# Nebraska Public Power District

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NLS8500049

March 6, 1985

Mr. Hugh L. Thompson, Jr., Director Division of Licensing Office of Nuclear Reactor Regulation U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Dear Mr. Thompson:

Subject: NUREG-0737, Supplement 1 - Regulatory Guide 1.97

Response, Revision V

Reference: 1) Letter from J. M. Pilant to D. G. Eisenhut dated April 16, 1984, "NUREG-0737, Supplement 1 - Regulatory Guide 1.97"

 Letter from J. M. Pilant to D. G. Eisenhut dated March 1, 1984, NLS8400073, same subject

Reference 1 provided Revision IV of the District's status and schedule for implementation of Regulatory Guide 1.97 requirements. In Reference 2, potential reasons for changes in the implementation schedule were provided. Circumstances now dictate that the table be updated to reflect the present schedule for implementation and status; therefore, Revision V of the table is enclosed as Attachment 1. Details of the differences between Revision IV and Revision V of the table are included in Attachment 2 in the form of a marked up table with explanations.

It should be noted that the schedule dates for implementation provided herein are considered estimated dates in accordance with our April 15, 1983, response to NUREG-0737, Supplement 1. As defined in Attachment 8 to that document, our NRC Project Manager will be kept informed of all substantive changes in the implementation schedule. Changes in the implementation schedule are anticipated as the integration effort continues for all Supplement 1 projects; specifically, Detailed Control Room Design Review, EOP's, and SPDS. Changes in the table are also anticipated when integrating Equipment Qualification, the ATWS rule, Appendix R, Generic Letter 84-23, the CNS exemption to 10CFR50.44, and outage work load management practices.

Whereas Revision IV of the attached table reflected Revision 2 of Regulatory Guide 1.97, this Revision V is now structured to reflect Revision 3. Recognizing the various changes between

A003

Mr. Hugh L. Thompson, Jr. Page 2 March 6, 1985

Revisions IV and V, the District would welcome an opportunity to meet with the NRC staff and contractors to discuss additional details relating to the changes from our previously-submitted table. Our NRC Project Manager will be contacted to discuss such a meeting.

Eight copies of this submittal are enclosed for the staff's use. Two additional copies are being provided directly to our NRC Project Manager to expedite the review process.

Sincerely,

Jey M. Pilant

Technical Staff Manager Nuclear Power Group

Lug me Plant

JMP/jdw:emz6/2 Attachments

cc: R. D. Martin

USNRC, Region IV

E. Sylvester w/2 copies USNRC

Attachment 1
Revision V of Reg. Guide 1.97 Table

VARIABLE Resetavaty Control	RANCE REQUIRED IN R.G. 1.97	TYPE- CATEGORY	PURPOSE	COOPER CIC NUMBER	ITEM NO.	INSTALLED RANGE	EQ-STATUS
Neutzun Flux	10-6% to 100% Full Power (SRM, APRM)	8-1	Function Detection: Accomplishment of Mitigation	SRM's, LPRM's	1-1	10 <sup>-8</sup> % to 125% Full Power	Not Qualified
Control Rod Pusition	Full In or Not Full In	8-3	Verification	RPIS	3-1	Full In or Not Full In O"-144"	N/A
RCS Soluble Buron Concentration (Sample)	0 to 1,000 ppm	8-3	Verification	PASS	3-2	O-1000 PPM Grab Sample	N/A
Core Cooling							
Coolant Level in Reactor	Bottom of Core Support Plate to Lesser of Top of Vessel or Center- line of Main Stream Line	A-1 B-1	Function Detection: Accomplishment of Mitigation: Long-Term Surveillance	NBI-LIIS-59A,B NBI-CU-59A,B NBI-LI-85A,B	1-2 1-3 1-4	-150 - +60	Not Qualified Not Qualified Mild Environment
				NBI-LI-61 NBI-LI-86	1-5 1-6	0 - +400"	Not Qualified Mild Environment
				NBI-LIIS-73A,9 NBI-LI-91A,B		-100 - +200" (-264.2" - +35.8" When using same ref. zero as other instruments)	Not Qualified Mild Environment

BWR Core Thermocouples

200°F to 2300°F

To Provide Diverse Indication of Water Level

None

N/A

N/A

VARIABLE	RANGE REQUIRED TO CA		PURPOSE	COOPER CIC NUMBER	ITEM NO.	INSTALLED RANGE	Rev. V
Maintaining Reactor Coolant System Integrity							
RCS Pressure	O peia to 1500 peig	A-1 8-1	Function Detection; Accomplishment of Mitigation; Verification	NBI-PT-6A,B PC-IE-3A,3B	1-9	0 - 1500 psig	Will Comply Mild Environment
			military relitionalist	10-11-20, 20	1-10		MIIO ENVIRONMENC
		C-1		PC-SC-2A, 28	1-11		Mild Environment
				NBI-PR-2A, 2B	1-12		Mild Environment
Drywell Pressure	O to Design Pressure	A-1	Function Detection: Accomplishment of			0 - 80 peia	Will Comply
	(D.P. = 56 psig)	8-1	Mitigation; Verification	PC-R-(PR512-LR11) PC-PI-512B	1-14		Mild Environment Mild Environment
				PC-PT-4A1,482		0 - 250 psia	Will Comply
				PC-IE-3A, 38	1-17		Mild Environment
				PC-SC-3A, 38 PC-PR-1A, 18	1-18		Mild Environment Mild Environment
Drywell Sump Level	Top to Bottom	8-1	Function Detection; Accomplishment of Mitigation; Verification	None	1-20		
Maintaining Containment Integrity							
Primary Containment Pressure	-5 psig to Design Pressure	8-1	Function Detection; Accomplishment of	PC-PT-512A,B	1-21	0 - 80 psia	Will Comply
			Mitigation; Verification	PC-R-(PR512-LR11)	1-22		Mild Environment
				PC-P1-5128	1-23		Mild Environment
				PC-P1-4A1,4B2	1-24	0 - 250 psia	Will Comply
				PC-1E-3A, 3B	1-25	o - 270 para	Mild Environment
				PC-SC-3A, 38	1-26		Mild Environment
				PC-PR-1A, 1B	1-27		Mild Environment
				PC-P1-20	1-28	0 - 2 peig	Will Comply
				PC-PR-20	1-29		Mild Environment
Primary Containment Isolation Valve	Closed - Not Closed	8-1	Accomplishment of Isolation	PC-AD-237AV-L.S.	1-30	Closed - Not Closed	Complies
Position (Excluding Check Valves)				PC-A0-237AV	1-31		Mild Environment
				PC-A0-238AV-L.S.	1-32	Closed - Not Closed	Complies
				PC-A0-238AV Indicating Lights	1-33		Mild Environment
				PC-A0-243AV-L.S.	1-34	Closed - Not Closed	Complies
				PC-AO-243AV Indicating Lights	1-35		Mild Environment
				PC-A0-244AV-L.S.	1-36	Closed - Not Closed	Complies
				PC-A0-244AV	1-37		Mild Environment
				Indicating Lights			

VARIABLE IN R.G. 1.97

TYPE-CATEGORY

PURPOSE

COOPER TTEM INSTALLED CIC NUMBER NO. RANGE EQ-STATUS PC-A0-245AV-L.S. 1-38 Closed - Not Closed PC-A0-245AV 1-39 Mild Environment Indicating Lights PC-A0-246AV-L.S. 1-40 Closed - Nut Closed Complies PC-A0-246AV 1-41 Mild Environment Indicating Lights PE-MO-230MV 1-42 Closed - Not Closed Complies PC-MD-230MV 1-43 Mild Environment Indicating Lights PC-MO-231MV 1-44 Closed - Not Closed Complies PC-MO-231MV 1-45 Mild Environment Indicating Lights PC-MD-232MV 1-46 Closed - Not Closed Complies PC-MO-252MV 1-47 Mild Environment Indicating Lights RW-AD-A094-L.S. 1-48 Closed - Not Closed Complies RW-A0-A094 1-49 Mild Environment Indicating Lights RW-A0-A095-L.S. 1-50 Closed - Not Closed Complies RW-AD-AD95 1-51 Mild Environment Indicating Lights RW-A0-A082-L.S. 1-52 Closed - Not Closed Complies RW-A0-A082 1-53 Mild Environment Indicating Lights RW-A0-A083-L.S. 1-54 Closed - Not Closed Complies RW-AD-A083 1-55 Mild Environment Indicating Lights PC-MO-253MV Closed - Not Closed 1-56 Complies PC-MG-253MV 1-57 Mild Environment Indicating tights MS-A0-A080A, B, C, D-L.S. 1-58 Closed - Not Closed Will Comply MS-A0-A080A,B,C,D Mild Environment Indicating Lights MS-AD-A086A, B, C, D-L.S. 1-60 Closed - Not Closed Will Comply MS-AD-AD86A,B,C,D 1-61 Mild Environment Indicating Lights MS-MO-M074 1-62 Closed - Not Closed Complies MS-M0-M074 1-63 Mild Environment Indicating Lights MS-MO-M077 1-64 Closed - Not Closed Complies MS-M0-M077 1-65 Mild Environment Indicating Lights HPC1-MO-MO15 1-66 Closed - Not Closed Complies HPC1-MO-MO15 1-67 Mild Environment Indicating Lights HPC1-MO-M016 1-68 Closed - Not Closed Complies HPC1-MO-M016 1-69 Mild Environment

Closed - Not Closed

Will Comply

Mild Environment

1-70

1-71

Indicating Lights RCIC-MO-MO15

Indicating Lights

RCIC-MO-MO15

VARIABLE RANGE REQUIRED IN R.G. 1.97

TYPE-CATEGORY

PURPOSE

COOPER

TIEM

INSTALLED

CIC NUMBER NO. RANGE EQ-STATUS RCIC-MO-MO16 1-72 Closed - Not Closed Complies RCIC-MO-MO16 1-73 Mild Environment Indicating Lights PC-MD-305 1-74 Closed - Not Closed Complies PC-MO-305 1-75 Mild Environment Indicating Lights PC-MO-306 1-76 Closed - Not Closed Complies PC-MG-306 1-77 Mild Environment Indicating Lights RWCU-MD-15 1-78 Closed - Not Closed Complies RWCU-MD-15 1-79 Mild Environment Indicating Lights RWCU-MO- 18 1-80 Closed - Not Closed Complies RWCU-M0-19 1-81 Mild Environment Indicating Lights RHR-MO-MO17 1-82 Closed - Not Closed Complies RHR-MO-MO17 1-83 Mild Environment Indicating Lights RHR-MO-MO18 1-84 Closed - Not Closed Complies BI CM-OM- THE 1-85 Mild Environment Indicating Lights RHR-MO-MO25A 1-86 Closed - Not Closed Complies RHR-MO-MO25A 1-87 Mild Environment Indicating Lights RHR-MO-M025B Closed - Not Closed Will Comply RHR-MO-M0258 1-89 Mild Environment Indicating Lights RHR-MO-M027A 1-90 Closed - Not Closed Will Comply RHR-MO-M027A 1-91 Mild Environment Indicating Lights RHR-MO-M0278 1-92 Closed - Not Closed Complies RHR-MO-MO278 1-93 Mild Environment Indicating Lights CS-MO-M012A 1-94 Closed - Not Closed Complies CS-MO-H012A 1-95 Mild Environment Indicating Lights CS-MO-M0128 1-96 Closed - Not Closed Will Comply CS-MD-MC128 1-97 Mild Envisonment Indicating Lights CS-M0-M011A 1-98 Closed - Not Closed Will Comply CS-MO-MOTIA 1-99 Mild Environment Indicating Lights CS-MO-MO118 1-100 Closed - Not Closed Complies CS-M0-M0118 1-101 Mild Environment Indicating Lights RR-A0-740AV-L.S. 1-102 Closed - Not Closed Will Comply RR-A0-740AV 1-103 Mild Environment Indicating Lights RR-AD-741AV-L.S. 1-104 Closed - Not Closed Will Cumply

Mild Environment

Rev. V RANGE REQUIRED TYPE-COOPER TTEM INSTALLED VARIABLE IN R.G. 1.97 EATEGORY PURPOSE CIC NUMBER NO. RANGE EQ-STATUS RR-AQ-741AV 1-105 Mild Environment Indicating Lights RHR-MO-57 1-106 Closed - Not Closed Will Comply RHR-MO-57 1-107 Mild Environment Indicating Lights RHR-MD-67 1-108 Closed - Not Closed Will Comply RHR-M0-67 1-109 Mild Environment Indicating Lights ACAD-M0-M01301 1-110 Closed - Not Closed Will Comply ACAD-M0-M01301 1-111 Mild Environment Indicating Lights ACAD-MO-M01302 1-112 Closed - Not Closed Will Comply ACAD-MO-M01302 1-113 Mild Environment Indicating Lights ACAD-MO-MO1303 1-114 Closed - Not Closed Will Comply ACAD-MO-MO1303 1-115 Mild Environment Indicating Lights ACAD-MO-MO1304 1-116 Closed - Not Closed Will Comply ACAD-MO-MO1304 1-117 Mild Environment Indicating Lights ACAD-M0-M01305 1-118 Closed - Not Closed Will Comply ACAD-MO-MO1305 1-119 Mild Environment Indicating Lights ACAD-MO-MO1306 1-120 Closed - Not Closed Will Comply ACAD-M0-M01306 1-121 Mild Environment Indicating Lights ACAD-MO-MO1308 1-122 Closed - Not Closed Will Comply ACAD-MO-MO1308 1-123 Mild Environment Indicating Lights ACAD-MO-MO1310 1-124 Closed - Not Closed Will Comply ACAD-M0-M01310 1-125 Mild Environment Indicating Lights ACAD-MO-M01311 1-126 Closed - Not Closed Will Comply ACAD-MO-MO1311 1-127 Mild Environment Indicating Lights ACAD-MO-MO1512 1-128 Closed - Not Closed Will Comply

ACAD-MO-MO1512

Indicating Lights

1-129

VARIANLE	RANCE REQUIRED IN R.G. 1.97	TYPE- CATEGORY	PURPOSE	COOPER CIC NUMBER	ITEM NO.	INSTALLED RANGE	Rev. V
Reactor Coolant Pressure Boundary							
Primary Containment Area Radiation	1 R/hr to 10 <sup>5</sup> R/hr	C-3	Detection of Breach; Verification	RMA-RE-00A,B RMA-RM-40A,B RMA-10-60A,B (RMA-RR-40 for A and B	3-3 3-4 3-5 8)3-6	1R/hr to 10 <sup>7</sup> R/hr	N/A N/A N/A N/A
Drywell Drain Sumps Level (Iden- tified and Unidentified Leakage)	Top to Bottom	C-1	Detection of Breach; Accomplishment of Mitigation; Verification Long-Term Surveillance	None	1-130	None	
Suppression Pool Water Level	Bottom of ECCS Suction Line to 5° Above Normal Water Level	A-1 C-1	Detection of Breach; Accomplishment of Mitigation; Verification Long-Term Surveillance	PC-DPT-3A1, 362 PC-1E-24, 28 PC-SC-1A, 18 PC-LR-1A, 18		0 - 30' (866' -	Will Comply Mild Environment Mild Environment Mild Environment
Containment							
Primary Containment Pressure	-5 psig to 4 Times Design Pressure D.P. = 56 psig	C-1	Detection of Potential for or Actual Breach: Accomplishment of Mitigation	PC-PT-4A1, 482 PC-1E-3A, 38 PC-SC-3A, 38 PC-PR-1A, 18	1-135 1-136 1-137 1-138	0 - 250 psia	Will Comply Mild Environment Mild Environment Mild Environment
Effluent Radioactivity-Noble Gases	10-6 uCi/ cc to 10-2 uCi/cc	C-2	Indication of Areach	ERP Hi-range Effluent Monitor RMP-RM-3A RMP-RM-3B	2-1 2-2	10-7 uCi/ce to 1x10 <sup>5</sup> uCi/ce	Mild Environment Mild Environment
Containment and Drywell Hydrogen Concentration	0 - 30% (Capability of Operating from -5 psig to Design Presents)	C-1	Detection of Potential for Breach; Accomplishment of Mitigation	PC-AN-(H21A-3156B) PC-AN-(H21A-3156A)		0 - 5% Bendix 0 - 10%, 20% Beckman	Mild Environment Mild Environment
				PC-R-(H2R-31578) PC-R-(H2R-3157A)	1-141		Mild Environment Mild Environment
Containment and Drywell Dxygen Concentration (for Inerted Containment P'ants)	0 - 10% (Capability of Operating from -5 psig to design Pressure)	C-1	Detection of Potential for Breach; Accomplishment of Mitigation	PC-AN-(02A-512) PC-R-(02A-512)	1-143 1-144	0 - 5%, 10%, 20%	Mild Environment Mild Environment

VARIABLE	RANGE REQUIRED IN R.G. 1.97	TYPE- CATEGORY	PURPOSE	COOPER CIC NUMBER	ITEM NO.	INSTALLED RANGE	EQ-STATUS
Condensate and Feedwater System							
Main feedwater flow	0 - 110% Design Flow	0-3	Detection of Operation: Analysis	RFC-FT-50A,B	3-7	0-7.0 x 106 lb/hr	N/A
	(D.F.=9.52 x 10 <sup>6</sup> lb/hr)		of Cooling	RFC-ES-93	3-8	Per Pump	N/A
				RFC-SQRT-110A.B	3-9		N/A
				RFC-F1-89A,B	3-10		N/A
Condensate Storage Tank Level	Top to Bottom	0-3	Indication of Available Water for	CM-LT-5	3-11	0 - 100%	N/A
			Cooling	Computer PI FOO1	3-12	(0 - 40")	N/A
				E5-E5-1	3-13		N/A
				CM-LIC-5	3-14		N/A
				CM-L I -680A	3-15	2.8% - 100%	N/A
				CM-L1S-8	3-16		N/A
Emergency Storage lank Level	Bottom to Top	D-3	Indication of Available Water for	CM-LT-681A,B	3-17	0 - 100%	N/A
			Cooling	CM-LI-681A,B	3-18	(0 - 161)	N/A
				CM-ES-6	3-19		N/A
Fuel Cladding							
Radioactivity Concentration or Radiation Level in Circulating Primary Coolant	1/2 Tech Spec Limit to 100 Times Tech Spec Limit	C-1	Detection or Breach	Post-Accident Sample System	1-145	Grab Sample	N/A
Ventilation Systems							
Emergency Ventilation Damper	Open - Closed Status	D-2	To Monitor Operation	HV-257AV	2-3	Open-Closed	Not Qualified
Position				HV-257AV Indicating Lights	2-4		Mild Environment
				HV-272MV	2-5	Open-Closed	Not Qualified
				HV-272MV Indicating Lights	2-6		Mild Environment
				HV-AV259	2-7	Open-Closed	Not Qualified
				HV-AV259	2-8	open-croseo	Mild Environment
				Indicating tights			PATO ENVALORMENT
				HV-MV258	2-9	Open-Closed	Not Qualified
				HV-MV258 Indicating Lights	2-10		Mild Environment
				HV-MV260	2-11	Open-Closed	Not Qualified
				HV-NV260	2-12		Mild Environment
				Indicating Lights			
				HV-AV261	2-13	Open-Closed	Not Qualified
				HV-AV261 Indicating Lights	2-14		Mild Environment

