
3. QID 092001 (General Electric Specification 21A8781, Rev. 2).
4. QID 092001 (SWEC Engineering Analysis Sheet, EAS-02B13-092001-1).
5. QID 092001 (SWEC Subcomponent Data Sheet, SDS-02B13-092001-1).

NOTES

Qualified.
1. Accident response time for the Control Rod Drive Assemblies is less than five seconds post transient. After five seconds the rods are inserted and permanently latched in position. Any degradation of the properties of the non metallic subcomponents of the assemblies due to radiation that might occur in less than five seconds post transient would not impact on the safety-related functions of the assemblies.
2. See Page 2 of 2.

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DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

2. Tag Numbers

3031	3843	5011
3035	3847	5015
3039	3851	5019
3043	3855	5023
3047	3859	5027
3051	4203	5031
3055	4207	5035
3059	4211	5039
3403	4215	5043
3407	4219	5047
3411	4223	5051
3415	4227	5415
3419	4231	5419
3423	4235	5423
3427	4239	5427
3431	4243	5431
3435	4247	5435
3439	4251	5439
3443	4255	5443
3447	4259	5447
3451	4607	5819
3455	4611	5823
3459	4615	5827
3803	4619	5831
3807	4623	5835
3811	4627	5839
3815	4631	5843
3819	4635	
3823	4639	
3827	4643	
3831	4647	
3835	4651	
3839	4655	

DOCUMENTATION REFERENCES (Cont'd)	NOTES (Cont'd)

2. Tag Numbers

0219	1431	2247	3059	4211	5039
0223	1435	2251	3403	4215	5043
0227	1439	2255	3407	4219	5047
0231	1443	2259	3411	4223	5051
0235	1447	2603	3415	4227	5415
0239	1451	2607	3419	4231	5419
0243	1455	2611	3423	4235	5423
0615	1803	2615	3427	4239	5427
0619	1807	2619	3431	4243	5431
0623	1811	2623	3435	4247	5435
0627	1815	2627	3439	4251	5439
0631	1819	2631	3443	4255	5443
0635	1823	2635	3447	4259	5447
0639	1827	2639	3451	4607	5819
0643	1831	2643	3455	4611	5823
0647	1835	2647	3459	4615	5827
1011	1839	2651	3803	4619	5831
1015	1843	2655	3807	4623	5835
1019	1847	2659	3811	4627	5839
1023	1851	3003	3815	4631	5843
1027	1855	3007	3819	4635	
1031	1859	3011	3823	4639	
1035	2203	3015	3827	4643	
1039	2207	3019	3831	4647	
1043	2211	3023	3835	4651	
1047	2215	3027	3839	4655	
1051	2219	3031	3843	5011	
1407	2223	3035	3847	5015	
1411	2227	3039	3851	5019	
1415	2231	3043	3855	5023	
1419	2235	3047	3859	5027	
1423	2239	3051	4203	5031	
1427	2243	3055	4207	5035	

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SECTION 2.0 RESULTS/CONCLUSIONS

1.0 INTRODUCTION

1.0 INTRODUCTION

To obtain an operating license for Washington Public Power Supply System (Supply System) Nuclear Project Number 2 (WNP-2), the Supply System is required to provide documentation that establishes the environmental qualification of all safety-related electrical equipment. NUREG-0588, Category II, "Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment" provides the basis for determining the adequacy of the safety-related equipment's documentation.

The Environmental Qualification Program for WNP-2 is in process, and most of the components have been shown to be qualified; yet it is unlikely that all safety-related electrical equipment's qualification will be documented prior to fuel load. The NRC Staff's final rule 10CFR50.49, "Environmental Qualification of Electric Equipment Important to Safety for Nuclear Power Plants," states in paragraph (i) that the applicant for an operating license shall perform an analysis to ensure that the plant can be safely operated pending completion of environmental qualification. Therefore, a Justification for Interim Operation (JIO) analysis was performed which provides the results and the basis for the safe operation of WNP-2 until the Environmental Qualification Program can be completed.

The JIO analysis establishes that, upon documentation of the qualification or component-specific justification of a minimum set of safety-related electrical equipment, WNP-2 can be safely operated pending completion of the Environmental Qualification Program. This minimum set of safety-related electrical equipment consists of the equipment located in a harsh environment that is required to accomplish the following six safety functions:

1. Emergency Reactor Shutdown.
2. Primary Containment Isolation.
3. Reactor Core Cooling.
4. Containment Integrity.
5. Core Residual Heat Removal.
6. Prevention of Significant Release of Radioactive Material to the Environment.

Accomplishing these six safety functions will ensure the safe shutdown of WNP-2. Safe shutdown includes accident mitigation as well as achieving and maintaining cold shutdown. The equipment in a single preferred path that accomplishes the required safety functions was selected as the minimum set requiring documentation of qualification or justification prior to fuel load of WNP-2. Category I and II post-accident monitoring instrumentation required by Regulatory Guide 1.97 as well as the safety-related electrical equipment which perform or support the safety functions are included in the minimum set. The redundant safety-related electrical equipment required for defense in depth, diversity of function, and electrical separation will have qualification documentation prior to the completion of the first refueling outage or November 30, 1985.

The JIO analysis for WNP-2 was accomplished in six steps:

Step 1 identified the FSAR Chapter 15 accidents that potentially cause a harsh environment inside the primary containment or reactor building. These accidents include three Loss-of-Coolant Accidents (LOCAs), four High Energy Line Breaks (HELBs), and the Control Rod Drop Accident. Break locations for LOCAs were not necessary for this analysis since the effect inside the primary containment is not dependent on the break location. Break locations for the HELBs, and the equipment which could be exposed to the harsh environment, were determined and are discussed in Section 2.0.

Step 2 determined the environmental conditions associated with the LOCA and HELB accidents in Step 1. (The radiation conditions resulting from a LOCA were used to envelop the Control Rod Drop Accident.) These environmental conditions provide the basis for the qualification program and are used to determine the qualification status of the safety-related electrical equipment in Step 5.

Step 3 consisted of the performance of a Safety Sequence Analysis (SSA) for each of the LOCA and HELB accidents defined in Step 1. The SSA identified the safety systems, and their associated equipment, required to achieve each safety function. The analysis was performed for equipment located inside the reactor building and primary containment potentially exposed to a harsh environment. Each SSA identified all credible and redundant paths to accomplish each safety function. It also described the system actions, inputs, and interlocks. The SSA is discussed in Section 5.2.3. For the Control Rod Drop Accident, a Safety Sequence Diagram was constructed based on the Protection Sequence Diagram given in the WNP-2 FSAR.

In Step 4, A Failure Modes and Effects Analysis (FMEA) was performed on the safety-related electrical equipment not required to function for safe shutdown. This analysis identified the safety-related electrical equipment that could fail in a manner detrimental to the safe shutdown of the plant. Section 5.2.4 describes this analysis. Since this equipment must not fail in a manner detrimental to plant safety, documentation of its capability to withstand the potentially harsh environment is provided. Lastly, equipment whose failure under accident conditions is not detrimental to plant safety has been determined. This equipment need not be qualified for any accident environment and is not included in this report.

In Step 5, the single-path minimum set of safety-related electrical equipment required to accomplish the six safety functions was identified. This set of equipment, which includes equipment identified in Step 3, and the equipment identified in Step 4 requiring qualification, will have complete qualification documentation or component-specific justification provided prior to fuel load. This will ensure one qualified or justified path to safe shutdown for all the accidents identified in Step 1. The selection of the equipment on this preferred safe shutdown path is discussed in Section 5.3.3. The equipment to be documented as qualified or justified prior to fuel load are included in Table A. The balance of the safety-related electrical equipment identified in Step 3 and Step 4 are included in Table B and will be documented as qualified prior to the completion of the first refueling outage.

In Step 6, component-specific justifications were developed for the equipment on the preferred safe shutdown path whose qualification documentation would not likely be completed prior to fuel load. The justifications were developed based on the operability requirements of the equipment and criteria derived from the final NRC rule 10CFR50.49, paragraph (i). Assurance that WNP-2 can be safely operated pending completion of the Environmental Qualification Program is demonstrated by these component-specific justifications.

2.0 RESULTS/CONCLUSIONS

2.0 RESULTS/CONCLUSIONS

Documentation of the environmental qualification or component-specific justification, for the minimum set of safety-related electrical equipment identified by this analysis, ensures the capability of safely mitigating the WNP-2 harsh environment producing accidents. The analysis performed to document this conclusion, as required by the NRC's final rule 10CFR50.49, "Environmental Qualification of Electric Equipment Important to Safety for Nuclear Power Plants", ensures that the plant can be safely operated pending completion of environmental qualifications.

This analysis determined all viable safe shutdown paths which could accomplish the required safety functions under accident conditions. A single preferred path was then selected such that the equipment on that path comprise the minimum set requiring documentation of qualification or justification prior to fuel load. This report presents the qualification documentation or component-specific justification for the preferred safe shutdown path equipment. Table A identifies this minimum set of equipment. The remaining safety-related electrical equipment in the alternate shutdown paths are listed in Table B and will have complete qualification documentation prior to the end of the first refueling outage. Interim operation is justified since a fully qualified or justified preferred safe shutdown path has been identifed for each safety function. The preferred path equipment is necessary and sufficient to ensure safe shutdown. Results from major tasks in the analysis are described and presented below.

The FSAR Chapter 15 accidents that potentially cause a harsh environment in the primary containment or reactor building are identified in Table 2.1. The areas of the plant affected by each break and the corresponding accident profiles are identified in Table 2.2. The methodology for determining the accidents, areas affected, and the resulting accident conditions is discussed in Section 5.2.

Safety Sequence Diagrams (SSDs) were prepared for each accident. They identify the systems required to accomplish the necessary safety functions for each accident and are included as Figures 2.1 through 2.9. Table 2.3 lists the safety systems delineated on the SSDs, and Table 2.4 identifies the auxiliary support systems necessary for all safety systems.

TABLE 2.1
ACCIDENTS CONSIDERED

1. Reactor Building - High Energy Line Breaks
   - Reactor Core Isolation Cooling (RCIC) Steam Line Break
     Accident Codes A, B, C, E
   - Auxiliary Steam System Pipe Break
     Accident Codes D, M
   - Reactor Water Clean-up (RWCU) Line Breaks
     Accident Codes F, G, H, I, J, K, L
   - Main Steam Tunnel (either steam or feedwater line) Pipe Break
     Accident Codes N, O

2. Primary Containment Loss-of-Coolant Accidents
   - Reactor Recirculation Line (RRC) Break (Large break)
     Accident Code P
   - Main Steam Line Break (26")
     Accident Code Q
   - Small Main Steam Line (2" or less) Break
     Accident Code R

3. Primary Containment and parts of Reactor Building
   - Control Rod Drop Accident
     Accident Code S

TABLE 2.2

ACCIDENT LOCATIONS AND AFFECTED ZONES

ACCIDENT TYPE/LOCATION		TEMPERATURE EFFECTS		RELATIVE HUMIDITY EFFECTS	
		Affected Zone(s)	Temperature Profile No.	Affected Zone(s)	Relative Humidity Profile No.
A.	HELB-4" RCIC(13)-4 RCIC Pump Room (R422L)	R422L R441I Remaining RB Zones	3X 4X 4	R422L R441I Remaining RB Zones	21X 21X 22X
B.	HELB-4" RCIC(13)-4 Room above RCIC Room (R441I)	R441I R422L Remaining RB Zones	1X 2X 4	R441I R422L Remaining RB Zones	21X 21X 22X
C.	HELB-4" RCIC(13)-4 Room Above RHR-2C(R441J)	R441J R422M Remaining RB Zones	1X 2X 4	R441J R422M Remaining RB Zones	21X 21X 22X
D.	HELB-4" AS(11)-2 Southeast Open Floor	R471A,B,D,J R501B,F,H,K,P,Q R522B,C,H,J,K,P Remaining RB Zones	9 10 11 4	R471A,B,D,J R501B,F,H,K,P,Q R522B,C,H,J,K,P Remaining RB Zones	9 10 11 4
E.	HELB-4" RCIC(13)-4 TIP Room (R5015)	R501P R501S R501B,D,Q Remaining RB Zones	5X 6X 7X 4.	R501P R501S R501B Remaining RB Zones	21X 21X 21X 22X

TABLE 2.2 (Continued)

ACCIDENT LOCATIONS AND AFFECTED ZONES

ACCIDENT TYPE/LOCATION		TEMPERATURE EFFECTS		RELATIVE HUMIDITY EFFECTS	
		Affected Zone(s)	Temperature Profile No.	Affected Zone(s)	Relative Humidity Profile No.
F.	HELB-6" RWCU(2)-4 Room Above TIP Room (RØ1S)	R5Ø1S,P Remaining RB Zones	2ØX 4	R422C,D,E,F,L,M R441B,C,I,J R5Ø1O R522D,N R548E,F R572A,B,N R572D,E,H R6Ø6 Remaining RB Zones	4 4 4 4 4 22X 4 22X 21X
G.	HELB-6" RWCU(2)-4 Valve Room "N" of Cont. (R522O)	R522O Remaining RB Zones	2ØX 4	R422C,D,E,F,L,M R441B,C,I,J R5Ø1O R522D,N R548E,F R572A,B,N R572D,E,H R6Ø6 Remaining RB Zones	4 4 4 4 4 22X 4 22X 21X
H.	HELB-4" RWCU(1)-4 RWCU Pump Rooms (R522F)	R522F R522G R522C,E	8x 9X 1ØX	R422C,D,E,F,L,M R441B,C,I,J R5Ø1O	4 4 4

TABLE 2.2 (Continued)

ACCIDENT LOCATIONS AND AFFECTED ZONES

ACCIDENT TYPE/LOCATION		TEMPERATURE EFFECTS		RELATIVE HUMIDITY EFFECTS	
		Affected Zone(s)	Temperature Profile No.	Affected Zone(s)	Relative Humidity Profile No.
H.	(Continued) HELB-4" RWCU(1)-4 RWCU Pump Rooms	R522H	11X	R471H	22X
				R522D,N	4
		(R522F)		R548E,F	4
		522C (west end of zone)	12X	R572D,A,B,N	22X
				R572D,E,H	4
		522B	13X	R6Ø6	22X
		Remaining RB Zones	4	Remaining RB Zones	21X
I.	HELB-6" RWCU(1)-4 Valve Room Above RWCU Pump Room	R522F	8X	R422C,D,E,F,L,M	4
		R522G	9X	R441B,C,I,J	4
		R522C,E	1ØX	R471H	22X
				R5Ø1O	4
		522H	11X	R522D,N	4
				R548E,F	4
		522C (west end of zone)	12X	R572A,B,N	22X
				R572D,E,H	4
		522B	13X	R6Ø6	22X
		Remaining RB Zones	4	Remaining RB Zones	21X

TABLE 2.2 (Continued)

ACCIDENT LOCATIONS AND AFFECTED ZONES

ACCIDENT TYPE/LOCATION		TEMPERATURE EFFECTS		RELATIVE HUMIDITY EFFECTS	
		Affected Zone(s)	Temperature Profile No.	Affected Zone(s)	Relative Humidity Profile No.
J.	HELB-6" RWCU(1)-4 RWCU HX Room (R548B)	R548B	17X	R422C,D,E,F,L,M	4
		R548R	18X	R441B,C,I,J	4
		R548P	19X	R471H	22X
		Remaining RB Zones	4	R5Ø1O	4
				R522D,N	4
				R548E,F	4
				R572A,B,N	22X
				R572D,E,H	4
				R6Ø6	22X
				Remaining RB Zones	21X
K.	HELB-6" RWCU(2)-4 Valve Room "N" of Cont. (R548Q)	R548Q	2ØX	R422C,D,E,F,L,M	4
		Remaining RB Zones	4	R441B,C,I,J	4
				R471H	22X
				R5Ø1O	4
				R522D,N	4
				R548E,F	4
				R572A,B,N	22X
				R572D,E,H	4
				R6Ø6	22X
				Remaining RB Zones	21X

TABLE 2.2 (Continued)

ACCIDENT LOCATIONS AND AFFECTED ZONES

ACCIDENT TYPE/LOCATION		TEMPERATURE EFFECTS		RELATIVE HUMIDITY EFFECTS	
		Affected Zone(s)	Temperature Profile No.	Affected Zone(s)	Relative Humidity Profile No.
L.	HELB-6" RWCU(1)-4 Valve Room "S" of Cont. (R548H)	R548H	14X	R422C,D,E,F,L,M	4
		R548G	15X	R441B,C,I,J	4
		R548J	16X	R471H	22X
		Remaining	4	R5Ø10	4
		RB Zones	4	R522D,N	4
				R548E,F	4
				R572A,B,N	22X
				R572D,E,H	4
				R6Ø6	22X
				Remaining RB Zones	21X
M.	HELB-3" AS(11)-2 Southeast Floor Areas (R572)	R572B,C,F,G,N	31	R572B,C,F,G,N	31
		R548B,C,G,K,M,P,R	32	R548B,C,G,K,M,P,R	32
		Remaining RB Zones	4	Remaining RB Zones	4
N.	HELB-26" MS (RØ10)	R5Ø10	3	R5Ø10	3
		Remaining RB Zones	4	Remaining RB Zones	4
O.	HELB-24" RFW Remaining	R5Ø10	3	R5Ø10	3
		4	Remaining	4	
		RB Zones		RB Zones	

TABLE 2.2 (Continued)

ACCIDENT LOCATIONS AND AFFECTED ZONES

ACCIDENT TYPE/LOCATION		TEMPERATURE EFFECTS		RELATIVE HUMIDITY EFFECTS	
		Affected Zone(s)	Temperature Profile No.	Affected Zone(s)	Relative Humidity Profile No.
P.	LOCA-24" RRC	Containment RB Zones	1 4	Containment RB Zones	2 4
Q.	LOCA-26" MS	Containment RB Zones	1	Containment RB Zones	2 4
R.	Small Steam Line	Containment RB Zones	1 4	Containment RB Zones	2 4
S.	Control Rod Drop Accident	Containment R5Ø10 Remaining RB Zones	None None None	Containment RB Zones	None None
*	LOCA (P,Q,R)-Primary Containment	Reactor Building (except Class 1E motor control center rooms)	4	Reactor Building (except Class 1E motor control center rooms)	4
X*	Secondary effects of RCIC and RWCU Line Breaks	Reactor Building Zones not influenced by Y*	4	Reactor Building Zones not influenced by Y*	21X

TABLE 2.2 (Continued)

ACCIDENT LOCATIONS AND AFFECTED ZONES

ACCIDENT TYPE/LOCATION		TEMPERATURE EFFECTS		RELATIVE HUMIDITY EFFECTS	
		Affected Zone(s)	Temperature Profile No.	Affected Zone(s)	Relative Humidity Profile No.
Y*	Secondary effects of RCIC and RWCU Line Breaks	R422C,D,E,F,M, R441B,C,J,R471H, R5Ø1O,R522D,N,R 548E,F, R572A,B,D,E,H,N, R6Ø6	4	R422C,D,E,F,M, R441B,C,I,J,R471H, R5Ø1O,R522D,N, R548E,F, R572A,B,D,E,H,M R6Ø6	22X

NOTE: For the secondary effects of RCIC and RWCU breaks, profile 4 provides only accident temperatures and profiles 21X or 22X provide the associated relative humidity information.

TABLE 2.3
SYSTEMS IDENTIFIED ON SAFETY SEQUENCE DIAGRAMS

Abbreviation	System Name
CAC:	Containment Atmosphere Control
CAS:	Control Air System
CEP:	Containment Purge Exhaust
CIA:	Containment Instrument Air
CMS:	Containment Monitoring System
CRA:	Containment Recirculation Air
CRD:	Control Rod Drive (Hydraulic)
CSP:	Containment Purge Supply
CVB:	Containment Vacuum Breaker
E:	Electrical
EDR:	Equipment Drains Radioactive
FDR:	Floor Drains Radioactive
FPC:	Fuel Pool Cooling
HPCS:	High Pressure Core Spray
HY:	Hydraulic Control
LD:	Leak Detection
LPCS:	Low Pressure Core Spray
LPRM:	Local Power Range Monitor
MS:	Main Steam
MSLC:	Main Steam Leakage Control
PI:	Process Instrumentation
PSR:	Process Sampling Radioactive System
RCC:	Reactor Building Closed Cooling
RCIC:	Reactor Core Isolation Cooling
REA:	Reactor Building Exhaust Air
RFW:	Reactor Feedwater
RHR:	Residual Heat Removal
ROA:	Reactor Building Outside Air
RPS:	Reactor Protection System
RRA:	Reactor Building Return Air
RRC:	Reactor Recirculation
RWCU:	Reactor Water Clean-Up

TABLE 2.3
SYSTEMS IDENTIFIED ON SAFETY SEQUENCE DIAGRAMS
(Continued)

Abbreviation	System Name
SGT:	Standby Gas Treatment
SLC:	Standby Liquid Control
SPTM:	Suppression Pool Temperature Monitor
SRM:	Source Range Monitor
SW:	Standby Service Water
TIP:	Traversing In-core Probe

TABLE 2.4
AUXILIARY SUPPORT SYSTEMS WHICH HELP
THE SAFETY SYSTEM TO ACHIEVE ITS FUNCTION

Safety System	Auxiliary System
CAC	E, RRA, SW
CAS	E
CEP	E
CIA	E
CMS	E, RRA, SW
CRA	E
CRD	E
CSP	E
EDR	E
FDR	E
HPCS	RRA
HY	E
LD	E
LPCS	E, RRA, SW
MS(1)	E, CIA
MSLC	E
PI	E
PSR	E
RCC	E
RCIC	E
REA	E
RFW	E
RHR	E, RRA, SW
ROA	E
RPS	E
RRC	E
RWCU	E
SGT(2)	E
SLC	E
SPTM	E
SRM	E
TIP	E

(1) RHR (LPCI) or LPCS Interlocked with ADS valves.
(2) REA Differential Pressure Transmitter signal is used to control reactor building pressure.

ACCIDENT DEFINITION

THESE ARE FOUR BREAKS CONSIDERED, ALL ON THE RCIC TURBINE STEAM SUPPLY LINE (4"). THE LEAK DETECTION SYSTEM PROVIDES THE CAPABILITY OF DETECTING THE BREAK, AND INITIATES THE CLOSING OF THE APPROPRIATE VALVES TO ISOLATE THE BREAK. THE PLANT CAN PROCEED TO NORMAL SHUTDOWN OR CONTINUE OPERATION.

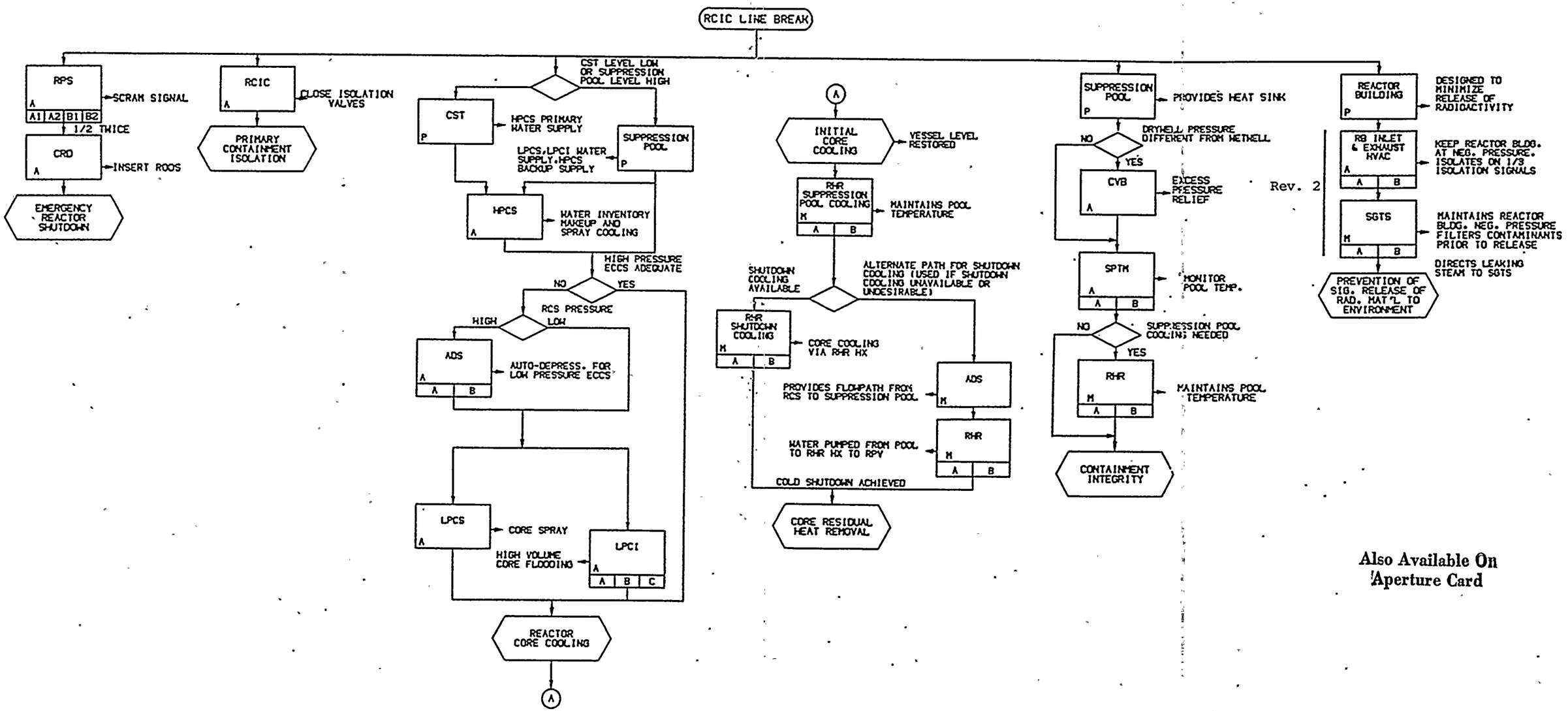

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FIGURE 2.1
REACTOR CORE ISOLATION COOLING SYSTEM LINE BREAK
SAFETY SEQUENCE DIAGRAM

ACCIDENT DEFINITION

SEVEN RWCU LINE BREAKS ARE CONSIDERED IN THE ANALYSIS (SEE TABLE 2.1). ISOLATION IS INITIATED BY THE LEAK DETECTION SYSTEM ON RWCU AREA HIGH TEMPERATURE, DELTA TEMPERATURE, OR DELTA FLOW. THE PLANT CAN PROCEED TO NORMAL SHUTDOWN OR CONTINUE OPERATION.

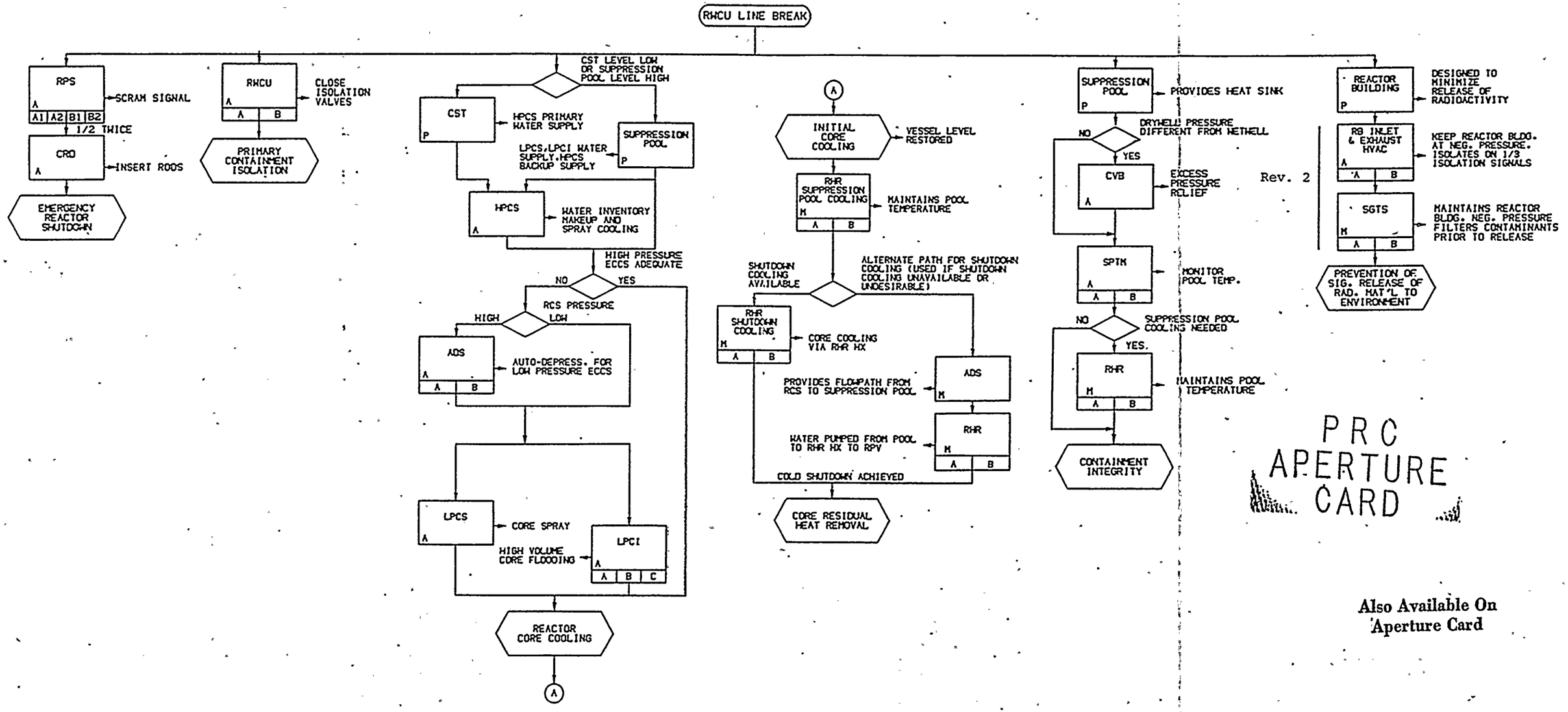

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FIGURE 2.2
REACTOR WATER CLEANUP SYSTEM LINE BREAK SAFETY SEQUENCE DIAGRAM

ACCIDENT DEFINITION

TWO BREAKS ARE CONSIDERED FOR THIS EVENT, OCCURRING ON 3" AND 4" AUXILLIARY STEAM SUPPLY LINES TO THE REACTOR BUILDING HEATING SYSTEM. MITIGATION OF THIS ACCIDENT WILL REQUIRE OPERATOR ACTION, IN RESPONSE TO A LOW-PRESSURE ALARM, TO ISOLATE THE BREAK AND PROCEED TO COLD SHUTDOWN.

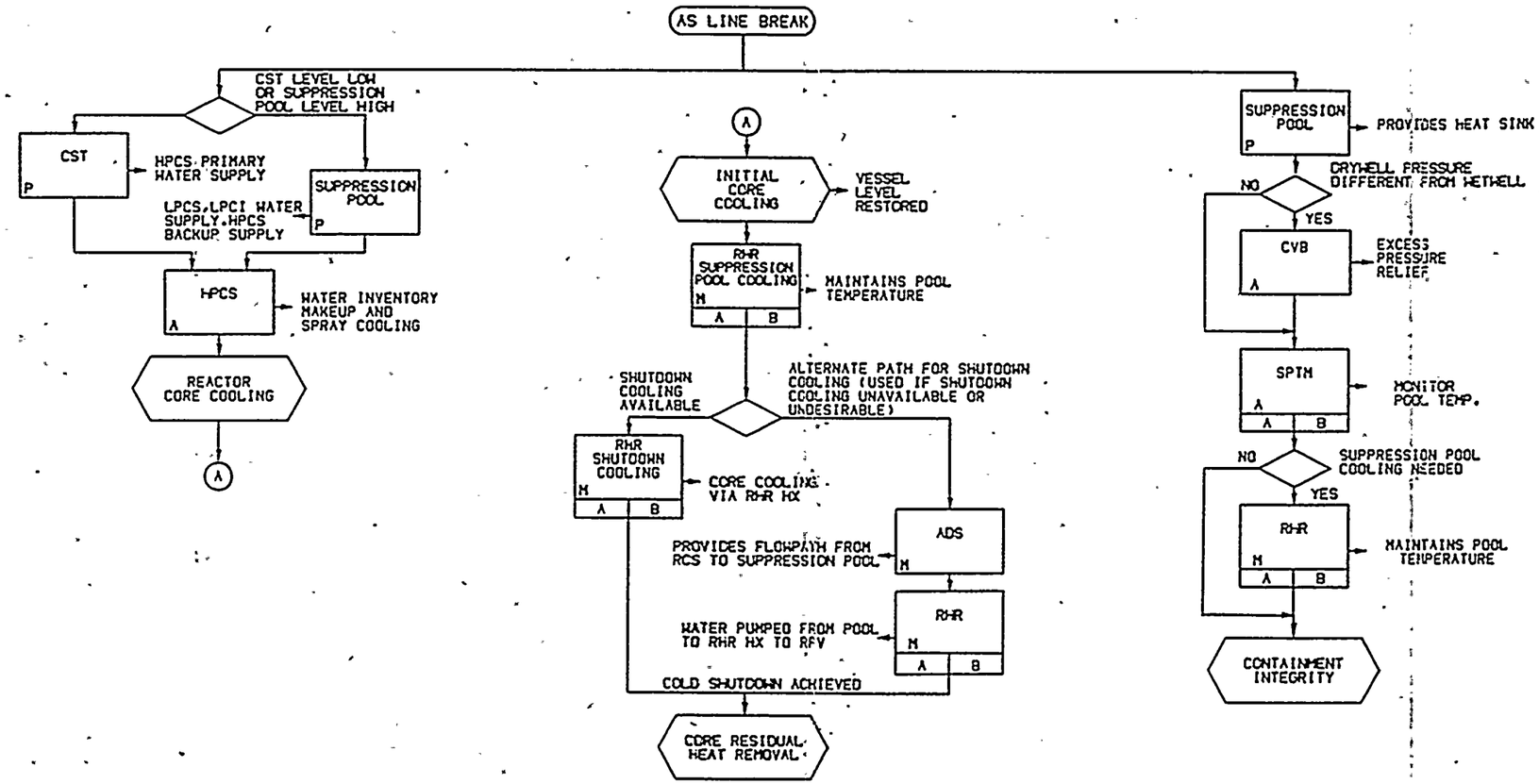


FIGURE 2.3
AUXILIARY STEAM SYSTEM LINE BREAK
SAFETY SEQUENCE DIAGRAM

ACCIDENT DEFINITION

THIS EVENT CONSISTS OF A BREAK IN A MAIN STEAM LINE (28") INSIDE THE STEAM TUNNEL. THE BREAK IS ISOLATED BY MSIV CLOSURE UPON RECEIPT OF A HIGH STEAM FLOW SIGNAL, AFTER WHICH THE PLANT PROCEEDS TO COLD SHUTDOWN.

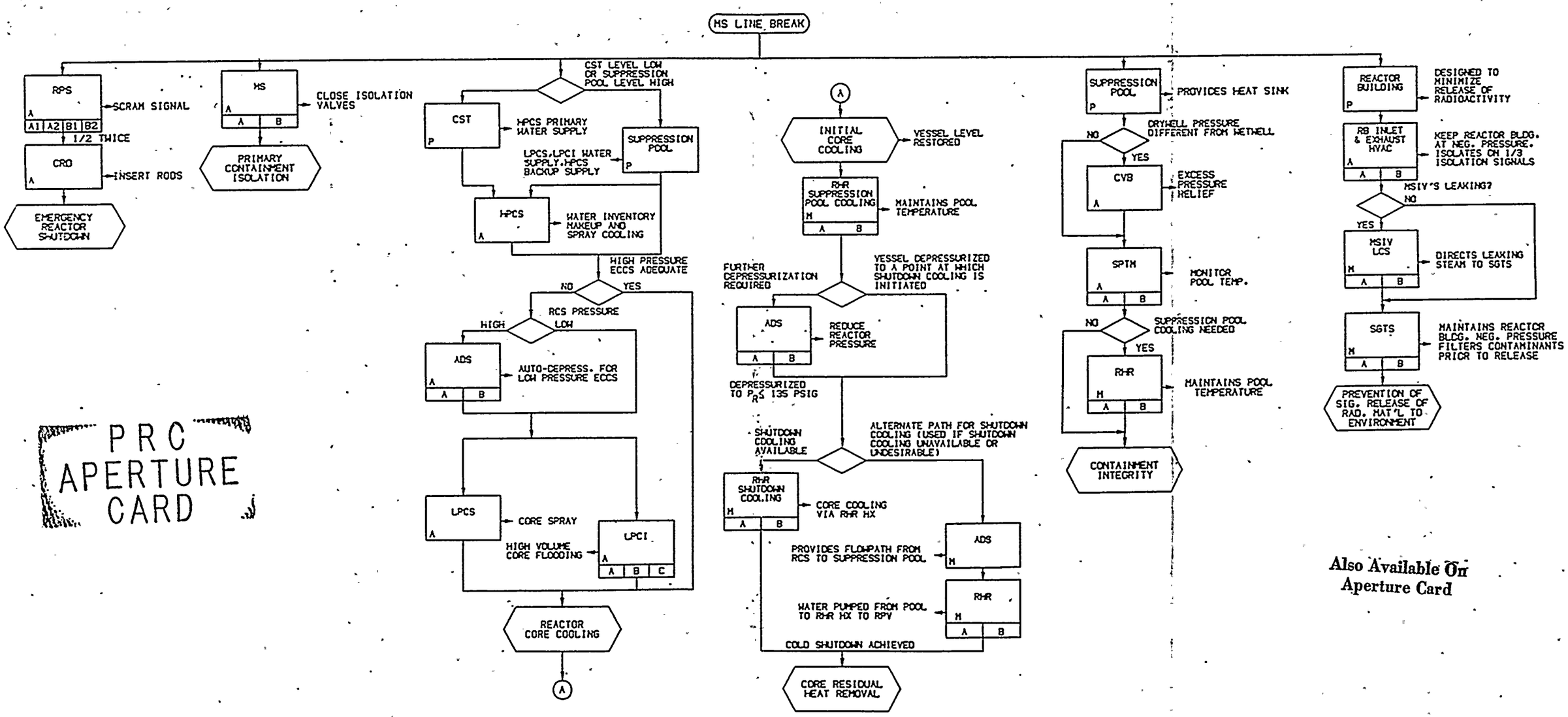


FIGURE 2.4
MAIN STEAM LINE BREAK
SAFETY SEQUENCE DIAGRAM

ACCIDENT DEFINITION

THIS EVENT CONSISTS OF A BREAK IN A REACTOR FEEDWATER LINE (24") INSIDE THE STEAM TUNNEL. THE BREAK IS ISOLATED BY INBOARD AND OUTBOARD LINE CHECK VALVES, AFTER WHICH THE PLANT PROCEEDS TO COLD SHUTDOWN.

