



SEABROOK STATION
Engineering Office

Public Service of New Hampshire
New Hampshire Yankee Division

April 7, 1986
SBN- 992
T.F. 7.1.2, 7.1.3

United States Nuclear Regulatory Commission
Washington, DC 20555

Attention: Mr. Vincent S. Noonan, Project Director
PWR Project Directorate No. 5

References: (a) Construction Permits CPPR-135 and CPPR-136, Docket
Nos. 50-443 and 50-444
(b) USNRC Letter, dated March 11, 1986, "Seabrook Request for
Additional Information Related to Periodic Testing
(Related to RAI 420.17)," V. Nerses to R. J. Harrison

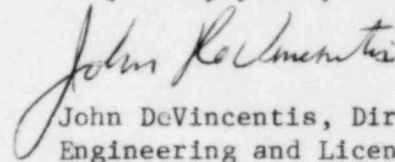
Subject: Request for Additional Information; ICSB

Dear Sir:

In response to the Staff's request for additional information [Reference (b)], enclosed please find Attachments 1 through 4. The enclosed addresses the use of temporary jumpers, lifting leads, or pulling of fuses for periodic I&C testing. If requested by the Staff, we will make a copy of any procedure identified in these attachments available to the Staff out of our Bethesda Licensing Office.

In addition, enclosed please find, as Attachment 5, a revision of our response to ICSB RAI 420.73. This revision will be incorporated into the FSAR by a future amendment.

Very truly yours,


John DeVincentis, Director
Engineering and Licensing

Enclosures

cc: Atomic Safety and Licensing Board Service List

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ATTACHMENT 1

NRC RAI (related to RAI 420.17)

SER Section 7.3.2.14 states that present test procedures required only the use of hard-wired test points within the protection system but that temporary modifications might be identified during the preparation of the surveillance procedures. Subsequent to this SER input, the staff was informed through discussions at a November 1985 meeting that there will be a limited use of temporary jumpers required for certain periodic testing. The applicant proposes to handle this issue at the forthcoming EICSB site visit (April 1986). However, the staff believes it would be prudent for the applicant to immediately provide information on the docket to further address this issue. The information should:

- (1) Specifically identify and provide details for each case that will require the use of temporary jumpers, lifted leads, or pulling of fuses. The frequency for such use should be provided.
- (2) Provide details to show the correlation of such temporary modifications with the provisions of Regulatory Guide 1.118, Revision 2 (specifically Positions 6.a and 6.b).
- (3) Provide details to address Seabrook's adherence related to guidance provided in IE Information Notice 84-37, "Use of Lifted Leads and Jumpers During Maintenance or Surveillance Testing."

Response

- (1) Attachments 2 and 3 identify by procedure number where a given procedure requires the use of lifted leads, removal of fuses, jury rig, or card removal for off-line and on-line protection testing, respectively. Attachment 4, identifies by procedure number the type of procedure, the testing frequency and description of procedure (i.e., procedure title).

Procedures and drawings that detail the use of temporary circuit modifications are available for the staff's review at the Seabrook Station. However, if requested by the staff, we will make a copy of any procedure and the associated drawings available to the staff out of our Bethesda Licensing Office.

- (2) I&C On-Line Surveillance Procedures comply with Regulatory Guide 1.118, Revision 2, 1978, Position 6.a and 6.b.

The only ON-LINE periodic test that requires a temporary modification to the system is the Power Range Channel Rescaling Calibration. All fuses that are pulled cause the associated channel to trip. All cables that are removed are designed to be removed (e.g., threaded connector) and are identified by procedure as to the specific location to reconnect the cable.

ATTACHMENT 1
(continued)

(3) In regards to the guidance provided in IE Information Notice 84-37, Seabrook has implemented the following:

- (a) I&C Procedures require double verification that all lifted leads have been returned to the proper hands. The verification requires signatures by the individuals doing the verification.

All Technical Specification and Safety-Related Instrumentation preventative maintenance is done via procedure.

- (b) All I&C procedures have been reviewed for elimination of lifted lead steps.
- (c) IE Notice 84-37 has been added to the Maintenance Group Required Reading Program.
- (d) MA 4.3 in the Seabrook Station Maintenance Program Manual (SSMA) "Temporary Modifications" provides for control of lifted leads not controlled by procedures.

ATTACHMENT 2
OFF LINE PROTECTION TESTING

PROCEDURE #	Lifted Leads	Removal Of Fuses	Jury Rig	Card Removal	Remarks
IX1622.231				X	when out of tol.
IX1622.232				X	when out of tol.
IX1622.233				X	when out of tol.
IX1622.234				X	when out of tol.
IX1656.910	X	X			Disconnect HVPS Plug from Jack
IX1656.911	X	X			Disconnect HVPS Plug from Jack
IX1656.920	X	X			
IX1656.921	X	X			
IX1656.931	X	X			
IX1656.932	X	X			
IX1656.933	X	X			
IX1656.934	X	X			
IX1605.030			Master Test Card Break-out Box		
IX1605.031					
IX1605.032			"		
IX1605.033			"		
IX1605.034			"		
IX1605.035			"		
IX1605.036			"		
IX1605.037			"		
IX1605.038			"		
IX1605.039			"		
IX1605.040			"		
IX1605.041			"		
IX1605.042			"		

ATTACHMENT 2 (CONT.)
OFF LINE PROTECTION TESTING

PROCEDURE #	Lifted Leads	Removal Of Fuses	Jury Rig	Card Removal	Remarks
IX1605.043			Master Test Card Break-out Box		
IX1605.045			"		
IX1605.046			"		
IX1605.047			"		
IX1605.048			"		
IX1605.049			"		
IX1605.050			"		
IX1605.051			"		
IX1605.052			"		
IX1605.053			"		
IX1605.054			NMT Breakout Box		
IX1605.055			"		
IX1605.056			"		
IX1605.057			"		
IX1605.058			"		
IX1605.059	X		"		Transmitter Leads
IX1605.060	X		"		Transmitter Leads
IX1605.061			"		
IX1605.062			"		
IX1605.063			"		
IX1605.064			"		
IX1605.065			"		
IX1605.066			"		
IX1605.067			"		

ATTACHMENT 2 (CONT.)

OFF LINE PROTECTION TESTING

PROCEDURE #	Lifted Leads	Removal Of Fuses	Jury Rig	Card Removal	Remarks
IX1605.068			NMT Breakout Box		
IX1605.069	X		"		Transmitter Leads
IX1605.070			"		
IX1605.071			"		
IX1605.072			"		
IX1605.073			"		
IX1605.074			"		
IX1605.075			"		
IX1605.076			"		
IX1605.077			"		
IX1605.078	X		"		Transmitter Leads
IX1605.410			NMT Breakout Box		
IX1605.411			"		
IX1605.412			"		
IX1605.413			"		
IX1605.610					Not Written
IX1605.611					Not Written
IX1605.612					Not Written
IX1605.613					Not Written
IX1605.921			NMT Breakout Box		
IX1605.922			"		
IX1605.923			"		
IX1605.924			"		
IX1640.210			"	X	only if out of tolerance
IX1640.211			"	X	only if out of tolerance

ATTACHMENT 2 (CONT.)

OFF LINE PROTECTION TESTING

PROCEDURE #	Lifted Leads	Removal Of Fuses	Jury Rig	Card Removal	Remarks
IX1640.212				X	only if out of tolerance
IX1640.213				X	only if out of tolerance
IX1640.214				X	only if out of tolerance
IX1640.220				X	only if out of tolerance
IX1640.221				X	only if out of tolerance
IX1640.222				X	only if out of tolerance
IX1640.223				X	only if out of tolerance
IX1640.230				X	only if out of tolerance
IX1640.231				X	only if out of tolerance
IX1640.232				X	only if out of tolerance
IX1640.233				X	only if out of tolerance
IX1640.240				X	only if out of tolerance
IX1640.241				X	only if out of tolerance
IX1640.242				X	only if out of tolerance
IX1640.243				X	only if out of tolerance
IX1640.310	X NLL Card Jumpers			X	
IX1640.311	X NLL Card Jumpers			X	
IX1640.312	X NLL Card Jumpers			X	
IX1640.320	X NLL Card Jumpers			X	
IX1640.321	X NLL Card Jumpers			X	
IX1640.322	X NLL Card Jumpers			X	
IX1640.330	X NLL Card Jumpers			X	
IX1640.331	X NLL Card Jumpers			X	
IX1640.332	X NLL Card Jumpers			X	
IX1640.340	X NLL Card Jumpers			X	

ATTACHMENT 2 (CONT.)

OFF LINE PROTECTION TESTING

PROCEDURE #	Lifted Leads	Removal Of Fuses	Jury Rig	Card Removal	Remarks
IX1640.341	X NLL Card Jumpers			X	
IX1640.342	X NLL Card Jumpers			X	
IX1640.351				X	only if out of tolerance
IX1640.352				X	only if out of tolerance
IX1640.995	X				Main steam isolation valves
IX1640.996	X				
IX1640.997	X				
IX1640.998	X				
IX1656.991	X				
IX1656.992					
IX1656.993	X	X			
IX1656.994	X				
IX1656.995	X Inside MCB				open slide links & lift lead
IX1660.612	X			X	
IX1660.613	X			X	
IX1660.720	X			X	
IX1660.721	X			X	
IX1662.111				X	only if out of tolerance
IX1662.112				X	only if out of tolerance
IX1662.113				X	only if out of tolerance
IX1662.121				X	only if out of tolerance
IX1662.122				X	only if out of tolerance
IX1662.123				X	only if out of tolerance
IX1662.131				X	only if out of tolerance
IX1662.132				X	only if out of tolerance

ATTACHMENT 2 (CONT.)
OFF LINE PROTECTION TESTING

PROCEDURE #	Lifted Leads	Removal Of Fuses	Jury Rig	Card Removal	Remarks
IX1662.133				X	only if out of tolerance
IX1662.141				X	only if out of tolerance
IX1662.142				X	only if out of tolerance
IX1662.143				X	only if out of tolerance
IX1662.211				X	only if out of tolerance
IX1662.212				X	only if out of tolerance
IX1662.213				X	only if out of tolerance
IX1662.311	X NLL Card Jumpers			X	
IX1662.312	X NLL Card Jumpers			X	
IX1662.313	X NLL Card Jumpers			X	
IX1662.314	X NLL Card Jumpers			X	
IX1662.315				X	only if out of tolerance
IX1662.316				X	only if out of tolerance
IX1662.410	X NLL Card Jumpers			X	
IX1662.411	X NLL Card Jumpers			X	
IX1662.412	X NLL Card Jumpers			X	
IX1662.413	X NLL Card Jumpers			X	
IX1662.414			NMT Breakout	X	Modified Extender Board
IX1662.415				X	
IX1668.331				X	only if out of tolerance
IX1668.332				X	only if out of tolerance
IX1668.333				X	only if out of tolerance
IX1668.334				X	only if out of tolerance
IX1680.950					

ATTACHMENT 3
ON LINE PROTECTION TESTING

PROCEDURE #	Lifted Leads	Removal Of Fuses	Jury Rig	Card Removal	Remarks
IX1622.241					
IX1622.242					
IX1622.243					
IX1622.244					
IX1640.216					
IX1640.217					
IX1640.218					
IX1640.219					
IX1640.315					
IX1640.316					
IX1640.317					
IX1640.318					
IX1640.355					
IX1640.356					
IX1656.912					
IX1656.913					
IX1656.922					
IX1656.923					
IX1656.935	X	X			
IX1656.936	X	X			
IX1656.937	X	X			
IX1656.938	X	X			
IX1656.941					
IX1656.942					
IX1656.943					

ATTACHMENT 3 (CONT.)

