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 FACIL: 50-305 Kewaunee Nuclear Power Plant, Wisconsin Public Service 05000305
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 EISENHUT, D.G. Division of Licensing

SUBJECT: Forwards response to Generic Ltr 83-28 re generic implications of Salem ATWS events.

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WISCONSIN PUBLIC SERVICE CORPORATION



P.O. Box 1200, Green Bay, Wisconsin 54305

December 22, 1983

Director, Office of Nuclear Reactor Regulation
 Attention: Mr. D. G. Eisenhut, Director
 Division of Licensing
 Office of Nuclear Reactor Regulation
 U. S. Nuclear Regulatory Commission
 Washington, D.C. 20555

Dear Mr. Eisenhut:

Docket 50-305
 Operating License DPR-43
 Kewaunee Nuclear Power Plant
Generic Implications of Salem ATWS Event (Generic Letter 83-28)

- References: 1) Generic Letter 83-28 dated July 8, 1983
 2) Letter from C. W. Giesler to D. G. Eisenhut dated December 2, 1983

In accordance with reference 2 please find enclosed 25 copies of our response to Generic Letter 83-28 (Reference 1) Section 2.1.

Update Instructions

Please follow the instructions below when making the revision to this response. If you have any questions concerning this revision please call.

<u>Section</u>	<u>Remove Page No.</u>	<u>Insert Page No.</u>	<u>Change No.</u>
2.1	2.1.1	2.1.1 2.1.2 2.1.3 2.1.4 Table 2.1-1	1

Sincerely,

C. W. Giesler
 Vice President - Nuclear Power

DJM/js 8312280253 831222
 Enc. PDR ADOCK 05000305
 P PDR

cc - Mr. Robert Nelson, US NRC
 Mr. S. A. Varga, US NRC

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50-305

RESPONSE TO GENERIC LTR 83-28 RE GENERIC IMPLIC
ATIONS OF SALEM ATWS EVENTS.

Docket # *50-305*

Control # *8312280253*

Date *12/22/83* of Document:

REGULATORY DOCKET FILE

2.1 Equipment Classification and Vendor Interface (Reactor Trip System Components)

1. Licensees and applicants shall confirm that all components whose functioning is required to trip the reactor are identified as safety-related on documents, procedures, and information handling systems used in the plant to control safety-related activities, including maintenance, work orders, and parts replacement.

WPSC RESPONSE

The documentation associated with preventative maintenance activities include the QA Typing. Maintenance work orders (MWRs) include the QA Typing of the component, on the work order itself.

The QA Typing associated with the preventative maintenance procedures and maintenance work orders (MWRs) are obtained from the information handling systems used. Those systems list the reactor trip system components.

A review of the reactor trip system components whose operation is required to trip the reactor has been made in accordance with the requirements of this section. Table 2.1-1 documents our review of Reactor Trip System component QA classifications. This table is detailed to a component definition level that would logically be used for purchasing purposes (i.e., relays, power supplies, isolators, bistables, etc.).

The table is broken into the following major categories:

- I. Reactor Trip Breakers
- II. Manual Trip Inputs
- III. Reactor Coolant System Process Parameter Inputs
- IV. Neutron Flux Inputs
- V. Reactor Coolant Pump Inputs
- VI. Turbine Inputs
- VII. Engineered Safeguards System Inputs
- VIII. Racks, Cabinets, and Power Supplies

For each category, the base identification number of each component, the component name, associated component(s) and their name(s), component QA Type and QA Typing Documentation Source are identified.

The Nuclear Safety Design Classifications, QA Type 1, 2 or 3 items are derived from the Safety Class I, II and III and the definitions of each classification are given in the following paragraphs:

(a) QA Type 1

QA Type 1 identifies those items for which the Quality Assurance Program must assure the highest feasible degree of quality standards consistent with the importance of the safety function to be performed. This category includes, in accordance with 10 CFR 50 Appendix B criteria, those "structures, systems and components that prevent or mitigate the consequences of postulated accidents that could cause undue risk to the health and safety of the public." All components and/or systems which are identified as Safety Class I in the Safety Analysis Report shall be categorized as QA Type 1. All nuclear fuel and core components shall be categorized as QA Type 1.

(b) QA Type 2

QA Type 2 identifies those items for which the Quality Assurance Program should engender a high confidence level that the items will perform satisfactorily. This category includes those items whose failure would not directly affect the health and safety of the public but the failure

of which could cause severe economic loss of cause the plant to experience an extended outage.

(c) QA Type 3

QA Type 3 identifies those items for which there is no compelling need of a Quality Assurance Program beyond that required to obtain standard high quality workmanship in manufacture and construction. This category includes all other items not included in Types 1 and 2. It includes those items the failure of which could be tolerated without causing significant plant outage. It should be understood, however, that Type 3 component failures could hamper convenient operation of the plant.

Several components have been identified in Table 2.1-1 as having a QA typing of other than QA-1; these include the following:

- 1) Pages 2 and 3: Main Steam Isolation Valve test trip pushbuttons (Instrument Nos. 71011, 71012, 71039, and 71040) are QA Type 2. These pushbuttons (and associated components listed on pages 2 and 3 with identifications 46136, 46136XA, 46136XB, 46137, 46137XA, 46137XB, TP1437, SV33182, SV33186, MSA2X, TP1436, SV33181, SV33185, MSAIX, SV33184, SV33178, MSB2X, SV33183, SV33177, and MSB1X are listed on this table only because they share common power sources (RR-171, circuit 11 and RR-176, circuit 11) with the Manual Reactor Trip Breaker trip coils. A design change has been initiated to split up the power sources to 46004XA and XB and 46285XA and XB relays from dedicated feeders; this would eliminate the above parenthetically listed components from the RPS component table completely. Failure of any of these items will

not affect the automatic reactor trip mechanism. This design change will be completed prior to startup from the 1986 refueling outage.

- 2) Pages 51 and 52: Reactor Coolant Pump Switchgear (4160V Buses 1-1 and 1-2) and RCP breaker position switches (52a/1-103 and 2a/1-203) are QA Type 2. The QA Typing of 2 for Reactor Coolant Pump breakers is appropriate, as they do not perform a Safeguard Function. The breaker position switches, as inputs to the Reactor Protection System, have been treated electrically as QA Type 1 (i.e., Safeguard cable numbers, safeguard electrical separation, and QA Type 1 cable): This is not, in our opinion, a QA Typing discrepancy.
 - 3) Pages 54 and 55: Turbine RH and LH Stop Valves and their position switches are QA Type 2. The QA Typing of 2 for the stop valves is appropriate, as they do not perform a Safeguard Function. The valve position switches, as inputs to the Reactor Protection System, are not treated electrically as QA Type 1 (i.e., Safeguard cable numbers and safeguard electrical separation). We are evaluating this item to determine if further action is necessary.
 - 4) Pages 48, 50, and 86: Reactor Coolant Pump Bus undervoltage auxiliary relay, their associated resistors, and terminal boxes TB-1915 and TB-1916 are QA Type 2. We are evaluating this item to determine if further action is necessary.
2. In addition, for these components, licensees and applicants shall establish, implement and maintain a continuing program to ensure that vendor information is complete, current and controlled throughout the life of the plant, and appropriately referenced or incorporated in plant instructions and procedures. Vendors of these components should be contacted and an interface established. Where vendors cannot be identified, have gone out of business,

or will not supply the information, the licensee or applicant shall assure that sufficient attention is paid to equipment maintenance, replacement, and repair, to compensate for the lack of vendor backup, to assure reactor trip system reliability. The vendor interface program shall include periodic communication with vendors to assure that all applicable information has been received. The program should use a system of positive feedback with vendors for mailings containing technical information. This could be accomplished by licensee acknowledgement for receipt of technical mailings. The program shall also define the interface and division of responsibilities among the licensees and the nuclear and non-nuclear divisions of their vendors that provide service on reactor trip system components to assure that requisite control of and applicable instructions for maintenance work are provided.

WPSC RESPONSE

We are a member of the INPO Nuclear Utility Task Action Committee (NUTAC) which was formed to develop guidance for use by utilities in responding to this concern. Therefore, a response to this item will be submitted sometime after the NUTAC guidance is issued.

TABLE 2.2-1

WISCONSIN PUBLIC SERVICE CORPORATION
KEWAUNEE NUCLEAR POWER PLANT

REACTOR TRIP COMPONENT QA TYPE LISTING

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TABLE 2.1-1

WISCONSIN PUBLIC SERVICE CORPORATION
KEWAUNEE NUCLEAR POWER PLANT
REACTOR TRIP COMPONENT QA TYPE LISTING

I. REACTOR TRIP BREAKERS

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
1E-0455		RD106 REACTOR TRIP BREAKERS	1	E850/ELECTRICAL COMPONENT LIST
	1E-0522	BRA104, BRB104, 125V DC DISTRIBUTION CABINETS		

II. MANUAL TRIP INPUTS

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
46004		REACTOR TRIP PUSHBUTTON	1/1	INSTRUMENT LIST
	1E-0401	CR102 MECHANICAL CONSOLE A		
	1E-0242	RR143 AUX RELAY RACK TRAIN "A"		
	1E-0243	RR144 AUX RELAY RACK TRAIN "B"		
	46004XA	REACTOR TRIP PUSHBUTTON "A" TRAIN AUX RELAY	1	P.O. K-476
	46004XB	REACTOR TRIP PUSHBUTTON "B" TRAIN AUX RELAY	1	P.O. K-476
		NOTE: COMPONENTS ASSOCIATED WITH 46004XB ARE IDENTICAL TO THE COMPONENTS ASSOCIATED WITH 46285 AND ARE NOT REPEATED HERE. THE LIST OF THESE COMPONENTS BEGINS ON PAGE 3.		
	46136	MN STEAM HDR 1A ISOL VLV TEST SWITCH	1/1	INSTRUMENT LIST
	46136XA	MN STEAM HDR 1A ISOL VLV TEST SWITCH AUX RELAY	1	P.O. K-525
	46137	MN STEAM HDR 1B ISOL VLV TEST SWITCH	1/1	INSTRUMENT LIST
	46137XA	MN STEAM HDR 1B ISOL VLV TEST SWITCH AUX RELAY	1	P.O. K-525
	TP1437	MAIN STEAM ISOL VLV LOCAL TEST PANEL 1B		
	PB71039	MN STM HDR 1B ISOL VLV TRAIN A TEST TRIP PB	2/2	INSTRUMENT LIST
	SV33182	MN STM HDR 1B ISOL VLV AIR SPLY SV 1B1	1/1	INSTRUMENT LIST
	SV33186	MN STM HDR 1B ISOL VLV AIR RELEASE SV 1B6	1/1	INSTRUMENT LIST
	MSA2X	MAIN STEAM AUX RELAY	1	P.O. K-525
	TP1436	MAIN STEAM ISOL VLV LOCAL TEST PANEL 1A		
	PB71011	MN STM HDR 1A ISOL VLV TRAIN "A" TEST TRIP PB	2/2	INSTRUMENT LIST
	SV33181	MN STM HDR 1A ISOL VLV AIR SPLY SV 1A1	1/1	INSTRUMENT LIST
	SV33185	MN STM HDR 1A ISOL VLV AIR RELEASE SV 1B6	1/1	INSTRUMENT LIST
	MSA1X	MAIN STEAM AUX RELAY	1	P.O. K-525
	1E-0270	RR171 SUBDISTRIBUTION DC FUSE PANEL TRAIN "A"		

II. MANUAL TRIP INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
46285		REACTOR CONTROL ROD DRIVE SUPPLY BANK RESET/REACTOR TRIP PUSHBUTTON	1/1	INSTRUMENT LIST
	1E-0401	CR102 MECHANICAL CONSOLE A		
	1E-0402	CR103 MECHANICAL CONSOLE B		
	1E-0242	RR143 AUX RELAY RACK TRAIN "A"		
	1E-0243	RR144 AUX RELAY RACK TRAIN "B"		
	46285XB	REACTOR TRIP PUSHBUTTON "B" TRAIN AUX RELAY	1	P.O. K-476
	46285XA	REACTOR TRIP PUSHBUTTON "A" TRAIN AUX RELAY	1	P.O. K-476
		NOTE: COMPONENTS ASSOCIATED WITH 46285/XA ARE IDENTICAL TO THE COMPONENTS ASSOCIATED WITH 46004/XA AND ARE NOT REPEATED HERE. THE LIST OF THESE COMPONENTS BEGINS ON PAGE 2.		
	46136	MN STEAM HDR 1A ISOL VLV TEST SWITCH	1/1	INSTRUMENT LIST
	46136XB	MN STEAM HDR 1A ISOL VLV TEST SWITCH AUX RELAY	1	P.O. K-525
	46137	MN STEAM HDR 1B ISOL VLV TEST SWITCH	1/1	INSTRUMENT LIST
	46137XB	MN STEAM HDR 1B ISOL VLV TEST SWITCH AUX RELAY	1	P.O. K-525
	TP1437	MAIN STEAM ISOL VLV LOCAL TEST PANEL 1B		
	PB71040	MN STM HDR 1B ISOL VLV TRAIN "B" TEST TRIP PB	2/2	INSTRUMENT LIST
	SV33184	MN STM HDR 1B ISOL VLV AIR SPLY SV 1B2	1/1	INSTRUMENT LIST
	SV33178	MN STM HDR 1B ISOL VLV AIR RELEASE SV 1B7	1/1	INSTRUMENT LIST
	MSB2X	MAIN STEAM AUX RELAY	1	P.O. K-525
	TP1436	MAIN STEAM ISOL VLV LOCAL TEST PANEL 1A		
	PB71012	MN STM HDR 1A ISOL VLV TRAIN "B" TEST TRIP PB	2/2	INSTRUMENT LIST
	SV33183	MN STM HDR 1A ISOL VLV AIR SPLY SV 1A2	1/1	INSTRUMENT LIST
	SV33177	MN STM HDR 1A ISOL VLV AIR RELEASE SV1A7	1/1	INSTRUMENT LIST
	MSB1X	MAIN STEAM AUX RELAY	1	P.O. K-525
	1E-0275	RR176 SUBDISTRIBUTION DC FUSE PANEL TRAIN "B"		

III. REACTOR COOLANT SYSTEM PROCESS PARAMETER INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
15062		REACTOR COOLANT LOOP A-2 HOT LEG RTD (TE402A)	1/1	INSTRUMENT LIST
15067		REACTOR COOLANT LOOP A-2 COLD LEG RTD (TE402B)	1/1	INSTRUMENT LIST
	1E-0213	RR114 WHITE CHANNEL, 1W1 (1C113)		
	4892701	TH-R/MV R/VOLT CNVTR (TT402A)	1/1	INSTRUMENT LIST
	4892702	TC-R/MV R/VOLT CNVTR (TT402B)	1/1	INSTRUMENT LIST
	4892703	(T AVG) E/I LEAD LAG UNIT	1/1	INSTRUMENT LIST
	4857102	D/T LAG UNIT (TM406R)	1/1	INSTRUMENT LIST
	4857103	D/T TO CONT SYS ISOL VOLT/CURRT CNVTR (TM406C)	1/1	INSTRUMENT LIST
	4857104	D/T TO CMTR ISOL VOLT/CURRT CNVTR (TM406P)	1/1	INSTRUMENT LIST
	4857105	OVR TEMP D/T TRIP/ROD STP WTHDRL DUPLEX D ALM (TC406C/D)	1/1	INSTRUMENT LIST
	4857107	OVR PWR D/T TRIP/ROD STP WITH DRL DUPLEX D ALM (TC406A/B)	1/1	INSTRUMENT LIST
	1E-0230	RR131 REACTOR PROTECTION TRAIN "A" (1C152)		
	TC406A/XA	OVERPOWER DELTA-T BISTABLE AUX RELAY	*	*
	TC406A/TA	OVERPOWER DELTA-T BISTABLE AUX TEST RELAY	*	*
	TC406C/XA	OVERTEMPERATURE DELTA-T BISTABLE AUX RELAY	*	*
	TC406C/TA	OVERTEMPERATURE DELTA-T BISTABLE AUX TEST RELAY	*	*
	1E-0231	RR132 REACTOR PROTECTION TRAIN "A" (1C153)		
	RT5/XA	REACTOR TRIP RELAY	*	*
	RT6/XA	REACTOR TRIP RELAY	*	*
	1E-0223	RR124 REACTOR PROTECTION TRAIN "B" (1C162)		
	TC406A/XB	OVERPOWER DELTA-T BISTABLE AUX RELAY	*	*
	TC406A/TB	OVERPOWER DELTA-T BISTABLE AUX TEST RELAY	*	*
	TC406C/XB	OVERTEMPERATURE DELTA-T BISTABLE AUX RELAY	*	*
	TC406C/TB	OVERTEMPERATURE DELTA-T BISTABLE AUX TEST RELAY	*	*
	1E-0222	RR123 REACTOR PROTECTION TRAIN "B" (1C163)		
	RT5/XB	REACTOR TRIP RELAY	*	*
	RT6/XB	REACTOR TRIP RELAY	*	*

III. REACTOR COOLANT SYSTEM PROCESS PARAMETER INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
15061		REACTOR COOLANT LOOP A-1 HOT LEG RTD (TE404A)	1/1	INSTRUMENT LIST
15066		REACTOR COOLANT LOOP A-1 COLD LEG RTD (TE404B)	1/1	INSTRUMENT LIST
	1E-0205	RR106 YELLOW CHANNEL, 1Y1 (1C117)		
	4893201	TH-R/MV R/VOLT CNVTR (TT404A)	1/1	INSTRUMENT LIST
	4893202	TC-R/MW R/VOLT CNVTR (TT404B)	1/1	INSTRUMENT LIST
	4893203	(T AVG) E/I LEAD LAG AMP (TM404BB)	1/1	INSTRUMENT LIST
	4856602	D/T SPCL LAG UNIT (TM408R)	1/1	INSTRUMENT LIST
	4856603	D/T TO CONT SYS ISOL VOLT/CURRT CNVTR (TM408C)	1/1	INSTRUMENT LIST
	4856604	D/T TO CMPTR ISOL VOLT/CURRT CNVTR (TM408P)	1/1	INSTRUMENT LIST
	4856605	OVR PWR D/T TRIP/ROD STP WTHDRL DUPLEX D ALM (TC408A/B)	1/1	INSTRUMENT LIST
	4856606	OVR TEMP D/T TRIP/ROD STP WTHDRL DUPLEX D ALM (TC408C/D)	1/1	INSTRUMENT LIST
	1E-0232	RR133 REACTOR PROTECTION TRAIN "A" (1C154)		
	TC408A/XA	OVERPOWER DELTA-T BISTABLE AUX RELAY	*	*
	TC408A/TA	OVERPOWER DELTA-T BISTABLE AUX TEST RELAY	*	*
	TC408C/XA	OVERTEMPERATURE DELTA-T BISTABLE AUX RELAY	*	*
	TC408C/TA	OVERTEMPERATURE DELTA-T BISTABLE AUX TEST RELAY	*	*
	1E-0231	RR132 REACTOR PROTECTION TRAIN "A" (1C153)		
	RT5/XA	REACTOR TRIP RELAY	*	*
	RT6/XA	REACTOR TRIP RELAY	*	*
	1E-0221	RR122 REACTOR PROTECTION TRAIN "B" (1C164)		
	TC408A/XB	OVERPOWER DELTA-T BISTABLE AUX RELAY	*	*
	TC408A/TB	OVERPOWER DELTA-T BISTABLE AUX TEST RELAY	*	*
	TC408C/XB	OVERTEMPERATURE DELTA-T BISTABLE AUX RELAY	*	*
	TC408C/TB	OVERTEMPERATURE DELTA-T BISTABLE AUX TEST RELAY	*	*

III. REACTOR COOLANT SYSTEM PROCESS PARAMETER INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	1E-0222	RR123 REACTOR PROTECTION TRAIN "B" (1C163)		
	RT5/XB	REACTOR TRIP RELAY	*	*
	RT6/XB	REACTOR TRIP RELAY	*	*
15072		REACTOR COOLANT LOOP B-2 HOT LEG RTD (TE401A)	1/1	INSTRUMENT LIST
15077		REACTOR COOLANT LOOP B-2 COLD LEG RTD (TE401B)	1/1	INSTRUMENT LIST
	1E-0207	RR108 RED CHANNEL, 1R1 (1C111)		
	4892301	TH-R/MV R/VOLT CNVTR (TT401A)	1/1	INSTRUMENT LIST
	4892302	TC-R/MV R/ELECT CNVTR (TT401B)	1/1	INSTRUMENT LIST
	4892303	(T AVG) E/I LEAD LAG AMP (TM401BB)	1/1	INSTRUMENT LIST
	4851402	OVR PWR DEL 4 TRIP/ROD STP WTHDWL DUPLEX D ALM (TC405A/B)	1/1	INSTRUMENT LIST
	4851403	OVR TEMP D/T TRIP/ROD STP WTHDWL DUPLEX D ALM (TC405C/D)	1/1	INSTRUMENT LIST
	4851405	D/T TO CONT SYS ISOL ELECT/CURRT CNVTR (TM405C)	1/1	INSTRUMENT LIST
	4851406	D/T TO CMPTR ISOL ELECT/CURRT CNVTR (TM405P)	1/1	INSTRUMENT LIST
	4851407	D/T LAG UNIT (TM405R)	1/1	INSTRUMENT LIST
	1E-0229	RR130 REACTOR PROTECTION TRAIN "A" (1C151)		
	TC405A/XA	OVERPOWER DELTA-T BISTABLE AUX RELAY	*	*
	TC405A/TA	OVERPOWER DELTA-T BISTABLE AUX TEST RELAY	*	*
	TC405C/XA	OVERTEMPERATURE DELTA-T BISTABLE AUX RELAY	*	*
	TC405C/TA	OVERTEMPERATURE DELTA-T BISTABLE AUX TEST RELAY	*	*
	1E-0231	RR132 REACTOR PROTECTION TRAIN "A" (1C153)		
	RT5/XA	REACTOR TRIP RELAY	*	*
	RT6/XA	REACTOR TRIP RELAY	*	*
	1E-0224	RR125 REACTOR PROTECTION TRAIN "B" (1C161)		
	TC405A/XB	OVERPOWER DELTA-T BISTABLE AUX RELAY	*	*
	TC405A/TB	OVERPOWER DELTA-T BISTABLE AUX TEST RELAY	*	*
	TC405C/XB	OVERTEMPERATURE DELTA-T BISTABLE AUX RELAY	*	*
	TC405C/TB	OVERTEMPERATURE DELTA-T BISTABLE AUX TEST RELAY	*	*