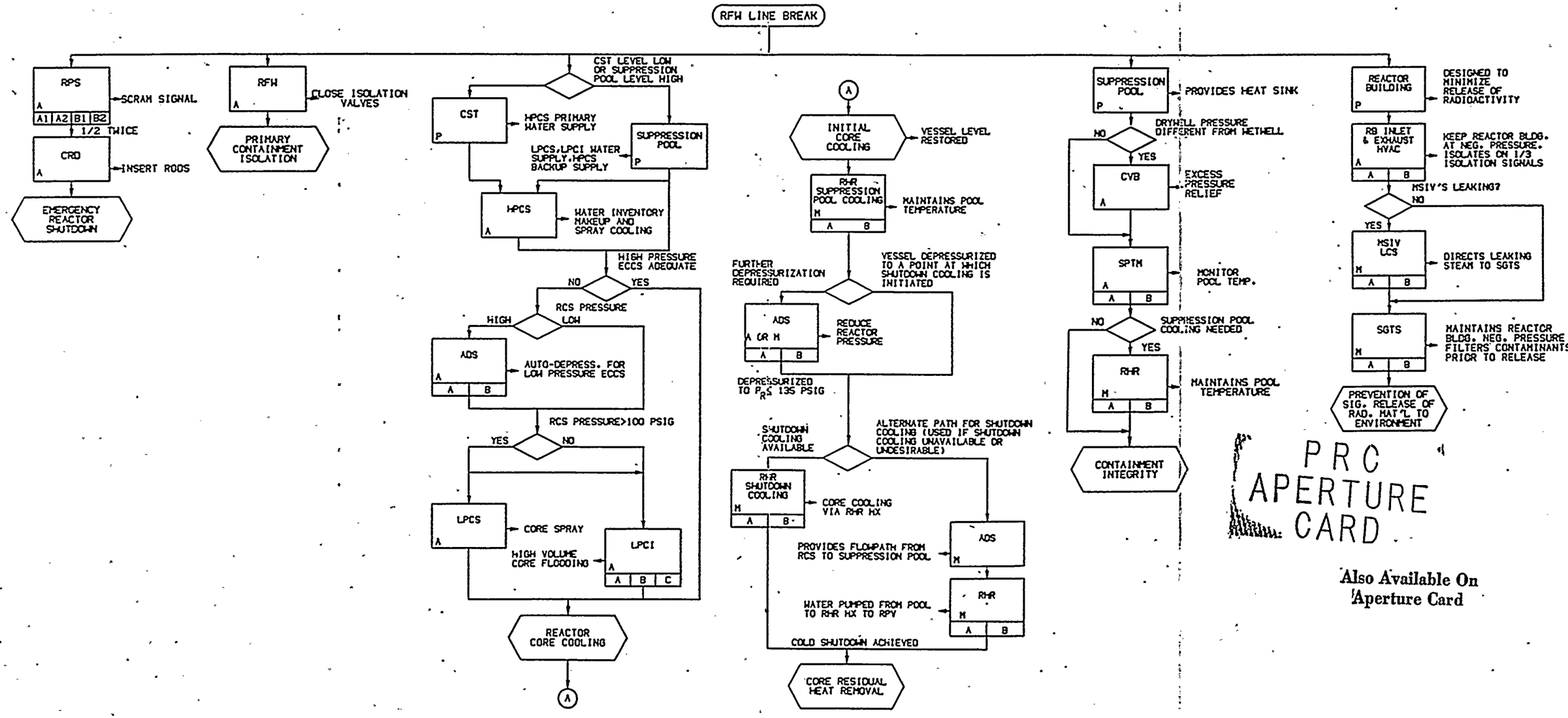


FIGURE 2.5
REACTOR FEEDWATER SYSTEM LINE BREAK
SAFETY SEQUENCE DIAGRAM

ACCIDENT DEFINITION

THIS EVENT CONSISTS OF A BREAK IN A RECIRCULATION PUMP SUCTION LINE (24") IN THE DRYWELL BETWEEN THE REACTOR VESSEL AND MOTOR-OPERATED VALVE RRC-V-23, AND IS THEREFORE CONSIDERED NON-ISOLABLE. THE MAIN PARAMETER TRANSIENTS WHICH CHARACTERIZE THE EVENT ARE LOW REACTOR LEVEL AND PRESSURE, AND HIGH DRYWELL PRESSURE. THE PLANT PROCEEDS TO COLD SHUTDOWN.

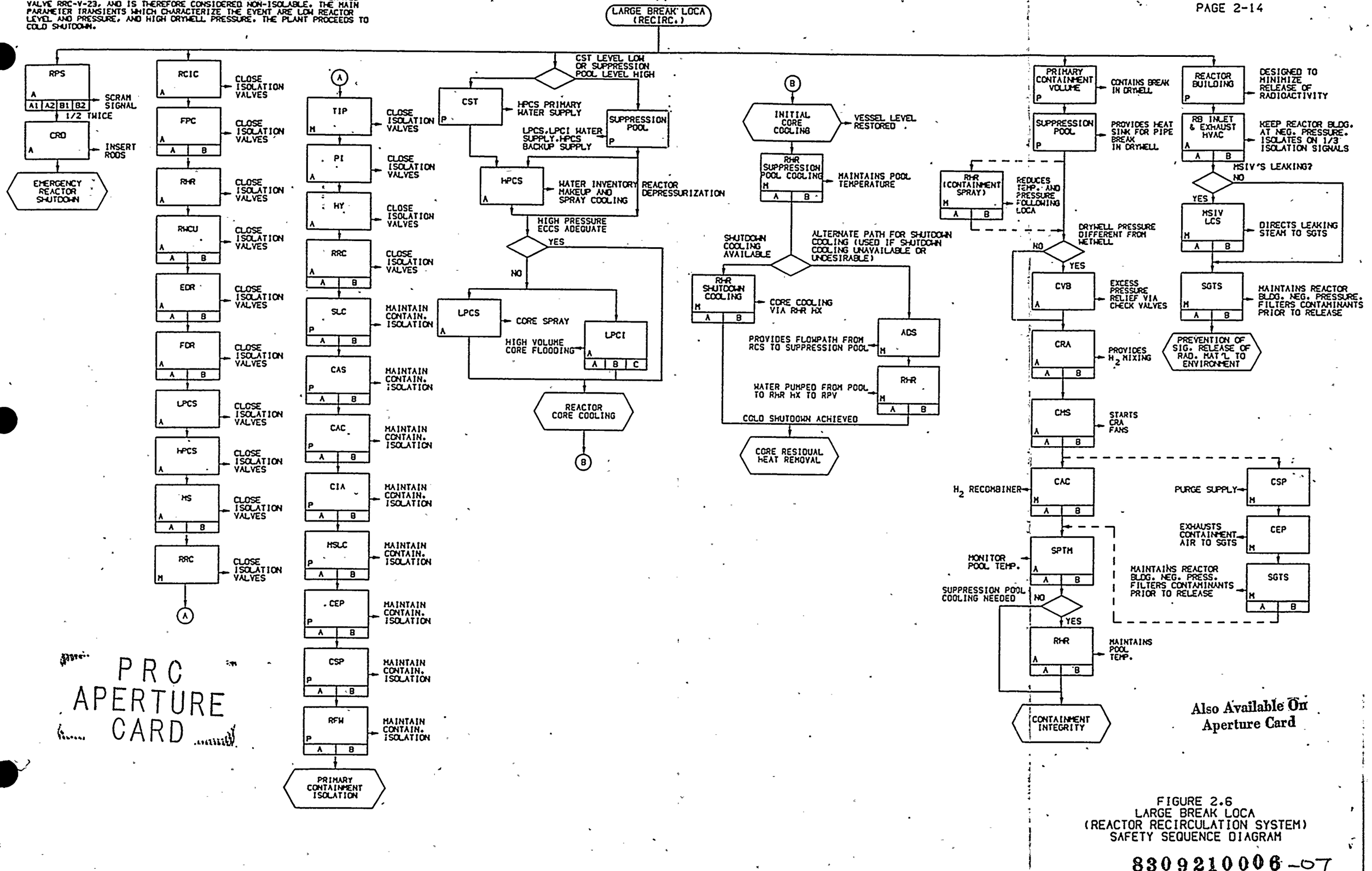


FIGURE 2.6
LARGE BREAK LOCA
(REACTOR RECIRCULATION SYSTEM)
SAFETY SEQUENCE DIAGRAM

ACCIDENT DEFINITION

THIS EVENT CONSISTS OF A BREAK IN A MAIN STEAM LINE (26") BETWEEN THE REACTOR VESSEL AND FLOW LIMITER. SINCE THE BREAK IS INSIDE OF THE INBOARD CONTAINMENT ISOLATION VALVE, RADIATION AND TEMPURATURE ELEMENTS IN THE MAIN STEAM TUNNEL AND ROUTING AREA WILL NOT BE THE PRIMARY FACTORS RESPONDING, BUT RATHER RPV LEVEL AND PRESSURE, AND HIGH DRYWELL PRESSURE. THE PLANT PROCEEDS TO COLD SHUTDOWN.

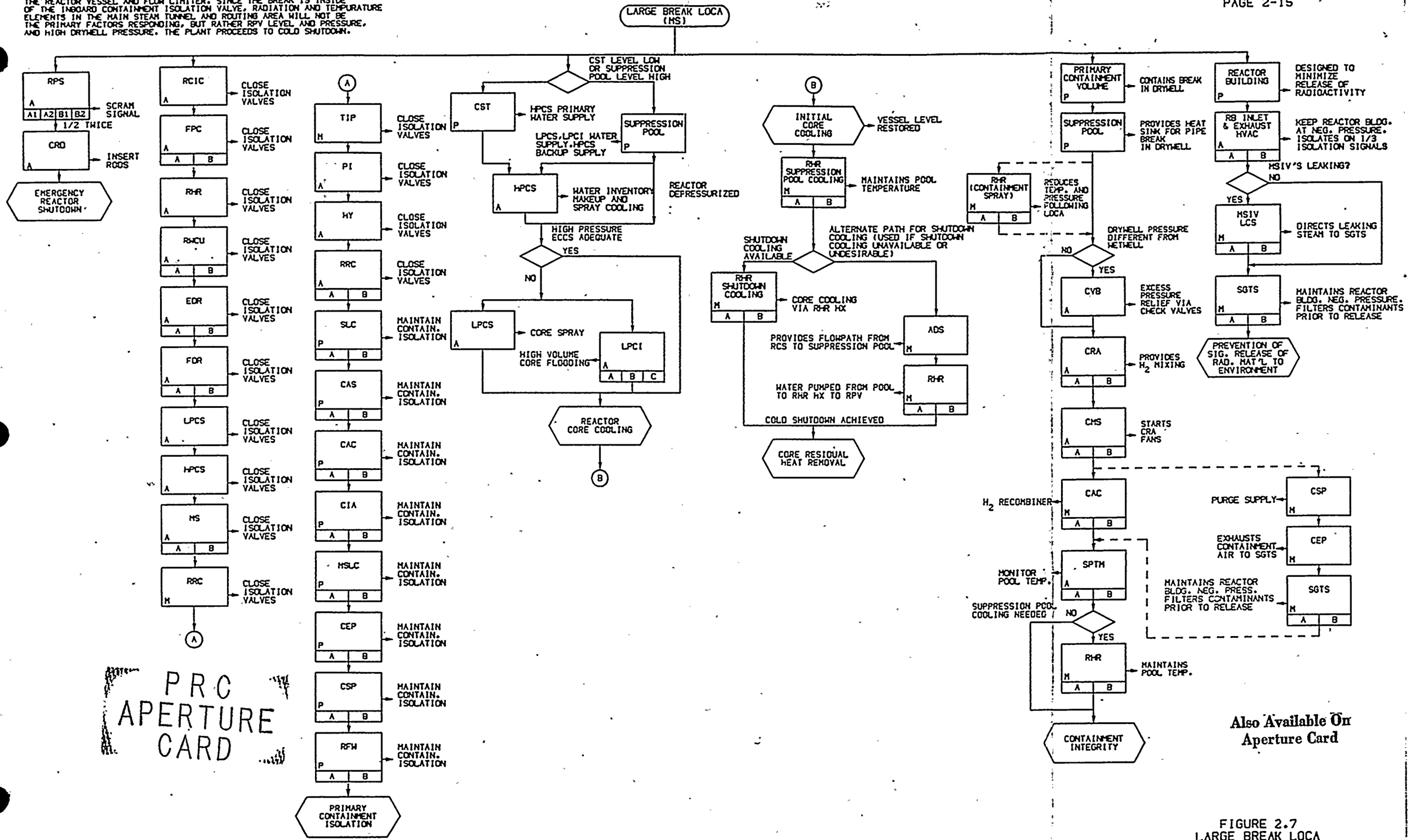
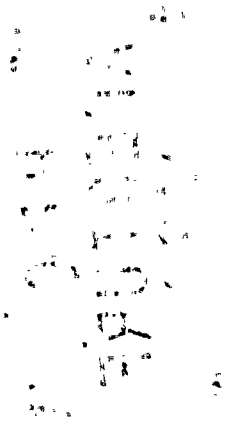


FIGURE 2.7
LARGE BREAK LOCA
(MAIN STEAM)
SAFETY SEQUENCE DIAGRAM



ACCIDENT DEFINITION

A SMALL BREAK LOCA IS DEFINED AS ANY BREAK IN THE REACTOR COOLANT SYSTEM WHOSE LEAKAGE IS GREATER THAN THE CAPACITY FOR THE NORMAL REACTOR COOLANT MAKEUP SYSTEM(S). NO SPECIFIC BREAK IS CONSIDERED HERE, BUT RATHER THE GENERAL EFFECTS OF ALL NON-ISOLATABLE SMALL BREAK LOCAS. THE PLANT PROCEEDS TO COLD SHUTDOWN.

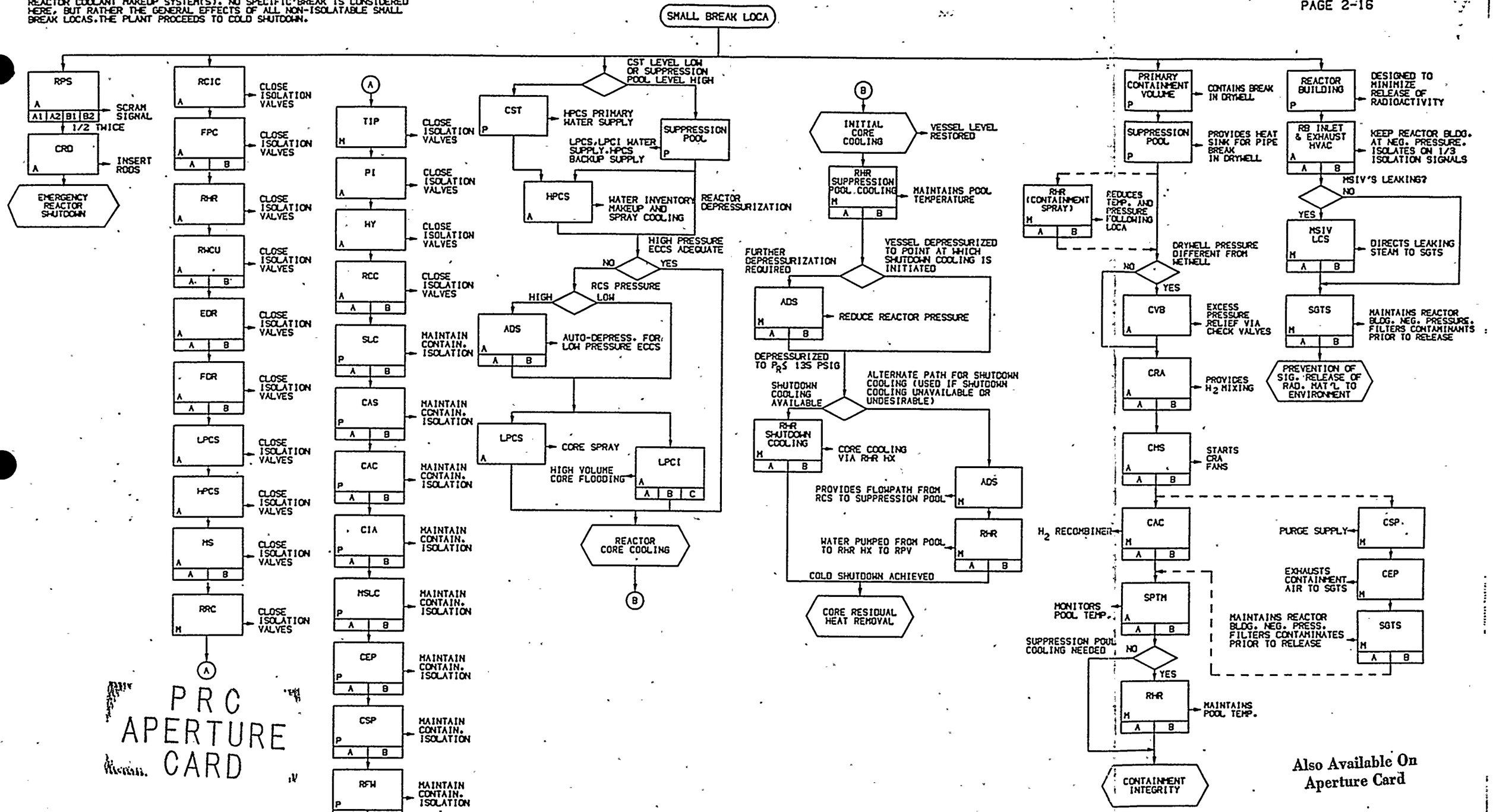


FIGURE 2.8
SMALL BREAK LOCA
SAFETY SEQUENCE DIAGRAM

ACCIDENT DEFINITION

THIS EVENT CONSISTS OF A FAILURE OF THE CONTROL ROD-TO-DRIVE MECHANISM COUPLING AFTER THE CONTROL ROD BECOMES STUCK IN ITS FULLY INSERTED POSITION. THE CONTROL ROD DRIVE IS THEN FULLY WITHDRAWN BEFORE THE STUCK ROD FALLS OUT OF THE CORE. INITIALLY, AFTER THE HIGH FLUX SCRAM, CORE COOLING IS PERFORMED BY RCIC OR HPCS. THE PLANT THEN PROCEEDS TO COLD SHUTDOWN.

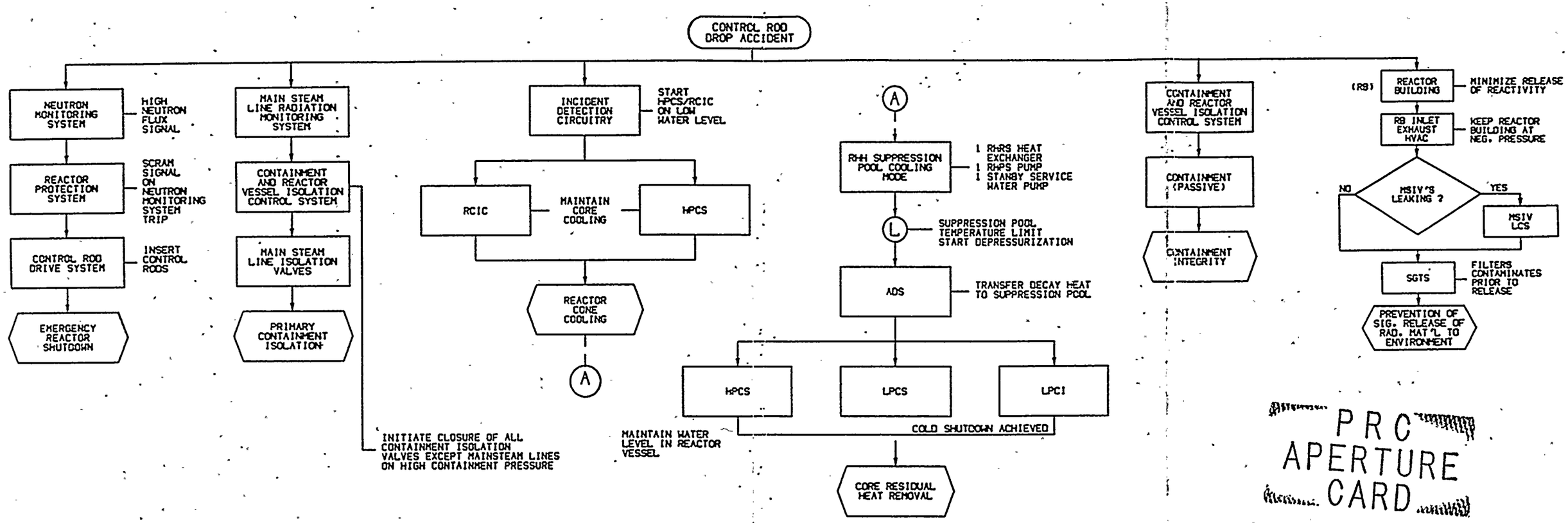


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FIGURE 2.9
CONTROL ROD DROP
SAFETY SEQUENCE DIAGRAM

3.0 SCOPE OF ANALYSIS

3.0 SCOPE OF ANALYSIS

This analysis identified a minimum complement of safety-related electrical and instrumentation and control equipment in the harsh environment at WNP-2 required for safe shutdown and accident mitigation. Class 1E (C1E) equipment in the Environmental Qualification Program which was required for safe plant shutdown was evaluated. C1E equipment located in a mild environment was assumed to remain operable due to the lack of significant environmental stress on this equipment following the accident.

The scope of the analysis is defined by four elements: 1) the accidents creating a harsh environment, 2) post-accident environmental conditions, 3) Regulatory Guide 1.97 requirements, and 4) non-safety equipment impact on safety-related equipment. The non-safety equipment evaluated is that associated with the safety-related equipment being reviewed.

3.1 Accidents Creating a Harsh Environment

The accidents considered in this analysis are those that potentially cause harsh environments that may adversely affect the functioning and/or integrity of safety-related electrical equipment. These accidents are Loss-of-Coolant Accidents (LOCAs) inside primary containment, High Energy Line Breaks (HELBs) inside the reactor building, and the Control Rod Drop Accident. These accidents are defined in Section 5.2.2

3.2 Post-Accident Environmental Conditions

The temperature, pressure, and radiation environments in which the equipment will be required to function are defined for:

1. LOCAs inside the primary containment.
2. HELBs inside the reactor building.
3. The reactor building environment caused by LOCAs inside the primary containment.

Post-accident environmental conditions specifically for the Control Rod Drop Accident (CRDA) are not calculated. LOCA radiation profiles are used for equipment in the CRDA preferred safe shutdown path that is the same as equipment needed to mitigate a LOCA (e.g. HPCS). Since the LOCA conditions are more severe than those resulting from a CRDA, using LOCA radiation profiles to envelop both accidents provides a conservative treatment.

These considerations define the post-accident environments for which the analysis is performed.

3.3 Regulatory Guide 1.97 Requirements

Regulatory Guide 1.97 describes a method acceptable to the NRC for complying with the requirement to provide instrumentation to monitor plant variables and systems during and following an accident. This guide defines the minimum number of variables to be monitored by the control room operating personnel under these conditions to perform their responsibilities in the evaluation, assessment, monitoring and execution of control room functions. Sufficient variables are also defined for control room operating personnel to perform their role in the emergency plan when the other emergency response facilities are not sufficiently manned. The application of the criteria for the instrumentation is limited to that part of the instrumentation system and its vital supporting features or power sources that provide the direct display of the variables.

The instrumentation for WNP-2 to satisfy Regulatory Guide 1.97 requirements has been identified and submitted to the NRC in December, 1982. In the context of the BWR variables listed in Table 1 of Regulatory Guide 1.97, the WNP-2 instrumentation include:

1. All Category 1 items on Table 1.
2. The following Category 2 items on Table 1.
   A. Radiation exposure monitors in the Reactor Building for sources within the primary containment.
   B. All Type D, Category 2 variables.
3. No Type E variables (other than those which are Category 1).

As with the Environmental Qualification Program in general, it is not expected that all of the instrumentation described in the Regulatory Guide 1.97 submittal will have complete qualification documentation prior to fuel load. Some instrumentation, upgraded to more stringent qualification requirements, are still being procured. Qualification documentation for the procured instrumentation will be completed prior to fuel load. For other instrument types not shown to meet the environmental qualification requirements, component-specific justifications have been performed. Rev.2

Many of the instrument types in the WNP-2 Class 1E list for accident monitoring per Regulatory Guide 1.97 have different use codes for different required operating times. For example, a HPCS flow transmitter is required to be operable when HPCS is required, but is only required to maintain system integrity when HPCS is not required. The HPCS system is required to be operable for 24 hours following certain accidents. Therefore, the HPCS flow transmitter is required to be operable for 24 hours and then maintain system integrity for the remainder of the time. Qualification of this type of instrument would include operability for 24 hours and integrity for 4320 hours (6 months).

Other instruments, although required to be operable per Regulatory Guide 1.97 for the duration of accidents, provide indication of the completion of its related safety function within 10 minutes after an accident. The component-specific justification for interim operation of this type of instrument indicates that the instrument would be qualified, in the short term, to provide its required short-term, active safety function. Diverse, qualified instrumentation or qualified safety function components are then available to provide long-term, indirect monitoring or assurance of maintaining the safety function.

To prevent misleading the operator with unreliable information from unqualifed instrumentation, WNP-2 has established a program to install an identification scheme for control room instrumentation and control. The identification scheme will identify to the operators which indications and controls are qualified.

3.4 Impact of Non-Safety Equipment on Safety-Related Equipment

Assessments of the Three Mile Island-2 incident and other recent events, such as those at Browns Ferry-3 and Crystal River-3, have identified the need for reducing unexpected reactor incidents caused by hidden system dependencies. These hidden dependencies, also known as Systems Interactions (SIs), have often resulted from non-safety equipment impact on safety-related equipment.

To prevent adverse SIs from occurring, the NRC has established an on-going program to define and subsequently implement SI regulatory requirements for light water reactors.

WNP-2 has assessed the non-C1E components within C1E systems. This non-safety equipment impact on safety-related equipment is evaluated in terms of functional SIs. These are interactions resulting from either the sharing of components between systems or through physical connections between systems such as electrical, hydraulic, pneumatic and mechanical. These SIs were evaluated as part of the WNP-2 Electrical Separation Program and also in the Failure Modes and Effects Analysis task of the JIO effort.

The WNP-2 Electrical Separation Program has assessed the impact of electrical non-C1E equipment on C1E busses. The non-C1E loads identified were then addressed in two ways:

1. The non-C1E loads were treated as prime or associated circuits; or

2. Class 1E isolation devices (e.g., fuses, circuit breakers, etc.) have been installed.

Functional systems interactions were also evaluated by a Failure Modes and Effects Analysis (FMEA) in the JIO analysis. The FMEA identified the correct Use Code (2 or 3) for equipment on the WNP-2 C1E list which did not have an active safety function. Use Code 2 describes equipment which need not perform an active function for mitigation of a design basis accident but must not fail in a manner detrimental to safe shutdown. Use Code 3 describes equipment which need not function for accident mitigation and whose failure is deemed not detrimental to plant safety. Section 5.2.4 provides more details on the FMEA.

Thus, the non-safety equipment impact on safety-related equipment has been evaluated within the boundaries of the JIO analysis.

4.0 SAFETY-RELATED SYSTEMS

4.0 SAFETY-RELATED SYSTEMS

4.1 Approach

The identification of equipment for environmental qualification is consistent with the project design documents, including flow diagrams, electrical one-line diagrams, logic diagrams, elementary diagrams, and instrument loop diagrams. Examination of these documents entails the following:

1. Review of electrical one-line diagrams to identify electrical equipment which distributes safety-related power to safety-related electrical systems.

2. Review of system flow diagrams, related system descriptions, and FSAR system function sections (including Chapter 15 - accident analysis) to

   A. Identify the electrical equipment within each system,
   B. Analyze and tabulate emergency events for each equipment item and the corresponding safety function required to mitigate the emergency event,
   C. Define operating use codes, and
   D. Determine the amount of time required for completion of the safety function.

3. Review of elementary and loop diagrams for each Class 1E electrical component to identify safety-related equipment required to control or monitor the equipment.

Equipment identified in this manner is listed on the Class 1E Equipment List (Appendix A).

4.2 Systems Reviewed

Six safety functions were identified in performing this analysis. The following definitions of safety functions were adopted:

Safety Function: A function which must be provided in order to maintain the nuclear plant in a safe and stable condition. Safety functions noted below will assure the safe shutdown of WNP-2.

The six safety functions are:

1. Emergency Reactor Shutdown
   Reactivity Control - establish and maintain core reactivity to assure reactor shutdown.

2. Primary Containment Isolation
   Seal all potential paths out of primary containment following an accident in order to prevent a significant release of radioactive materials.

3. Reactor Core Cooling

   A. Initial Core Cooling - provide core heat removal immediately following an accident to prevent damage to the fuel. This function involves the injection of emergency cooling water by various systems.

   B. RCS Pressure Control - maintain reactor coolant system pressure in accordance with the thermal-hydraulic limits for any given reactor operating mode.

   C. RCS Level Control - maintain reactor vessel water level to ensure adequate core cooling.

4. Containment Integrity

   A. Primary Containment Hydrogen Control - maintain the containment H_2 and O_2 concentration within acceptable limits in order to prevent the possibility of the uncontrolled burning of hydrogen.

   B. Primary Containment Pressure and Temperature Control - maintain the containment environment within acceptable limits in order to prevent damage to the containment structure and its contents.

5. Core Residual Heat Removal

   Long-Term Core Cooling - provide core heat removal for extended periods of time via recirculation of reactor coolant.

6. Prevention of Significant Release of Radioactive Material to the Environment

   Reactor Building Isolation - seal and/or control potential release paths out of the reactor building in order to prevent the release of radioactive materials to the environment in excess of 10CFR100 limits.

The systems required to accomplish the six safety functions are presented below. Only a portion of each system may be needed to support a particular safety function. The equipment in all required systems and subsystems is included in the Class 1E Equipment List (Appendix A). Instrumentation required by Regulatory Guide 1.97 to follow the course of an accident has been identified with respect to a particular system and is also included in the Class 1E Equipment List.

The following systems support the six safety functions through the operation of individual components or operation of the system as required.

System	Abbreviation
Containment Atmosphere Control	CAC
Control Air System	CAS
Containment Purge Exhaust	CEP
Containment Instrument Air	CIA
Containment Monitoring System	CMS
Containment Return Air	CRA
Control Rod Drive	CRD
Containment Purge Supply	CSP
Containment Vacuum Breaker	CVB
Electrical Distribution	E
Equipment Drains Radioactive	EDR
Floor Drains Radioactive	FDR
Fuel Pool Cooling	FPC
High Pressure Core Spray	HPCS
RRC Hydraulic Control	HY
Intermediate Range Monitors	IRM
Leak Detection	LD
Low Pressure Core Spray	LPCS
Local Power Range Monitor	LPRM
Main Steam	MS
Main Steam Isolation Valve Leakage Control	MSLC
Process Instrumentation	PI
Process Sampling Radioactive	PSR
Reactor Building Closed Cooling	RCC
Reactor Core Isolation Cooling	RCIC
Reactor Building Exhaust Air (HVAC)	REA
Reactor Feed water	RFW
Residual Heat Removal (Includes Containment Spray)	RHR

System	Abbreviation
Reactor Building Outside Air (HVAC)	ROA
Reactor Protection System	RPS
Reactor Building Return Air (HVAC)	RRA
Reactor Recirculation	RRC
Reactor Water Cleanup	RWCU
Standby Gas Treatment	SGT
Standby Liquid Control	SLC
Suppression Pool Temperature Monitoring	SPTM
Source Range Monitor	SRM
Standby Service Water	SW
Traversing In-core Probe	TIP

4.3 Correlation Between FSAR Table 3.2-1 and Systems Reviewed

The safety-related systems listed in the WNP-2 FSAR Table 3.2-1 were addressed. A detailed correlation between the systems listed in Section 4.2 and FSAR Table 3.2-1 is given below.

FSAR Table 3.2-1	JIO System Review
1. Reactor System	No electrical equipment to consider
2. Nuclear Boiler System	MS system review
3. Reactor Recirculation System	RRC system review
4. CRD Hydraulic System	CRD system review
5. Standby Liquid Control System	SLC system review
6. Neutron Monitoring System	SRM, IRM AND LPRM system reviews
7. Reactor Protection	RPS system review
8. Leak Detection System	RCIC, RWCU, MS, RHR and LD system reviews
9. Process Radiation Monitors	MS and REA system reviews
10. RHR System	RHR system review
11. Low Pressure Core Spray	LPCS system review
12. High Pressure Core Spray	HPCS system review
13. RCIC System	RCIC system review
14. Fuel Service Equipment	No equipment required for accident mitigation
15. Reactor Vessel Service Equipment	No equipment required for accident mitigation
16. In-Vessel Service Equipment	No equipment required for accident mitigation

FSAR Table 3.2-1	JIO System Review
17. Refueling Equipment	No equipment required for accident mitigation
18. Storage Equipment	No equipment required for accident mitigation
19. Radwaste System	EDR and FDR systems review
20. Reactor Water Cleanup System	RWCU system review
21. Fuel Pool Cooling and Cleanup System	FPC, RHR and SW system reviews
22. Control Room Panels	Outside of harsh environment
23. Local Panels and Racks	Equipment included with other system reviews
24. Off-Gas System	No equipment required for accident mitigation
25. Standby Service Water System	SW system review
26. Turbine Plant Service Water	No equipment required for accident mitigation
27. Reactor Building Closed Cooling Water System	RCC system review
28. Primary Containment Cooling System	CEP, CSP, CRA, RCC system review
29. Standby Gas Treatment System	SGT system review
30. Primary Containment Atmospheric Control System	CAC system review
31. Other HVAC	REA, ROA and RRA system reviews
32. Condensate Storage and Transfer	No equipment required for accident mitigation
33. Instrument and Sample Lines	PI and PSR system reviews
34. Fuel Storage Facilities	No equipment required for accident mitigation

	FSAR Table 3.2-1	JIO System Review
35.	Building Cranes	No equipment required for accident mitigation
36.	Instrument and Service Air	CAS system review
37.	Containment Instrument Air	CIA system review
38.	Diesel Generator Systems	Outside of harsh environment
39.	Standby AC Power Systems	E system review (other systems outside of harsh environment)
40.	Auxiliary 125/250 Volt DC Power Systems	E system review
41.	24 Volt DC Power System	E system review
42.	120 Volt Critical Power Supply	E system review
43.	Power Conversion System	No equipment required for accident mitigation
44.	Circulating Water and Cooling Tower Makeup Water System(s)	No equipment required for accident mitigation
45.	Main Steam Isolation Valves Leakage Control System	MSLC system review
46.	Containment Vessel	Passive - structural, no electrical equipment to consider
47.	Buildings	Structural, no electrical equipment to consider
48.	Containment/Drywell Atmosphere Monitoring System	CMS system review
49.	Drywell Insulation	No electrical equipment to consider
50.	Instrumentation and Control Equipment	Addressed in various system reviews

5.0 METHODOLOGY

5.0 METHODOLOGY

The JIO analysis was performed in three phases: 1) Safe shutdown analysis, 2) Determination of a minimum set of equipment, and 3) Development of component-specific justifications.

5.1 Approach

The approach used to justify interim operation was designed to identify all equipment essential to achieve and maintain safe shutdown following an accident. Extensive accident analyses provided the basis for selecting an optimum shutdown path to accomplish the six safety functions. Based on this preferred safe shutdown path, a minimum set of equipment which must be qualified prior to fuel load was then identified.

The safety-related electrical equipment in the Primary Containment and Reactor Building was used as a basis for equipment selection. This equipment includes all components essential to accomplish the six safety functions. Instrumentation required by Regulatory Guide 1.97 to monitor the course of an accident was also included.

In general, Use Code 1, 2, or 3 components which could be potentially exposed to a harsh environment were considered in this analysis. However, there is one "component" type which does not appear in Tables A and B but does appear in the CIE Equipment List: composites. Composites provide redundant information, because the safe shutdown CIE equipment on composites are individually identified for environmental qualification. The composite does not require additional environmental qualification documentation.