Section   Sect	VARIABLE	RANGE REQUIRED IN R.G. 1.97	TYPE - CATEGORY	PURPOSE	COOPER . CIC NUMBER	ITEM NO.	INSTALLED RANGE	PP. A-8 Rev. V
Energy Sources Important to Safety	Power Supplies						- Tanada	EG-STATUS
Decry Sources Important to Safety		Plant Specific	D-Z	To Monitor System Status	DC 41 MU11 MU12			
DG-VARI - VARIANE VARIANE   DG-VI-VARI   D	Energy Sources Important to Safety			7,000				
DG-VI_NMT_WE   2-18   0 - 320 VE   Mild Environment   DG-VI_NMT_ME   2-19   0 - 7 M NATES   Mild Environment   DG-VI_NMT_ME   2-19   0 - 7 M NATES   Mild Environment   DG-VI_NMT_ME   D								
CG-41 and 1982   CG-19   CG-79   Mail Structure								
ET-GB-140001(G) 2-20  Current Frum Growers  EL-GB-140001(G) 2-27  Potential Tenum Growers  EL-GB-140002(G) 2-27  Fit of a land Control of End								
Current Transformers   EL-Gh-1400CF(ELS)   2-21   Photonical Transformers   EL-Gh-1400CF(ELS)   2-22   Photonical Transformers   EL-Gh-1400CF(ELS)   2-23   Mild Environment   EL-Gh-1400CF(ELS)   2-23   Mild Environment   EL-Gh-1400CF(ELS)   2-23   Mild Environment   EL-Gh-1400CF(ELS)   2-23   Mild Environment   EL-Gh-1400CF(ELS)   2-25   Mild Environment   EL-Gh-1400CF(ELS)   2-25   Mild Environment   EL-Gh-1400CF(ELS)   2-25   Mild Environment   EL-Gh-1400CF(ELS)   2-26   Mild Environment   EL-Gh-1400CF(ELS)   2-27   Mild Environment   Mild Environment   EL-Gh-1400CF(ELS)   2-29   Mild Environment   Mild Enviro							U - 7 M WATTS	
E.E. (Ca. + 1400CC) (EC)   Price vitas I Transference						2-20		Mild Environment
Price   Term   Terms								
ET-CD-41600C2(CC) 2-22								Mild Environment
Current Transformers   Ex-CH-10002(CCC)								
EF CB-140002(FCE2)						2-22		Mild Environment
### Putential Frum Forences    GG-MM-Varied   GG-MM								
DG-NHM-varemb   2-26   Mild Environment   CE-NHM-varemb   2-25   Mild Environment   CE-NHM-CEC(RA)   2-26   Mild Environment   CE-NHM-CEC(RA)   2-27   Mild Environment   CE-NHM-CEC(RA)   2-28   Mild Environment   CE-NHM-CEC(RA)   2-29   Mild Environment   CE-NHM-CEC(RA)   2-29   Mild Environment   CE-NHM-CEC(RA)   2-30   Mild Environment   CE-NHM-CEC(RA)   2-30   Mild Environment   CE-NHM-CEC(RA)   2-31   Mild Environment   CE-NHM-CEC(RA)   Mild Environment   CE-NHM-CEC(R								Mild Environment
DC-MMM-CT(MM)   Z-25   Mild Environment								
EF-SYMP-EGIT(Rs) 2 - 2-2 EF-SYMP-EGIT(Rs) 2 - 2-7 Hill Environment  IA-PI-606 2 - 2-7 EF-SYMP-EGIT(Rs) 2 - 2-7 IA-PI-606 2 - 2-7 EF-SYMP-EGIT(Rs) 3 - 2-7 IA-PI-606 2 - 2-7 IA-PI-606 2 - 2-7 EF-SYMP-EGIT(Rs) 3 - 2-7 IA-PI-606 2 - 2-7 IA								
EE_SPB_ECTION   2-28								
### ### ##############################								
EL-WHR-GG(RA) 2-29 EL-WHR-GG(RA) 2-10 EL-WHR-GG(RA) 2-10 EL-WHR-GG(RA) 2-10 EL-WHR-GG(RA) 2-10 EL-WHR-GG(RA) 2-11 Mild Environment Mild Enviro								
EE-MIME-EC2(98) 2-10 EE-XTMR-EC2(98) 2-10 EE-XTMR-EC2(98) 2-21  IA-PI-606 2-22 0-120 psig Mild Environment M								
Ta-PT-606   2-32   0 - 120 psig								
TA-PT-606   2-32   0 - 120 psig   Mild Environment								
E5-ES-1					EC-N MN-EGE(NC)	2-31		Mild Environment
E5-E5-1					1A-PT-606	2-32	0 - 120 psig	Wild Emissesset
14-PI-606   2-34   2500C 18 att.   2-35   200 - 0 Amps   Mild Environment							- to party	
250VDC 1A Batt. 2-55 200 - 0 Amps Mild Environment 250VDC Bus 1A 2-56 0 - 300 Volts Mild Environment Voltage Indicator 250VDC 1B CHG. 2-37 0 - 300 Amps Mild Environment Amp Indicator 250VDC 1B CHG. 2-39 0 - 300 Amps Mild Environment Amp Indicator 250VDC 1B CHG. 2-39 0 - 300 Amps Mild Environment 250VDC 1B CHG. 2-39 0 - 300 Amps Mild Environment 250VDC Bus 1B 2-40 0 - 300 Volts Mild Environment Voltage Indicator 250VDC Bus 1B 2-40 0 - 300 Volts Mild Environment 250VDC Bus 1B 2-40 0 - 300 Volts Mild Environment Amp Indicator 250VDC Bus 1B 2-40 0 - 300 Volts Mild Environment 250VDC Bus 1B 2-40 0 - 300 Volts Mild Environment 250VDC Bus 1B 2-40 0 - 300 Volts Mild Environment 250VDC Bus 1B 2-40 0 - 300 Volts Mild Environment 250VDC Bus 1B 2-40 0 - 1000 Amps Mild Environment 125VDC Bus 1A 2-43 0 - 150 Volts Mild Environment 40 Voltage Indicator 125VDC Bus 1A 2-43 0 - 150 Volts Mild Environment 25VDC Bus 1B 2-40 0 - 1000 Amps Mild Environment 125VDC Bus 1B 2-40 0 - 1000 Amps Mild Environment 125VDC Bus 1B 2-40 0 - 1000 Amps Mild Environment 125VDC Bus 1B 2-46 0 - 150 Volts Mild Environme					1A-PI-606			
Amp Indicator 250VDC Bus 1A 2-36 0 - 1000 Amps Voltage Indicator 250VDC 1A CMG. 2-37 0 - 300 Amps Mild Environment 250VDC 1B CMG. 2-37 250VDC 1B CMG. 2-38 250VDC 1B CMG. 2-39 0 - 300 Amps Mild Environment Amp Indicator 250VDC 1B CMG. 2-39 0 - 300 Amps Mild Environment Amp Indicator 250VDC Bus 1B 2-40 0 - 300 Volts Mild Environment 250VDC Bus 1B 2-40 0 - 300 Volts Mild Environment 250VDC Bus 1B 2-40 0 - 300 Volts Mild Environment 250VDC Bus 1B 2-40 0 - 300 Volts Mild Environment 250VDC Bus 1B 2-40 0 - 1000 Amps Mild Environment 250VDC Bus 1A 2-40 0 - 1000 Amps Mild Environment 250VDC Bus 1A 2-40 0 - 1000 Amps Mild Environment 250VDC Bus 1A 2-40 0 - 1000 Amps Mild Environment 250VDC Bus 1A 2-40 0 - 200 Amps Mild Environment 250VDC Bus 1A 2-40 0 - 200 Amps Mild Environment 250VDC Bus 1A 2-40 0 - 1000 Amps Mild Environment 250VDC Bus 1A 2-40 0 - 200 Amps Mild Environment 250VDC Bus 1A 2-40 0 - 200 Amps Mild Environment 250VDC Bus 1B 2-40 0 - 1000 Amps Mild Environment 250VDC Bus 1B 2-4					250VDC 1A Batt.		200 - 0 Amos	
250VDC Bus 1A   2-36   0 - 300 Volts   Mild Environment Voltage Indicator   250VDC 1A CHG.   2-37   0 - 300 Amps   Mild Environment Amp Indicator   250VDC 1B CHG.   2-39   0 - 1000 Amps   Mild Environment Amp Indicator   0 - 1000 Amps   Mild Environment Amp Indicator   250VDC 1B CHG.   2-39   0 - 300 Amps   Mild Environment Amp Indicator   250VDC Bus 1B   2-40   0 - 300 Volts   Mild Environment Voltage Indicator   125VDC 1B CHG.   2-41   200 - 0 Amps   Mild Environment Amp Indicator   125VDC 1B CHG.   2-42   0 - 200 Amps   Mild Environment Amp Indicator   2-42   0 - 200 Amps   Mild Environment Amp Indicator   125VDC BUS 1A   2-43   0 - 150 Volts   Mild Environment Voltage Indicator   125VDC BUS 1A   2-43   0 - 150 Volts   Mild Environment 125VDC BUS 1A   2-45   0 - 200 Amps   Mild Environment 125VDC BUS 1B   2-45   0 - 200 Amps   Mild Environment Amp Indicator   2-45   0 - 200 Amps   Mild Environment 125VDC BUS 1B   2-45   0 - 200 Amps   Mild Environment 225VDC BUS 1B   2-45   0 - 200 Amps   Mild Environment 225VDC BUS 1B   2-46   0 - 150 Volts   Mild Environment 225VDC BUS 1B   2-46   0 - 150 Volts   Mild Environment 125VDC BUS 1B   2-46   0 - 150 Volts   Mild Environment 125VDC BUS 1B   2-46   0 - 150 Volts   Mild Environment 125VDC BUS 1B   2-46   0 - 150 Volts   Mild Environment 125VDC BUS 1B   2-46   0 - 150 Volts   Mild Environment 125VDC BUS 1B   2-46   0 - 150 Volts   Mild Environment 125VDC BUS 1B   2-46   0 - 150 Volts   Mild Environment 125VDC BUS 1B   2-46   0 - 150 Volts   Mild Environment 125VDC BUS 1B   2-46   0 - 150 Volts   Mild Environment 125VDC BUS 1B   2-46   0 - 150 Volts   Mild Environment 125VDC BUS 1B   2-46   0 - 150 Volts   Mild Environment 125VDC BUS 1B   2-46   0 - 150 Volts   Mild Environment 125VDC BUS 1B   2-46   0 - 150 Volts   Mild Environment 125VDC BUS 1B   2-46   0 - 150 Volts   Mild Environment 125VDC BUS 1B   2-46   0 - 150 Volts   Mild Environment 125VDC BUS 1B   2-46   0 - 150 Volts   Mild Environment 125VDC BUS 1B   2-46   0 - 150 Volts   Mild Environment 125VDC BUS 1					Amp Indicator			THE STREET
Voltage Indicator   250VDC 1A CHG.   2-37   0 - 300 Amps   Mild Environment Amp Indicator   2:0VDC 1B Batt.   2-18   200 - 0 Amps   Mild Environment Amp Indicator   0 - 1000 Amps   Mild Environment Amp Indicator   250VDC 1B CHG.   2-39   0 - 500 Volts   Mild Environment Voltage Indicator   250VDC 1B Batt.   2-40   0 - 500 Volts   Mild Environment Amp Indicator   250VDC 1A Batt.   2-41   200 - 0 Amps   Mild Environment Voltage Indicator   0 - 1000 Amps   Mild Environment Voltage Indicator   2-200 Amps   Mild Environment Voltage Indicator   2-42   0 - 200 Amps   Mild Environment Voltage Indicator   2-43   0 - 150 Volts   Mild Environment Voltage Indicator   2-200 Amps   Mild Environment Voltage Indicator   2-200 Amps   Mild Environment Voltage Indicator   2-200 Amps   Mild Environment Voltage Indicator   2-45   0 - 200 Amps   Mild Environment Voltage Ind					250VDC Bus 1A	2-36		Mild Fourtonment
Amp Indicator 270VDC 1B Batt. 2-38 200 - 0 Amps					Voltage Indicator			Mary Environment
Amp Indicator 250VDC 18 Batt. 2-18 200 - 0 Amps						2-37	0 - 300 Amps	Mild Environment
Amp Indicator 250VDC 18 CHG. 2-39 0 - 500 Amps Mild Environment 250VDC Buo 18 2-40 0 - 300 Volts Mild Environment 250VDC Buo 18 2-40 0 - 300 Volts Mild Environment 250VDC Buo 18 2-40 0 - 300 Volts Mild Environment 250VDC 18 Batt. 2-41 200 - 0 Amps Mild Environment 250VDC 18 CHG. 2-42 0 - 200 Amps Mild Environment 250VDC 18 CHG. 2-42 0 - 200 Amps Mild Environment 250VDC BUS 18 2-43 0 - 150 Volts Mild Environment 250VDC 18 Batt. 2-43 0 - 150 Volts Mild Environment 250VDC 18 Batt. 2-44 200 - 0 Amps Mild Environment 250VDC 18 Batt. 2-45 0 - 200 Amps Mild Environment 250VDC 18 CHG. 2-45 0 - 200 Amps Mild Environment 250VDC 18 CHG. 2-45 0 - 200 Amps Mild Environment 250VDC 18 CHG. 2-45 0 - 200 Amps Mild Environment 250VDC 18 CHG. 2-45 0 - 200 Amps Mild Environment 250VDC 18 CHG. 2-45 0 - 200 Amps Mild Environment 250VDC 18 CHG. 2-45 0 - 200 Amps Mild Environment 250VDC 18 CHG. 2-45 0 - 200 Amps Mild Environment 250VDC 80 CHG 18 CHG					Amp Indicator			THE COUNTY OF THE COUNTY
Amp Indicator 250VDC 18 CHG. 2-39 0 - 300 Amps Mild Environment 250VDC Bus 18 2-40 0 - 300 Volts Mild Environment Voltage Indicator 125VDC 18 Batt. 2-41 200 - 0 Amps Mild Environment 125VDC 18 Batt. 2-42 0 - 200 Amps Mild Environment 125VDC 18 CHG. 2-42 0 - 200 Amps Mild Environment 125VDC BUS 18 2-43 0 - 150 Volts Mild Environment Voltage Indicator 125VDC BUS 18 2-43 0 - 150 Volts Mild Environment 125VDC BUS 18 2-44 200 - 0 Amps Mild Environment 125VDC BUS 18 CHG. 2-45 0 - 200 Amps Mild Environment 125VDC BUS 18 CHG. 2-45 0 - 200 Amps Mild Environment 125VDC BUS 18 CHG. 2-45 0 - 200 Amps Mild Environment 125VDC BUS 18 CHG. 2-45 0 - 200 Amps Mild Environment 125VDC BUS 18 2-46 0 - 150 Volts Mild Environment 125VDC BUS 18 2-46 0 - 150 Volts Mild Environment 125VDC BUS 18 2-46 0 - 150 Volts Mild Environment 125VDC BUS 18 2-46 0 - 150 Volts Mild Environment 125VDC BUS 18 2-46 0 - 150 Volts Mild Environment 125VDC BUS 18 2-46 0 - 150 Volts Mild Environment 125VDC BUS 18 2-46 0 - 150 Volts Mild Environment 125VDC BUS 18 2-46 0 - 150 Volts Mild Environment 125VDC BUS 18 2-46 0 - 150 Volts Mild Environment 125VDC BUS 18 2-46 0 - 150 Volts Mild Environment 150 Voltage Indicator					250VDC 18 Batt.	2-38	200 - 0 Amps	Wild Environment
250VDC 18 CHG.					Amp Indicator			The street stree
Amp Indicator 250VOC Bus 1B 2-40 0 - 300 Volts Mild Environment Voltage Indicator 125VOC 1A Batt. 2-41 200 - 0 Amps Mild Environment Amp Indicator 0 - 1000 Amps 125VOC 1A CHG. 2-42 0 - 200 Amps Mild Environment Amp Indicator 125VOC BUS 1A 2-43 0 - 150 Volts Mild Environment Voltage Indicator 125VOC 1B Batt. 2-44 200 - 0 Amps Mild Environment Amp Indicator 125VOC 1B Batt. 2-44 200 - 0 Amps Mild Environment Amp Indicator 125VOC 1B CHG. 2-45 0 - 200 Amps Mild Environment Amp Indicator 125VOC BUS 1B 2-46 0 - 150 Volts Mild Environment Amp Indicator 125VOC BUS 1B 2-46 0 - 150 Volts Mild Environment Voltage Indicator					250VDC 18 CHG.	2-39		Mild Environment
Voltage Indicator   125VDC 18 Batt.   2-41   200 - 0 Amps   Mild Environment					Amp Indicator			
Voltage Indicator  125VDC 1A Batt. 2-41 200 - 0 Amps					250VDC Bus 18	2-40	0 - 500 Volts	Mild Environment
Amp Indicator 0 - 1000 Amps 125 VOI to 14 Chylindrent  125 VOC 1A CHG. 2-42 0 - 200 Amps Mild Environment  Amp Indicator 125 VOC 8US 1A 2-43 0 - 150 Voits Mild Environment  Voitage Indicator 125 VOC 18 Batt. 2-44 200 - 0 Amps Mild Environment  Amp Indicator 0 - 1000 Amps Mild Environment  125 VOC 18 CHG. 2-45 0 - 200 Amps Mild Environment  Amp Indicator 125 VOC 18 CHG. 2-45 0 - 200 Amps Mild Environment  Amp Indicator 2-45 0 - 200 Amps Mild Environment  Voitage Indicator 150 Voits Mild Environment  Voltage Indicator 150 Voits Mild Environment					Voltage Indicator			
Amp Indicator 0 - 1000 Amps  125VDC 1A CHG. 2-42 0 - 200 Amps Mild Environment  Amp Indicator 125VDC BUS 1A 2-43 0 - 150 Volts Mild Environment  Voltage Indicator 125VDC 18 Batt. 2-44 200 - 0 Amps Mild Environment  Amp Indicator 0 - 1000 Amps 125VDC 18 CHG. 2-45 0 - 200 Amps Mild Environment  Amp Indicator 125VDC BUS 18 2-46 0 - 150 Volts Mild Environment  Voltage Indicator 125VDC BUS 18 2-46 0 - 150 Volts Mild Environment  Voltage Indicator					125VDC 1A Batt.	2-41	200 - 0 Amps	Mild Environment
Amp Indicator  125VDC 8US 1A 2-43 0 - 150 Volts Mild Environment  Voltage Indicator  125VDC 18 Batt. 2-44 200 - 0 Amps Mild Environment  Amp Indicator 0 - 1000 Amps  125VDC 18 CHG. 2-45 0 - 200 Amps Mild Environment  Amp Indicator  125VDC 8US 18 2-46 0 - 150 Volts Mild Environment  Voltage Indicator  Voltage Indicator							0 - 1000 Amps	
Amp Indicator  125VDC BUS 1A 2-43 0 - 150 Voits Mild Environment  Voltage Indicator  125VDC 18 Batt. 2-44 200 - 0 Amps Mild Environment  Amp Indicator 0 - 1000 Amps  125VDC 18 CHG. 2-45 0 - 200 Amps Mild Environment  Amp Indicator  125VDC BUS 1B 2-46 0 - 150 Voits Mild Environment  Voltage Indicator					125VDC 1A CHG.	2-42	0 - 200 Amps	Mild Environment
Voltage Indicator  125VDC 18 Batt.					Amp Indicator			
Voltage Indicator 125VDC 18 Batt. 2-44 200 - 0 Amps					125VDC BUS 1A	2-43	0 - 150 Volts	Mild Environment
Amp Indicator 0 - 1000 Amps  125VDC 18 CHG. 2-45 0 - 200 Amps Mild Environment  Amp Indicator  125VDC 8US 18 2-46 0 - 150 Volts Mild Environment  Voltage Indicator								
Amp Indicator 0 - 1000 Amps  125VDC 18 CHG. 2-45 0 - 200 Amps Mild Environment  Amp Indicator  125VDC 8US 18 2-46 0 - 150 Volts Mild Environment  Voltage Indicator						2-44	200 - 0 Amps	Mild Environment
Amp Indicator  125VDC 8US 18 2-46 0 - 150 Volts Mild Environment  Voltage Indicator								
Amp Indicator  125VDC BUS 1B 2-46 0 - 150 Volts Mild Environment  Voltage Indicator						2-45	0 - 200 Amps	Mild Environment
Voltage Indicator								
						2-46	0 - 150 Volts	Mild Environment
AU BUS STATIO 7.47					AC BUS Status	2-47		

VARIABLE	RANGE REQUIRED IN R.G. 1.97	TYPE- CATEGORY	PURPOSE	CHOPER	ITEM	INSTALLED	Rev.
FARLERDS E	17 5.5. 1.77	LATEGORY	PURPUSE	CIC NUMBER	NO.	RANGE	EQ-STATUS
rimary Containment - Related Systems							
uppression Chamber Spray Flow	0 - 100% Design Flow	0-2	To Monitor Operation	None	2-48	N/A	N/A
cywell Pressure	-5 paig to 3 paig	D-2	To Monitor Operation	PC-PT-513	2-49	0 - +2.0 psig	Will Comply
				PC-R-(FRPR-513)	2-50		Mild Environment
	0 - 110% Design Pressure						
				PC-P1-512A,8	2-51	0 - 80 psig	Will Comply
				PC-R-(PR512-LR11) PC-PL-512	2-52		Mild Environment
				rt-r1-312	2-33		Mild Environment
				PC-PT-4A1,482	2-50	0 - 250 psig	Will Comply
				PC-1E-3A, 3B	2-55		Mild Environment
				PC-SC-3A, 38	2-56		Mild Environment
				PC-PR-1A, 1B	2-57		Mild Environment
suppression Pool Water Level	Top of Vent to Top of Weir Well	D-2	To Monitor Operation	PC-DPT-3A1, 362	2-58	0 - 30' (866'-896')	Will Comply
				PC-IE-2A, 2B	2-59		Mild Environment
				PC-SC-1A, 1B	2-60		Mild Environment
				PC-LR-1A, 1B	2-61		Mild Environment
uppression Pool Water Temperature	30°F to 230°F	A-1	To Monitor Operation	PC-1E-1A,B,C,D,E,F,G,H	1-146	0 - 250°F	Will Comply
		D-2		2A, B, C, D, E, F, G, H			watt compry
				PC-1R-24	1-147		Mild Environment
rywell Atmospheric Temperature	40°F to 440°F	D-2	To Monitor Operation	PC-1E-505A-E	2-62	50° - 350°F	W:11 C1
				PC-RI-505A-E	2-63	20 - 270 1	Will Comply Mild Environment
				PC-11-505A-E	2-64		Mild Environment
				00 IC 5104 C		tot mate	
				PC-TE-510A-E PC-RI-510A-E	2-65	50° - 350°F	Will Comply
				PC-IR-510(1)&(2)	2-66		Mild Environment Mild Environment
Drywell Spray Flow	O to 110% Design Flow	D-2	To Monitor Operation	None	2-68		
Main Steam System							
Main Steamline Isolation Valves	0 to 15" of Water	0-2		The same of the sa			
eakage control System Pressure	0 to 5 psig	0-2	To Provide Indication of Pressure Boundary Maintenance	N/A to BWR 4	2-69		
rimary system Safety Relief Valve	Closed - Not Closed	D-2	Detection of Accident; Boundary	MS-PS-300A-H (SRV)	2-70	27.5 psi (0-30 psi)	Complies
ositions, Including ADS or Pressure			Integrity Indication	MS-IE-1124,8,C (SV)	2-71	0 - 600°F	Will Comply
n Valve Lines	0 - 50 paig						
				MS-TE-114A,B,C (SV)	2-72	0 ~ 600°F	Will Comply
				MS-1R-166	2-73		Mild Environment
solation Cendenser System Shell- side Water Level	Top to Bottom	0-2	To Monitor Operation	N/A to CNS	2-74		
naulation Condenser System Valve	Open or Closed	D-2	To Monitor Operation	N/A to CNS	2-75		
osition							

VARIAB; E	RANGE REQUIRED IN R.G. 1.97	TYPE - CATECORY	PURPOSE	COOPER CIC NUMBER	ITEM NO.	INSTALLED RANGE	Rev. V
RCIC Flow	0 - 110% Design Flow	0-2	to Munitor Operation	RCIC-FT-58	2.24	0 100 000	
	(D.F. = 416 GPM)		to resistor operation	RCIC-FIC-91	2-76	0 - 500 GPM	Will Comply
				RCIC-SQRI-99	2-77		Mild Environment
				MC1C-5QR1-99	2-78		Mild Environment
HPC1 Flow	0 - 110% Design Flow	D-2	To Monitor Operation	HPC1-F1-82	2-79	0 - 5000 GPM	Will Comply
	(D.F. = 4250 GPM)			HPC1-F1C-108	2-80		Mild Environment
				HPCI-IVIR-119	2-81		Mild Environment
				HPCI-SQRT-118	2-82		Mild Environment
Core Spray System Flow	0 - 110% Design Flow	D-2	To Monitor Operation	CS-F1-40A.8	2-83	0 - 6000 GPM	Will Comply
	(D.F. = 4720 GPM)			CS-ES-52488	2-84	U - BUILD GFH	Mild Environment
				CS-F1-50AAB	2-85		Mild Environment
					2-02		wild tualtoument
LPCI Flow	0 - 110% Design Flow	D-2	To Munitur Operation	RHR-F1-109-,8	2-86	0 - 20,000 GPM	Will Comply
	(D.F. = 15,000 GPM)			RHR-ES-1 >A&B	2-87		Mild Environment
				RHR-SQRI -134A88	2.98		Mild Environment
				RHR-11-133A58	2-89		Mild Environment
SLCS Flow	0 - 110% Design Flow	0-2	To Munitur Operation	None	2-90		
SLES Storage Tank Level	Top to Bottom	D-2	To Monitor Operation	SLC-LT-45	2-91	0 - 100% Level	
				SLC-L1-66	2-92	n - lone reset	Mild Environment
				SLC-ES-69	2-93		Mild Environment
Residual Heat Removal Systems					****		Mild Environment
RMR System Flow	0 - 110% Design Flow	0-2	To Monitor Operation	DUD CT 1001 0			
	(D.F. = 15,000 GPM)		To restrict operacion	RHR-FT-109A,8 RHR-ES-145A&B	2-94	0 - 20,000 GPM	Will Comply
					2-95		Mild Environment
				RHR-SQRT-134A&B	2-96		Mild Environment
				RHR-F I - 133A&B	2-97		Mild Environment
RHR Heat Exchanger Outlet	40°F to 350°F	D-2	To Monitor Operation	RHR-YE-94C,D	2-98	0 - 600°F	Wilt Comply
Temperature				RHR-*R-131	2-99		Mild Environment
				SW-TE-94A.B	2-100	0 - 600*F	Will Comply
				RHR-TR-131	2-101		Mild Environment
Couling Water System							
Cooling Water Temperature to ESF	40°F to 200°F	D-2	To Maritan Daniel				
System Components	40 7 10 200 7	0-2	To Monitor Operation	SW-IE-388A,B (REC Hx Outlet)	2-102	0°F - 150°F	Not Qualified
				SW-TE-390A,B	2-103	0°F - 150°F	Not Qualified
				(RHR Hx Inlet)			
				SW-1E-387A,8	2-104	0*F - 150*F	Not Qualified
				(REC Hx Inlet)	11000		THE STREET STREET

VARTABLE	RANGE REQUIRED IN R.G. 1.97	CATEGORY	PURPOSE	COOPER CIC NUMBER	NO.	!NSTALLED RANGE	Rev. V
Cooling Water Flow to ESF System	TO THE REAL BUILDING		To Munitur Operation	SW-FT-97A,8 (RHR Hx)	7 105	0 10 000 000	
Companents				RHR-ES-1454,8		0 - 10,000 GPH	Will Comply
					2-106		Mild Environment
				SW-SQRT-132A,8	2-107		Mild Environment
				SW-F1-132A,8	2-108		Mild Environment
				SW-F1-387A,B (REC Hx)	2-109	0 - 8000 CPM	Will Comply
				SW-SQRT-387A,8	2-110		Mild Environment
				SW-FT-387A,8	2-111		Mild Environment
				REC-ES-10(A)	2-112		Mild Environment
				REC-ES-9(B)	2-113		Mild Environment
adwaste Systems							
igh Radioactivity Liquid Tank	Top to Bottom	0-3	To Monitor Operation	RW-LT-420	3-20	0 - 100%	N/A
rel .				(FER DRN COLL TK)			
				RW-LT-369	3-21	0 - 100%	N/A
				(WASTE COLL TK)			
untainment Radiation							
imary Containment Area Radiation	1 R/he to 10 <sup>7</sup> R/he	E-1	Detection of Significant Releases;	RMA-RE-40A.B	1-148	1 R/hr to 10 <sup>7</sup> R/hr	Not Qualified
gh Range			Release Assessment; Long-Term	RMA-RM-40A.B	1-149	7 10 10 10 10 10	Mild Environment
			Surveillance Emergency Plan Actuation	RMA-RR-40	1-150		Mild Environment
cundary Containment Area	10-1 R/hr to 104 P/hr sac Mack I	E-2	Detection of Significant Releases:	Fuel Pool Area-		10-1 R/hr to 103 R/hr	
Miation High Range	Containments		Release Assessment; Long-Term	RMA-RE-1	2-114		Not Qualified
			Surveillance	RMA-RM-AU1	2-115		Not Qualified
				RMA-RA-1	2-116		Mild Environment
				HPCI Room-		10-5 R/hs to 10-1	
				RMA-RE-10	2 117		
				RMA-RA-10	2-117	With	Not Qualified Mild Environment
				DIO CH OURD			
				RHR SW QUAD		10 <sup>-5</sup> R/hr to 10 <sup>-1</sup>	
				RMA-RE-11	2-119	R/hr	Not Qualified
				RMA-RM-AU11	2-120		Not Qualified
				RMA-RA-11	2-121		Mild Environment
				RHR NW QUAD		10-5 R/hr to 10-1	
				RMA-RE-12	2-122	R/hc	Not Qualified
				RMA-RM-AU12	2-123		Not Qualified
				RMA-RA-12	2-124		Mild Environment
				RCIC RM		10-5 R/hc to 10-1	
				RMA-RE-13	2-125	The state of the s	Not Qualified
				RMA-RA-13	2-126		Mild Environment
				CS SE RM		10-5 R/hr to 10-1	
				RMA-RE-14	2-127		Not Dualified
				RNA-RM-AU14	2-128		Not Qualified
rea Radiation				RMA-RA-14	2-129		Not Qualified Mild Environment
ladiation Exposure Rate	10 <sup>-1</sup> R/hr to 10 <sup>4</sup> R/hr	€-2	Detection of Significant Releases; Release Assessment, Long-Term	Same List as Above		Same List as Above	Same List as Above