ON LINE PROTECTION TESTING

PROCEDURE #	Lifted Leads	Removal Of Fuses	Jury Rig	Card Removal	Remarks
IX1656.944					
IX1660.662					
IX1660.663					
IX1660.770					
IX1660.771					
IX1662.151					
IX1662.152					
IX1662.153					
IX1662.221					
IX1662.222					
IX1662.223					
IX1662.321					
IX1662.322					
IX1662.323					
IX1662.324					
IX1662.420					
IX1662.421					
IX1662.422					
IX1662.423					
IX1662.424					Not Written
IX1662.425					Not Written
IX1668.341					
IX1668.342					
IX1668.343					
IX1668.344					
IX1680.921					Bypass Breakers Shut
IX1680.922					Bypass Breakers Shut

ATTACHMENT 4

I&C PROCEDURE INFORMATION CROSS REFERENCE

Seabrook Station

① | ② | ③

IX1614410	CAL	104	90	1-CGC-MM-284A HYDROGEN RECOMBINER TRAIN A TEMPERATURE MEASUREMENT. (H2 RECOMB)
IX1614412	CAL	R	1	1-CGC-MM-284B HYDROGEN RECOMBINER TRAIN B TEMPERATURE MEASUREMENT (H2 RECOMB).
IX1614412	CAL	104	90	1-CGC-MM-284B HYDROGEN RECOMBINER TRAIN B TEMPERATURE MEASUREMENT (H2 RECOMB).
IX1614910	CAL	13	1	HYDROGEN ANALYZER-INDICATION & ALARM TRAIN A. (H2 ANA). STAGGERED TEST BASIS.
IX1614910	CAL	104	91	HYDROGEN ANALYZER-INDICATION & ALARM TRAIN A. (H2 ANA). STAGGERED TEST BASIS.
IX1614912	CAL	13	1	HYDROGEN ANALYZER-INDICATION & ALARM TRAIN B (H2 ANA). STAGGERED TEST BASIS.
IX1614912	CAL	104	91	HYDROGEN ANALYZER-INDICATION & ALARM TRAIN B (H2 ANA). STAGGERED TEST BASIS.
IX1614920	ACOT	04	1	HYDROGEN ANALYZER-INDICATION & ALARM TRAIN A (H2 ANA). STAGGERED TEST BASIS.
IX1614920	ACOT	104	90	HYDROGEN ANALYZER-INDICATION & ALARM TRAIN A (H2 ANA). STAGGERED TEST BASIS.
IX1614922	ACOT	04	1	HYDROGEN ANALYZER-INDICATION & ALARM TRAIN B (H2 ANA). STAGGERED TEST BASIS.
IX1614922	ACOT	104	90	HYDROGEN ANALYZER-INDICATION & ALARM TRAIN B (H2 ANA). STAGGERED TEST BASIS.
IX1622224	CAL	R	1	REFUELING WATER STORAGE TANK LEVEL INDICATION.
IX1622224	CAL	104	90	REFUELING WATER STORAGE TANK LEVEL INDICATION.
IX1622225	CAL	R	1	REFUELING WATER STORAGE TANK LEVEL.
IX1622225	CAL	104	90	REFUELING WATER STORAGE TANK LEVEL.
IX1622231	CAL	R	1	REFUELING WATER STORAGE TANK LEVEL. (ESFAS)
IX1622231	CAL	104	90	REFUELING WATER STORAGE TANK LEVEL. (ESFAS)
IX1622232	CAL	R	1	REFUELING WATER STORAGE TANK LEVEL. (ESFAS)

1. Type of procedure

A. ACOT - Analog Channel Operational Test

B. CAL - Channel Calibration

2. Frequency

A. Number of weeks

B. "R" = Refueling

3. Type code

A. "1" - Actually performed procedure

B. "90" - 2 year procedure
"91" Review

IX1622232	CAL	104 90	REFUELING WATER STORAGE TANK LEVEL. (ESFAS)
IX1622233	CAL	R 1	REFUELING WATER STORAGE TANK LEVEL. (ESFAS)
IX1622233	CAL	104 90	REFUELING WATER STORAGE TANK LEVEL. (ESFAS)
IX1622234	CAL	R 1	REFUELING WATER STORAGE TANK LEVEL. (ESFAS)
IX1622234	CAL	104 90	REFUELING WATER STORAGE TANK LEVEL. (ESFAS)
IX1622241	ACCT	04 1	REFUELING WATER STORAGE TANK LEVEL. (ESFAS)
IX1622241	ACOT	104 91	REFUELING WATER STORAGE TANK LEVEL. (ESFAS)
IX1622242	ACOT	04 1	REFUELING WATER STORAGE TANK LEVEL. (ESFAS)
IX1622242	ACOT	104 91	REFUELING WATER STORAGE TANK LEVEL. (ESFAS)
IX1622243	ACOT	04 1	REFUELING WATER STORAGE TANK LEVEL. (ESFAS)
IX1622243	ACOT	104 91	REFUELING WATER STORAGE TANK LEVEL. (ESFAS)
IX1622244	CAL	04 1	REFUELING WATER STORAGE TANK LEVEL. (ESFAS)
IX1622244	CAL	104 91	REFUELING WATER STORAGE TANK LEVEL. (ESFAS)
IX1622251	CAL	R 1	CONTAINMENT BUILDING LEVEL ABOVE RECIRC. SUMP CBS-TK-10A (PAM)
IX1622251	CAL	104 90	CONTAINMENT BUILDING LEVEL ABOVE RECIRC. SUMP CBS-TK-10A (PAM)
IX1622252	CAL	R 1	CONTAINMENT BUILDING LEVEL ABOVE RECIRC. SUMP CBS-TK-10B (PAM)
IX1622252	CAL	104 90	CONTAINMENT BUILDING LEVEL ABOVE RECIRC. SUMP CBS-TK-10B (PAM)
IX1640121	CAL	R 1	EMERGENCY FEEDWATER FLOW INDICATION AND AUTO VALVE CLOSURE (PAM)
IX1640121	CAL	104 90	EMERGENCY FEEDWATER FLOW INDICATION AND AUTO VALVE CLOSURE (PAM)

IX1640122	CAL	R	1	EMERGENCY FEEDWATER FLOW INDICATION AND AUTO VALVE CLOSURE (PAM)
IX1640122	CAL	104	90	EMERGENCY FEEDWATER FLOW INDICATION AND AUTO VALVE CLOSURE (PAM)
IX1640123	CAL	R	1	EMERGENCY FEEDWATER FLOW INDICATION AND FLOW VALVE AUTO CLOSURE (PAM)
IX1640123	CAL	104	90	EMERGENCY FEEDWATER FLOW INDICATION AND FLOW VALVE AUTO CLOSURE (PAM)
IX1640124	CAL	R	1	EMERGENCY FW FLOW INDICATION AND FLOW VALVE AUTO CLOSURE (PAM)
IX1640124	CAL	104	90	EMERGENCY FW FLOW INDICATION AND FLOW VALVE AUTO CLOSURE (PAM)
IX1640131	CAL	R	1	EMERGENCY FEEDWATER FLOW INDICATION (RSS)
IX1640131	CAL	104	90	EMERGENCY FEEDWATER FLOW INDICATION (RSS)
IX1640132	CAL	R	1	EMERGENCY FEEDWATER FLOW INDICATION (RSS)
IX1640132	CAL	104	90	EMERGENCY FEEDWATER FLOW INDICATION (RSS)
IX1640133	CAL	R	1	EMERGENCY FEEDWATER FLOW INDICATION (RSS)
IX1640133	CAL	104	90	EMERGENCY FEEDWATER FLOW INDICATION (RSS)
IX1640134	CAL	R	1	EMERGENCY FEEDWATER FLOW INDICATION (RSS)
IX1640134	CAL	104	90	EMERGENCY FEEDWATER FLOW INDICATION (RSS)
IX1640210	CAL	R	1	RC-E-11A, STEAM GENERATOR NARROW RANGE LEVEL, LT-551 (RX TRIP) (ESFAS)
IX1640210	CAL	104	90	RC-E-11A, STEAM GENERATOR NARROW RANGE LEVEL, LT-551 (RX TRIP) (ESFAS)

IX1640210	CAL	R	1	RC-E-11A, STEAM GENERATOR NARROW RANGE LEVEL, LT-517 (RX TRIP) (ESFAS)
IX1640211	CAL	104	90	RC-E-11A, STEAM GENERATOR NARROW RANGE LEVEL, LT-517 (RX TRIP) (ESFAS)
IX1640212	CAL	R	1	RC-E-11A, STEAM GENERATOR NARROW RANGE LEVEL, LT-518 (RX TRIP) (ESFAS)
IX1640212	CAL	104	90	RC-E-11A, STEAM GENERATOR NARROW RANGE LEVEL, LT-518 (RX TRIP) (ESFAS)
IX1640213	CAL	R	1	RC-E-11A, STEAM GENERATOR NARROW RANGE LEVEL, LT-519 (RX TRIP) (ESFAS)
IX1640213	CAL	104	90	RC-E-11A, STEAM GENERATOR NARROW RANGE LEVEL, LT-519 (RX TRIP) (ESFAS)
IX1640214	CAL	R	1	RC-E-11A, SG WIDE RANGE LEVEL, LT-501 (PAM)
IX1640214	CAL	104	90	RC-E-11A, SG WIDE RANGE LEVEL, LT-501 (PAM)
IX1640215	CAL	R	1	RC-E-11A STEAM GENERATOR WIDE RANGE LEVEL, LT-4310 (RSS)
IX1640215	CAL	104	90	RC-E-11A STEAM GENERATOR WIDE RANGE LEVEL, LT-4310 (RSS)
IX1640216	ACOT	04	1	RC-E-11B, STEAM GENERATOR NARROW RANGE LEVEL, LT-529 (RX TRIP) (ESFAS) (PAM)
IX1640216	ACOT	104	91	RC-E-11B, STEAM GENERATOR NARROW RANGE LEVEL, LT-529 (RX TRIP) (ESFAS) (PAM)

IX1640217	ACOT 04 1	RC-E-11A, STEAM GENERATOR NARROW RANGE LEVEL, LT-517 (RX TRIP) (ESFAS)
IX1640217	ACOT 104 91	RC-E-11A, STEAM GENERATOR NARROW RANGE LEVEL, LT-517 (RX TRIP) (ESFAS)
IX1640218	ACOT 04 1	RC-E-11A, STEAM GENERATOR NARROW RANGE LEVEL, LT-518 (RX TRIP) (ESFAS)
IX1640218	ACOT 104 91	RC-E-11A, STEAM GENERATOR NARROW RANGE LEVEL, LT-518 (RX TRIP) (ESFAS)
IX1640219	ACOT 04 1	RC-E-11A, STEAM GENERATOR NARROW RANGE LEVEL, LT-519 (RX TRIP) (ESFAS)
IX1640219	ACOT 104 91	RC-E-11A, STEAM GENERATOR NARROW RANGE LEVEL, LT-519 (RX TRIP) (ESFAS)
IX1640220	CAL R 1	RC-E-11B, STEAM GENERATOR NARROW RANGE LEVEL, LT-552 (RX TRIP) (ESFAS)
IX1640220	CAL 104 90	RC-E-11B, STEAM GENERATOR NARROW RANGE LEVEL, LT-552 (RX TRIP) (ESFAS)
IX1640221	CAL R 1	RC-E-11B, STEAM GENERATOR NARROW RANGE LEVEL (RXTRIP) (ESFAS)
IX1640221	CAL 104 90	RC-E-11B, STEAM GENERATOR NARROW RANGE LEVEL (RXTRIP) (ESFAS)

IX1640222	CAL	R	1	RC-E-11B SG NARROW RANGE LEVEL, LT-528 (RXTRIP) (ESFAS)
IX1640222	CAL	104	90	RC-E-11B SG NARROW RANGE LEVEL, LT-528 (RXTRIP) (ESFAS)
IX1640223	CAL	R	1	RC-E-11B, STEAM GENERATOR NARROW RANGE LEVEL, LT-529 (RX TRIP) (ESFAS) (PAM)
IX1640223	CAL	104	90	RC-E-11B, STEAM GENERATOR NARROW RANGE LEVEL, LT-529 (RX TRIP) (ESFAS) (PAM)
IX1640224	CAL	R	1	RC-E-11B, SG WIDE RANGE LEVEL, LT-502 (PAM)
IX1640224	CAL	104	90	RC-E-11B, SG WIDE RANGE LEVEL, LT-502 (PAM)
IX1640225	CAL	R	1	RC-E-11B, SG WIDE RANGE LEVEL- LT-4320 (RSS)
IX1640225	CAL	104	90	RC-E-11B, SG WIDE RANGE LEVEL- LT-4320 (RSS)
IX1640230	CAL	R	1	RC-E-11C, STEAM GENERATOR NARROW RANGE LEVEL, LT-553 (RX TRIP) (ESFAS)
IX1640230	CAL	104	90	RC-E-11C, STEAM GENERATOR NARROW RANGE LEVEL, LT-553 (RX TRIP) (ESFAS)
IX1640231	CAL	R	1	RC-E-11C, STEAM GENERATOR NARROW RANGE LEVEL, LT-537 (RX TRIP) (ESFAS) (PAM)
IX1640231	CAL	104	90	RC-E-11C, STEAM GENERATOR NARROW RANGE LEVEL, LT-537 (RX TRIP) (ESFAS) (PAM)