Accident definition narrowed the list of equipment considered to that potentially exposed to a harsh environment; that is, equipment inside the Primary Containment and Reactor Building. A Safety Sequence Analysis (SSA) and Failure Modes and Effects Analysis (FMEA) further reduced the list to those components required for LOCA and/or HELB Mitigation. The final reduction, selection of minimum required equipment for the preferred safe shutdown path for each safety function, was completed in two steps. The first step consisted of checking the status of the equipment qualification effort at WNP-2 to identify those components with incomplete qualification documentation. In the second step, the results of the SSA were reviewed to determine a single shutdown path that consists of the minimum number of additional components that require qualification documentation prior to fuel load.

Lastly, the components on the preferred safe shutdown paths were identified as Table A equipment, and components on the alternate paths were listed as Table B equipment. For those Table A components whose qualification documentation were incomplete, component-specific justifications were developed. These justifications were developed in accordance to the criteria set forth in the final NRC rule 10CFR50.49 (i).

5.2 Safe Shutdown Analysis

The Safe Shutdown Analysis involved defining the harsh environment producing accidents, performing a Safety Sequence Analysis, and conducting Failure Modes and Effects Analyses.

5.2.1 Assumptions

The following assumptions were made during the performance of the Safe Shutdown Analysis:

1. For shutdown analysis, no credit was taken for non-safety-related electrical equipment.

2. A Design Basis Earthquake (DBE) can occur simultaneously with the Design Basis Accident (DBA). | Rev.2

3. Only one accident at a time is postulated to occur.

4. Offsite power is lost at the time of the accident. | Rev.2

5. Containment radioactive leakage within design limits will occur.

6. Accidents occurring inside the Reactor Building have no effect upon environmental conditions inside the primary containment.

7. HPCS is used to mitigate a Control Rod Drop Accident in the event RCIC does not function adequately.

5.2.2 Accident Definition

The primary containment and most areas of the reactor building (with the exception of specially designed electrical equipment rooms) can be exposed to a harsh environment from postulated LOCAs/HELBs. This task identified the line breaks potentially causing a harsh environment and the associated environmental conditions.

From the environmental service conditions of Appendix B, a total of 18 line breaks in six systems were identified and categorized into seven events, including three LOCAs and four HELBs. The areas of the reactor building affected by each break were identified and tabulated. The environmental conditions associated with each break were also defined, including the calculated post-accident radiation, temperature, pressure, and humidity levels expected.

Post-accident radiation levels are indicated in the radiation zones maps, and the post-accident temperature, pressure, and humidity levels are defined by the accident profiles.

In addition to producing the direct post-accident environmental conditions, the HELBs and LOCAs yield secondary environmental effects. These secondary effects are primarily due to temperature and/or relative humidity propagating to zones beyond the location of the break. Accident profiles are also defined to account for these secondary effects. Rev.2

The radiation zone maps and accident profiles are presented in Volume I of this submittal. Rev.2

The Control Rod Drop Accident (CRDA) was also assessed. Specific environmental conditions associated with this accident were not determined. For the equipment used to mitigate this accident that is the same as the equipment required for LOCA mitigation, LOCA radiation conditions were used to envelop the CRDA conditions. This approach is conservative since the LOCA environmental conditions will be more severe than those resulting from a CRDA.

The postulated accident types and their corresponding accident codes are listed on Table 2.1. For each accident code, Table 2.2 identifies the areas of the plant affected by each break location and the associated accident profiles. Rev.2

5.2.3 Safety Sequence Analysis

A Safety Sequence Analysis was performed to identify equipment required for safe shutdown following any of the accidents considered. The combined results of this analysis and the FMEA (see Section 5.2.4) reduce the set of equipment requiring qualification documentation prior to fuel load to that equipment essential for the mitigation of the postulated accidents, as shown in Figure 5.1. During the first stage of this analysis, Safety Function Path Diagrams (SFPDs) were developed for each safety system. These diagrams identified all auxiliary support systems associated with each safety system. The final stage involved assembling the appropriate portions of each SFPD into Safety Sequence Diagrams (SSDs) for each accident. The SSDs for the accidents have been presented in Section 2.0.

5.2.3.1 Safety Function Path Diagrams

Based on a review of the plant design, and the accident descriptions in Chapter 15 of the FSAR, systems were selected that could achieve, or help to achieve, a given safety function. System descriptions, flow diagrams, and logic diagrams were then reviewed to determine system operation and to identify major components and their role in the completion of the safety function. When all the design paths that achieve the safety function were identified, a Safety Function Path Diagram (SFPD) was developed.

This diagram: 1). flowcharts all possible methods of achieving the safety functions, 2) depicts each required safety system's response to the accident, and 3) shows chronological and functional relationships, initiating input variables, and required operator actions. The entire accident duration is represented, including the activities necessary to achieve cold shutdown. A sample SFPD is provided as Figure 5.2.

Safety Function Equipment Lists were developed upon completion of each diagram. The basis for the list is the WNP-2 Class 1E Equipment List (Appendix A). For each safety system on the SFPD, the corresponding set of equipment from the WNP-2 Class 1E Equipment List is included in the Safety Function Equipment List. This assures that all equipment needed for

the operation of the safety system and completion of the safety function is considered.

5.2.3.2 Safety System Auxiliary Diagrams

Safety System Auxiliary Diagrams (SSADs) were developed for each system identified on a Safety Function Path Diagram. The purpose of these diagrams is to identify all auxiliary systems that are necessary to support a given safety system. Specific equipment in those auxiliary systems that are required to operate to provide that support are also identified.

Prior to SSAD development, the references documenting the operation of the chosen safety system (P&IDs, FCDs, FSAR sections) were reviewed and all auxiliary systems which support the safety system identified. A block diagram was subsequently developed that presented the safety system support requirements. It included the support systems, the presence of redundant trains, outputs of the support systems, initiating signals and trip conditions, and any operator actions. A sample SSAD is provided as Figure 5.3.

After completion of the SSAD, an Auxiliary Equipment List was prepared for the safety system. The basis for this list is the WNP-2 Class 1E Equipment List (Appendix A). For each auxiliary system on the SSADs, the corresponding set of equipment from this

list is included in the Auxiliary Equipment List. This assures that all equipment required to support the operation of the safety system and completion of the safety function is considered.

5.2.3.3 Safety Sequence Diagrams

Safety Sequence Diagrams (SSDs) were developed for each of the accidents postulated (see Section 5.2.2). First, an accident description was developed for each accident that includes a discussion of the plant's post-accident stable condition. Then the plant initial conditions were defined, and the portions of each generic SFPD applicable to the accident were assembled to form the Safety Sequence Diagram. Each path was modified to reflect accident-specific parameters, actions, and inputs. The final SSD is a flowchart representation of the plant's response to the postulated accident via the operation of essential safety systems. A sample SSD is provided as Figure 5.4.

5.2.4 Failure Modes and Effects Analysis

A Failure Modes and Effects Analysis (FMEA) investigated the propagation of the consequences of a single component failure on its composite equipment, its system, and the safety function for which the system is required. Performed in conjunction with the SSA tasks, this analysis helped define the minimum set of equipment essential to safety system

operation, thereby assuring safety function completion (see Figure 5.1). The FMEA was performed for each of the components on the Safety Function Equipment Lists or on the Auxiliary Equipment Lists that was not required to function to achieve the six safety functions (i.e., those components with accident Use Codes 2 or 3). Failure modes were then postulated for the equipment.

Failure modes were postulated conservatively, without consideration of the scenario resulting in the failure. The effect of each credible failure on the equipment, its system, its safety system (for auxiliary equipment), and the safety function was assessed. Based on this assessment, the failure of some equipment was determined not to be detrimental to plant safety or accident mitigation and, therefore, need not be qualified for the accident environment. Equipment which can fail in a manner detrimental to plant safety must be qualified. Based on the effects of the failure, the appropriate use code was assigned to the equipment. When the use code resulting from the FMEA did not concur with the initial accident use codes, changes to the use codes in the CIE list were initiated.

An example of the FMEA for three of the components considered is included in Figure 5.5.

5.2.5 Use Code Definition

The Safe Shutdown Analysis verified equipment use as specified in the Class 1E list (Appendix A.) Equipment use during accident conditions were described by five "Use Codes": 0, 1, 2, 3, and 4.

The definitions of these codes for equipment use during a Design Basis Accident are provided below:

Use Code	Definition
0	Equipment that will not experience the environmental conditions of design basis accidents and is not required before, during, or after an accident.
1	Equipment that will experience the environmental conditions of a Design Basis Accident for which it must function to mitigate said accident, and that will be qualified to demonstrate operability in the accident environment for the time required for accident mitigation with a safety margin to failure.
2	Equipment that will experience the environmental conditions of a Design Basis Accident through which it need not provide an active function for mitigation of said accident, but through which it must not fail in a manner detrimental to plant safety or accident mitigation, and that will be qualified to demonstrate the capability to withstand any accident environment for the time during which it must not fail with a safety margin to failure.

3 Equipment that will experience environmental conditions of a Design Basis Accident through which it need not function for mitigation of said accident, and whose failure (in any mode) is deemed not detrimental to plant safety or accident mitigation, and need not be qualified for any accident environment, but will be qualified for its non-accident service environment.

4 Safety-related equipment that will not experience environmental conditions of a Design Basis Accident for which it must function to mitigate said accident and that will be qualified to demonstrate operability under the expected extremes of its accident service environment. This equipment would be located outside the Reactor Building.

5.3 Minimum Required Set of Equipment

In defining the minimum set of equipment requiring qualification documentation prior to fuel load, the current qualification status for the essential equipment, as identified during the SSA and FMEA, was reviewed. Items already documented as qualified were determined. The remaining items then comprised a preliminary set of essential components requiring additional qualification effort (see Figure 5.6). This set of safety-related electrical equipment was then evaluated to determine a minimum set of equipment to be qualified prior to fuel load.

5.3.1 Assumptions

Two assumptions were made in selecting the minimum set of equipment needed for safe shutdown.

1. Accomplishing the six identified safety functions will ensure plant safe shutdown.

   A. Emergency Reactor Shutdown

   B. Primary Containment Isolation

   C. Reactor Core Cooling

   D. Containment Integrity

   E. Core Residual Heat Removal

   F. Prevention of Significant Release of Radioactive Material to the Environment

2. Single failures (active or passive) were not assumed.

5.3.2 Preferred Safe Shutdown Paths

The SSDs shown in Figures 2.1 - 2.9 were reviewed and a single path to accomplish each safety function for each accident type was chosen.

The path with the least number of components yet to be documented as qualified was chosen where possible. Train A components were generally selected in order to assure that most items were powered from the same electrical division. Figure 5.7 shows the preferred path for each of the identified safety functions. This preferred path is the composite of the selected path for accomplishing the safety function for each accident type. The following systems in the preferred path support each safety function through the operation of individual components or operation of the system as required.

Emergency Reactor Shutdown

Reactor Protection System
Control Rod Drive System

Primary Containment Isolation

RRC Hydraulic Control
Main Steam System
Reactor Feedwater System
Reactor Recirculation System
High Pressure Core Spray System
Low Pressure Core Spray System
Standby Liquid Control System
Residual Heat Removal System
Reactor Core Isolation Cooling System
Containment Atmosphere Control
Containment Supply Purge System
Reactor Closed Cooling System

Reactor Water Cleanup System
Equipment Drains Radioactive System
Floor Drains Radioactive System
Containment Instrument Air System
Process Instrumentation System
Control Air System
Fuel Pool Cooling System
Traversing In-Core Probe System

Reactor Core Cooling

High Pressure Core Spray System
Low Pressure Core Spray System
Main Steam System - Automatic Depressurization System
Residual Heat Removal System
Containment Instrument Air System (Support System)
Standby Service Water System (Support System)

Containment Integrity

Containment Atmosphere Control System
Containment Monitoring System
Containment Return Air System
Containment Vacuum Breaker System
Residual Heat Removal System
Standby Service Water System (Support System)
Suppression Pool Temperature Monitoring

Core Residual Heat Removal

Automatic Depressurization System
Residual Heat Removal System
Standby Service Water System (Support System)

Prevention of Release of Radioactive Material to the Environment

Standby Gas Treatment System
Main Steam Leakage Control System
Standby Service Water System (Support System)
Leak Detection System (Input)
Reactor Building Exhaust Air System
Reactor Building Outside Air System

The alternate paths for accomplishing each of the six safety functions are shown in Figure 5.8.

Three basic types of systems do not directly perform a safety function and are not shown in the SSDs in Figures 5.7 and 5.8:

1. Auxiliary Systems which provide support to safety systems

   A. Service Water (SW) System

   B. Reactor Building Return Air (RRA) System

2. Systems which provide inputs to safety systems

   A. Electrical (E) System

   B. Leakage Detection (LD) System

3. Instrumentation to monitor the course of the accident (per Reg. Guide 1.97)

   A. Process Sampling Radioactive (PSR) System

However, all of these equipment have been evaluated as part of the Safety Sequence Analysis.

The sum of the preferred paths for each safety function (six) comprise the preferred safe shutdown path for JIO analysis.

5.3.3 Selection of Minimum Set of Equipment

The equipment required to assure the operation of each safety system in the chosen path represents the minimum set of required equipment to be provided with qualification documentation prior to fuel load (see Figure 5.9). Table A identifies the equipment in the preferred safe shutdown path that will have qualification documentation or component-specific justifications prior to fuel load.

Table B identifies the remaining safety-related electrical equipment in the alternate shutdown paths to have qualification documentation prior to the end of the first refueling outage.

5.3.4 Results

The results of this analysis identify the necessary and sufficient equipment to ensure safe shutdown for WNP-2. All viable safe shutdown paths which can accomplish the required safety functions under accident conditions have been determined. A single preferred path is then selected such that the equipment on that path comprise the minimum set requiring documentation of qualification or justification prior to fuel load. Qualification documentation or component-specific justifications are completed for the preferred safe shutdown path equipment. Table A identifies this minimum set of equipment. The remaining safety-related electrical equipment in the alternate shutdown paths are listed in Table B and will have complete qualification documentation prior to the end of the first refueling outage. Interim operation is justified since a fully qualified or justified preferred safe shutdown path has been identifed for each safety function.

An accident legend is included as the first page of each table.

5.4 Component-Specific Justification

5.4.1 Approach

A small number of safety-related equipment in the preferred safe shutdown paths which have incomplete qualification documentation have been identified. To meet the current qualification requirements in 10CFR50.49(i), an analysis of

this equipment has been completed to ensure that the plant can be safely operated pending completion of the environmental qualification program. This analysis includes, where appropriate, consideration of:

1. Accomplishing the safety function by some designated alternative equipment if the principal equipment has not been demonstrated to be fully qualified.

2. The validity of partial test data in support of the original qualification.

3. Limited use of administrative controls over equipment that has not been demonstrated to be fully qualified.

4. Completion of the safety function prior to exposure to the accident environment resulting from a design basis event and ensuring that the subsequent failure of the equipment does not degrade any safety function or mislead the operator.

5. No significant degradation of any safety function or misleading information to the operator as a result of failure of equipment under the accident environment resulting from a design basis event.

Criteria, as presented below, were established to implement these areas in the development of the individual equipment justifications.

5.4.2 Criteria

Criteria, with due consideration to the 10CFR50.49(i) items listed above, were established to minimize the impact on operation of the plant during accident conditions. This approach resulted in a prioritized set of criteria for justifying plant operation with equipment that has incomplete qualification documentation.

Three criteria were utilized, with the highest priority placed on the first one. The other two criteria were applied only when the first criteria could not be used.

These three criteria, listed in descending priority, used in the development of the component-specific justifications include:

1. Accomplishing the safety function by some designated alternate equipment. The alternate equipment is environmentally qualified to the accident for which it must operate to perform the safety function.

2. Completion of the safety function prior to exposure to the ensuing accident environment. The time required for completion of the safety function may result in subjecting the equipment to the harsh accident environment. If completion of the safety function can be verified before the equipment exposure exceeds the mild environment radiation limit (10^4 Rads), then the equipment is operable for that time period. This criterion is used only when radiation is the restricting parameter for qualification.

3. Administrative controls over equipment that has not been demonstrated to be fully qualified. In order to minimize the impact on operations, this criteria is applied only in cases where specific alternative operator action is required to achieve safety function.

In addition to these three major criteria, the component-specific justifications also considered the degradation of any safety function or providing misleading information to the operator as a result of equipment failure. Failure analyses have demonstrated that the consequences of the electrical failure of most of the equipment could be isolated by Class 1E fuses and/or circuit breakers or does not degrade the function of the safety. If the electrical failure could provide misleading information to the operator, then the equipment was identified to be included in a control room instrument and control identification scheme. This identification scheme will prevent the operators from being misled by potentially unreliable information.

5.4.3 Results

The component-specific justifications for equipment with incomplete qualification documentation were developed based on the constraints imposed by the component or environment. The justification arguments were primarily systems oriented. A failure consequence analysis is discussed regardless of the evidence provided in the justification that such a failure of the equipment is not anticipated.

In some cases, the required radiation dose may be less than the zone dose, depending on operability time and component location within the zone. If this is so, details are provided within the body of the justification.

Component-specific justifications developed in this analysis are included in this appendix. Each justification presents the following information:

1. COMPONENT IDENTIFICATION
   EPN - Equipment Piece Number
   Description of equipment
   Component Type
   Manufacturer/Model

2. ACCIDENT CONDITIONS
   Accident Profile - LOCA or HELB accident conditions under which equipment must function to mitigate the accident

   Use Code
   Operability Time
   Radiation Zone
   Zone Dose - The sum of the accident dose (180 days) for the accident environment plus normal operation dose (40 years) for the worst target in zone.

3. DESCRIPTION OF COMPONENT SAFETY FUNCTION

   Description of the safety function provided by the component, including an operational description of the component within its system. If applicable, details of the component's mechanical/electrical operation are included.

4. QUALIFICATION STATUS

   Summary of qualification status, including parameters requiring justification.

5. JUSTIFICATION FOR INTERIM OPERATION

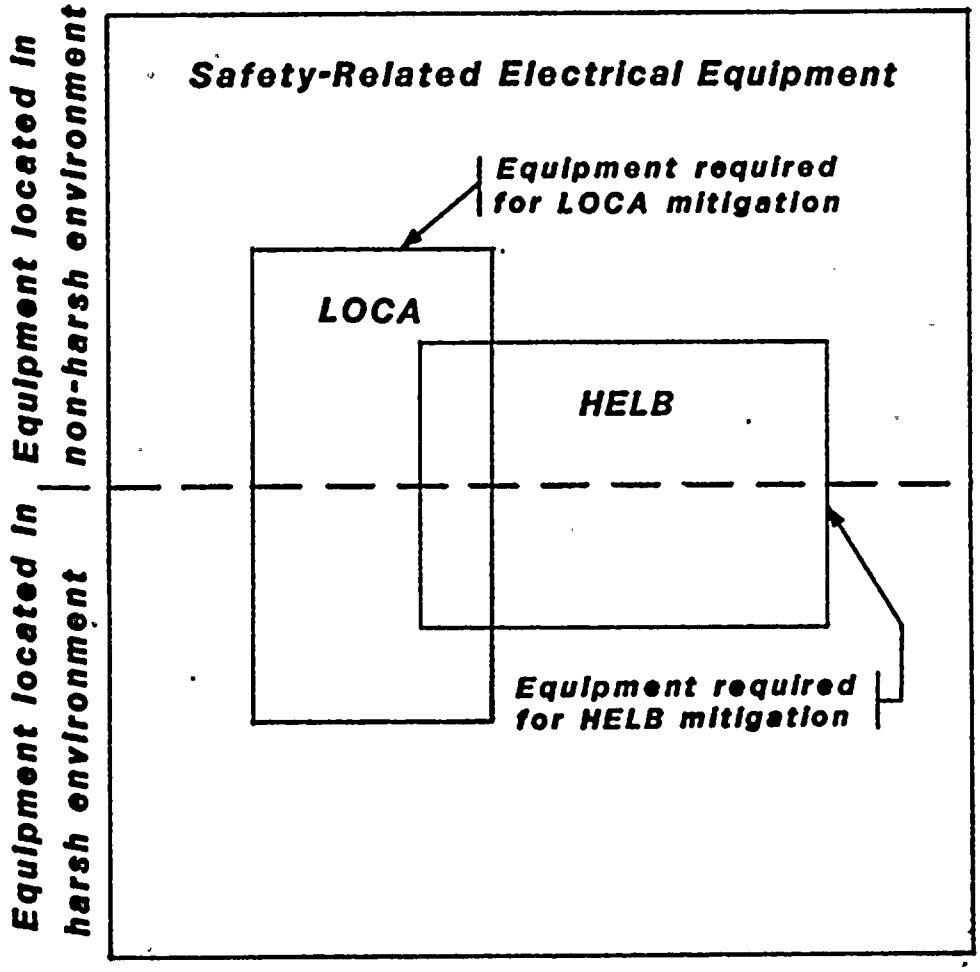
   Component-specific justification developed for LOCA and HELB based on the criteria presented in Section 5.4.2.

6. CONCLUSION

   Main points of the justification statement.

FIGURE 5.1

Safety-Related Electrical Equipment Exposed to a Harsh Environment



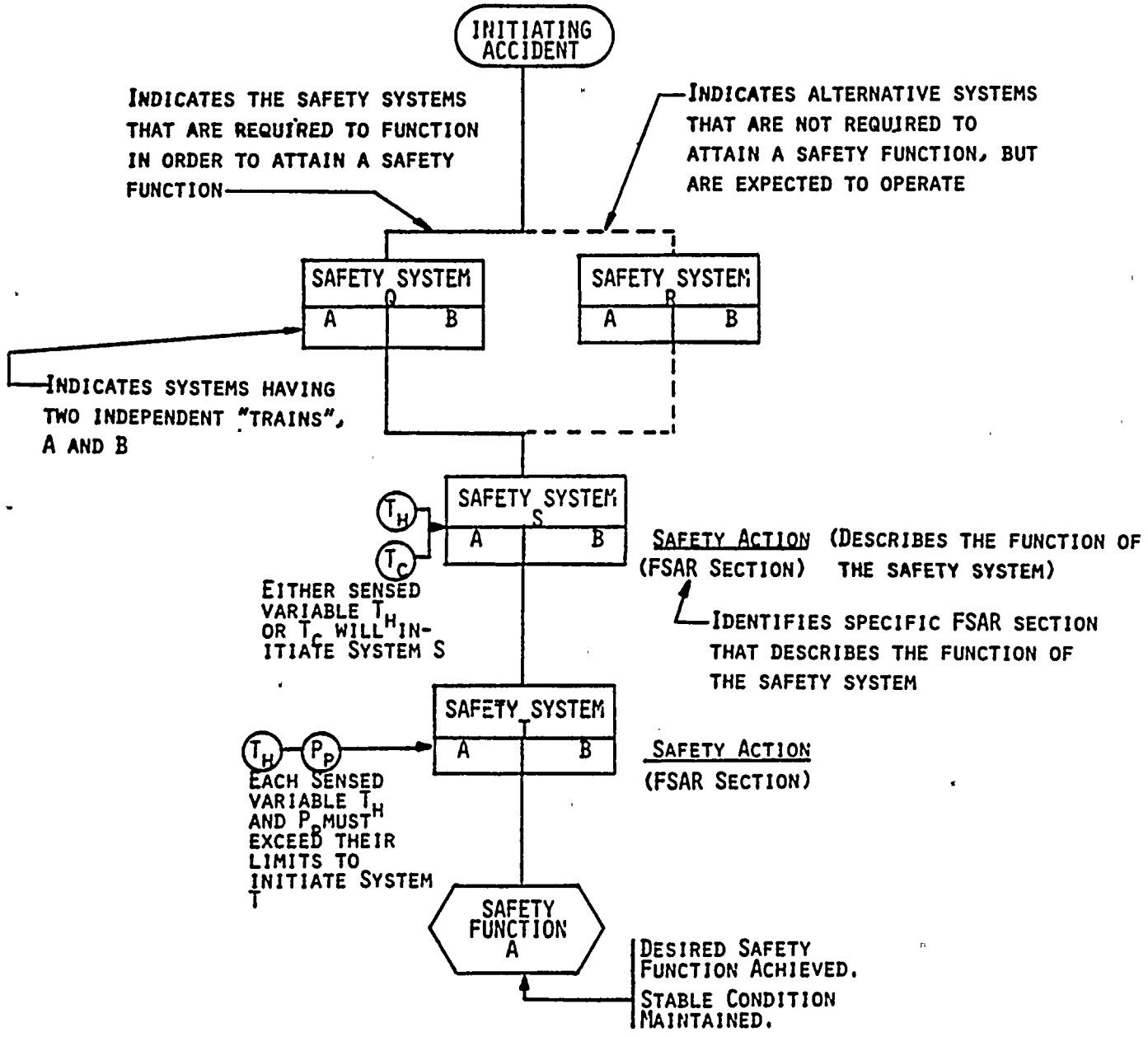


FIGURE 5.2

Sample Safety Function Path Diagram

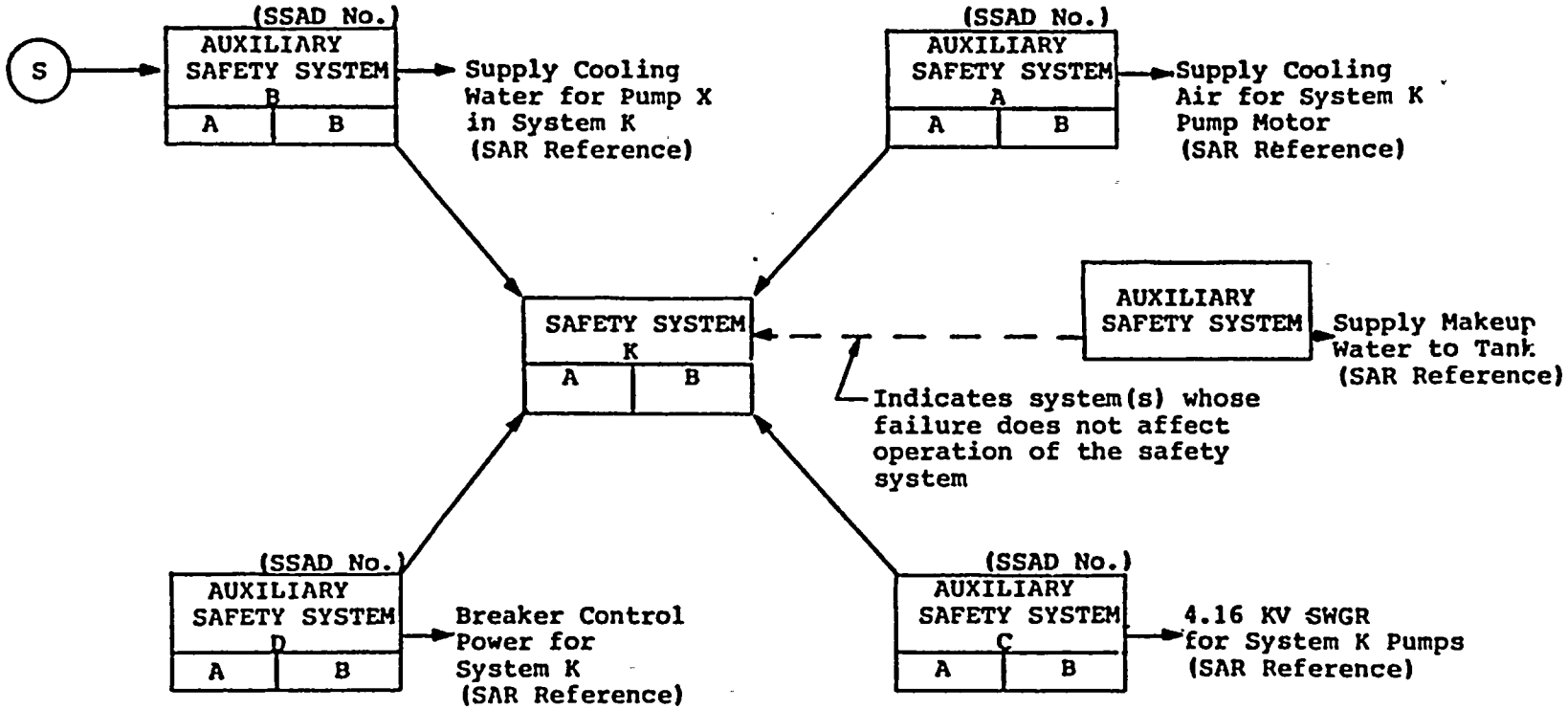


FIGURE 5.3

Sample Safety System Auxiliary Diagram

SYSTEM DESCRIPTION

Accident Description

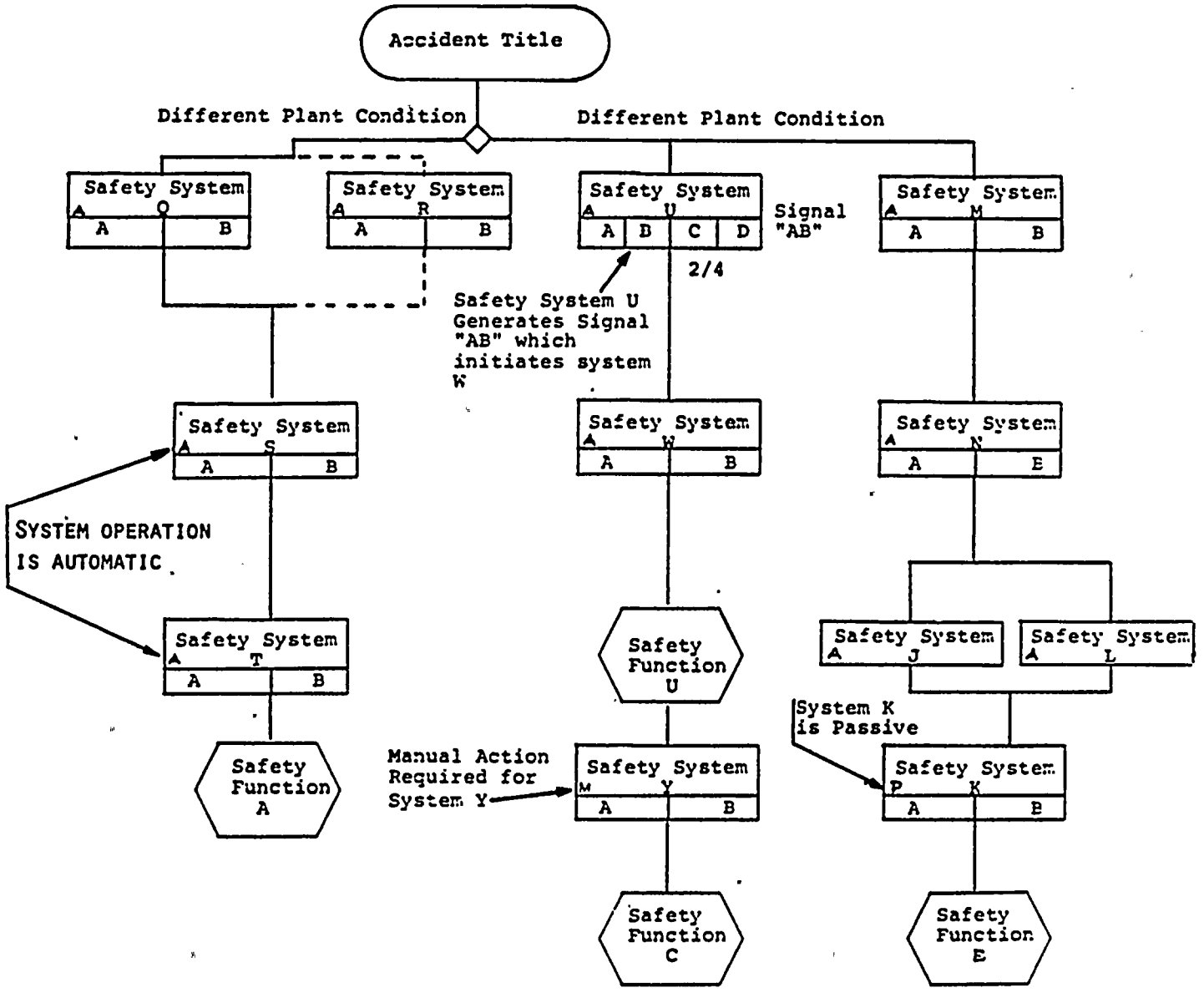


FIGURE 5.4

Sample Safety Sequence Diagram

SPPD Sample

SSAD Sample

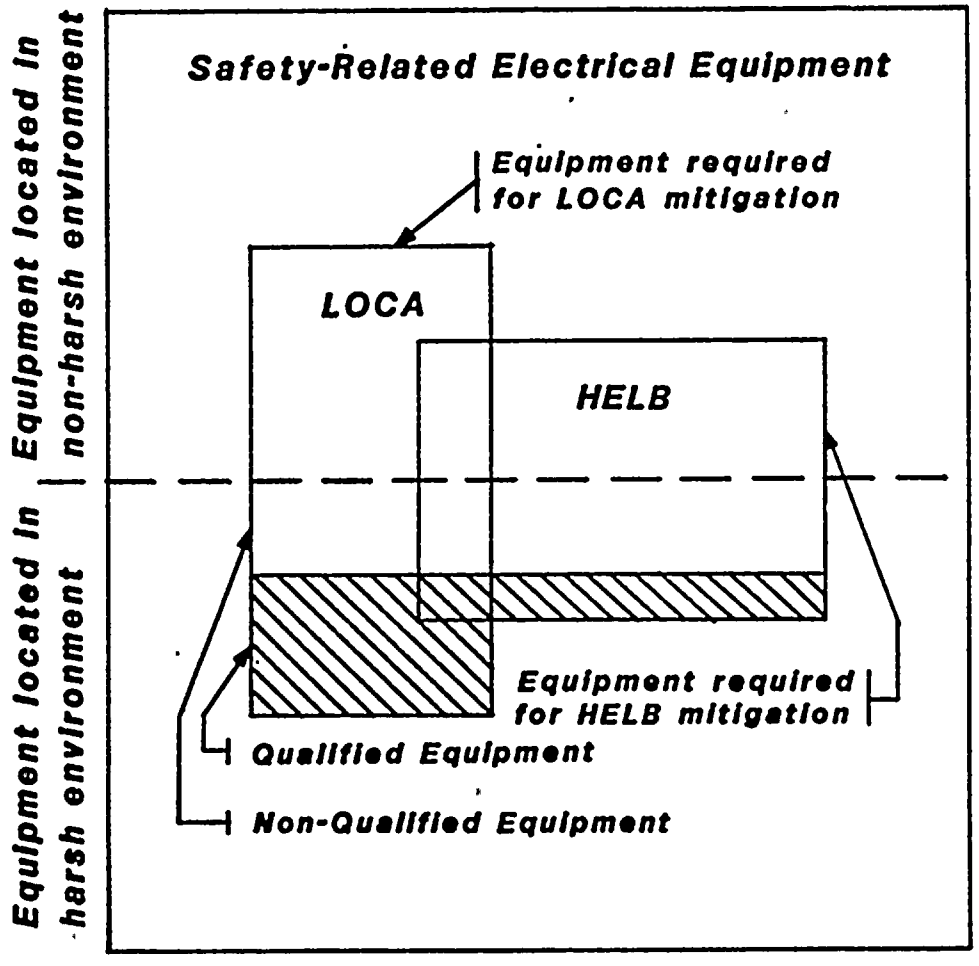
EQUIPMENT PART NO.	INITIAL USE CODE	WORST CASE FAILURE MODE	EFFECTS ON LOCAL & ASSOCIATED SYSTEMS (INCLUDING COMPENSATING FEATURES)	FAILURE USE CODE
RRC-MO-23A	2	Motor operator fails to operate valve	No effect - valve position is irrelevent and has no post-accident function	3
FDR-POS-V/4	2	Limit switch fails in false position	Must operate - provides operator with false indication of containment isolation	1
SGT-TS-1A11	2	Hot-short or open or the integrity fails and the switch body leaks	No effect - switch controls heaters that are not required for safety function. Does not deterimentally effect SGT function if heaters are on or off. Leakage would be from the Reactor Building into SGT, which would not adversely affect operation since SGT normally draws air from the Reactor Building.	3