3 CAIRAV	RANGE REQUIRED IN R.G. 1.97	TYPE - CATEGORY	PURPOSE	COOPER CIC NUMBER	ITEM NO.		PP. A- Rev. V
Airbotne Hadioactive Materials Released from Plant							
Noble Cases and Vent Flow Rate	10-6 uCi/cc to 105 uCi/cc	E-2	Detection of Significant Releases,				
Drywell Purge, Standby Gas	0 - 110% Vent Design Flow	C-3	Release Assessment	ERP Hi-range Effluent		10 <sup>-7</sup> uCi/ce to	Mild Environment
Treatment System Purge	(DF=6035 cfm)		The state of the s	Munitor RMP-RM-3A,8		1x105 uCi/cc	
				0G-F1T-4001 HV-FR-4000	2-131	0-10,000 cfm	Mild Environment Mild Environment
Auxiliary Building	10-6 uCi/cc to 103 uCi/cc	€-2	2				TO TO LINE ALGORITHM
	0 - 110% Vent Design Flow	C-3	Detection of Significant Releases, Release Assessment	I-G Hi-range Effluent Munitor RMV-RM-20A,B	2-133	10 <sup>-7</sup> uCi/ce to 1x10 <sup>5</sup> uCi/ce	Mild Environment
	(DF=152, 130)			HV-F1-4002A,8,C,D	2-134	The second secon	
				HV-SQRT-40024,8,C,D	2-135		Mild Environment
				HV-SUM-4002	2-136		Mild Environment
				HV-FR-4000		0-250,000 cfm	Mild Environment
August August .					2-121	0-230,000 CIB	Mild Environment
Auxiliary Building	10-6 uCi/cc to 103 uCi/cc	E-2	Detection of Significant Releases,	RW Hi-range Effluent		10-7 uCi/cc to	With Ford
	0 - 110% Vent Design Flow	C-3	Release Assessment	Monitor RMV-RM-30A.8	2-138	1-10 <sup>5</sup> uCi/cc	Mild Environment
	(DF =66,870)			HV-F T-4004	2-139	The state of the s	Mild Environment
				HV-SQRT-4704	2-140		Mild Environment
				HV-FRDPR-4003		0-81,600 cfm	Mild Environment
Common Plant Vent	10-6 uCi/ce to 103 uCi/ce	€-2	Detection of the contract				
	0 - 110% Design Flow	C-3	Detection of Significant Releases, Release Assessment	ERP Hi-range Effluent		10 <sup>-7</sup> uCi/ec to	Mild Environment
	(OF=6035)		nerease Assessment	Monitor RMP-RM-3A,8		10° uCi/cc	
				0G-F11-4001	2-143		Mild Environment
				HV-FR-4000	2-144	0-10,000 cfm	Mild Environment
acticulates and Halogens	10-3 uCi/cc to 102 uCi/cc	€-3	Detection of Significant Releases,	ERP Hi-range Effluent		10 <sup>-4</sup> uCi/cc to	
Communi Plant Vent	0 - 110% Design Flow		Release Assessment; Long-Term	Monitor RMP-RM-1A,8	3-22	1x10 <sup>2</sup> uCi/cc to	N/A
	(DF=6035)		Surveillance	0G-F11-4001	3-23	TXTU- UCL/CC	
				HV-FR-4000	3-24	0-10,000 cfm	N/A N/A
Auxiliary Building	10-3 uCi/cc to 102 uCi/cc	E-3	Detection of the contract of t				
	0 - 110% Design Flow	6-7	Detection of Significant Releases;	T-G Hi-range Effluent		10-4 uCi/cc to	N/A
			Release Assessment; Long-Term	Monitor RMV-RM-20A,B	5-25	10 <sup>2</sup> uCi/cc	
	(OF =152,130)		Surveillance	HV-F1-4002, A, B, C, D	3-26		*/*
				HV-SQR1-4002A,8,C,D	3-27		N/A N/A
				HV-SUM-4002	3-28		N/A
				HV-FR-4000	3-29	0-250,000 cfm	N/A
Auxiliary Building	10-3 uCi/cc to 102 uCi/cc	E-5					
	0 - 110% Design Flow	6-3	Detection of Significant Releases;	RW Hi-range Effluent		10-4 uCi/cc to	N/A
	(OF=66,870)		Release Assessment: Long-Term	Monitor RMV-RM-30A,B	3-30	10 <sup>2</sup> uCi/cc	
				HV-F I -4004	3-31		N/A
				HV-SQRT-4004	3-32		N/A
				HV-FRDPR-4003	3-55	0-81,6000 cfm	N/A
Muxiliary Building	10 <sup>-3</sup> uCi/ce to 10 <sup>2</sup> uCi/ce						
	0 - 110% Design Flow	€-3	Detection of Significant Releases:	MPY Hi-range Effluent		10-12 to 10-6 uCi/cc	
	(OF=15,000 cfm)		Release Assessment; Long-Term	Munitur RMV-RH-10	5-54		N/A
				RMV-F 1-4006	3-35	Particulate Munitur	
				RMV-ES-4006		with Onsite Analysis to 10 <sup>2</sup> uCi/cc	N/A
				RSV-SQRT-4006	5-57	to 10" UCI/CC	N/A
				RMV-FR-4006		0-20,000 cfm	N/A N/A
					-	a conjunt com	AL A

VAPIARLE	IN R.G. 1.97	EATEGORY	PURPOSE	COOPL ?	ITEM NO.	INSTALLED		FG-STATUS
mirons Radiation and Radio-								14-3-4103
izborne Radiohalogens and	10 <sup>-9</sup> uCi/ec to 10 <sup>-3</sup> uCi/ec	E-3	Release assessment: analysis	HP-1	1.10	10-9 oCi/cc to 10-3	N/A	
scticulates (purtable sampling ith omnite analysis capability)						uCi/ce	~~	
Tank and Environs Radiation	10 <sup>-3</sup> R/he to 10 <sup>4</sup> R/he, photons	£-3	Release assessment: analysis	19-2	3-40	10-3R/hc to 103R/hc	N/A	
mortuble instrumentation)	10 <sup>-3</sup> rads/hr to 10 <sup>4</sup> rads/hr, beta radiations and low-energy photons	£-3		HP-3		Camma, 10 <sup>-3</sup> rads/hr to 200 rads/hr Beta		
lant and Environs Radioactivity portable instrumentation)	(Isotopic Analysis)	E-3	Release assessment: analysis	Nove	3-42	lodine Analysis	N/A	
rtrocology								
and Dispection	0 to 360° (15° accuracy with a	E-3	Release assessment	Net 003	3-43	0-540" ± 3" thres-	N/A	
	deflection of 10"). Starting speed less than 0.4 mps (1.0 mph). Demping ratio greater than or equal to 0.4, delay distance less than or equal to 2 meters.			Met 019		hold 0.58 mph damping 0.4 at 1.13 meters		
nd Speed	0 to 22 mps (50 mph), ±2 mps (0.5) mph) accuracy for speeds	E-3	Release assessment	Met 002	3-44	0-100 sph acc. ±0.15	N/A	
	less than 2 mps (5 mph), 10% for speeds in excess of 2 mps (5 mph), with a starting thres- hold of less than 0.4 mps (1.0 mph) and a distance constant not to exceed 2 meters.			Net 010 Net 018		mph or 1% threshold 0.6 mph, dist. const. equals 1.5 meters		
timation of Atmospheric	Based on vertical temperature	£-3	Release assessment	Met -005	3-45	-30 to +50°C ±5\$ 1	N/3	
ability	difference from primary meteorological system, 5°C to 10°C (-9°F to 18°F) and			Met -013 Met -021		not to exceed 0.15°C		
	t0.15°C accuracy per 50-meter intervals (t0.3°F accuracy per 164-foot intervals) or							
	analogous range for alternative stability estimates.							
reident Sampling Capability Muslysis Capability On Site)								
imary Coolant and Sump	Grab Sample	€-3	Release assessment; verification:	PASS	3-46		N/A	
Gross Activity	1 uCi/el to 10 Ci/el		anelysis					
Gamma Spectrum	(Isotopic Analysis)					1 uCi/ml to 10 Ci/ml		
Böron Content	0 to 1000 ppm					Istopic Analysis		
Chloride Content	0 to 20 ppe					0 to 15 ppm (dilutable)		
Dissolved Hydrogen or fotal Gas	0 to 2000 cc(SIP)/kg					10 ppb to 10 ppm (dilut Not available-calculate		
Dissolved Oxygen	0 to 20 ppm					10 ppb to 1 ppm (diluta	dia.	
pH	1 to 13					1 to 14 (online)	216)	

3 1881 (814	RANCE REQUIRED IN R.C. 1.97	TYPE - CATEGORY	AMPROSE	8 CODY 8	11 S	INSTALLED	EQ-51ATUS
Containment Air	Grab Sample	3	Releare assessment; verification; analysis	PMSS	747		N/A
Garma Specifical	(lectupic analysis)					Isotopic Analysis	

LIEM NO.	SETSMOCIN STATUS	GA REDUM STATUS <sup>2</sup> CHAM		CR DISPLAY	REQUIRED				Rey. V
		213133	20111	DISPLAT	FOR 1SC	FOR EOR	- FMT2	SCHEDULE	DEVIATIONS AND JUSTIFICATIONS
1-1		B Yes	a RPS	Indicators	SRM Alacm Only	SRM Alarm Only	Yes	No Action Necessary	Will implement as Category 3. SRM's indicate 3 counts per second which meets the lower flux requirement of R.G. 1.97.
3-1	VA.	B N/I	RPS	Indicators	Yes	Yes	Yes	No Action Necessary	None
3-2	NA.	c w/	LPRW2A	None	No	No	10	No Action Necessary	None
1-2	A None None	B Yes	EE-PNL-CPP(2)	Indicator	Yes	Yes	Yes	Integrate with CRDP HED's 187, 131, 141 and 151. Implement in	- Water level instrumentation below the 2/3 core coverage is not necessary for post
	No.	None Yes	F EE-PML-CPP(2)					accordance with NPPD's response to Generic Letter 84-23. Implement during the 1987 outage.	accident monitoring at Cooper Nuclear Station. Vessel design provides for a minimum 2/3 core coverage so instrumen- tation below that level is not needed.
1-5	A A	8 No	NBT-ES-88 EE-PNL-CPP	Indicator	Yes	Yes	Yes		It is NPPD's position that the existing instrumentation, which provides indication to 30.6 percent of core coverage, meets with the intent of R.G. 1.97.  NPPD will supply only one qualified
1-7		B Yes		Indicator	Yes	Yes	Yes		channel for the upper water range, from +60 inches to the center of the steam line at +123.25 inches. In order to comply with the single failure requirement of R.G. 1.97, an additional penetration would be needed for a redundant reference column for the upper range. There are no manual or automatic functions initiated in the upper 63.25 inches, these functions occur in the range monitored by redundant channels. Thus, it is NPPO's position that single channel indication for the range from +60 inches to the center of the steam line meets the intent of the Regulatory Guide and the addition of a redundant channel would result in only a marginal improvement in plant safety.
	N/A	N/A N/A	N/A	N/A	No	No	No		Will not implement. Reference BWROG Posi- tion, Appendix A.

ETEM	SEESMIC 1	QA .	REDUNDANT 3	POWER	CR	DE OUT DED	penitoen	INPUT 104		Rev. V
NO.	STATUS	- 7.5	CHANNEL	SUPPLY	DISPLAY	FOR TSC		PHIS	SCHEDIA E	DEVIATIONS AND JUSTIFICATIONS
1-9	Novel		Yesa	TE (RPS)	Indicators	Yes	Yes	Yes	Mudifications scheduled for 1986	None
1-10	None <sup>5</sup>				and Recorders Both Channels				out age <sup>8</sup>	
1-11	None <sup>5</sup>	A								
1-12	None <sup>5</sup>	A								
1-15	86	87		DE DAY CODADIAL						
1-14	85	8	Yes	EE-PNL-CCP1B(1)	Recorder One Chawlel -	Yes	Yes	Yes	Modifications scheduled for completeio	n None
1-15	87	8			Indicator				before the end of the 1984-85 outage	
					Both Channels					
1-16	None <sup>6</sup>		Yesa	TE (RPS)	Indicators	Yes	Yes	Yes	Mudifications scheduled for 1986	
1-17	None <sup>5</sup>	A			and Recorders			16.6	outage <sup>8</sup>	
1-18	None <sup>5</sup>	A			Both Channels					
1-19	None <sup>3</sup>	A								
1-20						Yes	Yes	Yes	Integrate with CRDR HED 631 Implement during 1987 outage. 9	Will implement as Category 3. Reference BWRDG Position, Issue 4.
1-21	86	87	Yes <sup>C</sup>	EE-PNL-CCP18(1)	Recorder	Yes	Yes	Yes	Modifications scheduled for completion	None
1-22	85				One Channel -				before the end of the 1984-85 outage	
1-23	82	8			Indicator Both Channels					
1-24	None 6		Yesa	IE (RPS)	Indicators	Yes	Yes	Yes	Mudifications scheduled for 1986	
1-25	None <sup>5</sup>			16. (nr. 2)	and Recorders	100	163	163	outage 8	
1-26	None 5	A			Both Channels					
1-27	None <sup>5</sup>	A								
1-28	86	B7	No	EE-PNL-CCP(14)	Recorder	Yes	Yes	Yes	Integrate with CRDR HED 191.	
1-29	8	9	No		Single Channel				Implement during 1986 outage.8	None
1-30	В	8	Yesa	EE-PNL-CCP18(7)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-31	None	6			manual cagnes				no merculary	implement indicacing cignes as category
1-32	8	6	Yes	EE-PNL-CCP1B(7)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
2-23	None	8								
1-34	8	8	Nod	EE-PNL-CCP1A(9)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-35	None	8								
1-36	8		*od	EE-PNL-CCP1A(9)	Indicator List	You	Van	Year	N. L.L.	
1-57	None	8		CC-PINC-CLP IN(9)	Indicator Lights	ies	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3

ITEM NG.	SEISMIC 1 STATUS	GA STATUS <sup>2</sup>	REDUNDANT 3	POWER SUPPLY	CR DISPLAY	REQUIRED FOR TSC	REQUIRED FOR EOF	INPUT 104 PMIS	SCHEDULE	Rev. V
1-38	8 None	8	Yesª	EE-PNL-CCP18(7)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-40 1-41	B None	8	Yesª	EE-PNL-CEP18(7)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-42	Operator Qualified to 6 g's None	8	Yes <sup>a</sup>	EE-MCC-RA(2A)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights ms Category 3
1-44 1-45	Operator Qualified to 6 g's None	e e	Yesa	EE-MCC-R4(28)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-46	Operator Qualified to 6 g's None	8	Yes <sup>a</sup>	EE-HCC-R4(2C)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-48 1-49	None <sup>5</sup> None	8 8	Yes <sup>a</sup>	EE-PNL-RPSPP1A(3)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-50 1-51	None <sup>5</sup> None	8	Yesª	EE-PNL-RPSPP18(3)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-52 1-53	None <sup>5</sup> None	8	Yesa	EE-PML-RPSPP1A(3)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-54 1-55	None 5 None	8 9	Yes <sup>a</sup>	EE-PNL-RPSPP18(3)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-56 1-57	Operator Qualified to 6 g's Nune	8	Yesa	EE-MCC-RAL L.	Indicator Lighis	Yes	Yes	tea	No Action Necessary	Implement Indicating Lights as Category 3
1-58	None <sup>5</sup>	8	Yes	EE-AA2(15)	Indicator Lights	Yes	Yes	Yes	Mudification scheduled for completion before the end of the 1984-85 outage	Implement Indicating Lights as Category 3
1-60	None 5	8	Yesa	EE-882(9)	Indicator Lights	Yes	Yes	Yes	Modification scheduled for completion	Implement Indicating Lights as Category 3
1-61	None	В							before the end of the 1984-85 outage	
1-62	Operator Qualified to 6 g's None	8	Yes <sup>2</sup>	EE-MCC-R(4C)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-64	Operator Qualified to 6 g's None	8	Yes <sup>a</sup>	EE-STR-125RX	Indicator Lights	Yes	Yes	Yes <sup>a</sup>	No Action Necessary	Implement Indicating Lights as Category 3
1-66	Operator Qualified to 6 g's None	8	Yes®	EE-MCC-R(5A)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-68 1-69	Operator Qualified to 6 g's Nume	8	Yes <sup>a</sup>	EE-125VDCSTR HPCI	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-70	* Operator Qualified to 6 g's	8	Yes <sup>®</sup>	EE-MCC-Y(108)	Indicator Lights	Yes	Yes		Modification scheduled for completion before the end of the 1984-85 outage	Implement Indicating Lights as Category 3

1-71 None

THEM	SETSMIC'S	GA.	REDUNDANT 3		CR	REQUIRED	REQUIRED	INPUT TO <sup>4</sup>		Rev. V
NG.	STATUS	STATUS*	CHANNEL	SUPPLY	DISPLAY	FOR TSC	FOR EOF	PMIS	SCHEDULE	DEVIATIONS AND JUSTIFICATIONS
1-72	Operator Qualified to 6 g's	8	Yesit	EE-125VDES IR PETE	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-75	Nune	8								
1-74	Operator Qualified to 6 g's	8	Yes	EE-MCC-K(4C)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	
1-75	None	None							at action accessery	Implement Indicating Lights as Category 3
1-76	Operator Qualified to 6 g's	8	Yesa	EE-MCC-M(5B)	Indicator tights	Yes	Yes	Yes	No Action Necessary	
1-77	None	None							me mercessary	Implement Indicating Lights as Category 3
1-78	Operator Qualified to 6 g's		Yes	MCC-R(SC)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	
1-79	None	ő							A CLOT ACCESSARY	Implement Indicating Lights as Category 3
1-80	Operator Qualified to 6 g's	. 8	Yes	EE-125VDCS1R(958	)Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Estegury 3
1-8:	None	6								ing tement indicating rights as tarrighty ?
1-82	Operator Qualified to 6 q's	8	Yesa	EE-125VDESTR(8591	)Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-83	None	8								The state of the s
1-84	Operator Qualified to 6 g's	8	Yes	EE-MEC-R(7A)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-85	None:	8								
1-86	Operator Qualified to 6 g's	. A.	Yesb	EE-STR-250 DIV I	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-87	None	. 8								
1-88	Operator Qualified to 6 g's	A	Yesh	EE-STR-250 DIV 11	Indicator Lights	Yes	Yes	Yes	Modification scheduled for completion	Implement Indicating Lights as Category )
1-89	None	8							before the end of the 1984-85 outage	
	The state of									
1-90	Operator Qualified to 6 g's		tesb	FE-MCC-CA(3E)	Indicator Lights	Yes	Yes	Yes	Modification scheduled for completion before the end of the 1984-85 outage	Implement Indicating Lights as Category 3
1-91	Nove	8							derote the end of the 1704-07 outage	
1-92	Operator Qualified to 6 g's	В	Yesb	EE-MCC-RB(BC)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-93	None	8							,	imprement indicating rights as tategory
1-94	Operator Qualified to 6 g's	8	Yesc	EE-MCC-Q(6A)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-95	None	8								implement indicating tights as talegory ?
1-96	Operator Qualified to 6 g's	8	Yes <sup>C</sup>	EE-MCC-Y(SC)	Indicator Lights	Yes	Yes	Yes	Modifications scheduled for completion	implement Indicating Lights as Category 3
1-97	None								before the end of the 1984-85 outage.	
	***									
1-98	Operator Qualified to 6 g's	8	Yes <sup>C</sup>	EE-MCC-Q(SO)	Indicator Lights	Yes	Yes	Yes		Implement Indicating Lights as Category 3
1-99	None	8							before the end of the 1984-85 outage.	
1-100	Operator Qualified to 6 g's		Yes <sup>C</sup>	EE-MCC-Y(50)	Indicator Lights	Van	Yes	Yes	No. Ashion management	
1-101	None	8			more crimes	100		ies	No Action Necessary	Implement Indicating Lights as Category 3
1-102	g6	87	Yes <sup>R</sup>	EE-PNL-CCP1B(2)	Indicator Lights	Yes	Yes	Yesa	Modification scheduled for	Implement Indicating Lights as Category 3
									1986 outage.8	implement indicating tights as category )
1-103	None									
1-104	Nune <sup>6</sup>	€7	Yes <sup>a</sup>	EE-PNL-CCP1A(2)	Indicator Lights	Yes	Yes	Yesa	Modification scheduled for	Implement Indicating Lights as Catogory 3
									1986 out age. **	

TTEN		Q8	REDUNDANT 3	POWER	CR	REQUIRED	REQUIRED	INPUT TO		
50.		STATUS <sup>2</sup>		SUPPLY	DISPLAY	FOR TSC	FOR EDF	PMIS	SCHEDULE	DEVIATIONS AND JUSTIFICATIONS
1-305	New									
1+106	Operator Qualified to 6 q's	8	Yes	EE-MCC-R(38)	Indicator Lights	Yes	Yes	Yesa	Modification scheduled for 1986 outage. 8	Implement Indicating Lights as Category 3
1-107	Service	8								
1-108	Operator Qualified to 6 g's	8	Yes.ª	EE-PNL-883(3)	Indicator Lights	Yes	Yes	Yes <sup>a</sup>	Modification scheduled for 1986 outage. 8	Implement Indicating Lights as Category 3
1-109	None	. 8								
1-110	Operator Qualified to 6 g's	С	Yes <sup>a</sup>	EE-MCC-CB(3A)	Indicator Lights	Yes	Yes	Yes <sup>a</sup>	Modification scheduled for 1986 outage. 8	Implement Indicating Lights as Category 3
1-111	Nor	None								
2-117	Operator Qualified to 6 g's	¢	Yes <sup>a</sup>	EE-PNL-CA(1)	Indicator Lights	Yes	Yes	Yes <sup>a</sup>	Modification scheduled for 1986 outage. 8	Implement Indicating Lights as Category 3
1-115	None	Storie								
1-116			Yes <sup>a</sup>	EE-PNL-CB(1)	Indicator Lights	Yes	Yes	Yes <sup>a</sup>	Modification scheduled for 1986 outage. 8	Implement Indicating Lights as Category 3
1-715	Nove	None								
5-716	Operator Qualified to 6 g's	c	Yes <sup>a</sup>	EE-MCC-CA(ZA)	Indicator Lights	Yes	Yes	Yes <sup>a</sup>	Modification scheduled for 1986 outage. 8	Implement Indicating Lights as Category 3
1-117	Servi	None								
1-118	Operator Qualified to 6 g's	c	Yes <sup>a</sup>	EE-PNL-CB(2)	Indicator Lights	Yes	Yes	Yes	Modification scheduled for 1986 outage. <sup>8</sup>	Implement Indicating Lights as Category 3
1-119	Some	None								
1-120	Operator Qualified to 6 g's	ε	Yes <sup>a</sup>	EE-MCC-CA(2B)	Indicator Lights	Yes	Yes	Yes <sup>a</sup>	Modification scheduled for 1986 outage. <sup>8</sup>	Implement Indicating Lights as Category 3
1-121	None	None								
1-122	Operator Qualified to 6 q's	c	Yes <sup>it</sup>	EE-PNL-CA(2)	Indicator Lights	Yes	Yes	Yes <sup>a</sup>	Modification scheduled for 1986 outage.8	Implement Indicating Lights as Estegory 3
1-12	Nove	None								
1-124	Operator Qualified to 6 q's	c	Yes®	EE-PNL-CB(3)	Indicator Lights	Yes	Yes	Yes <sup>a</sup>	Mudification scheduled for 1986 outage. 8	Implement Indicating Lights as Category 3
1-125	None	None								
1-126	Operator Qualified to 6 g's	ε	Yes.ª	EE-PME-CA(3)	Indicator Lights	Yes	Yes	Yes <sup>a</sup>	Modification scheduled for 1986 outage.8	Implement Indicating Lights as Category 3
1-127	None	None								
1-129	Operator Qualified to 6 g's	= =	Yes*	FF-MCC-C8(3C)	Indicator Lights	Yes	Yes	Yes <sup>a</sup>	Modification scheduled for 1986 outage.8	Implement Indicating Lights as Category 3
1-125	None	None								