III. REACTOR COOLANT SYSTEM PROCESS PARAMETER INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	1E-0222	RR123 REACTOR PROTECTION TRAIN "B" (1C163)		
	RT5/XB	REACTOR TRIP RELAY	*	*
	RT6/XB	REACTOR TRIP RELAY	*	*
15071		REACTOR COOLANT LOOP B-1 HOT LEG RTD (TE403A)	1/1	INSTRUMENT LIST
15076		REACTOR COOLANT LOOP B-1 COLD LEG RTD (TE403B)	1/1	INSTRUMENT LIST
	1E-0211	RR112 BLUE CHANNEL, 1B1 (1C115)		
	4893701	TH-R/MV R/VOLT CNVTR (TT403A)	1/1	INSTRUMENT LIST
	4893702	TC-R/HV R/VOLT CNVTR (TT403B)	1/1	INSTRUMENT LIST
	4893703	(T AVG) E/I LEAD LAG AMP (TM403BB)	1/1	INSTRUMENT LIST
	4856702	D/T SPCL LAG UNIT (TM407R)	1/1	INSTRUMENT LIST
	4856703	D/T TO CONT SYS ISOL VOLT/CURRT CNVTR (TM407C)	1/1	INSTRUMENT LIST
	4856704	D/T TO CMPTR ISOL VOLT/CURRT CNVTR (TM407P)	1/1	INSTRUMENT LIST
	4856705	OVR PWR D/T TRIP/ROD STP WTHDRL DUPLEX D ALM (TC407A/B)	1/1	INSTRUMENT LIST
	4856706	OVR TEMP D/T TRIP/ROD STP WTHDRL DUPLEX D ALM (TC407C/D)	1/1	INSTRUMENT LIST
	1E-0231	RR132 REACTOR PROTECTION TRAIN "A" (1C153)		
	TC407A/XA	OVERPOWER DELTA-T BISTABLE AUX RELAY	*	*
	TC407A/TA	OVERPOWER DELTA-T BISTABLE AUX TEST RELAY	*	*
	TC407C/XA	OVERTEMPERATURE DELTA-T BISTABLE AUX RELAY	*	*
	TC407C/TA	OVERTEMPERATURE DELTA-T BISTABLE AUX TEST RELAY	*	*
	RT5/XA	REACTOR TRIP RELAY	*	*
	RT6/XA	REACTOR TRIP RELAY	*	*
	1E-0222	RR123 REACTOR PROTECTION TRAIN "B" (1C163)		
	TC407A/XB	OVERPOWER DELTA-T BISTABLE AUX RELAY	*	*
	TC407A/TB	OVERPOWER DELTA-T BISTABLE AUX TEST RELAY	*	*
	TC407C/XB	OVERTEMPERATURE DELTA-T BISTABLE AUX RELAY	*	*
	TC407C/TB	OVERTEMPERATURE DELTA-T BISTABLE AUX TEST RELAY	*	*
	RT5/XB	REACTOR TRIP RELAY	*	*
	RT6/XB	REACTOR TRIP RELAY	*	*

III. REACTOR COOLANT SYSTEM PROCESS PARAMETER INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
23024		REACTOR COOLANT COLD LEG LOOP A FLOW TRANSMITTER (FT411)	1/1	INSTRUMENT LIST
	1E-0208	RR109 RED CHANNEL, 1R2 (1C112)		
	4872201	REACT COOLANT F XMTR PWR SPLY (FQ411)	1/1	INSTRUMENT LIST
	4872202	REACT COOLANT LO F REACT TRIP SINGLE LO ALM (FC411)	1/1	INSTRUMENT LIST
	4872203	REACT CLNT F TO CMPTR & I ISOL REPT (FM411)	1/1	INSTRUMENT LIST
	1E-0229	RR130 REACTOR PROTECTION TRAIN "A" (1C151)		
	FC411/XA	REACTOR COOLANT FLOW, LOOP "A" BISTABLE AUX RELAY	*	*
	FC411/TA	REACTOR COOLANT FLOW, LOOP "A" BISTABLE AUX TEST RELAY	*	*
	1E-0230	RR131 REACTOR PROTECTION TRAIN "A" (1C152)		
	RC1/XA	REACTOR COOLANT, LOOP "A" RELAY	*	*
	RC1/TA	REACTOR COOLANT, LOOP "A" TEST RELAY	*	*
	RC2/XA	REACTOR COOLANT, LOOP "A" RELAY	*	*
	1E-0231	RR132 REACTOR PROTECTION TRAIN "A" (1C153)		
	RT7/XA	REACTOR TRIP RELAY	*	*
	RT8/XA	REACTOR TRIP RELAY	*	*
	1E-0224	RR125 REACTOR PROTECTION TRAIN "B" (1C161)		
	FC411/XB	REACTOR COOLANT FLOW, LOOP "A" BISTABLE AUX RELAY	*	*
	FC411/TB	REACTOR COOLANT FLOW, LOOP "A" BISTABLE AUX TEST RELAY	*	*
	1E-0223	RR124 REACTOR PROTECTION TRAIN "B" (1C162)		
	RC1/XB	REACTOR COOLANT, LOOP "A" RELAY	*	*
	RC1/TB	REACTOR COOLANT, LOOP "A" TEST RELAY	*	*
	RC2/XB	REACTOR COOLANT, LOOP "A" RELAY	*	*
	1E-0222	RR123 REACTOR PROTECTION TRAIN "B" (1C163)		
	RT7/XB	REACTOR TRIP RELAY	*	*
	RT8/XB	REACTOR TRIP RELAY	*	*

III. REACTOR COOLANT SYSTEM PROCESS PARAMETER INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
23025		REACTOR COOLANT COLD LEG LOOP A FLOW TRANSMITTER (FT412)	1/1	INSTRUMENT LIST
	1E-0214	RR115 WHITE CHANNEL, 1W2 (1C114)		
	4872301	REACT COOLANT F XMTR PWR SPLY (FQ412)	1/1	INSTRUMENT LIST
	4872302	REACT COOLANT LO F REACT TRIP SINGLE LO ALM (FC412)	1/1	INSTRUMENT LIST
	4872303	REACT CLNT F TO CMPTR & I ISOL REPT (FM412)	1/1	INSTRUMENT LIST
	1E-0230	RR131 REACTOR PROTECTION TRAIN "A" (1C152)		
	FC412/XA	REACTOR COOLANT FLOW, LOOP "A" BISTABLE AUX RELAY	*	*
	FC412/TA	REACTOR COOLANT FLOW, LOOP "A" BISTABLE AUX TEST RELAY	*	*
	RC1/XA	REACTOR COOLANT, LOOP "A" RELAY	*	*
	RC1/TA	REACTOR COOLANT, LOOP "A" TEST RELAY	*	*
	RC2/XA	REACTOR COOLANT, LOOP "A" RELAY	*	*
	1E-0231	RR132 REACTOR PROTECTION TRAIN "A" (1C153)		
	RT7/XA	REACTOR TRIP RELAY	*	*
	RT8/XA	REACTOR TRIP RELAY	*	*
	1E-0223	RR124 REACTOR PROTECTION TRAIN "B" (1C162)		
	FC412/XB	REACTOR COOLANT FLOW, LOOP "A" BISTABLE AUX RELAY	*	*
	FC412/TB	REACTOR COOLANT FLOW, LOOP "A" BISTABLE AUX TEST RELAY	*	*
	RC1/XB	REACTOR COOLANT, LOOP "A" RELAY	*	*
	RC1/TB	REACTOR COOLANT, LOOP "A" TEST RELAY	*	*
	RC2/XB	REACTOR COOLANT, LOOP "A" RELAY	*	*
	1E-0222	RR123 REACTOR PROTECTION TRAIN "B" (1C163)		
	RT7/XB	REACTOR TRIP RELAY	*	*
	RT8/XB	REACTOR TRIP RELAY	*	*

III. REACTOR COOLANT SYSTEM PROCESS PARAMETER INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
23026		REACTOR COOLANT COLD LEG LOOP A FLOW TRANSMITTER (FT413)	1/1	INSTRUMENT LIST
	1E-0212	RR113 BLUE CHANNEL, 1B2 (1C116)		
	4872401	REACT COOLANT F XMTR PWR SPLY (FQ413)	1/1	INSTRUMENT LIST
	4872402	REACT COOLANT LO F REACT TRIP SINGLE LO ALM (FC413)	1/1	INSTRUMENT LIST
	4872403	REACT CLNT TO CMPTR & I ISOL REPT	1/1	INSTRUMENT LIST
	1E-0231	RR132 REACTOR PROTECTION TRAIN "A" (1C153)		
	FC413/XA	REACTOR COOLANT FLOW, LOOP "A" BISTABLE AUX RELAY	*	*
	FC413/TA	REACTOR COOLANT FLOW, LOOP "A" BISTABLE AUX TEST RELAY	*	*
	RT7/XA	REACTOR TRIP RELAY	*	*
	RT8/XA	REACTOR TRIP RELAY	*	*
	1E-0230	RR131 REACTOR PROTECTION TRAIN "A" (1C152)		
	RC1/XA	REACTOR COOLANT, LOOP "A" RELAY	*	*
	RC1/TA	REACTOR COOLANT, LOOP "A" TEST RELAY	*	*
	RC2/XA	REACTOR COOLANT, LOOP "A" RELAY	*	*
	1E-0222	RR123 REACTOR PROTECTION TRAIN "B" (1C163)		
	FC413/XB	REACTOR COOLANT FLOW, LOOP "A" BISTABLE AUX RELAY	*	*
	FC413/TB	REACTOR COOLANT FLOW, LOOP "A" BISTABLE AUX TEST RELAY	*	*
	RT7/XB	REACTOR TRIP RELAY	*	*
	RT8/XB	REACTOR TRIP RELAY	*	*
	1E-0223	RR124 REACTOR PROTECTION TRAIN "B" (1C162)		
	RC1/XB	REACTOR COOLANT FLOW, LOOP "A" BISTABLE AUX RELAY	*	*
	RC1/TB	REACTOR COOLANT FLOW, LOOP "A" BISTABLE AUX TEST RELAY	*	*
	RC2/XB	REACTOR COOLANT FLOW, LOOP "A" BISTABLE AUX RELAY	*	*

III. REACTOR COOLANT SYSTEM PROCESS PARAMETER INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
23027		REACTOR COOLANT COLD LEG LOOP B FLOW TRANSMITTER (FT414)	1/1	INSTRUMENT LIST
	1E-0208	RR109 RED CHANNEL, 1R2 (1C112)		
	4872501	REACT COOLANT F XMTR PWR SPLY (FQ414)	1/1	INSTRUMENT LIST
	4872502	REACT COOLANT LO F REACT TRIP SINGLE LO ALM (FC414)	1/1	INSTRUMENT LIST
	4872503	REACT CLNT F TO CMPTR & I ISOL REPT (FM414)	1/1	INSTRUMENT LIST
	1E-0229	RR130 REACTOR PROTECTION TRAIN "A" (1C151)		
	FC414/XA	REACTOR COOLANT FLOW, LOOP "B" BISTABLE AUX RELAY	*	*
	FC414/TA	REACTOR COOLANT FLOW, LOOP "B" BISTABLE AUX TEST RELAY	*	*
	1E-0231	RR132 REACTOR PROTECTION TRAIN "A" (1C153)		
	RC3/XA	REACTOR COOLANT, LOOP "B" RELAY	*	*
	RC3/TA	REACTOR COOLANT, LOOP "B" TEST RELAY	*	*
	RC4/XA	REACTOR COOLANT, LOOP "B" RELAY	*	*
	RT7/XA	REACTOR TRIP RELAY	*	*
	RT8/XA	REACTOR TRIP RELAY	*	*
	1E-0224	RR125 REACTOR PROTECTION TRAIN "B" (1C161)		
	FC414/XB	REACTOR COOLANT FLOW, LOOP "B" BISTABLE AUX RELAY	*	*
	FC414/TB	REACTOR COOLANT FLOW, LOOP "B" BISTABLE AUX TEST RELAY	*	*
	1E-0222	RR123 REACTOR PROTECTION TRAIN "B" (1C163)		
	RC3/XB	REACTOR COOLANT, LOOP "B" RELAY	*	*
	RC3/TB	REACTOR COOLANT, LOOP "B" TEST RELAY	*	*
	RC4/XB	REACTOR COOLANT, LOOP "B" RELAY	*	*
	RT7/XB	REACTOR TRIP RELAY	*	*
	RT8/XB	REACTOR TRIP RELAY	*	*

III. REACTOR COOLANT SYSTEM PROCESS PARAMETER INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
23028		REACTOR COOLANT COLD LEG LOOP B FLOW TRANSMITTER (FT415)	1/1	INSTRUMENT LIST
	1E-0212	RR113 BLUE CHANNEL, 1B2 (1C116)		
	4872601	REACT COOLANT F XMTR PWR SPLY (FQ416)	1/1	INSTRUMENT LIST
	4872602	REACT COOLANT LO F REACT TRIP SINGLE LO ALM (FC416)	1/1	INSTRUMENT LIST
	4872603	REACT CLNT F TO CMPTR & I ISOL REPT (FM415)	1/1	INSTRUMENT LIST
	1E-0231	RR132 REACTOR PROTECTION TRAIN "A" (1C153)		
	FC415/XA	REACTOR COOLANT FLOW, LOOP "B" BISTABLE AUX RELAY	*	*
	FC415/TA	REACTOR COOLANT FLOW, LOOP "B" BISTABLE AUX TEST RELAY	*	*
	RC3/XA	REACTOR COOLANT, LOOP "B" RELAY	*	*
	RC3/TA	REACTOR COOLANT, LOOP "B" TEST RELAY	*	*
	RC4/XA	REACTOR COOLANT, LOOP "B" RELAY	*	*
	RT7/XA	REACTOR TRIP RELAY	*	*
	RT8/XA	REACTOR TRIP RELAY	*	*
	1E-0222	RR123 REACTOR PROTECTION TRAIN "B" (1C163)		
	FC415/XB	REACTOR COOLANT FLOW, LOOP "B" BISTABLE AUX RELAY	*	*
	FC415/TB	REACTOR COOLANT FLOW, LOOP "B" BISTABLE AUX TEST RELAY	*	*
	RC3/XB	REACTOR COOLANT, LOOP "B" RELAY	*	*
	RC3/TB	REACTOR COOLANT, LOOP "B" TEST RELAY	*	*
	RC4/XB	REACTOR COOLANT, LOOP "B" RELAY	*	*
	RT7/XB	REACTOR TRIP RELAY	*	*
	RT8/XB	REACTOR TRIP RELAY	*	*
23029		REACTOR COOLANT COLD LEG LOOP B FLOW TRANSMITTER (FT416)	1/1	INSTRUMENT LIST
	1E-0206	RR107 YELLOW CHANNEL, 1Y2 (1C118)		
	4872701	REACT COOLANT F XMTR PWR SPLY (FQ416)	1/1	INSTRUMENT LIST
	4872702	REACT COOLANT LO F REACT TRIP SINGLE LO ALM (FC416)	1/1	INSTRUMENT LIST
	4872703	REACT CLNT F TO CMPTR & I ISOL REPT (FM416)	1/1	INSTRUMENT LIST

III. REACTOR COOLANT SYSTEM PROCESS PARAMETER INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	1E-0232	RR133 REACTOR PROTECTION TRAIN "A" (1C154)		
	FC416/XA	REACTOR COOLANT FLOW, LOOP "B" BISTABLE AUX RELAY	*	*
	FC416/TA	REACTOR COOLANT FLOW, LOOP "B" BISTABLE AUX TEST RELAY	*	*
	1E-0231	RR132 REACTOR PROTECTION TRAIN "A" (1C153)		
	RC3/XA	REACTOR COOLANT, LOOP "B" RELAY	*	*
	RC3/TA	REACTOR COOLANT, LOOP "B" TEST RELAY	*	*
	RC4/XA	REACTOR COOLANT, LOOP "B" RELAY	*	*
	RT7/XA	REACTOR TRIP RELAY	*	*
	RT8/XA	REACTOR TRIP RELAY	*	*
	1E-0221	RR122 REACTOR PROTECTION TRAIN "B" (1C164)		
	FC416/XB	REACTOR COOLANT FLOW, LOOP "B" BISTABLE AUX RELAY	*	*
	FC416/TB	REACTOR COOLANT FLOW, LOOP "B" BISTABLE AUX TEST RELAY	*	*
	1E-0222	RR123 REACTOR PROTECTION TRAIN "B" (1C163)		
	RC3/XB	REACTOR COOLANT, LOOP "B" RELAY	*	*
	RC3/TB	REACTOR COOLANT, LOOP "B" TEST RELAY	*	*
	RC4/XB	REACTOR COOLANT, LOOP "B" RELAY	*	*
	RT7/XB	REACTOR TRIP RELAY	*	*
	RT8/XB	REACTOR TRIP RELAY	*	*
24032		PRESSURIZER LEVEL TRANSMITTER A (LT426)	1/1	INSTRUMENT LIST
	1E-0207	RR108 RED CHANNEL, 1R1 (1C111)		
	4846901	PRZR LVL XMTR POWER SPLY (LQ426)	1/1	INSTRUMENT LIST
	4846902	HI LVL REAC TRIP/SAF INJ DUPLEX HI/LO ALM (LC426A/B)	1/1	INSTRUMENT LIST
	4846903	PRZR LVL TO CONT SYS ISOL REPT (LM426A)	1/1	INSTRUMENT LIST

III. REACTOR COOLANT SYSTEM PROCESS PARAMETER INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	1E-0229	RR130 REACTOR PROTECTION TRAIN "A" (1C151)		
	LC426/XA	PRESSURIZER HI WATER LEVEL BISTABLE AUX RELAY	*	*
	LC426/TA	PRESSURIZER HI WATER LEVEL BISTABLE AUX TEST RELAY	*	*
	RT1/XA	REACTOR TRIP RELAY	*	*
	RT2/XA	REACTOR TRIP RELAY	*	*
	1E-0224	RR125 REACTOR PROTECTION TRAIN "B" (1C161)		
	LC426/XB	PRESSURIZER HI WATER LEVEL BISTABLE AUX RELAY	*	*
	LC426/TB	PRESSURIZER HI WATER LEVEL BISTABLE AUX TEST RELAY	*	*
	RT1/XB	REACTOR TRIP RELAY	*	*
	RT2/XB	REACTOR TRIP RELAY	*	*
24031		PRESSURIZER LEVEL TRANSMITTER B (LT427)	1/1	INSTRUMENT LIST
	1E-0213	RR114 WHITE CHANNEL, 1W1 (1C113)		
	4847401	PRZR LVL XMTR PWR SPLY (LQ427)	1/1	INSTRUMENT LIST
	4847402	HI LVL REAC TRIP/SAF INJ DUPLEX HI/LO ALM (LC427A/C)	1/1	INSTRUMENT LIST
	4847403	PRZR LVL TO CONT SYS ISOL REPT (LM427)	1/1	INSTRUMENT LIST
	1E-0230	RR131 REACTOR PROTECTION TRAIN "A" (1C152)		
	LC427/XA	PRESSURIZER HI WATER LEVEL BISTABLE AUX RELAY	*	*
	LC427/TA	PRESSURIZER HI WATER LEVEL BISTABLE AUX TEST RELAY	*	*
	1E-0229	RR130 REACTOR PROTECTION TRAIN "A" (1C151)		
	RT1/XA	REACTOR TRIP RELAY	*	*
	RT2/XA	REACTOR TRIP RELAY	*	*
	1E-0223	RR124 REACTOR PROTECTION TRAIN "B" (1C162)		
	LC427/XB	PRESSURIZER HI WATER LEVEL BISTABLE AUX RELAY	*	*
	LC427/TB	PRESSURIZER HI WATER LEVEL BISTABLE AUX TEST RELAY	*	*

III. REACTOR COOLANT SYSTEM PROCESS PARAMETER INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	1E-0224	RR125 REACTOR PROTECTION TRAIN "B" (1C161)		
	RT1/XB	REACTOR TRIP RELAY	*	*
	RT2/XB	REACTOR TRIP RELAY	*	*
24030		PRESSURIZER LEVEL TRANSMITTER C (LT428)	1/1	INSTRUMENT LIST
	1E-0211	RR112 BLUE CHANNEL, 1B1 (1C115)		
	4847501	PRZR LVL XMTR PWR SPLY (LQ428)	1/1	INSTRUMENT LIST
	4847502	HI LVL REAC TRIP/SAF INJ DUPLEX LO/HI ALM (LC428A/E)	1/1	INSTRUMENT LIST
	4847503	PRZR LVL TO CONT SYS ISOL REPT (LM428A)	1/1	INSTRUMENT LIST
	1E-0231	RR132 REACTOR PROTECTION TRAIN "A" (1C153)		
	LC428/XA	PRESSURIZER HI WATER LEVEL BISTABLE AUX RELAY	*	*
	LC428/TA	PRESSURIZER HI WATER LEVEL BISTABLE AUX TEST RELAY	*	*
	1E-0229	RR130 REACTOR PROTECTION TRAIN "A" (1C151)		
	RT1/XA	REACTOR TRIP RELAY	*	*
	RT2/XA	REACTOR TRIP RELAY	*	*
	1E-0222	RR123 REACTOR PROTECTION TRAIN "B" (1C163)		
	LC428/XB	PRESSURIZER HI WATER LEVEL BISTABLE AUX RELAY	*	*
	LC428/TB	PRESSURIZER HI WATER LEVEL BISTABLE AUX TEST RELAY	*	*
	1E-0224	RR125 REACTOR PROTECTION TRAIN "B" (1C161)		
	RT1/XB	REACTOR TRIP RELAY	*	*
	RT2/XB	REACTOR TRIP RELAY	*	*