FIGURE 5.5

Sample Failure Modes and Effects Analysis

FIGURE 5.6

Unqualified Safety-Related Electrical Equipment Exposed to a Harsh Environment



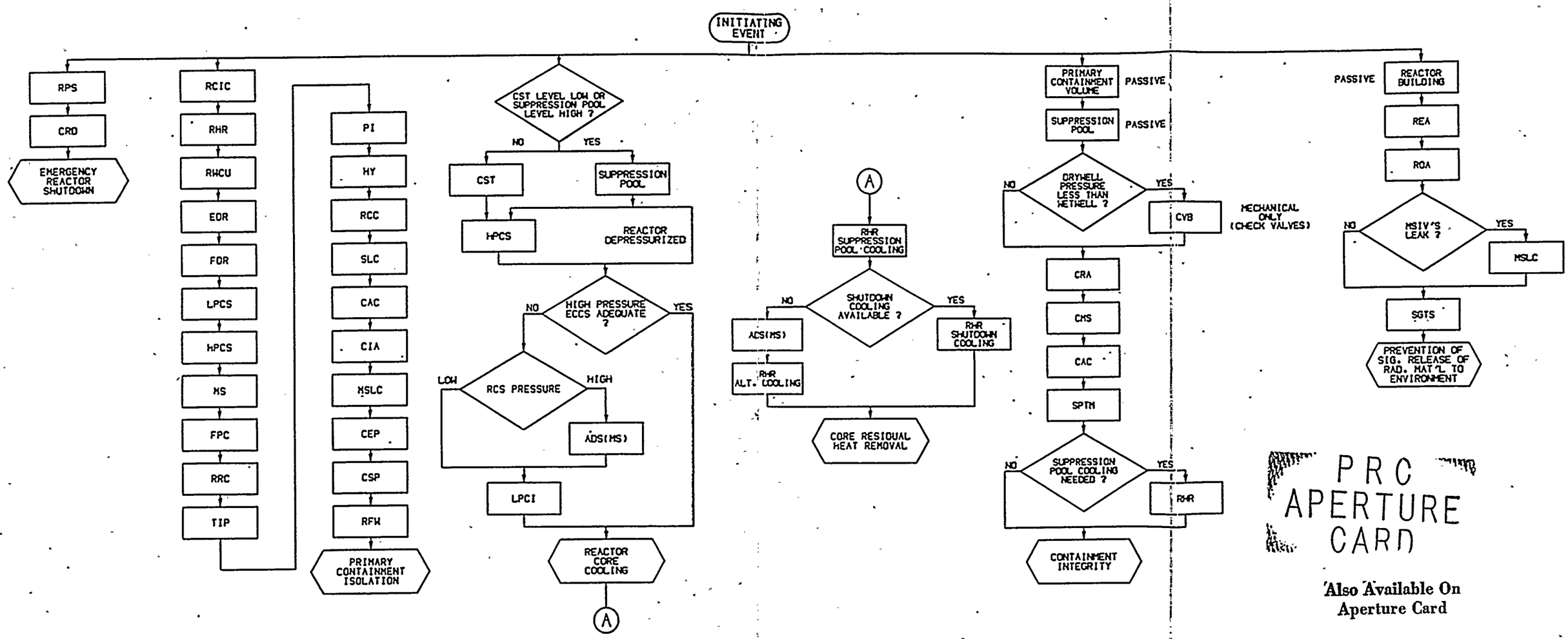


FIGURE 5.7
PREFERRED SAFE SHUTDOWN PATHS
(TABLE A)
SAFETY SEQUENCE DIAGRAM

FIGURE 5.9

Safety-Related Electrical Equipment to Have Qualification Documentation Prior to Fuel Load or End of First Refueling

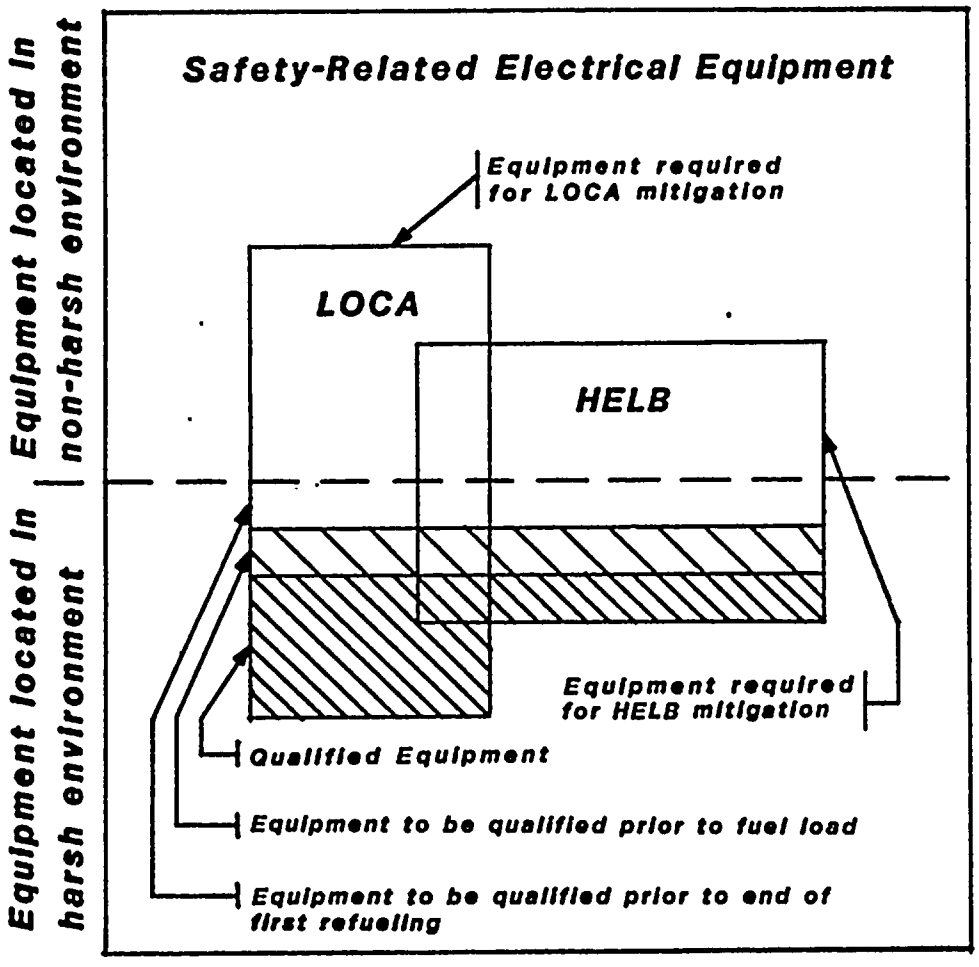


TABLE A

(Revision 2)

LEGEND FOR TABLE A

ACCIDENT CODES FOR "EXPD" COLUMN

A = HELB - RCIC	H = HELB - RWCU	O = HELB - RFW
B = HELB - RCIC	I = HELB - RWCU	P = LOCA - RRC
C = HELB - RCIC	J = HELB - RWCU	Q = LOCA - MSL
D = HELB - AS	K = HELB - RWCU	R = LOCA - SMALL
E = HELB - RCIC	L = HELB - RWCU	S = Control Rod Drop
F = HELB - RWCU	M = HELB - AS	+ = Submerged in Suppression Pool
G = HELB - RWCU	N = HELB - MS	

* = Environmental conditions inside the Reactor Building due to LOCA breaks inside the primary containment.

X* = Secondary effects of RCIC and RWCU breaks in all Reactor Building zones not influenced by Y*

Y* = Secondary effects of RCIC and RWCU breaks in Reactor Building zones R422C,D,E,F,L,M, R441B,C,I,J, R501O, R522D,N, R548E,F, R572A,B,D,E,H,N, R606

ACCIDENT GROUPS FOR "REQD" COLUMN

1	= P,Q,R,*	7	= N,P,Q,R,*
2	= N,O,P,Q,R,*	8	= O,P,Q,R,*
3	= A-R,+,and X* or Y*	9	= A,B,C,E
4	= F-L, and X* or Y*	10	= N
5	= A,B,C,E-L, and X* or Y*	11	= N,O
6	= A,B,C,E,P,Q,R,X*	12	= S
		13	= A,B,C,E-L,N-S, and X* or Y*

STATUS/COMMENT LEGEND

Q = Qualification documentation is complete.

Q' = Equipment is being replaced. Qualification documentation to be completed prior to November 30, 1985 or first refueling outage.

J = Justification for Interim Operation provided.

1 = Component is qualified to *.

2 = Component is qualified for the worst case application for this component type. See EQR sheet.

3 = Component is qualified to profiles 21X and/or 9, 10, 11, 31, 32 as appropriate for the Auxiliary Steam (AS) HELBs, denoted by accident codes D and M. Based on the Supply System letter to the NRC [G. C. Sorenson (Supply System) to A. Schwencer (NRC), Subject: Auxiliary Steam Line Isolation Equipment Qualification, September 1983] the Supply System is proceeding to install qualified instrumentation to sense an AS line break and qualified isolation values to mitigate the environmental impact of this break. The AS design modification will result in new environmental profiles. These new profiles are enveloped by the above referenced profiles.

CONTAINMENT ATMOSPHERE CONTROL SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Expd	Recd	Dual	Status	Comments
CAC-CNTR-1A	R572F	1	MX*	1	*	0	
CAC-EHC-1A	R572F	1	MX*	1	*	0	
CAC-EHO-FCV/1A	R572B	1	MY*	1	*	0	
CAC-EHO-FCV/2A	R548K	1	MX*	1	*	0	
CAC-EHO-FCV/3A	R471B	1	DX*	1	*	0	
CAC-EHO-FCV/4A	R471E	1	X*	1	*	0	
CAC-EHO-FCV/5A	R572F	1	MX*	1	*	0	
CAC-EHO-FCV/6A	R572F	1	MX*	1	*	0	
CAC-EHO-TCV/4A	R572F	1	MX*	1	*	0	
CAC-EHO-V/1A	R572F	1	MX*	1	*	0	
CAC-EHO-V/2A	R572F	1	MX*	1	*	0	
CAC-EHO-V/3A	R572F	1	MX*	1	*	0	
CAC-FT-5A	R572F	2	MX*	1	*	0	
CAC-FT-6A	R572F	1	MX*	1	*	0	
CAC-FT-7A	R572F	1	MX*	1	*	0	
CAC-LT-1A	R572F	1	MX*	1	*	0	
CAC-M-FN/1A	R572F	1	MX*	1	*	0	
CAC-MO-11	R548K	1	LX*	1	*	0	
CAC-MO-13	R471B	1	DX*	1	*	0	
CAC-MO-15	R548Q	1	KX*	1	*	0	
CAC-MO-17	R480M	1	X*	1	*	0	
CAC-MO-2	R548K	1	MX*	1	*	0	
CAC-MO-4	R471E	1	X*	1	*	0	
CAC-MO-6	R572B	1	MY*	1	*	0	
CAC-MO-8	R471B	1	DX*	1	*	0	
CAC-PT-1A	R572F	2	MX*	1	*	0	
CAC-PT-68A	R572F	1	MX*	1	*	0	
CAC-RLY-4A/CR1	R471D	1	DX*	1	*	0	
CAC-RLY-4A/CR2	R471D	1	DY*	1	*	0	
CAC-RLY-FCV1A80	R471D	2	DX*	1	*	0	
CAC-RLY-FCV2A80	R471D	2	DX*	1	*	0	
CAC-RLY-FCV3A80	R471D	2	DX*	1	*	0	
CAC-RLY-FCV4A80	R471D	2	DX*	1	*	0	
CAC-TE-2A	R572F	1	MX*	1	*	0	
CAC-TE-3A	R572F	1	MX*	1	*	0	
CAC-TE-4A	R572F	1	MX*	1	*	0	
CAC-TE-5A	R572F	1	MX*	1	*	0	
CAC-TE-6A	R572F	1	MX*	1	*	0	
CAC-TE-7A	R572F	1	MX*	1	*	0	

CONTAINMENT PURGE EXHAUST
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
CEP-PCS-V/1A	R548Q	1	KX*.	1	*	Q	
CEP-PCS-V/1B	R548Q	1	KX*	1	*	Q	
CEP-PCS-V/3A	R471J	1	DX*	1	*	Q	
CEP-PCS-V/3B	R471J	1	DX*	1	*	Q	
CEP-SPV-1A	R548G	1	LMX*	1	*	Q	
CEP-SPV-1B	R548G	1	LMX*	1	*	Q	
CEP-SPV-3A	R471J	1	DX*	1	*	Q	
CEP-SPV-3B	R471J	1	DX*	1	*	Q	

CONTAINMENT INSTRUMENT AIR SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
CIA-MO-20	R522K	1	DX*	3	DX*	Q	3
CIA-MO-309	R522P	1	DX*	3	DX*	Q	3
CIA-PROG-1A	R548G	1	LMX*	3	LMX*	J	JIO #1
CIA-PS-21A	R548G	1	LMX*	3	LMX*	Q	3
CIA-PS-22A	R548G	1	LMX*	3	LMX*	J	JIO #2
CIA-PT-21A	R548G	1	LMX*	3	LMX*	Q	3
CIA-RLY-21A	R548G	1	LMX*	3	LMX*	J	JIO #3
CIA-RLY-22A	R548G	1	LMX*	3	LMX*	J	JIO #4
CIA-SOV-10A	R441D	1	X*	3	X*	J	JIO #23
CIA-SOV-11A	R441D	1	X*	3	X*	J	JIO #23
CIA-SOV-12A	R441D	1	X*	3	X*	J	JIO #23
CIA-SOV-13A	R441D	1	X*	3	X*	J	JIO #23
CIA-SOV-14A	R441D	1	X*	3	X*	J	JIO #23
CIA-SOV-15A	R441D	1	X*	3	X*	J	JIO #23
CIA-SOV-1A	R441D	1	X*	3	X*	J	JIO #23
CIA-SOV-2A	R441D	1	X*	3	X*	J	JIO #23
CIA-SOV-3A	R441D	1	X*	3	X*	J	JIO #23
CIA-SOV-4A	R441D	1	X*	3	X*	J	JIO #23
CIA-SOV-5A	R441D	1	X*	3	X*	J	JIO #23
CIA-SOV-6A	R441D	1	X*	3	X*	J	JIO #23
CIA-SOV-7A	R441D	1	X*	3	X*	J	JIO #23
CIA-SOV-8A	R441D	1	X*	3	X*	J	JIO #23
CIA-SOV-9A	R441D	1	X*	3	X*	J	JIO #23
CIA-TDS-1A	R548G	1	LMX*	3	LMX*	J	JIO #5

CONTAINMENT MONITORING SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exsd	Recd	Qual	Status	Comments
CMS-AY-1	R548E	1	Y*	1	*	J	JIO #6
CMS-AY-3	R548E	1	Y*	1	*	J	JIO #6
CMS-H-SR13/T5	R548E	1	Y*	1	*	Q	
CMS-H-SR13/T6	R548E	1	Y*	1	*	Q	
CMS-H-SR13/T7	R548E	1	Y*	1	*	Q	
CMS-H-SR13/T8	R548E	1	Y*	1	*	Q	
CMS-LE-3A	C435	1	PQR+	3	PQR+	J	JIO #7
CMS-LE-3B	C500	1	PQR	3	PQR	J	JIO #7
CMS-LS-1	C503	1	PQR	1	PQR	Q	
CMS-LS-2	C518	1	PQR	1	PQR	Q	
CMS-LS-3	C551	1	PQR	1	PQR	Q	
CMS-LS-4	C570	1	PQR	1	PQR	Q	
CMS-LT-3	R441F	1	X*	3	X*	Q	
CMS-PT-1	R548G	1	LMX*	1	*	Q	
CMS-PT-3	R501F	1	DX*	1	*	Q	
CMS-PT-5	R548G	1	LMX*	1	*	Q	
CMS-PT-7	R548G	1	LMX*	1	*	Q	
CMS-RE-27E	C516	1	PQR	3	PQR	Q	
CMS-RMS-AT071	R548E	2	Y*	1	*	J	JIO #8
CMS-TE-1	C517	1	PQR	1	PQR	J	JIO #9
CMS-TE-10	C512	1	PQR	1	PQR	Q'	
CMS-TE-11	C520	1	PQR	1	PQR	Q'	
CMS-TE-13	C549	1	PQR	1	PQR	Q'	
CMS-TE-2	C517	1	PQR	1	PQR	J	JIO #9
CMS-TE-26	C596	1	PQR	1	PQR	J	JIO #9
CMS-TE-27	C553	1	PQR	1	PQR	J	JIO #9
CMS-TE-29	C560	1	PQR	1	PQR	J	JIO #9
CMS-TE-30	C550	1	PQR	1	PQR	J	JIO #9
CMS-TE-5	C504	1	PQR	1	PQR	Q'	
CMS-TE-6	C504	1	PQR	1	PQR	Q'	
CMS-TE-8	C562	1	PQR	1	PQR	Q'	
CMS-TS-4A	R548E	1	Y*	1	*	J	JIO #10
CMS-TS-4B	R548E	1	Y*	1	*	J	JIO #10
CMS-TS-4C	R548E	1	Y*	1	*	J	JIO #10
CMS-TS-4D	R548E	1	Y*	1	*	J	JIO #10
CMS-TS-5A	R548E	1	Y*	1	*	J	JIO #10
CMS-TS-5B	R548E	1	Y*	1	*	J	JIO #10
CMS-TS-5C	R548F	1	Y*	1	*	J	JIO #10
CMS-TS-5D	R548F	1	Y*	1	*	J	JIO #10

CONTAINMENT RECIRCULATION AIR SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EQN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
CRA-M-FN/3A	C536	1	PQR	1	PQR	Q	
CRA-M-FN/4A	C572	1	PQR	1	PQR	Q	
CRA-M-FN/5A	C564	1	PQR	1	PQR	Q	
CRA-M-FN/5C	C564	1	PQR	1	PQR	Q	

CONTROL ROD DRIVE SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
CRD-PCS-126XXXX	R522J	1	DX*	3	DX*	Q	3
CRD-PCS-126XXXX	R522B	1	DIX*	3	DIX*	Q	3
CRD-PCS-127XXXX	R522B	1	DIX*	3	DIX*	Q	3
CRD-PCS-127XXXX	R522J	1	DX*	3	DX*	Q	3
CRD-SPV-110A	R522C	2	DIX*	1	*	Q	
CRD-SPV-117XXXX	R522J	1	DX*	3	DX*	Q	3
CRD-SPV-117XXXX	R522B	1	DIX*	3	DIX*	Q	3
CRD-SPV-118XXXX	R522J	1	DX*	3	DX*	Q	3
CRD-SPV-118XXXX	R522B	1	DIX*	3	DIX*	Q	3
CRD-SPV-182	R522P	1	DX*	1	*	Q'	
CRD-SPV-9	R522P	1	DX*	1	*	Q'	
CRD-SV-120/XXXX	R522J	1	DX*	3	DX*	Q	3
CRD-SV-120/XXXX	R522B	1	DIX*	3	DIX*	Q	3
CRD-SV-121/XXXX	R522J	1	DX*	3	DX*	Q	3
CRD-SV-121/XXXX	R522B	1	DIX*	3	DIX*	Q	3
CRD-SV-122/XXXX	R522J	1	DX*	3	DX*	Q	3
CRD-SV-122/XXXX	R522B	1	DIX*	3	DIX*	Q	3
CRD-SV-123/XXXX	R522J	1	DX*	3	DX*	Q	3
CRD-SV-123/XXXX	R522B	1	DIX*	3	DIX*	Q	3

CONTAINMENT PURGE SUPPLY SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rac Zone	Use Code	Accident Information Exad	Read	Qual	Status	Comments
CSP-POS-V/1	R501I	1	X*	1	*	Q	
CSP-POS-V/10/P1	R471B	1	DX*	1	*	Q	
CSP-POS-V/10/P2	R471B	1	DX*	1	*	Q	
CSP-POS-V/10/P3	R471B	1	DX*	1	*	Q	
CSP-POS-V/10/P4	R471B	1	DX*	1	*	Q	
CSP-POS-V/10/P9	R471B	1	DX*	1	*	Q	
CSP-POS-V/3	R471D	1	DX*	1	*	Q	
CSP-POS-V/7/P1	R471D	1	DX*	1	*	Q	
CSP-POS-V/7/P2	R471D	1	DX*	1	*	Q	
CSP-POS-V/7/P3	R471D	1	DX*	1	*	Q	
CSP-POS-V/7/P4	R471D	1	DX*	1	*	Q	
CSP-POS-V/7/P9	R471D	1	DX*	1	*	Q	
CSP-POS-V/8/P1	R471J	1	DX*	1	*	Q	
CSP-POS-V/8/P2	R471J	1	DX*	1	*	Q	
CSP-POS-V/8/P3	R471J	1	DX*	1	*	Q	
CSP-POS-V/8/P4	R471J	1	DX*	1	*	Q	
CSP-POS-V/8/P9	R471J	1	DX*	1	*	Q	
CSP-SPV-1	R501F	1	DX*	1	*	Q	
CSP-SPV-10A	R471B	1	DX*	1	*	Q	
CSP-SPV-10B	R471B	1	DX*	1	*	Q	
CSP-SPV-3	R471B	1	DX*	1	*	Q	
CSP-SPV-7A	R471B	1	DX*	1	*	Q	
CSP-SPV-7B	R471B	1	DX*	1	*	Q	
CSP-SPV-8A	R471J	1	DX*	1	*	Q	
CSP-SPV-8B	R471J	1	DX*	1	*	Q	
CSP-V-97	R501I	1	X*	1	*	Q	
CSP-V-98	R471D	1	DX*	1	*	Q	

ELECTRICAL SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EQN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
E-CONN-X100D/01	C511	2	PQR	1	PQR	Q	
E-CONN-X100D/02	C511	2	PQR	1	PQR	Q	
E-CONN-X102A/01	C534	2	PQR	3	PQR	Q	
E-CONN-X102A/02	C534	2	PQR	3	PQR	Q	
E-PP-7AE*	R471D	1	DX*	1	*	Q	
E-PP-8AE*	R471D	1	DX*	1	*	Q	
E-X-100A	C507	2	PQR	3	PQR	Q	
E-X-100B	C507	2	PQR	3	PQR	Q	
E-X-100C	C511	2	PQR	3	PQR	Q	
E-X-100D	C511	2	PQR	3	PQR	Q	
E-X-101A	C511	2	PQR	3	PQR	Q	
E-X-101B	C511	2	PQR	3	PQR	Q	
E-X-101C	C511	2	PQR	3	PQR	Q	
E-X-101D	C511	2	PQR	3	PQR	Q	
E-X-102A	C534	2	PQR	3	PQR	Q	
E-X-102B	C534	2	PQR	3	PQR	Q	
E-X-103A	C534	2	PQR	3	PQR	Q	
E-X-103B	C534	2	PQR	3	PQR	Q	
E-X-103C	C534	2	PQR	3	PQR	Q	
E-X-103D	C534	2	PQR	3	PQR	Q	
E-X-104A	C511	2	PQR	3	PQR	Q	
E-X-104B	C511	2	PQR	3	PQR	Q	
E-X-104C	C534	2	PQR	3	PQR	Q	
E-X-104D	C534	2	PQR	3	PQR	Q	
E-X-105A	C507	2	PQR	3	PQR	Q	
E-X-105B	C511	2	PQR	3	PQR	Q	
E-X-105C	C534	2	PQR	3	PQR	Q	
E-X-105D	C534	2	PQR	3	PQR	Q	
E-X-107A	C475	2	PQR	3	PQR	Q	
E-X-107B	C475	2	PQR	3	PQR	Q	

EQUIPMENT DRAINS RADIOACTIVE SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EQN	Rad Zone	Use Code	Accident Information Excd	Reqd	Qual	Status	Comments
EDR-POS-V/20	R441C	1	Y*	1	*	J	JIO #11
EDR-SPV-20	R471B	1	DX*	1	*	Q	

FLOOR DRAIN RADIOACTIVE SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
FDR-LS-41	R422J	1	X*	1	*	Q	
FDR-LS-45	R422C	1	Y*	1	*	Q	
FDR-LS-46	R422D	1	Y*	1	*	Q	
FDR-PCS-V/4	R441C	1	Y*	1	*	J	JIO #12
FDR-SPV-4	R471B	1	DX*	1	*	Q	

FUEL POOL COOLING SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
FPC-MO-153	R441G	1	X*	3	X*	Q	
FPC-MO-154	R441G	1	X*	3	X*	Q	

HIGH PRESSURE CORE SPRAY SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EQN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
HPCS-FIS-6	R471B	1	DX*	3	DX*	Q	3
HPCS-FT-5	R471B	1	DX*	3	DX*	J	JIO #13
HPCS-LS-1A	R441J	1	CY*	3	CY*	Q	
HPCS-LS-1B	R441J	1	CY*	3	CY*	Q	
HPCS-LS-2A	R441J	1	CY*	3	CY*	Q	
HPCS-LS-2B	R441F	1	X*	3	X*	Q	
HPCS-M-P/1	R422D	1	Y*	3	Y*	Q	
HPCS-M-P/3	R422D	1	Y*	3	Y*	Q	
HPCS-MO-1	R422D	1	Y*	3	Y*	Q	
HPCS-MO-10	R441C	1	Y*	3	Y*	Q	
HPCS-MO-11	R441C	1	Y*	3	Y*	Q	
HPCS-MO-12	R422D	1	Y*	3	Y*	Q	
HPCS-MO-15	R441C	1	Y*	3	Y*	Q	
HPCS-MO-23	R441C	1	Y*	3	Y*	Q	
HPCS-MO-4	R522H	1	DX*	3	DX*	Q	3
HPCS-PS-12	R471B	1	DX*	3	DX*	Q	3

SPC HYDRAULIC CONTROL
TABLE A (REV 0)
Equipment, or Interfacing Safe Shutdown Parts

EQN	Rad Zone	Use Code	Accident Information Exad	Read	Qual	Status	Comments
HY-V-17A	R522C	1	DIX*	1	*	Q	
HY-V-17B	R522J	1	DX*	1	*	Q	
HY-V-18A	R522C	1	DIX*	1	*	Q	
HY-V-18B	R522J	1	DX*	1	*	Q	
HY-V-19A	R522C	1	DIX*	1	*	Q	
HY-V-19B	R522J	1	DX*	1	*	Q	
HY-V-20A	R522C	1	DIX*	1	*	Q	
HY-V-20B	R522J	1	DX*	1	*	Q	

LEAK DETECTION SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EQN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
LD-TE-1A	R522F	1	HIX*	4	HIX	0	
LD-TE-1C	R522F	1	HIX*	4	HIX	0	
LD-TE-1E	R548B	1	MJX*	4	JX	0	
LD-TE-29A	R5010	1	NOY*	11	NO	0	
LD-TE-29C	R5010	1	NOY*	11	NO	0	
LD-TE-2A	R522F	1	HIX*	4	HIX	0	
LD-TE-2C	R522F	1	HIX*	4	HIX	0	
LD-TE-2E	R548B	1	MJX*	4	JX	0	
LD-TE-30A	R5220	1	GX*	11	NONE	0	1
LD-TE-30C	R5220	1	GX*	11	NONE	0	1
LD-TE-31A	R5010	1	NOY*	11	NO	0	
LD-TE-31C	R5010	1	NOY*	11	NO	0	
LD-TE-3A	R522F	1	HIX*	4	HIX	0	
LD-TE-3C	R522F	1	HIX*	4	HIX	0	
LD-TE-3E	R548B	1	MJX*	4	JX	0	
LD-TE-4A	R441I	1	ABX*	9	AB	0	
LD-TE-5A	R422L	1	ABX*	9	AB	0	
LD-TE-6A	R441I	1	ABX*	9	AB	0	

LOW PRESSURE CORE SPRAY SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
LPCS-M-P/2	R422C	1	Y*	1.5	Y*	Q	
LPCS-MO-1	R441B	1	Y*	1.5	Y*	Q	
LPCS-MO-11	R422C	1	Y*	1.5	Y*	Q	
LPCS-MO-12	R441B	1	Y*	1.5	Y*	Q	
LPCS-MO-5	R522B	1	DIX*	1.5	IX*	Q	

LOCAL POWER RANGE MONITOR SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exad	Recd	Qual	Status	Comments
LPRM-CONN-12BCD	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-13CDA	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-14ABD	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-15ABC	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-16BCD	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-21ABC	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-22DAB	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-23CDA	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-24BCD	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-25ABC	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-26DAB	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-27CDA	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-31CDA	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-32DAB	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-33ABC	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-34BCD	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-35CDA	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-36DAB	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-37ABC	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-41CDA	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-42BCD	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-43ABC	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-44DAB	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-45CDA	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-46BCD	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-47ABC	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-51ABC	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-52BCD	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-53CDA	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-54DAB	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-55ABC	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-56BCD	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-57CDA	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-61ABC	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-62DAB	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-63CDA	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-64BCD	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-65ABC	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-66DAB	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-72DAB	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-73ABC	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-74BCD	C501	2	PQRS	12	S	J	JIO #15
LPRM-CONN-75CDA	C501	2	PQRS	12	S	J	JIO #15
LPRM-DET-12BCD	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-13CDA	C501	1	PQRS	12	S	J	JIO #14

LOCAL POWER RANGE MONITOR SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
LPRM-DET-14ABD	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-13A3C	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-16BCD	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-21A3C	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-22DAB	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-23CDA	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-24BCD	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-25A3C	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-26DAB	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-27CDA	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-31CDA	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-32DAB	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-33A3C	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-34BCD	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-35CDA	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-36DAB	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-37A3C	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-41CDA	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-42BCD	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-43A3C	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-44DAB	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-45CDA	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-46BCD	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-47A3C	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-51A3C	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-52BCD	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-53CDA	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-54DAB	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-55A3C	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-56BCD	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-57CDA	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-61A3C	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-62DAB	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-63CDA	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-64BCD	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-65A3C	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-66DAB	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-72DAB	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-73A3C	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-74BCD	C501	1	PQRS	12	S	J	JIO #14
LPRM-DET-75CDA	C501	1	PQRS	12	S	J	JIO #14

MAIN STEAM SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

SPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
MS-CONN-V22A/J1	C513	2	PQR	1.5	PQR	Q	
MS-CONN-V22A/J2	C513	2	PQR	1.5	PQR	Q	
MS-CONN-V22A/J3	C513	2	PQR	1.5	PQR	Q	
MS-CONN-V22A/J4	C513	2	PQR	1.5	PQR	Q	
MS-CONN-V22B/J1	C513	2	PQR	1.5	PQR	Q	
MS-CONN-V22B/J2	C513	2	PQR	1.5	PQR	Q	
MS-CONN-V22B/J3	C513	2	PQR	1.5	PQR	Q	
MS-CONN-V22B/J4	C513	2	PQR	1.5	PQR	Q	
MS-CONN-V22C/J1	C513	2	PQR	1.5	PQR	Q	
MS-CONN-V22C/J2	C513	2	PQR	1.5	PQR	Q	
MS-CONN-V22C/J3	C513	2	PQR	1.5	PQR	Q	
MS-CONN-V22C/J4	C513	2	PQR	1.5	PQR	Q	
MS-CONN-V22D/J1	C513	2	PQR	1.5	PQR	Q	
MS-CONN-V22D/J2	C513	2	PQR	1.5	PQR	Q	
MS-CONN-V22D/J3	C513	2	PQR	1.5	PQR	Q	
MS-CONN-V22D/J4	C513	2	PQR	1.5	PQR	Q	
MS-DPIS-11A	R501K	1	DX*	10	NONE	Q	1
MS-DPIS-11B	R471D	1	DX*	10	NONE	Q	1
MS-DPIS-810A	R501K	1	DX*	10	NONE	Q	1
MS-DPIS-810B	R471D	1	DX*	10	NONE	Q	1
MS-DPIS-8A	R501K	1	DX*	10	NONE	Q	1
MS-DPIS-8B	R471D	1	DX*	10	NONE	Q	1
MS-DPIS-9A	R501K	1	DX*	10	NONE	Q	1
MS-DPIS-9B	R471D	1	DX*	10	NONE	Q	1
MS-LIS-100A	R522K	1	DX*	3	DX*	Q	3
MS-LIS-100B	R522C	1	DIX*	3	DIX*	Q	3
MS-LIS-24A	R522K	1	DX*	1	*	Q	
MS-LIS-24B	R522H	1	DX*	1	*	Q	
MS-LIS-31A	R522K	1	DX*	3	DX*	Q	3
MS-LIS-31B	R522C	1	DIX*	3	DIX*	Q	3
MS-LIS-31C	R522K	1	DX*	3	DX*	Q	3
MS-LIS-31D	R522C	1	DIX*	3	DIX*	Q	3
MS-LIS-37A	R522P	1	DX*	3	DX*	Q	3
MS-LIS-37C	R522P	1	DX*	3	DX*	Q	3
MS-LIS-38A	R522P	1	DX*	3	DX*	Q	3
MS-LITS-26A	R522K	1	DX*	3	DX*	U	JIO #24
MS-LITS-26B	R522P	1	DX*	1	*	Q	
MS-LITS-44A	R471B	1	DX*	1	*	Q	
MS-MO-19	R501D	1	NOY*	2	NO*	Q	
MS-MO-67A	R501D	1	NOY*	1.5	NOY*	Q	
MS-MO-67B	R501D	1	NOY*	1.5	NOY*	Q	
MS-MO-67C	R501D	1	NOY*	1.5	NOY*	Q	
MS-MO-67D	R501D	1	NOY*	1.5	NOY*	Q	
MS-PCE-1A	C547	1	PQR	3	PQR	Q	
MS-PCE-1B	C547	1	PQR	3	PQR	Q	

MAIN STEAM SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
MS-POE-1C	C547	1	PQR	3	PQR	Q	
MS-POE-1D	C547	1	PQR	3	PQR	Q	
MS-POE-2A	C547	1	PQR	3	PQR	Q	
MS-POE-2B	C547	1	PQR	3	PQR	Q	
MS-POE-2C	C547	1	PQR	3	PQR	Q	
MS-POE-2D	C547	1	PQR	3	PQR	Q	
MS-POE-3A	C547	1	PQR	3	PQR	Q	
MS-POE-3B	C547	1	PQR	3	PQR	Q	
MS-POE-3C	C547	1	PQR	3	PQR	Q	
MS-POE-3D	C547	1	PQR	3	PQR	Q	
MS-POE-4A	C547	1	PQR	3	PQR	Q	
MS-POE-4B	C547	1	PQR	3	PQR	Q	
MS-POE-4C	C547	1	PQR	3	PQR	Q	
MS-POE-4D	C547	1	PQR	3	PQR	Q	
MS-POE-5B	C547	1	PQR	3	PQR	Q	
MS-POE-5C	C547	1	PQR	3	PQR	Q	
MS-POS-V/22A/1	C513	1	PQR	1.5	PQR	Q'	
MS-POS-V/22A/2	C513	1	PQR	1.5	PQR	Q'	
MS-POS-V/22A/3	C513	1	PQR	1.5	PQR	Q'	
MS-POS-V/22A/4	C513	1	PQR	1.5	PQR	Q'	
MS-POS-V/22B/1	C513	1	PQR	1.5	PQR	Q'	
MS-POS-V/22B/2	C513	1	PQR	1.5	PQR	Q'	
MS-POS-V/22B/3	C513	1	PQR	1.5	PQR	Q'	
MS-POS-V/22B/4	C513	1	PQR	1.5	PQR	Q'	
MS-POS-V/22C/1	C513	1	PQR	1.5	PQR	Q'	
MS-POS-V/22C/2	C513	1	PQR	1.5	PQR	Q'	
MS-POS-V/22C/3	C513	1	PQR	1.5	PQR	Q'	
MS-POS-V/22C/4	C513	1	PQR	1.5	PQR	Q'	
MS-POS-V/22D/1	C513	1	PQR	1.5	PQR	Q'	
MS-POS-V/22D/2	C513	1	PQR	1.5	PQR	Q'	
MS-POS-V/22D/3	C513	1	PQR	1.5	PQR	Q'	
MS-POS-V/22D/4	C513	1	PQR	1.5	PQR	Q'	
MS-POT-1A	C547	1	PQR	3	PQR	Q	
MS-POT-1B	C547	1	PQR	3	PQR	Q	
MS-POT-1C	C547	1	PQR	3	PQR	Q	
MS-POT-1D	C547	1	PQR	3	PQR	Q	
MS-POT-2A	C547	1	PQR	3	PQR	Q	
MS-POT-2B	C547	1	PQR	3	PQR	Q	
MS-POT-2C	C547	1	PQR	3	PQR	Q	
MS-POT-2D	C547	1	PQR	3	PQR	Q	
MS-POT-3A	C547	1	PQR	3	PQR	Q	
MS-POT-3B	C547	1	PQR	3	PQR	Q	
MS-POT-3C	C547	1	PQR	3	PQR	Q	
MS-POT-3D	C547	1	PQR	3	PQR	Q	
MS-POT-4A	C547	1	PQR	3	PQR	Q	

MAIN STEAM SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EQN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
MS-POT-4B	C547	1	PQR	3	PQR	0	
MS-POT-4C	C547	1	PQR	3	PQR	0	
MS-POT-4D	C547	1	PQR	3	PQR	0	
MS-POT-5B	C547	1	PQR	3	PQR	0	
MS-POT-5C	C547	1	PQR	3	PQR	0	
MS-PS-20A	R522K	1	DX*	1	*	0	
MS-PS-20B	R522H	1	DX*	1	*	0	
MS-PS-23A	R522K	1	DX*	1	*	0	
MS-PS-23B	R522P	1	DX*	1	*	0	
MS-PS-39A	R522P	2	DX*	3	DX*	0	3
MS-PS-39B	R522P	2	DX*	3	DX*	0	3
MS-PS-39C	R522P	2	DX*	3	DX*	0	3
MS-PS-39D	R522P	2	DX*	3	DX*	0	3
MS-PS-39E	R522P	2	DX*	3	DX*	0	3
MS-PS-39F	R522P	2	DX*	3	DX*	0	3
MS-PS-39G	R522P	2	DX*	3	DX*	0	3
MS-PS-39H	R522P	2	DX*	3	DX*	0	3
MS-PS-39J	R522P	2	DX*	3	DX*	0	3
MS-PS-39K	R522P	2	DX*	3	DX*	0	3
MS-PS-39L	R522P	2	DX*	3	DX*	0	3
MS-PS-39M	R522P	2	DX*	3	DX*	0	3
MS-PS-39N	R522P	2	DX*	3	DX*	0	3
MS-PS-39P	R522P	2	DX*	3	DX*	0	3
MS-PS-39R	R522P	2	DX*	3	DX*	0	3
MS-PS-39S	R522P	2	DX*	3	DX*	0	3
MS-PS-39U	R522P	2	DX*	3	DX*	0	3
MS-PS-39V	R522P	2	DX*	3	DX*	0	3
MS-PS-47A	R522K	1	DX*	2	*	0	
MS-PS-47B	R522C	1	DIX*	2	*	0	
MS-PS-47C	R522K	1	DX*	2	*	0	
MS-PS-47D	R522C	1	DIX*	2	*	0	
MS-PS-48A	R522P	1	DX*	2	*	0	
MS-PS-48C	R522P	1	DX*	2	*	0	
MS-PT-51A	R522P	1	DX*	3	DX*	0	3
MS-RE-3A	R501D	1	NDSY*	12	S	0	3 #16
MS-RE-3B	R501C	1	NCSY*	12	S	0	3 #16
MS-SRV-22A2	C515	1	PQR	1.5	PQR	0	
MS-SRV-22A3	C515	1	PQR	1.5	PQR	0	
MS-SRV-22B2	C515	1	PQR	1.5	PQR	0	
MS-SRV-22B3	C515	1	PQR	1.5	PQR	0	
MS-SRV-22C2	C515	1	PQR	1.5	PQR	0	
MS-SRV-22C3	C515	1	PQR	1.5	PQR	0	
MS-SRV-22D2	C515	1	PQR	1.5	PQR	0	
MS-SRV-22D3	C515	1	PQR	1.5	PQR	0	
MS-SRV-3DA	C547	1	PQR	3	PQR	0	