110	CMC .	939631	GA .	REDUNDANT 3	POWER	CR	ac metaco	REQUIRED	TADRIT 1114		Hev. V
N		514501	STATUS <sup>2</sup>		SUPPLY	DISPLAY		FOR EDF	PHIS	SCHEDULE	DEVIATIONS AND JUSTIFICATIONS
3-		A/A		N/A	EE-PNL-CEP1A(19)	Commun	Yes	Yes	Yes	No Action Necessary	None
5-4	4	N/A			9-2	Recorder					
32		5/3			Both Trains						
3-4	6	N/8									
T-	130						Yes	Yes	Yes	Integrate with CRDR MED 631 Implement during the 1987 outage. 9	Will implement as Category 3. See BWRDG Position, Issue 4.
8-1	131	None <sup>6</sup>		Yes	E (RPS)	Recorder and	Yes	Yes	Yes	Mudification scheduled for	
		None <sup>5</sup>		-	W 100.87	Indicator -	Sea.	168	103	1996 outage®	None
		None <sup>3</sup>				Both Channels				1730 Outage	
- 5-		None <sup>5</sup>									
		None <sup>6</sup>		Yes*	TE (RPS)	Recorder and	Yes	Yes	Yes	Mudification scheduled for	None
		None <sup>5</sup>				Indicator -				1986 outage <sup>8</sup>	
		hare <sup>5</sup>				Buth Channels					
3+	1.28	None <sup>5</sup>	*								
2-		N/A	c	N/A	480 VAC from PPGE 120 VAC from LLPGB1	Indicator - Single Channel	Yes	Yes	Yes	No Action Necessary	None
2-		N/A	c			Jangie Charles					
1.	119	None			CP-CAD-1A	Recorder -					
	140			No	CP-CAD-1A	Buth Channels	No.	No No	No Yes	No Action Necessary	Will not implement as Reg Guide 1.97 vari- able. Ref. NPPD 10CFR50.44 exemption
											request to hydrogen recombiner rule for inerted containments.
2-	141	8	8								
T-	142	*	. 8								
5-	145	N .		No	EE-PML-CEPTA(9)	Recorder -	Yes	Yes	Yes	Integrate with CROR	Will implement as Category 2.
3-	144	8	8			Both Channels				HED'S 521 and 531	
										Implement during the 1998 outage. 10	

110		GK.	REDUNDANT	PONER	CR	REQUIRED	REQUIRED	INPUT II	94	
8.0		STATUS	CHANNEL	SUPPLY	DESPEAY		FOR EDF		SCHEDULE	DEVIATIONS AND JUSTIFICATIONS
							799			The state of the s
3-7	N/A		1/3	EE-PNL-MBPP(4)	Indicator -	Yes	Yes	Yes	No Action Necessary	
3-8	N/4			EE-PNL-M2(2)	Both Channels			-	no necton mecanaty	None
3-9	5/3	C .			Mecorder -					
3-30	1 1/4				Single Channel					
5-11			5/4	EE-PML-CCP1A(16)	Indicator -	Yes	Yes	Yes	No Action Necessary	None
5-1					Single Channel					
5-1										
3-3	N/A									
5-11	N/4	c	N/3	EE-PNE-PPCH1	Indicator -	Yes	Yes	Yes	No Action Necessary	
			5 10 17	-	Single Channel			100	we weren weeneary	None
3-19	V N/A			EE-PNL-CCP18						
3-21	7 5/8		5/2	EE-PML-CEP18(12)	Indicator -	Yes	Yes	Yes	No Action Necessary	None
3-18	N/4				Both Channels					
3-11	F N/A									
7. 41	None									
1		ε	No	LPRN-2A	None	No	No	No	No Action Necessary	Inplemented as Category 3. See BWRDC
										Position, Issue 5.
2-5	N/8	8	Yes	EE-PNL-CEP18(16)	Indicator Lights	Yes	Yes	Yesa	No Action Necessary	feetoned or financial
2-4	5/5	8					100	16.0	to account mecessary	Implement as Category 3
2-5	5/8		Tes#	EE-MCC-RA	Indicator Lights	Yes	Yes	Yesa		
2-6	N/Z	. 8								
2-7			Yes*	EE-PML-CCP18(16)	Indicator Lights	Yes.	Yes	Yes a		
2-8	N/3									
2-9	N/R									
2-10			res <sup>-1</sup>	EL-PRE-RA	indacetos Lagrico	itte	100	res		
2-11	5/5		Yes	EE-PNE-RA	Indicator Lights	Yes	Yes	Yes		
2-17		. 9:			- maran capita		****	100		
		-								
2-13	F N/A		Yes	EE-PML-CCP18(16)	Indicator Lights	Yes	Yes	Tes*		
2-34	N/A	8								

80.		STATUS <sup>2</sup>	CHANNEL	SUPPLY	DE		FOR EST	>- ers	SCHEDULE	DEVIATIONS AND JUSTIFICATIONS
										activities and add it tourished
70.00	4.74		-	Dec 4 000				2.0		
2-15	V/2		Yes*	PT'S & CT's	Indicators - Both Chassels	Yes	Yes. Yes	1eu*	No Action Necessary	None
2-12	5/4		tes#		OUCH CHMENTS	Yes	Yes	Yes 3		
2-19	1/4	8	Yes			Yes	Yes	Yes		
2-19	15/3		Yes			Yes	Yes	Yes		
2-20	N/R									
2-21	N4									
2-22	3/2									
4.44										
2-21	5/3									
2-24	N/2	. 8								
2-25	5/3									
2-26	N/R									
2-27	N/4	8								
2-28	N/A N/A									
2+32	5/8									
2-51	5/8	8								
2-32	N/A	8.	No	£5-£5-1		No	No	No		
2-55	N/A	. 8								
2-34	N/A	.8								
2-35	N/A	8	N/A	250 VDC Batt. 1A	Indicator	Yes	Yes	Yesa	No Action Necessary	None
2-36	N/A		m/a	750 MC 505 14	Total Contract					
2-20	~~	8	N/A	250 VDC BUS 1A	Indicator	Yes	Yes	Yesª	No Action Necessary	None
2-37	N/A	8	N/A	250 VDC CHG. 1A	Indicator	Yea	Yes	Yesa	No Action Necessary	None
2-18	5/8	8	N/A	250 VOX Batt. 18	Indicator	Yes	Yes	Yeu's	No Action Necessary	None
2-39	N/A	. 8	N/A	250 VOC CHG. 19	Indicator	Yes	Yes	Yes	No Action Necessary	None
2-40	N/A		W/W	310 MC NE 10	Total Continues	Was .				
			N/A	250 VDC BUS 18	INGICACOE	Yes	Yes	Yesa	No Action Necessary	None
2-41	N/A	8	N/A	125 VDC Batt. 14	Indicator	Yes	Yes	Yesa	No Action Secessary	None
				The same of the same of					The factor including	
2-42	N/A	8	N/A	125 VOC CHG. 1A	Indicator	Yes	Yes	Yes	No Action Necessary	None
2-43	N/A	. 8	N/A	125 VDC BUS 1A	Indicator	Yes	Yes	Yesa	No Action Necessary	None
2-40	w/s		A-176	175 MW W W. T.	No. of Contract of		100			
2-40	N/A	8	N/A	125 VDC 18 Batt.	sugar acos	Yes	Yes	Yesa	No Action Necessary	None
2-45	N/A	8	N/A	125 VOC 18 CHG.	Indicator	Yes	Yes	You's	No Action Necessary	None
							100		The second secondary	
2-46	N/8	. 8	N/A	125 VIX BUS 19	Indicator	Yes	Yes.	Yesa	No Action Necessary	None
0 - 1										

CR REQUIRED REQUIRED INPUT TO<sup>4</sup>

GA REDUNDANTS

2-47

POWER

1708	501000	QX.	REDINGANT 3	POWER	CR	promises.	REQUIRED	tutters and		Rev. V
NO.	5837	-	CHANNEL	SUPPLY	DISPLAY		FOR EOF		SCHEDULE.	
									20,74 300 6	DEVIATIONS AND JUSTIFICATIONS
2-48	K/4	16/2	5/3	N/A	N/A	No.	No.	No	No Action Necessary	Will not implement. Reference BWRDG
										Position, Issue 7.
2-48	5/8	. 8	5/4	EE-PML-CCPTA(9)	Recorder -	Yes	Yes	Yes	Mudifications scheduled for completion	None
2-56	N.2				Single Channel				before the end of 1984-85 outage.	
2-51	N/4		N/A	EE-PNL-CCP18(1)	Recorders -	Yes	Yes	Yes	Modifications scheduled for completion	None
2-52	5/8	8			Single Channel				before the end of 1984-85 outage.	
2-53	W4	8								
0-54	N/A	8	5/2	¥ (395)	Secorders -	Yes	Yes.	Yes	Modifications scheduled for	None
2-15	N/3	8							1986 outage <sup>8</sup>	
2-56	N/A	8								
2.57	**	8								
2-18	N/A		5/4	TE (RPS)	Recorders -	Yes	Yes	Yes	Modifications scheduled for	
2-59	5/4	A			Both Channels	-		759	1986 outage <sup>8</sup>	None
2-60	N/A	. 4								
2-61	N/A									
1-146	Note	*	Yes*	NE (RPS)	Common Recorder	Yes	Yes	Yes	Modifications scheduled for 1986 outage <sup>8</sup>	Implement as category 2 as other instru-
1-167	*		160	EE-PNL-COPTA						men's are available for SRV position.
2.62	N/A	87	9/8	EE-PNL-CCPTA(16)	Indicator -	Yes	Yes	New	***************************************	
2-65	N/2	8			Single Channel	16.0	Yes	Yes	Modifications schoduled for comple- tion before end of 1964-85 outage.	Will not implement expanded range. Max
2-64	50.4								rates deroite end or 1754-85 outage.	LCLA temperature equals 3400 7.
2-65	N/4	87	N/5	EE-PNL-CCP1A(16)	Indicator -	Yes	Yes	Yes		
2-66	N/A	8			Single Channel				Modifications scheduled for comple- tion before end of 1984-85 outage.	Will not implement expanded range. Max
2-67	N/A	. 8							rain service one or tree-or our age.	LOCA temperature equals 340° f.
2-65									No Action Necessary	Will not implement. Reference BWRDG
										Position, Issue 7.
2-69									No Action Necesuary	Not applicable to CNS.
										The appricable to this.
2-70	N/A		N/A	E-PNL-AA2(6)	Indicator Lights	Yes	Yes	Yes	No. Action No.	
2-71	5/8	63	N/A	E-PNE-CPP	Recorded -	Yes	es	Yes	No Action Necessary Modification scheduled for	None
2-72		e7			Syngle Channel				1986 outage. 8	
6-14	**	8.	N/A	E-PNL-CPP	Computer Pt.	Yes	Yes	Yes	Modifications scheduled for comple-	
2-73	N/5		N/A						tion before end of 1984-85 outage.	
2-74	y								No. Bellion Name	
									No Action Necessary	Not applicable to CNS.
	*									but analyzable to TNS
2-75									No Action Necessary	Not applicable to ENS.

SPV. 6-1	AND AND IN ICAN IONS	Nor			None			The state of the s				None			None		Fatance 1 Bafacana	Fin		Your					None		None		Will install as category 3 as output is		Will install as category 3 as output is		Will install as category 3 as output is	
DEVIATION	200																Will implement as fatacorn	BWRDC Position, Issue 10.	implementation ma										Will install as	to PMIS only.	Will install as	to PMIS only.	Will install as	to PMIS only.
A SORDIAL		Madifications wcheduled for completion	Defore the end of the 1984-85 outage.		Modifications scheduled for completion	before the end of the 1984-85 outage.		Modifications scheduled for completion	before the end of the 1984-85 outage.		Monthly from the property and the same	before the end of the 1982-85 action	- USB 190 70 - 100 7 100		Integrate with CROR HED'S 171 and	(5); amis and tipe's at required.	No Action Necessary			Modifications scheduled for completion	before the end of the 1984-85 outage.				Tetion during 1786 refueling out age		Mudifications scheduled for comp-	letion during 1986 refueling outaged	Will extend twige during	1986 refueling outage8	Will extend cange during	1986 refueling outage	Will extend range during	alle the fact on the same
INPUT TO		Yes			Yes			Yes			Year						Yes			Yes				****	0		Yes		Fes		Yes		Yes	
REQUIRED FOR EOF		hes			Yes			Yes			Yes						Yes			Yes							Yes		Yes		Yes		Yes	
REQUIRED REQUIRED INPUT TO <sup>4</sup> FOR TSC FOR EOF PHIS		#			Tes			Tes			Yes						Yes			Yes				Year			Tes		Yes		Yes		Yes	
CR DISPLAY		Indicator -	raceur albore		Indicator -	Single Channel			Double Charsel			Double Charnel					Indicator -	Single Channel		Indicators -	Double Channels			Common			Common	Table for Sales	Computer Pts		Computer Pts		Computer Pts	
PORER SUPPLY	Con Para secondario	CE -178 -188 PP. 193	( a a a a a a a a a a a a a a a a a a a		EE PNE-4802(18)	9-4/14-725 8	(97 p-WC7	EE-PML-CC14(3)	9-19(14-152AV)	9-18(144-53)	EE-PM -CEPTA(1)	9-18(148-F168)	(( -PNC -CCP 13( 1)	9-18(104-/168)			(6)663-7NG-33	(11M-F2)		EE-PNE-CEPIA(1)	EE -PNE -CCP 18(3)			EE-PNE-CCP(4)		AND DESCRIPTION	KE-PRE-CUP(4)							
REDUNCIANI S CHANNEL			K/W		N/A	N. S	N/A	N/A	1/4		3/8	3/4	1/4	N/3			1/1	4/4	* /*	N/A	N/4	N/A	N/A	N/A	N/A	****	N/2		N/A		N/A		N/A	
STATES	5					m 0	1 60				10	æ	m				80			80	ab i	80 1	80	183	n	20							60	
SC194 STR-54		N/A	***			W. W	N/4	10.4	N. 1		VA	N/A		4.4			1/4	V. 2		1/4	100	10.0	N.4	V.A	N/A	N/4	N/A		N/A		N/A		***	
10.8	20.76	2-23	2-78	100		2.41	1.62	20-0	2.45		2-86	2-87	要人	10-7	2-90		26-27	2-92		2.	64-7	20.4	16-21	86-2	3-98	2-100	2-101		2-102		2-103		7-108	

TIEM	SKISPIT	Q4	REDUNDANI 3	POWER	CR	REQUIRED.	REQUIRED	INPUT TO <sup>4</sup>		Rev. V
10.	514	STATUS2		SUPPLY	DISPLAY	FOR TSE		PMIS	SCHEPULE	DEVIATIONS AND JUSTIFICATIONS
2-105	N/A	97	N/A	-						
2-106	N/2	9		EE-PNE-CEP1A(3)		Yes	tes	You <sup>a</sup>	Modifications scheduled for completic	
The state of the			N/A	EE-PNL-CCP18(3)					before the end of the 1984- 85 outage	
2-107	N/A	8	1/2							
2-108	N/3	8	N/A							
2-109	N/A	87	N/A	EE-PML-CCP1A(20)		Yes	Yes	Yes	Morifications scheduled for	None
2-110	5/4	8	N/A	EE-PNL-CCP18(17)					1985 out age 8	
2-111	N/A	8	N/A							
2-112	N/A	. 8	N/A							
2-113	N/A	В	N/A							
3-20	5/A	None	N/A	EE-PNL-NBPP(5)	Radwaste	No	No	No	No Action Necessary	No direct indication in Control Room.
				25-17-(20A-F1)	C.R. Only					Munitored every two hours by Operations
3-21	N/A	None	N/A	EE-PNL-NBPP(5)						Personnel.
4.0				25-17-(20A-F1)						
337										
1-148	None	A	Yes	EE-PNL-RPSPP1A	Common	Yes	Yes	Yes	No Action Necessary	Implement as Catagory 3.
1-149	None	A		EE-PAL-RPSPP18	Recurder					
1-150	Notice	A	No:	EE-PNL-CCP1A(19)						
			20.00							
2-114	N/A		N/A	FF Was CORES	Indicator -	Tes	Yes	Yes	No Action Nocessary	Will not implement as a Reg. Guide 1.97
2-115	N/A	8		EE-PML-CPP(5)	Single Channel					peremeter. Reference BWROG Position,
2-116		8		EE-PNL-CPP(5)						Issue 12.
				EE-PNE-CPP(5)						
			N/A		Indicator -	Yes	Yes	Yes	No Action Necessary	See Above
	N/A	8		EE-PNL-CPP(5)	Single Channel					
2-116	N/A	8		EE-PNL-CPP(5)						
			N/A		Indicator -	Yes	Yes	Yes	No Action Necessary	See Above
2-119	N/A	8		EE-PNL-EPP(5)	single Channel				W. H. Callet H. C. Callett	See Above
2-120	N/A	В		EE-PN: -CPP(5)						
7-121	N/A	8		EE-PNL-CPP(5)						
			N/A		Indicator -	Yes	Yes	Yes	No Action Necessary	See Above
2-122	N/A	8		EE-PNL-CPP(5)	Single Channel					
2-123	N/A	В		EE-PNL-CPP(5)						
2-124	N/A	8		EE-PNE-CPP(5)						
			N/A		Indicator -	Yes	Yes	Yes	No Action Necessary	See Above
2-125	N/A	В		EE-PNL-CPP(5)	Single Channel					
2-126	N/A	В		FE-PNL-CPP(5)						
2 122			N/A		Indicator -	Yes	Yes	Yeu	No Action Necessary	See Above
2-127	N/A	8		EE-PNL-CPP(5)	Single Channel					
2-128	N/A	8		EE-PNL-CPP(5)						
2-129	N/A	В		EE-PNE-CPP(5)						

NO.	S14 . )	STATUS <sup>2</sup>	CHANNEL	SUPPLY	DISPLAY		FOR EOF		SCHEFT'N E	DEVIATIONS AND JUSTIFICATIONS
2-130	N/A	c	N/A	480 VAC from PPG81	Indicator	Yes	Yes	Yes	No Action Necessary	None
				120 VAC from LPG81						
2-131		C		EE-PNL-NBPP(15)	Single Channel	No	No	No	No Action Necessary	None
2-132	N/a	c								
2-155	WA.	c c	N/A	480 VAC from MCC-DG 120 VAC from CCP28		Yes	Yes	Yes	No Action Necessary	None
2-154	N/A			HV-ES-4002A.8	Single Channel					
2-135	N/A	C .		HV-ES-41024,B						
2-136	N/A									
2-137	N/A	c		EE-PNL-CPP(22)						
2-138	N/A	c	N/A	480 VAC from MCC-W 120 VAC from LPRW3		Yes	Yes	Yes	No Action Necessary	None
2-139	N/A			HV-ES-4000						
2-140	N/A	c		HV-ES-4000	Single Channel					
2-141		c		EE-PNL-CPP(22)						
2-142	*/*									
2-142	**	c	N/A	480 VAC from PRGB1 120 VAC from LPGB1						
2-143	N/A	C		EE-PNL-NBPP(15)	Single Channel					
2-144	N/A	c								
3-22	N/A	c	N/A	480 VAC from PPG81	None	No	No	No	No Action Necessary	None
5-23	N/A	ε .		120 VAC from LPGB1						
3-24	N/A			EE-PNL-MBPP(15)						
3-25	N/A	c	N/A	480 VAC from MCC-DG 120 VAC from CCP2B	1 None	No	No	No	No Action Necessary	None
1-26	N/A	C		HV-ES-4002A,8						
3-27	N/A			HV-ES-4002A,8						
5-28	N/A	C								
3-29	N/A	C		EE-PNL-CPP(22)						
3-30	N/A	c	N/A	480 VAC from MCC-W 120 VAC from LPRW3	None	No	N-	Na	No Action Necessary	None
3-31	N/A	c		HV-ES-4000						
3-32	N/A	c		HV-ES-4000						
3-33	N/A	c		EE-PNL-CPP(22)						
3-34	N/A	c	N/A	480 VAC from PPMP2 120 VAC from PPMP1		Yes	Yes	Yes <sup>a</sup>	No Action Necessary	None
3-35	N/A	c			Single Channel					
3-36	N/A	c		EE-PNL-CPP(22)	Andre Comment					
5-37	N/A	c		EE-PNL-EPP(22)						
3-38	N/A	c		EE-PNL-CPP(22)						

CR HEQUIRED REQUIRED INPUT TO DISPLAY FOR ISC FOR EDF PHIS

NO.

SEISHEE:

QA REDUNDANT 3 STATUS<sup>2</sup> CHANNEL

POWER

(PASS) approved as per NUREG-0737 item

11, 83.

TTEM NO.	SE ISHLE STATUS	QA STATUS <sup>2</sup>	PEDUNDANT 3	POWER SUPPLY	CR DISPLAY	REQUIRED FOR ISC		INPUT 10 <sup>4</sup> PHIS	SCHEDUR E	DEVIATIONS AND JUSTIFICATIONS
3-39	N/A	c	N/A	Portable-N/A	No	No	No	No	No Action Necessary	None
3-40	N/A	c	N/A	Portable-N/A	No	No	No	40	No Action Necessary	Existing equipment range is satisfactory.
3-42	N/A	c	N/A	Portable-N/A	No.	No	<b>N</b> o	No	No Action Necessary	None
3-43	N/A	c	N/A	Normal-Offsite Emergency-MCC-L	SPDS	Yes	Yes	Yes	Installed	None
3-44	N/A	c	N/A	Noi-mal-Offsite Emergency-MCC-L	SPOS	Yes	Yes	Yes	Installed	None
3-45	N/A	c	N/A	Normal-Offsite Emergency-MCC-L	SPDS	Yes	Yes	Yes	Installed	None
3-46	N/A	c	N/A	EE-PNL-LPRW2	No	No	No.	No	Installed	Implement as Category 3 for primary coulant sampling only. Sump sample not implemented. Reference BWRDG Position, Issue 14. Post Accident Sampling System (PASS) appropriate as our MUMEG-0737 stem.

HETT	SEISHIC 1		REDUNDANT 3			REQUIRED				
NO.	STATUS	STATUSZ	CHANNEL	SUPPLY	DISPLAY	FOR TSC	FOR EDF	PMIS	SCHEDIR E	DEVIATIONS AND JUSTIFICATIONS
3-47	N/A	C	N/A	EE-PNL-LPRW2	No	No	No	No	Installed	None

<sup>1</sup>Seismic Status

A - Original Plant Criteria furnished by GE

8 - Original Plant Criteria 80P

#### 2QA Status

- A 10 CFR 50 Appendix B
- 8 Original QA Design Criteria
- C High Quality

#### <sup>3</sup>Redundant Channel

- a All redundant or diverse channels are electrically independent and are physically separated from each other although they do not always meet with the minimum separation distances as specified in Reg. Guide 1.75.
- b Although supplied by one division, one channel is supplied by a DC source and the other by an
- c Diverse circuits supplied by one division
- d Redundant valve is a check valve without indication.