III. REACTOR COOLANT SYSTEM PROCESS PARAMETER INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
24043		STEAM GENERATOR 1A LEVEL TRANSMITTER (LT462)	1/1	INSTRUMENT LIST
	1E-0212	RR113 BLUE CHANNEL, 1B2 (1C116)		
	4848401	STM GEN LVL XMTR PWR SPLY (LQ462)	1/1	INSTRUMENT LIST
	4848402	LO LO LVL REAC TRP/HI LVL OVR RD DUP HI/LO ALM (LC462A/B)	1/1	INSTRUMENT LIST
	4848403	STM GEN LO LVL REAC TRP LOGIC SINGLE LO ALM (LC462C)	1/1	INSTRUMENT LIST
	4848404	STM GEN LVL TO CMPTR ISOL REPT (LM462)	1/1	INSTRUMENT LIST
	1E-0231	RR132 REACTOR PROTECTION TRAIN "A" (1C153)		
	LC462A/XA	LO LO STM GEN WATER LEVEL LOOP "A" BISTABLE AUX RELAY	*	*
	LC462A/TA	LO LO STM GEN WATER LEVEL LOOP "A" BISTABLE AUX TEST RELAY	*	*
	LC462C/XA	LO STM GEN LEVEL (FDW) LOOP "A" BISTABLE AUX RELAY	*	*
	LC462C/TA	LO STM GEN LEVEL (FDW) LOOP "A" BISTABLE AUX TEST RELAY	*	*
	1E-0230	RR131 REACTOR PROTECTION TRAIN "A" (1C152)		
	RT3/XA	REACTOR TRIP RELAY	*	*
	RT4/XA	REACTOR TRIP RELAY	*	*
	1E-0222	RR123 REACTOR PROTECTION TRAIN "B" (1C163)		
	LC462A/XB	LO LO STM GEN WATER LEVEL LOOP "A" BISTABLE AUX RELAY	*	*
	LC462A/TB	LO LO STM GEN WATER LEVEL LOOP "A" BISTABLE AUX TEST RELAY	*	*
	LC462C/XB	LO STM GEN LEVEL (FDW) LOOP "A" BISTABLE AUX RELAY	*	*
	LC462C/TB	LO STM GEN LEVEL (FDW) LOOP "A" BISTABLE AUX TEST RELAY	*	*

III. REACTOR COOLANT SYSTEM PROCESS PARAMETER INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
24044	1E-0223	RR124 REACTOR PROTECTION TRAIN "B" (1C162)	*	*
	RT3/XB	REACTOR TRIP RELAY	*	*
	RT4/XB	REACTOR TRIP RELAY		
		STEAM GENERATOR 1B LEVEL TRANSMITTER (LT463)	1/1	INSTRUMENT LIST
	1E-0206	RR107 YELLOW CHANNEL, 1Y2 (1C118)	1/1	INSTRUMENT LIST
	4845801	STM GEN LVL XMTR PWR SPLY (LQ463)		
	4845802	STM GEN LO LVL REAC TRIP LOGIC SINGLE LO ALM (LC463E)	1/1	INSTRUMENT LIST
	4845803	LO LO LVL REAC TRP/HI LVL OVRRD DUP HI/LO ALM (LC463C/D)	1/1	INSTRUMENT LIST
	4845804	STM GEN LVL TO CMPTR ISOL REPT (LM463B)	1/1	INSTRUMENT LIST
	1E-0232	RR133 REACTOR PROTECTION TRAIN "A" (1C154)		
LC463C/XA	LO LO STM GEN WATER LEVEL LOOP "A" BISTABLE AUX RELAY	*	*	
LC463C/TA	LO LO STM GEN WATER LEVEL LOOP "A" BISTABLE AUX TEST RELAY	*	*	
LC463E/XA	LO STM GEN LEVEL (FDW) LOOP "A" BISTABLE AUX RELAY	*	*	
LC463E/TA	LO STM GEN LEVEL (FDW) LOOP "A" BISTABLE AUX TEST RELAY	*	*	
1E-0230	RR131 REACTOR PROTECTION TRAIN "A" (1C152)			
RT3/XA	REACTOR TRIP RELAY	*	*	
RT4/XA	REACTOR TRIP RELAY	*	*	
1E-0221	RR122 REACTOR PROTECTION TRAIN "B" (1C164)			
LC463C/XB	LO LO STM GEN WATER LEVEL LOOP "A" BISTABLE AUX RELAY	*	*	
LC463C/TB	LO LO STM GEN WATER LEVEL LOOP "A" BISTABLE AUX TEST RELAY	*	*	

III. REACTOR COOLANT SYSTEM PROCESS PARAMETER INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	LC463E/XB	LO STM GEN LEVEL (FDW) LOOP "A" BISTABLE AUX RELAY	*	*
	LC463E/TB	LO STM GEN LEVEL (FDW) LOOP "A" BISTABLE AUX TEST RELAY	*	*
	1E-0223 RT3/XB RT4/XB	RR124 REACTOR PROTECTION TRAIN "B" (1C162) REACTOR TRIP RELAY REACTOR TRIP RELAY	* *	* *
23003		FEEDWATER TO STEAM GENERATOR 1A FLOW TRANSMITTER (FT466)	1/1	INSTRUMENT LIST
	1E-0208	RR109 RED CHANNEL, 1R2 (1C112)		
	4849301	FW F XMTR PWR SPLY (FQ466)	1/1	INSTRUMENT LIST
	4849302	FW F LNZR SQ RT CNVTR (FM466A)	1/1	INSTRUMENT LIST
	4849303	STM F FW F COMPARATOR DUAL DIFF ALM (FC466B/C)	1/1	INSTRUMENT LIST
	4849304	FW F CMPTR ISOL REPT (FM466C)	1/1	INSTRUMENT LIST
	4849305	LNR FW F TO CONT SYS ISOL REPT (FM466B)	1/1	INSTRUMENT LIST
	1E-0229 FC466C/XA FC466C/TA	RR130 REACTOR PROTECTION TRAIN "A" (1C151) LO STM GEN FDW FLOW LOOP "A" BISTABLE AUX RELAY LO STM GEN FDW FLOW LOOP "A" BISTABLE AUX TEST	* *	* *
	1E-0230 RT3/XA RT4/XA	RR131 REACTOR PROTECTION TRAIN "A" (1C152) REACTOR TRIP RELAY REACTOR TRIP RELAY	* *	* *
	1E-0224 FC466C/XB FC466C/TB	RR125 REACTOR PROTECTION TRAIN "B" (1C161) LO STM GEN FDW FLOW LOOP "A" BISTABLE AUX RELAY LO STM GEN FDW FLOW LOOP "A" BISTABLE AUX TEST RELAY	* *	* *
	1E-0223 RT3/XB RT4/XB	RR124 REACTOR PROTECTION TRAIN "B" (1C162) REACTOR TRIP RELAY REACTOR TRIP RELAY	* *	* *

III. REACTOR COOLANT SYSTEM PROCESS PARAMETER INPUTS (cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
23009		FEEDWATER TO STEAM GENERATOR 1A FLOW TRANSMITTER (FT467)	1/1	INSTRUMENT LIST
	1E-0214	RR115 WHITE CHANNEL, 1W2 (1C114)	1/1	INSTRUMENT LIST
	4848901	FW F XMTR PWR SPLY (FQ467)	1/1	INSTRUMENT LIST
	4848902	FW F LNZR SQ RT CNVTR (FM467A)	1/1	INSTRUMENT LIST
	4848903	STM F FW F COMPARATOR DUAL DIFF ALM (FC467A/B)	1/1	INSTRUMENT LIST
	4848904	LNR FW F TO CONT SYS ISOL REPT (FM467B)	1/1	INSTRUMENT LIST
	4848905	FW F CMPTR ISOL REPT	1/1	INSTRUMENT LIST
	1E-0230	RR131 REACTOR PROTECTION TRAIN "A" (1C152)	*	*
	FC467B/XA	LO STM GEN FDW FLOW LOOP "A" BISTABLE AUX RELAY	*	*
	FC467B/TA	LO STM GEN FDW FLOW LOOP "A" BISTABLE AUX TEST RELAY	*	*
	RT3/XA	REACTOR TRIP RELAY	*	*
	RT4/XA	REACTOR TRIP RELAY	*	*
	1E-0223	RR124 REACTOR PROTECTION TRAIN "B" (1C162)	*	*
	FC467B/XB	LO STM GEN FDW FLOW LOOP "A" BISTABLE AUX RELAY	*	*
	FC467B/TB	LO STM GEN FDW FLOW LOOP "A" BISTABLE AUX TEST RELAY	*	*
	RT3/XB	REACTOR TRIP RELAY	*	*
	RT4/XB	REACTOR TRIP RELAY	*	*
24047		STEAM GENERATOR 1B LEVEL TRANSMITTER (LT472)	1/1	INSTRUMENT LIST
	1E-0208	RR109 RED CHANNEL, 1R2 (1C112)	1/1	INSTRUMENT LIST
	4848101	STM GEN LVL XMTR PWR SPLY (LQ472)	1/1	INSTRUMENT LIST
	4848102	LO LO LVL REAC TRIP/HI LVL OVRRD DUP HI/LO ALM (LC472A/B)	1/1	INSTRUMENT LIST
	4848103	STM GEN LO LVL REACTOR TRIP LOGIC SINGLE ALM (LC472C)	1/1	INSTRUMENT LIST
	4848104	STM GEN LVL TO CONT SYS ISOL REPT (LM472)	1/1	INSTRUMENT LIST

III. REACTOR COOLANT SYSTEM PROCESS PARAMETER INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	1E-0229	RR130 REACTOR PROTECTION TRAIN "A" (1C151)		
	LC472A/XA	LO LO STM GEN WATER LEVEL LOOP "B" BISTABLE AUX RELAY	*	*
	LC472A/TA	LO LO STM GEN WATER LEVEL LOOP "B" BISTABLE AUX TEST RELAY	*	*
	LC472C/XA	LO STM GEN LEVEL (FDW) LOOP "B" BISTABLE AUX RELAY	*	*
	LC472C/TA	LO STM GEN LEVEL (FDW) LOOP "B" BISTABLE AUX TEST RELAY	*	*
	1E-0230	RR131 REACTOR PROTECTION TRAIN "A" (1C152)		
	RT3/XA	REACTOR TRIP RELAY	*	*
	RT4/XA	REACTOR TRIP RELAY	*	*
	1E-0224	RR125 REACTOR PROTECTION TRAIN "B" (1C161)		
	LC472A/XB	LO LO STM GEN WATER LEVEL LOOP "B" BISTABLE AUX RELAY	*	*
	LC472A/TB	LO LO STM GEN WATER LEVEL LOOP "B" BISTABLE AUX TEST RELAY	*	*
	LC472C/XB	LO STM GEN LEVEL (FDW) LOOP "B" BISTABLE AUX RELAY	*	*
	LC472C/TB	LO STM GEN LEVEL (FDW) LOOP "B" BISTABLE AUX TEST RELAY	*	*
	1E-0223	RR124 REACTOR PROTECTION TRAIN "B" (1C162)		
	RT3/XB	REACTOR TRIP RELAY	*	*
	RT4/XB	REACTOR TRIP RELAY	*	*

III. REACTOR COOLANT SYSTEM PROCESS PARAMETER INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
24048		STEAM GENERATOR 1B LEVEL TRANSMITTER (LT473)	1/1	INSTRUMENT LIST
	1E-0214	RR115 WHITE CHANNEL, 1W2 (1C114)		
	4848201	STM GEN LVL XMTR PWR SPLY (LQ473)	1/1	INSTRUMENT LIST
	4848202	LO LO LVL REAC TRP/HI LVL OVRDR DUPLEX ALM (LC473C/D)	1/1	INSTRUMENT LIST
	4848203	STM GEN LO LVL REAC TRIP LOGIC SINGLE LO ALM (LC473E)	1/1	INSTRUMENT LIST
	4848204	STM GEN LVL TO COMPTR & I ISOL REPT (LM473B)	1/1	INSTRUMENT LIST
	1E-0230	RR131 REACTOR PROTECTION TRAIN "A" (1C152)		
	LC473C/XA	LO LO STM GEN WATER LEVEL LOOP "B" BISTABLE AUX RELAY	*	*
	LC473C/TA	LO LO STM GEN WATER LEVEL LOOP "B" BISTABLE AUX TEST RELAY	*	*
	LC473E/XA	LO STM GEN LEVEL (FDW) LOOP "B" BISTABLE AUX RELAY	*	*
	LC473E/TA	LO STM GEN LEVEL (FDW) LOOP "B" BISTABLE AUX TEST RELAY	*	*
	RT3/XA	REACTOR TRIP RELAY	*	*
	RT4/XA	REACTOR TRIP RELAY	*	*
	1E-0223	RR124 REACTOR PROTECTION TRAIN "B" (1C162)		
	LC473C/XB	LO LO STM GEN WATER LEVEL LOOP "B" BISTABLE AUX RELAY	*	*
	LC473C/TB	LO LO STM GEN WATER LEVEL LOOP "B" BISTABLE AUX TEST RELAY	*	*
	LC473E/XB	LO STM GEN LEVEL (FDW) LOOP "B" BISTABLE AUX RELAY	*	*
	LC473E/TB	LO STM GEN LEVEL (FDW) LOOP "B" BISTABLE AUX TEST RELAY	*	*
	RT3/XB	REACTOR TRIP RELAY	*	*
	RT4/XB	REACTOR TRIP RELAY	*	*

III. REACTOR COOLANT SYSTEM PROCESS PARAMETER INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
23004		FEEDWATER TO STEAM GENERATOR 1B FLOW TRANSMITTER (FT476)	1/1	INSTRUMENT LIST
	1E-0212	RR113 BLUE CHANNEL, 1B2 (1C116)		
	4849501	FW F XMTR PWR SPLY (FQ476)	1/1	INSTRUMENT LIST
	4849502	FW F LNZR SQ RT CNVTR (FM476A)	1/1	INSTRUMENT LIST
	4849503	STM F FW F COMPARAT (FC476B/C)	1/1	INSTRUMENT LIST
	4849504	LNR FW F TO CONT SYS ISOL REPT (FM476B)	1/1	INSTRUMENT LIST
	4849505	FW F CMPTR ISOL REPT (FM476C)	1/1	INSTRUMENT LIST
	1E-0231	RR132 REACTOR PROTECTION TRAIN "A" (1C153)		
	FC476C/XA	LO STM GEN FDW FLOW LOOP "B" BISTABLE AUX RELAY	*	*
	FC476C/TA	LO STM GEN FDW FLOW LOOP "B" BISTABLE AUX TEST RELAY	*	*
	1E-0230	RR131 REACTOR PROTECTION TRAIN "A" (1C152)		
	RT3/XA	REACTOR TRIP RELAY	*	*
	RT4/XA	REACTOR TRIP RELAY	*	*
	1E-0222	RR123 REACTOR PROTECTION TRAIN "B" (1C163)		
	FC476C/XB	LO STM GEN FDW FLOW LOOP "B" BISTABLE AUX RELAY	*	*
	FC476C/TB	LO STM GEN FDW FLOW LOOP "B" BISTABLE AUX TEST RELAY	*	*
	1E-0223	RR124 REACTOR PROTECTION TRAIN "B" (1C162)		
	RT3/XB	REACTOR TRIP RELAY	*	*
	RT4/XB	REACTOR TRIP RELAY	*	*
23011		FEEDWATER TO STEAM GENERATOR 1B FLOW TRANSMITTER (FT477)	1/1	INSTRUMENT LIST
	1E-0206	RR107 YELLOW CHANNEL, 1Y2 (1C118)		
	4872001	FW F XMTR PWR SPLY (FQ477)	1/1	INSTRUMENT LIST
	4872002	FW F LNZR SQ RT CNVTR (FM477A)	1/1	INSTRUMENT LIST
	4872003	STM F FW F COMPARATOR DUAL DIFF ALM (FC477A/B)	1/1	INSTRUMENT LIST
	4872004	LNR FW F TO CONT SYS ISOL REPT (FM477B)	1/1	INSTRUMENT LIST
	4872005	FW F CMPTR ISOL REPT (FM477C)	1/1	INSTRUMENT LIST

III. REACTOR COOLANT SYSTEM PROCESS PARAMETER INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	1E-0232	RR133 REACTOR PROTECTION TRAIN "A" (1C154)		
	FC477B/XA	LO STM GEN FDW FLOW LOOP "B" BISTABLE AUX RELAY	*	*
	FC477B/TA	LO STM GEN FDW FLOW LOOP "B" BISTABLE AUX TEST RELAY	*	*
	1E-0230	RR131 REACTOR PROTECTION TRAIN "A" (1C152)		
	RT3/XA	REACTOR TRIP RELAY	*	*
	RT4/XA	REACTOR TRIP RELAY	*	*
	1E-0221	RR122 REACTOR PROTECTION TRAIN "B" (1C164)		
	FC477B/XB	LO STM GEN FDW FLOW LOOP "B" BISTABLE AUX RELAY	*	*
	FC477B/TB	LO STM GEN FDW FLOW LOOP "B" BISTABLE AUX TEST RELAY	*	*
	1E-0223	RR124 REACTOR PROTECTION TRAIN "B" (1C162)		
	RT3/XB	REACTOR TRIP RELAY	*	*
	RT4/XB	REACTOR TRIP RELAY	*	*
24042		STEAM GENERATOR 1A LEVEL TRANSMITTER (LT461)	1/1	INSTRUMENT LIST
	1E-0208	RR109 RED CHANNEL, 1R2 (1C112)		
	4848601	STM GEN LVL XMTR PWR SPLY (LQ461)	1/1	INSTRUMENT LIST
	4848602	LO LO LVL REAC TRP/HI LVL OVRRD DUP HI/LO ALM (LC461A/B)	1/1	INSTRUMENT LIST
	4848603	ST GEN LVL TO CONT SYS REPT (LM461A)	1/1	INSTRUMENT LIST
	1E-0229	RR130 REACTOR PROTECTION TRAIN "A" (1C151)		
	LC461B/XA	LO LO STM GEN WATER LEVEL LOOP "A" BISTABLE AUX RELAY	*	*
	LC461B/TA	LO LO STM GEN WATER LEVEL LOOP "A" BISTABLE AUX TEST RELAY	*	*

III. REACTOR COOLANT SYSTEM PROCESS PARAMETER INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	1E-0230	RR131 REACTOR PROTECTION TRAIN "A" (1C152)		
	RT3/XA	REACTOR TRIP RELAY	*	*
	RT4/XA	REACTOR TRIP RELAY	*	*
	1E-0224	RR125 REACTOR PROTECTION TRAIN "B" (1C161)		
	LC461B/XB	LO LO STM GEN WATER LEVEL LOOP "A" BISTABLE AUX RELAY	*	*
	LC461B/TB	LO LO STM GEN WATER LEVEL LOOP "A" BISTABLE AUX TEST RELAY	*	*
	1E-0223	RR124 REACTOR PROTECTION TRAIN "B" (1C162)		
	RT3/XB	REACTOR TRIP RELAY	*	*
	RT4/XB	REACTOR TRIP RELAY	*	*
24046		STEAM GENERATOR 1B LEVEL TRANSMITTER (LT471)	1/1	INSTRUMENT LIST
	1E-0206	RR107 YELLOW CHANNEL, 1Y2 (1C118)		
	4848301	STM GEN LVL XMTR PWR SPLY (LQ471)	1/1	INSTRUMENT LIST
	4848302	LO LO LVL REAC TRP/HI LVL OVR RD DUP HI/LO ALM (LC471A/B)	1/1	INSTRUMENT LIST
	4848303	STM GEN LVL TO CONT SYS ISOL REPT (LM471A)	1/1	INSTRUMENT LIST
	1E-0232	RR133 REACTOR PROTECTION TRAIN "A" (1C154)		
	LC471B/XA	LO LO STM GEN WATER LEVEL LOOP "B" BISTABLE AUX RELAY	*	*
	LC471B/TA	LO LO STM GEN WATER LEVEL LOOP "B" BISTABLE AUX TEST RELAY	*	*
	1E-0230	RR131 REACTOR PROTECTION TRAIN "A" (1C152)		
	RT3/XA	REACTOR TRIP RELAY	*	*
	RT4/XA	REACTOR TRIP RELAY	*	*
	1E-0221	RR122 REACTOR PROTECTION TRAIN "B" (1C164)		
	LC471B/XB	LO LO STM GEN WATER LEVEL LOOP "B" BISTABLE AUX RELAY	*	*
	LC471B/TB	LO LO STM GEN WATER LEVEL LOOP "B" BISTABLE AUX TEST RELAY	*	*