IX1640232	CAL	R	1	RC-E-11C, STEAM GENERATOR NARROW RANGE LEVEL, LT-538 (RX TRIP) (ESFAS)
IX1640232	CAL	104	90	RC-E-11C, STEAM GENERATOR NARROW RANGE LEVEL, LT-538 (RX TRIP) (ESFAS)
IX1640233	CAL	R	1	RC-E-11C, STEAM GENERATOR NARROW RANGE LEVEL, LT-539 (RX TRIP) (ESFAS)
IX1640233	CAL	104	90	RC-E-11C, STEAM GENERATOR NARROW RANGE LEVEL, LT-539 (RX TRIP) (ESFAS)
IX1640234	CAL	R	1	RC-E-11C, SG WIDE RANGE LEVEL, LT-503 (PAM)
IX1640234	CAL	104	90	RC-E-11C, SG WIDE RANGE LEVEL, LT-503 (PAM)
IX1640235	CAL	R	1	RC-E-11C STEAM GENERATOR WIDE RANGE LEVEL, LT-4330 (RSS)
IX1640235	CAL	104	90	RC-E-11C STEAM GENERATOR WIDE RANGE LEVEL, LT-4330 (RSS)
IX1640240	CAL	R	1	RC-E-11D, STEAM GENERATOR NARROW RANGE LEVEL, LT-554 (RX TRIP) (ESFAS)
IX1640240	CAL	104	90	RC-E-11D, STEAM GENERATOR NARROW RANGE LEVEL, LT-554 (RX TRIP) (ESFAS)

IX1640241	CAL	R	1	RC-E-11D, STEAM GENERATOR NARROW RANGE LEVEL, LT-547 (RX TRIP) (ESFAS)
IX1640241	CAL	104	90	RC-E-11D, STEAM GENERATOR NARROW RANGE LEVEL, LT-547 (RX TRIP) (ESFAS)
IX1640242	CAL	R	1	RC-E-11D, STEAM GENERATOR NARROW RANGE LEVEL, LT-548 (RX TRIP) (ESFAS) (PAM)
IX1640242	CAL	104	90	RC-E-11D, STEAM GENERATOR NARROW RANGE LEVEL, LT-548 (RX TRIP) (ESFAS) (PAM)
IX1640243	CAL	R	1	RC-E-11D, STEAM GENERATOR NARROW RANGE LEVEL, LT-549 (RX TRIP) (ESFAS)
IX1640243	CAL	104	90	RC-E-11D, STEAM GENERATOR NARROW RANGE LEVEL, LT-549 (RX TRIP) (ESFAS)
IX1640244	CAL	R	1	RC-E-11D/SG WIDE RANGE LEVEL, LT-504 (PAM)
IX1640244	CAL	104	90	RC-E-11D/SG WIDE RANGE LEVEL, LT-504 (PAM)
IX1640245	CAL	R	1	RC-E-11D STEAM GENERATOR WIDE RANGE LEVEL, LT-4340 (RSS)
IX1640245	CAL	104	90	RC-E-11D STEAM GENERATOR WIDE RANGE LEVEL, LT-4340 (RSS)
IX1640310	CAL	R	1	STEAM GENERATOR 11A STEAM PRESSURE INDICATION AND REACTOR PROTECTION (ESFAS) (PAM) (SECONDARY HEAT BALANCE)

IX1640310	CAL	104 90	STEAM GENERATOR 11A STEAM PRESSURE INDICATION AND REACTOR PROTECTION (ESFAS) (PAM) (SECONDARY HEAT BALANCE)
IX1640311	CAL	R 1	STEAM GENERATOR 11A STEAM PRESSURE INDICATION AND PROTECTION (ESFAS) (PAM) (SECONDARY HEAT BALANCE)
IX1640311	CAL	104 90	STEAM GENERATOR 11A STEAM PRESSURE INDICATION AND PROTECTION (ESFAS) (PAM) (SECONDARY HEAT BALANCE)
IX1640312	CAL	R 1	STEAM GENERATOR 11A STEAM PRESSURE INDICATION PROTECTION (ESFAS) (SECONDARY HEAT BALANCE)
IX1640312	CAL	104 90	STEAM GENERATOR 11A STEAM PRESSURE INDICATION PROTECTION (ESFAS) (SECONDARY HEAT BALANCE)
IX1640315	ACOT	04 1	STEAM GENERATOR 11A STEAM PRESSURE INDICATION AND REACTOR PROTECTION (ESFAS) (PAM) (SECONDARY HEAT BALANCE)
IX1640315	ACOT	104 91	STEAM GENERATOR 11A STEAM PRESSURE INDICATION AND REACTOR PROTECTION (ESFAS) (PAM) (SECONDARY HEAT BALANCE)
IX1640316	ACOT	04 1	STEAM GENERATOR 11A STEAM PRESSURE INDICATION AND PROTECTION (ESFAS) (PAM) (SECONDARY HEAT BALANCE)
IX1640316	ACOT	104 91	STEAM GENERATOR 11A STEAM PRESSURE INDICATION AND PROTECTION (ESFAS) (PAM) (SECONDARY HEAT BALANCE)
IX1640317	ACOT	04 1	STEAM GENERATOR 11A STEAM PRESSURE INDICATION PROTECTION (ESFAS) (SECONDARY HEAT BALANCE)
IX1640317	ACOT	104 91	STEAM GENERATOR 11A STEAM PRESSURE INDICATION PROTECTION (ESFAS) (SECONDARY HEAT BALANCE)

IX1640318	ACOT	04	1	STEAM GENERATOR STEAM PRESSURE INDICATION PROTECTION (ESFAS) (SECONDARY HEAT BALANCE)
IX1640318	ACOT	104	91	STEAM GENERATOR STEAM PRESSURE INDICATION PROTECTION (ESFAS) (SECONDARY HEAT BALANCE)
IX1640320	CAL	R	1	STEAM GENERATOR 11B STEAM PRESSURE INDICATION AND PROTECTION (ESFAS) (PAM) (SECONDARY HEAT BALANCE)
IX1640320	CAL	104	90	STEAM GENERATOR 11B STEAM PRESSURE INDICATION AND PROTECTION (ESFAS) (PAM) (SECONDARY HEAT BALANCE)
IX1640321	CAL	R	1	STEAM GENERATOR 11B STEAM PRESSURE INDICATION AND PROTECTION (ESFAS) (PAM) (SECONDARY HEAT BALANCE)
IX1640321	CAL	104	90	STEAM GENERATOR 11B STEAM PRESSURE INDICATION AND PROTECTION (ESFAS) (PAM) (SECONDARY HEAT BALANCE)
IX1640322	CAL	R	1	STEAM GENERATOR STEAM PRESSURE INDICATION PROTECTION (ESFAS) (SECONDARY HEAT BALANCE)
IX1640322	CAL	104	90	STEAM GENERATOR STEAM PRESSURE INDICATION PROTECTION (ESFAS) (SECONDARY HEAT BALANCE)
IX1640330	CAL	R	1	STEAM GENERATOR 11C STEAM PRESSURE INDICATION AND PROTECTION (ESFAS) (PAM) (SECONDARY HEAT BALANCE)
IX1640330	CAL	104	90	STEAM GENERATOR 11C STEAM PRESSURE INDICATION AND PROTECTION (ESFAS) (PAM) (SECONDARY HEAT BALANCE)
IX1640331	CAL	R	1	STEAM GENERATOR 11C STEAM PRESSURE INDICATION AND PROTECTION (ESFAS) (PAM) (SECONDARY HEAT BALANCE)
IX1640331	CAL	104	90	STEAM GENERATOR 11C STEAM PRESSURE INDICATION AND PROTECTION (ESFAS) (PAM) (SECONDARY HEAT BALANCE)

IX1640332	CAL	R	1	STEAM GENERATOR 11C STEAM PRESSURE INDICATION AND PROTECTION (ESFAS) (SECONDARY HEAT BALANCE)
IX1640332	CAL	104	90	STEAM GENERATOR 11C STEAM PRESSURE INDICATION AND PROTECTION (ESFAS) (SECONDARY HEAT BALANCE)
IX1640340	CAL	R	1	STEAM GENERATOR 11D STEAM PRESSURE INDICATION AND PROTECTION (ESFAS) (PAM) (SECONDARY HEAT BALANCE)
IX1640340	CAL	104	90	STEAM GENERATOR 11D STEAM PRESSURE INDICATION AND PROTECTION (ESFAS) (PAM) (SECONDARY HEAT BALANCE)
IX1640341	CAL	R	1	STEAM GENERATOR 11D STEAM PRESSURE INDICATION AND PROTECTION (ESFAS) (PAM) (SECONDARY HEAT BALANCE)
IX1640341	CAL	104	90	STEAM GENERATOR 11D STEAM PRESSURE INDICATION AND PROTECTION (ESFAS) (PAM) (SECONDARY HEAT BALANCE)
IX1640342	CAL	R	1	STEAM GENERATOR 11D STEAM PRESSURE INDICATION AND PROTECTION (ESFAS) (SECONDARY HEAT BALANCE)
IX1640342	CAL	104	90	STEAM GENERATOR 11D STEAM PRESSURE INDICATION AND PROTECTION (ESFAS) (SECONDARY HEAT BALANCE)
IX1640351	CAL	R	1	HIGH PRESSURE IMPULSE CHAMBER PRESSURE, PRESSURE TRANSMITTER PT-505 (P-13) (RXTRIP) (P-7)
IX1640351	CAL	104	90	HIGH PRESSURE IMPULSE CHAMBER PRESSURE, PRESSURE TRANSMITTER PT-505 (P-13) (RXTRIP) (P-7)
IX1640352	CAL	R	1	HIGH PRESSURE IMPULSE CHAMBER PRESSURE, PRESSURE TRANSMITTER PT-506 (P-13) (RXTRIP) (P-7)
IX1640352	CAL	104	90	HIGH PRESSURE IMPULSE CHAMBER PRESSURE, PRESSURE TRANSMITTER PT-506 (P-13) (RXTRIP) (P-7)
IX1640355	ACOT	04	1	HIGH PRESSURE IMPULSE CHAMBER PRESSURE, PRESSURE TRANSMITTER PT-505 (P-13) (RXTRIP) (P-7)
IX1640355	ACOT	SPPT1		HIGH PRESSURE IMPULSE CHAMBER PRESSURE, PRESSURE TRANSMITTER PT-505 (P-13) (RXTRIP) (P-7)

IX1640355	ACOT 104 91	HIGH PRESSURE IMPULSE CHAMBER PRESSURE, PRESSURE TRANSMITTER PT-505 (P-13) (RXTRIP) (P-7)
IX1640356	ACOT 04 1	HIGH PRESSURE IMPULSE CHAMBER PRESSURE, PRESSURE TRANSMITTER PT-506 (P-13) (RXTRIP) (P-7)
IX1640356	ACOT SPPT1	HIGH PRESSURE IMPULSE CHAMBER PRESSURE, PRESSURE TRANSMITTER PT-506 (P-13) (RXTRIP) (P-7)
IX1640356	ACOT 104 91	HIGH PRESSURE IMPULSE CHAMBER PRESSURE, PRESSURE TRANSMITTER PT-506 (P-13) (RXTRIP) (P-7)
IX1642901	TADOT 26 1	FIRE PUMP HOUSE DETECTION AND ALARM (FPH-F-1A-A, FPH-F-1B-A, FPH-F-1C-A).
IX1642901	TADOT 104 90	FIRE PUMP HOUSE DETECTION AND ALARM (FPH-F-1A-A, FPH-F-1B-A, FPH-F-1C-A).
IX1642902	TADOT 26 1	ADMINISTRATION BUILDING FIRE PROTECTION SYSTEM
IX1642902	TADOT 104 90	ADMINISTRATION BUILDING FIRE PROTECTION SYSTEM
IX1642904	TADOT 26 1	CP-376 CONTAINMENT SYSTEMS FIRE PROTECTION CHANNEL (C-F-1-Z, C-F-2-Z)
IX1642904	TADOT 104 90	CP-376 CONTAINMENT SYSTEMS FIRE PROTECTION CHANNEL (C-F-1-Z, C-F-2-Z)
IX1642905	TADOT 26 1	CONTROL BUILDING DETECTION AND ALARM
IX1642905	TADOT 104 90	CONTROL BUILDING DETECTION AND ALARM
IX1642906	TADOT 26 1	P.A.B. DETECTION AND ALARM
IX1642906	TADOT 104 90	P.A.B. DETECTION AND ALARM
IX1642908	TADOT 26 1	S.W.P.H. DETECTION AND ALARM
IX1642908	TADOT 104 90	S.W.P.H. DETECTION AND ALARM
IX1642909	TADOT 26 1	S.W.C.T. SWITCHGEAR RM'S DETECTION
IX1642909	TADOT 104 90	S.W.C.T. SWITCHGEAR RM'S DETECTION
IX1642913	TADOT 26 1	ELECT CHASE PRE-ACTION/DELUGE/DETECTION
IX1642913	TADOT 104 90	ELECT CHASE PRE-ACTION/DELUGE/DETECTION
IX1642915	TADOT 26 1	"A" DIESEL GENERATOR AND FUEL STORAGE
IX1642915	TADOT 104 90	"A" DIESEL GENERATOR AND FUEL STORAGE