4[NPUT to PMIS

a - Will be added to PMIS during 1987

No Seismic Requalification will be initiated at this time. NPPD recugnizes that the NRC is establishing an explicit set of quidelines that can be used to judge the adequacy of seismic qualification of electrical equipment at operating after the 1984-85 outage. plants and establishing guidelines for requalification of equipment whose seismic qualification was found to be inadequate (Reference Unresolved Safety Issue Task A-46).

6This item will be qualified to R.G. 1.100 after modifications.

7This item will meet 10CFR50 Appendix 8 after modifications.

8 The 1986 outage is the 1st refueling

<sup>9</sup>The 1987 outage is the 2nd refueling after the 1984-85 outage.

10 me 1988 outage is the 3rd refueling after the 1984-85 outage.

Attachment 2 Changes to Reg. Guide 1.97 Table

## Attachment 2 Changes to Regulatory Guide 1.97 List

The following list of changes reflect the differences between our R.G. 1.97 Rev. IV and the newest Rev. V list (reference the highlighted version of Rev. 5 which is part of this attachment). Revision V will also have changes in the Range Required in R.G. 1.97 column to reflect our intent to comply with Revision 3 of R.G. 1.97, which will not be highlighted.

- A. Redundant Channel Column This column is changed from its former title "Redundant Status" and a footnote is added to further explain this category.
  - B. Input to PMIS Column A footnote is added to differentiate between variables that will be included in the original PMIS installation and those to be added at a future date.
- EQ Status The information in the EQ Status column has been clarified by use of the labels "Complies" or "Will Comply" with the following definitions.

Complies: This item meets the EQ requirements of R.G. 1.97.

Will Comply: This item will meet the EQ requirements of R.G. 197 after modifications have been made.

- 3. Add item numbers to A and B sheets for clarification.
- 4. Neutron Flux -
  - A. The range information has been updated.
  - B. A change is made to correct the power supply information.
  - C. A change is made to indicate that only the SRM alarm is required for the TSC and EOF.
  - D. SRM alarm has been installed.
  - E. SRM's indicate three counts per second which meets the lower flux requirement of R.G. 1.97.
- 5. Control Rod Position -
  - A. The range is expanded to include the notch position of each rod.
  - B. A change is made to correct the power supply information.
  - C. Input to PMIS information is upgraded to include the notch position of each rod.
  - D. Changed Seismic and Redundant Channel information to Not Applicable.

#### Changes to Regulatory Guide 1.97 List

- 6. RCS Soluble Boron Concentration -
  - A. The installed range information is identified as a grab sample.
  - B. Changed Seismic and Redundant Channel information to Not Applicable.
- 7. Coolant Level in Reactor New reactor water level instrumentation is replacing previous instrumentation. This new instrumentation covers the range requirements of R.G. 1.97 with exception of the lower level requirement (see deviations). This instrumentation may be upgraded or new instrumentation installed to meet the requirements of R.G. 1.97 depending on the results of integration with CRDR and NPPD's response to Generic Letter 84-23 (see schedule). Regardless of the integration effort, NPPD does not plan to offer redundant indication from +60 inches to the center of the steam line (see Change 8).
- 8. Coolant Level in Reactor (Deviations) It is NPPD's position that water level instrumentation below the 2/3 core coverage is not necessary for post-accident monitoring at Cooper Nuclear Station. Vessel design provides for a minimum 2/3 core coverage so instrumentation below that level is not needed. Existing instrumentation provides indication down to 30.6 percent of core coverage which is lower than the necessary 2/3 coverage. NPPD will supply only one qualified channel for the upper water range, from +60 inches to the center of the steam line at +123.25 inches. In order to comply with the single failure requirement of R.G. 1.97, an additional penetration would be needed for a redundant reference column for the upper range. There are no manual or automatic functions initiated in the upper 63.25 inches. These functions occur in the range monitored by redundant channels.

Thus, it is NPPD's position that single-channel indication for the range from +60 inches to the center of the steam line meets the intent of the Regulatory Guide, and the addition of a redundant channel would result in only a marginal improvement in plant safety.

- 9. RCS Pressure (NB1-PT-6A,B) -
  - A. Previous information on Seismic and QA Status reflected what the equipment would be qualified to after the planned modifications. This information was supplied for only part of the instrument channel, i.e. transmitters. Revision V provides the current status of all equipment with notes to explain changes in status after modifications.
  - B. The modifications planned for the 1984-85 outage which include Reactor Recirculation Pipe Replacement, Equipment Qualification Upgrade, and installation of the Plant Management Information System are too numerous to include this change. Qualified pressure transmitters will be installed during the 1986 outage.

## Changes to Regulatory Guide 1.97 List

- 10. Drywell Pressure (PC-PT-512A,B) -
  - A. A pressure indicator that was previously omitted has been added.
  - B. Previous information on Seismic and QA Status reflected what the equipment would be qualified to after the planned modifications. This information was supplied for only part of the instrument channel, i.e. transmitters. Revision V provides the current status of all equipment with notes to explain changes in status after modifications.
  - C. The power supply information is updated.
- 11. Drywell Pressure (PC-PT-4Al,4B2) The modifications planned for the 1984-85 outage which include Reactor Recirculation Pipe Replacement, Equipment Qualification Upgrade, and Installation of the Plant Management Information System are too numerous to include this change. Qualified pressure transmitters will be installed during the 1986 outage.
- 12. Drywell Sump Level This will be integrated with CRDR 63T. Installation is currently scheduled for the second refueling (1987).
- 13. Primary Containment Pressure -
  - A. A pressure indication that was previously omitted is added.
  - B. Previous information on Seismic and QA Status reflected what the equipment would be qualified to after the planned modifications. This information was supplied for only part of the instrument channel, i.e. transmitters. Revision V provides the current status of all equipment with notes to explain changes in status after modifications.
  - C. The power supply information is updated.
  - D. PC-PT-4A1, AB2 and PC-PT-20 instrument loops are added to the list.
- 14. Primary Containment Isolation Valve Position All valves have the indicating light information added.
  - A. PC-AO-244AV-L.S. This valve is parallel to Valve PC-AO-243AV which is on on the list. As such it is an addition to the list.
  - B. PC-AO-245AV-L.S. This valve is an isolation valve on the Suppression Pool Purge and Vent Line that was previously omitted from the list. As such it is an addition to the list.
  - C. PC-AO-235AV-L.S. This valve is isolated from the suppression pool by PC-MO-233MV and PC-AO-237AV which are already on the list. This valve is not listed in the Technical Specification Table 3.7.1 as a primary containment valve; it received no automatic actuation signals and provides no safety function. As such it is removed from the list.

### Changes to Regulatory Guide 1.97 List

- D. PC-AO-236AV-L.S. This valve is isolated from the drywell by PC-MO-232MV and PC-AO-238AV which are on the list. This valve is not listed in the Technical Specifications Table 3.7.1 as a primary containment valve; it recevies no automatic actuation signal and provides no safety function. As such it is removed from the list.
- E. RW-AO-AO94-L.S., RW-AO-AO95-L.S., RW-AO-AO82-L.S., RW-AO-AO83-L.S. The CIC number on these valves have been updated. They were formerly identified as RW-AO-732-L.S., RW-AO-733-L.S., RW-AO-765-L.S., and RW-AO-766-L.S.
- F. The seismic status for these limit switches is corrected.
- G. MS-MO-MO74, MS-MO-MO77 These variables will be added to PMIS in 1987.
- H. RCIC-MO-MO15 The scheduled date for completion of modifications is added.
- RCIC-MO-MOl6 This motor operator is qualified and the EQ-Status is changed to reflect its condition.
- J. RHR-MO-MO25A, RHR-MO-MO25B, RHR-MO-MO27A, RHR-MO-MO27B, CS-MO-MO12A, CS-MO-MO12B, CS-MO-MO11A, CS-MO-MO11B These valves are isolation valves that were omitted from the original list and are added to this revised list.
- K. RHR-MO-MO17, RHR-MO-MO18, RHR-MO-MO57, RHR-MO-MO67, RR-AO-740AV-L.S., RR-AO-741AV-L.S., ACAD-MO-MO1301, ACAD-MO-MO1302, ACAD-MO-MO1303, ACAD-MO-MO1304, ACAD-MO-MO1305, ACAD-MO-MO1306, ACAD-MO-MO1308, ACAD-MO-MO1310, ACAD-MO-MO1311, ACAD-MO-MO1312 These valves are found in the technical Specifications Primary Containment Valve Table 3.7.1. As such they are an addition to the list.
- 15. Primary Containment Area Radiation -
  - A. CR Display The Control Room display is via a common recorder. It was formerly identified as having a recorder for each channel.
  - B. The requirements that are not applicable to Category 3 items have been marked as such.
  - C. Schedule The existing instrumentation meets the Category 3 requirements; thus no modification is scheduled.
- 16. Drywell Drain Sumps Level The schedule has been changed to incorporate the integration effort with the Control Room Design Review.

## 17. Suppression Pool Water Level -

- A. Previous information on Seismic and QA Status reflected what the equipment would be qualified to after the planned modifications. This information was supplied for only part of the instrument channel, i.e. transmitters. Revision V provides the current status of all equipment with notes to explain changes in status after modifications.
- B. The modifications planned for the 1984-85 outage which include Reactor Recirculation Pipe Replacement, Equipment Qualification Upgrade, and Installation of the Plant Management Information System are too numerous to include this change. Qualified differential pressure transmitters will be installed during the 1986 outage.

# 18. Primary Containment Pressure -

- A. Power Supply The power supply information is added. It was mistakenly omitted from the previous list.
- B. Previous information on Seismic and QA Status reflected what the equipment would be qualified to after the planned modifications. This information was supplied for only part of the instrument channel, i.e. transmitters. Revision V provides the current status of all equipment with notes to explain changes in status after modifications.
- C. Schedule The modifications planned for the 1984-85 outage which include Reactor Recirculation Pipe Replacement, Equipment Qualification Upgrade, and Installation of the Plant Management Information System are too numerous to include this change. Qualified pressure transmitters will be installed during the 1986 outage.

# 19. Effluent Radioactivity - Noble Gases -

- A. Cooper CIC Number The CIC number which was omitted from the previous list is added.
- B. The applicable EQ, Seismic and QA Status has been included.
- C. Power Supply The Power Supply information which was omitted from the previous list is added.

# 20. Containment and Drywell Hydrogen Concentration -

- A. The hydrogen recorders are added to the list.
- B. Seismic and QA Status on the Bendix hydrogen instrument is revised.

- C. Power Supply The Power Supply information is added. It was mistakenly omitted from the previous list.
- D. Required for TSC, Required for EOF This information will not be required for the TSC and EOF (reference Deviations).
- E. Input to PMIS This information has been clarified in that only the output from the 0-10 percent hydrogen analyzer will be input to PMIS.
- F. Deviations The reference for this deviation has been changed from a BWROG Position to NPPD's 10CFR50.44 exemption request to the hydrogen recombiner rule for inert containments.
- 21. Containment Drywell Oxygen Concentration -
  - A. The EQ, Seismic, and QA Status information that was previously on the list as a typing error has been removed.
  - B. Schedule There are planned modifications from the CRDR that will be implemented.

#### 22. Main Feedwater Flow -

- A. The requirements that are not applicable to Category 3 items are marked as such.
- B. The Control Room display information is corrected. It had previously been identified as a computer point.

#### 23. Condensate Storage Tank -

- A. The requirements that are not applicable to Category 3 items are marked as such.
- B. (CM-LT-680A, CM-LIS-8) The addition of these components to the list is due to the installation of a new condensate storage tank.
- 24. Radioactivity Concentration or Radiation Level in Circulating Primary Coolant The installed range is clarified by calling it a grab sample.
- 25. Emergency Ventilation Damper Position -
  - A. EQ Status, Schedule, and Deviations These valves remain in a mild environment in the case of a LOCA or a pipe break inside primary containment, as there are no radiation sources near to the valves. The operability of the valves is not required for a pipe break outside of primary containment. As such we will implement as Category 3.

- B. These valves will be added to PMIS in 1987. The information for the TSC, EOF, and PMIS was omitted in the previous list.
- C. The indicating lights which were previously omitted from the previous list are added.
- D. Seismic status which is not applicable to Category 2 items is marked as such.
- 26. Status of Standby Power and Other Energy Sources Important to Safety -
  - A. Power Supply The Power Supply information that was previously omitted from the list is added.
  - B. The variables that will be supplied to the TSC and the EOF via PMIS are clarified.
  - C. Seismic status which is not applicable to Category 2 items is marked as such.
  - D. The transformers that supply the indication for the Diesel Generators are added to the list.
  - E. The AC and DC Bus Status instrumentation are added to the list.

#### 27. Drywell Pressure -

- A. Previous information on QA Status reflected what the equipment would be qualified to after the planned modifications. This information was supplied for only part of the instrument channel, i.e. transmitters. Revision V provides the current status of all equipment.
- B. PC-PT-20 and PC-PR-20 This instrumentation channel is for suppression pool pressure which is not required under this category; thus it has been removed from the list.
- C. The seismic status which is not applicable to Category 2 items is marked as such.
- D. The modifications planned for the 1984-85 outage which includes Reactor Recirculation Pipe Replacement, Equipment Qualification Upgrade, and Installation of the Plant Management Information System are too numerous to include this change. Qualified pressure transmitters will be installed during the 1986 outage.

- 28. Suppression Pool Water Level The modifications planned for the 1984-85 outage which includes Reactor Recirculation Pipe Replacement, Equipment Qualification Upgrade, and Installation of the Plant Management Information System are too numerous to include this change. Qualified differential pressure transmitters will be installed during the 1986 outage.
- 29. Suppression Pool Water Temperature -
  - A. Installed Range The range information is updated.
  - B. Previous information on Seismic Status reflected what the equipment would be qualified to after the planned modifications. This information was supplied for only part of the instrument channel. Revision V provides the current status of all equipment.
  - C. CR Display The temperature is input to a common recorder; not one for each channel as previously listed.
  - D. PC-TR-24 The temperature recorder which was omitted from the previous list is added.
  - E. The modifications planned for the 1984-85 outage which includes Reactor Recirculation Pipe Replacement, Equipment Qualification Upgrade, and Installation of the Plant Management Information System are too numerous to include this change. Modifications will be made by the end of the 1986 outage.
  - F. Implement as Category 2 as other instruments are available for SRV position.
- 30. Drywell Atmospheric Temperature -
  - A. PC-RI-505A-E, PC-TI-505A-E The R to I converter and temperature indicator which were omitted from the previous list are added.
  - B. Previous information on QA Status reflected what the equipment would be qualified to after the planned modifications. This information was supplied for only part of the instrument channel. Revision V provides the current status of all equipment with notes to explain changes in status after modifications.
  - C. Seismic Status and redundancy requirements which are not applicable to Category 2 items are marked as such.
  - D. Input to PMIS These temperatures will be added to PMIS in 1987.
  - E. Schedule The temperature elements PC-TE-510A-E will be qualified before the end of the 1984-85 outage.
  - F. Deviations The maximum remperature produced in the drywell under LOCA conditions is 340°F; thus, a higher range of temperature indication is unnecessary.

- 31. Primary System Safety Relief Valve Positions, Including ADS or Pressure in Valve Lines -
  - A. Previous information on QA Status reflected what the equipment would be qualified to after the planned modifications. Revision V provides the current status of all equipment with notes to explain changes in status after modifications.
  - B. Seismic status and redundancy requirements which are not applicable to Category 2 items are marked as such.
  - C. Power Supply, CR Display The Power Supply and Control Room Display information previously omitted are added.
  - D. Schedule The previous list did not have schedule information for each variable. The individual schedules are added.
  - E. The computer points that were on the previous list are covered under the input to PMIS column; as such, they are deleted.
- 32. A. Seismic status and redundancy requirements which are not applicable to Category 2 items are marked as such.
  - B. RCIC Flow Previous information on QA Status reflected what the equipment would be qualified to after the planned modifications. Revision V provides the current status of all equipment with notes to explain changes in status after modifications.
  - C. Modifications will be completed before the end of the 1984-85 outage.
- 33. HPCI Flow Previous information on QA Status reflected what the equipment would be qualified to after the planned modifications. Revision V provides the current status of all equipment with notes to explain changes in status after modifications.
- 34. Core Spray Flow Previous information on QA Status reflected what the equipment would be qualified to after the planned modifications.

  Revision V provides the current status of all equipment with notes to explain changes in status after modifications.

#### 35. LPCI Flow -

- A. Previous information on QA Status reflected what the equipment would be qualified to after the planned modifications. Revision V provides the current status of all equipment with notes to explain changes in status after modifications.
- B. The Control Room display previously listed as a single channel is correctly listed as a double channel.

- 36. SLCS Flow Integrate with CRDR HED's 17T and 23T, ATWS and EOP's if SLCS flow is required.
- 37. RHR Flow Previous information on QA Status reflected what the equipment would be qualified to after the planned modifications. Revision V provides the current status of all equipment with notes to explain changes in status after modification.
- 38. RHR Heat Exchanger Outlet Temperature -
  - A. Previous information on QA Stalus reflected what the equipment would be qualified to after the planned modifications. Revision V provides the current status of all equipment with notes to explain changes in status after modifications.
  - B. Required for TSC, Required for EOF This information which was previously left blank is added.
  - C. Input to PMIS Input to PMIS will be supplied. It was previously listed as not being at PMIS variable.
- 39. Cooling Water Temperature to ESF 3ystem Components -
  - A. Installed Range The range was changed to coincide with the range input to PMIS.
  - B. EQ Status, Deviations These variables will be implemented as Category 3 because the output is only to PMIS.
  - C. QA Status This information is updated.
  - D. Schedule The range will be extended to meet requirements during the 1986 refueling outage.
  - E. The computer points that were previously listed are covered under the input to PMIS column; as such, they are deleted.
- 40. Cooling Water Flow to ESF System Components -
  - A. Seismic status and redundancy requirements which are not applicable to Category 2 items are marked as such.
  - B. Previous information on QA Status reflected what the equipment would be qualified to after the planned modifications. Revision V provides the current status of all equipment with notes to explain changes in status after modifications.
  - C. Input to PMIS This flow information will be added to PMIS in 1987.

- D. Schedule The modifications planned for the 1984-85 outage which include Reactor Recirculation Pipe Replacement, Equipment Qualification Upgrade, and Installation of the Plant Management Information System are too numerous to include this change. Qualified Flow Transmitters will be installed during the 1986 outage.
- 41. Radwaste Systems Those requirements that are not applicable to Category 3 items are marked as such.
- 42. Primary Containment Area Radiation High Range -
  - A. The EQ and Seismic status has been modified to reflect the current status.
  - B. Power Supply The power supply information is corrected.
  - C. CR Display The control display is via a common recorder. It was formerly identified as having a recorder for each channel.
  - D. Deviations Implement as Category 3.
- 43. Secondary Containment Area Radiation High Range -
  - A. The QA Status information is added.
  - B. The requirements that are not applicable to Category 2 items have been marked as such.
- 44. Airborne Radioactive Materials Released from Plant -
  - A. CIC Number The CIC number for the effluent monitors that was previously omitted is added.
  - B. Flow Instrumentation All the information included with the flow instrumentation which was previously omitted from the list is added.
  - C. The requirements that are not applicable to Category 2 and 3 items are marked as such.
  - D. QA Status The QA status is updated.
  - E. CR Display The Control Room Display information which was previously omitted from the list is added.
  - F. Required for TSC, Required for EOF, Input to PMIS The Particulates and Halogens are extracted from the gas flow via filters. The filters are removed from the monitors and analyzed once a week during normal operation and as needed during addident conditions. As such, there is no input to PMIS, and the output to the TSC and EOF is not available.
  - G. The information on the new Effluent Monitor located in the Multi-Purpose Facility is added.

- 45. Environs Radiation and Radioactivity The EQ Status which is not applicable to Category 3 items is marked as such.
- 46. Meteorology -
  - A. CIC Number The CIC numbers are changed to match the PMIS variable numbers.
  - B. The requirements that are not applicable to Category 3 items are marked as such.
- 47. Accident Sampling Capability (Installed Range) -
  - A. The installed range on the choride content and dissolved oxygen are clarified.
  - B. The requirements that are not applicable to Category 3 items are marked as such.
- 48. Containment Air The requirements that are not applicable to Category 3 items are marked as such.
- 49. Additional footnotes are added to explain the variables on the list.

VARTABLE	PANCE REQUIRED IN R.G. 1.97	TYPE- CATEGORY	PURPOSE	COOPER CIC NUMBER	EIII M		Rev. V
Reactivity Control					_		
Neutron Flux	10-6% to 100% Full Power (SRM, APRM)	8-1	Function Detection; Accomplishment of Mitigation	SRM's, LPRM's	1-1	10-8% to 125% Full Power	Not Qualified
Control Rod Fusition	full in or Not Full in	8-3	Verification	RPIS	3-1	Full In or Not Full O"-144" (58)	N/A
RCS Soluble Boron Concentration (Sample)	0 to 1,000 ppm	8-3	Verification	PASS	3-2	Grab Sample GA	N/A
Core Cooling				-	-		~
Coolant level in Reactor	Bottom of Core Support Plate to Lesser of Top of Vessel or Center- line of Main Stream Line	A-1 B-1	Function Detection: Accomplishment of Mitigation: Long-Term Surveillance	NB1-L175-59A,B NB1-CU-59A,B NB1-L1-85A,B	1-2 1-3 1-4	-150 - +60	Not Qualified Not Qualified Mild Environment
			(	NBI-LI-61 NBI-LI-86	1-5 1-6	0 - +400"	Not Qualified Mild Environment
				NB1-L175-73A,B NB1-L1-91A,B	1-7	-100 - +200" (-264.2" - +35.8" When using same ref. zero as other instruments)	Not Qualified Mild Environment

BWR Core Thermocouples

200°F to 2300°F

To Provide Diverse Indication of Water Level

None

N/A

N/A

PP. A.1

		-	

VARIABLE	RANGE REQUIRED IN R.G. 1.97	TYPE- CATEGORY	PURPOSE	COOPER CIC NUMBER	ITEM NO.	INSTALLED RANGE	Rev. V
Meinteining Reactor Coolant System Integrity							
RCS Pressure	O peis to 1500 peig	A-1 B-1	Function Detection; Accomplishment of Mitigation; Verification	NBI-PI-6A,B PC-IE-3A,38	1-9	0 - 1500 paig	Will Comply
					1-10		Mild Environment
		C-1		PC-SC-2A, 2B	1-11		Mild Environment
				NBI-PR-2A, 28	1-12		Mild Environment
Orywell Pressure	O to Design Pressure	A-1	Function Detection: Accomplishment of	PC-P1-512A,B	1-13	0 - 80 psia	Will Comply
	(D.P. = 56 psig)	8-1	Mitigation; Verification	PC-R-(PR512-LR11) PC-PI-5128	1-14	~~	Mild Environment
			(PA)	PC-P1-5128	7-15	-	Mild Environment
				PC-P1-4A1,482	1-16	0 - 250 psis	Will Comply
				PC-1E-3A, 3B	1-17		Mild Environment
				PC-SC-3A, 3B PC-PR-1A, 18	1-18		Mild Environment
Drywell Sump Level	Top to Bottom	8-1	Function Detection; Accomplishment of		1-19		Mild Environment
			Mitigation: Verification	None	1-20		
Maintaining Containment Integrity							
Primary Containment Pressure	-5 psig to Design Pressure	8-1	Function Detection; Accomplishment of	PC-P1-512A,B	1-21	0 - 80 psia	Will Comply
			Mitigation; Verification	PC-N-(PR512-LR11)	1-22	~~~	Mild Environment
			(134)	PC-PI-5128	1-23		Mild Environment
				PC-P1-4A1,482	1-24	0 - 250 psis	Will Comply
			~>	PC-1E-3A, 3B	1-25		Mild Environment
			(130)(	PC-SC-3A, 38 PC-PR-1A, 18	1-26		Mild Environment
			~}	70-711-114, 10	1-27		Mild Environment
			(	PC-P1-20 PC-PR-20	1-28	0 - 2 psig	Will Comply Mild Environment
rimery Containment Isolation Valve Osition (Excluding Check Valves)	Closed - Not Closed	8-1	Accomplishment of Isolation	PC-A0-237AV-L.S. PC-A0-237AV	1-30	Closed - Not Closed	Complies Mild Environment
			(H)	Undicating Lights			MITO ENVIRONMENT
				PC-A0-238AV-L.S.		Closed - Not Closed	Complies
				PC-A0-238AV Indicating Lights	1-33		Mild Environment
				PC-A0-243AV-L.S. PC-A0-243AV	1-34	Closed - Not Closed	Complies Mild Environment
			(14A)	PC-AD-244AV-L.S.	/	Closed - Not Closed	Complies
			0	PC-A0-244AV	1-37		Hild Environment
				Indicating Lights			

PURPOSE

COOPER CIC NUMBER

PC-A0-245AV-L.S.