III. REACTOR COOLANT SYSTEM PROCESS PARAMETER INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	1E-0223	RR124 REACTOR PROTECTION TRAIN "B" (1C162)		
	RT3/XB	REACTOR TRIP RELAY	*	*
	RT4/XB	REACTOR TRIP RELAY	*	*
21081		PRESSURIZER PRESSURE TRANSMITTER 1A (PT429)	1/1	INSTRUMENT LIST
	1E-0207	RR108 RED CHANNEL, 1R1 (1C111)		
	4840001	PRZR PRESS XMTR PWR SPLY (PQ429)	1/1	INSTRUMENT LIST
	4840002	HI PRESS REAC TRIP SINGLE HIGH ALM (PC429A)	1/1	INSTRUMENT LIST
	4840003	UNBLK SAF INJ/SAF INJ DUPLEX HI/LO ALM (PC429C/D)	1/1	INSTRUMENT LIST
	4840004	PRZR PRESS COMPSTN LEAD LAG UNIT (PC429B)	1/1	INSTRUMENT LIST
	4840005	LO PRESS REAC TRIP SINGLE LO ALM (PC429E)	1/1	INSTRUMENT LIST
	4840006	PRZR PRESS TO CONT SYS ISOL REPT (PM429A)	1/1	INSTRUMENT LIST
	4892311	D/T SPI CALCULATOR LEAD LAG UNIT (TM401B)	1/1	INSTRUMENT LIST
	1E-0229	RR130 REACTOR PROTECTION TRAIN "A" (1C151)		
	PC429A/XA	PRESSURIZER HI PRESSURE BISTABLE AUX RELAY	*	*
	PC429A/TA	PRESSURIZER HI PRESSURE BISTABLE AUX TEST RELAY	*	*
	PC429E/XA	PRESSURIZER LOW PRESSURE BISTABLE AUX RELAY	*	*
	PC429E/TA	PRESSURIZER LOW PRESSURE BISTABLE AUX TEST RELAY	*	*
	RT1/XA	REACTOR TRIP RELAY	*	*
	RT2/XA	REACTOR TRIP RELAY	*	*
	1E-0224	RR125 REACTOR PROTECTION TRAIN "B" (1C161)		
	PC429A/XB	PRESSURIZER HI PRESSURE BISTABLE AUX RELAY	*	*
	PC429A/TB	PRESSURIZER HI PRESSURE BISTABLE AUX TEST RELAY	*	*
	PC429E/XB	PRESSURIZER LOW PRESSURE BISTABLE AUX RELAY	*	*
	PC429E/TB	PRESSURIZER LOW PRESSURE BISTABLE AUX TEST RELAY	*	*
	RT1/XB	REACTOR TRIP RELAY	*	*
	RT2/XB	REACTOR TRIP RELAY	*	*

III. REACTOR COOLANT SYSTEM PROCESS PARAMETER INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
21080		PRESSURIZER PRESSURE TRANSMITTER 1B (PT430)	1/1	INSTRUMENT LIST
	1E-0213	RR114 WHITE CHANNEL, 1W1 (1C113)		
	4840101	PRZR PRESS XMTR PWR SUPPLY (PQ430)	1/1	INSTRUMENT LIST
	4840102	HI PRESS REACT TRIP SINGLE HI ALM (PC430A)	1/1	INSTRUMENT LIST
	4840103	UNBLK SAF INJ/SAF INJ DUPLEX HI/LO ALM (PC430E/F)	1/1	INSTRUMENT LIST
	4840104	PRZR PRESS COMPSTN LEAD LAG UNIT (PM430C)	1/1	INSTRUMENT LIST
	4840105	LO PRESS REAC TRIP SINGLE LO ALM (PC430H)	1/1	INSTRUMENT LIST
	4840106	PRZR PRESS TO CONT SYS ISOL REPT (PM430A)	1/1	INSTRUMENT LIST
	4892711	D/T SP1 CALCULATOR LEAD LAG UNIT (TM402B)	1/1	INSTRUMENT LIST
	1E-0230	RR131 REACTOR PROTECTION TRAIN "A" (1C152)		
	PC430A/XA	PRESSURIZER HI PRESSURE BISTABLE AUX RELAY	*	*
	PC430A/TA	PRESSURIZER HI PRESSURE BISTABLE AUX TEST RELAY	*	*
	PC430H/XA	PRESSURIZER LOW PRESSURE BISTABLE AUX RELAY	*	*
	PC430H/TA	PRESSURIZER LOW PRESSURE BISTABLE AUX TEST RELAY	*	*
	1E-0229	RR130 REACTOR PROTECTION TRAIN "A" (1C151)		
	RT1/XA	REACTOR TRIP RELAY	*	*
	RT2/XA	REACTOR TRIP RELAY	*	*
	1E-0223	RR124 REACTOR PROTECTION TRAIN "B" (1C162)		
	PC430A/XB	PRESSURIZER HI PRESSURE BISTABLE AUX RELAY	*	*
	PC430A/TB	PRESSURIZER HI PRESSURE BISTABLE AUX TEST RELAY	*	*
	PC430H/XB	PRESSURIZER LOW PRESSURE BISTABLE AUX RELAY	*	*
	PC430H/TB	PRESSURIZER LOW PRESSURE BISTABLE AUX TEST RELAY	*	*
	1E-0224	RR125 REACTOR PROTECTION TRAIN "B" (1C161)		
	RT1/XB	REACTOR TRIP RELAY	*	*
	RT2/XB	REACTOR TRIP RELAY	*	*

III. REACTOR COOLANT SYSTEM PROCESS PARAMETER INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
21079		PRESSURIZER PRESSURE TRANSMITTER 1C (PT431)	1/1	INSTRUMENT LIST
	1E-0211	RR112 BLUE CHANNEL, 1B1 (1C115)	1/1	INSTRUMENT LIST
	4840201	PRZR PRESS XMTR PWR SPLY (PQ431)	1/1	INSTRUMENT LIST
	4840202	PRZR HI PRESS REAC TRIP SINGLE HI ALM (PC431A)	1/1	INSTRUMENT LIST
	4840203	LO PRESS REAC TRIP SINGLE LO ALM (PG431J)	1/1	INSTRUMENT LIST
	4840204	PRZR PRESS COMPSTN LEAD LAG UNIT (PM431C)	1/1	INSTRUMENT LIST
	4840205	UNBLK SAF INJ/SAF INJ DUPLEX HI/LO ALM (PC431I/G)	1/1	INSTRUMENT LIST
	4840206	HI PRESS REAC TRIP ISOL REPT (PM431A)	1/1	INSTRUMENT LIST
	4893711	D/T SP1 CALCULATOR LEAD LAG UNIT (TM403B)	1/1	INSTRUMENT LIST
	1E-0231	RR132 REACTOR PROTECTION TRAIN "A" (1C153)	*	*
	PC431A/XA	PRESSURIZER HI PRESSURE BISTABLE AUX RELAY	*	*
	PC431A/TA	PRESSURIZER HI PRESSURE BISTABLE AUX TEST RELAY	*	*
	PC431J/XA	PRESSURIZER LOW PRESSURE BISTABLE AUX RELAY	*	*
	PC431J/TA	PRESSURIZER LOW PRESSURE BISTABLE AUX TEST RELAY	*	*
	1E-0229	RR130 REACTOR PROTECTION TRAIN "A" (1C151)	*	*
	RT1/XA	REACTOR TRIP RELAY	*	*
	RT2/XA	REACTOR TRIP RELAY	*	*
	1E-0222	RR123 REACTOR PROTECTION TRAIN "B" (1C163)	*	*
	PC431A/XB	PRESSURIZER HI PRESSURE BISTABLE AUX RELAY	*	*
	PC431A/TB	PRESSURIZER HI PRESSURE BISTABLE AUX TEST RELAY	*	*
	PC431J/XB	PRESSURIZER LOW PRESSURE BISTABLE AUX RELAY	*	*
	PC431J/TB	PRESSURIZER LOW PRESSURE BISTABLE AUX TEST RELAY	*	*
	1E-0224	RR125 REACTOR PROTECTION TRAIN "B" (1C161)	*	*
	RT1/XB	REACTOR TRIP RELAY	*	*
	RT2/XB	REACTOR TRIP RELAY	*	*

III. REACTOR COOLANT SYSTEM PROCESS PARAMETER INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
21082		PRESSURIZER PRESSURE TRANSMITTER 1D (PT449)	1/1	INSTRUMENT LIST
	1E-0205	RR106 YELLOW CHANNEL, 1Y1 (1C117)		
	4840301	PRZR PRESS XMTR PWR SPLY (PQ449)	1/1	INSTRUMENT LIST
	4840302	LO PRESS REAC TRIP SINGEL LO ALM (PG449A)	1/1	INSTRUMENT LIST
	4840303	PRZR PRESS COMPSTN LEAD LAG UNIT (PM449B)	1/1	INSTRUMENT LIST
	4840304	PRZR PRESS TO CONT SYS ISOL REPT (PM449A)	1/1	INSTRUMENT LIST
	4893211	D/T SP1 CALCULATOR LEAD LAG UNIT (TM404B)	1/1	INSTRUMENT LIST
	1E-0232	RR133 REACTOR PROTECTION TRAIN "A" (1C154)		
	PC449A/XA	PRESSURIZER LOW PRESSURE BISTABLE AUX RELAY	*	*
	PC449A/TA	PRESSURIZER LOW PRESSURE BISTABLE AUX TEST RELAY	*	*
	1E-0229	RR130 REACTOR PROTECTION TRAIN "A" (1C151)		
	RT1/XA	REACTOR TRIP RELAY	*	*
	RT2/XA	REACTOR TRIP RELAY	*	*
	1E-0221	RR122 REACTOR PROTECTION TRAIN "B" (1C164)		
	PC449A/XB	PRESSURIZER LOW PRESSURE BISTABLE AUX RELAY	*	*
	PC449A/TB	PRESSURIZER LOW PRESSURE BISTABLE AUX TEST RELAY	*	*
	1E-0224	RR125 REACTOR PROTECTION TRAIN "B" (1C161)		
	RT1/XB	REACTOR TRIP RELAY	*	*
	RT2/XB	REACTOR TRIP RELAY	*	*

IV. NEUTRON FLUX INPUTS

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
28043	1E-0410	SOURCE RANGE 1 NEUTRON DETECTOR (NE31) CR111 N.I.S. RACK #1, SOURCE RANGE N31 DRAWER	1/1	INSTRUMENT LIST
	1E-0229	RR130 REACTOR PROTECTION TRAIN "A" (1C151)		
	NC31D/XA	HIGH FLUX SOURCE RANGE #1 BISTABLE AUX RELAY	*	*
	NC31D/TA	HIGH FLUX SOURCE RANGE #1 BISTABLE AUX TEST RELAY	*	*
	1/N-31B/XA	SOURCE RANGE #1 BYPASS SWITCH BISTABLE AUX RELAY	*	*
	1/N-31B/TA	SOURCE RANGE #1 BYPASS SWITCH BISTABLE AUX TEST RELAY	*	*
	1/N-31B/ZA	SOURCE RANGE #1 BYPASS SWITCH BISTABLE AUX TEST RELAY	*	*
	S1	TEST SELECTOR SWITCH	*	*
	PB3-A	TEST PUSHBUTTON	*	*
	PB3-B	TEST PUSHBUTTON	*	*
	1E-0402	CR103 MECHANICAL CONSOLE "B"		
	46286	SOURCE RANGE TRAIN "A" MANUAL TRIP BLOCK (1/N-33A)	1/1	INSTRUMENT LIST
	46290	SOURCE RANGE TRAIN "A" MANUAL RESET (1/N-33A)	1/1	INSTRUMENT LIST
	1E-0230	RR131 REACTOR PROTECTION TRAIN "A" (1C152)		
	SRB1/XA	SOURCE RANGE BLOCK #1 RELAY	*	*
	SRB2/XA	SOURCE RANGE BLOCK #2 RELAY	*	*
	1E-0232	RR133 REACTOR PROTECTION TRAIN "A" (1C154)		
	RT11/XA	REACTOR TRIP RELAY	*	*
	RT12/XA	REACTOR TRIP RELAY	*	*
	1E-0224	RR125 REACTOR PROTECTION TRAIN "B" (1C161)		
	NC31D/XB	HIGH FLUX SOURCE RANGE #1 BISTABLE AUX RELAY	*	*
	NC31D/TB	HIGH FLUX SOURCE RANGE #1 BISTABLE AUX TEST RELAY	*	*
	1/N-31B/XB	SOURCE RANGE #1 BYPASS SWITCH BYPASS AUX RELAY	*	*
	1/N-31B/TB	SOURCE RANGE #1 BYPASS SWITCH BYPASS AUX TEST RELAY	*	*
	1/N-31B/ZB	SOURCE RANGE #1 BYPASS SWITCH BYPASS AUX TEST RELAY	*	*

IV. NEUTRON FLUX INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	S1	TEST SELECTOR SWITCH	*	*
	PB3-A	TEST PUSHBUTTON	*	*
	PB3-B	TEST PUSHBUTTON	*	*
	1E-0402	CR103 MECHANICAL CONSOLE "B"		
	46287	SOURCE RANGE TRAIN "B" MANUAL TRIP BLOCK (1/N-33B)	1/1	INSTRUMENT LIST
	46291	SOURCE RANGE TRAIN "B" MANUAL TRIP RESET (1/N-33B)	1/1	INSTRUMENT LIST
	1E-0223	RR124 REACTOR PROTECTION TRAIN "B" (1C162)		
	SRB1/XB	SOURCE RANGE BLOCK #1 RELAY	*	*
	SRB2/XB	SOURCE RANGE BLOCK #2 RELAY	*	*
	1E-0221	RR122 REACTOR PROTECTION TRAIN "B" (1C164)		
	RT11/XB	REACTOR TRIP RELAY	*	*
	RT12/XB	REACTOR TRIP RELAY	*	*
28037		SOURCE RANGE 2 NEUTRON DETECTOR (NE32)	1/1	INSTRUMENT LIST
	1E-0409	CR110 N.I.S. RACK #2, SOURCE RANGE N32 DRAWER		
	1E-0230	RR131 REACTOR PROTECTION TRAIN "A" (1C152)		
	NC32D/XA	HIGH FLUX SOURCE RANGE #2 BISTABLE AUX RELAY	*	*
	NC32D/TA	HIGH FLUX SOURCE RANGE #2 BISTABLE AUX TEST RELAY	*	*
	1/N-32B/XA	SOURCE RANGE #2 BYPASS SWITCH BISTABLE AUX RELAY	*	*
	1/N-32B/TA	SOURCE RANGE #2 BYPASS SWITCH BISTABLE AUX TEST RELAY	*	*
	1/N-32B/ZA	SOURCE RANGE #2 BYPASS SWITCH BISTABLE AUX TEST RELAY	*	*
	S1	TEST SELECTOR SWITCH	*	*
	PB4-A	TEST PUSHBUTTON	*	*
	PB4-B	TEST PUSHBUTTON	*	*
	1E-0402	CR103 MECHANICAL CONSOLE "B"		
	46286	SOURCE RANGE TRAIN "A" MANUAL TRIP BLOCK (1/N-33A)	1/1	INSTRUMENT LIST
	46290	SOURCE RANGE TRAIN "A" MANUAL RESET (1/N-33A)	1/1	INSTRUMENT LIST

IV. NEUTRON FLUX INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	1E-0230	RR131 REACTOR PROTECTION TRAIN "A" (1C152)	*	*
	SRB1/XA	SOURCE RANGE BLOCK #1 RELAY	*	*
	SRB2/XA	SOURCE RANGE BLOCK #2 RELAY		
	1E-0223	RR124 REACTOR PROTECTION TRAIN "B" (1C162)	*	*
	RT11/XA	REACTOR TRIP RELAY	*	*
	RT12/XA	REACTOR TRIP RELAY		
	1E-0230	RR131 REACTOR PROTECTION TRAIN "A" (1C152)	*	*
	NC32D/XB	HIGH FLUX SOURCE RANGE #2 BISTABLE AUX RELAY	*	*
	NC32D/TB	HIGH FLUX SOURCE RANGE #2 BISTABLE AUX TEST RELAY	*	*
	1/N-32B/XB	SOURCE RANGE #2 BYPASS SWITCH BYPASS AUX RELAY	*	*
	1/N-32B/TB	SOURCE RANGE #2 BYPASS SWITCH BYPASS AUX TEST RELAY	*	*
	1/N-32B/ZB	SOURCE RANGE #2 BYPASS SWITCH BYPASS AUX TEST RELAY	*	*
	S1	TEST SELECTOR SWITCH	*	*
	PB4-A	TEST PUSHBUTTON	*	*
	PB4-B	TEST PUSHBUTTON		
	1E-0402	CR103 MECHANICAL CONSOLE "B"	1/1	INSTRUMENT LIST
	46287	SOURCE RANGE TRAIN "B" MANUAL TRIP BLOCK (1/N-33B)	1/1	INSTRUMENT LIST
	46291	SOURCE RANGE TRAIN "B" MANUAL TRIP RESET (1/N-33B)		
	1E-0223	RR124 REACTOR PROTECTION TRAIN "B" (1C162)	*	*
	SRB1/XB	SOURCE RANGE BLOCK #1 RELAY	*	*
	SRB2/XB	SOURCE RANGE BLOCK #2 RELAY		
	1E-0221	RR122 REACTOR PROTECTION TRAIN "B" (1C164)	*	*
	RT11/XB	REACTOR TRIP RELAY	*	*
	RT12/XB	REACTOR TRIP RELAY		
28044	1E-0410	INTERMEDIATE RANGE 1 NEUTRON DETECTOR (NE35) CR111 N.I.S. RACK #1, INTERMEDIATE RANGE N35 DRAWER	1/1	INSTRUMENT LIST

IV. NEUTRON FLUX INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	1E-0229	RR130 REACTOR PROTECTION TRAIN "A" (1C151)		
	NC35D/XA	INTERMEDIATE RANGE #1 P6 BISTABLE AUX RELAY	*	*
	NC35D/TA	INTERMEDIATE RANGE #1 P6 BISTABLE AUX TEST RELAY	*	*
	NC35D/ZA	INTERMEDIATE RANGE #1 P6 BISTABLE AUX TEST RELAY	*	*
	S1	TEST SELECTOR SWITCH	*	*
	PB1-A	TEST PUSHBUTTON	*	*
	PB1-B	TEST PUSHBUTTON	*	*
	NC35F/XA	HI FLUX INTERMEDIATE RANGE #1 BISTABLE AUX RELAY	*	*
	NC35F/TA	HI FLUX INTERMEDIATE RANGE #1 BISTABLE AUX TEST RELAY	*	*
	NC35F/ZA	HI FLUX INTERMEDIATE RANGE #1 BISTABLE AUX TEST RELAY	*	*
	1/N-35A/XA	INTERMEDIATE RANGE #1 BYPASS SWITCH BISTABLE AUX RELAY	*	*
	1/N-35A/TA	INTERMEDIATE RANGE #1 BYPASS SWITCH BISTABLE AUX TEST RELAY	*	*
	1/N-35A/ZA	INTERMEDIATE RANGE #1 BYPASS SWITCH BISTABLE AUX TEST RELAY	*	*
	S1	TEST SELECTOR SWITCH	*	*
	PB3-A	TEST PUSHBUTTON	*	*
	PB3-B	TEST PUSHBUTTON	*	*
	1E-0402 46288	CR103 MECHANICAL CONSOLE "B" INTERMEDIATE RANGE TRAIN "A" MANUAL TRIP BLOCK (1/N38A)	1/1	INSTRUMENT LIST
	1E-0231	RR132 REACTOR PROTECTION TRAIN "A" (1C153)		
	1RB1/XA	INTERMEDIATE RANGE BLOCK #1 RELAY	*	*
	1RB2/XA	INTERMEDIATE RANGE BLOCK #2 RELAY	*	*
	1E-0230	RR131 REACTOR PROTECTION TRAIN "A" (1C152)		
	SRB1/XA	SOURCE RANGE BLOCK #1 RELAY	*	*
	SRB2/XA	SOURCE RANGE BLOCK #2 RELAY	*	*

IV. NEUTRON FLUX INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	1E-0232	RR133 REACTOR PROTECTION TRAIN "A" (1C154)	*	*
	RT11/XA	REACTOR TRIP RELAY	*	*
	RT12/XA	REACTOR TRIP RELAY		
	1E-0224	RR125 REACTOR PROTECTION TRAIN "B" (1C161)	*	*
	NC35D/XB	INTERMEDIATE RANGE #1 P6 BISTABLE AUX RELAY	*	*
	NC35D/TB	INTERMEDIATE RANGE #1 P6 BISTABLE AUX TEST RELAY	*	*
	NC35D/ZB	INTERMEDIATE RANGE #1 P6 BISTABLE AUX TEST RELAY	*	*
	NC35F/XB	HI FLUX INTERMEDIATE RANGE #1 BISTABLE AUX RELAY	*	*
	NC35F/TB	HI FLUX INTERMEDIATE RANGE #1 BISTABLE AUX TEST RELAY	*	*
	NC35F/ZB	HI FLUX INTERMEDIATE RANGE #1 BISTABLE AUX TEST RELAY	*	*
	S1	TEST SELECTOR SWITCH	*	*
	PB1-A	TEST PUSHBUTTON	*	*
	PB1-B	TEST PUSHBUTTON	*	*
	1/N-35A/XB	INTERMEDIATE RANGE #1 BISTABLE BYPASS SWITCH AUX RELAY	*	*
	1/N-35A/TB	INTERMEDIATE RANGE #1 BISTABLE BYPASS SWITCH AUX TEST RELAY	*	*
	1/N-35A/ZB	INTERMEDIATE RANGE #1 BISTABLE BYPASS SWITCH AUX TEST RELAY	*	*
	S1	TEST SELECTOR SWITCH	*	*
	PB3-A	TEST PUSHBUTTON	*	*
	PB3-B	TEST PUSHBUTTON	*	*
	1E-0402 46289	CR103 MECHANICAL CONSOLE "B" INTERMEDIATE RANGE TRAIN "B" MANUAL TRIP BLOCK (1/N38B)	1/1	INSTRUMENT LIST
	1E-0222	RR123 REACTOR PROTECTION TRAIN "B" (1C163)	*	*
	IRB1/XB	INTERMEDIATE RANGE BLOCK #1 RELAY	*	*
	IRB2/XB	INTERMEDIATE RANGE BLOCK #2 RELAY		
	1E-0223	RR124 REACTOR PROTECTION TRAIN "B" (1C162)	*	*
	SRB1/XB	SOURCE RANGE BLOCK #1 RELAY	*	*
	SRB2/XB	SOURCE RANGE BLOCK #2 RELAY		