IX1642916	TADOT 26 1	DIESEL FUEL OIL STORAGE DETECTION/DELUGE
IX1642916	TADOT 104 90	DIESEL FUEL OIL STORAGE DETECTION/DELUGE
IX1642917	TADOT 26 1	CABLE SPREADING DETECTION/DELUGE
IX1642917	TADOT 104 90	CABLE SPREADING DETECTION/DELUGE
IX1642918	TADOT 26 1	P.A.B. CABLE TUNNEL PRE-ACTION/DETECTION/SUPPRESSION
IX1642918	TADOT 104 90	P.A.B. CABLE TUNNEL PRE-ACTION/DETECTION/SUPPRESSION
IX1642920	TADOT 26 1	FIRE PROTECTION CONTAINMENT ENCLOSURE OF COOLING UNITS AND FILTERS
IX1642920	TADOT 104 90	FIRE PROTECTION CONTAINMENT ENCLOSURE OF COOLING UNITS AND FILTERS
IX1642921	TADOT 26 1	EMERGENCY FEEDWATER PUMP BUILDING FIRE PROTECTION
IX1642921	TADOT 104 90	EMERGENCY FEEDWATER PUMP BUILDING FIRE PROTECTION
IX1642922	TADOT 26 1	MECHANICAL PENETRATION RADIOACTIVE PIPING AREA FIRE PROTECTION
IX1642922	TADOT 104 90	MECHANICAL PENETRATION RADIOACTIVE PIPING AREA FIRE PROTECTION
IX1642923	TADOT 26 1	EAST MAIN STEAM AND FEEDWATER PIPE CHASE FIRE PROTECTION
IX1642923	TADOT 104 90	EAST MAIN STEAM AND FEEDWATER PIPE CHASE FIRE PROTECTION
IX1642924	TADOT 26 1	WEST MAIN STEAM & FEEDWATER PIPE CHASE FIRE PROTECTION
IX1642924	TADOT 104 90	WEST MAIN STEAM & FEEDWATER PIPE CHASE FIRE PROTECTION
IX1642925	TADOT 26 1	PAB FIRE PROTECTION
IX1642925	TADOT 104 90	PAB FIRE PROTECTION
IX1642926	TADOT 104 90	FUEL STORAGE BUILDING FIRE DETECTION (FSB-F-1-A).
IX1642926	TADOT 26 1	FUEL STORAGE BUILDING FIRE PROTECTION (FSB-F-1-A).
IX1642928	TADOT 26 1	PAB ELECTRICAL CHASE
IX1642928	TADOT 104 90	PAB ELECTRICAL CHASE

IX1642929	TADOT	26	1	SERVICE WATER PUMP HOUSE FIRE PROTECTION
IX1642929	TADOT	104	90	SERVICE WATER PUMP HOUSE FIRE PROTECTION
IX1642930	TADOT	26	1	RHR, S.I. EQUIPMENT VAULT
IX1642930	TADOT	104	90	RHR, S.I. EQUIPMENT VAULT
IX1642976	CAL	104	91	FUEL STORAGE BUILDING FIRE DETECTION (FSB-F-1-A).
IX1648210	CAL	R	1	CONTAINMENT DRAINAGE SUMP "A" LEVEL INDICATION AND ALARM
IX1648210	CAL	104	90	CONTAINMENT DRAINAGE SUMP "A" LEVEL INDICATION AND ALARM
IX1648211	CAL	R	1	CONTAINMENT INSTRUMENT SUMP "B" LEVEL INDICATION & ALARM
IX1648211	CAL	104	90	CONTAINMENT INSTRUMENT SUMP "B" LEVEL INDICATION & ALARM
IX1652311	CAL	R	1	STEAM GENERATOR HEADER PRESSURE- LOOP 1 REMOTE SAFE SHUTDOWN
IX1652311	CAL	104	90	STEAM GENERATOR HEADER PRESSURE- LOOP 1 REMOTE SAFE SHUTDOWN
IX1652312	CAL	R	1	STEAM GENERATOR HEADER PRESSURE - LOOP 2 REMOTE SAFE SHUTDOWN
IX1652312	CAL	104	90	STEAM GENERATOR HEADER PRESSURE - LOOP 2 REMOTE SAFE SHUTDOWN
IX1652313	CAL	R	1	STEAM GENERATOR HEADER PRESSURE - LOOP 3 REMOTE SAFE SHUTDOWN
IX1652313	CAL	104	90	STEAM GENERATOR HEADER PRESSURE - LOOP 3 REMOTE SAFE SHUTDOWN
IX1652314	CAL	R	1	STEAM GENERATOR HEADER PRESSURE - LOOP 4 REMOTE SAFE SHUTDOWN
IX1652314	CAL	104	90	STEAM GENERATOR HEADER PRESSURE - LOOP 4 REMOTE SAFE SHUTDOWN
IX1654410	CAL	26	1	TEMPERATURE AT 43' & 150' ELEVATIONS
IX1654410	CAL	104	90	TEMPERATURE AT 43' & 150' ELEVATIONS

IX1654415	CAL	26	1	TEMPERATURE (43' - 209' ELEVATION) (MET)
IX1654415	CAL	104	90	TEMPERATURE (43' - 209' ELEVATION) (MET)
IX1654910	CAL	26	1	WIND, SPEED & DIRECTION (43' ELEVATION) (MET)
IX1654910	CAL	104	90	WIND, SPEED & DIRECTION (43' ELEVATION) (MET)
IX1654912	CAL	26	1	WIND, SPEED & DIRECTION (209' ELEVATION) (MET) / TRANSMITTER CALIBRATION
IX1654912	CAL	104	90	WIND, SPEED & DIRECTION (209' ELEVATION) (MET) / TRANSMITTER CALIBRATION
IX1656910	CAL	R	1	SOURCE RANGE CHANNEL N31(PROTECTION CH1)INDICATION AND CONTROL (REFUELING INST.)(RX TRIP)
IX1656911	CAL	R	1	SOURCE RANGE CHANNELN32(PROTECTION CH2) INDICATION AND CONTROL (REFUELING INST.) (RX TRIP)
IX1656912	ACOT	SPSU1		SOURCE RANGE CHANNEL N31(PROTECTION CH1)INDICATION AND CONTROL (REFUELING INST.)(RX TRIP)
IX1656912	ACOT	04	1	SOURCE RANGE CH1 (PROTECTION CH1) INDICATION AND CONTROL (REFUELING INST.) (RX TRIP)
IX1656912	ACOT	SPCA1		SOURCE RANGE CHANNEL N31 (PROTECTION CH1)INDICATION AND CONTROL(REFUELING INST.)(RX TRIP)
IX1656912	ACOT	SREF1		SOURCE RANGE CHANNEL N31(PROTECTION CH1)INDICATION AND CONTROL (REFUELING INST.)(RX TRIP)
IX1656913	ACOT	04	1	SOURCE RANGE CHANNEL N32(PROTECTION CH2)INDICATION AND CONTROL (REFUELING INST.)(RX TRIP)
IX1656913	ACOT	SPCA1		SOURCE RANGE CHANNEL N32(PROTECTION CH2) INDICATIONAND CONTROL (REFUELING INST.)(RX TRIP) >8 HOURS BEFORE CORE ALT<

IX1656913	ACOT	SREF1	SOURCE RANGE CHANNEL N32(PROTECTION CH2)INDICATIONAND CONTROL (REFUELING INST.)(RX TRIP)
IX1656914	ACOT	SPSU1	SOURCE RANGE CHANNEL N32(PROTECTION CH2) INDICATIONAND CONTROL (REFUELING INST.)(RX TRIP)
IX1656920	CAL	R 1	INTERMEDIATE RANGE CHANNEL N35(PROTECTION CH1) INDICATION AND CONTROL (RX TRIP)(PHY. TESTS)
IX1656921	CAL	R 1	INTERMEDIATE RANGE CHANNEL N36 (PROTECTION CH2) INDICATION AN CONTROL (RX TRIP)(PHY. TESTS)
IX1656922	ACOT	SP 1	
IX1656922	ACOT	04 1	INTERMEDIATE RANGE CHANNEL N35 (PROTECTION CH1) INDICATION AND CONTROL (RX TRIP)((PHY. TESTS)
IX1656922	ACOT	SPPT1	INTERMEDIATE RANGE CHANNEL N35 (PROTECTION CH1) INDICATION AND CONTROL (RX TRIP)(PHY. TESTS)
IX1656923	ACOT	SPSU1	INTERMEDIATE RANGE CHANNEL N36 (PROTECTION CH2) INDICATION AND CONTROL (RX TRIP)(PHY TESTS)
IX1656923	ACOT	04 1	INTERMEDIATE RANGE CHANNEL N36(PROTECTION CH2) INDICATION AND CONTROL (RX TRIP) (PHY. TESTS)
IX1656923	ACOT	SPPT1	INTERMEDIATE RANGE CHANNEL N36(PROTECTION CH2) INDICATION AND CONTROL (RX TRIP)(PHY. TESTS)
IX1656931	CAL	R 1	POWER RANGE CHANNEL N41 (PROTECTION CH1)INDICATIONAND CONTROL (RX TRIP)(P-7,P-8,P-9,P-10)(PHYSICS TESTS)
IX1656932	CAL	R 1	POWER RANGE CHANNEL N42(PROTECTION CH2)INDICATION AND CONTROL (RX TRIP)(P-7,P-8,P-9,P-10)(PHYSICS TESTS)
IX1656933	CAL	R 1	POWER RANGE CHANNEL N43(PROTECTION CH3)INDICATION &CONTROL (RX TRIP)(P-7,P-8,P-9,P-10)(PHYSICS TEST)
IX1656934	CAL	R 1	POWER RANGE CHANNEL N44(PROTECTION CH4)INDICATION &CONTROL (RX TRIP)(P-7,P-8,P-9,P-10)(PHYSICS TEST)

IX1656935	CAL	13	1	POWER RANGE CHANNEL N41(PROTECTION CH1)INDICATION AND CONTROL (RX TRIP)(P-7,P-8,P-9,P-10)(PHYSICS TESTS)
IX1656935	CAL	104	90	
IX1656936	CAL	13	1	POWER RANGE CHANNEL N42(PROTECTION CH2)INDICATION AND CONTROL (RX TRIP)(P-7,P-8,P-9,P-10)(PHYSICS TESTS)
IX1656936	CAL	104	90	
IX1656937	CAL	13	1	POWER RANGE CHANNEL N43(PROTECTION CH3)INDICATION &CONTROL (RX TRIP)(P-7,P-8,P-9,P-10)(PHYSICS TEST)
IX1656937	CAL	104	90	
IX1656938	CAL	13	1	POWER RANGE CHANNEL N44(PROTECTION CH4)INDICATION AND CONTROL (RX TRIP)(P-7,P-8,P-9,P-10)(PHYSICS TEST)
IX1656938	CAL	104	90	
IX1656941	ACOT	04	1	POWER RANGE CHANNEL N41(PROTECTION CH1)INDICATION AND CONTROL (RX TRIP)(P-7,P-8,P-9,P-10)(PHYSICS TESTS)
IX1656941	ACOT	SPPT1		POWER RANGE CHANNEL N41 (PROTECTION CH1)INDICATION AND CONTROL (RX TRIP)(P-7,P-8,P-9,P-10)(PHYSICS TESTS)
IX1656942	ACOT	SPPT1		POWER RANGE CHANNEL N42(PROTECTION CH2)INDICATION AND CONTROL (RX TRIP)(P-7,P-8,P-9,P-10)(PHYSICS TESTS)
IX1656942	ACOT	04	1	POWER RANGE CHANNEL N42(PROTECTION CH2)INDICATION AND CONTROL (EX TRIP) (P-7,P-8,P-9,P-10)(PHYSICS TESTS)
IX1656943	ACOT	04	1	POWER RANGE CHANNEL N43(PROTECTION CH3)INDICATION &CONTROL (RX TRIP)(P-7,P-8,P-9,P-10)(PHYSICS TEST)
IX1656943	ACOT	SPPT1		POWER RANGE CHANNEL N43(PROTECTION CH3)INDICATION &CONTROL (RX TRIP)(P-7,P-8,P-9,P-10,)(PHYSICS TEST)
IX1656944	ACOT	04	1	POWER RANGE CHANNEL N44(PROTECTION CH4)INDICATION &CONTROL (RX TRIP)(P-7,P-8,P-9,P-10)(PHYSICS TEST)
IX1656944	ACOT	SSPT1		POWER RANGE CHANNEL N44(PROTECTION CH4)INDICATION &CONTROL (RX TRIP) (P-7,P-8,P-9,P-10)(PHYSICS TEST)