ITEM NO. INSTALLED RANGE

1-38 Closed - Not Closed

EQ-STATUS



	PC-A0-245AV	- 10		_	
		1-39			Mild Environment
	Indicating Lights	T-Lille	1		
	PC-A0-246AV-L.5.	1-40	Closed - Not	Closed	Complies
~	PC-A0-246AV	1-41			Mild Environment
4D)	Indicating Lights				
	PC-M0-230MV	1-42	Closed - Not	Closed	Complies
	PC-HG-230MV	1-43			Mild Environment
	Indicating Lights				
	PC-M0-231MV	1-44	Closed - Not	Closed	Complies
	PC-MD-231MV	1-45			Mild Environment
	Indicating Lights				
	PC-MO-232MV	1-46	Closed - Nut	Closed	Complies
	PC-MG-232MV	1-47			Mild Environment
	Indicating Lights				
	RW-AD-A094-L.S.)	1-48	Closed - Not	Closed	Complies
	/ RW-A0-A094	1-49			Mild Environment
/	Indicating Lights				THE STREET STREET
/	(RN-AD-A095-1.5.)	1-50	Closed - Not	Closed	Complies
//	RW-AD-AD95	1-51	Cruseu - Not	crosed	Complies Mild Environment
)-	Indicating Lights				WITG ENVILONMENT
(	- RY-A0-A082-L.S.)	1.52	Clarest P.	Cr.	
1	RW-A0-A082	1-52	Closed - Not	Llosed	Complies
1	The state of the s	1-23			Mild Environment
•	Indicating Lights				
	W-40-A083-L.S.	1-54	Closed - Not	Closed	Complies
	RW-A0-A083	1-55			Mild Environment
	Indicating Lights				
	PC-M0-233MV	1-56	Closed - Not	Closed	Complies
	PC-M0-233MV	1-57			Mild Environment
	Indicating Lights				
	MS-AG-AGBOA, B, C, D-L.S.	1-58	Closed - Not	C!osed	Will Comply
	MS-A0-A080A, B, C, D	1-59			Mild Environment
	Indicating Lights				
	MS-AD-AD86A, B, C, D-L.S.	1-60	Closed - Not	Closed	Will Comply
	MS-A0-A086A,B,C,D	1-61			Mild Environment
	Indicating Lights				and an are districted.
	MS-M0-M074	1-62	Closed - Not	Closed	Complies
	MS-M0-M074	1-63	- mar	- rooeu	Mild Environment
	Indicating Lights				HATO ENVIRONMENT
	MS-M0-M077	1-64	Closed - Not	Closed	Complian
	MS-M0-M077	1-65	Crosed - NOE	Closed	Complies
		1-62			Mild Environment
	Indicating Lights				
	HPC1-MO-MO15	1-66	Closed - Not	Closed	Complies
	HPC1-M0-M015	1-67			Mild Environment
	Indicating Lights				
	HPC1-M0-M016	1-68	Closed - Not	Closed	Complies
	HPC I -MO-M016	1-69			Mild Environment
	Indicating Lights				
	RCIC-M0-M015	1-70	Closed - Not	Closed	Will Comply
	OCIC NO MOTE				Anna a secondo
	RCIC-MO-MO15	1-71			Mild Environment
	Indicating Lights				

RANGE REQUIRED TYPE-COOPER ITEM INSTALLED VARIABLE IN R.G. 1.97 CATEGORY PURPOSE CIC NUMBER NO. RANGE EQ-STATUS RCIC-MO-MO16 1-72 Closed - Not Closed RCIC-MO-MO16 1-73 Mild Environment Indicating Lights PC-MO-305 1-74 Closed - Not Closed Complies PC-MO-305 1-75 Mild Environment Indicating Lights PC-MO-306 1-76 Closed - Not Closed Complies PC-MO-306 1-77 Mild Environment Indicating Lights RWCU-MD-15 1-78 Closed - Not Closed Complies RWCU-MO-15 1-79 Mild Environment Indicating Lights RWCU-MO-18 1-80 Closed - Not Closed Complies RWCU-MO-18 1-81 Mild Environment Indicating tights 1-82 Closed - Not Closed Complies RHR-MO-MO17 1-83 Mild Environment Indicating tights RHR-MO-MO18 1-84 Closed - Not Closed Complies RHR-MO-MO18 1-85 Mild Environment Indicating Lights RHR-MO-M025A 1-86 Closed - Not Closed Complies RHR-MO-M025A 1-87 Mild Environment Indicating Lights RHR-MO-M0258 Closed - Not Closed Will Comply RHR-MO-M0258 1-89 Mild Environment Indicating Lights RHR-MO-MO27A 1-90 Closed - Not Closed Will Comply RHR-MO-MO27A 1-91 Mild Environment Indicating Lights RHR-MO-MO278 1-92 Closed - Not Closed Complies RHR-MO-MO278 1-93 Mild Environment Indicating Lights CS-MO-MO12A 1-94 Closed - Not Closed Complies CS-MO-M012A 1-95 Mild Environment Indicating Lights CS-M0-M0129 1-96 Closed - Not Closed Will Comply CS-M0-M0128 1-97 Mild Environment Indicating Lights CS-MO-MO11A 1-98 Closed - Not Closed Will Comply C5-M0-M011A 1-99 Mild Environment Indicating Lights

CS-M0-M0118

CS-MO-M0118

RR-A0-740AV

Indicating Lights RR-AD-740AV-L.S.

Indicating Lights RR-A0-741AV-L.S.

1-100 Closed - Not Closed

1-102 Closed - Not Closed

1-104 Clused - Not Closed

1-101

1-103

Complies

Will Comply

Will Comply

Mild Environment

Mild Environment

VARIABLE

PURPOSE

COOPER ITEM

INSTALLED RANGE

EQ-STATUS

		-	717-104	EM-21MIG2
1	RR-AD-741AV	1-105	~	Mild Environment
-	Indicating Lights			
	RHR-MO-57	1-106	Closed - Not Closed	Will Comply
1	RHR-MO-57	1-107		Mild Environment
1	Indicating Lights			
1	RHR-MO-67	1-108	Closed - Not Closed	Will Comply
(	RHR-H0-67	1-109		Mild Environment
1	Indicating Lights			
1	ACAD-M0-M01301	1-110	Closed - Not Closed	Will Comply
1	ACAD-MO-M01301	1-111		Mild Environment
	Indicating Lights			
(	ACAD-M0-M01302	1-112	Closed - Not Closed	Will Comply
)	ACAD-MO-MO1302	1-113		Mild Environment
/	Indicating tights			THE STATE OF SHIPLING
/	ACAD-M0-M01303	1-114	Closed - Not Closed	Will Comply
1	ACAD-M0-M01303	1-115		Mild Environment
1	Indicating Lights			THE REST OF THE PARTY OF THE PA
7	ACAD-MO-MO1304	1-116	Closed - Not Closed	Will Comply
/	ACAD-M0-M01304	1-117		Mild Environment
/	Indicating Lights			
	ACAD-M0-M01305	1-118	Closed - Not Closed	Will Comply
	ACAD-MO-MO1305	1-119		Mild Environment
	Indicating Lights			THE CONTRACTOR
	ACAD-MO-MO1306	1-120	Closed - Not Closed	Will Comply
7	ACAD-MO-MO1306	1-121		Mild Environment
/	Indicating Lights	1-161		HIIG CHVICORMENC
1	ACAD-M0-M01308	1-122	Closed - Not Closed	Will Comply
	ACAD-M0-M01308	1-123		Mild Environment
	Indicating Lights			THAT CHIVALUTIMETIC
(	ACAD-M0-M01310	1-124	Closed - Not Closed	Will Comply
/	ACAD-M0-M01310	1-125		Mild Environment
/	Indicating Lights			MATO LIVER MINISTE
1	ACAD-M0-M01311	1-126	Closed - Not Closed	Will Comply
1	ACAD-MO-MO1311	1-127		Mild Environment
1	Indicating Lights			
>	ACAD-MG-M01312	1-128	Closed - Not Closed	Will Comply
/	ACAD-MO-M01312	1-129		Mild Environment
(	Indicating Lights			

(14K)

VARIABLE	RANGE REQUIRED IN R.G. 1.97	TYPE- CATEGORY	PURPOSE	COOPER CIC NUMBER	ITEM NO.	4178 1176 S.S.W.	Rev. V
Reartor Coolant Pressure Boundary							
Primary Containment Area Radiation	1 R/hr to 10 <sup>5</sup> R/hr	C-3	Detection of Breach; Verification	RMA-RE-40A,8 RMA-RM-40A,8 RMA-10-40A,9 (RMA-RR-40) for A and	3-3 3-4 3-5 8)3-6	1R/hr to 16 <sup>7</sup> R/hr	N/A N/A N/A N/A
Drywell Drain Sumps Level (Iden- tified and Unidentified Leakage)	Top to Bottom	C-1	Detection of Breach; Accomplishment or Miligation; Verification Long-Term Surveillance	f Nane	1-130	None	
Suppression Pool Water Level	Bottom of ECCS Suction line to 5° Above Normal Water Level	A-1 C-1	Detection of Breach; Accomplishment of Mitigation; Verification Long-Term Surveillance	F PC-DP1-3A1, 382 PC-1E-Z4, 28 PC-SC-1A, 18 PC-LR-1A, 18		0 - 30' (866' -	Will Comply Mild Environment Mild Environment Mild Environment
Containment							
Primary Containment Pressure	-5 paig to 4 Times Design Pressure D.P. = 56 paig	C-1	Detection of Potential for or Actual Breach; Accomplishment of Mitigation	PC-PT-4A1, 482 PC-IE-3A, 38 PC-SC-3A, 38 PC-PR-1A, 18	1-135 1-136 1-137 1-138	0 - 250 psia	Will Comply Mild Environment Mild Environment Mild Environment
Effluent Radioactivity-Noble Gases	10_6 uCi/ cc to 10_2 uCi/cc	C-2	Indication of Breach	ERP Hi-range Effluent Monitor RMP-RM-3A RMP-RM-3B	2-1 2-2	10-7 uCi/cc to 1x10 <sup>5</sup> uCi/cc	Mild Environment Mild Environment
Containment and Drywell Hydrogen Concentration	0 - 30% (Capability of Operating from -5 paig to Design Pressure)	C-1	Detection of Potential for Breach; Accomplishment of Mitigation	PC-AN-(H21A-31568) PC-AN-(H21A-3156A)		0 - 5% Bendix 0 - 10%, 20% Beckman	Mild Environment Mild Environment
			(	PC-R-(H2R-31578) PC-R-(H2R-3157A)	1-141	~~	Mild Environment Mild Environment
Containment and Orywell Oxygen Concentration (for Inerted Containment Plants)	0 - 10% (Capability of Operating from -5 psig to design Pressure)	C-1	Detection of Potential for Breach; Accomplishment of Mitigation	PC-AN-(02A-512) PC-R-(02A-512)	1-143 1-144	0 - 5%, 10%, 20%	Mild Environment Mild Environment  21A

¥ARTABL€	RANGE REQUIRED IN R.G. 1.97	TYPE- CATEGORY	PURPOSE	COOPER CTC NUMBER	ITEM NO.		Rev. V
Condensate and Feedwater System							
Main Feedwates Flow	0 - 110% Design Flow (D.F.=9.52 x 10 <sup>6</sup> lb/hr)	0-3	Detection of Operation: Analysis of Cooling	RFC-FT-50A,B RFC-ES-93 RFC-FT-89A,B	3-7 3-8 3-9 3-10	0-7.0 x 10 <sup>6</sup> lb/hr Per Pump	\[ \begin{align*} \text{N/A} \\ \text{N/A} \\ \text{N/A} \\ \ \text{N/A} \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Condensate Storage fank Level	Top to Hottom	D-3	Indication of Available Kater for Cooting	CM-L1-5 Computer PT F001 ES-ES-1 CM-L1C-5 CM-L1-680A CM-L1S-8	3-11 3-12 3-13 3-14 3-15	0 - 100% (0 - 40°) 2.8% - 100% (1° - 36°)	N/A N/A N/A N/A N/A
Emergency Storage Tank Level	Bottom to Top	D-3	Indication of Available Water for Cooling	CM-LT-681A,8 CM-LT-681A,8 CM-ES-6	3-17 3-18 3-19	0 - 100% (0 - 16')	N/A N/A N/A
(am.) Cladding							
Radicertivity Concentration or Radiation level in Circulating Primary Coolant	1/2 Tech Spec Limit to 180 Times Tech Spec Limit	C+1	Detection or Breach	Post-Accident Sample System	1-145	Grab Sample 24	) N/A
Ventilation Systems							
Emergency Ventilation Damper Position	Open - Closed Status	D-2	To Monitor Operation	HV-257AV HV-257AV Indicating Lights	2-3 2-4 2-5	Open-Closed	Not Qualified Mild Environment  Not Qualified
			_//	HV-272MV Indicating Lights HV-AV259 HV-AV259	2-6 2-7 2-8	Open-Closed	Mild Environment  Not Qualified  Mild Environment
			250/	HV-MV258 HV-MV258 HV-MV258 HV-MV258 Indicating Lights	2-9 2-10	Open-Closed	Not Qualified Mild Environment
				HV-MV260 Lodicating Lights	2-11 2-12	Open-Closed	Not Qualified Mild Environment
				HV-AV261 Indicating Lights	2-13 2-14	Open-Closed	Not Qualified Mild Environment

VARIABLE er Supplies	RANGE REQUIRED IN R.G. 1.97	EATEGORY	PURPOSE	COOPER CIC NUMBER	NO.	The second secon	EQ-STATUS
tus of Standby Power and Other	Plant Specific						
rgy Sources Important to Safety	Franc Specific	D-2	To Monitor System Status	DG-A1-AM11, AM12	2-15	0 - 1200 Amps	
				DG-FQI,FMZ,FM3	2-16	55 - 65 CPS	Mild Environment
				DG-VAR1-VARMS, VARMS	2-17	0 - 7 MVAR	Mild Environment
				DG-VI-VM11, VM12		0 - 5250 VAC	Mild Environment
				DG-W1-WM1-WM2		0 - 7 M WATTS	Mild Environment
				EE-08-41600G1(EG1)	2-20	W T T H HALLS	Mild Environment
				Eurrent Transformers			Mild Environment
				( EE-CB-41600G1(EG1)	2-21		With the control
				7 Potential Transformers			Mild Environment
				EE-CB-41600G2(EG2)	2-22		With To Committee
				Current Transformers	7		Mild Enviconment
				EE-CB-41600G2(EG2)	2-23		Wild Co. Co.
			(26D)	Putential Transformers			Mild Environment
			0	DG-XFMR-Varm8	2-24		Mild Fe Issue
				DG-XFMR-Vacm9	2-25		Mild Environment
				EE-XFMR-EGI(RA)	2-26		Mild Environment
				EE-XFMR-EG1(RB)	2-27		Mild Environment
				( EE-XFMR-EG1(RC)	2-28		Mild Environment
				EE-XFMR-EGZ(RA)	2-29		Mild Environment
				EE-XFMR-EG2(RB)	2-30		Mild Environment Mild Environment
				( EE-XFMR-EG2(RC)	2-31		Mild Environment
				~	^	~	- Transferrence
				1A-PT-606	2-32	0 - 120 psig	Mild Environment
				E5-ES-1	2-33		Mild Environment
				1A-PI-606	2-34		Mild Environment
				250VDC 1A Batt.	2-35	200 - 0 Amps	Mild Environment
				Amp Indicator		0 - 1000 Amps	THE STATE OF THE S
				250VDC Bus 1A	2-36	0 - 300 Volts	Mild Environment
			/	Voltage Indicator			THE STATE OF STREET,
			(	250VDC 1A CHG.	2-37	0 ~ 300 Amps	Mild Environment
			/	Amp Indicator			THE ENGLISHMENT
			/	250VDC 18 Batt.	2-38	200 - 0 Amps	Mild Environment
				Amp Indicator		0 - 1000 Amps	The state of the s
			~ /			0 - 300 Amps	Mild Environment
			6(5)	Amp Indicator			The second second
			(XGE)		2-40	0 - 300 Volts	Mild Environment
			- >	Voltage Indicator			
			/	125VDC 1A Batt.	2-41	200 - 0 Amps	Mild Environment
				Amp Indicator		0 - 1000 Amps	
					2-42	0 - 200 Amps	Mild Environment
				Amp Indicator			
				7 125VDC BUS 1A	2-43	) - 150 Volts	Mild Environment
			/	Voltage Indicator			
				125VDC 18 Batt.		200 - 0 Amps	Mild Environment
				Amp Indicator		) - 1000 Amps	
				125VDC 18 CHG.	2-45	) - 200 Amps	Mild Environment
			7	Amp Indicator			
			/	125VDC BUS 18 2 Voltage Indicator	-46 (	- 150 Valts	Mild Environment

Pi			
	u		

							PP. 4-9
VARTARLE	RANCE REQUIRED	TYPE-		COOPER	ITE	INSTALLED	Rev. V
	IN R.G. 1.97	CATEGORY	PURPOSE	CIC NUMBER	NO.	A TOTAL DOOR AND A SECOND ASSESSMENT	EQ-STATUS
Primary Containment - Related Syste	-						
Consequence Consequence Consequence							
Suppression Chamber Spray Flow	0 - 100% Design Flow	0-2	To Monitor Operation	None	2.40	w/s	
					2-46	N/A	N/A
Drywell Pressure	-5 psig to 3 psig	0-2					
		0-2	To Monitor Operation	PC-P1-513	2-49	0 - +2.0 psig	Will Comply
			_	PC-R-(FRPR-513)	2-50		Mild Environment
	0 - 110% Design Pressure		(276	1			
			C.15	, www			
				PC-PT-512A,8	2.51	0 00	
				PC-R-(PR512-(R11)	2-52	0 - 80 psig	Will Comply
				PC-P1-512	2-53		Mild Environment
							Mild Environment
				PC-PT-4A1,482	2-54	0 - 250 psig	Will Comply
				PC-1E-3A, 38	2-55		Mild Environment
				PC-SC-3A, 38	2-16		Mild Environment
Suppression Court Water				PC-PR-1A, 18	2-57		Mild Environment
Suppression Pool Water Level	Top of Vent to Top of Weir Well	D-2	To Monitor Operation	PC-DP1-3A1, 362	2.60		
				PC-1E-ZA, 28	2-58	0 - 30' (866'-896')	Will Comply
				PC-SC-1A, 18	2-60		Mild Environment Mild Environment
				PC-LR-1A, 18	2-61		Mild Environment
Suppression Poul Water Temperature	30°F to 230°F	A-1				m 600	TATO CHALLOMETE
		D-2	To Monitor Operation	PC-1E-1A, B, C, D, E, F, G		0 - 250°F (29A)	Will Comply
				2A, B, C, D, E, F, G		-	290
Drywell Atmospheric Temperature				PC-1R-24	1-147	~	Mild Environment
anymost acmost meric remperature	40°F to 440°F	D-2	To Monitor Operation	PC-1E-505A-E	2-62	50° - 350°F	
				PC-RI-505A-E	2-63	~~	Mild Environment 30A
				(PC-TI-505A-E	2-64		Mild Environment 30A
				-	_		
				PC-TE-510A-E		50° - 350°F	Will Comply
				PC-R1-510A-E PC-IR-510(1)&(2)	2-66		Mild Environment
Drywell Spray Flow				PC-18-310(1/4(2)	2-67		Mild Environment
arymar spray 110m	0 to 110% Design Flow	D-2	To Monitor Operation	None	2-68		
Main Steam System							
Main Steamline Isolation Valves	0 to 15" of Water	D-2	To Provide Indication of Pressure				
Leakage control System Pressure	0 to 5 psig		Boundary Maintenance	N/A to BWR 4	2-69		
Primary custom Eafat O							
Primary system Safety Relief Valve Positions, Including ADS or Pressure	Closed - Not Closed	0-2	Detection of Accident; Boundary	MS-PS-300A-H (SRV)	2-70	27 5 (0 10 1)	
in Valve tines	0 - 50 peig		Integrity Indication	MS-TE-112A, B, C (SV)		27.5 psi (0-30 psi) 0 - 600°F	Complies
	o - 30 perg					0 - 000 1	Will Comply
			(a)	MS-1E-114A, B, C (SV)	2-72	0 - 600°F	Will Comply
			315)	-	2		
Ignistian Control				MS-IR-166	2-73		Mild Environment
Isolation Cendenser System Shell- side Water Level	Top to Bottom	0-2	To Monitor Operation	N/A to CNS	2.30		
				-7 x to this	2-74		
Insulation Condenser System Valve	Open or Closed						
Position	Ann at Closed	D-2	To Monitor Operation	N/A to CNS	2-75		