IV. NEUTRON FLUX INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	1E-0221	RR122 REACTOR PROTECTION TRAIN "B" (1C164)	*	*
	RT11/XB	REACTOR TRIP RELAY	*	*
	RT12/XB	REACTOR TRIP RELAY		
28038	1E-0409	INTERMEDIATE RANGE 2 NEUTRON DETECTOR (NE36) CR110 N.I.S. RACK #2, INTERMEDIATE RANGE N36 DRAWER	1/1	INSTRUMENT LIST
	1E-0230	RR131 REACTOR PROTECTION TRAIN "A" (1C152)	*	*
	NC36D/XA	INTERMEDIATE RANGE #2 P6 BISTABLE AUX RELAY	*	*
	NC36D/TA	INTERMEDIATE RANGE #2 P6 BISTABLE AUX TEST RELAY	*	*
	NC36D/ZA	INTERMEDIATE RANGE #2 P6 BISTABLE AUX TEST RELAY	*	*
	NC36F/XA	HI FLUX INTERMEDIATE RANGE #2 BISTABLE AUX RELAY	*	*
	NC36F/TA	HI FLUX INTERMEDIATE RANGE #2 BISTABLE AUX TEST RELAY	*	*
	NC36F/ZA	HI FLUX INTERMEDIATE RANGE #2 BISTABLE AUX TEST RELAY	*	*
	S1	TEST SELECTOR SWITCH	*	*
	PB2-A	TEST PUSHBUTTON	*	*
	PB2-B	TEST PUSHBUTTON	*	*
	1/N-36A/XA	INTERMEDIATE RANGE #2 BISTABLE BYPASS SWITCH AUX RELAY	*	*
	1/N-36A/TA	INTERMEDIATE RANGE #2 BISTABLE BYPASS SWITCH AUX TEST RELAY	*	*
	1/N-36A/ZA	INTERMEDIATE RANGE #2 BYPASS SWITCH BISTABLE AUX TEST RELAY	*	*
	S1	TEST SELECTOR SWITCH	*	*
	PB4-A	TEST PUSHBUTTON	*	*
	PB4-B	TEST PUSHBUTTON	*	*
	1E-0402	CR103 MECHANICAL CONSOLE "B"		
	46288	INTERMEDIATE RANGE TRAIN "A" MANUAL TRIP BLOCK (1/N38A)	1/1	INSTRUMENT LIST
	1E-0231	RR132 REACTOR PROTECTION TRAIN "A" (1C153)	*	*
	IRB1/XA	INTERMEDIATE RANGE BLOCK #1 RELAY	*	*
	IRB2/XA	INTERMEDIATE RANGE BLOCK #2 RELAY		

IV. NEUTRON FLUX INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	1E-0230	RR131 REACTOR PROTECTION TRAIN "A" (1C152)	*	*
	SRB1/XA	SOURCE RANGE BLOCK #1 RELAY	*	*
	SRB2/XA	SOURCE RANGE BLOCK #2 RELAY		
	1E-0232	RR133 REACTOR PROTECTION TRAIN "A" (1C154)	*	*
	RT11/XA	REACTOR TRIP RELAY	*	*
	RT12/XA	REACTOR TRIP RELAY		
	1E-0223	RR124 REACTOR PROTECTION TRAIN "B" (1C162)	*	*
	NC36D/XB	INTERMEDIATE RANGE #2 P6 BISTABLE AUX RELAY	*	*
	NC36D/TB	INTERMEDIATE RANGE #2 P6 BISTABLE AUX TEST RELAY	*	*
	NC36D/ZB	INTERMEDIATE RANGE #2 P6 BISTABLE AUX TEST RELAY	*	*
	NC36F/XB	HI FLUX INTERMEDIATE RANGE #2 BISTABLE AUX RELAY	*	*
	NC36F/TB	HI FLUX INTERMEDIATE RANGE #2 BISTABLE AUX TEST RELAY	*	*
	NC36F/ZB	HI FLUX INTERMEDIATE RANGE #2 BISTABLE AUX TEST RELAY	*	*
	S1	TEST SELECTOR SWITCH	*	*
	PB2-A	TEST PUSHBUTTON	*	*
	PB2-B	TEST PUSHBUTTON	*	*
	1/N-36A/XB	INTERMEDIATE RANGE #2 BISTABLE BYPASS SWITCH AUX RELAY	*	*
	1/N-36A/TB	INTERMEDIATE RANGE #2 BISTABLE BYPASS SWITCH AUX TEST RELAY	*	*
	1/N-36A/ZB	INTERMEDIATE RANGE #2 BISTABLE BYPASS SWITCH AUX TEST RELAY	*	*
	S1	TEST SELECTOR SWITCH	*	*
	PB4-A	TEST PUSHBUTTON	*	*
	PB4-B	TEST PUSHBUTTON	*	*
	1E-0402	CR103 MECHANICAL CONSOLE "B"		
	46289	INTERMEDIATE RANGE TRAIN "B" MANUAL TRIP BLOCK (1/N38B)	1/1	INSTRUMENT LIST
	1E-0222	RR123 REACTOR PROTECTION TRAIN "B" (1C163)	*	*
	IRB1/XB	INTERMEDIATE RANGE BLOCK #1 RELAY	*	*
	IRB2/XB	INTERMEDIATE RANGE BLOCK #2 RELAY		

IV. NEUTRON FLUX INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	1E-0223	RR124 REACTOR PROTECTION TRAIN "B" (1C162)		
	SRB1/XB	SOURCE RANGE BLOCK #1 RELAY	*	*
	SRB2/XB	SOURCE RANGE BLOCK #2 RELAY	*	*
	1E-0221	RR122 REACTOR PROTECTION TRAIN "B" (1C164)		
	RT11/XB	REACTOR TRIP RELAY	*	*
	RT12/XB	REACTOR TRIP RELAY	*	*
28041		POWER RANGE 1 UPPER NEUTRON DETECTOR (NE41A)	1/1	INSTRUMENT LIST
28042		POWER RANGE 1 LOWER NEUTRON DETECTOR (NE41B)	1/1	INSTRUMENT LIST
	1E-0410	CR111 N.I.S. RACK #1, POWER RANGE N41A DRAWER		
	1E-0410	CR111 N.I.S. RACK #1, POWER RANGE N41B DRAWER		
	1E-0229	RR130 REACTOR PROTECTION TRAIN "A" (1C151)		
	NC41K/XA	HI NEUTRON NEGATIVE FLUX RATE BISTABLE AUX RELAY	*	*
	NC41K/TA	HI NEUTRON NEGATIVE FLUX RATE BISTABLE AUX TEST RELAY	*	*
	NC41M/XA	NUCLEAR POWER GREATER THAN X% (POWER RANGE PERMISSIVE) BISTABLE AUX RELAY	*	*
	NC41M/TA	NUCLEAR POWER GREATER THAN X% (POWER RANGE PERMISSIVE) BISTABLE AUX TEST RELAY	*	*
	NC41M/ZA	NUCLEAR POWER GREATER THAN X% (POWER RANGE PERMISSIVE) BISTABLE AUX TEST RELAY	*	*
	S1	TEST SELECTOR SWITCH	*	*
	PB1-A	TEST PUSHBUTTON	*	*
	PB1-B	TEST PUSHBUTTON	*	*
	NC41N/XA	NUCLEAR POWER GREATER THAN Y% BISTABLE AUX RELAY	*	*
	NC41N/TA	NUCLEAR POWER GREATER THAN Y% BISTABLE AUX TEST RELAY	*	*
	NC41P/XA	HI FLUX LO TRIP POWER RANGE #1 BISTABLE AUX RELAY	*	*
	NC41P/TA	HI FLUX LO TRIP POWER RANGE #1 BISTABLE AUX TEST RELAY	*	*
	NC41P/ZA	HI FLUX LO TRIP POWER RANGE #1 BISTABLE AUX TEST RELAY	*	*

IV. NEUTRON FLUX INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	NC41R/XA	POWER RANGE HI FLUX HI TRIP BISTABLE AUX RELAY	*	*
	NC41R/TA	POWER RANGE HI FLUX HI TRIP BISTABLE AUX TEST RELAY	*	*
	NC41U/XA	HI NEUTRON POSITIVE FLUX RATE BISTABLE AUX RELAY	*	*
	NC41U/TA	HI NEUTRON POSITIVE FLUX RATE BISTABLE AUX TEST RELAY	*	*
	1E-0224	RR125 REACTOR PROTECTION TRAIN "B" (1C161)		
	NC41K/XB	HI NEUTRON NEGATIVE FLUX RATE BISTABLE AUX RELAY	*	*
	NC41K/TB	HI NEUTRON NEGATIVE FLUX RATE BISTABLE AUX TEST RELAY	*	*
	NC41M/XB	NUCLEAR POWER GREATER THAN X% (POWER RANGE PERMISSIVE) BISTABLE AUX RELAY	*	*
	NC41M/TB	NUCLEAR POWER GREATER THAN X% (POWER RANGE PERMISSIVE) BISTABLE AUX TEST RELAY	*	*
	NC41M/ZB	NUCLEAR POWER GREATER THAN X% (POWER RANGE PERMISSIVE) BISTABLE AUX TEST RELAY	*	*
	S1	TEST SELECTOR SWITCH	*	*
	PB1-A	TEST PUSHBUTTON	*	*
	PB1-B	TEST PUSHBUTTON	*	*
	NC41N/XB	NUCLEAR POWER GREATER THAN Y% BISTABLE AUX RELAY	*	*
	NC41N/TB	NUCLEAR POWER GREATER THAN Y% BISTABLE AUX TEST RELAY	*	*
	NC41P/XB	HI FLUX LO TRIP POWER RANGE #1 BISTABLE AUX RELAY	*	*
	NC41P/TB	HI FLUX LO TRIP POWER RANGE #1 BISTABLE AUX TEST RELAY	*	*
	NC41P/ZB	HI FLUX LO TRIP POWER RANGE #1 BISTABLE AUX TEST RELAY	*	*
	NC41R/XB	POWER RANGE HI FLUX HI TRIP BISTABLE AUX RELAY	*	*
	NC41R/TB	POWER RANGE HI FLUX HI TRIP BISTABLE AUX TEST RELAY	*	*
	NC41U/XB	HI NEUTRON POSITIVE FLUX RATE BISTABLE AUX RELAY	*	*
	NC41U/TB	HI NEUTRON POSITIVE FLUX RATE BISTABLE AUX TEST RELAY	*	*

NOTE: USE THE MATRIX ON SHEET 44 TO FOLLOW THE SIGNAL FLOW TO REACTOR TRIP. THE COMPONENTS ARE LISTED IN ORDER BY RACK NUMBER.

IV. NEUTRON FLUX INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
28047		POWER RANGE 2 UPPER NEUTRON DETECTOR (NE42A)	1/1	INSTRUMENT LIST
28048		POWER RANGE 2 LOWER NEUTRON DETECTOR (NE42B)	1/1	INSTRUMENT LIST
	1E-0409	CR110 N.I.S. RACK #2, POWER RANGE N42A DRAWER		
	1E-0409	CR110 N.I.S. RACK #2, POWER RANGE N42B DRAWER		
	1E-0230	RR131 REACTOR PROTECTION TRAIN "A" (1C152)		
	NC42K/XA	HI NEUTRON NEGATIVE FLUX RATE BISTABLE AUX RELAY	*	*
	NC42K/TA	HI NEUTRON NEGATIVE FLUX RATE BISTABLE AUX TEST RELAY	*	*
	NC42M/XA	NUCLEAR POWER GREATER THAN X% (POWER RANGE PERMISSIVE) BISTABLE AUX RELAY	*	*
	NC42M/TA	NUCLEAR POWER GREATER THAN X% (POWER RANGE PERMISSIVE) BISTABLE AUX TEST RELAY	*	*
	NC42M/ZA	NUCLEAR POWER GREATER THAN X% (POWER RANGE PERMISSIVE) BISTABLE AUX TEST RELAY	*	*
	S1	TEST SELECTOR SWITCH	*	*
	PB2-A	TEST PUSHBUTTON	*	*
	PB2-B	TEST PUSHBUTTON	*	*
	NC42N/XA	NUCLEAR POWER GREATER THAN Y% BISTABLE AUX RELAY	*	*
	NC42N/TA	NUCLEAR POWER GREATER THAN Y% BISTABLE AUX TEST RELAY	*	*
	NC42P/XA	HI FLUX LO TRIP POWER RANGE #2 BISTABLE AUX RELAY	*	*
	NC42P/TA	HI FLUX LO TRIP POWER RANGE #2 BISTABLE AUX TEST RELAY	*	*
	NC42P/ZA	HI FLUX LO TRIP POWER RANGE #2 BISTABLE AUX TEST RELAY	*	*
	NC42R/XA	POWER RANGE HI FLUX HI TRIP BISTABLE AUX RELAY	*	*
	NC42R/TA	POWER RANGE HI FLUX HI TRIP BISTABLE AUX TEST RELAY	*	*
	NC42U/XA	HI NEUTRON POSITIVE FLUX RATE BISTABLE AUX RELAY	*	*
	NC42U/TA	HI NEUTRON POSITIVE FLUX RATE BISTABLE AUX TEST RELAY	*	*

IV. NEUTRON FLUX INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	1E-0223	RR124 REACTOR PROTECTION TRAIN "B" (1C162)	*	*
	NC42K/XB	HI NEUTRON NEGATIVE FLUX RATE BISTABLE AUX RELAY	*	*
	NC42K/TB	HI NEUTRON NEGATIVE FLUX RATE BISTABLE AUX TEST RELAY	*	*
	NC42M/XB	NUCLEAR POWER GREATER THAN X% (POWER RANGE PERMISSIVE) BISTABLE AUX RELAY	*	*
	NC42M/TB	NUCLEAR POWER GREATER THAN X% (POWER RANGE PERMISSIVE) BISTABLE AUX TEST RELAY	*	*
	NC42M/ZB	NUCLEAR POWER GREATER THAN X% (POWER RANGE PERMISSIVE) BISTABLE AUX TEST RELAY	*	*
	S1	TEST SELECTOR SWITCH	*	*
	PB2-A	TEST PUSHBUTTON	*	*
	PB2-B	TEST PUSHBUTTON	*	*
	NC42N/XB	NUCLEAR POWER GREATER THAN Y% BISTABLE AUX RELAY	*	*
	NC42N/TB	NUCLEAR POWER GREATER THAN Y% BISTABLE AUX TEST RELAY	*	*
	NC42P/XB	HI FLUX LO TRIP POWER RANGE #2 BISTABLE AUX RELAY	*	*
	NC42P/TB	HI FLUX LO TRIP POWER RANGE #2 BISTABLE AUX TEST RELAY	*	*
	NC42P/ZB	HI FLUX LO TRIP POWER RANGE #2 BISTABLE AUX TEST RELAY	*	*
	NC42R/XB	POWER RANGE HI FLUX HI TRIP BISTABLE AUX RELAY	*	*
	NC42R/TB	POWER RANGE HI FLUX HI TRIP BISTABLE AUX TEST RELAY	*	*
	NC42U/XB	HI NEUTRON POSITIVE FLUX RATE BISTABLE AUX RELAY	*	*
	NC42U/TB	HI NEUTRON POSITIVE FLUX RATE BISTABLE AUX TEST RELAY	*	*

NOTE: USE THE MATRIX ON SHEET 44 TO FOLLOW THE SIGNAL FLOW TO REACTOR TRIP. THE COMPONENTS ARE LISTED IN ORDER BY RACK NUMBER.

IV. NEUTRON FLUX INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
28045		POWER RANGE 3 UPPER NEUTRON DETECTOR (NE43A)	1/1	INSTRUMENT LIST
28046		POWER RANGE 3 LOWER NEUTRON DETECTOR (NE43B)	1/1	INSTRUMENT LIST
	1E-0408	CR109 N.I.S. RACK #3, POWER RANGE N43A DRAWER		
	1E-0408	CR109 N.I.S. RACK #3, POWER RANGE N43B DRAWER		
	1E-0231	RR132 REACTOR PROTECTION TRAIN "A" (1C153)		
	NC43K/XA	HI NEUTRON NEGATIVE FLUX RATE BISTABLE AUX RELAY	*	*
	NC43K/TA	HI NEUTRON NEGATIVE FLUX RATE BISTABLE AUX TEST RELAY	*	*
	NC43M/XA	NUCLEAR POWER GREATER THAN X% (POWER RANGE PERMISSIVE) BISTABLE AUX RELAY	*	*
	NC43M/TA	NUCLEAR POWER GREATER THAN X% (POWER RANGE PERMISSIVE) BISTABLE AUX TEST RELAY	*	*
	NC43M/ZA	NUCLEAR POWER GREATER THAN X% (POWER RANGE PERMISSIVE) BISTABLE AUX TEST RELAY	*	*
	S1	TEST SELECTOR SWITCH	*	*
	PB3-A	TEST PUSHBUTTON	*	*
	PB3-B	TEST PUSHBUTTON	*	*
	NC43N/XA	NUCLEAR POWER GREATER THAN Y% BISTABLE AUX RELAY	*	*
	NC43N/TA	NUCLEAR POWER GREATER THAN Y% BISTABLE AUX TEST RELAY	*	*
	NC43P/XA	HI FLUX LO TRIP POWER RANGE #3 BISTABLE AUX RELAY	*	*
	NC43P/TA	HI FLUX LO TRIP POWER RANGE #3 BISTABLE AUX TEST RELAY	*	*
	NC43P/ZA	HI FLUX LO TRIP POWER RANGE #3 BISTABLE AUX TEST RELAY	*	*
	NC43R/XA	POWER RANGE HI FLUX HI TRIP BISTABLE AUX RELAY	*	*
	NC43R/TA	POWER RANGE HI FLUX HI TRIP BISTABLE AUX TEST RELAY	*	*
	NC43U/XA	HI NEUTRON POSITIVE FLUX RATE BISTABLE AUX RELAY	*	*
	NC43U/TA	HI NEUTRON POSITIVE FLUX RATE BISTABLE AUX TEST RELAY	*	*
	1E-0222	RR123 REACTOR PROTECTION TRAIN "B" (1C163)		
	NC43K/XB	HI NEUTRON NEGATIVE FLUX RATE BISTABLE AUX RELAY	*	*
	NC43K/TB	HI NEUTRON NEGATIVE FLUX RATE BISTABLE AUX TEST RELAY	*	*

IV. NEUTRON FLUX INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	NC43M/XB	NUCLEAR POWER GREATER THAN X% (POWER RANGE PERMISSIVE) BISTABLE AUX RELAY	*	*
	NC43M/TB	NUCLEAR POWER GREATER THAN X% (POWER RANGE PERMISSIVE) BISTABLE AUX TEST RELAY	*	*
	NC43M/ZB	NUCLEAR POWER GREATER THAN X% (POWER RANGE PERMISSIVE) BISTABLE AUX TEST RELAY	*	*
	S1	TEST SELECTOR SWITCH	*	*
	PB3-A	TEST PUSHBUTTON	*	*
	PB3-B	TEST PUSHBUTTON	*	*
	NC43N/XB	NUCLEAR POWER GREATER THAN Y% BISTABLE AUX RELAY	*	*
	NC43N/TB	NUCLEAR POWER GREATER THAN Y% BISTABLE AUX TEST RELAY	*	*
	NC43P/XB	HI FLUX LO TRIP POWER RANGE #3 BISTABLE AUX RELAY	*	*
	NC43P/TB	HI FLUX LO TRIP POWER RANGE #3 BISTABLE AUX TEST RELAY	*	*
	NC43P/ZB	HI FLUX LO TRIP POWER RANGE #3 BISTABLE AUX TEST RELAY	*	*
	NC43R/XB	POWER RANGE HI FLUX HI TRIP BISTABLE AUX RELAY	*	*
	NC43R/TB	POWER RANGE HI FLUX HI TRIP BISTABLE AUX TEST RELAY	*	*
	NC43U/XB	HI NEUTRON POSITIVE FLUX RATE BISTABLE AUX RELAY	*	*
	NC43U/TB	HI NEUTRON POSITIVE FLUX RATE BISTABLE AUX TEST RELAY	*	*
	NOTE: USE THE MATRIX ON SHEET 44 TO FOLLOW THE SIGNAL FLOW TO REACTOR TRIP. THE COMPONENTS ARE LISTED IN ORDER BY RACK NUMBER.			
28039		POWER RANGE 4 UPPER NEUTRON DETECTOR (NE44A)	1/1	INSTRUMENT LIST
28040		POWER RANGE 4 LOWER NEUTRON DETECTOR (NE44B)	1/1	INSTRUMENT LIST
	1E-0407	CR108 N.I.S. RACK #4, POWER RANGE N44A DRAWER		
	1E-0407	CR108 N.I.S. RACK #4, POWER RANGE N44B DRAWER		