IX1656970	CAL	R	1	1E EXCORE NEUTRON FLUX MONITORING TRAIN "A" (RSS)
IX1656971	CAL	R	1	1E EXCORE NEUTRON FLUX MONITORING TRAIN "B" (RSS)
IX1660612	CAL	R	1	MONITOR MANIPULATOR CRANE AREA ACTIVITY AND TERMINATE CONTAINMENT AIR PURGE TRAIN "A"
IX1660612	CAL	104	90	MONITOR MANIPULATOR CRANE AREA ACTIVITY AND TERMINATE CONTAINMENT AIR PURGE TRAIN "A"
IX1660613	CAL	R	1	MONITOR MANIPULATOR CRANE AREA ACTIVITY AND TERMINATE CONTAINMENT AIR PURGE TRAIN "B"
IX1660613	CAL	104	90	MONITOR MANIPULATOR CRANE AREA ACTIVITY AND TERMINATE CONTAINMENT AIR PURGE TRAIN "B"
IX1660639	CAL	R	1	MONITOR CONTAINMENT AREA POST LOCA ACTIVITY TRAIN "A"
IX1660639	CAL	104	90	MONITOR CONTAINMENT AREA POST LOCA ACTIVITY TRAIN "A"
IX1660640	CAL	R	1	MONITOR CONTAINMENT AREA POST LOCA ACTIVITY TRAIN "B"
IX1660640	CAL	104	90	MONITOR CONTAINMENT AREA POST LOCA ACTIVITY TRAIN "B"
IX1660662	ACOT	04	1	MONITOR MANIPULATOR CRANE AREA ACTIVITY AND TERMINATE CONTAINMENT AIR PURGE TRAIN "A"
IX1660662	ACOT	SPRR1		MONITOR MANIPULATOR CRANE AREA ACTIVITY AND TERMINATE CONTAINMENT AIR PURGE TRAIN "A"
IX1660662	ACOT	104	91	MONITOR MANIPULATOR CRANE AREA ACTIVITY AND TERMINATE CONTAINMENT AIR PURGE TRAIN "A"
IX1660663	ACOT	04	1	MONITOR MANIPULATOR CRANE AREA ACTIVITY AND TERMINATE CONTAINMENT AIR PURGE TRAIN "B"
IX1660663	ACOT	SPRR1		MONITOR MANIPULATOR CRANE AREA ACTIVITY AND TERMINATE CONTAINMENT AIR PURGE TRAIN "B"
IX1660663	ACOT	104	91	MONITOR MANIPULATOR CRANE AREA ACTIVITY AND TERMINATE CONTAINMENT AIR PURGE TRAIN "B"

IX1660689	ACOT	04	1	MONITOR CONTAINMENT AREA POST LOCA ACTIVITY TRAIN "A"
IX1660689	ACOT	104	91	MONITOR CONTAINMENT AREA POST LOCA ACTIVITY TRAIN "A"
IX1660690	ACOT	04	1	MONITOR CONTAINMENT AREA POST LOCA ACTIVITY TRAIN "B"
IX1660690	ACOT	104	91	MONITOR CONTAINMENT AREA POST LOCA ACTIVITY TRAIN "B"
IX1660710	CAL	R	1	MONITOR CONTROL ROOM EAST INTAKE AIR ACTIVITY AND ISOLATE TRAIN "A" MAKE-UP AIR.
IX1660710	CAL	104	90	MONITOR CONTROL ROOM EAST INTAKE AIR ACTIVITY AND ISOLATE TRAIN "A" MAKE-UP AIR.
IX1660711	CAL	R	1	MONITOR CONTROL ROOM EAST INTAKE AIR ACTIVITY AND ISOLATE TRAIN "B" MAKE-UP AIR.
IX1660711	CAL	104	90	MONITOR CONTROL ROOM EAST INTAKE AIR ACTIVITY AND ISOLATE TRAIN "B" MAKE-UP AIR.
IX1660712	CAL	R	1	MONITOR CONTROL ROOM WEST INTAKE AIR ACTIVITY AND ISOLATE TRAIN "A" MAKE-UP AIR.
IX1660712	CAL	104	90	MONITOR CONTROL ROOM WEST INTAKE AIR ACTIVITY AND ISOLATE TRAIN "A" MAKE-UP AIR.
IX1660713	CAL	R	1	MONITOR CONTROL ROOM WEST INTAKE AIR ACTIVITY AND ISOLATE TRAIN "B" MAKE-UP AIR.
IX1660713	CAL	104	90	MONITOR CONTROL ROOM WEST INTAKE AIR ACTIVITY AND ISOLATE TRAIN "B" MAKE-UP AIR.
IX1660718	CAL	R	1	MONITOR CONTAINMENT RECIRCULATION GASEOUS AND PARTICULATE ACTIVITY.
IX1660718	CAL	104	90	MONITOR CONTAINMENT RECIRCULATION GASEOUS AND PARTICULATE ACTIVITY.
IX1660720	CAL	R	1	MONITOR CONTAINMENT AIR PURGE LINE AIRBORNE ACTIVITY (TRAIN A)
IX1660720	CAL	104	90	MONITOR CONTAINMENT AIR PURGE LINE AIRBORNE ACTIVITY (TRAIN A)

IX1660721	CAL	R	1	MONITOR CONTAINMENT AIR PURGE LINE AIRBORNE ACTIVITY (TRAIN B)
IX1660721	CAL	104	90	MONITOR CONTAINMENT AIR PURGE LINE AIRBORNE ACTIVITY (TRAIN B)
IX1660735	CAL	R	1	MONITOR PLANT VENT GASEOUS AND PARTICULATE.
IX1660735	CAL	104	90	MONITOR PLANT VENT GASEOUS AND PARTICULATE.
IX1660760	ACOT	04	1	MONITOR CONTROL ROOM EAST INTAKE AIR ACTIVITY AND ISOLATE TRAIN "A" MAKE-UP AIR.
IX1660760	ACOT	104	91	MONITOR CONTROL ROOM EAST INTAKE AIR ACTIVITY AND ISOLATE TRAIN "A" MAKE-UP AIR.
IX1660761	ACOT	04	1	MONITOR CONTROL ROOM EAST INTAKE AIR ACTIVITY AND ISOLATE TRAIN "B" MAKE-UP AIR.
IX1660761	ACOT	104	91	MONITOR CONTROL ROOM EAST INTAKE AIR ACTIVITY AND ISOLATE TRAIN "B" MAKE-UP AIR.
IX1660762	ACOT	04	1	MONITOR CONTROL ROOM WEST INTAKE AIR ACTIVITY AND ISOLATE TRAIN "A" MAKE-UP AIR.
IX1660762	ACOT	104	91	MONITOR CONTROL ROOM WEST INTAKE AIR ACTIVITY AND ISOLATE TRAIN "A" MAKE-UP AIR.
IX1660763	ACOT	04	1	MONITOR CONTROL ROOM WEST INTAKE AIR ACTIVITY AND ISOLATE TRAIN "B" MAKE-UP AIR.
IX1660763	ACOT	104	91	MONITOR CONTROL ROOM WEST INTAKE AIR ACTIVITY AND ISOLATE TRAIN "B" MAKE-UP AIR.
IX1660768	ACOT	04	1	MONITOR CONTAINMENT RECIRCULATION GASEOUS AND PARTICULATE ACTIVITY.
IX1660768	ACOT	104	91	MONITOR CONTAINMENT RECIRCULATION GASEOUS AND PARTICULATE ACTIVITY.
IX1660770	ACOT	SPRR1		MONITOR CONTAINMENT AIR PURGE LINE AIRBORNE ACTIVITY (TRAIN A)
IX1660770	ACOT	04	1	MONITOR CONTAINMENT AIR PURGE LINE AIRBORNE ACTIVITY (TRAIN A)

IX1660770	ACOT	104 91	MONITOR CONTAINMENT AIR PURGE LINE AIRBORNE ACTIVITY (TRAIN A)
IX1660771	ACOT	SPRR1	MONITOR CONTAINMENT AIR PURGE LINE AIRBORNE ACTIVITY (TRAIN B)
IX1660771	ACOT	04 1	MONITOR CONTAINMENT AIR PURGE LINE AIRBORNE ACTIVITY (TRAIN B)
IX1660771	ACOT	104 91	MONITOR CONTAINMENT AIR PURGE LINE AIRBORNE ACTIVITY (TRAIN B)
IX1660785	ACOT	13 1	MONITOR PLANT VENT GASEOUS AND PARTICULATE.
IX1660785	ACOT	104 91	MONITOR PLANT VENT GASEOUS AND PARTICULATE.
IX1660801	CAL	R 1	MONITOR MAIN STEAM LINE LOOP 1/LOOP 4 ACTIVITY.
IX1660801	CAL	104 90	MONITOR MAIN STEAM LINE LOOP 1/LOOP 4 ACTIVITY.
IX1660802	CAL	R 1	MONITOR MAIN STEAM LINE LOOP 2/LOOP 3 ACTIVITY
IX1660802	CAL	104 90	MONITOR MAIN STEAM LINE LOOP 2/LOOP 3 ACTIVITY.
IX1660816	CAL	R 1	MONITOR LIQUID WASTE TEST TANK DISCHARGE TO CW SYSTEM, CLOSE WL-FCV-1458-1 & WL-FCV-1458-2.
IX1660816	CAL	104 90	MONITOR LIQUID WASTE TEST TANK DISCHARGE TO CW SYSTEM, CLOSE WL-FCV-1458-1 & WL-FCV-1458-2.
IX1660822	CAL	R 1	MONITOR PCCW LOOP "A" LIQUID ACTIVITY.
IX1660822	CAL	104 90	MONITOR PCCW LOOP "A" LIQUID ACTIVITY.
IX1660823	CAL	R 1	MONITOR PCCW LOOP "B" LIQUID ACTIVITY.
IX1660823	CAL	104 90	MONITOR PCCW LOOP "B" LIQUID ACTIVITY.
IX1660824	CAL	R 1	MONITOR FLASH TANK BLOWDOWN OUTLET ACTIVITY AND CLOSE SB-CV-6519.
IX1660824	CAL	104 90	MONITOR FLASH TANK BLOWDOWN OUTLET ACTIVITY AND CLOSE SB-CV-6519.
IX1660826	CAL	R 1	MONITOR TURBINE BLDG. SUMP PUMP P-165 A & B DISCHARGE LIQUID ACTIVITY & DE-ENERGIZE PUMPS 165 A & B.