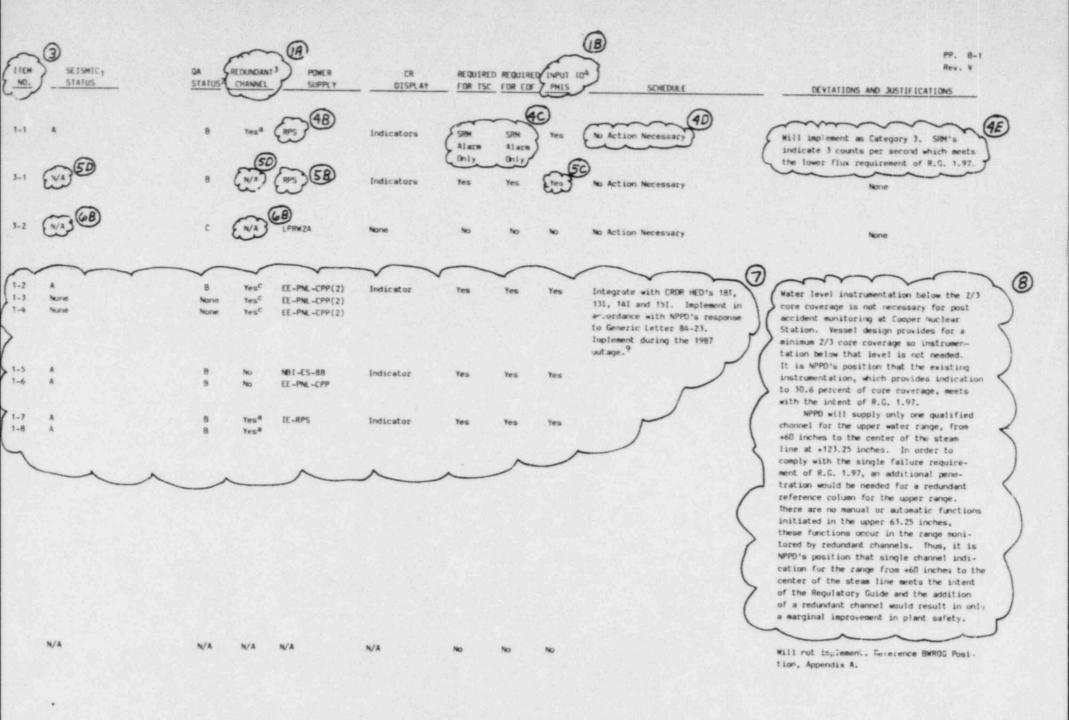
	RANGE REQUIRED	TYPE-		COOPER	THEM	INSTALLED	Rev. V
VARIABLE	IN R.G. 1.97	CATEGORY	PURPOSE	CIC NUMBER	NO.	RANGE	EQ-STATUS
RCIC Flow	0 - 110% Design Flow	D-2	To Munitur Operation	RCIC-FT-58	2-76	0 - 500 GPM	Will Comply
	(D.f. = 416 GPM)			RCIC-FIC-91	2-77		Mild Environment
				RCIC-SQR1-99	2-78		Mild Environment
HPC1 Flow	0 - 110% Dr ign Flow	0-2	To Munitor Operation	HPC1-F1-82	2-79	0 - 5000 CPM	Will Comply
	(D.F. = 4250 GPM)			HPC1-F1C-108	2-80		Mild Environment
				HPC1-1YTR-119	2-81		Mild Environment
				HPC1-SQRT-118	2-82		Mild Environment
Core Spray System Flow	0 - 110% Design Flow	D-2	To Monitor Operation	CS-F1-40A,8	2-83	0 - 6000 GPM	Will Comply
	(D.F. = 4720 GPM)			CS-ES-52A&B	2-84		Mild Environment
				CS-F1-50A&B	2-85		Mild Environment
LPC1 Flow	0 - 110% Design Flow	D-2	To Monitor Operation	RHR-F1-109A,B	2-86	0 - 20,006 GFM	Will Comply
	(D.F. = 15,000 GPM)			RHR-ES-145A&B	2-87		Mild Environment
				RHR-SQRT-134A&B	2-88		Mild Environment
				RHR-F [-133A&B	2-89		Mild Environment
SLCS Flow	0 - 110% Design Flow	0-2	To Monitor Operation	None	2-90		
SLCS Storage Tank Level	Top to Bottom	0-2	To Munitor Operation	SLC-L1-45	2-91	0 - 100% Level	Mild Environment
				SLC-L1-66	2-92		Mild Environment
Paridial West Samuel Seaton				SLC-ES-69	2-93		Mild Environment
Residual Heat Removal Systems							
RHR System Flow	0 - 110% Design Flow	D-2	To Monitor Operation	RHR-FT-109A,8	2-94	0 - 20,000 GPM	Will Comply
	(D.F. = 15,000 GPM)			RHR-ES-145A&B	2-95		Mild Environment
				RHR-SQRT-134AA9	2-96		Mild Environment
				RHR-F1-133A5B	2-97		Mild Environment
HR Heat Exchanges Outlet	40°F to 350°F	D-2	To Monitor Operation	RHR-TE-94C,D	2-98	0 - 600°F	Will Comply
Temperature				RHR-1R-131	2-99		Mild Environment
				SW-TE-94A,9	2-100	0 - 600°F	Will Comply
				RHR-IR-131	2-101		Mild Environment
ouling Water System						- B9A)	
Cooling Water Temperature to ESF	40°F to 200°F	D-2	To Monitor Operation	SW-TE-388A,B	2-102	0°F - 150°F	Not Qualified 398
System Components				(REC Ho Out let)		7 1	7
				SW-TE-390A,B (RHR Hx Inlet)	2-103	0°F - 150°F	SNot Qualified
			398	SW-TE-387A,B	,	atc 150tm)	( <
				(REC Hx Inlet)	2-104	0°F - 150°F	Not Qualified
				·an		-	~

VARIABLE	VARIABLE REQUIRED TYPE- VARIABLE IN R.C. 1.97 CATEGORY PURPOSE		PURPOSE	COOPER CIC NUMBER	ITEM NO.		Rev. V
Cooling Water Flow to ESF System	0 - 110% Design Flow	0-2	To Monitor Operation	SW-F1-97A,8 (RHR Hx)	2_105	0 - 10,000 GPM	WAY County
Components				RHR-ES-1454,8	2-106		Will Comply
				SW-SQRI-132A,8			Mild Environment
					2-107		Mild Environment
				SW-F1-132A,8	2-108		Mild Environment
				SM-£ 1-3874,8 (REC Hx)	2-109	0 - 8000 CPM	Will Comply
				SW-SQRT-387A,8	2-110		Mild Environment
				SW-F1-387A,8	2-111		Mild Environment
				REC-ES-10(A)	2-112		Mild Environment
				REC-ES-9(8)	2-113		Mild Environment
Radwaste Systems							
High Radioactivity Liquid Tank	Top to Bottom	D-3	To Monitor Operation	RW-L 1-420	3-20	0 - 100%	
[eve]				(FER DRN COLL TK)		(	)(41)
				RW-LT-369	3.21	0 - 100%	
				(WASTE COLL TK)		0 - 100*	N/A)
Containment Radiation							
Primary Containment Area Radiation	1 R/hr to 10 <sup>7</sup> R/hr	E-1	Detection of Significant Releases:	DUS DE ADA D			(42A)
High Range			Release Assessment: Long-Term	RMA-RE-40A,B	1-148	1 R/hr to 10 <sup>7</sup> R/hr	(Not Qualified)
				RMA-RM-40A,8	1-149		Mild Environment
			Surveillance Emergency Plan Actuation	RMA-RR-40	1-150		Mild Environment
Secondary Containment Area	10-1 R/hr to 104 R/hr for Mark I	€-2	Detection of Significant Releases;	Fuel Pool Area-		10-1 R/hr to 103 R/hr	
Radiation High Range	Containments		Release Assessment; Long-Term	RMA-RE-1	2-114		Not Qualified
			Surveillance	RMA-RM-AU1	2-115		Not Qualified
				RMA-RA-1	2-116		Mild Environment
				HPCI Room-		10-5 R/hr to 10-1	
				PMA-RE-10	2-117		Not Qualified
				RMA-RA-10	2-118	7/14	Mild Environment
				500 cu cuca			
				RHR SW QUAD		10-5 R/hr to 10-1	
				RMA-RE-11	2-119	R/hr	Not Qualified
				RMA-RM-AU11	2-120		Not Qualified
				RMA-RA-11	2-121		Mild Environment
				RHR NW QUAD		10-5 R/hc to 10-1	
				RMA-RE-12	2-122	R/hr	Not Qualified
				RMA-RM-AU12	2-123		Not Qualified
				RMA-RA-12	2-124		Mild Environment
				RCIC RM		10-5 R/hr to 10-1	
				RMA-RE-13	2-125		Not Qualified
				RMA-HA-13	2-126		Mild Environment
				CS SE RM		10 <sup>-5</sup> R/hr to 10 <sup>-1</sup>	
				RMA-RE-14	2-127	R/hr	Not Qualified
				RMA-RM-AU14	2-128		Not Qualified
Area Radiation				RMA-RA-14	2-129		Mild Environment
Radiation Exposure Rate	10 <sup>-1</sup> R/hr to 10 <sup>4</sup> R/hr	E-2	Detection of Significant Releases:	Same Link or Man			
			Release Assessment, Long-Term Surveillance	Same list as Above		Same List as Above	Same List as Abuve

VARIABLE	RANCE REQUIRED IN R.G. 1.97	TYPE - CATEGORY	PURPOSE	COOPER CIC NUMBER	ITEM NO.	INSTALLED RANGE	Rev. V
Airborne Redicactive Materials Released from Plant							
Noble Gases and Vent flow Rate Orywell Purge, Standby Gas	10 <sup>-6</sup> uCi/cc to 10 <sup>5</sup> uCi/cc 0 - 110% Vent Design Flow	E-2 C-3	Detection of Significant Releases, Release Assessment	ERP Hi-range Effluent		10-7 uCi/cc to 1x105 uCi/cc	Mild Environment
Treatment System Purge	(DF=6035 cfm)		448	(06-F11-4001	2-131 2-132	0-10,000 cfm	Mild Environment Mild Environment
Auxiliary Building	10 <sup>-6</sup> uCi/ce to 10 <sup>3</sup> uCi/ce 0 - 110% Vent Design Flow	€-2 C-3	Detection of Significant Releases, Release Assessment		2-133	10-7 uCi/ce to lx105 uCi/ce ~	Mild Environment
	(OF=152,130)		48	HV-SQRT-5002A,B,C,D 1	2-134 2-135 2-136	0.350.000 -6-	Mild Environment Sild Environment Mild Environment
Auxiliary Building	10-6 uCi/cc to 10 <sup>3</sup> uCi/cc	E-2	Detection of Significant Releases,	RW Hi-range Effluent 44	_	0-250,000 cfm 10 <sup>-7</sup> uCi/cc to	Mild Environment
	0 - 110% Vent Design Flow (DF=66,870)	C-3	Release Assessment	Monitor (RMV-RM-30A, B)	2-138	1-105 yC1/cc	Mild Environment
			(448)	HV-SQRT-4004	2-140 2-141	0-81,600 cfm	Mild Environment Mild Environment
Common Plant Vent	10 <sup>-6</sup> uCi/cc to 10 <sup>3</sup> uCi/cc 0 - 110% Design Flow	E-2 C-3	Detection of Significant Releases, Release Assessment	ERP Hi-range Effluent	2-142	10 <sup>-7</sup> uCi/ce to	Mild Environment
	(DF=6035)		(43)	0G-F11-4001 HV-FR-4000	2-143	0-10,000 cfm	Mild Environment Mild Environment
Particulates and Halogens Common Plant Vent	10 <sup>-3</sup> uCi/cc to 10 <sup>2</sup> uCi/cc 0 - 110% Design Flow	E-3	Detection of Significant Releases, Release Assessment; Long-Term	ERP Hi-range Effluent	A.	10 <sup>-4</sup> uCi/cc to 1x10 <sup>2</sup> uCi/cc	FN/A QUE
	(DF =6035)		Surveillance 448	OG-F11-4001	3-23	0-10,000 cfm	N/A N/A
Auxiliary Building	10 <sup>-3</sup> uCi/cc to 10 <sup>2</sup> uCi/cc 0 - 110% Design Flow	£-3	Detection of Significant Releases; Release Assessment; Long-Term	T-G Hi-range Effluent Monitor RMV-RM-20A, B	2,	10-4 uCi/cc to 10 <sup>2</sup> uCi/cc	N/A
	(DF=152,130)		Surveillance		3-26	~	N/A )
			4.00	HV-SUM-4002	3-28	0-250,000 cfm	N/A N/A
Auxiliacy Building	10 <sup>-3</sup> uCi/cc to 10 <sup>2</sup> uCi/cc 0 - 110% Design Flow	E-3	Detection of Significant Releases; Release Assessment; Long-Term	RW Hi-range Effluent Monitor RMV-RM-30A,B	A)	10 <sup>-4</sup> uCi/cc to	N/A {
	(DF =66,870)		(4AB)	HV-F1-4004 HV-SQR1-4004	3-31 5-32 3-33	0-81,6000 cfm	N/A N/A
Auxiliary Building	10-3 uCi/cc to 10 <sup>2</sup> uCi/cc				_		$\sim$
	0 - 110% Design Flow (DF=15,000 cfm)	E-3	Detection of Significant Releases; Release Assessment; Long-Term	7		10-12 to 10-6 uCi/cc Particulate Monitor	
			(446)	RMV-ES-4006 3	3-36	with Onsite Analysis to 10 <sup>2</sup> uCi/cc	N/A N/A
			~{		3-37	0-20,000 cfm	N/A N/A

VARIABLE	RANCE REQUIRED IN R.G. 1.97	TYPE - CATEGORY	PURPOSE	COOPER C1C NUMBER	ITEM NO.	INSTALLED RANGE	Rev. V
Environs Radiation and Radio- activity						TANKO.	E4-STATUS
Airborne Radiohalogens and Particulates (portable sampling with onsite analysis capability)	10-9 uCi/ce to 10-3 uCi/ce	E-3	Release assessment; analysis	HP~1	3-39	10 <sup>-9</sup> uCi/cc to 10 <sup>-3</sup> uCi/cc	EN/A
Plant and Environs Radiation (purtable instrumentation)	$10^{-3}$ R/hr to $10^4$ R/hr, photons $10^{-3}$ rads/hr to $10^4$ rads/hr, beta radiations and low-energy photons	E-3 E-3	Release assessment; analysis	HP-2 HP-3	3-40	$10^{-3}$ R/hr to $10^{3}$ R/hr Gamma, $10^{-3}$ rads/hr to 200 rads/hr Beta	(N/A) (FS)
Plant and Environs Radioacticity (portable instrumentation)	(Isotopic Analysis)	£-3	Release assessment; analysis	None	3-42	Todine Analysis	( N/A)
Meteorology							
Wind Direction	O to 360° (±5° accuracy with a deflection of 10°). Starting speed less than 0.4 mps (1.0 mph). Damping ratio greater than or equal to 0.4, delay distance less than or equal to 2 meters.	£-3	Release assessment	Met 003 Net 011 Met 019	3-43	0-540* ± 3* thres- hold 0.58 mph damping 0.4 mt 1.13 meters	(N/A) (46B)
Wind Speed	0 to 22 mps (50 mph). ±2 mps (0.5) mph) accuracy for speeds less than 2 mps (5 mph), 10% for speeds in excess of 2 mps (5 mph), with a starting threshold of less than 0.4 mps (1.0 mph) and a distance constant not to exceed 2 meters.	£-3	Release assessment	Met 002 Met 010 Met 018	3-44	0-100 mph acc. ±0.15 mph or 1% threshold 0.6 mph, dist. const. equals 1.5 meters	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
Estimation of Atmospheric Stability	Based on vertical temperature difference from primary meteorological system, 5°C to 10°C (-9°F to 18°F) and ±0.15°C accuracy per 50-meter intervals (±0.3°F accuracy per 164-foot intervals) or analogous range for alternative stability estimates.	E-3	Release assessment	Met-005 Met-013 Met-021	3-45	-30 to +50°C ±5% T not to exceed 0.15°C	(~,)
Accident Sampling Capability (Analysis Capability On Site)							
Primary Coulant and Sump	Grab Sample	E-3	Release assessment; verification;	PASS	3-46		N/A (TB)
Gross Activity Gamma Spectrum Boron Content Chloride Content Dissolved Hydrogen or Total Gas Dissolved Oxygen pH	1 uCi/ml to 10 Ci/ml (Isotopic Analysis) 0 to 1000 ppm 0 to 20 ppm 0 to 2000 cc(SIP)/kg 0 to 20 ppm 1 to 13		analysis			1 uCi/ml to 10 Ci/ml Istopic Analysis 0 to 15 ppm (dilutable 10 ppb to 10 ppm (dilutable Not available-calculat 10 ppb to 1 ppm (dilut 1 to 14 (online)	table)

Rev. v INSTALLED RANGE ED-STATUS	8	sotopic Analysis
ITEM NO.	3-47	Isotopic
CIC MIMBER	PASS	
PURPOSE	Release assessment; verification; analysis	
TYPE- CATEGORY	£-3	
RANCE REQUIRED IN R.G. 1.97	Grab Sample	(Isotopic analysis)
VARIABLE	Containment Air	Gamma Spectrum

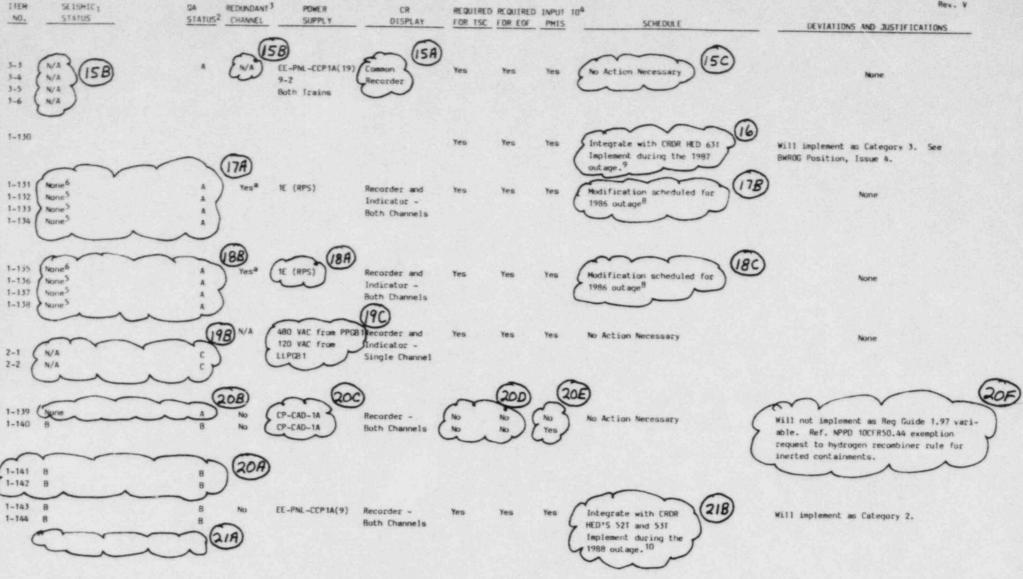


ITEM NO.	SCISMIC ; STATUS	100	CHANNEL	POWER SUPPLY	CR DISPLAY		FOR EOF		TO <sup>4</sup> SCHEDULE	Rev. V DEVIATIONS AND JUSTIFICATIONS
1-9 1-10	None <sup>5</sup>		A) Yesª	TE (RPS)	Indicators and Recorders Both Channels	Yes	Yes	Yes	Modifications scheduled for 1986 outage 8	8) None
1-12 1-13 1-14 1-15	85 85 85	A) 87 8	08 Ves <sup>c</sup>	EE-PAL-CCP18(1)	Recorder One Channel - Indicator Both Channels	Yes	Yes	Yes	Modifications scheduled for complete before the end of the 1984-85 outage	
1-16 1-17 1-18 1-19	None <sup>5</sup> None <sup>5</sup> None <sup>5</sup> None <sup>5</sup>		Yes <sup>a</sup>	IE (RPS)	Indicators and Recorders Both Channels	Yes	Yes	Yes	Modifications scheduled for 1986 outage <sup>8</sup>	0
1-20	Cu	اند				Yes	Yes	Yes	Integrate with ERDR HED 637 Implement during 1987 outage, 9	Will implement as Category 3. Reference BWROG Position, Issue 4.
1-21 1-22 1-23	86 85 85	87 8 8	yes <sup>c</sup>	EE-PNL-CCP18(1)	Recorder One Channel - Indicator Both Channels	Yes	Yes	Yes	Modifications scheduled for complets before the end of the 1984-85 outage	
1-24 1-25 1-26 1-27	None <sup>5</sup> None <sup>5</sup> None <sup>5</sup>	A A A	Yes a	TE (RPS)	Indicators and Recorders Both Channels	Yes	Yes	Yes	Modifications scheduled for 1986 outage <sup>8</sup>	(ED)
1-28	8	B <sup>7</sup>	No No	EE-PNL-CCP(14)	Recorder Single Channel	Yes	Yes	Yes	Integrate with CRDR HLD 191. Implement during 1986 outage.8	None
1-30 1-31	B None	8	Yes	EE-PNL-CCP18(7)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-32 1-33	R None	8 8	Yes <sup>a</sup>	EE-PNL-CCP18(7)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-34	8 None	B B	Nod	EE-PNL-CCP1A(9)	Indicator lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-37	8 · None	B	Nod	EE-PNL-CCP1A(9)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3

ITEM NO.	SEISMIC <sub>1</sub> STATUS	QA STATUS <sup>2</sup>	REDUNDANT 3	POWER SUPPLY	CR DISPLAY		REQUIRED FOR EOF	INPUT 10 <sup>4</sup> PMIS	SCHEDULE	Rev. V
1-39	B None	8	Yesª	EE-PNI-CCP18(7)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-40	8 None	8 8	Yesa	EE-PNL-CCP18(7)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-42	Operator Qualified to 6 g's None	B B	Yesa	EE-HCC-RA(2A)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-44 1-45	Operator Qualified to 6 q's	8	Yesa	EE-MCC-RA(2B)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-46 1-47	rator Qualified to 6 g's None	8	Yesa	EE-MCC-RA(2C)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-48	None None	8	Yes <sup>a</sup>	EE-PNL-RPSPP1A(3)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-50 1-51	None (14F)	8	Yesa	EE-PNL-RPSPP18(3)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-52 1-53	Nune Name	8	Yes <sup>8</sup>	EE-PNL-RPSPP1A(3)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-54 1-55	None 5	8	Yesa	CE-PNL-RPSPP18(3)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-56 1-57	Operator Qualified to 6 g's None	8 8	Yesa	EE-MCC-RA(2D)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-58	None <sup>5</sup>	В	Yes <sup>a</sup>	EE-AA2(15)	Indicator Lights	Yes	Yes	Yes	Modification scheduled for completion before the end of the 1984-85 outage	Implement Indicating Lights as Category 3
1-59	None	8							are the trouble	
1-60	None <sup>3</sup>	8	Yesª	EE-882(9)	Indicator Lights	Yes	Yes	Yes	Modification scheduled for completion before the end of the 1984-85 outage	Implement Indicating Lights as Category 1
1-62 1-63	Operator Qualified to 6 g's None	8	Yesa	EE-MCC-R(4C)	Indicator Lights	Yes	Yes &	Yes 4	No Action Necessary	Implement Indicating Lights as Category 3
1-64 1-65	Operator Qualified to 6 g's None	8	Yes <sup>a</sup>	EE-STR-125RX	Indicator Lights	Yes	Yes (	Yesa	No Action Necessary	Implement Indicating Lights as Category 3
1-66 1-67	Operator Qualified to 6 g's None	8	Yes <sup>a</sup>	EE-MCC-R(SA)	Indicator lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-68 1-69	Operator Qualified to 6 g's None	8	Yes <sup>a</sup>	EF-125VDCSTR HPC I	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement Indicating Lights as Category 3
1-70	Operator Qualified to 6 g's	в	Yes <sup>a</sup>	EE-MCC-Y(10B)	Indicator Lights	Yes	Yes		Modification scheduled for completion before the end of the 1984-85 outage	Implement Indicating Lights as Category 3
1-71	None,	8						-		

TIEM NO.	SEISMIC <sub>1</sub> STATUS	STATUS 2	REDUNDANT 3	POWER SUPPLY	CR DISPLAY	REQUIRED FOR TSC		INPUT 104	SCHEDULE	DEV	TATIONS AND JUSTIFICA	Rev. V
1-72	Operator Qualified to 6 g's	8	Yes®	EE-125VDCSTR RCIC	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement	Indicating Lights æ	Category 3
1-73	None	8										
1-74	Operator Qualified to 6 g's None	B None	Yesa	EE-MCC-K(4C)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement	Indicating Lights as	Category 3
1-76	Operator Qualified to 6 g's None	B None	Yes <sup>a</sup>	EE-MCC-M(58)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement	Indicating Lights as	Category 3
1-78	Operator Qualified to 6 g's None	A B	Yesª	MCC-R(SC)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement	Indicating Lights as	Category 3
1-80	Operator Qualified to 6 g's	B B	Yesa	EE-125VDCSTR(958*	)Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement	Indicating Lights as	Category 3
1-82 1-83	Operator Qualified to 6 g's None	8	Yesa	EE-125VDCSTR(859*	)Indicator lights	Yes	Yes	Yes	No Action Necessary	Implement	Indicating lights as	Category 3
1-84	Operator Qualified to 6 g's Nume	8	Yes <sup>a</sup>	EE-MCC-R(7A)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement	Indicating Lights as	Category 3
1-86	Operator Qualified to 6 g's None	A B	Yesb	EE-STR-250 DEV 1	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement	Indicating Lights as	Category 3
1-88	Operator Qualified to 6 g's	A	Yesb	EE-STR-250 DIV II	Indicator Lights	Yes	Yes	Yes	Modification scheduled for completion before the end of the 1984-85 outage	Implement	Indicating Lights as	Category 3
1-90	Operator Qualified to 6 g's	8 8 8	Yesb	EE-MCC-CA(NE)	Indicator Lights	Yes	Yes	Yes	Modification scheduled for completion before the end of the 1984-85 outage	Implement	Indicating Lights as	Category 3
1-92	Operator Qualified to 6 g's None	8	Yesb	FE-MCC-RB(8C)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement	Indicating Lights as	Category 3
1-94	Operator Qualified to 6 g's None	8	Yes <sup>C</sup>	EE-MCC-Q(6A)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement	Indicating Lights as	Category 3
1-96	Operator Qualified to 6 g's	B B	Yes <sup>C</sup>	EE-MCC-Y(SC)	Indicator Lights	Yes	Yes	Yes	Modifications scheduled for completion before the end of the 1984-85 outage.	Implement	Indicating Lights as	Category 3
1-98	Operator Qualified to 6 g's	8	Yes <sup>C</sup>	EE-MCC-Q(50)	Indicator Lights	Yes	Yes	Yes	Modifications scheduled for completion before the end of the 1984-85 outage.	Implement	Indicating Lights as	Category 3
1-100	Operator Qualified to 6 g's	8	Yes <sup>c</sup>	EE-MCC-Y(58)	Indicator Lights	Yes	Yes	Yes	No Action Necessary	Implement	Indicating lights as	Category 3
1-102	86	B <sup>7</sup>	Yesa	EE-PMCCP 18(2)	Indicator Lights	Yes	Yes		Modification scheduled for	Implement	Indicating Lights as	Category 3
1-103	None	В							1986 outage. <sup>8</sup>			
1-104	None <sup>6</sup>	c <sup>7</sup>	Yesa	EE-PNL-CCP1A(2)	Indicator Lights	Yes	Yes		Modification scheduled for 1986 outage.8	Implement	Indicating lights as	Category 3