IV. NEUTRON FLUX INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	1E-0232	RR133 REACTOR PROTECTION TRAIN "A" (1C154)		
	NC44K/XA	HI NEUTRON NEGATIVE FLUX RATE BISTABLE AUX RELAY	*	*
	NC44K/TA	HI NEUTRON NEGATIVE FLUX RATE BISTABLE AUX TEST RELAY	*	*
	NC44M/XA	NUCLEAR POWER GREATER THAN X% (POWER RANGE PERMISSIVE) BISTABLE AUX RELAY	*	*
	NC44M/TA	NUCLEAR POWER GREATER THAN X% (POWER RANGE PERMISSIVE) BISTABLE AUX TEST RELAY	*	*
	NC44M/ZA	NUCLEAR POWER GREATER THAN X% (POWER RANGE PERMISSIVE) BISTABLE AUX TEST RELAY	*	*
	S1	TEST SELECTOR SWITCH	*	*
	PB4-A	TEST PUSHBUTTON	*	*
	PB4-B	TEST PUSHBUTTON	*	*
	NC44N/XA	NUCLEAR POWER GREATER THAN Y% BISTABLE AUX RELAY	*	*
	NC44N/TA	NUCLEAR POWER GREATER THAN Y% BISTABLE AUX TEST RELAY	*	*
	NC44P/XA	HI FLUX LO TRIP POWER RANGE #4 BISTABLE AUX RELAY	*	*
	NC44P/TA	HI FLUX LO TRIP POWER RANGE #4 BISTABLE AUX TEST RELAY	*	*
	NC44P/ZA	HI FLUX LO TRIP POWER RANGE #4 BISTABLE AUX TEST RELAY	*	*
	NC44R/XA	POWER RANGE HI FLUX HI TRIP BISTABLE AUX RELAY	*	*
	NC44R/TA	POWER RANGE HI FLUX HI TRIP BISTABLE AUX TEST RELAY	*	*
	NC44U/XA	HI NEUTRON POSITIVE FLUX RATE BISTABLE AUX RELAY	*	*
	NC44U/TA	HI NEUTRON POSITIVE FLUX RATE BISTABLE AUX TEST RELAY	*	*
	1E-0221	RR122 REACTOR PROTECTION TRAIN "B" (1C164)		
	NC44K/XB	HI NEUTRON NEGATIVE FLUX RATE BISTABLE AUX RELAY	*	*
	NC44K/TB	HI NEUTRON NEGATIVE FLUX RATE BISTABLE AUX TEST RELAY	*	*
	NC44M/XB	NUCLEAR POWER GREATER THAN X% (POWER RANGE PERMISSIVE) BISTABLE AUX RELAY	*	*
	NC44M/TB	NUCLEAR POWER GREATER THAN X% (POWER RANGE PERMISSIVE) BISTABLE AUX TEST RELAY	*	*
	NC44M/ZB	NUCLEAR POWER GREATER THAN X% (POWER RANGE PERMISSIVE) BISTABLE AUX TEST RELAY	*	*

IV. NEUTRON FLUX INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	S1	TEST SELECTOR SWITCH	*	*
	PB4-A	TEST PUSHBUTTON	*	*
	PB4-B	TEST PUSHBUTTON	*	*
	NC44N/XB	NUCLEAR POWER GREATER THAN Y% BISTABLE AUX RELAY	*	*
	NC44N/TB	NUCLEAR POWER GREATER THAN Y% BISTABLE AUX TEST RELAY	*	*
	NC44P/XB	HI FLUX LO TRIP POWER RANGE #4 BISTABLE AUX RELAY	*	*
	NC44P/TB	HI FLUX LO TRIP POWER RANGE #4 BISTABLE AUX TEST RELAY	*	*
	NC44P/ZB	HI FLUX LO TRIP POWER RANGE #4 BISTABLE AUX TEST RELAY	*	*
	NC44R/XB	POWER RANGE HI FLUX HI TRIP BISTABLE AUX RELAY	*	*
	NC44R/TB	POWER RANGE HI FLUX HI TRIP BISTABLE AUX TEST RELAY	*	*
	NC44U/XB	HI NEUTRON POSITIVE FLUX RATE BISTABLE AUX RELAY	*	*
	NC44U/TB	HI NEUTRON POSITIVE FLUX RATE BISTABLE AUX TEST RELAY	*	*

NOTE: USE THE MATRIX ON SHEET 44 TO FOLLOW THE SIGNAL FLOW TO REACTOR TRIP. THE COMPONENTS ARE LISTED IN ORDER BY RACK NUMBER.

IV. NEUTRON FLUX INPUTS (Cont.)

NUCLEAR INSTRUMENT LOGIC SIGNALS CHART

THE SIGNALS BEYOND THE BISTABLE LEVEL FOR NC41, NC42, NC43 AND NC44 ARE SHOWN
ONCE FOR ALL FOUR CHANNELS ON THE CHART AND LIST THAT FOLLOW.

IV. NEUTRON FLUX INPUTS

SIGNAL GROUP	R A C K									
	RR130	RR131	RR132	RR133	RR134	RR121	RR122	RR123	RR124	RR125
NC41K, NC42K, NC43K, NC44K			RT7, RT8					RT7, RT8		
NC41M, NC42M, NC43M, NC44M	RT1 RT2	SRB1 SRB2	IRB1 IRB2 RT7 RT8	RT9, 10 P10-1, -2 PRB1, 2 RT11, 12 P7-1, -2 P7-3	P10-PB	P10-PB	RT9, 10 P10-1, -2 PRB1, 2 RT11, 12 P7-1, -2, P7-3	IRB1 IRB2 RT7 RT8	SRB1 SRB2	RT1 RT2
NC41N, NC42N, NC43N, NC44N			RT7 RT8	P8-1 P8-2			P8-1 P8-2	RT7 RT8		
NC41P, NC42P, NC43P, NC44P 46292 "A" 46293 "B"				RT11, 12 PRB1, 2			RT11, 12 PRB1, 2			
NC41R, NC42R, NC43R, NC44R	RT1 RT2									RT1 RT2
NC41U, NC42U, NC43U, NC44U				RT11 RT12			RT11 RT12			

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IV. NEUTRON FLUX INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	1E-0220 P10-PB	RR121 REACTOR PROTECTION TRAIN "B" (1C165) PERMISSIVE 10 TEST PUSHBUTTON	*	*
	1E-0221 PRB1/XB PRB2/XB P8-1/XB P8-2/XB P10-1/XB P10-2/XB RT11/XB RT12/XB P7-1/XB P7-2/XB P7-3/XB RT9/XB RT10/XB	RR122 REACTOR PROTECTION TRAIN "B" (1C164) POWER RANGE BLOCK #1 RELAY POWER RANGE BLOCK #2 RELAY PERMISSIVE 8 #1 RELAY PERMISSIVE 8 #2 RELAY PERMISSIVE 10 #1 RELAY PERMISSIVE 10 #2 RELAY REACTOR TRIP RELAY REACTOR TRIP RELAY PERMISSIVE 7 #1 RELAY PERMISSIVE 7 #2 RELAY PERMISSIVE 7 #3 RELAY REACTOR TRIP RELAY REACTOR TRIP RELAY	*	*
	1E-0222 IRB1/XB IRB2/XB RT7/XB RT8/XB	RR123 REACTOR PROTECTION TRAIN "B" (1C163) INTERMEDIATE RANGE BLOCK #1 RELAY INTERMEDIATE RANGE BLOCK #2 RELAY REACTOR TRIP RELAY REACTOR TRIP RELAY	*	*
	1E-0223 SRB1/XB SRB2/XB	RR124 REACTOR PROTECTION TRAIN "B" (1C162) SOURCE RANGE BLOCK #1 RELAY SOURCE RANGE BLOCK #2 RELAY	*	*
	1E-0224 RT1/XB RT2/XB	RR125 REACTOR PROTECTION TRAIN "B" (1C161) REACTOR TRIP RELAY REACTOR TRIP RELAY	*	*
	1E-0229 RT1/XA RT2/XA	RR130 REACTOR PROTECTION TRAIN "A" (1C151) REACTOR TRIP RELAY REACTOR TRIP RELAY	*	*

IV. NEUTRON FLUX INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	1E-0230	RR131 REACTOR PROTECTION TRAIN "A" (1C152)	*	*
	SRB1/XA	SOURCE RANGE BLOCK #1 RELAY	*	*
	SRB2/XA	SOURCE RANGE BLOCK #2 RELAY		
	1E-0231	RR132 REACTOR PROTECTION TRAIN "A" (1C153)	*	*
	IRB1/XA	INTERMEDIATE RANGE BLOCK #1 RELAY	*	*
	IRB2/XA	INTERMEDIATE RANGE BLOCK #2 RELAY	*	*
	RT7/XA	REACTOR TRIP RELAY	*	*
	RT8/XA	REACTOR TRIP RELAY		
	1E-0232	RR133 REACTOR PROTECTION TRAIN "A" (1C154)	*	*
	PRB1/XA	POWER RANGE BLOCK #1 RELAY	*	*
	PRB2/XA	POWER RANGE BLOCK #2 RELAY	*	*
	P8-1/XA	PERMISSIVE 8 #1 RELAY	*	*
	P8-2/XA	PERMISSIVE 8 #2 RELAY	*	*
	P10-1/XA	PERMISSIVE 10 #1 RELAY	*	*
	P10-2/XA	PERMISSIVE 10 #2 RELAY	*	*
	RT11/XA	REACTOR TRIP RELAY	*	*
	RT12/XA	REACTOR TRIP RELAY	*	*
	P7-1/XA	PERMISSIVE 7 #1 RELAY	*	*
	P7-2/XA	PERMISSIVE 7 #2 RELAY	*	*
	P7-3/XA	PERMISSIVE 7 #3 RELAY	*	*
	RT9/XA	REACTOR TRIP RELAY	*	*
	RT10/XA	REACTOR TRIP RELAY		
	1E-0233	RR134 REACTOR PROTECTION TRAIN "A" (1C155)	*	*
	P10-PB	PERMISSIVE 10 PUSHBUTTON		
	1E-0402	CR103 MECHANICAL CONSOLE "B"		
	46292	POWER RANGE TRAIN "A" MANUAL TRIP BLOCK (1/N-47A)	1/1	INSTRUMENT LIST
	46293	POWER RANGE TRAIN "B" MANUAL TRIP BLOCK (1/N-47B)	1/1	INSTRUMENT LIST

V. REACTOR COOLANT PUMP INPUTS

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
27A/B1 27C/B1		BUS 1-1 A-PHASE UNDERVOLTAGE RELAY	1	P.O. K-537
		BUS 1-1 C-PHASE UNDERVOLTAGE RELAY	1	P.O. K-537
	1E-0023	4160V SWITCHGEAR BUS 1-1		
	TB1916	AUX RELAY TERMINAL BOX		
	27AX1/B1	4160V SWITCHGEAR BUS 1-1 A-PHASE UNDERVOLTAGE AUX RELAY	1	P.O. K-476
	2A/B1	4160V SWITCHGEAR BUS 1-1 A-PHASE UNDERVOLTAGE AUX RELAY	1	P.O. 81764
	27AX/B1	4160V SWITCHGEAR BUS 1-1 A-PHASE UNDERVOLTAGE AUX RELAY	1	P.O. K-393
	NONE	4160V SWITCHGEAR BUS 1-1 A-PHASE UNDERVOLTAGE AUX RELAY RESISTOR (1250-OHM, 50W)	2	P.O. K-144
	27CX1/B1	4160V SWITCHGEAR BUS 1-1 C-PHASE UNDERVOLTAGE AUX RELAY	1	P.O. K-476
	2C/B1	4160V SWITCHGEAR BUS 1-1 C-PHASE UNDERVOLTAGE AUX RELAY	1	P.O. 81764
	27CX/B1	4160V SWITCHGEAR BUS 1-1 C-PHASE UNDERVOLTAGE AUX RELAY	2	P.O. K-144
	NONE	4160V SWITCHGEAR BUS 1-1 C-PHASE UNDERVOLTAGE AUX RELAY RESISTOR (1250-OHM, 50W)	2	P.O. K-144
	1E-0229	RR130 REACTOR PROTECTION TRAIN "A" (1C151)	*	*
	27A/B1/XA	4160V BUS VOLTAGE RELAY	*	*
	27A/B1/TA	4160V BUS VOLTAGE TEST RELAY		
	1E-0230	RR131 REACTOR PROTECTION TRAIN "A" (1C152)	*	*
	27C/B1/XA	4160V BUS VOLTAGE RELAY	*	*
	27C/B1/TA	4160V BUS VOLTAGE TEST RELAY		
	1E-0232	RR133 REACTOR PROTECTION TRAIN "A" (1C154)	*	*
	RT9/XA	REACTOR TRIP RELAY	*	*
	RT10/XA	REACTOR TRIP RELAY		

V. REACTOR COOLANT PUMP INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
27A1/B1 27C1/B1		BUS 1-1 A-PHASE UNDERVOLTAGE RELAY	1	P.O. K-537
		BUS 1-1 C-PHASE UNDERVOLTAGE RELAY	1	P.O. K-537
	1E-0223	4160V SWITCHGEAR BUS 1-1		
	TB1671	AUX RELAY TERMINAL BOX: 4160V BUS 1-1 & 1-2		
	TB1916	AUX RELAY TERMINAL BOX		
	27A1/B1TB	4160V SWITCHGEAR BUS 1-1 A-PHASE UNDERVOLTAGE AUX RELAY	1	P.O. K-476
	2A1/B1	4160V SWITCHGEAR BUS 1-1 A-PHASE UNDERVOLTAGE AUX RELAY	1	P.O. 81764
	27C1/B1TB	4160V SWITCHGEAR BUS 1-1 C-PHASE UNDERVOLTAGE AUX RELAY	1	P.O. K-476
	2C1/B1	4160V SWITCHGEAR BUS 1-1 C-PHASE UNDERVOLTAGE AUX RELAY	1	P.O. 81764
	1E-0224	RR125 REACTOR PROTECTION TRAIN "B" (1C161)		
27A/B1/XB	4160V BUS VOLTAGE RELAY	*	*	
27A/B1/TB	4160V BUS VOLTAGE TEST RELAY	*	*	
1E-0223	RR124 REACTOR PROTECTION TRAIN "B" (1C162)			
27C/B1/XB	4160V BUS VOLTAGE RELAY	*	*	
27C/B1/TB	4160V BUS VOLTAGE TEST RELAY	*	*	
1E-0221	RR122 REACTOR PROTECTION TRAIN "B" (1C164)			
RT9/XB	REACTOR TRIP RELAY	*	*	
RT10/XB	REACTOR TRIP RELAY	*	*	
27A/B2 27C/B2		BUS 1-2 A-PHASE UNDERVOLTAGE RELAY	1	P.O. K-537
		BUS 1-2 C-PHASE UNDERVOLTAGE RELAY	1	P.O. K-537
	1E-0024	4160V SWITCHGEAR BUS 1-2		
	TB1915	AUX RELAY TERMINAL BOX		
	27AX1/B2	4160V SWITCHGEAR BUS 1-2 A-PHASE UNDERVOLTAGE AUX RELAY	1	P.O. K-476
2A/B2	4160V SWITCHGEAR BUS 1-2 A-PHASE UNDERVOLTAGE AUX RELAY	1	P.O. 81764	

V. REACTOR COOLANT PUMP INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	27AX/B2	4160V SWITCHGEAR BUS 1-2 A-PHASE UNDERVOLTAGE AUX RELAY	1	P.O. K-393
	NONE	4160V SWITCHGEAR BUS 1-2 A-PHASE UNDERVOLTAGE AUX RELAY RESISTOR (1250-OHM, 50W)	2	P.O. K-144
	27CX1/B2	4160V SWITCHGEAR BUS 1-2 C-PHASE UNDERVOLTAGE AUX RELAY	1	P.O. K-476
	2C/B2	4160V SWITCHGEAR BUS 1-2 C-PHASE UNDERVOLTAGE AUX RELAY	1	P.O. 81764
	27CX/B2	4160V SWITCHGEAR BUS 1-2 C-PHASE UNDERVOLTAGE AUX RELAY	2	P.O. K-144
	NONE	4160V SWITCHGEAR BUS 1-2 C-PHASE UNDERVOLTAGE AUX RELAY RESISTOR (1250-OHM, 50W)	2	P.O. K-144
	1E-0231	RR132 REACTOR PROTECTION TRAIN "A" (1C153)	*	*
	27A/B2/XA	4160V BUS VOLTAGE RELAY	*	*
	27A/B2/TA	4160V BUS VOLTAGE TEST RELAY		
	1E-0232	RR133 REACTOR PROTECTION TRAIN "A" (1C154)	*	*
	27C/B2/XA	4160V BUS VOLTAGE RELAY	*	*
	27C/B2/TA	4160V BUS VOLTAGE TEST RELAY		
	1E-0232	RR133 REACTOR PROTECTION TRAIN "A" (1C154)	*	*
	RT9/XA	REACTOR TRIP RELAY	*	*
	RT10/XA	REACTOR TRIP RELAY		
27A1/B2		BUS 1-2 A-PHASE UNDERVOLTAGE RELAY	1	P.O. K-537
27C1/B2		BUS 1-2 C-PHASE UNDERVOLTAGE RELAY	1	P.O. K-537
	1E-0024	4160V SWITCHGEAR BUS 1-2		
	TB1671	AUX RELAY TERMINAL BOX: 4160V BUS 1-1 & 1-2		
	TB1915	AUX RELAY TERMINAL BOX		
	27A1/B2TB	4160V SWITCHGEAR BUS 1-2 A-PHASE UNDERVOLTAGE AUX RELAY	1	P.O. K-476
	2A1/B2	4160V SWITCHGEAR BUS 1-2 A-PHASE UNDERVOLTAGE AUX RELAY	1	P.O. 81764
	27C1/B2TB	4160V SWITCHGEAR BUS 1-2 C-PHASE UNDERVOLTAGE AUX RELAY	1	P.O. K-476

V. REACTOR COOLANT PUMP INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	2C1/B2	4160V SWITCHGEAR BUS 1-2 C-PHASE UNDERVOLTAGE AUX RELAY	1	P.O. 81764
	1E-0222	RR123 REACTOR PROTECTION TRAIN "B" (1C163)	*	*
	27A/B2/XB	4160V BUS VOLTAGE RELAY	*	*
	27A/B2/TB	4160V BUS VOLTAGE TEST RELAY		
	1E-0221	RR122 REACTOR PROTECTION TRAIN "B" (1C164)	*	*
	27C/B2/XB	4160V BUS VOLTAGE RELAY	*	*
	27C/B2/TB	4160V BUS VOLTAGE TEST RELAY	*	*
	RT9/XB	REACTOR TRIP RELAY	*	*
	RT10/XB	REACTOR TRIP RELAY		
52a/1-103		REACTOR COOLANT PUMP BREAKER POSITION	2	E244/ELECTRICAL COMPONENT LIST
	1E-0023	4160V SWITCHGEAR BUS 1-1		
	1E-0230	RR131 REACTOR PROTECTION TRAIN "A" (1C152)	*	*
	RC1/XA	REACTOR COOLANT LOOP "A" AUX RELAY	*	*
	RC1/TA	REACTOR COOLANT LOOP "A" AUX TEST RELAY	*	*
	RC2/XA	REACTOR COOLANT LOOP "A" AUX RELAY		
	1E-0231	RR132 REACTOR PROTECTION TRAIN "A" (1C153)	*	*
	RT7/XA	REACTOR TRIP RELAY	*	*
	RT8/XA	REACTOR TRIP RELAY		
	1E-0223	RR124 REACTOR PROTECTION TRAIN "B" (1C162)	*	*
	RC1/XB	REACTOR COOLANT LOOP "A" AUX RELAY	*	*
	RC1/TB	REACTOR COOLANT LOOP "A" AUX TEST RELAY	*	*
	RC2/XB	REACTOR COOLANT LOOP "A" AUX RELAY		
	1E-0222	RR123 REACTOR PROTECTION TRAIN "B" (1C163)	*	*
	RT7/XB	REACTOR TRIP RELAY	*	*
	RT8/XB	REACTOR TRIP RELAY		

V. REACTOR COOLANT PUMP INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
52a/1-203		REACTOR COOLANT PUMP BREAKER POSITION	2	E244/ELECTRICAL COMPONENT LIST
	1E-0024	4160V SWITCHGEAR BUS 1-2		
	1E-0231	RR132 REACTOR PROTECTION TRAIN "A" (1C153)	*	*
	RC3/XA	REACTOR COOLANT LOOP "B" RELAY	*	*
	RC4/XA	REACTOR COOLANT LOOP "B" RELAY	*	*
	RC3/TA	REACTOR COOLANT LOOP "B" TEST RELAY	*	*
	RT7/XA	REACTOR TRIP RELAY	*	*
	RT8/XA	REACTOR TRIP RELAY	*	*
	1E-0222	RR123 REACTOR PROTECTION TRAIN "B" (1C163)	*	*
	RC3/XB	REACTOR COOLANT LOOP "B" RELAY	*	*
	RC3/TB	REACTOR COOLANT LOOP "B" TEST RELAY	*	*
	RC4/XB	REACTOR COOLANT LOOP "B" RELAY	*	*
	RT7/XB	REACTOR TRIP RELAY	*	*
	RT8/XB	REACTOR TRIP RELAY	*	*