MAIN STEAM SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

SPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
MS-SPV-4AA	C547	1	PQR	3	PQR	Q'	
MS-SPV-4BA	C547	1	PQR	3	PQR	Q'	
MS-SPV-4CA	C547	1	PQR	3	PQR	Q'	
MS-SPV-4DA	C547	1	PQR	3	PQR	Q'	
MS-SPV-5BA	C547	1	PQR	3	PQR	Q'	
MS-SPV-5CA	C547	1	PQR	3	PQR	Q'	

MAIN STEAM LEAKAGE CONTROL SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
MSLC-M-FN/2	R501K	1	DX*	2	*	Q	
MSLC-MO-10	R501O	1	NOY*	2	*	Q	
MSLC-MO-3A	R501O	1	NOY*	2	*	Q	
MSLC-MO-3B	R501O	1	NOY*	2	*	Q	
MSLC-MO-3C	R501O	1	NOY*	2	*	Q	
MSLC-MO-3D	R501O	1	NOY*	2	*	Q	
MSLC-MO-4	R501O	1	NOY*	2	*	Q	
MSLC-MO-5	R501O	1	NOY*	2	*	Q	
MSLC-MO-9	R501O	1	NOY*	2	*	Q	
MSLC-PS-20	R522K	1	DX*	2	*	Q	
MSLC-PS-24	R522K	1	DX*	2	*	Q	
MSLC-PS-25	R522K	1	DX*	2	*	Q	
MSLC-PS-60	R522K	1	DX*	2	*	Q	
MSLC-PT-11	R522K	1	DX*	2	*	Q	
MSLC-PT-13	R522K	1	DX*	2	*	Q	
MSLC-RLY-CR/1	R522K	1	DX*	2	*	Q	
MSLC-RLY-CR/3	R522K	1	DX*	2	*	Q	
MSLC-RLY-CR/4	R522K	1	DX*	2	*	Q	
MSLC-RLY-CR/5	R522K	1	DX*	2	*	Q	
MSLC-TD-TK/2	R522K	1	DX*	2	*	Q	

PROCESS INSTRUMENTATION SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
PI-V-X250	R522H	1	DX*	1	*	Q	
PI-V-X251	R522H	1	DX*	1	*	Q	
PI-V-X253	R522H	1	DX*	1	*	Q	
PI-V-X256	R522P	1	DX*	1	*	Q	
PI-V-X257	R522P	1	DX*	1	*	Q	
PI-V-X259	R522P	1	DX*	1	*	Q	
PI-V-X262	R522H	1	DX*	1	*	Q	
PI-V-X263	R522H	1	DHX*	1	*	Q	
PI-V-X264	R522H	1	DHX*	1	*	Q	
PI-V-X265	R471D	1	DX*	1	*	Q	
PI-V-X266	R522H	1	DHX*	1	*	Q	
PI-V-X267	R522H	1	DHX*	1	*	Q	
PI-V-X268	R522P	1	DX*	1	*	Q	
PI-V-X269	R471A	1	DX*	1	*	Q	

PROCESS INSTRUMENTATION SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
PSR-V-003/A	R422J	1	X*	1	*	Q	
PSR-V-003/B	R422I	1	X*	1	*	Q	
PSR-V-X73/2	R522P	1	DX*	1	*	Q	
PSR-V-X77A/2	R501K	1	DX*	1	*	Q	
PSR-V-X77A/4	R501K	1	DX*	1	*	Q	
PSR-V-X80/2	R522H	1	DHX*	1	*	Q	
PSR-V-X82/2	R471D	1	DX*	1	*	Q	
PSR-V-X82/8	R471D	1	DX*	1	*	Q	
PSR-V-X83/2	R471D	1	DX*	1	*	Q	
PSR-V-X84/2	R471A	1	DX*	1	*	Q	
PSR-V-X88/2	R441D	1	X*	1	*	Q	

REACTOR BUILDING CLOSED COOLING WATER SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
RCC-MO-130	R548L	1	X*	1	*	Q	
RCC-MO-21	R510S	1	EFX*	1	*	Q	
RCC-MO-5	R510S	1	EFX*	1	*	Q	

REACTOR CORE ISOLATION COOLING SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
RCIC-DPIS-13A	R471D	1	DX*	9	NONE	Q	2
RCIC-DPIS-7A	R471D	1	DX*	9	NONE	Q	2
RCIC-MO-13	R548H	1	LX*	6	X*	Q	
RCIC-MO-19	R441I	1	ABX*	6	ABX*	Q	
RCIC-MO-31	R441I	1	ABX*	6	ABX*	Q	
RCIC-MO-64	R548B	1	MJX*	6	X*	Q	
RCIC-MO-68	R471I	1	X*	6	X*	Q	
RCIC-MO-69	R441I	1	ABX*	6	ABX*	Q	
RCIC-MO-8	R510S	1	EFX*	6	EX*	Q	
RCIC-MO-80	R471I	1	X*	6	X*	Q	
RCIC-PS-22A	R471D	1	DX*	9	NONE	Q	2
RCIC-PS-22C	R471D	1	DX*	9	NONE	Q	2

REACTOR BUILDING EXHAUST AIR(HVAC) SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
REA-DPT-1A1	R572N	1	MY*	1,5	Y*	Q	
REA-DPT-1A2	R572C	1	MX*	1,5	X*	Q	
REA-DPT-1A3	R572C	1	MX*	1,5	X*	Q	
REA-DPT-1A4	R572L	1	X*	1,5	X*	Q	
REA-POS-V/1	R572N	1	MY*	1	*	Q	
REA-RE-9A	R572C	1	MX*	1,5	X*	Q	
REA-RE-9B	R572C	1	MX*	1,5	X*	Q	
REA-RLY-CR1	R522K	2	DX*	1	*	Q	
REA-SPV-V/1	R522K	1	DX*	1	*	Q	

REACTOR FEEDWATER SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad. Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
RFW-MO-65A	R5010	1	NOY*	8	O*	Q	
RFW-MO-65B	R5010	1	NOY*	8	O*	Q	

RESIDUAL HEAT REMOVAL SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
RHR-DPIS-12A	R501B	1	DEX*	3	DEX*	Q	3
RHR-FIS-10A	R501B	1	DEX*	3	DEX*	Q	3
RHR-FT-15A	R501B	1	DEX*	3	DEX*	Q	3
RHR-LS-11A	R471F	2	X*	3	X*	Q	
RHR-LS-11B	R471F	2	X*	3	X*	Q	
RHR-LS-11C	R471F	2	X*	3	X*	Q	
RHR-LS-11D	R471F	2	X*	3	X*	Q	
RHR-M-P/2A	R422J	1	X*	3	X*	Q	
RHR-MO-11A	R471F	1	X*	3	X*	Q	
RHR-MO-11B	R471E	1	X*	3	X*	Q	
RHR-MO-124A	R471F	1	X*	3	X*	Q	
RHR-MO-124B	R471F	1	X*	3	X*	Q	
RHR-MO-125A	R471E	1	X*	3	X*	Q	
RHR-MO-125B	R471E	1	X*	3	X*	Q	
RHR-MO-134A	R548M	1	MX*	3	MX*	Q	3
RHR-MO-134B	R548L	1	X*	3	X*	Q	
RHR-MO-16A	R548B	1	MJX*	1	*	Q	
RHR-MO-16B	R501M	1	X*	1	*	Q	
RHR-MO-17A	R548B	1	MJX*	1	*	Q	
RHR-MO-17B	R501M	1	X*	1	*	Q	
RHR-MO-21	R441J	1	CY*	3	CY*	Q	
RHR-MO-24A	R471F	1	X*	1	*	Q	
RHR-MO-24B	R471E	1	X*	1	*	Q	
RHR-MO-26A	R471F	1	X*	3	X*	Q	
RHR-MO-26B	R471E	1	X*	3	X*	Q	
RHR-MO-27A	R471A	1	DX*	3	DX*	Q	3
RHR-MO-27B	R471E	1	X*	3	X*	Q	
RHR-MO-3A	R548N	1	X*	3	X*	Q	
RHR-MO-40	R548J	1	LX*	3	LX*	Q	
RHR-MO-42A	R522O	1	GX*	3	GX*	Q	
RHR-MO-42B	R522G	1	HIX*	3	HIX*	Q	
RHR-MO-42C	R522O	1	GX*	3	GX*	Q	
RHR-MO-47A	R572L	1	X*	3	X*	Q	
RHR-MO-48A	R548N	1	X*	3	X*	Q	
RHR-MO-4A	R441G	1	X*	3	X*	Q	
RHR-MO-4B	R441F	1	X*	3	X*	Q	
RHR-MO-4C	R441J	1	CY*	3	CY*	Q	
RHR-MO-52A	R572L	1	X*	3	X*	Q	
RHR-MO-53A	R510S	1	EFX*	3	EFX*	Q	
RHR-MO-53B	R501M	1	X*	3	X*	Q	
RHR-MO-64A	R441G	1	X*	3	X*	Q	
RHR-MO-64B	R441F	1	X*	3	X*	Q	
RHR-MO-64C	R441J	1	CY*	3	CY*	Q	
RHR-MO-68A	R548N	1	X*	3	X*	Q	
RHR-MO-6A	R422J	1	X*	3	X*	Q	

RESIDUAL HEAT REMOVAL SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
RHR-MO-73A	R572L	1	X*	3	X*	Q	
RHR-MO-73B	R572I	1	X*	3	X*	Q	
RHR-MO-74A	R572L	1	X*	3	X*	Q	
RHR-MO-8	R501I	1	X*	3	X*	Q	
RHR-MO-87A	R572L	1	X*	3	X*	Q	
RHR-MO-93	R548J	1	LX*	3	LX*	Q	
RHR-MO-99A	C514	1	PQR	1	PQR	Q	
RHR-PS-16A	R501B	1	DEX*	3	DEX*	Q	3
RHR-PS-19A	R501B	1	DEX*	3	DEX*	Q	3
RHR-V-75A	R548N	1	X*	3	X*	J	JIO #25
RHR-V-75B	R548J	1	LX*	3	LX*	J	JIO #25

REACTOR BUILDING OUTSIDE AIR(HVAC) SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
ROA-POS-V/1	R572F	1	MX*	1	*	J	JIO #17
ROA-RLY-CR1A	R548G	2	LMX*	1	*	Q	
ROA-SPV-100	R548G	1	LMX*	1	*	Q	
ROA-SPV-11	R522K	2	DX*	3	DX*	Q	3
ROA-SPV-12	R471H	2	Y*	3	Y*	Q	
ROA-SPV-13	R572F	2	MX*	3	MX*	Q	3
ROA-SPV-15	R548C	2	MX*	1	*	Q	

REACTOR PROTECTION SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
RPS-PS-2A	R522K	1	DX*	1	*	Q	
RPS-PS-2B	R522H	1	DHX*	1	*	Q	

REACTOR BUILDING RETURN AIR(HVAC) SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
RRA-M-FN/11	R522N	1	Y*	3	Y*	Q	
RRA-M-FN/12	R471H	1	Y*	3	Y*	Q	
RRA-M-FN/13	R572D	1	Y*	3	Y*	Q	
RRA-M-FN/15	R548E	1	Y*	1	*	Q	
RRA-M-FN/2	R441G	1	X*	3	X*	Q	
RRA-M-FN/4	R441C	1	Y*	3	Y*	Q	
RRA-M-FN/5	R441B	1	Y*	3	Y*	Q	
RRA-RMS-FN/2	R441G	2	X*	3	X*	J	JIO #26
RRA-RMS-FN/4	R441C	2	Y*	3	Y*	Q	
RRA-RMS-FN/5	R441B	2	Y*	3	Y*	Q	

REACTOR RECIRCULATION SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
RRC-MO-16A	R501F	1	DX*	1	*	Q	
RRC-MO-16B	R501K	1	DX*	1	*	Q	
RRC-PS-18A	R471B	1	DX*	1	*	Q	
RRC-V-20	R501K	1	DX*	1	*	Q	

REACTOR WATER CLEANUP SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
RWCU-FT-15	R522C	1	DIX*	4	IX	Q	
RWCU-FT-36	R522C	1	DIX*	4	IX	Q	
RWCU-FT-41	R522C	1	DIX*	4	IX	Q	
RWCU-MO-4	R522F	1	HIX*	1,4	HIX*	Q	
RWCU-MO-40	R510S	1	EFX*	1,4	FX*	Q	

STANDBY GAS TREATMENT SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
SGT-EHC-1A1	R572N	1	MY*	13	Y*	Q	
SGT-EHC-1A2	R572N	1	MY*	13	Y*	Q	
SGT-EHO-1A1	R572N3	1	MY*	13	Y*	Q	
SGT-EHO-1A2	R572N3	1	MY*	13	Y*	Q	
SGT-FS-2A2	R572N4	1	MY*	13	Y*	Q	
SGT-FT-1A1	R572N2	1	MY*	13	Y*	Q	
SGT-FT-1A2	R572N2	1	MY*	13	Y*	Q	
SGT-M-FN/1A1	R572N3	1	MY*	13	Y*	Q	
SGT-M-FN/1A2	R572N3	1	MY*	13	Y*	Q	
SGT-ME-6A1	R572N	1	MY*	13	Y*	Q	
SGT-ME-6A2	R572N	1	MY*	13	Y*	Q	
SGT-ME-6A3	R572N	1	MY*	13	Y*	Q	
SGT-ME-7A1	R572N	1	MY*	13	Y*	Q	
SGT-ME-7A2	R572N	1	MY*	13	Y*	Q	
SGT-ME-7A3	R572N	1	MY*	13	Y*	Q	
SGT-MO-1A	R572N4	1	MY*	13	Y*	Q	
SGT-MO-3A1	R572N4	1	MY*	13	Y*	Q	
SGT-MO-3A2	R572N4	1	MY*	13	Y*	Q	
SGT-MO-4A1	R572N4	1	MY*	13	Y*	Q	
SGT-MO-4A2	R572N4	1	MY*	13	Y*	Q	
SGT-MO-5A1	R572N4	1	MY*	13	Y*	Q	
SGT-MO-5A2	R572N4	1	MY*	13	Y*	Q	
SGT-MO-5B1	R572N4	1	MY*	13	Y*	Q	
SGT-MO-5B2	R572N4	1	MY*	13	Y*	Q	
SGT-POS-V/2A	R572N	1	MY*	13	Y*	Q	
SGT-SPV-2A	R572N	1	MY*	13	Y*	Q	
SGT-SPV-F1	R572N1	2	MY*	13	Y*	Q	
SGT-SPV-F2	R572N1	2	MY*	13	Y*	Q	
SGT-SPV-F3	R572N1	2	MY*	13	Y*	Q	
SGT-TS-EH1A11	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A110	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A111	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A112	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A113	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A114	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A116	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A117	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A118	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A12	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A13	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A14	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A15	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A16	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A17	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A18	R572N6	1	MY*	13	Y*	Q	

STANDBY GAS TREATMENT SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
SGT-TS-EH1A19	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A21	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A210	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A211	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A212	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A213	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A214	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A215	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A216	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A217	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A218	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A22	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A23	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A24	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A25	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A26	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A27	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A28	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1A29	R572N6	1	MY*	13	Y*	Q	

STANDBY LIQUID CONTROL SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
SLC-V-4A	R548C	2	MX*	1	*	Q	
SLC-V-4B	R548C	2	MX*	1	*	Q	

SUPRESSION POOL TEMP MONITORING SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exsd	Reqd	Qual	Status	Comments
SPTM-TE-11	C448	1	PQR	3	PQR	Q	
SPTM-TE-13	C448	1	PQR	3	PQR	Q	
SPTM-TE-15	C448	1	PQR	3	PQR	Q	
SPTM-TE-1A	C466	1	PQR	3	PQR	Q	
SPTM-TE-2A	C466	1	PQR	3	PQR	Q	
SPTM-TE-3A	C466	1	PQR	3	PQR	Q	
SPTM-TE-4A	C466	1	PQR	3	PQR	Q	
SPTM-TE-5A	C466	1	PQR	3	PQR	Q	
SPTM-TE-6A	C466	1	PQR	3	PQR	Q	
SPTM-TE-7A	C466	1	PQR	3	PQR	Q	
SPTM-TE-8A	C466	1	PQR	3	PQR	Q	
SPTM-TE-9	C448	1	PQR	3	PQR	Q	

SOURCE RANGE MONITORING SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
SRM-CONN-04	C	2	PQR	1,5	PQR	J	JIO #27
SRM-DET-1D	C	1	PQR	1,5	PQR	J	JIO #18
SRM-EAMP-1D	R501K	1	DX*	1,5	X*	J	JIO #28

STANDBY SERVICE WATER SYSTEM
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
SW-MO-187A	R548L	1	X*	3	X*	J	JIO #19
SW-MO-188A	R548L	1	X*	3	X*	J	JIO #19
SW-MO-24A	R441G	1	Y*	3	Y*	Q	
SW-MO-44	R441B	1	Y*	3	Y*	Q	
SW-MO-54	R441C	1	Y*	3	Y*	Q	
SW-MO-75A	R522K	1	DX*	3	DX*	Q	3
SW-PS-1014	R548E	1	Y*	3	Y*	J	JIO #20
SW-V-201	R548E	1	Y*	3	Y*	J	JIO #21
SW-V-204	R548E	1	Y*	3	Y*	J	JIO #21
SW-V-212	R548E	1	Y*	3	Y*	J	JIO #21
SW-V-213	R548E	1	Y*	3	Y*	J	JIO #21
SW-V-840	R471D	1	DX*	3	DX*	Q	3
SW-V-842	R471D	1	DX*	3	DX*	Q	3
SW-V-844	R471D	1	DX*	3	DX*	Q	3
SW-V-846	R471D	1	DX*	3	DX*	Q	3

TRAVERSING IN-CORE PROBE
TABLE A (REV 2)
Equipment on Preferred Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
TIP-V-1	R501P	1	DEFX*	1	*	J	JIO #22
TIP-V-2	R501P	1	DEFX*	1	*	J	JIO #22
TIP-V-3	R501P	1	DEFX*	1	*	J	JIO #22
TIP-V-4	R501P	1	DEFX*	1	*	J	JIO #22
TIP-V-5	R501P	1	DEFX*	1	*	J	JIO #22

TABLE B

(Revision 2)

LEGEND FOR TABLE B

ACCIDENT CODES FOR "EXPD" COLUMN

A = HELB - RCIC	H = HELB - RWCU	O = HELB - RFW
B = HELB - RCIC	I = HELB - RWCU	P = LOCA - RRC
C = HELB - RCIC	J = HELB - RWCU	Q = LOCA - MSL
D = HELB - AS	K = HELB - RWCU	R = LOCA - SMALL
E = HELB - RCIC	L = HELB - RWCU	S = Control Rod Drop
F = HELB - RWCU	M = HELB - AS	+ = Submerged in Suppression Pool
G = HELB - RWCU	N = HELB - MS	

* = Environmental conditions inside the Reactor Building due to LOCA breaks inside the primary containment.

X* = Secondary effects of RCIC and RWCU breaks in all Reactor Building zones not influenced by Y*

Y* = Secondary effects of RCIC and RWCU breaks in Reactor Building zones R422C,D,E,F,L,M, R441B,C,I,J, R501O, R522D,N, R548E,F, R572A,B,D,E,H,N, R606

ACCIDENT GROUPS FOR "REQD" COLUMN

1	= P,Q,R,*	7	= N,P,Q,R,*
2	= N,O,P,Q,R,*	8	= O,P,Q,R,*
3	= A-R,+,and X* or Y*	9	= A,B,C,E
4	= F-L, and X* or Y*	10	= N
5	= A,B,C,E-L, and X* or Y*	11	= N,O
6	= A,B,C,E,P,Q,R,X*	12	= S
		13	= A,B,C,E-L,N-S, and X* or Y*

STATUS/COMMENT LEGEND

Q = Qualification documentation is complete.

Q' = Equipment is being replaced. Qualification documentation to be completed prior to November 30, 1985 or first refueling outage.

J = Justification for Interim Operation provided.

1 = Component is qualified to *.

2 = Component is qualified for the worst case application for this component type. See EQR sheet.

3 = Component is qualified to profiles 21X and/or 9, 10, 11, 31, 32 as appropriate for the Auxiliary Steam (AS) HELBs, denoted by accident codes D and M. Based on the Supply System letter to the NRC [G. C. Sorenson (Supply System) to A. Schwencer (NRC), Subject: Auxiliary Steam Line Isolation Equipment Qualification, September 1983] the Supply System is proceeding to install qualified instrumentation to sense an AS line break and qualified isolation values to mitigate the environmental impact of this break. The AS design modification will result in new environmental profiles. These new profiles are enveloped by the above referenced profiles.

CONTAINMENT ATMOSPHERE CONTROL SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Read	Qual	Status	Comments
CAC-CNTR-1B	R572F	1	MX*	1	*	Q	
CAC-EHC-1B	R572F	1	MX*	1	*	Q	
CAC-EHO-FCV/1B	R548Q	1	KX*	1	*	Q	
CAC-EHO-FCV/2B	R548H	1	LX*	1	*	Q	
CAC-EHO-FCV/3B	R471M	1	X*	1	*	Q	
CAC-EHO-FCV/4B	R471B	1	DX*	1	*	Q	
CAC-EHO-FCV/5B	R572F	1	MX*	1	*	Q	
CAC-EHO-FCV/6B	R572F	1	MX*	1	*	Q	
CAC-EHO-TCV/4B	R572F	1	MX*	1	*	Q	
CAC-EHO-V/1B	R572F	1	MX*	1	*	Q	
CAC-EHO-V/2B	R572F	1	MX*	1	*	Q	
CAC-EHO-V/3B	R572F	1	MX*	1	*	Q	
CAC-FT-5B	R572F	2	MX*	1	*	Q	
CAC-FT-6B	R572F	1	MX*	1	*	Q	
CAC-FT-7B	R572F	1	MX*	1	*	Q	
CAC-LT-1B	R572F	1	MX*	1	*	Q	
CAC-M-FN/1B	R572F	1	MX*	1	*	Q	
CAC-PT-1B	R572F	2	MX*	1	*	Q	
CAC-PT-68B	R572F	1	MX*	1	*	Q	
CAC-RLY-4B/CR1	R471D	1	DX*	1	*	Q	
CAC-RLY-4B/CR2	R471D	1	DX*	1	*	Q	
CAC-RLY-FCV1B80	R471D	2	DX*	1	*	Q	
CAC-RLY-FCV2B80	R471D	2	DX*	1	*	Q	
CAC-RLY-FCV3B80	R471D	2	DX*	1	*	Q	
CAC-RLY-FCV4B80	R471D	2	DX*	1	*	Q	
CAC-TE-2B	R572F	1	MX*	1	*	Q	
CAC-TE-3B	R572F	1	MX*	1	*	Q	
CAC-TE-4B	R572F	1	MX*	1	*	Q	
CAC-TE-5B	R572F	1	MX*	1	*	Q	
CAC-TE-6B	R572F	1	MX*	1	*	Q	
CAC-TE-7B	R572F	1	MX*	1	*	Q	

CONTAINMENT PURGE EXHAUST
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
CEP-POS-V/2A	R548Q	1	KX*	1	*	Q	
CEP-POS-V/2B	R548Q	1	KX*	1	*	Q	
CEP-POS-V/4A	R471J	1	DX*	1	*	Q	
CEP-POS-V/4B	R471J	1	DX*	1	*	Q	
CEP-SPV-2A	R548P	1	JMX*	1	*	Q	
CEP-SPV-2B	R548P	1	JMX*	1	*	Q	
CEP-SPV-4A	R501K	1	DX*	1	*	Q	
CEP-SPV-4B	R501K	1	DX*	1	*	Q	

CONTAINMENT INSTRUMENT AIR SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Read	Qual	Status	Comments
CIA-MO-30B	R522H	1	DHIX*	3	DHIX*	Q	3
CIA-PROG-1B	R548P	1	JMX*	3	JMX*		
CIA-PS-21B	R548P	1	JMX*	3	JMX*	Q	3
CIA-PS-22B	R548P	1	JMX*	3	JMX*		
CIA-PT-21B	R548P	1	JMX*	3	JMX*	Q	3
CIA-RLY-21B	R548P	1	JMX*	3	JMX*		
CIA-RLY-22B	R548P	1	JMX*	3	JMX*		
CIA-SPV-10B	R441D	1	X*	3	X*		
CIA-SPV-11B	R441D	1	X*	3	X*		
CIA-SPV-12B	R441D	1	X*	3	X*		
CIA-SPV-13B	R441D	1	X*	3	X*		
CIA-SPV-14B	R441D	1	X*	3	X*		
CIA-SPV-15B	R441D	1	X*	3	X*		
CIA-SPV-16B	R441D	1	X*	3	X*		
CIA-SPV-17B	R441D	1	X*	3	X*		
CIA-SPV-18B	R441D	1	X*	3	X*		
CIA-SPV-19B	R441D	1	X*	3	X*		
CIA-SPV-1B	R441D	1	X*	3	X*		
CIA-SPV-2B	R441D	1	X*	3	X*		
CIA-SPV-3B	R441D	1	X*	3	X*		
CIA-SPV-4B	R441D	1	X*	3	X*		
CIA-SPV-5B	R441D	1	X*	3	X*		
CIA-SPV-6B	R441D	1	X*	3	X*		
CIA-SPV-7B	R441D	1	X*	3	X*		
CIA-SPV-8B	R441D	1	X*	3	X*		
CIA-SPV-9B	R441D	1	X*	3	X*		
CIA-TDS-1B	R548P	1	JMX*	3	JMX*		

CONTAINMENT MONITORING SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
CMS-AY-2	R548F	1	Y*	1	*		
CMS-AY-4	R548F	1	Y*	1	*		
CMS-H-SR14/T5	R548F	1	Y*	1	*	Q	
CMS-H-SR14/T6	R548F	1	Y*	1	*	Q	
CMS-H-SR14/T7	R548F	1	Y*	1	*	Q	
CMS-H-SR14/T8	R548F	1	Y*	1	*	Q	
CMS-LE-4A	C435	1	PQR+	3	PQR+		
CMS-LE-4B	C500	1	PQR	3	PQR		
CMS-LE-5A	C435	1	PQR+	3	PQR+		
CMS-LE-5B	C500	1	PQR	3	PQR		
CMS-LT-1	R441J	1	CY*	3	CY*	Q	
CMS-PT-2	R548P	1	JMX*	1	*	Q	
CMS-PT-4	R501K	1	DX*	1	*	Q	
CMS-PT-6	R548P	1	JMX*	1	*	Q	
CMS-PT-8	R548P	1	JMX*	1	*	Q	
CMS-RE-27F	C516	1	PQR	3	PQR	Q	
CMS-RMS-HTP80	R548F	2	Y*	1	*		
CMS-TE-12	C520	1	PQR	1	PQR		
CMS-TE-14	C544	1	PQR	1	PQR		
CMS-TE-24	C596	1	PQR	1	PQR		
CMS-TE-25	C596	1	PQR	1	PQR		
CMS-TE-28	C560	1	PQR	1	PQR		
CMS-TE-3	C517	1	PQR	1	PQR		
CMS-TE-31	C560	1	PQR	1	PQR		
CMS-TE-4	C550	1	PQR	1	PQR		
CMS-TE-7	C504	1	PQR	1	PQR		
CMS-TE-9	C547	1	PQR	1	PQR		
CMS-TS-8A	R548F	1	Y*	1	*		
CMS-TS-8B	R548F	1	Y*	1	*		
CMS-TS-8C	R548F	1	Y*	1	*		
CMS-TS-8D	R548F	1	Y*	1	*		
CMS-TS-9A	R548F	1	Y*	1	*		
CMS-TS-9B	R548F	1	Y*	1	*		
CMS-TS-9C	R548F	1	Y*	1	*		
CMS-TS-9D	R548F	1	Y*	1	*		

CONTAINMENT RECIRCULATION AIR SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
CRA-M-FN/3B	C536	1	PQR	1	PQR	Q	
CRA-M-FN/3C	C536	1	PQR	1	PQR	Q	
CRA-M-FN/4B	C572	1	PQR	1	PQR	Q	
CRA-M-FN/5B	C564	1	PQR	1	PQR	Q	
CRA-M-FN/5D	C564	1	PQR	1	PQR	Q	

CONTROL ROD DRIVE SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
CRD-SPV-110B	R522C	2	DHIX*	1	*	Q	

CONTAINMENT PURGE SUPPLY SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
CSP-DPT-4	R501K	1	DX*	1	*		
CSP-DPT-5	R501F	1	DX*	1	*		
CSP-DPT-6	R501F	1	DX*	1	*		
CSP-POS-V/2	R501I	1	X*	1	*	Q	
CSP-POS-V/4	R471D	1	DX*	1	*	Q	
CSP-POS-V/5	R471D	1	DX*	1	*	Q	
CSP-POS-V/6	R471J	1	DX*	1	*	Q	
CSP-POS-V/9	R471B	1	DX*	1	*	Q	
CSP-RLY-ARCSPV5	R501F	1	DX*	1	*	Q	
CSP-RLY-ARCSPV6	R501K	1	DX*	1	*	Q	
CSP-RLY-ARCSPV9	R501F	1	DX*	1	*	Q	
CSP-RLY-CR4	R501K	1	DX*	1	*	Q	
CSP-RLY-CR5	R501F	1	DX*	1	*	Q	
CSP-RLY-CR6	R501F	1	DX*	1	*	Q	
CSP-SPV-2	R501K	1	DX*	1	*	Q	
CSP-SPV-4	R501F	1	DX*	1	*	Q	
CSP-SPV-5	R501F	1	DX*	1	*	Q	
CSP-SPV-6	R501K	1	DX*	1	*	Q	
CSP-SPV-9	R501F	1	DX*	1	*	Q	
CSP-V-93	R471D	1	DX*	1	*	Q	
CSP-V-96	R501I	1	X*	1	*	Q	

ELECTRICAL SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
E-CONN-X100A/01	C507	2	PQR	1	PQR	Q	
E-CONN-X100A/02	C507	2	PQR	1	PQR	Q	
E-CONN-X100B/01	C507	2	PQR	1	PQR	Q	
E-CONN-X100B/02	C507	2	PQR	1	PQR	Q	
E-CONN-X100C/01	C511	2	PQR	1	PQR	Q	
E-CONN-X100C/02	C511	2	PQR	1	PQR	Q	
E-CONN-X102B/01	C534	2	PQR	3	PQR	Q	
E-CONN-X102B/02	C534	2	PQR	3	PQR	Q	

EQUIPMENT DRAINS RADIOACTIVE SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
EDR-POS-V/19	R441C	1	Y*	1	*		
EDR-SPV-19	R422E	1	Y*	1	*	Q	

FLOOR DRAIN RADIOACTIVE SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
FDR-LS-42	R422I	1	X*	1	*	Q	
FDR-LS-43	R422M	1	CY*	1	*	Q	
FDR-LS-44	R422L	1	ABX*	1	*	Q	
FDR-POS-V/3	R441C	1	Y*	1	*		
FDR-SPV-3	R422E	1	Y*	1	*	Q	

FUEL POOL COOLING SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Expd	Recd	Qual	Status	Comments
FPC-MO-156	R441G	1	X*	3	X*	Q	
FPC-TE-7	R572K	1	X*	3	X*		

RRC HYDRAULIC CONTROL
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
HY-V-33A	R522C	1	DHIX*	1	*	Q	
HY-V-33B	R522J	1	DX*	1	*	Q	
HY-V-34A	R522C	1	DHIX*	1	*	Q	
HY-V-34B	R522J	1	DX*	1	*	Q	
HY-V-35A	R522C	1	DHIX*	1	*	Q	
HY-V-35B	R522J	1	DX*	1	*	Q	
HY-V-36A	R522C	1	DHIX*	1	*	Q	
HY-V-36B	R522J	1	DX*	1	*	Q	

LEAK DETECTION SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
LD-TE-18A	R441G	1	X*	3	X*	Q	
LD-TE-18B	R441F	1	X*	3	X*	Q	
LD-TE-18C	R441G	1	X*	3	X*	Q	
LD-TE-18D	R441F	1	X*	3	X*	Q	
LD-TE-1B	R522F	1	HIX*	4	HIX	Q	
LD-TE-1D	R522F	1	HIX*	4	HIX	Q	
LD-TE-1F	R548B	1	MJX*	4	JX	Q	
LD-TE-27A	R422I	1	X*	3	X*	Q	
LD-TE-27B	R422J	1	X*	3	X*	Q	
LD-TE-27C	R422I	1	X*	3	X*	Q	
LD-TE-27D	R422J	1	X*	3	X*	Q	
LD-TE-28A	R441F	1	X*	3	X*	Q	
LD-TE-28B	R441G	1	X*	3	X*	Q	
LD-TE-28C	R441F	1	X*	3	X*	Q	
LD-TE-28D	R441G	1	X*	3	X*	Q	
LD-TE-29B	R5010	1	NOY*	11	NO	Q	
LD-TE-29D	R5010	1	NOY*	11	NO	Q	
LD-TE-2B	R522F	1	HIX*	4	HIX	Q	
LD-TE-2D	R522F	1	HIX*	4	HIX	Q	
LD-TE-2F	R548B	1	MJX*	4	JX	Q	
LD-TE-30B	R5220	1	GX*	11	NONE	Q	1
LD-TE-30D	R5220	1	GX*	11	NONE	Q	1
LD-TE-31B	R5010	1	NOY*	11	NO	Q	
LD-TE-31D	R5010	1	NOY*	11	NO	Q	
LD-TE-3B	R522F	1	HIX*	4	HIX	Q	
LD-TE-3D	R522F	1	HIX*	4	HIX	Q	
LD-TE-3F	R548B	1	MJX*	4	JX	Q	
LD-TE-4B	R441I	1	ABX*	9	AB	Q	
LD-TE-5B	R422L	1	ABX*	9	AB	Q	
LD-TE-6B	R441I	1	ABX*	9	AB	Q	

LOW PRESSURE CORE SPRAY SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
LPCS-FIS-4	R471A	1	DX*	1,5	X*	Q	
LPCS-FT-3	R471A	1	DX*	1,5	X*		
LPCS-M-P/1	R422C	1	Y*	1,5	Y*	Q	
LPCS-PIS-1	R471A	1	DX*	1,5	X*		
LPCS-PS-9	R471A	1	DX*	1,5	X*	Q	

MAIN STEAM SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
MS-CONN-V28A/J1	R5010	2	NOY*	2	NO*	Q	
MS-CONN-V28A/J2	R5010	2	NOY*	2	NO*	Q	
MS-CONN-V28A/J3	R5010	2	NOY*	2	NO*	Q	
MS-CONN-V28B/J1	R5010	2	NOY*	2	NO*	Q	
MS-CONN-V28B/J2	R5010	2	NOY*	2	NO*	Q	
MS-CONN-V28B/J3	R5010	2	NOY*	2	NO*	Q	
MS-CONN-V28C/J1	R5010	2	NOY*	2	NO*	Q	
MS-CONN-V28C/J2	R5010	2	NOY*	2	NO*	Q	
MS-CONN-V28C/J3	R5010	2	NOY*	2	NO*	Q	
MS-CONN-V28D/J1	R5010	2	NOY*	2	NO*	Q	
MS-CONN-V28D/J2	R5010	2	NOY*	2	NO*	Q	
MS-CONN-V28D/J3	R5010	2	NOY*	2	NO*	Q	
MS-DPIS-11C	R471B	1	DX*	10	NONE	Q	1
MS-DPIS-11D	R501B	1	DEX*	10	NONE	Q	1
MS-DPIS-810C	R471B	1	DX*	10	NONE	Q	1
MS-DPIS-810D	R501B	1	DEX*	10	NONE	Q	1
MS-DPIS-8C	R471B	1	DX*	10	NONE	Q	1
MS-DPIS-8D	R501B	1	DEX*	10	NONE	Q	1
MS-DPIS-9C	R471B	1	DX*	10	NONE	Q	1
MS-DPIS-9D	R501B	1	DEX*	10	NONE	Q	1
MS-LIS-24C	R522C	1	DHIX*	1	*	Q	
MS-LIS-24D	R522P	1	DX*	1	*	Q	
MS-LIS-37B	R522H	1	DHIX*	3	DHIX*	Q	3
MS-LIS-37D	R522H	1	DHIX*	3	DHIX*	Q	3
MS-LIS-38B	R522H	1	DHIX*	3	DHIX*	Q	3
MS-LITS-26C	R522C	1	DHIX*	1	*		
MS-LITS-26D	R522H	1	DHIX*	3	DHIX*		
MS-LITS-44B	R471D	1	DX*	1	*		
MS-MO-16	C504	1	PQR	2	PQR	Q	
MS-POS-V/28A/1	R5010	1	NOY*	2	NO*	Q'	
MS-POS-V/28A/2	R5010	1	NOY*	2	NO*	Q'	
MS-POS-V/28A/3	R5010	1	NOY*	2	NO*	Q'	
MS-POS-V/28B/1	R5010	1	NOY*	2	NO*	Q'	
MS-POS-V/28B/2	R5010	1	NOY*	2	NO*	Q'	
MS-POS-V/28B/3	R5010	1	NOY*	2	NO*	Q'	
MS-POS-V/28C/1	R5010	1	NOY*	2	NO*	Q'	
MS-POS-V/28C/2	R5010	1	NOY*	2	NO*	Q'	
MS-POS-V/28C/3	R5010	1	NOY*	2	NO*	Q'	
MS-POS-V/28D/1	R5010	1	NOY*	2	NO*	Q'	
MS-POS-V/28D/2	R5010	1	NOY*	2	NO*	Q'	
MS-POS-V/28D/3	R5010	1	NOY*	2	NO*	Q'	
MS-PS-20C	R522C	1	DHIX*	1	*	Q	
MS-PS-20D	R522P	1	DX*	1	*	Q	
MS-PS-23C	R522C	1	DHIX*	1	*	Q	
MS-PS-23D	R522P	1	DX*	1	*	Q	