	TEM	SKISMIC; STATUS	QA STATUS <sup>2</sup>	REDUNDANT 3	POWER SUPPLY	CR DISPLAY	REQUERED FOR TSC	REQUIRED FOR EOF	INPUT T	O <sup>4</sup> SCHEDULE	Rev. V	
(	-105	None	В			~~	~	~	-		~~~	0
4.	-106	Operator Qualified to 6 q's	В	Yesa	EE-MCC-R(38)	Indicator Lights	Yes	Yes	Yesa	Modification scheduled for	Implement Indicating Lights as Category 3	(14
7.	-107	None	8							1986 out age . 8		
1.	-108	Operator Qualified to 6 g's	8	Yes <sup>a</sup>	EE-PNL-883(3)	Indicator Lights	Yes	Yes	Yesa	Modification scheduled for	implement Indicating Lights as Category 3	
1 .	-109	None	8							1986 outage.8		1
1	-110	Operator Qualified to 6 g's	С	Yesa	EE-MCC-CB(3A)	Indicator Lights	Yes	Yes	Yesa	Modification scheduled for	Implement Indicating Lights as Category 3	
1.	-111	None	None							1986 outage.8	_	
] .	-112	Operator Qualified to 6 g's	С	Yesa	EE-PNL-CA(1)	Indicator Lights	Yes	Yes	Yesa	Modification scheduled for	Implement Indicating Lights as Category 3	1
1.	-113	None	None							1986 outage.8		1
1.	-114	Operator Qualified to 6 q's	С	Yes <sup>a</sup>	EE-PNL-CB(1)	Indicator Lights	Yes	Yes	Yesa	Modification scheduled for	Implement Indicating Lights as Category 3	)
1-	-115	None	None							1986 outage.8		1
1	-116	Operator Qualified to 6 g's	С	Yes <sup>a</sup>	EE-MCC-CA(ZA)	Indicator Lights	Yes	Yes	Yes <sup>a</sup>	Modification scheduled for	Implement Indicating Lights as Category 3	1
١. لم	-117	None	None							1936 outage.8		1
1-	-118	Operator Qualified to 6 g's	c	Yesa	EE-PNL-CB(2)	Indicator Lights	Yes	Yes	Yes <sup>8</sup>	Modification scheduled for	Implement Indicating Lights as Category 3	
7 .	-119	None	None							1986 out age . 8		1
1-	120	Operator Qualified to 6 g's	С	Yesa	EE-MCC-CA(2B)	Indicator Lights	Yes	Yes	Yesa	Modification scheduled for	Implement Indicating Lights as Category 3	1
1-	121	None	None							1986 outage.8		1
1.	122	Operator Qualified to 6 g's	c	Yesa	EE-PNL-CA(2)	Indicator Lights	Yes	Yes	Yesa	Modification scheduled for	Implement Indicating Lights as Category 3	1
1-	123	None	None							1986 outage.8		1
1-	124	Operator Qualified to 6 g's	c	Yesa	EE-PNL-CB(3)	Indicator Lights	Yes	Yes	Yesa	Modification scheduled for	Implement Indicating Lights as Category 3	1
1-	125	None	None							1986 outage. <sup>8</sup>		(
) 1-	126	Operator Qualified to 6 g's	С	Yes <sup>a</sup>	EE-PNL-CA(3)	Indicator Lights	Yes	Yes	Yesa	Modification scheduled for	Implement Indicating Lights as Category 3	
1-	127	None	None							1986 outage. <sup>8</sup>		
1-	128	Operator Qualified to 6 g's	c	Yes <sup>a</sup>	EE-MCC-CB(3C)	Indicator Lights	Yes	Yes	Yesa	Modification scheduled for 1986 outage. 8	Implement Indicating Lights as Category 3	
(1-	129	None	None			_				1700 Out age."		
1	27.1		_				~		_	1 1	1	



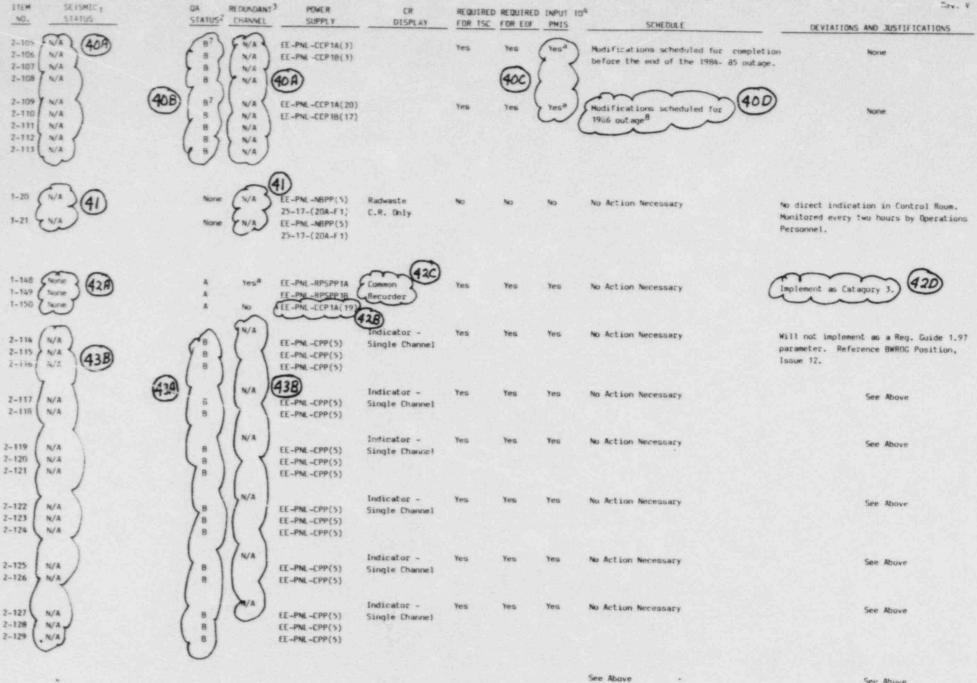
TIEM SEISMIC:	QA RET	NONDANT <sup>3</sup> POWER	CR	REQUIRED	REQUIRED	INPUT I	04	Rev. ¥
314:05	STATUS <sup>2</sup> CO	IANNEL SUPPLY	DISPLAY	FOR TSC	FOR EOF	PMIS	SCHEDULE	DEVIATIONS AND JUSTIFICATIONS
3-7 3-8 5-9 3-10 N/A N/A N/A N/A	: 8	EE-PNL-MSPP(A	4) Indicator -	28) Yes	Yes	Yes	No Action Necessary	None
3-11 5-12 3-13 3-14 N/A N/A N/A	: {	N/A EE-PNL-CCP1A	~	Yes	Yes	Yes	No Action Necessary	Notice
3-15 N/A S-16 N/A	c }	N/A EE-PNL-PPCM1  EE-PNL-CCP18	Indicator - Single Channel	Yes	Yes	Yesa	No Action Necessary	None
3-17 3-18 3-19 N/A N/A	000	M/A EE-PNL-CCP1B(	(12) Indicator - Both Channels	Yes	Yes	Yes	Ms Action Necessary	None
1-45 None	c	NO EPRW-2A	None	No	No	*	No Action Necessary	Implemented as Category 3. See BWROC Position, Issue 5.
2-3 (N/A) (25D)	8	res <sup>a</sup> EE-PNL-CCP1B(	16) Indicator Lights	Yes	Yes	(25.	No Action Necessary	Implement as Category 3 25A
2-5 (N/A 2-6 (N/A	8 B	esa EE-MCC-RA	Indicator Lights	Yes	Yes	Yes <sup>a</sup>		
2-7 2-8 \ N/A \ N/A	B 1	es# EE-PML-CCP18(	16) Indicator Lights	Yes	Yes	Yesa		
2-9 ( N/A 2-10 ( N/A	8 1	es <sup>a</sup> EE-PNL-RA	Indicator Lights	Yes	Yes	Yesa		
2-11 2-12 N/A N/A	8 Y	es <sup>a</sup> EE-PNL-RA	Indicator Lights	Yes	Yes	Yesa		
2-13 N/A N/A	8 Y	es <sup>a</sup> EE-PNL-CCP1B(	16) Indicator Lights	Yes	Yes	Yesa	)	

116H - <u>40</u> .	SEISMIC <sub>1</sub> S14TUS	9 51	A REDUNDA		CR DISPLAY		D REQUIRE		SCHEDULE	DEVIATIONS AND JUSTIFICATIONS
2-15 2-16 2-17 2-18 2-19 2-20	(N/A) (26C) (N/A)	<b>~</b>	B Yes' B Yes' B Yes' B Yes'	Pr's & Cl's	Indicators - Both Channels	Yes Yes Yes Yes Yes	Yes Yes Yes Yes	Yesa Yesa Yesa Yesa Yesa	No Action Necessary	None
2-22 2-23 2-24 2-25 2-26 2-27 2-28 2-29 2-30 2-31	N/A N/A N/A N/A N/A N/A N/A N/A N/A		8 8 8 8 8 8 8 8 8	•••						
2-33	(N/A) 269		8 %	(S-15-1) (S-4)		Co	× ×	JO)	268	
2.55	NA NA		B N/A	250 VDC Batt. 1A	Indicator	Yes	Yes	Yesa	No Action Necessary	None
72-36	N/A		B N/A	250 VDC 8US 1A	Indicator	Yes	Yes	Yesa	No Action Necessary	None (26E)
2-37	N/A		B N/A	250 VDC CHG. 1A	Indicator	Yes	Yes	Yesa	No Action Necessary	None
2~38	N/A		B N/A	250 VDC Batt. 18	Indicator	Yes	Yes	Yesa	No Action Necessary	None
2-39	N/A		B N/A	250 VDC CHG. 18	Indicator	Yes	Yes	Yesa	No Action Necessary	None
2-40	N/A		B N/A	250 VDC BUS 18	Indicator	Yes	Yes	Yesa	No Action Necessary	None
2-41	N/A		8 N/A	125 VDC Batt. 1A	Indicator	Yes	Yes	Yesa	No Action Necessary	None
2-42	N/A		8 N/A	125 VDC CHG. 1A	Indicator	Yes	Yes	Yesª	No Action Necessary	None
2-43	N/A		B N/A	125 VOC BUS 1A	Indicator	Yes	Yes	Yesa	No Action Necessary	None
2-44	N/A		B N/A	125 VDC 18 Batt.	Indicator	Yes	Yes	Yesa	No Action Necessary	
2-45	N/A		B N/A	125 VDC 18 CHG.		Yes	Yes	Yesa	No Action Necessary	None
2-46	N/A		B N/A	125 VDC BUS 18	Indicator	Yes	Yes	Yesa	No Action Necessary	None
2-47	·~		人	~~	^	~		^		Will not implement as Status can be derived from other sources.

15EH 50.	SEISHIC1 STATUS	GA REDUNDANT STATUS CHANNEL	POWER SUPPLY	CR DISPLAY		REDUIRED FOR EDF		TO <sup>4</sup> SCHEDULE	PP. 8-9 Rev. V  DEVIATIONS AND JUSTIFICATIONS
2-48	N/A	N/A N/A	N/A	N/A	₩.	No	No	No Action Necessary	Will not implement. Reference BWRDG Position, Issue 7.
2-49 2-50 (	(N/A) (27C)	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	EE-PML-CCP1A(9)	Recorder - Single Channel	Yes	Yes	Yes	Modifications scheduled for completion before the end of 1984-85 outage.	None
2-51 2-52 2-53	N/A N/A N/A	B B N/A	EE-PNL-CCP18(1)	Recorders - Single Channel	Yes	Yes	Yes	Modifications scheduled for completion before the end of 1984-85 outage.	None
2-54 2-55 2-56	N/A N/A N/A	9 N/A	1E (RPS)	Recorders -	Yes	Yes	Yes	Modifications scheduled for 1986 nulage <sup>8</sup>	None
2-57 2-58 2-59 2-60	N/A N/A N/A	A N/A	1E (RPS)	Recorders - Both Channels	Yes	Yes	Yes	Modifications scheduled for 1986 outage <sup>8</sup>	None
1-146	No. 74 298	A Yes	1E (RPS)	Common Recorder	29C) Yes	Yes	Yes	Modifications scheduled for 1986 outage <sup>8</sup>	Implement as category 2 as other instruments are available for SRV position.
2-62 2-63 2-64	N/A 30C	- 100g S	EE-PNL-CCP1A(16)	Indicator - Single Channel	Yes	Yes	Yes	Modifications scheduled for completion before end of 1984-85 outage.	Will not implement expanded range. Max 100A temperature equals 340° F.
2-65 2-66 2-67	N/A 300	B D (N/A)	EE-PNL-CCP1A(16)	Indicator - Single Channel	Yes	Yes (	Yesa	Modifications scheduled for comple-	Will not implement expanded range. Max LOCA temperature equals 340° F.
2-68								No Action Necessary	Will not implement. Reference BWROG Position, Issue 7.
2-69	(318)	<b>319 318</b>						No Action Necessary	Not applicable to CNS.
2-70 2-71 2-72 2-73	N/A N/A N/A	8 87 8/A N/A N/A N/A N/A	E-PNL-CPP	Indicator Lights Recorded - Single Channel Computer Pt.	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	No Action Necessary Modification scheduled for 1986 outage.8 Modifications scheduled for completion before end of 1984-85 outage.	None
2-74								No Action Necessary	Not applicable to CNS.
2-75								No Action Necessary	Not applicable to CNS.

TIEM SEISMIC 1	DA REDUNDANT STATUS <sup>2</sup> CHANNEL	3 POMER SUPPLY	CR DISPLAY	REQUIRED FOR TSC		INPUT PMIS	SCHEDULE	Rev. V DEVIATIONS AND JUSTIFICATIONS
2-76 (N/A) 2-77 (N/A) 2-78 (N/A)	328 (B) (N/A) N/A)	EE-PNL-NBPP(19) 9-4(13A-F14)	Indicator - Single Channel	Yes	Yes	Yes .	Modifications scheduled for completion before the end of the 1984-85 outage.	3ac None
2-79 N/A 32B N/A 2-81 N/A N/A N/A	33 (B) N/A N/A N/A N/A	EE-PNL-BB2(18) 9-4(23A-F25 & 23A-F26)	Indicator - Single Channel	Yes	Yes	Yes	Modifications scheduled for completion before the end of the 1984-85 outage.	None
2-83 N/A N/A 2-85 N/A	34 (B) N/A N/A N/A	EE-PNE-CC1A(3) 9-19(14-F52AV) EE-PNE-CPP(9)	Indicators - Double Channel	Yes (58)	Yes	Yes	Modifications scheduled for completion before the end of the 1984-85 outage.	None
2-86 N/A 2-87 N/A 2-86 N/A 2-89 N/A	35A) 8 N/A N/A N/A N/A	9-18(14A-F3) EE-PNL-CCP1A(3) 9-18(14A-F16A) EE-PNL-CCP18(3)	Indicator - Double Channel	Yes	Yes	Yes	Modifications scheduled for completion before the end of the 1984-85 outage.	None
2-90		9-18(10A-F168)					Integrate with CRDR HED'S 17T and 23T, AWTS and EOP'S if required.	None
2-91 2-92 2-93 N/A N/A	8 N/A 8 N/A	EE-PNL-CPP(9) (11A-F2)	Indicator - Single Channel	Yes	Yes	Yes	BWR	I implement as Category 3. Reference OG Position, Issue 10. Final ATWS rule lementation may require re-evaluation.
2-94 N/A 2-95 N/A 2-96 N/A 2-97 N/A	3 (87) N/A N/A N/A N/A N/A	EE-PNL-CCP1A(3) EE-PNL-CCP1B(3)	Indicators - Double Channels	Yes 388	Yes	Yes (3	Modifications scheduled for completion before the end of the 1984-85 autage.	None
2-98 2-99 N/A N/A	38A (87) (N/A N/A)	EE-PNL-CCP(4)	Common Recorder	Yes	Yes (	Yesa	Modifications scheduled for comp- letion during 1986 refueling outage <sup>8</sup>	None
2-100 N/A 2-101 N/A	B <sup>7</sup> N/A	EE-PNL-CCP(4)	Common Recorder	Yes	Yes (	Yesa	Modifications scheduled for comp- letion during 1986 refueling outage <sup>8</sup>	None
2-102 N/A	(39C) (8) \\ N/A \		Computer Pts	Yes	Yes	Yes	Will extend range during 1986 refueling outage <sup>8</sup> Will to	Il install as category 3 as output is 398
2-103 N/A	8 N/A		Computer Pts	Yes	Yes	Yes	Will extend range during 1986 refueling outage <sup>8</sup>	l install as category 3 as output is PMIS only.
Z-104 (N/A)	(a) (m)		Computer Pts	Yes	Yes	Yes	Will extend range during 1986 refueling outage <sup>8</sup>	l install as category 3 as output is PMIS only.

See Abuve



TEM		ISMICT		GA.	REDUNDAN		CR	REQUIRE	D REQUIRED	INPUT TO	14	
NO.	517	ATUS		STATUS <sup>2</sup>	CHANNEL	SUPPL Y	DISPLAY	FOR TSO	FOR EUF	PHIS	SCHEDULE.	DEVIATIONS AND JUSTIFICATIONS
					-	_						
	M	(44C)		-	~	49		(HE)				
1.50	MIN )	0	0	( 3	(N/A)	480 VAC from PPGB1		Yes	Yes	Yes	No Action Necessary	None
131	N/A		1	0	1 4	120 VAC from LPOB1						
132			(440)/	0	()	(E-PRE-MBPP(15)	Single Channel	) %	No	No	No Action Necessary	None
133	NA (		-	0	INA)	480 VAC from MCC-DG	findicator	Yes	Yes	Yes		
			1	1	1 1	120 VAC from CCP28	and Recorder .		100	165	No Action Necessary	None
54	N/A			13	1	HV-ES-40024,8	Single Channel					
35	[NA]		1	6)	11	HY-ES-4102A,8		1				
36	N/A (		7	0	/			and				
3.7	) WA			6	1 )	EE-PNL-CPP(22)	-	(44E)				
8	N/A			c	N/A)	480 VAC from MCC-W/	Indicator	Yes	Yes	Yes	No Action Necessary	None
	1		)	100	1	120 VAC from LPRWA	and Recorder -	1				
9	IN/A		1	0		HV-ES-4000	Single Channel	)				
0	N/A			0 (		HV-ES-4000	-					
	N/A		-	c /	17	EE-PNL-EPP(22)	~	and				
2	N/A (		1	c )		480 VAC From PPCB1		(ME)				
. 1		1		1		120 VAC from LPGB 1	and Recorder -	1		_		
3	N/A N/A			0	11	EE-PNL-MBPP(15)	Single Channel		_	(44	F	
			1	1	1)			1	8	1		
1	N/A		- 1	c		480 VAC from PPG81 120 VAC from LPG81	None	100	No	No )	No Action Necessary	None
1	N/A	V 731.76		c		EE-PNL-NBPP(15)				(		
1	N/A		1	0	1	cc-rac-morr(13)		>		1		
1	N/A			0	( N/A)	480 VAC from MCC-DG1	None	1		. 1		
1	1		1	- 1		120 VAC from CUP28	MUNE	No	NO	NO /	No Action Necessary	None
1	N/A		1	0		HV-ES-40C2A,8		)				
1	N/A		1	0 1		HV-ES-4002A,B		/		1		
)	N/A	Maria de la companya della companya della companya de la companya della companya	- 1	0	1		31.1	111		1		
1	N/A	133		c	1	EE-PNL-CPP(22)		1		1		
>	N/A		}	1	(NA)	480 VAC from MCC-W	None	1	No	No )	No. debies No.	
1		1				120 VAC from LPRW3				1	No Action Necessary	None
ſ	N/A	/		C		HV-ES-4000		~	1			
1	N/A		(	0)		HV-ES-4000						
(	N/A)			0)		EE-PNL-CPP(22)						
	-	_	~	~	~	~		~			~ ~	(446)
	N/A			c		480 VAC from PPMP2		Yes	Yes	Yesa	No Action Necessary	None 2
	N/A					120 VAC from PPMP1						
	N/A						Single Channel					
	N/A					CE-PNL-CPP(22)						~ ~
	N/A			C		EE-PNL-CPP(22)					~ ~	
				Parent.		EE-PNL-CPP(22)		~	_	-		

ITEM SEISMECT NO. STATUS	DA REDUNDA STATUS <sup>2</sup> CHANNE	NT <sup>3</sup> POWER 1 SUPPLY	DISPLAY	REQUIRED FOR TSC	REQUIRED FOR LOF	INPUT II	g <sup>4</sup> Schedule	Rev. V  DEVIATIONS AND JUSTIFICATIONS
3-39 N/A	C N/A	Portable-N/A	*	100	No	No	No Action Necessary	None
3-40 N/A	C N/A	Portable-N/A	10	₩.	100	No	No Action Necessary	Existing equipment range is satisfactory.
3-42 N/A	E N/4	Portable-N/A		No		No.	No Action Necessary	None
3-43 (V/A)		Normal-Offsite Emergency-MCC-L	SPDS	Yes	Yes	Yes	Installed	Nane
5-44 \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \	c {N/A}	Normal-Offsite Emergency-MCC-L	SPOS	Yes	Yes	Yes	Instal led	None
3-45 (N/A)	c (N/A)	Normal-Offsite Emergency-MCC-L	SP05	Yes	Yes	Yes	Installed	None

1-46 (N/A) 47B

EE-PNL-LPRW2 No. No. No. No. Installed

Implement as Category 3 for primary coolant sampling only. Sump sample not implemented. Reference BWROG Position, Issue 14. Post Accident Sampling System (PASS) approved as per NUREG-0737 item 11, 83. STEM SEISMIE: STATUS

REDUNDANT 3 STATUS<sup>2</sup> CHANNEL

POWER SUPPLY

CR DISPLAY

REQUIRED REQUIRED INPUT 104 FOR ISC FOR EOF PMIS

SCHEDULE

DEVIATIONS AND JUSTIFICATIONS

None

EE-PNL-L PRWZ

Installed

<sup>1</sup>Seismic Status

A - Original Plant Criteria furnished by GE

8 - Original Plant Criteria BOP

2ga Status

A - 10 CFR 50 Appendix B

8 - Original QA Design Criteria

C - High Quality

Redundant Channel

- a All redundant or diverse channels are electrically independent and are physically separated from each other although they do not always meet with the minimum separation distances as specified in Reg. Guide 1.75.
- b Although supplied by one division, one channel is supplied by a DC source and the other by an AC source.
- c Diverse circuits supplied by one division
- d Redundant valve is a check valve without indication.

- 4INPUT to PMIS
- " Will be added to PMIS during 1987
- No Seismic Requalification will be initiated at this time. NPPD recognizes that the NRC is establishing an explicit set of quidelines that can be used to judge the adequacy of seismic qualification of electrical equipment at operating plants and establishing guidelines for regualification of equipment whose seismic qualification was found to be inadequate (Reference Unresulved Safety Issue Task A-46).
- 67his item will be qualified to R.G. 1.100 after modifications.
- This item will meet 10CFR50 Appendix 8 after modifications.
- Bine 1986 outage is the 1st refueling after the 1984-85 outage.
- <sup>9</sup>The 1987 outage is the 2nd refueling after the 1984-85 outage.
- 10 The 1988 outage is the 3rd refueling after the 1984-85 outage.