IX1660826	CAL	104 90	MONITOR TURBINE BLDG. SUMP PUMP P-165 A & B DISCHARGE LIQUID ACTIVITY & DE-ENERGIZE PUMPS 165 A & B.
IX1660851	ACOT	04 1	MONITOR MAIN STEAM LINE LOOP 1/LOOP 4 ACTIVITY.
IX1660851	ACOT	104 91	MONITOR MAIN STEAM LINE LOOP 1/LOOP 4 ACTIVITY.
IX1660852	ACOT	04 1	MONITOR MAIN STEAM LINE LOOP 2/LOOP 3 ACTIVITY.
IX1660852	ACOT	104 91	MONITOR MAIN STEAM LINE LOOP 2/LOOP 3 ACTIVITY.
IX1660866	ACOT	SPRR1	MONITOR LIQUID WASTE TEST TANK DISCHARGE TO CW SYSTEM, CLOSE WL-FCV-1458-1 & WL-FCV-1458-2.
IX1660866	ACOT	13 1	MONITOR LIQUID WASTE TEST TANK DISCHARGE TO CW SYSTEM, CLOSE WL-FCV-1458-1 & WL-FCV-1458-2.
IX1660866	ACOT	104 91	MONITOR LIQUID WASTE TEST TANK DISCHARGE TO CW SYSTEM, CLOSE WL-FCV-1458-1 & WL-FCV-1458-2.
IX1660872	ACOT	04 1	MONITOR PCCW LOOP "A" LIQUID ACTIVITY.
IX1660872	ACOT	104 91	MONITOR PCCW LOOP "A" LIQUID ACTIVITY.
IX1660873	ACOT	04 1	MONITOR PCCW LOOP "B" LIQUID ACTIVITY.
IX1660873	ACOT	104 91	MONITOR PCCW LOOP "B" LIQUID ACTIVITY.
IX1660874	ACOT	13 1	MONITOR FLASH TANK BLOWDOWN OUTLET ACTIVITY AND CLOSE SB-CV-6519.
IX1660874	ACOT	SPRR1	MONITOR SLASH TANK BLOWDOWN OUTLET ACTIVITY AND CLOSE SB-CV-6519.
IX1660874	ACOT	104 91	MONITOR SLASH TANK BLOWDOWN OUTLET ACTIVITY AND CLOSE SB-CV-6519.
IX1660876	ACOT	13 1	MONITOR TURBINE BLDG. SUMP PUMP P-165 A & B DISCHARGE LIQUID ACTIVITY & DE-ENERGIZE PUMPS 165 A & B.
IX1660875	ACOT	104 91	MONITOR TURBINE BLDG. SUMP PUMP P-165 A & B DISCHARGE LIQUID ACTIVITY & DE-ENERGIZE PUMPS 165 A & B.
IX1662111	CAL	R 1	PROVIDE LOOP 1 RC FLOW INDICATION AND LO FLOW RX TRIP
IX1662111	CAL	104 91	

IX1662112	CAL	R	1	PROVIDE LOOP 1 RC FLOW INDICATION AND LO FLOW RX TRIP (RX TRIP) (PWR DIST LIMITS)
IX1662112	CAL		104 90	PROVIDE LOOP 1 RC FLOW INDICATION AND LO FLOW RX TRIP (RX TRIP) (PWR DIST LIMITS)
IX1662113	CAL	R	1	PROVIDE LOOP 1-RC FLOW INDICATION AND LO FLOW RX TRIP (RX TRIP) (PWR DIST LIMITS)
IX1662113	CAL		104 90	PROVIDE LOOP 1-RC FLOW INDICATION AND LO FLOW RX TRIP (RX TRIP) (PWR DIST LIMITS)
IX1662121	CAL	R	1	PROVIDE LOOP 2 RC FLOW INDICATION AND LO FLOW RX TRIP (RX TRIP) (PWR DIST LIMITS)
IX1662121	CAL		104 90	PROVIDE LOOP 2 RC FLOW INDICATION AND LO FLOW RX TRIP (RX TRIP) (PWR DIST LIMITS)
IX1662122	CAL	R	1	PROVIDE LOOP 2 RC FLOW INDICATION AND LO FLOW RX TRIP (RX TRIP) (PWR DIST LIMITS)
IX1662122	CAL		104 90	PROVIDE LOOP 2 RC FLOW INDICATION AND LO FLOW RX TRIP (RX TRIP) (PWR DIST LIMITS)
IX1662123	CAL	R	1	PROVIDE LOOP 2 RC FLOW INDICATION AND LO FLOW RX TRIP (RX TRIP) (PWR DIST LIMITS)
IX1662123	CAL		104 90	PROVIDE LOOP 2 RC FLOW INDICATION AND LO FLOW RX TRIP (RX TRIP) (PWR DIST LIMITS)
IX1662131	CAL	R	1	PROVIDE LOOP 3 RC FLOW INDICATION AND LO FLOW RX TRIP (RX TRIP) (PWR DIST LIMITS)
IX1662131	CAL		104 90	PROVIDE LOOP 3 RC FLOW INDICATION AND LO FLOW RX TRIP (RX TRIP) (PWR DIST LIMITS)
IX1662132	CAL	R	1	PROVIDE LOOP 3 RC FLOW INDICATION AND LO FLOW RX TRIP (RX TRIP) (PWR DIST LIMITS)
IX1662132	CAL		104 90	PROVIDE LOOP 3 RC FLOW INDICATION AND LO FLOW RX TRIP (RX TRIP) (PWR DIST LIMITS)

IX1662133	CAL	R	1	PROVIDE LOOP 3 RC FLOW INDICATION AND LO FLOW RX TRIP (RX TRIP) (PWR DIST LIMITS)
IX1662133	CAL	104	90	PROVIDE LOOP 3 RC FLOW INDICATION AND LO FLOW RX TRIP (RX TRIP) (PWR DIST LIMITS)
IX1662141	CAL	R	1	PROVIDE LOOP 4 RC FLOW INDICATION AND LO FLOW RX TRIP (RX TRIP) (PWR DIST LIMITS)
IX1662141	CAL	104	90	PROVIDE LOOP 4 RC FLOW INDICATION AND LO FLOW RX TRIP (RX TRIP) (PWR DIST LIMITS)
IX1662142	CAL	R	1	PROVIDE LOOP 4 RC FLOW INDICATION AND FLOW RX TRIP (RX TRIP) (PWR DIST LIMITS)
IX1662142	CAL	104	90	PROVIDE LOOP 4 RC FLOW INDICATION AND FLOW RX TRIP (RX TRIP) (PWR DIST LIMITS)
IX1662143	CAL	R	1	PROVIDE LOOP 4 RC FLOW INDICATION AND LO FLOW RX TRIP (RX TRIP) (PWR DIST LIMITS)
IX1662143	CAL	104	90	PROVIDE LOOP 4 RC FLOW INDICATION AND LO FLOW RX TRIP (RX TRIP) (PWR DIST LIMITS)
IX1662151	ACOT	04	1	PROVIDE LOOP 1 RC FLOW INDICATION AND LO FLOW RX TRIP
IX1662151	ACOT	104	90	PROVIDE LOOP 1 RC FLOW INDICATION AND LO FLOW RX TRIP
IX1662152	ACOT	04	1	PROVIDE LOOP 1 RC FLOW INDICATION AND LO FLOW RX TRIP (RX TRIP) (PWR DIST LIMITS)
IX1662152	ACOT	104	91	PROVIDE LOOP 1 RC FLOW INDICATION AND LO FLOW RX TRIP (RX TRIP) (PWR DIST LIMITS)
IX1662153	ACOT	04	1	PROVIDE LOOP 1-RC FLOW INDICATION AND LO FLOW RX TRIP (RX TRIP) (PWR DIST LIMITS)

IX1662153	ACOT	104	91	PROCIDE LOOP 1-RC FLOW INDICATION AND LO FLOW RX TRIP (RX TRIP) (PWR DIST LIMITS)
IX1662211	CAL	R	1	PROVIDES PZR LEVEL INDICATION HI LEVEL RX TRIP, & PZR CONTROL SIGNAL (PAM) (RX TRIP)
IX1662211	CAL	104	90	PROVIDES PZR LEVEL INDICATION HI LEVEL RX TRIP, & PZR CONTROL SIGNAL (PAM) (RX TRIP)
IX1662212	CAL	R	1	PROVIDES PZR LEVEL INDICATION, HI LEVEL (RX TRIP) (PAM) AND PZR CONTROL SIGNAL
IX1662212	CAL	104	90	PROVIDES PZR LEVEL INDICATION, HI LEVEL (RX TRIP) (PAM) AND PZR CONTROL SIGNAL
IX1662213	CAL	R	1	PROVIDES PZR LEVEL INDICATION HI LEVEL RX TRIP, & PZR LEVEL CONTROL SIGNAL
IX1662214	CAL	R	1	PROVIDES PZR LEVEL INDICATION. (RSS)
IX1662214	CAL	104	90	PROVIDES PZR LEVEL INDICATION. (RSS)
IX1662215	CAL	R	1	PROVIDES PZR LEVEL INDICATION. (RSS)
IX1662215	CAL	104	90	PROVIDES PZR LEVEL INDICATION. (RSS)
IX1662221	ACOT	04	1	PROVIDES PZR LEVEL INDICATION HI LEVEL RX TRIP, & PZR CONTROL SIGNAL (PAM) (RX TRIP)
IX1662221	ACOT	104	91	PROVIDES PZR LEVEL INDICATION HI LEVEL RX TRIP, & PZR CONTROL SIGNAL (PAM) (RX TRIP)
IX1662222	ACOT	04	1	PROVIDES PZR LEVEL INDICATION, HI LEVEL (RX TRIP) (PAM) AND PZR CONTROL SIGNAL
IX1662222	ACOT	104	91	PROVIDES PZR LEVEL INDICATION, HI LEVEL (RX TRIP) (PAM) AND PZR CONTROL SIGNAL
IX1662223	ACOT	04	1	PROVIDES PZR LEVEL INDICATION HI LEVEL RX TRIP, & PZR LEVEL CONTROL SIGNAL
IX1662223	ACOT	104	90	PROVIDES PZR LEVEL INDICATION HI LEVEL RX TRIP, & PZR LEVEL CONTROL SIGNAL
IX1662311	CAL	R	1	PRESSURIZER PRESSURE INDICATION, RECORDING AND DELTA-T INPUT, HIGH AND LOW PRESSURE REACTOR TRIP, SAFETY INJECTION SIGNAL & PRESSURE CONTROL INPUT (PORV)

IX1662311	CAL	104 90	PRESSURIZER PRESSURE INDICATION, RECORDING AND DELTA-T INPUT, HIGH AND LOW PRESSURE REACTOR TRIP, SAFETY INJECTION SIGNAL & PRESSURE CONTROL INPUT (PORV)
IX1662312	CAL	R 1	PRESSURIZER PRESSURE INDICATION, RECORDING AND DELTA-T INPUT, HIGH AND LOW PRESSURE REACTOR TRIP, SAFETY INJECTION SIGNAL & PRESSURE CONTROL INPUT (PORV)
IX1662312	CAL	104 90	PRESSURIZER PRESSURE INDICATION, RECORDING AND DELTA-T INPUT, HIGH AND LOW PRESSURE REACTOR TRIP, SAFETY INJECTION SIGNAL & PRESSURE CONTROL INPUT (PORV)
IX1662313	CAL	R 1	PRESSURIZER PRESSURE INDICATION, RECORDING & DELTA-T INPUT, HIGH & LOW PRESSURE REACTOR TRIPS, SAFETY INJECTION SIGNAL AND CONTROL INPUT (PORV)
IX1662313	CAL	104 90	PRESSURIZER PRESSURE INDICATION, RECORDING & DELTA-T INPUT, HIGH & LOW PRESSURE REACTOR TRIPS, SAFETY INJECTION SIGNAL AND CONTROL INPUT (PORV)
IX1662314	CAL	R 1	PRESSURIZER PRESSURE INDICATION, RECORDING & DELTA-T INPUT, HIGH & LOW PRESSURE REACTOR TRIPS, SAFETY INJECTION SIGNAL & CONTROL INPUT (PORV)
IX1662314	CAL	104 90	PRESSURIZER PRESSURE INDICATION, RECORDING & DELTA-T INPUT, HIGH & LOW PRESSURE REACTOR TRIPS, SAFETY INJECTION SIGNAL & CONTROL INPUT (PORV)
IX1662315	CAL	R 1	RC LOOP 4 WIDE RANGE HOT LEG PRESSURE INDICATION RECORDING AND COLD OVER-PRESSURIZATION & RHR CONTROL. (PAM) (ECCS)
IX1662315	CAL	104 90	RC LOOP 4 WIDE RANGE HOT LEG PRESSURE INDICATION RECORDING AND COLD OVER-PRESSURIZATION & RHR CONTROL. (PAM) (ECCS)