MAIN STEAM SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
MS-PS-48B	R522H	1	DHIX*	2	*	Q	
MS-PS-48D	R522H	1	DHIX*	2	*	Q	
MS-PT-51B	R522H	1	DHIX*	3	DHIX*	Q'	3
MS-RE-3C	R5010	1	NOSY*	12	S		
MS-RE-3D	R5010	1	NOSY*	12	S		
MS-SPV-28A2	R5010	1	NOY*	2	NO*	Q'	
MS-SPV-28A3	R5010	1	NOY*	2	NO*	Q'	
MS-SPV-28B2	R5010	1	NOY*	2	NO*	Q'	
MS-SPV-28B3	R5010	1	NOY*	2	NO*	Q'	
MS-SPV-28C2	R5010	1	NOY*	2	NO*	Q'	
MS-SPV-28C3	R5010	1	NOY*	2	NO*	Q'	
MS-SPV-28D2	R5010	1	NOY*	2	NO*	Q'	
MS-SPV-28D3	R5010	1	NOY*	2	NO*	Q'	
MS-SPV-3DB	C547	1	PQR	3	PQR	Q'	
MS-SPV-4AB	C547	1	PQR	3	PQR	Q'	
MS-SPV-4BB	C547	1	PQR	3	PQR	Q'	
MS-SPV-4CB	C547	1	PQR	3	PQR	Q'	
MS-SPV-4DB	C547	1	PQR	3	PQR	Q'	
MS-SPV-5BB	C547	1	PQR	3	PQR	Q'	
MS-SPV-5CB	C547	1	PQR	3	PQR	Q'	

MAIN STEAM LEAKAGE CONTROL SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Read	Qual	Status	Comments
MSLC-FT-3A	R471J	1	DX*	2	*		
MSLC-FT-3B	R471J	1	DX*	2	*		
MSLC-FT-3C	R471J	1	DX*	2	*		
MSLC-FT-3D	R471J	1	DX*	2	*		
MSLC-H-A	R471J	1	DX*	2	*		
MSLC-H-B	R471J	1	DX*	2	*		
MSLC-H-C	R471J	1	DX*	2	*		
MSLC-H-D	R471J	1	DX*	2	*		
MSLC-M-FN/1	R471J	1	DX*	2	*	Q	
MSLC-MO-1A	R471J	1	DX*	2	*		
MSLC-MO-1B	R471J	1	DX*	2	*		
MSLC-MO-1C	R471J	1	DX*	2	*		
MSLC-MO-1D	R471J	1	DX*	2	*		
MSLC-MO-2A	R5010	1	NOY*	2	*	Q	
MSLC-MO-2B	R5010	1	NOY*	2	*	Q	
MSLC-MO-2C	R5010	1	NOY*	2	*	Q	
MSLC-MO-2D	R5010	1	NOY*	2	*	Q	
MSLC-PS-70A	R522P	1	DX*	2	*	Q	
MSLC-PS-70B	R522P	1	DX*	2	*	Q	
MSLC-PS-70C	R522P	1	DX*	2	*	Q	
MSLC-PS-70D	R522P	1	DX*	2	*	Q	
MSLC-PS-7A	R522P	1	DX*	2	*	Q	
MSLC-PS-7B	R522P	1	DX*	2	*	Q	
MSLC-PS-7C	R522P	1	DX*	2	*	Q	
MSLC-PS-7D	R522P	1	DX*	2	*	Q	
MSLC-PS-8A	R522P	1	DX*	2	*	Q	
MSLC-PS-8B	R522P	1	DX*	2	*	Q	
MSLC-PS-8C	R522P	1	DX*	2	*	Q	
MSLC-PS-8D	R522P	1	DX*	2	*	Q	
MSLC-PT-10A	R522P	1	DX*	2	*	Q	
MSLC-PT-10B	R522P	1	DX*	2	*	Q	
MSLC-PT-10C	R522P	1	DX*	2	*	Q	
MSLC-PT-10D	R522P	1	DX*	2	*	Q	
MSLC-PT-12A	R522P	1	DX*	2	*	Q	
MSLC-PT-12B	R522P	1	DX*	2	*	Q	
MSLC-PT-12C	R522P	1	DX*	2	*	Q	
MSLC-PT-12D	R522P	1	DX*	2	*	Q	
MSLC-RLY-CR/10	R522P	1	DX*	2	*	Q	
MSLC-RLY-CR/11	R522P	1	DX*	2	*	Q	
MSLC-RLY-CR/12	R522P	1	DX*	2	*	Q	
MSLC-RLY-CR/13	R522P	1	DX*	2	*	Q	
MSLC-RLY-CR/1A	R522P	1	DX*	2	*	Q	
MSLC-RLY-CR/1B	R522P	1	DX*	2	*	Q	
MSLC-RLY-CR/1C	R522P	1	DX*	2	*	Q	
MSLC-RLY-CR/1D	R522P	1	DX*	2	*	Q	

MAIN STEAM LEAKAGE CONTROL SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
MSLC-RLY-CR/5A1	R522P	1	DX*	2	*	Q	
MSLC-RLY-CR/5A2	R522P	1	DX*	2	*	Q	
MSLC-RLY-CR/5B1	R522P	1	DX*	2	*	Q	
MSLC-RLY-CR/5B2	R522P	1	DX*	2	*	Q	
MSLC-RLY-CR/5C1	R522P	1	DX*	2	*	Q	
MSLC-RLY-CR/5C2	R522P	1	DX*	2	*	Q	
MSLC-RLY-CR/5D1	R522P	1	DX*	2	*	Q	
MSLC-RLY-CR/5D2	R522P	1	DX*	2	*	Q	
MSLC-RLY-CR/6A1	R522P	1	DX*	2	*	Q	
MSLC-RLY-CR/6A2	R522P	1	DX*	2	*	Q	
MSLC-RLY-CR/6B1	R522P	1	DX*	2	*	Q	
MSLC-RLY-CR/6B2	R522P	1	DX*	2	*	Q	
MSLC-RLY-CR/6C1	R522P	1	DX*	2	*	Q	
MSLC-RLY-CR/6C2	R522P	1	DX*	2	*	Q	
MSLC-RLY-CR/6D1	R522P	1	DX*	2	*	Q	
MSLC-RLY-CR/6D2	R522P	1	DX*	2	*	Q	
MSLC-RLY-CR/8	R522P	1	DX*	2	*	Q	
MSLC-RLY-CR/9	R522P	1	DX*	2	*	Q	
MSLC-TD-TK/2A	R522P	1	DX*	2	*	Q	
MSLC-TD-TK/2B	R522P	1	DX*	2	*	Q	
MSLC-TD-TK/2C	R522P	1	DX*	2	*	Q	
MSLC-TD-TK/2D	R522P	1	DX*	2	*	Q	
MSLC-TD-TK/3A	R522P	1	DX*	2	*	Q	
MSLC-TD-TK/3B	R522P	1	DX*	2	*	Q	
MSLC-TD-TK/3C	R522P	1	DX*	2	*	Q	
MSLC-TD-TK/3D	R522P	1	DX*	2	*	Q	
MSLC-TD-TK/4A	R522P	1	DX*	2	*	Q	
MSLC-TD-TK/4B	R522P	1	DX*	2	*	Q	
MSLC-TD-TK/4C	R522P	1	DX*	2	*	Q	
MSLC-TD-TK/4D	R522P	1	DX*	2	*	Q	
MSLC-TE-10A	R471J	1	DX*	2	*		
MSLC-TE-10B	R471J	1	DX*	2	*		
MSLC-TE-10C	R471J	1	DX*	2	*		
MSLC-TE-10D	R471J	1	DX*	2	*		

PROCESS INSTRUMENTATION SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
PSR-V-X73/1	C522	1	PQR	1	PQR	Q	
PSR-V-X77A/1	C501	1	PQR	1	PQR	Q	
PSR-V-X77A/3	C501	1	PQR	1	PQR	Q	
PSR-V-X80/1	C522	1	PQR	1	PQR	Q	
PSR-V-X82/1	R471D	1	DX*	1	*	Q	
PSR-V-X82/7	R471D	1	DX*	1	*	Q	
PSR-V-X83/1	R471D	1	DX*	1	*	Q	
PSR-V-X84/1	R471A	1	DX*	1	*	Q	
PSR-V-X88/1	R441D	1	X*	1	*	Q	

REACTOR BUILDING CLOSED COOLING WATER SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Read	Qual	Status	Comments
RCC-MO-104	R510S	1	EFX*	1	*	Q	
RCC-MO-129	R548L	1	X*	1	*	Q	
RCC-MO-131	R548L	1	X*	1	*	Q	
RCC-MO-40	C517	1	PQR	1	PQR	Q	

REACTOR CORE ISOLATION COOLING SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
RCIC-CNTR-C002	R422L	1	ABX*	12	NONE		
RCIC-DPIS-13B	R471A	1	DX*	9	NONE	Q	
RCIC-DPIS-7B	R471A	1	DX*	9	NONE	Q	
RCIC-EHO-C002	R422L	1	ABX*	12	NONE		
RCIC-FIS-2	R471D	1	DX*	12	NONE		
RCIC-FT-3	R471D	1	DX*	12	NONE		
RCIC-LS-10	R422L	1	ABX*	12	NONE	Q	
RCIC-LS-11	R422L	2	ABX*	12	NONE	Q	
RCIC-LS-15A	R441J	1	CY*	12	NONE	Q	
RCIC-LS-15B	R441J	1	CY*	12	NONE	Q	
RCIC-LS-3	R422L	2	ABX*	12	NONE	Q	
RCIC-LS-4	R548N	2	X*	12	NONE	Q	
RCIC-LS-5	R548J	2	LX*	12	NONE	Q	
RCIC-LS-6	R548B	2	MJX*	12	NONE	Q	
RCIC-M-P/3	R422L	1	ABX*	12	NONE		
RCIC-MO-1	R422L	1	ABX*	12	NONE	Q	
RCIC-MO-10	R422L	1	ABX*	12	NONE	Q	
RCIC-MO-22	R441I	1	ABX*	12	NONE	Q	
RCIC-MO-45	R422L	1	ABX*	12	NONE	Q	
RCIC-MO-46	R422L	1	ABX*	12	NONE	Q	
RCIC-MO-59	R441I	1	ABX*	12	NONE	Q	
RCIC-MO-63	C556	1	PQR	6	PQR	Q	
RCIC-MO-76	C556	1	PQR	6	PQR	Q	
RCIC-MO-86	R471I	1	X*	6	X*	Q	
RCIC-POS-V/1	R422L	1	ABX*	12	NONE		
RCIC-POS-V/25	R422L	2	ABX*	12	NONE	Q	
RCIC-POS-V/26	R422L	2	ABX*	12	NONE	Q	
RCIC-POS-V/4	R422F	2	Y*	12	NONE	Q	
RCIC-POS-V/5	R422L	2	ABX*	12	NONE	Q	
RCIC-POS-V/54	R422L	2	ABX*	12	NONE	Q	
RCIC-PS-1	R422L	2	ABX*	12	NONE		
RCIC-PS-12A	R471D	1	DX*	12	NONE		
RCIC-PS-12B	R471A	1	DX*	12	NONE		
RCIC-PS-12C	R471D	1	DX*	12	NONE		
RCIC-PS-12D	R471A	1	DX*	12	NONE		
RCIC-PS-20	R471D	1	DX*	12	NONE		
RCIC-PS-21	R471D	2	DX*	12	NONE		
RCIC-PS-22B	R471A	1	DX*	9	NONE	Q	
RCIC-PS-22D	R471A	1	DX*	9	NONE	Q	
RCIC-PS-34	R422L	2	ABX*	12	NONE		
RCIC-PS-6	R471D	1	DX*	12	NONE		
RCIC-PS-7	R422L	2	ABX*	12	NONE		
RCIC-PS-9A	R422K	1	X*	12	NONE		
RCIC-PS-9B	R422K	1	X*	12	NONE		
RCIC-PT-4	R471D	2	DX*	12	NONE		

REACTOR CORE ISOLATION COOLING SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
RCIC-PT-5	R471D	2	DX*	12	NONE		
RCIC-PT-7	R471D	2	DX*	12	NONE		
RCIC-PT-8	R471D	2	DX*	12	NONE		
RCIC-RLY-CR1	R422L	1	ABX*	12	NONE		
RCIC-RLY-CR2	R422L	1	ABX*	12	NONE		
RCIC-SE-C002	R422L	1	ABX*	12	NONE		
RCIC-SPV-25	R471J	1	DX*	12	NONE		
RCIC-SPV-26	R501K	1	DX*	12	NONE		
RCIC-SPV-4	R471J	1	DX*	12	NONE		
RCIC-SPV-5	R501K	1	DX*	12	NONE		
RCIC-SPV-54	R471J	1	DX*	12	NONE		
RCIC-SS-1	R422L	1	ABX*	12	NONE		
RCIC-SV-C002	R422L	1	ABX*	12	NONE		
RCIC-TIS-10A	R422L	2	ABX*	12	NONE	Q	
RCIC-TIS-10B	R422L	2	ABX*	12	NONE	Q	

REACTOR BUILDING EXHAUST AIR(HVAC) SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
REA-DPT-1B1	R572N	1	MY*	1,5	Y*	Q	
REA-DPT-1B2	R572C	1	MX*	1,5	X*	Q	
REA-DPT-1B3	R572F	1	MX*	1,5	X*	Q	
REA-DPT-1B4	R572I	1	X*	1,5	X*	Q	
REA-M-AD/8	R548K	1	MX*	1	*		
REA-POS-AD/8	R548K	1	MX*	1	*		
REA-POS-V/2	R572N	1	MY*	1	*	Q	
REA-RE-9C	R572C	1	MX*	1,5	X*	Q	
REA-RE-9D	R572C	1	MX*	1,5	X*	Q	
REA-RLY-CR2	R548P	2	JMX*	1	*	Q	
REA-SPV-V/2	R548P	1	JMX*	1	*	Q	

REACTOR FEEDWATER SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
RFW-SPV-32A1	R501F	1	DX*	8	*	Q	
RFW-SPV-32A2	R501F	1	DX*	8	*	Q	
RFW-SPV-32B1	R501F	1	DX*	8	*	Q	
RFW-SPV-32B2	R501F	1	DX*	8	*	Q	

RESIDUAL HEAT REMOVAL SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
RHR-DPIS-12B	R501K	1	DX*	3	DX*	Q	3
RHR-FIS-10B	R501K	1	DX*	3	DX*	Q	3
RHR-FIS-10C	R501K	1	DX*	3	DX*	Q	3
RHR-FT-15B	R501K	1	DX*	3	DX*		
RHR-FT-15C	R501K	1	DX*	3	DX*		
RHR-LS-10A	R471E	2	X*	3	X*	Q	
RHR-LS-10B	R471E	2	X*	3	X*	Q	
RHR-LS-10C	R471E	2	X*	3	X*	Q	
RHR-LS-10D	R471E	2	X*	3	X*	Q	
RHR-M-P/2B	R422I	1	X*	3	X*	Q	
RHR-M-P/2C	R422M	1	CY*	3	CY*	Q	
RHR-M-P/3	R422M	1	CY*	3	CY*	Q	
RHR-MO-23	R548H	1	LX*	1	*	Q	
RHR-MO-3B	R548J	1	LX*	3	LX*	Q	
RHR-MO-47B	R572I	1	X*	3	X*	Q	
RHR-MO-48B	R548J	1	LX*	3	LX*	Q	
RHR-MO-49	R548J	1	LX*	3	LX*	Q	
RHR-MO-52B	R572I	1	X*	3	X*	Q	
RHR-MO-68B	R548J	1	LX*	3	LX*	Q	
RHR-MO-6B	R422I	1	X*	3	X*	Q	
RHR-MO-74B	R572I	1	X*	3	X*	Q	
RHR-MO-87B	R572I	1	X*	3	X*	Q	
RHR-MO-9	C511	1	PQR	3	PQR	Q	
RHR-MO-94	R548J	1	LX*	3	LX*	Q	
RHR-MO-99B	C501	1	PQR	1	PQR	Q	
RHR-PS-16B	R501K	1	DX*	3	DX*	Q	3
RHR-PS-16C	R501K	1	DX*	3	DX*	Q	3
RHR-PS-19B	R501K	1	DX*	3	DX*	Q	3
RHR-PS-19C	R501K	1	DX*	3	DX*	Q	3
RHR-V-60A	R548N	1	X*	3	X*		
RHR-V-60B	R548J	1	LX*	3	LX*		

REACTOR BUILDING OUTSIDE AIR(HVAC) SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exsd	Recd	Qual	Status	Comments
ROA-M-AD/19	R548K	1	MX*	1	*		
ROA-POS-V/2	R572F	1	MX*	1	*		
ROA-RLY-CR200	R522H	2	DHIX*	1	*	Q	
ROA-SPV-10	R522D	2	Y*	3	Y*	Q	
ROA-SPV-14	R572F	2	MX*	3	MX*	Q	3
ROA-SPV-17	R548C	2	MX*	1	*	Q	
ROA-SPV-200	R522H	1	DHIX*	1	*		

REACTOR PROTECTION SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
RPS-PS-2C	R522C	1	DIX*	1	*	Q	
RPS-PS-2D	R522P	1	DX*	1	*	Q	

REACTOR BUILDING RETURN AIR(HVAC) SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
RRA-M-FN/1	R441J	1	CY*	3	CY*	Q	
RRA-M-FN/10	R522D	1	Y*	3	Y*	Q	
RRA-M-FN/14	R572H	1	Y*	3	Y*	Q	
RRA-M-FN/17	R548F	1	Y*	1	*	Q	
RRA-M-FN/19	R548L	1	X*	3	X*		
RRA-M-FN/20	R548L	1	X*	3	X*		
RRA-M-FN/3	R441F	1	X*	3	X*		
RRA-M-FN/6	R441I	1	ABX*	12	NONE	Q	1
RRA-RMS-FN/1	R441J	2	CY*	3	CY*		
RRA-RMS-FN/3	R441F	2	X*	3	X*		
RRA-RMS-FN/6	R441I	2	ABX*	12	NONE	Q	1

REACTOR RECIRCULATION SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
RRC-PS-18B	R471D	1	DX*	1	*	Q	
RRC-V-19	C506	1	PQR	1	PQR	Q	

REACTOR WATER CLEANUP SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
RWCU-MO-1	C540	1	PQR	1,4	PQR	Q	

STANDBY GAS TREATMENT SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
SGT-EHC-1B1	R572N	1	MY*	13	Y*	Q	
SGT-EHC-1B2	R572N	1	MY*	13	Y*	Q	
SGT-EHO-1B1	R572N3	1	MY*	13	Y*	Q	
SGT-EHO-1B2	R572N3	1	MY*	13	Y*	Q	
SGT-FS-2B1	R572N4	1	MY*	13	Y*	Q	
SGT-FT-1B1	R572N2	1	MY*	13	Y*	Q	
SGT-FT-1B2	R572N2	1	MY*	13	Y*	Q	
SGT-M-FN/1B1	R572N3	1	MY*	13	Y*	Q	
SGT-M-FN/1B2	R572N3	1	MY*	13	Y*	Q	
SGT-ME-6B1	R572N	1	MY*	13	Y*	Q	
SGT-ME-6B2	R572N	1	MY*	13	Y*	Q	
SGT-ME-6B3	R572N	1	MY*	13	Y*	Q	
SGT-ME-7B1	R572N	1	MY*	13	Y*	Q	
SGT-ME-7B2	R572N	1	MY*	13	Y*	Q	
SGT-ME-7B3	R572N	1	MY*	13	Y*	Q	
SGT-MO-1B	R572N4	1	MY*	13	Y*	Q	
SGT-MO-3B1	R572N4	1	MY*	13	Y*	Q	
SGT-MO-3B2	R572N4	1	MY*	13	Y*	Q	
SGT-MO-4B1	R572N4	1	MY*	13	Y*	Q	
SGT-MO-4B2	R572N4	1	MY*	13	Y*	Q	
SGT-POS-V/2B	R572N	1	MY*	13	Y*	Q	
SGT-SPV-2B	R572N	1	MY*	13	Y*	Q	
SGT-SPV-F4	R572N1	2	MY*	13	Y*	Q	
SGT-SPV-F5	R572N1	2	MY*	13	Y*	Q	
SGT-SPV-F6	R572N1	2	MY*	13	Y*	Q	
SGT-TS-EH1B11	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B110	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B111	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B112	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B113	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B114	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B115	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B116	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B117	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B118	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B12	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B13	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B14	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B15	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B16	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B17	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B18	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B19	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B21	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B210	R572N6	1	MY*	13	Y*	Q	

STANDBY GAS TREATMENT SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
SGT-TS-EH1B211	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B212	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B213	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B214	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B215	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B216	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B217	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B218	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B22	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B23	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B24	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B25	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B26	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B27	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B28	R572N6	1	MY*	13	Y*	Q	
SGT-TS-EH1B29	R572N6	1	MY*	13	Y*	Q	

SUPRESSION POOL TEMP MONITORING SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
SPTM-TE-10	C448	1	PQR	3	PQR	Q	
SPTM-TE-12	C448	1	PQR	3	PQR	Q	
SPTM-TE-14	C448	1	PQR	3	PQR	Q	
SPTM-TE-16	C448	1	PQR	3	PQR	Q	
SPTM-TE-1B	C466	1	PQR	3	PQR	Q	
SPTM-TE-2B	C466	1	PQR	3	PQR	Q	
SPTM-TE-3B	C466	1	PQR	3	PQR	Q	
SPTM-TE-4B	C466	1	PQR	3	PQR	Q	
SPTM-TE-5B	C466	1	PQR	3	PQR	Q	
SPTM-TE-6B	C466	1	PQR	3	PQR	Q	
SPTM-TE-7B	C466	1	PQR	3	PQR	Q	
SPTM-TE-8B	C466	1	PQR	3	PQR	Q	

SOURCE RANGE MONITORING SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
SRM-CONN-01	C	2	PQR	1,5	PQR		
SRM-CONN-02	C	2	PQR	1,5	PQR		
SRM-CONN-03	C	2	PQR	1,5	PQR		
SRM-DET-1A	C	1	PQR	1,5	PQR		
SRM-DET-1B	C	1	PQR	1,5	PQR		
SRM-DET-1C	C	1	PQR	1,5	PQR		
SRM-EAMP-1A	R501B	1	DEX*	1,5	EX*		
SRM-EAMP-1B	R501K	1	DX*	1,5	X*		
SRM-EAMP-1C	R501B	1	DEX*	1,5	EX*		

STANDBY SERVICE WATER SYSTEM
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exsd	Recd	Qual	Status	Comments
SW-MO-187B	R548L	1	X*	3	X*		
SW-MO-188B	R548L	1	X*	3	X*		
SW-MO-24B	R441F	1	X*	3	X*	Q	
SW-MO-24C	R441J	1	CY*	3	CY*	Q	
SW-MO-75B	R522H	1	DHIX*	3	DHIX*	Q	3
SW-PS-1015	R548F	1	Y*	3	Y*		
SW-V-206	R548F	1	Y*	3	Y*		
SW-V-209	R548F	1	Y*	3	Y*		
SW-V-210	R548F	1	Y*	3	Y*		
SW-V-211.	R548F	1	Y*	3	Y*		
SW-V-34	R441I	1	ABX*	3	ABX*		

TRAVERSING IN-CORE PROBE
TABLE B (REV 2)
Equipment on Alternate Safe Shutdown Paths

EPN	Rad Zone	Use Code	Accident Information Exod	Recd	Qual	Status	Comments
TIP-SV-1	R501P	1	DEFX*	1	*		
TIP-SV-2	R501P	1	DEFX*	1	*		
TIP-SV-3	R501P	1	DEFX*	1	*		
TIP-SV-4	R501P	1	DEFX*	1	*		
TIP-SV-5	R501P	1	DEFX*	1	*		
TIP-SV-6	R501Q	1	DEX*	1	*		

EQUIPMENT JUSTIFICATIONS

EQUIPMENT JUSTIFICATION INDEX

JIO No.	EPN(s)
1	CIA-PROG-1A
2	CIA-PS-22A
3	CIA-RLY-21A
4	CIA-RLY-22A
5	CIA-TDS-1A
6	CMS-AY-1, 3
7	CMS-LE-3A, 3B
8	CMS-RMS-HTP71
9	CMS-TE-1, 2, 26, 27, 29, 30
10	CMS-TS-4A, 4B, 4C, 4D, 5A, 5B, 5C, 5D
11	EDR-POS-V/20
12	FDR-POS-V/4
13	HPCS-FT-5
14	LPRM-Detectors
15	LPRM-Connectors
16	MS-RE-3A, 3B
17	ROA-POS-V/1
18	SRM-DET-1D
19	SW-MO-187A, 188A
20	SW-PS-1014
21	SW-V-201,204,212,213
22	TIP-V-1, 2, 3, 4, 5

EQUIPMENT JUSTIFICATION INDEX

JIO No.	EPN(s)	
23	CIA-SPV-1A thru 15A	
24	MS-LITS-26A	
25	RHR-V-75A,B	Rev.2
26	RRA-RMS-FN/2	
27	SRM-CONN-04	
28	SRM-EAMP-1D	

EQUIPMENT JUSTIFICATION #1

1.0 COMPONENT IDENTIFICATION

EPN: CIA-PROG-1A

Description: Containment Instrument Air System (CIA) 16 STEP Programmer to N_2 bottle SPV's

Component Type: STEP Programmer

Manufacturer/Model: Automatic Time and Control/1820 BLQ20XX

2.0 ACCIDENT CONDITIONS

	Temperature	Relative Humidity
Accident Profile:	#4,15X,32	#4,21X
Use Code:	1	
Operability Time:	4320 Hours	
Radiation Zone:	R548G	
Zone Dose:	1.2×10^4 Rads	

Rev.2

3.0 COMPONENT SAFETY FUNCTION

The programmer controller sequences the opening of the solenoid valves (CIA-SPV-1A through 15A) for the nitrogen bottles in the Containment Instrument Air System. These bottles provide nitrogen to the seven Automatic Depressurization System (ADS) safety/relief valves.

4.0 QUALIFICATION STATUS

4.1 Summary of Qualification Status

The environmental qualification test program is scheduled and test results are not expected prior to fuel load. Therefore, this component is assumed not to be qualified and the following justification is provided.

4.2 Parameters Requiring Justification

Temperature, pressure, humidity and radiation dose.

5.0 JUSTIFICATION FOR INTERIM OPERATION

The ADS is required to reduce reactor vessel pressure if the High Pressure Core Spray (HPCS) is not maintaining the proper reactor vessel water level. This allows the Low Pressure Coolant Injection (LPCI) mode of the Residual Heat Removal (RHR) System and the Low Pressure Core Spray (LPCS) System to provide make-up water to the reactor core.

ADS safety/relief valves can be supplied either by the Nitrogen Supply System controlled by CIA-PROG-1A, or by the charged air accumulator tank provided for each safety/relief valve (SRV). In the event that the program controller fails, the accumulator tank is capable of providing at least one SRV actuation. Once actuated, these SRV's will reduce the reactor vessel pressure so that the LPCS and LPCI systems can provide core cooling.

If subsequent depressurization is required, the backup nitrogen supply can be manually initiated from the remote nitrogen station for additional ADS actuation. Upon receipt of a low pressure indication in the control room from the nitrogen supply header pressure sensor, CIA-PT-21A, the operator will manually initiate charging of the CIA system from the remote nitrogen bottle station (CIA-TK-20A). This station, located in the corridor between the reactor building and the diesel generator building, is accessible under post-LOCA conditions.

6.0 CONCLUSION

Interim operation is justified on the following basis:

1. The SRV accumulator tanks provide alternate means to initiate reactor vessel depressurization to allow the LPCS and LPCI to function.

2. The operator can manually charge the CIA system for an indefinite period of time, from the remote nitrogen station, if subsequent ADS actuations are needed.

EQUIPMENT JUSTIFICATION #2

1.0 COMPONENT IDENTIFICATION

EPN: CIA-PS-22A

Description: ADS Pneumatic Supply Pressure Switch

Component Type: Pressure Switch

Manufacturer/Model: ASCO/SB11AKR

2.0 ACCIDENT CONDITIONS

	Temperature	Relative Humidity	Rev.2
Accident Profile	#4,15X,32	#4,21X	
Use Code: 1			
Operability Time:	4320 Hours		
Radiation Zone:	R548G		
Zone Dose:	1.2×10^4 Rads		

3.0 COMPONENT SAFETY FUNCTION

CIA-PS-22A is used to close valve CIA-V-39A upon sensing low pressure in the CIA compressed air system. Closure of CIA-V-39A would allow the Automatic Depressurization System (ADS) to switch its pneumatic supply to a nitrogen bottle backup.

4.0 QUALIFICATION STATUS

4.1 Summary of Qualification Status

The environmental qualification test program is currently in progress and test results are not expected prior to fuel load; therefore, this component is assumed not to be qualified. The following justification is provided.

4.2 Parameters Requiring Justification

Temperature, pressure, humidity and radiation dose.

5.0 JUSTIFICATION FOR INTERIM OPERATION

CIA-PS-22A is not required for transfer of the ADS pneumatic supply. If sufficient pressure is not maintained in the compressed air system and the nitrogen bottle backup system is initiated, transfer will occur automatically by closure of check valve CIA-V-41A. Failure of the switch will not degrade any safety-related functions for the following reasons:

1. Whether the switch fails closed or open, backup valve CIA-V-41A will accomplish transfer between the two pneumatic systems.

2. If the switch shorts to ground, no safety-related electrical control systems are affected.

Furthermore, CIA-PS-22A's input to the transfer program controller (CIA-PROG-1A) is also not required (See JIO #1 for CIA-PROG-1A).

6.0 CONCLUSION

Interim operation is justified on the following basis:

1. CIA-PS-22A is not required to perform any active safety-related function.

2. This pressure switch cannot degrade any safety-related system, since its signal to the program controller (CIA-PROG-1A) and the program controller itself are not required for accomplishment of a safety function.

3. Pressure indication is available from the qualified pressure transmitter, CIA-PT-21A, for the operator to take manual action to charge the air system from the remote N_2 bottle station.

EQUIPMENT JUSTIFICATION #3

1.0 COMPONENT IDENTIFICATION

EPN: CIA-RLY-21A

Description: Containment Instrument Air System (CIA) Control Relay

Component Type: Control Relay

Manufacturer/Model: Struthers Dunn, Inc./219BXP

2.0 ACCIDENT CONDITIONS

	Temperature	Relative Humidity
Accident Profile:	#4,15X,32	#4,21X
Use Code: 1		
Operability Time:	4320 Hours	
Radiation Zone:	R548G	
Zone Dose:	1.2×10^4 Rads	

Rev.2

3.0 COMPONENT SAFETY FUNCTION

This normally energized control relay activates the program controller CIA-PROG-1A. This control relay is activated by the low pressure switch CIA-PS-21A.

4.0 QUALIFICATION STATUS

4.1 Summary of Qualification Status

The environmental qualification test program is currently in progress and test results are not expected prior to fuel load. Therefore, this component is assumed not to be qualified, and the following justification is provided.

4.2 Parameters Requiring Justification

Temperature, pressure, humidity and radiation dose.

5.0 JUSTIFICATION FOR INTERIM OPERATION

The ADS is required to reduce reactor vessel pressure if the High Pressure Core Spray (HPCS) is not maintaining the proper reactor vessel water level. This allows the Low Pressure Coolant Injection (LPCI) mode of the Residual Heat Removal (RHR) System and the Low Pressure Core Spray (LPCS) System to provide make-up water to the reactor core.

ADS safety/relief valves can be actuated by either the Nitrogen Supply System, controlled by CIA-PROG-1A, or by the charged air accumulator tank provided for each safety/relief valve (SRV). In the event that the program controller fails, the accumulator tank is capable of providing at least one SRV actuation. Once actuated, these SRV's will reduce the reactor vessel pressure so that the LPCS and LPCI systems can provide core cooling.

If subsequent depressurization is required, the backup nitrogen supply can be manually initiated from the remote nitrogen station for additional ADS actuation. Upon receipt of a low pressure indication in the control room from the nitrogen supply header pressure sensor, CIA-PT-21A, the operator will manually initiate charging of the CIA system from the remote nitrogen bottle station (CIA-TK-20A). This station, located in the corridor between the reactor building and the diesel generator building, is accessible under post-LOCA conditions.

6.0 CONCLUSION

Interim operation is justified on the following basis:

1. The SRV accumulator tanks provide alternate means to initiate reactor vessel depressurization to allow the LPCS and LPCI to function.

2. The operator can manually charge the CIA system for an indefinite period of time from a remote nitrogen station, if subsequent ADS actuations are needed.

EQUIPMENT JUSTIFICATION #4

1.0 COMPONENT IDENTIFICATION

EPN: CIA-RLY-22A

Description: Containment Instrument Air System (CIA) Control Relay

Component Type: Control Relay

Manufacturer/Model: Agastat Relay Co./EGPI-002

2.0 ACCIDENT CONDITIONS

	Temperature	Relative Humidity
Accident Profile:	#4,15X,32	#4,21X
Use Code:	1	
Operability Time:	4320 Hours	
Radiation Zone:	R548G	
Zone Dose:	1.2×10^4 Rads	

Rev.2

3.0 COMPONENT SAFETY FUNCTION

This normally energized control relay activates the programmer controller CIA-PROG-1A. This control relay is activated by the low pressure switch CIA-PS-22A when pressure decreases below 135 psi.

4.0 QUALIFICATION STATUS

4.1 Summary of Qualification Status

The environmental qualification test documentation indicates this relay is qualified to 2×10^5 rads and 100°C for 42 days. The manufacturer recommends not installing this relay where it will be exposed to steam and indicates maximum relative humidity (RH) should be limited to 95%. Since this relay may be exposed to 100% RH, it is not considered qualified. Therefore the following justification is provided.

4.2 Parameters Requiring Justification

Humidity.

5.0 JUSTIFICATION FOR INTERIM OPERATION

The ADS is required to reduce reactor vessel pressure if the High Pressure Core Spray (HPCS) is not maintaining the proper reactor vessel water level. This allows the Low Pressure Collant Injection (LPCI) mode of the Residual Heat Removal (RHR) System and the Low Pressure Core Spray (LPCS) system to provide make-up water to the reactor core.

ADS safety/relief valves can be actuated by either the Nitrogen Supply System controlled by CIA-PROG-1A, or by the charged air accumulator tank provided for each safety/relief valve (SRV). In the event that the program controller fails, the accumulator tank is capable of providing at least one SRV actuation. Once actuated, these SRV's will reduce the reactor vessel pressure so that the LPCS and LPCI systems can provide core cooling.

If subsequent depressuriaction is required, the backup nitrogen supply can be manually initiated from the remote nitrogen station for additional ADS actuation. Upon receipt of a low pressure indication in the control from the introgen supply header pressure sensor, CIA-PT-21A, the operator will manually initiate charging of the containment instrument air system from the remote nitrogen bottle station (CIA-TK-20A). This station is located in the corridor between the reactor building and the diesel generator building, and is accessible under post-LOCA conditions.

6.0 CONCLUSION

Interim operation is justified on the following basis:

1. The SRV accumulator tanks provide alternate means to initiate reactor vessel depressurization to allow the LPCS and LPCI to function.

2. The operator can manually charge the CIA system for an indefinite period of time from a remote nitrogen station, if subsequent ADS actuations are needed.

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EQUIPMENT JUSTIFICATION #5

1.0 COMPONENT IDENTIFICATION

EPN: CIA-TDS-1A

Description: 3 Second Time Delay for Programmer CIA-PROG-1A

Component Type: Timer

Manufacturer/Model: Agastat Relay Co./7022AE

2.0 ACCIDENT CONDITIONS

	Temperature	Relative Humidity	Rev.2
Accident Profile:	#4,15X,32	#4,21X	
Use Code:	1		
Operability Time:	4320 Hours		
Radiation Zone:	R548G		
Zone Dose:	1.2×10^4 Rads		

3.0 COMPONENT SAFETY FUNCTION

This timer provides a time delay of 3 seconds for the program controller CIA-PROG-1A.