VI. TURBINE INPUTS

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
16051	1E-0230 63/AST3/XA 63/AST3/TA	REACTOR AUTO STOP TRIP PRESSURE SWITCH (63/AST3)	1/1	INSTRUMENT LIST
		RR131 REACTOR PROTECTION TRAIN "A" (1C152)	*	*
		TURBINE AUTO STOP #1 AUX RELAY	*	*
		TURBINE AUTO STOP #1 AUX TEST RELAY		
	1E-0232 RT9/XA RT10/XA	RR133 REACTOR PROTECTION TRAIN "A" (1C154)	*	*
		REACTOR TRIP RELAY	*	*
		REACTOR TRIP RELAY		
	1E-0223 63/AST3/XB 63/AST3/TB	RR124 REACTOR PROTECTION TRAIN "B" (1C162)	*	*
		TURBINE AUTO STOP #1 AUX RELAY	*	*
	1E-0221 RT9/XB RT10/XB	TURBINE AUTO STOP #1 AUX TEST RELAY		
		RR122 REACTOR PROTECTION TRAIN "B" (1C164)	*	*
	16052	1E-0231 63/AST4/XA 63/AST4/TA	REACTOR AUTO STOP TRIP PRESSURE SWITCH (63/AST4)	1/1
RR132 REACTOR PROTECTION TRAIN "A" (1C153)			*	*
TURBINE AUTO STOP #2 AUX RELAY			*	*
TURBINE AUTO STOP #2 AUX TEST RELAY				
1E-0232 RT9/XA RT10/XA		RR133 REACTOR PROTECTION TRAIN "A" (1C154)	*	*
		REACTOR TRIP RELAY	*	*
		REACTOR TRIP RELAY		
1E-0222 63/AST4/XB 63/AST4/TB		RR123 REACTOR PROTECTION TRAIN "B" (1C163)	*	*
		TURBINE AUTO STOP #2 AUX RELAY	*	*
1E-0221 RT9/XB RT10/XB		TURBINE AUTO STOP #2 AUX TEST RELAY		
		RR122 REACTOR PROTECTION TRAIN "B" (1C164)	*	*
		REACTOR TRIP RELAY	*	*
	REACTOR TRIP RELAY			

VI. TURBINE INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)	
16057		REACTOR AUTO STOP TRIP PRESSURE SWITCH (63/AST5)	1/1	INSTRUMENT LIST	
	1E-0232	RR133 REACTOR PROTECTION TRAIN "A" (1C154)	*	*	
	63/AST5/XA	TURBINE AUTO STOP #3 AUX RELAY	*	*	
	63/AST5/TA	TURBINE AUTO STOP #3 AUX TEST RELAY	*	*	
	RT9/XA	REACTOR TRIP RELAY	*	*	
	RT10/XA	REACTOR TRIP RELAY	*	*	
	1E-0221	RR122 REACTOR PROTECTION TRAIN "B" (1C164)	*	*	
	63/AST5/XB	TURBINE AUTO STOP #3 AUX RELAY	*	*	
	63/AST5/TB	TURBINE AUTO STOP #3 AUX TEST RELAY	*	*	
	RT9/XB	REACTOR TRIP RELAY	*	*	
	RT10/XB	REACTOR TRIP RELAY	*	*	
	31081		TURBINE LH STOP VLV (SV1)	2/2	INSTRUMENT LIST
		1E-0231	RR132 REACTOR PROTECTION TRAIN "A" (1C153)	*	*
		SV1/XA	TURBINE STOP VALVE AUX RELAY	*	*
SV1/TA		TURBINE STOP VALVE AUX TEST RELAY	*	*	
1E-0232		RR133 REACTOR PROTECTION TRAIN "A" (1C154)	*	*	
RT9/XA		REACTOR TRIP RELAY	*	*	
RT10/XA		REACTOR TRIP RELAY	*	*	
1E-0222		RR123 REACTOR PROTECTION TRAIN "B" (1C163)	*	*	
SV1/XB		TURBINE STOP VALVE AUX RELAY	*	*	
SV1/TB		TURBINE STOP VALVE AUX TEST RELAY	*	*	
1E-0221		RR122 REACTOR PROTECTION TRAIN "B" (1C164)	*	*	
RT9/XB		REACTOR TRIP RELAY	*	*	
RT10/XB		REACTOR TRIP RELAY	*	*	

VI. TURBINE INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID		QA TYPE	QA DOCUMENT(S)	
31082	1E-0232 SV2/XA SV2/TA RT9/XA RT10/XA	TURBINE RH STOP VLV (SV2)	2/2	INSTRUMENT LIST	
		RR133 REACTOR PROTECTION TRAIN "A" (1C154)	*	*	
		TURBINE STOP VALVE AUX RELAY	*	*	
		TURBINE STOP VALVE AUX TEST RELAY	*	*	
		REACTOR TRIP RELAY	*	*	
	1E-0221 SV2/XB SV2/TB RT9/XB RT10/XB	RR122 REACTOR PROTECTION TRAIN "B" (1C164)	*	*	
		TURBINE STOP VALVE AUX RELAY	*	*	
		TURBINE STOP VALVE AUX TEST RELAY	*	*	
		REACTOR TRIP RELAY	*	*	
		REACTOR TRIP RELAY	*	*	
	21014	1E-0213 4858801 4858802 4858803	TURBINE IMPULSE CHAMBER PRESSURE TRANSMITTER (FIRST STAGE) (PT485)	1/1	INSTRUMENT LIST
			RR114 WHITE CHANNEL, 1W1 (1C113)	1/1	INSTRUMENT LIST
			PERMISSIVE/TURB LOAD LMT RDCTN DUPLEX SW (PC485A/B)	1/1	INSTRUMENT LIST
			1ST STAGE PRESS XMTR PWR SPLY (PQ485)	1/1	INSTRUMENT LIST
1E-0230 PC485A/XA PC485A/TA		1ST STAGE PRESS TO CONT ISOL REPT (PM485A)			
		RR121 REACTOR PROTECTION TRAIN "A" (1C152)	*	*	
		TURBINE POWER GREATER THAN X% BISTABLE AUX RELAY	*	*	
1E-0232 P7-1/XA P7-2/XA P7-3/XA		TURBINE POWER GREATER THAN X% BISTABLE AUX TEST RELAY			
		RR133 REACTOR PROTECTION TRAIN "A" (1C154)	*	*	
		PERMISSIVE 7 AUX RELAY	*	*	
		PERMISSIVE 7 AUX RELAY	*	*	
1E-0233 P7-TEST	PERMISSIVE 7 AUX RELAY				
	RR134 REACTOR PROTECTION TRAIN "A" (1C155)	*	*		
	TEST SWITCH				

VI. TURBINE INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	1E-0231	RR132 REACTOR PROTECTION TRAIN "A" (1C153)	*	*
	RT7/XA	REACTOR TRIP RELAY	*	*
	RT8/XA	REACTOR TRIP RELAY		
	1E-0229	RR130 REACTOR PROTECTION TRAIN "A" (1C151)	*	*
	RT1/XA	REACTOR TRIP RELAY	*	*
	RT2/XA	REACTOR TRIP RELAY		
	1E-0232	RR133 REACTOR PROTECTION TRAIN "A" (1C154)	*	*
	RT9/XA	REACTOR TRIP RELAY	*	*
	RT10/XA	REACTOR TRIP RELAY		
	1E-0223	RR124 REACTOR PROTECTION TRAIN "B" (1C162)	*	*
	PC485A/XB	TURBINE POWER GREATER THAN X% BISTABLE AUX RELAY	*	*
	PC485A/TB	TURBINE POWER GREATER THAN X% BISTABLE AUX TEST RELAY		
	1E-0221	RR122 REACTOR PROTECTION TRAIN "B" (1C164)	*	*
	P7-1/XB	PERMISSIVE 7 AUX RELAY	*	*
	P7-2/XB	PERMISSIVE 7 AUX RELAY	*	*
	P7-3/XB	PERMISSIVE 7 AUX RELAY		
	1E-0220	RR121 REACTOR PROTECTION TRAIN "B" (1C165)	*	*
	P7-TEST	TEST SWITCH		
	1E-0222	RR123 REACTOR PROTECTION TRAIN "B" (1C163)	*	*
	RT7/XB	REACTOR TRIP RELAY	*	*
	RT8/XB	REACTOR TRIP RELAY		
	1E-0224	RR125 REACTOR PROTECTION TRAIN "B" (1C161)	*	*
	RT1/XB	REACTOR TRIP RELAY	*	*
	RT2/XB	REACTOR TRIP RELAY		
	1E-0221	RR122 REACTOR PROTECTION TRAIN "B" (1C164)	*	*
	RT9/XB	REACTOR TRIP RELAY	*	*
	RT10/XB	REACTOR TRIP RELAY		

VI. TURBINE INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
21011		TURBINE IMPULSE CHAMBER PRESSURE TRANSMITTER (FIRST STAGE) (PT486)	1/1	INSTRUMENT LIST
	1E-0211	RR112 BLUE CHANNEL, 1B1 (1C115)	1/1	INSTRUMENT LIST
	4862001	PERMISSIVE DUPLEX HI/LO ALM (PC486A/B)	1/1	INSTRUMENT LIST
	4862002	1ST STAGE PRESS XMTR PWR SPLY (PQ486)	1/1	INSTRUMENT LIST
	4862003	1ST STAGE PRESS TO CONT ISOL REPT (PM486A)	1/1	INSTRUMENT LIST
	1E-0231	RR132 REACTOR PROTECTION TRAIN "A" (1C153)	*	*
	PC486A/XA	TURBINE POWER GREATER THAN X% BISTABLE AUX RELAY	*	*
	PC486A/TA	TURBINE POWER GREATER THAN X% BISTABLE AUX TEST RELAY	*	*
	1E-0232	RR133 REACTOR PROTECTION TRAIN "A" (1C154)	*	*
	P7-1/XA	PERMISSIVE 7 AUX RELAY	*	*
	P7-2/XA	PERMISSIVE 7 AUX RELAY	*	*
	P7-3/XA	PERMISSIVE 7 AUX RELAY	*	*
	1E-0233	RR134 REACTOR PROTECTION TRAIN "A" (1C155)	*	*
	P7-TEST	TEST SWITCH	*	*
	1E-0231	RR132 REACTOR PROTECTION TRAIN "A" (1C153)	*	*
	RT7/XA	REACTOR TRIP RELAY	*	*
	RT8/XA	REACTOR TRIP RELAY	*	*
	1E-0229	RR130 REACTOR PROTECTION TRAIN "A" (1C151)	*	*
	RT1/XA	REACTOR TRIP RELAY	*	*
	RT2/XA	REACTOR TRIP RELAY	*	*
	1E-0232	RR133 REACTOR PROTECTION TRAIN "A" (1C154)	*	*
	RT9/XA	REACTOR TRIP RELAY	*	*
	RT10/XA	REACTOR TRIP RELAY	*	*
	1E-0222	RR123 REACTOR PROTECTION TRAIN "B" (1C163)	*	*
	PC486A/XB	TURBINE POWER GREATER THAN X% BISTABLE AUX RELAY	*	*
	PC486A/TB	TURBINE POWER GREATER THAN X% BISTABLE AUX TEST RELAY	*	*

VI. TURBINE INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	1E-0221	RR122 REACTOR PROTECTION TRAIN "B" (1C164)	*	*
	P7-1/XB	PERMISSIVE 7 AUX RELAY	*	*
	P7-2/XB	PERMISSIVE 7 AUX RELAY	*	*
	P7-3/XB	PERMISSIVE 7 AUX RELAY	*	*
	1E-0220	RR121 REACTOR PROTECTION TRAIN "B" (1C165)	*	*
	P7-TEST	TEST SWITCH		
	1E-0222	RR123 REACTOR PROTECTION TRAIN "B" (1C163)	*	*
	RT7/XB	REACTOR TRIP RELAY	*	*
	RT8/XB	REACTOR TRIP RELAY		
	1E-0224	RR125 REACTOR PROTECTION TRAIN "B" (1C161)	*	*
	RT1/XB	REACTOR TRIP RELAY	*	*
	RT2/XB	REACTOR TRIP RELAY		
	1E-0221	RR122 REACTOR PROTECTION TRAIN "B" (1C164)	*	*
	RT9/XB	REACTOR TRIP RELAY	*	*
	RT10/XB	REACTOR TRIP RELAY		

VII. ENGINEERED SAFEGUARD INPUTS

THE COMPONENTS IN THE FOLLOWING LISTING ARE THOSE WHICH PRODUCE A SAFETY INJECTION SIGNAL WHICH TRIPS THE REACTOR. THE CIRCUITRY DIRECTLY ASSOCIATED WITH SAFETY INJECTION IS LISTED FIRST, ONCE FOR EACH TRAIN. THE INPUT CIRCUITRY WHICH PICKS UP THE SAFETY INJECTION CIRCUITRY FOLLOWS IN THE LISTING.

SINCE THE SAFETY INJECTION RELAYS ARE "ENERGIZE TO ACTUATE", A SHORT CIRCUIT IN ANY COMPONENT CONNECTED TO THEIR 125V DC CONTROL BUSES COULD PREVENT THE SAFETY INJECTION RELAYS FROM OPERATING WHEN REQUIRED. THESE ASSOCIATED COMPONENTS ARE LISTED SEPARATELY WITH THEIR RESPECTIVE SAFEGUARD CABINETS IN SECTION VIII A.

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
S111X		SAFETY INJECTION AUX RELAY	*	*
	1E-0228	RR129 ENG'RD SAFEGRD TRAIN "A" (1C157)	*	*
	L8(800)	SI AUX RELAY S111X TEST INDICATING LIGHT	*	*
	TR/A1	SAFETY INJECTION TEST RELAY	*	*
	TR/A2	SAFETY INJECTION TEST RELAY	*	*
	TR/A3	SAFETY INJECTION TEST RELAY	*	*
	1/SITA/AT	SAFETY INJECTION TEST SWITCH	*	*
	SIR/A	SAFETY INJECTION RELAY	*	*
	RT/A	FEEDWATER ISOLATION RELAY	*	*
	L12(802)	SAFETY INJECTION INDICATING LIGHT CIRCUIT	*	*
	1E-0227	RR128 ENG'RD SAFEGRD TRAIN "A" (1C156)	*	*
	SIA/A1	SAFETY INJECTION RELAY	*	*
	SIA/A2	SAFETY INJECTION RELAY	*	*
	TDR19	SAFETY INJECTION TIMER	*	*
	1E-0403	CR104 MECHANICAL CONSOLE C		
4647501	SAFETY INJECTION 1B MANUAL INITIATION PUSHBUTTON	1/1	INSTRUMENT LIST	
4647201	SAFETY INJECTION 1A MANUAL INITIATION PUSHBUTTON	1/1	INSTRUMENT LIST	
4647202	SAFETY INJECTION 1A MANUAL RESET PUSHBUTTON	1/1	INSTRUMENT LIST	
1E-0231	RR132 REACTOR PROTECTION TRAIN "A" (1C153)	*	*	
RT5/XA	REACTOR TRIP RELAY	*	*	
RT6/XA	REACTOR TRIP RELAY	*	*	
1E-0222	RR123 REACTOR PROTECTION TRAIN "B" (1C163)	*	*	
RT5/XB	REACTOR TRIP RELAY	*	*	
RT6/XB	REACTOR TRIP RELAY	*	*	

VII. ENGINEERED SAFEGUARD INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
SI21X		SAFETY INJECTION AUX RELAY	*	*
	1E-0226	RR127 ENG'RD SAFEGRD TRAIN "B" (1C167)	*	*
	L8(800)	SI AUX RELAY SI21X TEST INDICATING LIGHT	*	*
	TR/B1	SAFETY INJECTION TEST RELAY	*	*
	TR/B2	SAFETY INJECTION TEST RELAY	*	*
	TR/B3	SAFETY INJECTION TEST RELAY	*	*
	1/SITB/BT	SAFETY INJECTION TEST SWITCH	*	*
	SIR/B	SAFETY INJECTION RELAY	*	*
	RT/B	FEEDWATER ISOLATION RELAY	*	*
	L12(802)	SAFETY INJECTION INDICATING LIGHT CIRCUIT	*	*
	1E-0225	RR126 ENG'RD SAFEGRD TRAIN "B" (1C166)	*	*
	SIA/B1	SAFETY INJECTION RELAY	*	*
	SIA/B2	SAFETY INJECTION RELAY	*	*
	TDR29	SAFETY INJECTION TIMER	*	*
	1E-0403	CR104 MECHANICAL CONSOLE C	1/1	INSTRUMENT LIST
	4647501	SAFETY INJECTION 1B MANUAL INITIATION PUSHBUTTON	1/1	INSTRUMENT LIST
	4647201	SAFETY INJECTION 1A MANUAL INITIATION PUSHBUTTON	1/1	INSTRUMENT LIST
	4647502	SAFETY INJECTION 1B MANUAL RESET PUSHBUTTON	1/1	INSTRUMENT LIST
	1E-0231	RR122 REACTOR PROTECTION TRAIN "A" (1C153)	*	*
	RT5/XA	REACTOR TRIP RELAY	*	*
RT6/XA	REACTOR TRIP RELAY	*	*	
1E-0222	RR123 REACTOR PROTECTION TRAIN "B" (1C163)	*	*	
RT5/XB	REACTOR TRIP RELAY	*	*	
RT6/XB	REACTOR TRIP RELAY	*	*	
21100		CONTAINMENT PRESSURE NO. 1A1 DIFFERENTIAL PRESSURE TRANSMITTER (PT945)	1/1	INSTRUMENT LIST
	1E-0208	RR109 RED CHANNEL, 1R2 (1C112)	1/1	INSTRUMENT LIST
	4872801	CONTM PRESS PWR SPLY (PQ945)	1/1	INSTRUMENT LIST
	4872802	SFGRD ACT/CONTM SPRA LOGIC DUPLEX HI/HI ALM (PC945A/B)	1/1	INSTRUMENT LIST
	4872803	CONTM PRESS TO CMPTR & I ISOL REPT (PM945)	1/1	INSTRUMENT LIST

VII. ENGINEERED SAFEGUARD INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	1E-0227 PC945A/XA PC945A/AT	RR128 ENG'RD SAFEGRD TRAIN "A" (1C156) CONTAINMENT HI PRESSURE SI BISTABLE AUX RELAY CONTAINMENT HI PRESSURE SI BISTABLE AUX RELAY TEST SWITCH	*	*
			*	*
	1E-0225 PC945A/XB PC945A/BT	RR126 ENG'RD SAFEGRD TRAIN "B" (1C166) CONTAINMENT HI PRESSURE SI BISTABLE AUX RELAY CONTAINMENT HI PRESSURE SI BISTABLE AUX RELAY TEST SWITCH	*	*
			*	*
21101		CONTAINMENT PRESSURE NO. 1A2 DIFFERENTIAL PRESSURE TRANSMITTER (PT947)	1/1	INSTRUMENT LIST
	1E-0212 4873001	RR113 BLUE CHANNEL, 1B2 (1C116) CONTM PRESS PWR SPLY (PQ947)	1/1	INSTRUMENT LIST
	4873002	SFGRD ACT LOGIC/CONTM SPRA LOGIC DUPLEX ALM (PC947A/B)	1/1	INSTRUMENT LIST
	4873003	CONTM PRESS TO CMPTR & I ISOL REPT (PM947)	1/1	INSTRUMENT LIST
	1E-0228 PC947A/XA PC947A/AT	RR129 ENG'RD SAFEGRD TRAIN "A" (1C157) CONTAINMENT HI PRESSURE SI BISTABLE AUX RELAY CONTAINMENT HI PRESSURE SI BISTABLE AUX RELAY TEST SWITCH	*	*
			*	*
	1E-0226 PC947A/XB PC947A/BT	RR127 ENG'RD SAFEGRD TRAIN "B" (1C167) CONTAINMENT HI PRESSURE SI BISTABLE AUX RELAY CONTAINMENT HI PRESSURE SI BISTABLE AUX RELAY TEST SWITCH	*	*
			*	*
21102		CONTAINMENT PRESSURE NO. 1A3 DIFFERENTIAL PRESSURE TRANSMITTER (PT949)	1/1	INSTRUMENT LIST
	1E-0214 4873201	RR115 WHITE CHANNEL, 1W2 (1C114) CONTM PRESS PWR SPLY (PQ949)	1/1	INSTRUMENT LIST

VII. ENGINEERED SAFEGUARD INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	4873202	SFGRD ACT/CONTM SPRA LOGIC DUPLEX HI/HI ALM (PC949A/B)	1/1	INSTRUMENT LIST
	4873203	CONTM PRESS TO CMPTR & I ISOL REPT (PM949)	1/1	INSTRUMENT LIST
	1E-0228 PC949A/XA PC949A/AT	RR129 ENG'RD SAFEGRD TRAIN "A" (1C157) CONTAINMENT HI PRESSURE SI BISTABLE AUX RELAY CONTAINMENT HI PRESSURE SI BISTABLE AUX RELAY TEST RELAY	*	*
	1E-0226 PC949A/XB PC949A/BT	RR127 ENG'RD SAFEGRD TRAIN "B" (1C167) CONTAINMENT HI PRESSURE SI BISTABLE AUX RELAY CONTAINMENT HI PRESSURE SI BISTABLE AUX RELAY TEST RELAY	*	*
21094		STEAM GENERATOR 1A STEAM OUTLET PRESSURE TRANSMITTER (PT468)	1/1	INSTRUMENT LIST
	1E-0208	RR109 RED CHANNEL, 1R2 (1C112)	1/1	INSTRUMENT LIST
	4849101	STM PRESS PWR SPLY (PQ468)	1/1	INSTRUMENT LIST
	4849102	STM PRESS COMPSTR LEAD LAG (PM468A)	1/1	INSTRUMENT LIST
	4849103	LO/LO PRESS SAF INJ/LO PRESS DUPLEX LO/LO ALM (PC468A/B)	1/1	INSTRUMENT LIST
	4849104	STM PRESS TO CMPTR & I ISOL REPT (PM468B)	1/1	INSTRUMENT LIST
	4849402	STM F PRESS COMPSTR MULTIPLY DIVIDER (FM464A)	1/1	INSTRUMENT LIST
	1E-0227 PC468A/XA PC468A/BT	RR128 ENG'RD SAFEGRD TRAIN "A" (1C156) STEAM LINE LOOP A SI BISTABLE AUX RELAY STEAM LINE LOOP A SI BISTABLE AUX RELAY TEST SWITCH	*	*
	1E-0225 PC468A/XB PC468A/BT	RR126 ENG'RD SAFEGRD TRAIN "B" (1C166) STEAM LINE LOOP A SI BISTABLE AUX RELAY STEAM LINE LOOP A SI BISTABLE AUX RELAY TEST SWITCH	*	*
21095		STEAM GENERATOR 1A STEAM OUTLET PRESSURE TRANSMITTER (PT469)	1/1	INSTRUMENT LIST