IX1662316	CAL	R	1	RC LOOP 1 WIDE RANGE HOT LEG PRESSURE INDICATION, RECORDING, AND COLD OVER-PRESSURIZATION AND RHR CONTROL.
IX1662316	CAL	104	90	RC LOOP 1 WIDE RANGE HOT LEG PRESSURE INDICATION, RECORDING, AND COLD OVER-PRESSURIZATION AND RHR CONTROL.
IX1662317	CAL	R	1	REMOTE SAFE SHUTDOWN PRESSURIZER PRESSURE INDICATION
IX1662317	CAL	104	90	REMOTE SAFE SHUTDOWN PRESSURIZER PRESSURE INDICATION
IX1662318	CAL	R	1	REMOTE SAFE SHUTDOWN PRESSURIZER PRESSURE INDICATION
IX1662318	CAL	104	90	REMOTE SAFE SHUTDOWN PRESSURIZER PRESSURE INDICATION
IX1662321	ACOT	04	1	PRESSURIZER PRESSURE INDICATION, RECORDING AND DELTA-T INPUT, HIGH AND LOW PRESSURE REACTOR TRIP, SAFETY INJECTION SIGNAL & PRESSURE CONTROL INPUT (PORV)
IX1662321	ACOT	104	91	PRESSURIZER PRESSURE INDICATION, RECORDING AND DELTA-T INPUT, HIGH AND LOW PRESSURE REACTOR TRIP, SAFETY INJECTION SIGNAL & PRESSURE CONTROL INPUT (PORV)
IX1662322	ACOT	04	1	PRESSURIZER PRESSURE INDICATION, RECORDING AND DELTA-T INPUT, HIGH AND LOW PRESSURE REACTOR TRIP, SAFETY INJECTION SIGNAL & PRESSURE CONTROL INPUT (PORV)
IX1662322	ACOT	104	91	PRESSURIZER PRESSURE INDICATION, RECORDING AND DELTA-T INPUT, HIGH AND LOW PRESSURE REACTOR TRIP, SAFETY INJECTION SIGNAL & PRESSURE CONTROL INPUT (PORV)
IX1662323	ACOT	04	1	PRESSURIZER PRESSURE INDICATION, RECORDING AND DELTA-T INPUT, HIGH & LOW PRESSURE REACTOR TRIPS, SAFETY INJECTION SIGNAL & CONTROL INPUT (PORV)
IX1662323	ACOT	104	91	PRESSURIZER PRESSURE INDICATION, RECORDING AND DELTA-T INPUT, HIGH & LOW PRESSURE REACTOR TRIPS, SAFETY INJECTION SIGNAL & CONTROL INPUT (PORV)

IX1662324	ACOT	04	1	PRESSURIZER PRESSURE INDICATION RECORDING & DELTA-T INPUT, HIGH & LOW PRESSURE REACTOR TRIPS, SAFETY INJECTION SIGNAL & CONTROL INPUT(PORV)
IX1662324	ACOT	104	91	PRESSURIZER PRESSURE INDICATION RECORDING & DELTA-T INPUT, HIGH & LOW PRESSURE REACTOR TRIPS, SAFETY INJECTION SIGNAL & CONTROL INPUT(PORV)
IX1662390	CAL	R	1	PRESSURIZER PRESSURE MAIN CONTROL CHANNEL: CONTROL FOR SPRAY VALVES 1 & 2, B/U & VARIABLE HEATERS, POR VALVE A & HIGH & LOW PRESSURE ALARMS.
IX1662390	CAL	104	90	PRESSURIZER PRESSURE MAIN CONTROL CHANNEL: CONTROL FOR SPRAY VALVES 1 & 2, B/U & VARIABLE HEATERS, POR VALVE A & HIGH & LOW PRESSURE ALARMS.
IX1662410	CAL	R	1	LOOP 1 T/TAVE PROTECTION SET I (RX TRIP) (RSS) (ESFAS)
IX1662410	CAL	104	90	LOOP 1 T/TAVE PROTECTION SET I (RX TRIP) (RSS) (ESFAS)
IX1662411	CAL	R	1	LOOP 2 T/TAVE PROTECTION SET 2 (RX TRIP)(RSS) (ESFAS)
IX1662411	CAL	104	90	LOOP 2 T/TAVE PROTECTION SET 2 (RX TRIP)(RSS) (ESFAS)
IX1662412	CAL	R	1	LOOP 3 T/TAVE PROTECTION SET III (RX TRIP)(ESFAS)(RSS)
IX1662412	CAL	104	90	LOOP 3 T/TAVE PROTECTION SET III (RX TRIP)(ESFAS)(RSS)
IX1662413	CAL	R	1	LOOP 4 T/T AVG. PROTECTION SET IV (RX TRIP)(ESFAS) (RSS)
IX1662413	CAL	104	90	LOOP 4 T/T AVG. PROTECTION SET IV (RX TRIP)(ESFAS) (RSS)
IX1662414	CAL	R	1	REACTOR COOLANT WIDE RANGE HOT LEG TEMPERATURE FOR COLD OVER-PRESSURIZATION CONTROL. (PAM)
IX1662414	CAL	104	90	REACTOR COOLANT WIDE RANGE HOT LEG TEMPERATURE FOR COLD OVER-PRESSURIZATION CONTROL. (PAM)
IX1662415	CAL	R	1	REACTOR COOLANT WIDE RANGE COLD LEG TEMPERATURE FOR COLD OVER-PRESSURIZATION CONTROL. (PORV) (PAM) (SEC. HEAT BALANCE)

IX1662415	CAL	104	90	REACTOR COOLANT WIDE RANGE COLD LEG TEMPERATURE FOR COLD OVER-PRESSURIZATION CONTROL. (PORV) (PAM) (SEC. HEAT BALANCE)
IX1662416	CAL	R	1	REMOTE SHUTDOWN RC LOOP 1 WIDE RANGE HL TEMPERATURE INDICATION & RECORDING.
IX1662416	CAL	104	90	REMOTE SHUTDOWN RC LOOP 1 WIDE RANGE HL TEMPERATURE INDICATION & RECORDING.
IX1662417	CAL	R	1	REMOTE SHUTDOWN RC LOOP 1 WIDE RANGE CL TEMPERATURE INDICATION & RECORDING.
IX1662417	CAL	104	90	REMOTE SHUTDOWN RC LOOP 1 WIDE RANGE CL TEMPERATURE INDICATION & RECORDING.
IX1662418	CAL	R	1	REMOTE SHUTDOWN RC LOOP 4 WIDE RANGE HL TEMPERATURE INDICATION & RECORDING.
IX1662418	CAL	104	90	REMOTE SHUTDOWN RC LOOP 4 WIDE RANGE HL TEMPERATURE INDICATION & RECORDING.
IX1662419	CAL	R	1	REMOTE SHUTDOWN RC LOOP 4 WIDE RANGE CL TEMPERATURE INDICATION & RECORDING.
IX1662419	CAL	104	90	REMOTE SHUTDOWN RC LOOP 4 WIDE RANGE CL TEMPERATURE INDICATION & RECORDING.
IX1662420	ACOT	04	1	LOOP 1 T/TAVE PROTECTION SET I (RX TRIP) (RSS) (ESFAS)
IX1662420	ACOT	104	91	LOOP 1 T/TAVE PROTECTION SET I (RX TRIP) (RSS) (ESFAS)
IX1662421	ACOT	04	1	LOOP 2 T/TAVE PROTECTION SET 2 (RX TRIP)(RSS) (ESFAS)
IX1662421	ACOT	104	91	LOOP 2 T/TAVE PROTECTION SET 2 (RX TRIP)(RSS) (ESFAS)
IX1662422	ACOT	04	1	LOOP 3 T/TAVE PROTECTION SET III (RX TRIP)(ESFAS)(RSS)
IX1662422	ACOT	104	91	LOOP 3 T/TAVE PROTECTION SET III (RX TRIP)(ESFAS)(RSS)
IX1662423	ACOT	04	1	LOOP 4 T/T AVG. PROTECTION SET IV (RX TRIP)(ESFAS) (RSS)
IX1662423	ACOT	104	91	LOOP 4 T/T AVG. PROTECTION SET IV (RX TRIP)(ESFAS) (RSS)
IX1662424	ACOT	S	1	REACTOR COOLANT WIDE RANGE HOT LEG TEMPERATURE FOR COLD OVER-PRESSURIZATION CONTROL. (PAM)

IX1662424	ACOT	04	1	RC LOOP 4 WIDE RANGE HOT LEG PRESSURE INDICATION RECORDING AND COLD OVER-PRESSURIZATION & RHR CONTROL (PAM) (ECCS)
IX1662424	ACOT	104	91	RC LOOP 4 WIDE RANGE HOT LEG PRESSURE INDICATION RECORDING AND COLD OVER-PRESSURIZATION & RHR CONTROL (PAM) (ECCS)
IX1662425	ACOT	5	1	REACTOR COOLANT WIDE RANGE COLD LEG TEMPERATURE FOR COLD OVER-PRESSURIZATION CONTROL. (PORV) (PAM) (SEC. HEAT BALANCE)
IX1662425	ACOT	04	?	RC LOOP 1 WIDE RANGE HOT LEG PRESSURE INDICATION, RECORDING, AND COLD OVER-PRESSURIZATION AND RHR CONTROL.
IX1662420	ACOT	104	91	RC LOOP 1 WIDE RANGE HOT LEG PRESSURE INDICATION, RECORDING, AND COLD OVER-PRESSURIZATION AND RHR CONTROL.
IX1666910	ACOT	R	1	SHUTDOWN & CONTROL DIGITAL ROD POSITION INDICATION SYSTEM.
IX1666910	ACOT	104	90	SHUTDOWN & CONTROL DIGITAL ROD POSITION INDICATION SYSTEM.
IX1668210	CAL	R	1	SI ACCUM TK-9A LEVEL XMIT (ECCS)
IX1668210	CAL	104	90	SI ACCUM TK-9A LEVEL XMIT (ECCS)
IX1668211	CAL	R	1	SI ACCUM TK-9A LEVEL XMIT (ECCS)
IX1668211	CAL	104	90	SI ACCUM TK-9A LEVEL XMIT (ECCS)
IX1668212	CAL	R	1	SI ACCUM TK-9B LEVEL XMIT (ECCS)
IX1668212	CAL	104	90	SI ACCUM TK-9B LEVEL XMIT (ECCS)
IX1668213	CAL	R	1	SI ACCUM TK-9B LEVEL XMIT (ECCS)
IX1668213	CAL	104	90	SI ACCUM TK-9B LEVEL XMIT (ECCS)
IX1668214	CAL	R	1	SI ACCUM TK-9C LEVEL XMIT (ECCS)
IX1668214	CAL	104	90	SI ACCUM TK-9C LEVEL XMIT (ECCS)
IX1668215	CAL	R	1	SI ACCUM TK-9C LEVEL XMIT (ECCS)
IX1668215	CAL	104	90	SI ACCUM TK-9C LEVEL XMIT (ECCS)
IX1668216	CAL	R	1	SI ACCUM TK-9D LEVEL XMIT (ECCS)
IX1668216	CAL	104	90	SI ACCUM TK-9D LEVEL XMIT (ECCS)

IX1668217	CAL	R	1	SI ACCUM TK-9D LEVEL XMIT (ECCS)
IX1668217	CAL	104	90	SI ACCUM TK-9D LEVEL XMIT (ECCS)
IX1668221	ACOT	04	1	SI ACCUM TK-9A LEVEL XMIT (ECCS)
IX1668221	ACOT	104	91	SI ACCUM TK-9A LEVEL XMIT (ECCS)
IX1668222	ACOT	04	1	SI ACCUM TK-9A LEVEL XMIT (ECCS)
IX1668222	ACOT	104	91	SI ACCUM TK-9A LEVEL XMIT (ECCS)
IX1668223	ACOT	04	1	SI ACCUM TK-9C LEVEL XMIT (ECCS)
IX1668223	ACOT	104	91	SI ACCUM TK-9C LEVEL XMIT (ECCS)
IX1668224	ACOT	04	1	SI ACCUM TK-9C LEVEL XMIT (ECCS)
IX1668224	ACOT	104	91	SI ACCUM TK-9C LEVEL XMIT (ECCS)
IX1668310	CAL	R	1	SI ACCUM TK-9A PRESS XMIT (ECCS)
IX1668310	CAL	104	90	SI ACCUM TK-9A PRESS XMIT (ECCS)
IX1668311	CAL	R	1	SI ACCUM TK-9A PRESS XMIT (ECCS)
IX1668311	CAL	104	90	SI ACCUM TK-9A PRESS XMIT (ECCS)
IX1668312	CAL	R	1	ACCUM TK-9B PRESS XMIT (ECCS)
IX1668312	CAL	104	90	ACCUM TK-9B PRESS XMIT (ECCS)
IX1668313	CAL	R	1	SI-ACCUM TK-9B PRESS XMIT (ESSC)
IX1668313	CAL	104	90	SI-ACCUM TK-9B PRESS XMIT (ESSC)
IX1668314	CAL	R	1	SI ACCUM TK-9C PRESS XMIT (ECCS)
IX1668314	CAL	104	90	SI ACCUM TK-9C PRESS XMIT (ECCS)
IX1668315	CAL	R	1	SI ACCUM TK-9C PRESS XMIT (ECCS)
IX1668315	CAL	104	90	SI ACCUM TK-9C PRESS XMIT (ECCS)
IX1668316	CAL	R	1	SI ACCUM TK-9D PRESS XMIT (ECCS)
IX1668316	CAL	104	90	SI ACCUM TK-9D PRESS XMIT (ECCS)
IX1668317	CAL	R	1	SI ACCUM TK-9D PRESS XMIT (ECCS)
IX1668317	CAL	104	90	SI ACCUM TK-9D PRESS XMIT (ECCS)