4.0 QUALIFICATION STATUS

4.1 Summary of Qualification Status

The timer is exposed to maximum accident conditions of 182°F, 14.7 psia and 100% relative humidity. The timer is designed for a maximum temperature of 165°F and data for other environmental parameters is not available. Therefore, this component is not qualified environmentally, and the following justification is provided.

4.2 Parameters requiring Justification

Temperature, pressure, humidity and radiation dose.

5.0 JUSTIFICATION FOR INTERIM OPERATION

The Automatic Depressurization System (ADS) is required to reduce reactor vessel pressure if the High Pressure Core Spray (HPCS) is not maintaining the proper reactor vessel water level. This allows the Low Pressure Coolant Injection (LPCI) mode of the Residual Heat Removal (RHR) System and the Low Pressure Core Spray (LPCS) System to provide make-up water to the reactor core.

ADS safety/relief valves can be actuated by either the Nitrogen Supply System, controlled by CIA-PROG-1A, or by the charged air accumulator tank provided for each safety/relief valve (SRV). In the event that the program controller fails, the accumulator tank is capable of providing at least one SRV actuation. Once actuated, these SRV's will reduce the reactor vessel pressure so that the LPCS and LPCI systems can provide core cooling.

If subsequent depressurization is required, the backup nitrogen supply can be manually initiated from the remote nitrogen station for additional ADS actuation. Upon receipt of a low pressure indication in the control room from the nitrogen supply header pressure sensor, CIA-PT-21A, the operator will manually initiate charging of the containment instrument air system from the remote nitrogen bottle station (CIA-TK-20A). This station, located in the corridor between the reactor building and the diesel generator building, is accessible under post-LOCA conditions.

6.0 CONCLUSION

Interim operation is justified on the following basis:

1. The SRV accumulator tanks provide alternate means to initiate reactor vessel depressurization to allow the LPCS and LPCI to function.

2. The operator can manually charge the CIA system for an indefinite period of time, from a remote nitrogen station, if subsequent ADS actuations are needed.

EQUIPMENT JUSTIFICATION #6

1.0 COMPONENT IDENTIFICATION

EPN: CMS-AY-1, 3

Description: Containment H_2-O_2 Analyzer

Component Type: Gas Analyzer

Manufacturer/Model: Kaman/Beckman 7C (hydrogen) and 755 (oxygen)

2.0 ACCIDENT CONDITIONS

	Temperature	Relative Humidity	
Accident Profile:	Note 1	#4	Rev.2
Use Code: 1			
Operability Time:	4320 Hours		
Radiation Zone:	R548E		
Zone Dose:	$1x10^6$ Rads		

Note 1: T_{max} = 107°F, P_{max} = Atm.

3.0 COMPONENT SAFETY FUNCTION

The containment H_2-O_2 analyzer is part of the containment monitoring system. Instrumentation to monitor containment hydrogen and oxygen is required in accordance with Regulatory Guide 1.97 to provide information to indicate the potential for breach of the primary containment.

The H_2-O_2 analyzer's function is to continuously monitor, record, and display in the control room, the containment hydrogen and oxygen concentrations. When oxygen concentration reaches 4.4% by volume, a visual and audible alarm sounds in the control room. Operators then initiate at least one of the two 100% capacity hydrogen-oxygen recombiners.

4.0 QUALIFICATION STATUS

4.1 Summary of Qualification Status

The H_2-O_2 analyzer is located in an isolated room serviced by Quality Class 1 HVAC. Thus it is in a mild environment for temperature, pressure, and relative humidity.

The H_2-O_2 analyzer is required to be qualified for radiation conditions resulting from a LOCA inside primary containment. The radiation dose for its location is currently being reanalyzed. Previous radiation dose calculations show a dose of 9.0×10^3 rads based on shine from primary containment and nearby piping. It is estimated that the radiation dose will increase to approximately 1×10^6 rads when dose contributions from the analyzer's process stream are taken into account. Therefore, based on the dose estimate of 10^6 rads, the equipment is not qualified and a justification is included for interim operation while the analyzer is being qualified.

4.2 Parameter Requiring Justification

Radiation dose.

5.0 JUSTIFICATION FOR INTERIM OPERATION

In accordance with Technical Specification 3.6.6.3, primary containment will be inerted with nitrogen at the 25% power level. Prior to inerting, combustible gas control depends on the control of primary containment hydrogen concentration.

Approved analytical models, described in Section 6.2.5.3 of the FSAR, show that the drywell hydrogen concentration will exceed the control limit of 4% by volume approximately 4.0 hours after a postulated LOCA if the hydrogen recombiner is not in operation.

Operation of one qualified 100% capacity hydrogen-oxygen recombiner (CAC-HR-1A or CAC-HR-1B) will be initiated when the hydrogen concentration reaches approximately 3.5% by volume (2.75 hours after the postulated LOCA). This manual initiation of the recombiner, from the control room, conservatively limits the hydrogen concentration in containment to less than the 4.0% control limit.

After primary containment is inerted with nitrogen at the 25% power level, combustible gas control depends on the control of primary containment oxygen concentration.

The H_2-O_2 analyzer alarms at 4.4% by volume containment oxygen concentration to alert operators. The operators then initiate the qualified, 100% capacity hydrogen-oxygen recombiner (CAC-HR-1A).

Initiating recombiner operation at 4.4% provides adequate margin to meet the recombiner operational limit (4.8%) and the oxygen flammability limit of 5%.

Section 6.2.5.3 of the FSAR shows that the containment wetwell oxygen concentration will reach 4.4% by volume approximately six hours after a LOCA if the recombiner is not operating. At 12.5 hours after a LOCA, if the recombiner is not operating, the wetwell oxygen concentration will reach 4.8% by volume. This is the maximum oxygen concentration for control of the recombiner to limit the catalytic bed exit temperature to 1150°F.

Therefore, the operators will initiate operation of the recombiner within 2.75 hours of the declaration that a LOCA condition exists. This manual initiation of the recombiner, from the control room, conservatively limits the oxygen concentration in containment to less than the 4.8% recombiner operational limit, and less than the 5.0% flammability limit by volume.

6.0 CONCLUSION

Interim operation is justified on the following basis:

1. Until qualification of the H_2-O_2 analyzer is documented, provisions will be made so that the hydrogen-oxygen recombiner operation will be initiated as described above, since the recombiner operation is independent of the analyzer operation.

2. In the unlikely event that the H_2-O_2 analyzer fails due to lack of data on radiation qualification, the requirement to initiate one of the qualified hydrogen-oxygen recombiners within 2.75 hours after a postulated LOCA will provide conservative assurance that the containment hydrogen control limit, or the containment oxygen flammability limit, will not be reached.

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EQUIPMENT JUSTIFICATION #7

1.0 COMPONENT IDENTIFICATION

EPN: CMS-LE-3A, 3B

Description: Suppression Pool Wide Range Level Monitoring

Component Type: Pressure Transducer

Manufacturer/Model: ElectroSyn/962

2.0 ACCIDENT CONDITIONS*

	Temperature	Relative Humidity
Accident Profile:	#1	#2

Rev.2

Use Code: 1

Operability Time: 4320 Hours

Radiation Zone: C500

Zone Dose: 9.0×10^7 Rads

* The following exceptions apply to CMS-LE-3A only:

Temperature:	200°F max
Pressure:	Dependent on suppression pool level
Humidity:	Submerged
Radiation Zone:	C435
Zone Dose:	3.7×10^6 rads

3.0 COMPONENT SAFETY FUNCTION

CMS-LE-3A and CMS-LE-3B provide verification of suppression pool water level and long-term surveillance in accordance with the guidelines of Regulatory Guide 1.97. Water level indication provides verification of the availability of water for the ECCS and a diverse indication of breach of the primary system (LOCA).

CMS-LE-3A measures pressure at the bottom of the suppression pool, and CMS-LE-3B measures pressure in the suppression chamber air space. The signal from each of these pressure transducers is sent to an electronics package in the control room which determines the suppression pool water level which corresponds to the indicated differential pressure.

4.0 QUALIFICATION STATUS

4.1 Summary of Qualification Status

The level monitoring system is being custom built for WNP-2. The qualification plan is currently being completed, and testing to verify qualification is scheduled.

This system is not scheduled for installation prior to fuel load, but it will be demonstrated to be qualified prior to installation.

This level monitoring system has been designed to function in normal and accident environments. Radiation and temperature resistant materials have been specified for the transducer seals, lead wires, cable (and shrink tubing), junction box gasket, and connections. The flexible and rigid conduits containing the transducers and cables will be water tight. The junction box will be above the water level and is designed to protect the connectors from any postulated water spray. Based on this design, the level monitoring system is expected to perform its function.

4.2 Parameters Requiring Justification

Radiation dose, temperature, pressure, relative humidity and submergence.

5.0 JUSTIFICATION FOR INTERIM OPERATION

The conditions for which suppression pool water level would require wide range level instrumentation involve the long-term passive failure of an ECCS inside the primary containment coincident with a LOCA. Since this assumes a passive failure in addition to the accident scenario, which is not considered in JIO, CMS-LE-3A and CMS-LE-3B are not required. The suppression pool water level can therefore be continuously monitored with narrow range level instrumentation.

Qualified suppression pool narrow range instrumentation is available at this time. CMS-LT-1 and CMS-LT-2 are qualified and provide suppression pool level indication over the range of 31' $\pm$ 27". The suppression pool normal operating level is 31' $\pm$ 2".

6.0 CONCLUSION

Interim operation is justified on the basis:

Since no single active or additional long-term passive failure was assumed for the suppression pool, its water level will remain within the narrow range instrumentation. In other words, water is not lost due to a break in the ECCS. The qualified suppression pool narrow range instrumentation system will provide adequate level monitoring until environmental testing can be completed on the wide range instrumentation. Rev.2

EQUIPMENT JUSTIFICATION #8

1.0 COMPONENT IDENTIFICATION

EPN: CMS-RMS-HTP71

Description: Containment Monitoring System Control Switch for Heat Tracing for H_2-O_2 Analyzers

Component Type: Remote Manual Control Switch

Manufacturer/Model: General Electric/CR2940

2.0 ACCIDENT CONDITIONS

	Temperature	Relative Humidity
Accident Profile:	#4	#4
Use Code:	2	
Operability Time:	4320 Hours	
Radiation Zone:	R548E	
Zone Dose:	1.0×10^6 Rads	

Rev.2

3.0 COMPONENT SAFETY FUNCTION

CMS-RMS-HTP71 is part of the containment hydrogen-oxygen monitoring system (H_2-O_2 analyzer). This instrumentation is required in accordance with Regulatory Guide 1.97 to provide indication of the potential for breach of primary containment.

The H_2-O_2 analyzer's function is to continuously monitor, record, and display in the control room the containment hydrogen and oxygen concentrations. When the hydrogen or oxygen concentrations rise above setpoints, a visual and audible alarm sounds in the control room.

Heat tracing is provided to maintain the H_2-O_2 mixture in the vapor state to ensure accurate readings at the analyzer. This ensures that the lines will remain open allowing continuous sampling. Failure of CMS-RMS-HTP71 could affect the automatic operation of the heat trace system.

4.0 QUALIFICATION STATUS

4.1 Summary of Qualification Status

CMS-RMS-HTP71 is located in a mild environment for temperature, pressure, and relative humidity. Surveillance and post-maintenance testing will assure operability of the component under these mild environmental conditions.

The control switch is required to be qualified for radiation conditions resulting from a LOCA. The radiation dose for its location is currently being reanalyzed. Previous radiation dose calculations show a dose of 9.0×10^3 rads based on shine from primary containment and nearby piping. It is estimated that the radiation dose will increase to approximately 1×10^6 rads when dose contributions from the H_2-O_2 analyzer's process stream are included. Therefore, based on the dose estimate of 10^6 rads, the equipment is not qualified and a justification is included for interim operations while the control switch is being qualified.

4.2 Parameters Requiring Justification

Radiation dose.

5.0 JUSTIFICATION FOR INTERIM OPERATION

As discussed in JIO #6, the H_2-O_2 analyzer will not be required to initiate recombiner operation since operators will start the hydrogen-oxygen recombiner within 2.75 hours after declaration of a LOCA. This action ensures that containment hydrogen and oxygen concentrations remain at safe levels. Since CMS-RMS-HTP71 is only required for H_2-O_2 analyzer heat trace normal operation, this control switch performs no active safety function post-LOCA. The heat tracing is normally on at all times, with temperature switches controlling on-off for temperature control.

There are three possible failure modes of this control switch:

1. Switch fails open - heaters will not heat. Since the analyzers will not be required to initiate recombiner operation, the heaters are not required to be on.

2. Switch fails closed - heaters will stay on. This is a normal condition.

3. Switch shorts - a fuse will blow in the motor control center power panel and disable heater operation. Other equipment will not be degraded.

6.0 CONCLUSION

Interim operation is justified on the following basis:

CMS-RMS-HTP71 does not perform an active safety function post-LOCA. Since operator action to initiate the hydrogen recombiner system precludes the need for the H_2-O_2 analyzer, the failure of CMS-RMS-HTP71 will not degrade the safety of the plant.

EQUIPMENT JUSTIFICATION #9

1.0 COMPONENT IDENTIFICATION

EPN: CMS-TE-1, 2, 26, 27, 29, 30

Description: Containment Monitoring System Temperature Elements

Component Type: Temperature Element

Manufacturer/Model: Hy-Cal Engineering Co./TC2370CCA250TT68JXH7

2.0 ACCIDENT CONDITIONS

	Temperature	Relative Humidity
Accident Profile:	#1	#2
Use Code: 1		
Operability Time:	4320 Hours	
Radiation Zone:	C	
Zone Dose:	7.0×10^7 Rads	

Rev.2

3.0 COMPONENT SAFETY FUNCTION

The above listed temperature elements monitor the air temperature at various locations throughout containment. If the temperature in the upper drywell area rises above 340°F, or the temperature of the air in the inlets and outlets of the recirculating fans rise above 160°F, Control Room alarms are annunciated. A temperature recorder constantly records the temperature in the drywell.

Regulatory Guide 1.97 requires that the drywell atmosphere temperature be monitored during and following an accident to aid the operator in taking corrective actions to mitigate accident consequences.

4.0 QUALIFICATION STATUS

4.1 Summary of Qualification Status

Environmental testing is incomplete at this time. Until environmental testing is completed, the following justification for interim operation is provided.

4.2 Parameters Requiring Justification

Temperature, pressure, humidity and radiation dose.

5.0 JUSTIFICATION FOR INTERIM OPERATION

CMS-TE-1,2,26,27,29 and 30 provide temperature monitoring of various points in the drywell. All of these TE's are input to recorders through selector switches.

For the temperature monitoring of various points in the drywell, there are alternate TE's (CMS-TE-5,6,8,10,11 and 13) that input to the same recorders through the same selector switches. These TE's have been purchased qualified and will be installed prior to fuel load. These temperature inputs are sufficient for the operators to monitor the primary containment temperature after an accident. Rev. 2

The failure of CMS-TE-1,2,16,27,29 and 30 could cause inaccurate temperature signals. However, this should have no consequence for primary containment temperature monitoring because the qualified temperature elements, CMS-TE-5,6,8,10,11 and 13, can provide the correct information. The selector switches allow only the monitoring of qualified temperature elements. Identification of the qualified temperature elements will prevent the operators from being misled by possible failures of CMS-TE-1, 2, 26, 27, 29 or 30.

6.0 CONCLUSION

Interim operation is justified on the following basis: Rev. 2

The primary containment temperature monitoring function can be sufficiently provided by qualified temperature elements. A more complete temperature survey of the primary containment will be available after CMS-TE-1,2,26,27,29 and 30 are shown to be qualified.

EQUIPMENT JUSTIFICATION #10

1.0 COMPONENT IDENTIFICATION

EPN: CMS-TS-4A, 4B, 4C, 4D, 5A, 5B, 5C, 5D

Description: H_2-O_2 Analyzer Sample Rack Heat Trace Temperature Switch

Component Type: Temperature Switch

Manufacturer/Model: ASCO/SC11AR/QT11A4R

2.0 ACCIDENT CONDITIONS

	Temperature	Relative Humidity
Accident Profile:	#4	#4
Use Code:	1	
Operability Time:	4320 Hours	
Radiation Zone:	R548E	
Zone Dose:	$1x10^6$ Rads	

Rev.2

3.0 COMPONENT SAFETY FUNCTION

The temperature switches listed above are part of the containment hydrogen-oxygen monitoring system (H_2-O_2 analyzer). This instrumentation is required in accordance with Regulatory Guide 1.97 to provide indication of the potential for breach of primary containment.

The H_2-O_2 analyzer's function is to continuously monitor, record, and display in the control room the containment hydrogen and oxygen concentrations. When the hydrogen or oxygen concentrations rise above setpoints, a visual and audible alarm sounds in the control room.

Heat tracing is provided to maintain the H_2-O_2 mixture in the vapor state to ensure accurate readings at the analyzer. This ensures that the lines will remain open allowing continuous sampling. CMS-TS-4A, 4B, 4C, 4D, 5A, 5B, 5C, 5D regulate the heat tracing operation.

4.0 QUALIFICATION STATUS

4.1 Summary of Qualification Status

CMS-TS-4A, 4B, 4C, 4D, 5A, 5B, 5C, 5D are located in a mild environment for temperature, pressure, and relative humidity.

The temperature switches are required to be qualified for radiation conditions resulting from a LOCA inside primary containment. The radiation dose for its location is currently being reanalyzed. Previous radiation dose calculations show a dose of 9.0×10^3 rads based on shine from primary containment and nearby piping. It is estimated that the radiation dose will increase to approximately 1×10^6 rads when dose contributions from the H_2-O_2 analyzer's process stream are included. Therefore, based on the dose estimate of 10^6 rads, the equipment is not qualified and a justification is included for interim operation while the temperature switches are being qualified.

4.2 Parameters Requiring Justification

Radiation dose.

5.0 JUSTIFICATION FOR INTERIM OPERATION

As discussed in JIO #6, the H_2-O_2 analyzer will not be required to initiate recombiner operation since operators will start the hydrogen-oxygen recombiners within 2.75 hours after declaration of a LOCA. This action ensures that containment hydrogen and oxygen concentrations remain at safe levels. Since CMS-TS-4A, 4B, 4C, 4D, 5A, 5B, 5C, 5D are only required for H_2-O_2 analyzer operation, these temperature switches perform no active safety function post-LOCA.

There are three failure modes for these switches:

1. Switch fails open - heaters will not heat. Since the analyzers will not be required to initiate recombiner operation, the heaters are not required to be on.

2. Switch fails closed - heaters will stay on. This is a normal condition.

3. Switch shorts - a fuse will blow in the motor control center power panel and disable heater operation. Other equipment will not be degraded.

6.0 CONCLUSION

Interim operation is justified on the following basis:

CMS-TS-4A, 4B, 4C, 4D, 5A, 5B, 5C, 5D do not perform an active safety function post-accident. Since operator action to initiate the hydrogen recombiner system precludes the need for the H_2-O_2 analyzer, the failure of these temperature switches will not degrade the safety of the plant.

EQUIPMENT JUSTIFICATION #11

1.0 COMPONENT IDENTIFICATION

EPN: EDR-POS-V/20

Description: Position Indication Switch for EDR-V-20

Component Type: Position Switch

Manufacturer/Model: NAMCo Controls/SAI-133

2.0 ACCIDENT CONDITIONS

	Temperature	Relative Humidity
Accident Profile:	#4	#4
Use Code: 1		
Operability Time:	4320 Hours	
Radiation Zone:	R441C	
Zone Dose:	1.4×10^6 Rads	

Rev.2

3.0 COMPONENT SAFETY FUNCTION

EDR-POS-V/20 is the position switch for air-operated valve EDR-V-20. This valve, EDR-V-20, is part of the primary containment isolation boundary. Regulatory Guide 1.97 requires position indication of containment isolation valves.

4.0 QUALIFICATION STATUS

4.1 Summary of Qualification Status

For LOCA conditions, the position switch is exposed to maximum conditions of 128°F, 14.7 psia and 64% relative humidity. The position switch is designed for a maximum temperature of 160°F and a maximum humidity of 95%, indicating the switch should function properly under these LOCA conditions. However, due to lack of documentation, the switch is scheduled for replacement with a documented, qualified switch. In the interim, a justification for operation is provided.

4.2 Parameters Requiring Justification

Temperature, pressure, humidity and radiation dose.

5.0 JUSTIFICATION FOR INTERIM OPERATION

EDR-POS-V/20 provides the position indication for valve EDR-V-20. EDR-V-20 is normally open and is automatically closed by the following isolation signals during LOCA conditions:

a. Isolation Signal A - Reactor vessel low water level (Trip 2)

b. Isolation Signal F - High drywell pressure

EDR-V-20 closes in approximately 15 seconds after receipt of an isolation signal and thus will close prior to experiencing any harsh environment.

EDR-POS-V/20 will indicate the correct valve position to verify containment isolation for approximately 12 minutes after the accident until the mild environment radiation dose (10^4 rads) has been exceeded. It would take approximately 54 hours into the accident to achieve the maximum temperature of 128°F and 350 hours to achieve the maximum humidity level of 64%. Therefore, the correct valve position can be verified for at least 12 minutes by the control room operator.

The containment isolation function is assured in any event by the qualified valve (EDR-V-20) and its redundant, qualified back-up valve, EDR-V-19. Also, both EDR-V-20 and EDR-V-19 fail in the closed position, which provides further assurance of accomplishing containment isolation.

In the event that EDR-POS-V/20 fails after the first 12 minutes, there are three possible consequences. The position switch could indicate open, closed, or neither. In each case, the correct position indication was available for at least 12 minutes, during which time the operator can verify containment isolation. After this time no further operator action is required because no credible event can occur to cause both isolation valves to open.

6.0 CONCLUSION

Interim operation is justified on the following basis:

1. EDR-POS-V/20 will be operable for at least the first 12 minutes, during which time the operator can verify containment isolation.

2. Valve EDR-V-20 and its associated solenoid valve EDR-SPV-20 are qualified and will be automatically closed by either reactor vessel low water level or high drywell pressure isolation signals.

3. The operating time of the valve is approximately 15 seconds and will close prior to experiencing any harsh environment.

4. There is a redundant valve (EDR-V-19) in series with EDR-V-20. Valve EDR-V-19 and its associated solenoid valve EDR-SPV-19 are qualified, and provide a redundant means of containment isolation.

EQUIPMENT JUSTIFICATION #12

1.0 COMPONENT IDENTIFICATION

EPN: FDR-POS-V/4

Description: Position Indication Switch for FDR-V-4

Component Type: Position Switch

Manufacturer/Model: NAMCO Controls/SAI-133

2.0 ACCIDENT CONDITIONS

	Temperature	Relative Humidity
Accident Profile:	#4	#4
Use Code: 1		
Operability Time:	4320 Hours	
Radiation Zone:	R441C	
Zone Dose:	1.4×10^6 Rads	

Rev.2

3.0 COMPONENT SAFETY FUNCTION

FDR-POS-V/4 is the position switch for air-operated valve FDR-V-4. This valve is part of the primary containment isolation boundary. Regulatory Guide 1.97 requires the position indication of the containment isolation valves.

4.0 QUALIFICATION STATUS

4.1 Summary of Qualification Status

For LOCA conditions, the position switch is exposed to maximum conditions of 128°F, 14.7 psia and 64% relative humidity. The position switch is designed for a maximum temperature of 160°F and a maximum humidity of 95%, indicating that the switch should function properly under these LOCA conditions. However, due to the lack of documentation, the switch is scheduled for replacement with a documented, qualified switch. In the interim, a justification for operation is provided.

4.2 Parameters Requiring Justification

Temperature, humidity and radiation dose.

5.0 JUSTIFICATION FOR INTERIM OPERATION

FDR-POS-V/4 indicates the open or closed position of valve FDR-V-4. FDR-V-4 is normally open and is automatically closed by the following isolation signals during LOCA conditions:

a. Isolation Signal A - Reactor vessel low water level (trip 2)

b. Isolation Signal F - High drywell pressure

FDR-V-4 closes approximately 15 seconds after receipt of an isolation signal and thus will close prior to experiencing any harsh environment consequences.

FDR-POS-V/4 will indicate the correct valve position to verify containment isolation for approximately 12 minutes after the accident until the mild environment radiation dose (10^4 rads) has been exceeded. It would take approximately 54 hours into the accident to achieve the maximum temperature of 128°F and 350 hours to achieve the maximum humidity level of 64%. Therefore, the correct valve position can be monitored for at least the first 12 minutes.

Within the first 12 minutes, FDR-V-4's safety function of containment isolation can be verified by the operator. The containment isolation function is assured in any event by the qualified valve (FDR-V-4) and its redundant, qualified back-up valve, FDR-V-3. Also, both FDR-V-4 and FDR-V-3 fail in the close position, which provides further assurance of accomplishing containment isolation.

In the event that FDR-POS-V/4 fails after the first 12 minutes, there are three possible consequences. The position switch could indicate open, closed, or neither. In each case, the correct position indication was available for at least 12 minutes, during which time the operator could verify containment isolation. After this time, no further operator action is required because no credible event can cause both isolation valves to open.

6.0 CONCLUSION

Interim operation is justified on the following basis:

1. FDR-POS-V/4 will be operable for at least the first 12 minutes following an LOCA, during which time the operator can verify containment isolation.

2. Valve FDR-V-4 and its associated solenoid valve FDR-SPV-4 are qualified and will be automatically closed by either reactor vessel low water level or high drywell pressure isolation signals.

3. The operating time of the valve is approximately 15 seconds, thus ensuring that the valve will close prior to experiencing any harsh environment consequences.

4. There is a redundant valve (FDR-V-3) in series with FDR-V-4. Valve FDR-V-3 and its associated solenoid valve FDR-SPV-3 are qualified, and provide a redundant means of containment isolation.

EQUIPMENT JUSTIFICATION #13

1.0 COMPONENT IDENTIFICATION

EPN: HPCS-FT-5

Description: HPCS Pump Discharge Flow Indication Transmitter

Component Type: Differential Pressure Transmitter

Manufacturer/Model: GE/Bailey 555

2.0 ACCIDENT CONDITIONS

	Temperature	Relative Humidity
Accident Profile:	#4,9	#4,21X
Use Code: 1/2		
Operability Time:	24/4320 Hours	
Radiation Zone:	R471B	
Zone Dose:	5.0×10^5 Rads	

Rev.2

3.0 COMPONENT SAFETY FUNCTION

Regulatory Guide 1.97 requires that the HPCS system discharge flow be monitored during and following an accident. This allows the operator to assess the operating status of the HPCS. HPCS-FT-5, located at the discharge of HPCS-P-1, provides control room indication of the HPCS flow to the reactor vessel. The flow transmitter must function for 24 hours to mitigate an accident, and must not fail in a detrimental manner for 6 months following the accident.

4.0 QUALIFICATION STATUS

4.1 Summary of Qualification Status

Flow transmitter HPCS-FT-5 has been qualified for the following environmental conditions: 169°F, 15.2 psia, 100% relative humidity. Radiation test data is not currently available. HPCS-FT-5 is being replaced by an environmentally qualified component. However, a systems justification is provided in the event that it is not replaced prior to fuel load.

4.2 Parameters Requiring Justification

Radiation dose.

5.0 JUSTIFICATION FOR INTERIM OPERATION

Flow transmitter HPCS-FT-5 provides indication of the HPCS system operation as required by Regulatory Guide 1.97. The flow transmitter will function for a length of time, thereby providing an indication of HPCS operation. Continued operation of the HPCS system, after initiation, can be successfully monitored using alternate system indication.

The HPCS system, upon initiation, will pump non-radioactive water from the condensate storage tank (CST). 135,000 gallons of water in the CST is dedicated to the HPCS and RCIC systems. The HPCS pump rate varies from 1550 to 6856 gpm depending on the pressure in the reactor vessel.

If the HPCS pump moves water at its maximum rate, the allotted CST water (135,000 gal.) will be used in approximately 20 minutes. At this point, HPCS suction will switch over to the radioactive fluid in the suppression pool and HPCS-FT-5 will begin to be exposed to radiation. The flow transmitter will operate for approximately 43 minutes after HPCS suction is switched over to the suppression pool before it receives a harsh (10^4 Rads) radiation dose. Therefore the flow transmitter can operate for at least 63 (20+43) minutes. From examination of the pressure graphs in section 6.3 of the WNP-2 FSAR, for even a small LOCA break (.1ft^2), the reactor vessel will depressurize within 15 minutes to the point where low pressure makeup can be utilized. Therefore, the flow transmitter can be expected to operate successfully immediately after and well into the accident.

Should the flow transmitter fail during HPCS operation, there are alternate qualified instruments which the operator can depend on to monitor the HPCS system status. This instrumentation includes:

1. HPCS power indication lamp (input signal from circuit breaker HPCS-CB-P1) and HPCS pump ammeter (input signal from HPCS-AM-P1). The circuit breaker indication light will tell the operator if power is available to the pump, and the pump ammeter will provide indication that the pump is running.

2. HPCS injection valve HPCS-V-4 position indication (input signal from motor operator limit switch HPCS-LMS-V4). This indicates that a flow path exists to the reactor vessel.

3. Reactor vessel water level recorder MS-LR/PR-623A (input signal from level transmitter MS-LITS-26A) is qualified for the first 10 years of normal plant operation. Therefore, it is qualified to perform its safety function for the required operating period of 24 hours. This reactor vessel level indication will provide information that the reactor vessel is receiving water.

The above instrumentation will allow the operator to monitor the operating status of the HPCS and to take corrective action such as manual depressurization using ADS, if necessary.

6.0 CONCLUSION

Interim operation is justified on the following basis.

1. Flow transmitter HPCS-FT-5 will provide reliable HPCS system information for at least one hour into the accident.

2. Alternate qualified indication is available to the operator to monitor the operation of the HPCS after system initiation. The operator also has instrumentation available to determine if ADS operation is required.

EQUIPMENT JUSTIFICATION #14

1.0 COMPONENT IDENTIFICATION

EPN: LPRM-DET-(Refer to Table A)

Description: Local Power Range Monitor (LPRM) Detectors

Component Type: Neutron Flux Detector

Manufacturer/Model: GE/163C1154G1

2.0 ACCIDENT CONDITIONS

	Temperature	Relative Humidity
Accident Profile:	Note 2	Note 2
Use Code: 1		
Operability Time:	0.17 Hours	
Radiation Zone:	C	
Zone Dose:	2.04×10^8 Rads (Gamma dose over 0.17 hours due to LOCA)	

Rev.2

Note 2: No accident profile is available for environmental conditions within the in-core LPRM housings. Design and operability parameters are per GE specification. This detector is only required during a Control Rod Drop accident. No LOCA or HELB is assumed.

3.0 COMPONENT SAFETY FUNCTION

The LPRM detectors measure localized neutron flux in the reactor core over the full power range (i.e. 1% to 120% of full power) for input to the Average Power Range Monitor (APRM). The APRM, in turn, averages the signals from the detectors and provides a reactor scram when neutron flux exceeds predetermined limits following a Control Rod Drop Accident.

4.0 QUALIFICATION STATUS

4.1 Summary of Qualification Status

Qualification data not available; however, design data is per GE specification. In the interim, a systems justification is provided.

4.2 Parameters Requiring Justification

Pressure, temperature, humidity and radiation dose.

5.0 JUSTIFICATION FOR INTERIM OPERATION

These LPRM detectors are designed in accordance with GE Specification 22A2843AA to monitor reactor core neutron flux up to 120% of rated power (or 3.4×10^{14} NV). Similarly, the detectors are designed to withstand a gamma dose rate corresponding to the 120% power level. Once 100% power is exceeded, the operator is trained to decrease power levels back to normal (i.e., less than or equal to 100% power). If corrective action is not taken by the operator to decrease power and the power level continues to increase, the LPRM input to the APRM system automatically initiates a reactor scram at 120% power. Insertion of the control rods would then immediately reduce neutron flux levels in the core. Subsequent use of the detectors is not required to perform any safety-related trip functions. Since the detectors are housed in dry tubes within the RPV and are hermetically sealed from the drywell post-accident environment, operability can be assured for safe shutdown of the plant.

6.0 CONCLUSION

Interim operation is justified on the following basis:

The LPRM detectors are designed to survive and operate under normally harsh conditions. Their intended trip function is not compromised since the time required to perform this function is less than 10 minutes. Rev.2

EQUIPMENT JUSTIFICATION #15

1.0 COMPONENT IDENTIFICATION

EPN: LPRM-CONN-(Refer to Table A)

Description: LPRM Cable Connector

Component Type: Electrical Connector

Manufacturer/Model: Amphenol/CAT X901-200

2.0 ACCIDENT CONDITIONS

	Temperature	Relative Humidity
Accident Profile:	Note 3	Note 3
Use Code:	1	
Operability Time:	0.17 Hours	
Radiation Zone:	C	
Zone Dose:	7×10^7 Rads (LOCA dose)	

Rev.2

Note 3: This connector is required for a Control Rod Drop accident. No LOCA or HELB is assumed.

3.0 COMPONENT SAFETY FUNCTION

The LPRM system measures localized neutron flux in the reactor core over the full power range (i.e., 1% to 120% of full power) for input to the Average Power Range Monitor (APRM). The APRM, in turn, averages the LPRM signals and provides a reactor scram when the neutron flux exceeds predetermined limits following a Control Rod Drop Accident. The LPRM connectors are electrical signal cable connections located directly beneath the RPV. These connectors effectively protect the LPRM signal cable junction from exposure to the drywell environment.

4.0 QUALIFICATION STATUS

4.1 Summary of Qualification Status

The LPRM cable connector was provided as an essential component in accordance with the specifications in the NSSS contract with General Electric. Environmental equipment qualification documentation for

the LPRM cable connectors is incomplete at this time. Therefore, a justification is provided for interim operation while the qualification documentation is being completed.

4.2 Parameters Requiring Justification

Pressure, temperature, humidity and radiation dose.

5.0 JUSTIFICATION FOR INTERIM OPERATION

The connectors are part of the LPRM system which are designed in accordance with GE specification 22A3008. This plant interface specification requires that LPRM equipment located in the drywell be capable of sustaining maximum drywell pressure, temperature and humidity conditions (i.e., 55 psig, 340°F and 100% RH).

Furthermore, the LPRM connector is designed to withstand an integrated dose of 2.6×10^7 rads. Operability of the connectors after a control rod drop accident is only required for 0.17 hrs., and an integrated dose of 2.6×10^7 rads will not be received by the connector even 0.17 hrs. after a LOCA. Since a LOCA creates a considerably more hostile environment than a Control Rod Drop Accident, operability of the LPRM System can be assured.

6.0 CONCLUSION

Interim operation is justified on the following basis:

The LPRM system is designed by GE specification to perform its safety-related functions in environmental conditions considerably more severe than a Control Rod Drop Accident. Rev.2

EQUIPMENT JUSTIFICATION #16

1.0 COMPONENT IDENTIFICATION

EPN: MS-RE-3A,3B

Description: Main Steam Line Radiation Monitors

Component Type: Radiation Element

Manufacturer/Model: General Electric/237X731G001

2.0 ACCIDENT CONDITIONS

	Temperature	Relative Humidity
Accident Profile:	Note 4	Note 4
Use Code:	1	
Operability Time:	0.17 Hours	
Radiation Zone:	R5010	
Zone Dose:	4.2×10^6 Rads	

Note 4: This radiation element is required for a Control Rod Drop accident. No LOCA or HELB is assumed.

Rev.2

3.0 COMPONENT SAFETY FUNCTION

MS-RE-3A and 3B provide a main steam line high radiation signal which scrams the reactor and closes the MSIV's following a Control Rod Drop Accident (CRDA).

4.0 QUALIFICATION STATUS

4.1 Summary of Qualification Status

No qualification documentation is provided, but the radiation monitors were purchased per GE specification (See GE O&M Instruction Manual 237X731G1.). These REs are designed to withstand maximum steam tunnel temperature, pressure and humidity conditions for WNP-2. However, because the qualification data is incomplete at present, the following justification for interim operation is provided.

4.2 Parameters Requiring Justification

Radiation dose.

5.0 JUSTIFICATION FOR INTERIM OPERATION

MS-RE-3A and 3B are used to detect gross fuel failure in the reactor core. When high radiation is detected near the steam lines, a scram is initiated to limit the release of fission products in the fuel following a CRDA.

These radiation elements are designed to meet the 40 year normal operation integrated dose requirements in GE specification 22A3008 of 1.8×10^6 rads. The integrated dose after 18 months due to normal operation (i.e. before the first refueling outage) plus the 0.17 hour dose following an accident will be less than 2×10^5 rads. Therefore, failure due to radiation should not occur because the normal operating design dose is greater than the CRDA accident dose. In the unlikely event that the RE's fail during an accident, the following justification is provided to assure that no safety-related functions are compromised.

Since the primary means of detecting a CRDA is reactor high power measured by the Neutron Monitoring System (NMS), the Main Steam Line Radiation Monitoring System serves only as a backup. This radiation monitoring system's response is considerably slower than the NMS because of its location.

Once a CRDA has been identified by the NMS, the MSIV's would close within 5.5 seconds. After the MSIV's close, the radiation elements will no longer be required. The operability time for these RE's is, therefore, limited to 5.5 seconds, during which scram and isolation functions will already have been initiated.

6.0 CONCLUSION

Interim operation is justified on the following basis:

1. MS-RE-3A and 3B are designed to function in a post-LOCA steam tunnel environment.

2. There are alternate means of detecting a CRDA. The NMS would successfully accomplish safe shutdown of the plant.

3. No safety-related systems are degraded if these radiation elements fail.

EQUIPMENT JUSTIFICATION #17

1.0 COMPONENT IDENTIFICATION

EPN: ROA-POS-V/1

Description: Reactor Building Outside (HVAC) Air Isolation Valve Position Switch

Component Type: Position Switch

Manufacturer/Model: NAMCO Controls/70050100

2.0 ACCIDENT CONDITIONS

	Temperature	Relative Humidity
Accident Profile:	#4	#4
Use Code:	1	
Operability Time:	4320 Hours	
Radiation Zone:	R572F	
Zone Dose:	1×10^6 Rads	

Rev.2

3.0 COMPONENT SAFETY FUNCTION

ROA-POS-V/1 is the position switch for the air-operated valve ROA-V-1. This valve isolates the reactor building from the outside atmosphere. Regulatory Guide 1.97 requires indication of this emergency ventilation damper position. This position switch is required to function only for LOCA conditions.

4.0 QUALIFICATION STATUS

4.1 Summary of Qualification Status

For LOCA conditions, the position switch is exposed to maximum accident conditions of 128°F, 14.7 psia and 64% relative humidity. The position switch is designed for a maximum temperature of 194°F. and a maximum humidity of 95%, indicating the switch should function properly under these LOCA conditions. However, due to the lack of documentation, the switch is scheduled for replacement with a documented, qualified switch. In the interim, a justification for operation is provided.

6.0 CONCLUSION

Interim operation is justified on the following basis:

1. ROA-POS-V/1 will be operable for at least the first 7 minutes, during which time the operator can verify containment isolation.

2. Valve ROA-V-1 and its associated solenoid valve ROA-SPV-100 are qualified and will be automatically closed by any one of three isolation signals generated by qualified monitors.

3. The valve will isolate in approximately 4 seconds, prior to experiencing any harsh environment.

4. There is a redundant, qualified valve (ROA-V-2) in series with ROA-V-1 which provides another means of reactor building isolation.

EQUIPMENT JUSTIFICATION #18

1.0 COMPONENT IDENTIFICATION

EPN: SRM-DET-1D

Description: In-Core Source Range Detector

Component Type: Neutron Flux Detector (10^{-6}% to 10% power)

Manufacturer/Model: GE/368X432G001

2.0 ACCIDENT CONDITIONS

	Temperature	Relative Humidity	
Accident Profile:	Note 5	Note 5	Rev.2
Use Code:	1		
Operability Time:	4320 Hours		
Radiation Zone:	Containment		
Zone Dose:	5×10^6 Rads		

Note 5: No accident profile is available for environmental conditions within the in-core SRM housings. Rev.2

3.0 COMPONENT SAFETY FUNCTION

SRM-DET-1D is a reactor core neutron flux detector which measures the power level over the range of 10^{-6}% to 10% of full power. This detector is part of the equipment required by Reg. Guide 1.97 to provide long-term post-accident monitoring capability.

4.0 QUALIFICATION STATUS

4.1 Summary of Qualification Status

Qualification data is not available. Design data is per GE specification. Therefore, a justification for interim operation is provided.

4.2 Parameters Requiring Justification

Pressure, temperature, humidity and radiation dose.

5.0 JUSTIFICATION FOR INTERIM OPERATION

This SRM detector is housed within dry tubes inside the RPV. It is effectively sealed from drywell pressure, temperature, and humidity. During startup, the detector is fully inserted into the core region of the reactor and is used to measure power levels between 10^{-6} and 10^{-3}% of full power. At full power it is retracted to a position below the active core and measures the power range between 10^{-3} and 10% of full power.

In the retracted position, the detector is designed to maintain operability up to 120% of full power according to GE specification 22A2843AA. At 120%, the APRM will scram the reactor, thus reducing neutron flux levels and protecting the SRM detector from exceeding its design limit for neutron flux. The subsequent post-accident radiation environment would be less severe than the normal operating environment due to a lower flux level. Since the normal operating environment is considerably harsher than post-accident conditions, long-term operability is assured for the SRM detector.

6.0 CONCLUSION

Interim operation is justified on the following basis:

The GE design of this detector provides for long-term service in a harsh environment due to normal operation. The harsh environment due to an accident is considered less severe, and, therefore, provides reasonable assurance that the detector will function satisfactorily for the 6 months following a LOCA. Rev.2

EQUIPMENT JUSTIFICATION #19

1.0 COMPONENT IDENTIFICATION

EPN: SW-MO-187A,188A

Description: Standby Service Water System Valve Motor Operator

Component Type: Motor Operator

Manufacturer/Model: Limitorque Corp./SMB-00

2.0 ACCIDENT CONDITIONS

	Temperature	Relative Humidity	Rev.2
Accident Profile:	#4	#21X	
Use Code:	1		
Operability Time:	4320 Hours		
Radiation Zone:	R548L		
Zone Dose:	1.5×10^5 Rads		

3.0 COMPONENT SAFETY FUNCTION

SW-MO-187A and 188A provide alternate cooling to the Fuel Pool Cooling (FPC) System heat exchangers under abnormal plant conditions when the Reactor Building Closed Cooling Water (RCC) System is unavailable. SW-MO-187A and 188A open valves SW-V-187A and 188A to provide Standby Service Water (SW) System cooling to FPC-HX-1A.

4.0 QUALIFICATION STATUS

4.1 Summary of Qualification Status

The motor operators were purchased qualified; however, unqualified motors were inadvertantly used. The vendor is scheduled to provide qualified replacement motors. The following justification for interim operation is provided in the event that the motor operators are not replaced prior to fuel load.

4.2 Parameters Requiring Justification

Temperature, pressure, humidity and radiation dose.

5.0 JUSTIFICATION FOR INTERIM OPERATION

Alternate cooling water is provided to FPC-HX-1A through valves SW-V-187A and SW-V-188A. Although fuel pool cooling is not required until the first refueling outage, the valves must remain closed in the interim so that operation of the Standby Service Water System would not be degraded. The motor operators will be qualified prior to the first refueling outage.

Currently the motor operators are fully qualified except for the motors. Review of the construction of the operator and limitorgue test data on operators with similar motors identifies no failure mode of the motor that would cause the operator to open the valve.

6.0 CONCLUSION

Interim operation is justified on the following basis:

1. SW-MO-187A and 188A are not required to operate post-accident since fuel pool cooling is not needed prior to the first refueling outage.

2. There is no failure mode of the motor that would cause SW-MO-187A and 188A to open their associated valves to an undesirable position.

EQUIPMENT JUSTIFICATION #20

1.0 COMPONENT IDENTIFICATION

EPN: SW-PS-1014

Description: Service Water Supply to H_2-O_2 Analyzer Pressure Switch

Component Type: Pressure Switch

Manufacturer/Model: ASCO/SC11AR

2.0 ACCIDENT CONDITIONS

	Temperature	Relative Humidity	
Accident Profile:	Note 1	#22X	Rev.2
Use Code:	1		
Operability Time:	4320 Hours		
Radiation Zone:	R548E		
Zone Dose:	$1x10^6$ Rads		

Note 1: T_{max} = 107°, P_{max} = Atm. Rev.2

3.0 COMPONENT SAFETY FUNCTION

Pressure switch SW-PS-1014 is associated with the supply/return of cooling water to the containment hydrogen-oxygen monitoring system under LOCA conditions. Instrumentation to monitor containment hydrogen and oxygen is required in accordance with Regulatory Guide 1.97 to provide information to indicate the potential for breach of the primary containment.

Under LOCA conditions, the Standby Service Water (SW) System is initiated. When SW pressure reaches 100 psig, pressure switch SW-PS-1014 closes valves SW-V-204 and SW-V-212 and opens valves SW-V-201 and SW-V-213. Thus, the H_2-O_2 analyzer equipment receives cooling water from the SW system through these valves under LOCA conditions.

4.0 QUALIFICATION STATUS

4.1 Summary of Qualification Status

Pressure switch SW-PS-1014 is located in a mild environment for temperature, pressure, and relative humidity.

The pressure switch is required to be qualified for radiation conditions resulting from a LOCA inside primary containment. The radiation dose for its location is currently being reanalyzed. Previous radiation dose calculations show a dose of 9.0×10^3 rads based on shine from primary containment and nearby piping. It is estimated that the radiation dose will increase to approximately 1×10^6 rads when dose contributions from the H_2-O_2 analyzer's process stream are taken into account. Therefore, based on the dose estimate of 10^6 rads, the equipment is not qualified and a justification is included for interim operation while the pressure switch is being qualified.

4.2 Parameter Requiring Justification

Radiation dose.

5.0 JUSTIFICATION FOR INTERIM OPERATION

Since plant operators will manually initiate the hydrogen-oxygen recombiners within 2.75 hours after declaration that a LOCA condition exists (See JIO #6 for CMS-AY-1,3), the H_2-O_2 analyzers do not perform any vital safety function post-LOCA. Therefore, SW-PS-1014 is not required post-LOCA because its only safety function is to control SW-V-201, 204, 212 and 213 which support H_2-O_2 analyzer operation.

In addition, the failure of SW-PS-1014 will not degrade other systems or components that are required for safety. The failure of SW-PS-1014 would result in the loss of Standby Service Water for cooling the H_2-O_2 analyzer process stream. This could result in failure of the H_2-O_2 analyzer. A failure of the H_2-O_2 analyzer would not have an adverse safety impact since operators will manually initiate the hydrogen-oxygen recombiners without reference to H_2-O_2 concentrations.

6.0 CONCLUSION

Interim operation is justified on the following basis:

Operator action to initiate the hydrogen recombiner system precludes the need for the H_2-O_2 analyzer. The failure of SW-PS-1014 will not degrade the safety of the plant and is not required to perform a safety function. Rev.2

EQUIPMENT JUSTIFICATION #21

1.0 COMPONENT IDENTIFICATION

EPN: SW-V-201, 204, 212, 213

Description: H_2-O_2 Analyzer Supply/Return Cooling Water Valves

Component Type: 0.5" Solenoid Valve

Manufacturer/Model: Marotta Valve Corp./MV229MS-L2

2.0 ACCIDENT CONDITIONS

	Temperature	Relative Humidity
Accident Profile:	#4	#22X
Use Code:	1	
Operability Time:	4320 Hours	
Radiation Zone:	R548E	
Zone Dose:	$1x10^6$ Rads	

Rev.2

3.0 COMPONENT SAFETY FUNCTION

The solenoid valves are associated with the supply/return of cooling water to the containment hydrogen-oxygen monitoring system (H_2-O_2 analyzers CMS-AY-1 and CMS-AY-3). Instrumentation to monitor containment hydrogen and oxygen is required in accordance with Regulatory Guide 1.97 to provide information to indicate the potential for breach of the primary containment.

Air samples are drawn from containment and are passed through cooling coils and moisture separators before being analyzed. After passing through the H_2-O_2 analyzers, the air samples are exhausted to containment. The coils are cooled by two water sources. Under normal operating conditions, the Plant Service Water (TSW) System provides the water. Under LOCA conditions, the Standby Service Water (SW) System is initiated. When SW pressure reaches 100 psig, pressure switches close the TSW valves SW-V-204 and SW-V-212 and open the SW valves SW-V-201 and SW-V-213.

4.0 QUALIFICATION STATUS

4.1 Summary of Qualification Status

The solenoid valves are being tested, and the test data is currently not available. In the interim, the following justification is provided:

4.2 Parameters Requiring Justification

Temperature, pressure, humidity and radiation dose.

5.0 JUSTIFICATION FOR INTERIM OPERATION

Since plant operators will manually initiate the hydrogen oxygen recombiners within 2.75 hours after declaration that a LOCA exists (See JIO #6 for CMS-AY-1), the H_2-O_2 analyzers do not perform any active safety function post-LOCA. Since valves SW-V-201, 204, 212, and 213 only support H_2-O_2 analyzer operation, they are not required to be functional post-LOCA.

In the unlikely event that valves SW-V-201, 204, 212, and 213 fail, their failure will not degrade the Standby Service Water System. The required service water flow rate will be maintained by the system independent of the position of the valves. Safety-related electrical systems will also not be degraded by the failure of these valves.

6.0 CONCLUSION

Interim operation is justified on the following basis:

1. SW-V-201, 204, 212, 213 are not required in the event of a LOCA or HELB since the H_2-O_2 analyzers are not necessary to perform the required safety function.

2. Failure of these valves will not degrade other systems or components required for safety.

EQUIPMENT JUSTIFICATION #22

1.0 COMPONENT IDENTIFICATION

EPN: TIP-V-1, 2, 3, 4 and 5

Description: Traversing In-Core Probe (TIP) Isolation Valve

Component Type: Explosive Activated Shear Valve

Manufacturer/Model: GE/PP136B1302G002

2.0 ACCIDENT CONDITIONS

	Temperature	Relative Humidity
Accident Profile:	#4	#4
Use Code:	1/2	
Operability Time:	1 Hour/4320 Hours	
Radiation Zone:	R501P	
Zone Dose:	1.0×10^6 Rads	

Rev.2

3.0 COMPONENT SAFETY FUNCTION

These shear valves provide containment isolation. They are located immediately outside primary containment and are mounted within a ball valve/shear valve isolation assembly. Closure of the shear valves is manually initiated by a switch in the control room and results in an explosive shearing of the drive cable and sealing of all TIP guide tubing.

4.0 QUALIFICATION STATUS

4.1 Summary of Qualification Status

These valves meet pressure, temperature and humidity qualification requirements following an accident. However, due to lack of documentation for radiation qualification, the effects of a high post-LOCA radiation environment cannot assure long-term operability. The following justification for interim operation is thus provided.

4.2 Parameters Requiring Justification

Radiation dose.

5.0 JUSTIFICATION FOR INTERIM OPERATION

The TIP system guide tubing consists of a 3/8" stainless steel tube which runs from a probe drive mechanism through a ball valve/shear valve isolation assembly. The tube goes through a containment penetration, into an indexing mechanism and finally into a sealed connection at the bottom of the Local Power Range Monitor (LPRM) housings. Upon receipt of an automatic isolation signal, the TIP drive mechanisms retract the probes (and drive cables) and the isolation ball valves immediately close. Failure of the ball valve to close would require the backup shear valve to be used.

In the event that both isolation valves do not close, there is only a restricted leakage path from primary to secondary containment via the guide tubing because the tubes are designed to isolate the probe and drive cable from the drywell environment. Any potential bypass leakage from primary to secondary containment via the TIP system would require not only the failure of both isolation valves, but a breach of the TIP tubing and equipment as well.

Worst case post-accident leakage from primary to secondary containment has conservatively been assumed to be 0.5% of primary containment volume per day for a duration of six months (WNP-2 FSAR Section 6.2.6.1.). The reactor building radiation dose resulting from the leakage through the TIP system is enveloped by the basic leakage assumption. Therefore, failure of both TIP valves in conjunction with a failed TIP line will not increase reactor building dose rates.

6.0 CONCLUSION

Interim operation is justified on the following basis:

1. Multiple failures in the TIP system must occur to allow related leakage from primary to secondary containment.

2. If these failures occur, the leakage would be well within the leakage rate limits established in the WNP-2 FSAR, Section 6.2.6.1.

Rev.2

EQUIPMENT JUSTIFICATION #23

1.0 COMPONENT IDENTIFICATION

EPN: CIA-SPV-1A, 2A, 3A, 4A, 5A, 6A, 7A, 8A, 9A, 10A, 11A, 12A, 13A, 14A, 15A

Description: 0.5" Solenoid Pilot Valve on N_2 Bottle Discharge

Component Type: Solenoid Valve

Manufacturer/Model: Marotta/MV252-3

2.0 ACCIDENT CONDITIONS

	Temperature	Relative Humidity
Accident Profile:	#4	#21X
Use Code:	1	
Operability Time:	4320 Hours	
Radiation Zone:	R441D	
Zone Dose:	8.2×10^3 Rads	

3.0 COMPONENT SAFETY FUNCTION

These solenoid valves are mounted on their respective lines from the nitrogen bottles (CIA-TK-1A through 15A). These valves control the flow of nitrogen from the bottles to the Containment Instrument Air System. These solenoid valves normally are in the closed position and their opening is sequenced by the step programmer controller (CIA-PROG-1A).

4.0 QUALIFICATION STATUS

4.1 Summary of Qualification Status

The environmental qualification test program is still in progress. These valves are qualified for all post-LOCA conditions by materials analysis. However, they are not qualified for relative humidity resulting from a HELB. Therefore, the following justification is provided.

4.2 Parameter Requiring Justification

Humidity.

5.0 JUSTIFICATION FOR INTERIM OPERATION

The ADS is required to reduce reactor vessel pressure if the High Pressure Core Spray (HPCS) is not maintaining the proper reactor vessel water level. This allows the Low Pressure Coolant Injection (LPCI) mode of the Residual Heat Removal (RHR) System and the Low Pressure Core Spray (LPCS) System to provide make-up water to the reactor core.

ADS safety/relief valves can be actuated by either the Nitrogen Supply System, controlled by CIA-PROG-1A, or by the charged air accumulator tank provided for each safety/relief valve (SRV). In the event that the program controller fails, the accumulator tank is capable of providing at least one SRV actuation. Once actuated, these SRV's will reduce the reactor vessel pressure so that the LPCS and LPCI systems can provide core cooling.

Failure of the solenoid pilot valves (SPVs) will not inhibit ADS operation. These SPVs are bi-stable devices; that is, they can only assume a fully open or closed position. If they fail in the open position, they will provide the necessary path for the nitrogen to reach the ADS and maintain system operability. If the SPVs fail in the closed position, then an alternate pneumatic supply is available from the remote nitrogen station.

Upon receipt of a low pressure indication in the Control Room from the nitrogen supply header pressure sensor, CIA-PT-21A, the operator will manually initiate charging of the CIA system from the remote nitrogen bottle station (CIA-TK-20A). This station, located in the corridor between the reactor building and the diesel generator building, is accessible under post-LOCA conditions.

6.0 CONCLUSION

Interim operation is justified on the following basis:

1. The SRV acumulator tanks provide alternate means to initiate reactor vessel depressurization to allow the LPCS and LPCI to function.

2. The operator can manually charge the CIA system for an indefinite period of time from a remote nitrogen station, if subsequent ADS actuations are needed.

EQUIPMENT JUSTIFICATION #24

1.0 COMPONENT IDENTIFICATION

EPN: MS-LITS-26A

Description: RPV Level Indicator

Component Type: Level Indicating Transmitter Switch

Manufacturer/Model: Barton/760

2.0 ACCIDENT CONDITIONS

	Temperature	Relative Humidity
Accident Profile:	#4	#21X
Use Code:	1	
Operability Time:	4320 Hours	
Radiation Zone:	R522K	
Zone Dose:	9.1×10^3 Rads (6 mo. accident dose plus 10 yr. normal dose)	

3.0 COMPONENT SAFETY FUNCTION

MS-LITS-26A provides the Control Room operator with the wide-range RPV level indication. This indication is used to verify that the top of the reactor core is covered with water. Regulatory Guide 1.97 requires that this indication be provided as part of the plant's long-term post-accident monitoring capability.

4.0 QUALIFICATION STATUS

4.1 Summary of Qualification Status

This transmitter switch is qualified for a post-accident pressure, temperature and radiation environment. However, qualification documentation is not available to demonstrate switch operability during exposure to 100% relative humidity. Therefore, a justification for interim operation is provided.

4.2 Parameters Requiring Justification

Humidity

5.0 JUSTIFICATION FOR INTERIM OPERATION

RPV level indication is most critical during a LOCA when the operator must concentrate on making up coolant to the RPV. During a LOCA, the effects of relative humidity on the Reactor Building are negligible (i.e., 65%) and operability of MS-LITS-26A can be assured. During a HELB, the need for wide range monitoring is not as critical. System isolation features will ensure that the reactor coolant pressure boundary and RPV water inventory is maintained under HELB conditions.

MS-LITS-26A also has a redundant, physically separated, and electrically independent backup, MS-LITS-26D. If MS-LITS-26A were to fail, the operator would be able to detect the error by comparing the two transmitter indications. The two redundant and separated instrument trains provide assurance that a single failure will not mislead the operator or cause loss of level indication.

In the event that both MS-LITS-26A and 26D fail, there are additional backup RPV level indicators. MS-LITS-44A and 44B are capable of monitoring water level in the reactor vessel. This capability satisfies the intent of Reg. Guide 1.97 and provides a reliable means of recording water level following an accident.

Failure of the transmitter portion of MS-LITS-26A will not interfere with RPS logic operations since its signal only provides Control Room indication. The switch portion of MS-LITS-26A is isolated from the RPS by fuse K1A and is not used as part of the logic scheme. Therefore any short-to-ground failure will not incapacitate the RPS.

6.0 CONCLUSION

Interim operation is justified on the following basis:

1. Redundant level indicating instrumentation exists to assure long-term monitoring of RPV water level.

2. Failure of the transmitting switch can not effect the RPS logic and hence has no adverse impact on any safety-related equipment.

EQUIPMENT JUSTIFICATION #25

1.0 COMPONENT IDENTIFICATION

EPN: RHR-V-75A, B

Description: Solenoid Valve for RHR Water Sampling and Pressure Boundary Isolation

Component Type: Valve

Manufacturer/Model: Marotta/MV36RP-H3

2.0 ACCIDENT CONDITIONS

	Temperature	Relative Humidity
Accident Profile:	#4	#21X
Use Code:	2	
Operability Time:	4320 Hours	
Radiation Zone:	R548N, J	
Zone Dose:	3.1×10^6 Rads	

3.0 COMPONENT SAFETY FUNCTION

Solenoid valves RHR-V-75A and 75B are used to sample suppression pool water taken from either loop of the RHR system. However, these valves are not part of the Post Accident Sampling System. During accident conditions, this valve serves solely to maintain RHR pressure boundary and thus must remain in the closed position for 6 months following the accident.

4.0 QUALIFICATION STATUS

4.1 Summary of Qualification Status

The environmental qualification program is still in progress. These valves are qualified for all post-LOCA conditions by materials analysis. However, they are not qualified for relative humidity resulting from a HELB. Therefore, a justification for interim operation is provided.

4.2 Parameters Requiring Justification

Humidity.

5.0 JUSTIFICATION FOR INTERIM OPERATION

The only safety-related function of RHR-V-75A is to maintain the RHR System pressure boundary. It is not required for isolation of the primary containment, and long-term operation of the valve is not needed. These valves are normally closed during operation and opened only when a sample is drawn. In the rare event that an accident occurs simultaneous to the opening of these valves, an automatic isolation signal will immediately close the valves. This will enable the valves to assume their fail-safe position long before a post-accident environment is experienced. If these valves fail to close when required, a second set of series isolation valves (RHR-V-60A and 60B) would provide a redundant means of maintaining pressure boundary.

In the event that the operator fails to close this solenoid valve, pressure boundary of the RHR system is still maintained by the sample lines and downstream sample station sampling valve. Since there is no direct path for the sample fluid to leak into the Reactor Building, and the sample station is not accessible following an accident, failure to close RHR-V-75A will not impair safe shutdown.

6.0 CONCLUSION

Interim operation is justified on the following basis:

1. RHR-V-75A is normally closed. This is the fail-safe position for maintaining RHR pressure boundary.

2. RHR-V-75A is opened only for the short duration when a sample is being drawn. In the event that the valve is not returned to the closed position, pressure boundary is still maintained by the sample lines and downstream sample station sampling valve.

EQUIPMENT JUSTIFICATION #26

1.0 COMPONENT IDENTIFICATION

EPN: RRA-RMS-FN/2

Description: Control Switch for RRA-FN-2

Component Type: Remote Manual Switch

Manufacturer/Model: Square D/KYC-1

2.0 ACCIDENT CONDITIONS

	Temperature	Relative Humidity
Accident Profile:	#4	#21X
Use Code:	2	
Operability Time:	4320 Hours	
Radiation Zone:	R441G	
Zone Dose:	9.9×10^5 Rads	

3.0 COMPONENT SAFETY FUNCTION

This component is not required to perform an active safety function following a design basis accident. The switch is used for manual testing of the air handling unit fan, RRA-FN-2.

4.0 QUALIFICATION STATUS

4.1 Summary of Qualification Status

The switch is qualified for all post-LOCA conditions. However, it is not qualified for the relative humidity following a HELB. Therefore, the following justification for interim operation is provided.

4.2 Parameters Requiring Justification

Humidity

5.0 JUSTIFICATION FOR INTERIM OPERATION

This remote manual switch can assume three positions, namely "On-Auto-Off." The switch assembly consists of one set of normally open contacts and one set of normally closed contacts. When the switch is in the "Auto" position, the set of normally closed contacts remain closed and the set of normally open contacts remain open. When the switch is in the "On" position, the set of normally open contacts are closed and the set of normally closed contacts are open. When the switch is in the "Off" position both sets of contacts are in the open position. RRA-RMS-FN/2 is normally in the "Auto" position (i.e., normally closed contacts).

In the Auto mode, RRA-FN-2 is interlocked with the Residual Heat Removal (RHR) Pump 2A and is automatically started with initiation of the RHR Pump. There are two possible switch failure modes due to 100% humidity.

1. Shorting of the normally closed contact (primary failure mode).

2. Shorting to the ground through the switch enclosure (secondary, infrequent failure mode).

Shorting across the normally closed contacts does not have any adverse effect because the circuit will assume its intended configuration. Shorting to the ground through the switch enclosure is highly unlikely due to low voltage (120 V AC) and large air gap between the contacts and switch enclosure. Additionally, the switch contacts are housed in a waterproof NEMA Type 4 enclosure. The waterproof construction will protect the switch from the high humidity environment.

Should an accident occur simultaneous to fan testing (i.e., the switch is in the "On" position or closed) the circuit configuration will be in its intended state.

In the rare event that a short-to-ground does inhibit RRA-FN-2 operation, only one RHR pump room will be affected. Therefore failure of the switch will not fail the RHR system since there are two redundant RHR trains.

6.0 CONCLUSION

Interim operation is justified on the following basis:

1. RRA-RMS-FN/2 is enclosed in a waterproof housing which will prevent moisture from affecting the switch.

2. The only failure mode with potential adverse impact has a low probability of occuring. That is, a short-to-ground through the switch enclosure cannot occur due to the low voltage and large air gap between the contacts and switch enclosure.

3. If a short-to-ground does take place, only one RHR pump is impacted. Since there are two trains of the RHR system, safe shutdown of the plant is not compromised.

EQUIPMENT JUSTIFICATION #27

1.0 COMPONENT IDENTIFICATION

EPN: SRM-CONN-04

Description: Electrical Connector for SRM detector SRM-DET-1D

Component Type: Electrical Connector

Manufacturer/Model: GE/PPD # 114B5388G004

2.0 ACCIDENT CONDITIONS

	Temperature	Relative Humidity
Accident Profile:	#1	#2
Use Code:	2	
Operability Time:	4320 Hours	
Radiation Zone:	Containment	
Zone Dose:	7×10^7 Rads	

3.0 COMPONENT SAFETY FUNCTION

This SRM connector is part of a system which monitors reactor core power between 10^{-6}% and 10% of full power. The system is required to assure that reactivity has been controlled during an emergency shutdown. The connector is an electrical junction for the SRM detector signal cable. The SRM System is required by Reg. Guide 1.97 to provide long-term post-accident monitoring capability.

4.0 QUALIFICATION STATUS

4.1 Summary of Qualification Status

Qualification data is not available. Design data is per GE specification. Therefore, a justification for interim operation is provided.

4.2 Parameters Requiring Justification

Pressure, temperature, humidity, and radiation dose

5.0 JUSTIFICATION FOR INTERIM OPERATION

The SRM system is required by Reg. Guide 1.97 to verify that a SCRAM has been successfully accomplished. The intent is to confirm that reactor core activity has been effectively controlled during an emergency shutdown.

Four independent SRM channels monitor low power core activity. For the SRM system to fail, all four of these channels would have to fail. Each SRM channel has an individual connector which serves as an electrical cable junction for the retractable detector. These connectors have metallic screw fittings on both ends which seal the detector from the harsh drywell environment. Per GE drawing 114B5888, the non-metallic materials are composed of alumina (ceramic), rexolite and polyethylene. Each material is resistant to a radiation threshold of at least 1×10^8 rads. This is well above the most conservative integrated dose for a post-LOCA environment.

The small guide sleeve portion of the connector is composed of teflon and is susceptible to radiation. However, review of GE documents indicates that degradation of the teflon sleeve will not interfere with detector retraction/insertion. Furthermore, the sleeve is not used to isolate the detector dry tube from the containment atmosphere. Therefore the connector's safety function is not compromised.

In the rare event that all four SRM channels fail, alternate means of confirming reactivity control are available. The Full Core Display Rod Position Indication, the Process Computer Rod Position Log and the Select Rod Position Display provide the Control Room operator with a verification that the SCRAM has been accomplished. In addition, the APRM and IRM downscale displays give indications of low power core activity.

The Regulatory Guide 1.97 requirements for these components have been evaluated in depth. The Supply System's position on this issue has been transmitted to the NRC in Docket No. 50-397, the letter from Mr. G.C. Sorensen to Mr. A. Schwencer addressing "Nuclear Project No. 2 Source Range Monitor Qualification, RE: Regulatory Guide 1.97".

6.0 CONCLUSION

Interim operation is justified on the following basis:

1. A materials analysis of the SRM connectors based on the GE design specification indicates that the connectors will not fail due to post-accident conditions.

2. SRM failure would require the failure of all four independent SRM channels at the same time, which is very unlikely due to GE design considerations.

3. In the event of SRM connector (and system) failure, alternate SCRAM verification instrumentation is available.

4. This model of connector has been supplied by GE and is being used on operating BWR's.

EQUIPMENT JUSTIFICATION #28

1.0 COMPONENT IDENTIFICATION

EPN: SRM-EAMP-1D

Description: Pulse Pre-amplifier for SRM-DET-1D

Component Type: Electrical Signal Pre-amplifier

Manufacturer/Model: GE/112C2276G001

2.0 ACCIDENT CONDITIONS

	Temperature	Relative Humidity
Accident Profile:	#4	# 21X
Use Code:	1	
Operability Time:	4320 Hours	
Radiation Zone:	R501K	
Zone Dose:	1.4×10^4 Rads	

3.0 COMPONENT SAFETY FUNCTION

SRM-EAMP-1D pre-amplifies the electric signal from SRM-DET-1D. This signal is used to monitor reactor low power range between 10^{-6}% to 10% of full power. This pre-amplifier is part of the equipment required by Reg. Guide 1.97 to provide long-term post-accident monitoring capability.

4.0 QUALIFICATION STATUS

4.1 Summary of Qualification Status

Qualification data is not available. Design data is per GE specificaion. Therefore, a justification for interim operation is provided.

4.2 Parameters Requiring Justification

Pressure, temperature, humidity and radiation dose.

5.0 JUSTIFICATION FOR INTERIM OPERATION

The SRM system is required by Reg. Guide 1.97 to confirm that reactor core activity has been effectively controlled during an emergency shutdown. The SRM system performs this function by verifying that a scram has been successfully accomplished.

Four independent SRM channels monitor low power core activity. In order to fail the SRM system, all four of these channels would have to fail. Each SRM channel has an individual pulse pre-amplifier which transmits a power level signal from one of the in-core neutron detectors to the Control Room. It is highly unlikely that all four channels (or that all four pulse pre-amplifiers) fail at once. The pre-amplifiers are physically located in different zones of the Reactor Building and will therefore not experience the same accident environment.

The requirement to monitor low power core activity is most critical during a LOCA. It is essential that the operator assure that a SCRAM has been successfully implemented by the time the ECCS are operating. The effects of a LOCA on this pre-amplifier will be well within GE design limits. HELB accidents will create less severe conditions in the pre-amplifier location than a LOCA, with the exception of relative humidity. However, the anticipated effects of the HELB will have minimal impact on system performance because of GE design specifications.

The six month post-accident radiation dose experienced by the pre-amplifiers is 1.4×10^4 rads, which is almost mild. Since the pre-amplifiers will provide verification of a successful scram within minutes following an accident, they will have performed their intended function long before receiving a significant radiation dose.

GE document GEK 987I states that the pre-amplifiers are designed to operate for a sustained period at 166°F (60°C). This is considerably above the worst case post-accident temperature (130°F) experienced by any of the pre-amplifiers. Similarly, this equipment is designed to operate for relative humidity conditions of at least 98%. The anticipated relative humidity in the Reactor Building due to a LOCA is only 65%; therefore, operability for LOCA is assured. If the relative humidity exceeds 98% (during a HELB) the protective casing would ensure system operability.

In the rare event that all four SRM channels fail, alternate means of confirming reactivity control are available. The Full Core Display Rod Position Indication, the Process Computer Rod Position Log and the Select Rod Position Display provide the Control Room operator with a verification that the SCRAM has been accomplished. In addition, the APRM and IRM downscale displays indicate low power reactor core activity.

The Regulatory Guide 1.97 requirements for these components have been evaluated in depth. The Supply System's position on this issue has been transmitted to the NRC in Docket No. 50-397, the letter from Mr. G.C. Sorensen to Mr. A. Schwencer addressing "Nuclear Project No. 2 Source Range Monitor Qualification, RE: Regulatory Guide 1.97".

6.0 CONCLUSION

Interim operation is justified on the following basis:

1. Failure of all four SRM pre-amplifiers is very unlikely due to design and physical separation of the equipment.

2. In the event of SRM system failure, alternate SCRAM verification instrumentation is available.

3. This preamplifier has been supplied by GE and is being used on operating BWR's.

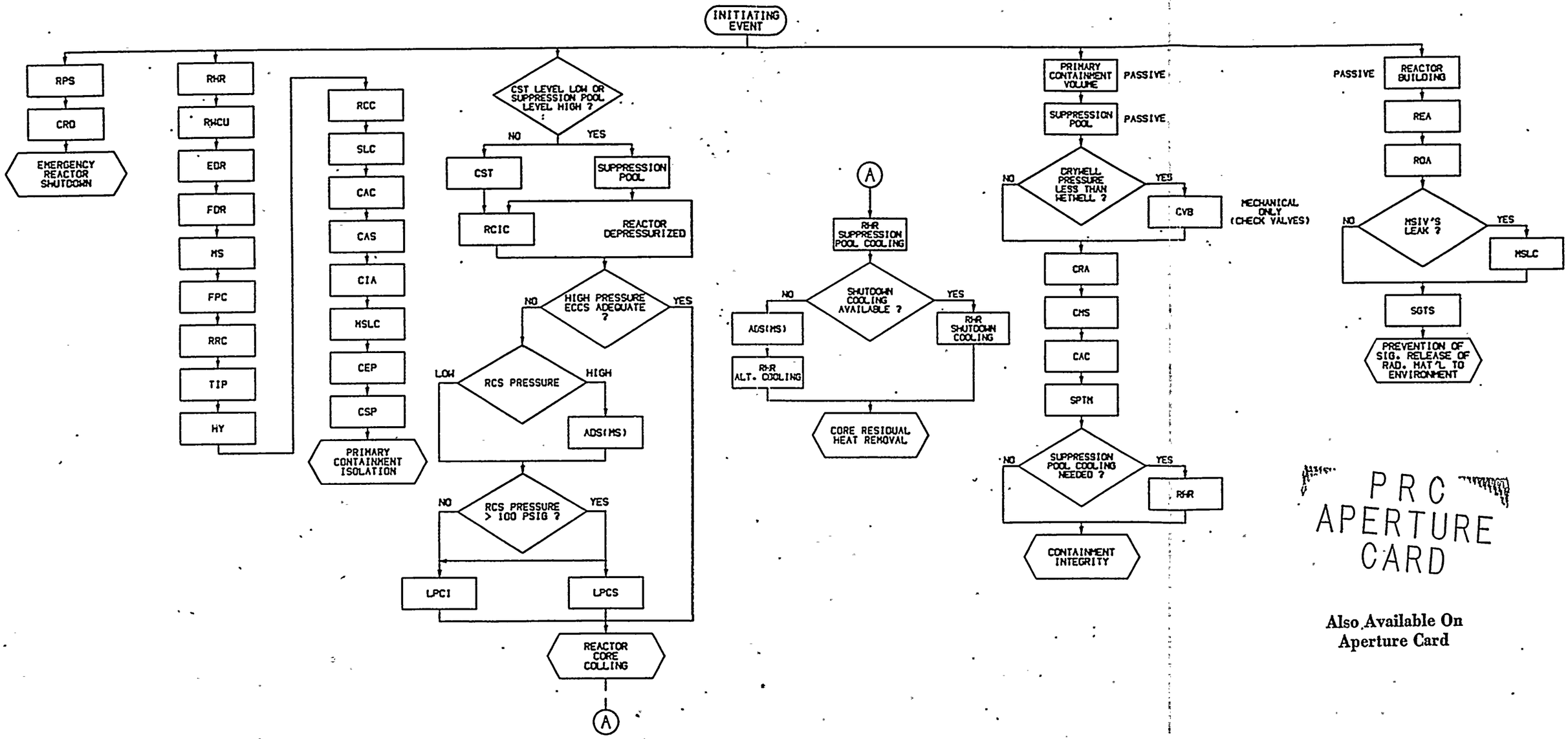

FIGURE 5.8
ALTERNATE SAFE SHUTDOWN PATHS
(TABLE B)
SAFETY SEQUENCE DIAGRAM