IX1668321	CAL	04	1	SI ACCUM TK-9A PRESS XMIT (ECCS)
IX1668321	CAL	104	91	SI ACCUM TK-9A PRESS XMIT (ECCS)
IX1668322	ACOT	04	1	SI ACCUM TK-9A PRESS XMIT (ECCS)
IX1668322	ACOT	104	91	SI ACCUM TK-9A PRESS XMIT (ECCS)
IX1668323	ACOT	04	1	SI ACCUM TK-9C PRESS XMIT (ECCS)
IX1668323	ACOT	104	91	SI ACCUM TK-9C PRESS XMIT (ECCS)
IX1668324	ACOT	04	1	SI ACCUM TK-9C PRESS XMIT (ECCS)
IX1668324	ACOT	104	91	SI ACCUM TK-9C PRESS XMIT (ECCS)
IX1668331	CAL	R	1	CONTAINMENT PRESSURE PROTECTION CH. 1 (ESFAS)
IX1668331	CAL	104	90	CONTAINMENT PRESSURE PROTECTION CH. 1 (ESFAS)
IX1668332	CAL	R	1	CONTAINMENT PRESSURE PROTECTION CH. 11 (ESFAS)
IX1668332	CAL	104	90	CONTAINMENT PRESSURE PROTECTION CH. 11 (ESFAS)
IX1668333	CAL	R	1	CONTAINMENT PRESSURE PROTECTION CH III (ESFAS)
IX1668333	CAL	104	90	CONTAINMENT PRESSURE PROTECTION CH III (ESFAS)
IX1668334	CAL	R	1	CONTAINMENT PRESSURE PROTECTION CH IV (ESFAS)
IX1668334	CAL	104	90	CONTAINMENT PRESSURE PROTECTION CH IV (ESFAS)
IX1668341	ACOT	04	1	CONTAINMENT PRESSURE PROTECTION CH 1 (ESFAS)
IX1668341	ACOT	104	91	CONTAINMENT PRESSURE PROTECTION CH 1 (ESFAS)
IX1668342	ACOT	04	1	CONTAINMENT PRESSURE PROTECTION CH 11 (ESFAS)
IX1668342	ACOT	104	91	CONTAINMENT PRESSURE PROTECTION CH 11 (ESFAS)
IX1668343	ACOT	04	1	CONTAINMENT PRESSURE PROTECTION CH. III (ESFAS)

IX1668343	ACOT	104 91	CONTAINMENT PRESSURE PROTECTION CH. III (ESFAS)
IX1668344	ACOT	04 1	CONTAINMENT PRESSURE PROTECTION CH IV(ESFAS)
IX1668344	ACOT	104 91	CONTAINMENT PRESSURE PROTECTION CH IV(ESFAS)
IX1670909	CAL	R 1	PRIMARY COMPONENT COOLING WATER PIPING TRIAXIAL PEAK ACCELEROGRAPH
IX1670909	CAL	SASE1	PRIMARY COMPONENT COOLING WATER PIPING TRIAXIAL PEAK ACCELEROGRAPH
IX1670909	CAL	104 90	PRIMARY COMPONENT COOLING WATER PIPING TRIAXIAL PEAK ACCELEROGRAPH
IX1670910	CAL	R 1	EAST CONTROL ROOM AIR INTAKE SEISMIC MONITORING
IX1670910	CAL	SASE1	EAST CONTROL ROOM AIR INTAKE SEISMIC MONITORING
IX1670910	CAL	104 90	EAST CONTROL ROOM AIR INTAKE SEISMIC MONITORING
IX1670911	CAL	R 1	CONTAINMENT FOUNDATION SEISMIC MONITOR (-25'0")
IX1670911	CAL	SASE1	CONTAINMENT FOUNDATION SEISMIC MONITOR (-25'0")
IX1670911	CAL	104 90	CONTAINMENT FOUNDATION SEISMIC MONITOR (-25'0")
IX1670912	CAL	R 1	CONTAINMENT BLDG. SEISMIC MONITORING
IX1670912	CAL	SASE1	CONTAINMENT BLDG. SEISMIC MONITORING
IX1670912	CAL	104 90	CONTAINMENT BLDG. SEISMIC MONITORING
IX1670913	CAL	R 1	REACTOR VESSEL SUPPORT SEISMIC MONITOR (13'4")
IX1670913	CAL	SASE1	REACTOR VESSEL SUPPORT SEISMIC MONITOR (13'4")
IX1670913	CAL	104 90	REACTOR VESSEL SUPPORT SEISMIC MONITOR (13'4")
IX1670914	CAL	R 1	REACTOR COOLANT PIPING LOOP 1 COLD LEG TRIAXIAL PEAK ACCELOGRAPH
IX1670914	CAL	SASE1	REACTOR COOLANT PIPING LOOP 1 COLD LEG TRIAXIAL PEAK ACCELOGRAPH

IX1670914	CAL	104 90	REACTOR COOLANT PIPING LOOP 1 COLD LEG TRIAXIAL PEAK ACCELOGRAPH
IX1670915	CAL	R 1	CONTAINMENT FOUNDATION SEISMIC SWITCH
IX1670915	CAL	SASE1	CONTAINMENT FOUNDATION SEISMIC SWITCH
IX1670915	CAL	104 90	CONTAINMENT FOUNDATION SEISMIC SWITCH
IX1670916	CAL	R 1	CONTAINMENT BUILDING FOUNDATION SEISMIC MONITOR (-26'0")
IX1670916	CAL	SASE1	CONTAINMENT BUILDING FOUNDATION SEISMIC MONITOR (-26'0")
IX1670916	CAL	104 90	CONTAINMENT BUILDING FOUNDATION SEISMIC MONITOR (-26'0")
IX1670917	CAL	R 1	STM. GEN. 11B SEISMIC MONITOR
IX1670917	CAL	SASE1	STM. GEN. 11B SEISMIC MONITOR
IX1670917	CAL	104 90	STM. GEN. 11B SEISMIC MONITOR
IX1670918	CAL	R 1	PRIMARY AUX. BUILDING SEISMIC MONITOR (25'0")
IX1670918	CAL	SASE1	PRIMARY AUX. BUILDING SEISMIC MONITOR (25'0")
IX1670918	CAL	104 90	PRIMARY AUX. BUILDING SEISMIC MONITOR (25'0")
IX1670919	CAL	R 1	SERVICE WATER PUMP HOUSE SEISMIC MONITOR
IX1670919	CAL	SASE1	SERVICE WATER PUMP HOUSE SEISMIC MONITOR
IX1670919	CAL	104 90	SERVICE WATER PUMP HOUSE SEISMIC MONITOR
IX1670920	ACOT	26 1	EAST CONTROL ROOM AIR INTAKE SEISMIC MONITORING
IX1670920	ACOT	104 91	EAST CONTROL ROOM AIR INTAKE SEISMIC MONITORING
IX1670925	ACOT	26 1	CONTAINMENT FOUNDATION SEISMIC SWITCH
IX1670925	ACOT	104 91	CONTAINMENT FOUNDATION SEISMIC SWITCH
IX1670926	ACOT	26 1	CONTAINMENT BUILDING FOUNDATION SEISMIC MONITOR (-26'0")
IX1670926	ACOT	104 91	CONTAINMENT BUILDING FOUNDATION SEISMIC MONITOR (-26'0")

IX1683910	CAL	R	1	REACTOR COOLANT LOOSE PARTS MONITORING AND ALARM (LOOSE PARTS)
IX1683910	CAL	104	90	REACTOR COOLANT LOOSE PARTS MONITORING AND ALARM (LOOSE PARTS)
IX1683915	CAL	R	1	PZR & MS SAFETY VALVE POSITION MONITORING SYSTEM. (PAM)
IX1683915	CAL	104	90	PZR & MS SAFETY VALVE POSITION MONITORING SYSTEM. (PAM)
IX1683950	ACOT	04	1	REACTOR COOLANT LOOSE PARTS MONITORING AND ALARM (LOOSE PARTS).
IX1683950	ACOT	104	91	REACTOR COOLANT LOOSE PARTS MONITORING AND ALARM (LOOSE PARTS).
IX1684110	CAL	R	1	STEAM BLOWDOWN FLASH TANK SB-TK-40 BOTTOM COOLERS SB-E-88A/88B DISCH. FLOW (LIQ EFF)
IX1684110	CAL	104	90	STEAM BLOWDOWN FLASH TANK SB-TK-40 BOTTOM COOLERS SB-E-88A/88B DISCH. FLOW (LIQ EFF)
IX1686910	CAL	13	1	WASTE GAS CHILLER INLET TRACE OXYGEN
IX1686910	CAL	104	90	WASTE GAS CHILLER INLET TRACE OXYGEN
IX1686912	CAL	13	1	WASTE GAS CHILLER INLET TRACE OXYGEN
IX1686912	CAL	104	90	WASTE GAS CHILLER INLET TRACE OXYGEN
IX1686920	ACOT	04	1	WASTE GAS CHILLER INLET TRACE OXYGEN
IX1686920	ACOT	104	90	WASTE GAS CHILLER INLET TRACE OXYGEN
IX1688110	CAL	R	1	WASTE DISTILLATE FLOW TO CIRC. WATER INTAKE STRUCTURE DISCHARGE (LIQUID EFFLUENT)
IX1688110	CAL	104	90	WASTE DISTILLATE FLOW TO CIRC. WATER INTAKE STRUCTURE DISCHARGE (LIQUID EFFLUENT)
IX1688120	ACOT	13	1	WASTE DISTILLATE FLOW TO CIRC. WATER INTAKE STRUCTURE DISCHARGE (LIQUID EFFLUENT)
IX1688120	ACOT	104	91	WASTE DISTILLATE FLOW TO CIRC. WATER INTAKE STRUCTURE DISCHARGE (LIQUID EFFLUENT)

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420.73

ADDITIONAL
RESPONSE
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Safety function instrumentation at Seabrook can be divided into two general classifications; actuation instrumentation and control instrumentation.

Actuation instrumentation performs functions that are considered protective functions (i.e., reactor trip and engineered safety features actuation) or are necessary to provide essential auxiliary functions (cooling tower actuation, isolation of the non-safety component cooling water piping). This instrumentation is designed to meet the requirements of IEEE 279 and typically has the following features:

- a) Dedicated indicator in the Control Room.
- b) Alarm on actuation of a specific safety function.
- c) Indicator lights on the MCB, VAS alarm, channel indication at the instrument cabinets to alert the operator to a channel in the trip condition and to identify the specific channel, this indication is not applicable to functions that only have one sensing instrument.
- d) Indication to monitor the performance of the actuated equipment.
- e) Capability to perform the surveillance tests specified in the Technical Specifications (see Section 7.2.2.2(c)). These tests can be performed without interfering with normal plant operation or the use of jury rigs or lifted leads. The design conforms with the guidance of Regulatory Guide 1.22 and 1.118. DEVIATIONS WILL BE ADDRESSED AS PART OF RAI 420.17.

Control instrumentation performs functions associated with the control of auxiliary supporting features in response to changes in a measured variable (start of cooling fans to maintain environmental conditions, operation of valves to meet minimum flow conditions for a pump). These control functions only affect the operation of one of the redundant safety trains, the other train is available to perform the safety function if one train fails. This instrumentation is not designed to meet the requirements of IEEE 279 and typically has the following features:

- f) Control Room or local indication to monitor the controlled variable.
- g) Independent alarm in the Control Room if the controlled variable exceeds the expected control band.
- h) Capability to perform periodic calibration and functional tests. These tests can be performed without interfering with normal plant operation or the use of jury rigs or lifted leads. DEVIATIONS WILL BE ADDRESSED AS PART OF RAI 420.17.

A BASIC DESIGN CRITERIA IS THAT

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