VII. ENGINEERED SAFEGUARD INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	1E-0214	RR115 WHITE CHANNEL, 1W2 (1C114)	1/1	INSTRUMENT LIST
	4849001	STM PRESS XMTR PWR SPLY (PQ469)	1/1	INSTRUMENT LIST
	4849002	STM PRESS COMPSTR LEAD LAG UNIT (PM469A)	1/1	INSTRUMENT LIST
	4849003	STM PRESS TO CMPTR & I ISOL REPT (PM469B)		
	4849004	LO/LO SFGRD ACT LOGIC LO DUPLEX LO/LO ALM (PC469A/B)	1/1	INSTRUMENT LIST
	4849202	STM F PRESS COMPSTR MULTIPLY DIVIDER (FM465A)	1/1	INSTRUMENT LIST
	1E-0228	RR129 ENG'RD SAFEGRD TRAIN "A" (1C157)	*	*
	PC469A/XA	STEAM LINE LOOP A SI BISTABLE AUX RELAY		
	PC469A/AT	STEAM LINE LOOP A SI BISTABLE AUX RELAY TEST SWITCH	*	*
	1E-0226	RR127 ENG'RD SAFEGRD TRAIN "B" (1C167)	*	*
	PC469A/XB	STEAM LINE LOOP A SI BISTABLE AUX RELAY		
	PC469A/BT	STEAM LINE LOOP A SI BISTABLE AUX RELAY TEST SWITCH	*	*
21096		STEAM GENERATOR 1A STEAM OUTLET PRESSURE TRANSMITTER (PT482)	1/1	INSTRUMENT LIST
	1E-0212	RR113 BLUE CHANNEL, 1B2 (1C116)	1/1	INSTRUMENT LIST
	4848801	STM PRESS PWR SPLY (PQ482)		
	4848802	LO/LO SFGRD ACT LOGIC/LO PRESS DUPLEX ALM (PC482A/B)	1/1	INSTRUMENT LIST
	4848803	STM GEN PRESS COMPSTR LEAD LAG (PM482A)	1/1	INSTRUMENT LIST
	4848804	STM GEN PRESS TO CONT SYS ISOL REPT (PM482B)	1/1	INSTRUMENT LIST
	1E-0227	RR128 ENG'RD SAFEGRD TRAIN "A" (1C156)	*	*
	PC482A/XA	STEAM LINE LOOP A SI BISTABLE AUX RELAY		
	PC482A/AT	STEAM LINE LOOP A SI BISTABLE AUX RELAY TEST SWITCH	*	*
	1E-0225	RR126 ENG'RD SAFEGRD TRAIN "B" (1C166)	*	*
	PC482A/XB	STEAM LINE LOOP A SI BISTABLE AUX RELAY		
	PC482A/BT	STEAM LINE LOOP A SI BISTABLE AUX RELAY TEST SWITCH	*	*

VII. ENGINEERED SAFEGUARD INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
21097		STEAM GENERATOR 1B STEAM OUTLET PRESSURE TRANSMITTER (PT478)	1/1	INSTRUMENT LIST
	1E-0212	RR113 BLUE CHANNEL, 1B2 (1C116)	1/1	INSTRUMENT LIST
	4849901	STM PRESS XMTR PWR SPLY (PQ478)	1/1	INSTRUMENT LIST
	4849902	STM PRESS COMPSTR LEAD LAG (PM478A)		
	4849903	LO/LO SFGRD ACT LOGIC/LO DUPLEX LO/LO ALM (PC478A/B)	1/1	INSTRUMENT LIST
	4849906	STM PRESS TO CMPTR & I ISOL REPT (PM478B)	1/1	INSTRUMENT LIST
	4849802	STM F PRESS COMPSTR MULTIPLIER DIVIDER (FM474A)	1/1	INSTRUMENT LIST
	1E-0227	RR128 ENG'RD SAFEGRD TRAIN "A" (1C156)	*	*
	PC478A/XA	STEAM LINE LOOP B SI BISTABLE AUX RELAY		
	PC478A/AT	STEAM LINE LOOP B SI BISTABLE AUX RELAY TEST SWITCH	*	*
	1E-0225	RR126 ENG'RD SAFEGRD TRAIN "B" (1C166)	*	*
	PC478A/XB	STEAM LINE LOOP B SI BISTABLE AUX RELAY		
	PC478A/BT	STEAM LINE LOOP B SI BISTABLE AUX RELAY TEST SWITCH	*	*
	21098		STEAM GENERATOR 1B STEAM OUTLET PRESSURE TRANSMITTER (PT479)	1/1
1E-0206		RR107 YELLOW CHANNEL, 1Y2 (1C118)	1/1	INSTRUMENT LIST
4849701		STM PRESS XMTR PWR SPLY (PQ479)	1/1	INSTRUMENT LIST
4849702		STM PRESS COMPSTR LEAD LAG UNIT (PM479A)		
4849703		LO/LO SFGRD ACT LOGIC/LO DUPLEX LO/LO ALM (PC479A/B)	1/1	INSTRUMENT LIST
4849704		STM PRESS TO CMPTR & I ISOL REPT (PM479B)	1/1	INSTRUMENT LIST
4896602		STM F PRESS COMPSTR MULTIPLIER DIVIDER (FM479A)	1/1	INSTRUMENT LIST
1E-0228		RR129 ENG'RD SAFEGRD TRAIN "A" (1C157)	*	*
PC479A/XA		STEAM LINE LOOP B SI BISTABLE AUX RELAY		
PC479A/AT		STEAM LINE LOOP B SI BISTABLE AUX RELAY TEST SWITCH	*	*

VII. ENGINEERED SAFEGUARD INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	1E-0226 PC479A/XB PC479A/BT	RR127 ENG'RD SAFEGRD TRAIN "B" (1C167) STEAM LINE LOOP B SI BISTABLE AUX RELAY STEAM LINE LOOP B SI BISTABLE AUX RELAY TEST SWITCH	* *	* *
21099		STEAM GENERATOR 1B STEAM OUTLET PRESSURE TRANSMITTER (PT483)	1/1	INSTRUMENT LIST
	1E-0208 4872101 4872102	RR109 RED CHANNEL, 1R2 (1C112) STM GEN PRESS PWR SPLY (PQ483) LO/LO PRESS SFGRD ACT LOGIC/LO PRESS DUP ALM (PC483A/B)	1/1 1/1	INSTRUMENT LIST INSTRUMENT LIST
	4872103 4872104	STM GEN PRESS COMPSTR LEAD LAG UNIT (PM483A) STM GEN PRESS TO CONT SYS ISOL REPT (PM483B)	1/1 1/1	INSTRUMENT LIST INSTRUMENT LIST
	1E-0227 PC483A/XA PC483A/TA	RR128 ENG'RD SAFEGRD TRAIN "A" (1C156) STEAM LINE LOOP B SI BISTABLE AUX RELAY STEAM LINE LOOP B SI BISTABLE AUX RELAY TEST SWITCH	* *	* *
	1E-0225 PC483A/XB PC483A/BT	RR126 ENG'RD SAFEGRD TRAIN "B" (1C166) STEAM LINE LOOP B SI BISTABLE AUX RELAY STEAM LINE LOOP B SI BISTABLE AUX RELAY TEST SWITCH	* *	* *
		PC429C, LOW PRESSURIZER PRESSURE - SEE SECTION III, PAGE 25 21081, FOR ANALOG LOOP COMPONENTS.		
	1E-0227 PC429C/XA PC429C/AT	RR128 ENG'RD SAFEGRD TRAIN "A" (1C156) PRESSURIZER PRESSURE BISTABLE AUX RELAY PRESSURIZER PRESSURE BISTABLE AUX RELAY TEST SWITCH	* *	* *
	1E-0225 PC429C/XB PC429C/BT	RR126 ENG'RD SAFEGRD TRAIN "B" (1C166) PRESSURIZER PRESSURE BISTABLE AUX RELAY PRESSURIZER PRESSURE BISTABLE AUX RELAY TEST SWITCH	* *	* *

VII. ENGINEERED SAFEGUARD INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
		PC430E, LOW PRESSURIZER PRESSURE - SEE SECTION III, PAGE 26 21080, FOR ANALOG LOOP COMPONENTS.		
	1E-0228 PC430E/XA PC430E/AT	RR129 ENG'RD SAFEGRD TRAIN "A" (1C157) PRESSURIZER PRESSURE BISTABLE AUX RELAY PRESSURIZER PRESSURE BISTABLE AUX RELAY TEST SWITCH	*	*
	1E-0226 PC430E/XB PC430E/BT	RR127 ENG'RD SAFEGRD TRAIN "B" (1C167) PRESSURIZER PRESSURE BISTABLE AUX RELAY PRESSURIZER PRESSURE BISTABLE AUX RELAY TEST SWITCH	*	*
		PC431G, LOW PRESSURIZER PRESSURE - SEE SECTION III, PAGE 27 21079, FOR ANALOG LOOP COMPONENTS.		
	1E-0227 PC431G/XA PC431G/AT	RR128 ENG'RD SAFEGRD TRAIN "A" (1C156) PRESSURIZER PRESSURE BISTABLE AUX RELAY PRESSURIZER PRESSURE BISTABLE AUX RELAY TEST SWITCH	*	*
	1E-0225 PC431G/XB PC431G/BT	RR126 ENG'RD SAFEGRD TRAIN "B" (1C166) PRESSURIZER PRESSURE BISTABLE AUX RELAY PRESSURIZER PRESSURE BISTABLE AUX RELAY TEST SWITCH	*	*
46369	1E-0403	SAFETY INJECTION BLOCK/UNBLOCK A CR104 MECHANICAL CONSOLE "C"	1/1	INSTRUMENT LIST
	1E-0227 SIB/A SIB/AX	RR128 ENG'RD SAFEGRD TRAIN "A" (1C156) SAFETY INJECTION BLOCKING RELAY SAFETY INJECTION BLOCKING AUX RELAY	*	*
	1E-0228 L18(811) L19(812)	RR129 ENG'RD SAFEGRD TRAIN "A" (1C157) SI BLOCK RELAY INDICATING LIGHT CIRCUIT SI UNBLOCK RELAY INDICATING LIGHT CIRCUIT	*	*

VII. ENGINEERED SAFEGUARD INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
46370	1E-0403	SAFETY INJECTION BLOCK/UNBLOCK B CR104 MECHANICAL CONSOLE "C"	1/1	INSTRUMENT LIST
	1E-0225 SIB/B SIB/BX	RR126 ENG'RD SAFEGRD TRAIN "B" (1C166) SAFETY INJECTION BLOCKING RELAY SAFETY INJECTION BLOCKING AUX RELAY	*	*
	1E-0226 L18(811) L19(812)	RR127 ENG'RD SAFEGRD TRAIN "B" (1C167) SI BLOCK RELAY INDICATING LIGHT CIRCUIT SI UNBLOCK RELAY INDICATING LIGHT CIRCUIT	*	*
		PC429, LOW PRESSURIZER PRESSURE - SEE SECTION III, PAGE 25, 21081, FOR ANALOG LOOP COMPONENTS.		
	1E-0227 PC429D/XA PC429D/AT SIB/A SIB/AX	RR128 ENG'RD SAFEGRD TRAIN "A" (1C156) PRESSURIZER PRESSURE BLOCKING BISTABLE AUX RELAY PRESSURIZER PRESSURE BLOCKING BISTABLE AUX RELAY TEST SWITCH SAFETY INJECTION BLOCKING RELAY SAFETY INJECTION BLOCKING AUX RELAY	*	*
	1E-0228 L18(811) L19(812)	RR129 ENG'RD SAFEGRD TRAIN "A" (1C157) SI BLOCK RELAY INDICATING LIGHT CIRCUIT SI UNBLOCK RELAY INDICATING LIGHT CIRCUIT	*	*
	1E-0225 PC429D/XB PC429D/BT SIB/B SIB/BX	RR126 ENG'RD SAFEGRD TRAIN "B" (1C166) PRESSURIZER PRESSURE BLOCKING BISTABLE AUX RELAY PRESSURIZER PRESSURE BLOCKING BISTABLE AUX RELAY TEST SWITCH SAFETY INJECTION BLOCKING RELAY SAFETY INJECTION BLOCKING AUX RELAY	*	*

VII. ENGINEERED SAFEGUARD INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	1E-0226	RR127 ENG'RD SAFEGRD TRAIN "B" (1C167)	*	*
	L18(811)	SI BLOCK RELAY INDICATING LIGHT CIRCUIT	*	*
	L19(812)	SI UNBLOCK RELAY INDICATING LIGHT CIRCUIT		
		PC430F, LOW PRESSURIZER PRESSURE - SEE SECTION III, PAGE 26, 21080, FOR ANALOG LOOP COMPONENTS.		
	1E-0228	RR129 ENG'RD SAFEGRD TRAIN "A" (1C157)	*	*
	PC430F/XA	PRESSURIZER PRESSURE BLOCKING BISTABLE AUX RELAY		
	PC430F/AT	PRESSURIZER PRESSURE BLOCKING BISTABLE AUX RELAY TEST SWITCH	*	*
	L18(811)	SI BLOCK RELAY INDICATING LIGHT CIRCUIT	*	*
	L19(812)	SI UNBLOCK RELAY INDICATING LIGHT CIRCUIT		
	1E-0227	RR128 ENG'RD SAFEGRD TRAIN "A" (1C156)	*	*
	SIB/A	SAFETY INJECTION BLOCKING RELAY	*	*
	SIB/AX	SAFETY INJECTION BLOCKING AUX RELAY		
	1E-0226	RR127 ENG'RD SAFEGRD TRAIN "B" (1C167)	*	*
	PC430F/XB	PRESSURIZER PRESSURE BLOCKING BISTABLE AUX RELAY		
	PC430F/BT	PRESSURIZER PRESSURE BLOCKING BISTABLE AUX RELAY TEST SWITCH	*	*
	L18(811)	SI BLOCK RELAY INDICATING LIGHT CIRCUIT	*	*
	L19(812)	SI UNBLOCK RELAY INDICATING LIGHT CIRCUIT		
	1E-0225	RR126 ENG'RD SAFEGRD TRAIN "B" (1C166)	*	*
	SIB/B	SAFETY INJECTION BLOCKING RELAY	*	*
	SIB/BX	SAFETY INJECTION BLOCKING AUX RELAY		

VII. ENGINEERED SAFEGUARD INPUTS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
		PC431I, LOW PRESSURIZER PRESSURE - SEE SECTION III, PAGE 27, 21079, FOR ANALOG LOOP COMPONENTS.		
1E-0227	PC431I/XA	RR128 ENG'RD SAFEGRD TRAIN "A" (1C156)	*	*
	PC431I/AT	PRESSURIZER PRESSURE BLOCKING BISTABLE AUX RELAY	*	*
		PRESSURIZER PRESSURE BLOCKING BISTABLE AUX RELAY TEST SWITCH	*	*
	SIB/A	SAFETY INJECTION BLOCKING RELAY	*	*
	SIB/AX	SAFETY INJECTION BLOCKING AUX RELAY		
1E-0228	L18(811)	RR129 ENG'RD SAFEGRD TRAIN "A" (1C157)	*	*
	L19(812)	SI BLOCK RELAY INDICATING LIGHT CIRCUIT	*	*
		SI UNBLOCK RELAY INDICATING LIGHT CIRCUIT		
1E-0225	PC431I/XB	RR126 ENG'RD SAFEGRD TRAIN "B" (1C166)	*	*
	PC431I/BT	PRESSURIZER PRESSURE BLOCKING BISTABLE AUX RELAY	*	*
		PRESSURIZER PRESSURE BLOCKING BISTABLE AUX RELAY TEST SWITCH	*	*
	SIB/B	SAFETY INJECTION BLOCKING RELAY	*	*
	SIB/BX	SAFETY INJECTION BLOCKING AUX RELAY		
1E-0226	L18(811)	RR127 ENG'RD SAFEGRD TRAIN "B" (1C167)	*	*
	L19(812)	SI BLOCK RELAY INDICATING LIGHT CIRCUIT	*	*
		SI UNBLOCK RELAY INDICATING LIGHT CIRCUIT		

VIII. RACKS, CABINETS, AND POWER SUPPLIES

A. RACKS

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
1E-0023		4160V SWITCHGEAR BUS 1-1	2	E244/ELECTRICAL COMPONENT LIST
	1E-0521	BRA103 125V DC DISTRIBUTION CABINET		
1E-0024		4160V SWITCHGEAR BUS 1-2	2	E244/ELECTRICAL COMPONENT LIST
	1E-0521	BRB103 125V DC DISTRIBUTION CABINET		
1E-0205		RR106 YELLOW CHANNEL, 1Y1 (1C117)	1	E853/ELECTRICAL COMPONENT LIST
	1E-0537	BRA114 118V AC DISTRIBUTION CABINET		
1E-0206		RR107 YELLOW CHANNEL, 1Y2 (1C118)	1	E853/ELECTRICAL COMPONENT LIST
	1E-0537	BRA114 118V AC DISTRIBUTION CABINET		
1E-0207		RR108 RED CHANNEL, 1R1 (1C111)	1	E853/ELECTRICAL COMPONENT LIST
	1E-0534	BRA113 118V AC DISTRIBUTION CABINET		
1E-0208		RR109 RED CHANNEL, 1R2 (1C112)	1	E853/ELECTRICAL COMPONENT LIST
	1E-0534	BRA113 118V AC DISTRIBUTION CABINET		
1E-0211		RR112 BLUE CHANNEL, 1B1 (1C115)	1	E853/ELECTRICAL COMPONENT LIST
	1E-0536	BRB114 118V AC DISTRIBUTION CABINET		
1E-0212		RR113 BLUE CHANNEL, 1B2 (1C116)	1	E853/ELECTRICAL COMPONENT LIST
	1E-0536	BRB114 118V AC DISTRIBUTION CABINET		

VIII. RACKS, CABINETS, AND POWER SUPPLIES (Cont.)

A. RACKS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
1E-0213		RR114 WHITE CHANNEL, 1W1 (1C113)	1	E853/ELECTRICAL COMPONENT LIST
	1E-0535	BRB113 118V AC DISTRIBUTION CABINET		
1E-0214		RR115 WHITE CHANNEL, 1W2 (1C114)	1	E853/ELECTRICAL COMPONENT LIST
	1E-0535	BRB113 118V AC DISTRIBUTION CABINET		
1E-0220		RR121 REACTOR PROTECTION TRAIN "B" (1C165)	1	E853/ELECTRICAL COMPONENT LIST
	1E-0522	BRB104 125V DC DISTRIBUTION CABINET		
1E-0221		RR122 REACTOR PROTECTION TRAIN "B" (1C164)	1	E853/ELECTRICAL COMPONENT LIST
	1E-0522	BRB104 125V DC DISTRIBUTION CABINET		
1E-0222		RR123 REACTOR PROTECTION TRAIN "B" (1C163)	1	E853/ELECTRICAL COMPONENT LIST
	1E-0522	BRB104 125V DC DISTRIBUTION CABINET		
1E-0223		RR124 REACTOR PROTECTION TRAIN "B" (1C162)	1	E853/ELECTRICAL COMPONENT LIST
	1E-0522	BRB104 125V DC DISTRIBUTION CABINET		
1E-0224		RR125 REACTOR PROTECTION TRAIN "B" (1C161)	1	E853/ELECTRICAL COMPONENT LIST
	1E-0522	BRB104 125V DC DISTRIBUTION CABINET		
1E-0225		RR126 ENG'RD SAFEGRD TRAIN "B" (1C166)	1	E853/ELECTRICAL COMPONENT LIST
	1E-0522	BRB104 125V DC DISTRIBUTION CABINET		

VIII. RACKS, CABINETS, AND POWER SUPPLIES (Cont.)

A. RACKS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
1E-0226		RR127 ENG'RD SAFEGRD TRAIN "B" (1C167)	1	E853/ELECTRICAL COMPONENT LIST

NOTE: THE COMPONENTS LISTED TO FOLLOW ARE ASSOCIATED WITH EITHER SAFEGUARD TRAIN "B" CABINET. (1E-0225 OR 1E-0226). WHILE THESE COMPONENTS DO NOT PRODUCE A SAFETY INJECTION SIGNAL, THEIR FAILURE COULD PREVENT A SAFETY INJECTION SIGNAL FROM BEING ACTUATED.

F3
 F4
 VT
 L7(799)
 SI20X
 L9(801)
 SI22X
 L8(807)
 SI23X
 L6(808)
 SI24X
 L28(868)
 RCPB
 SI25X
 L15(805)
 MSB1
 PC946A/XB
 PC946A/BT
 PC948A/XB
 PC948A/BT
 PC950A/XB
 PC950A/BT
 FC464A/XB
 FC464A/BT
 FC465A/XB
 FC465A/BT

VIII. RACKS, CABINETS, AND POWER SUPPLIES (Cont.)

A. RACKS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	TC401D/XB			
	TC401D/BT			
	TC403D/XB			
	TC403D/BT			
	TC402D/XB			
	TC402D/BT			
	TC404D/XB			
	TC404D/BT			
	FC464B/XB			
	FC464B/BT			
	FC465B/XB			
	FC465B/BT			
	74/XB			
	L17(810)			
	L16(806)			
	MS/B2			
	FC474A/XB			
	FC474A/BT			
	FC475A/XB			
	FC475A/BT			
	FC474B/XB			
	FC474B/BT			
	FC475B/XB			
	FC475B/BT			
	CI2B			
	CI2RB			
	CIB			
	L22A(858)			
1E-0405		CR106 MECHANICAL VERTICAL PANEL "A"		
4698602		CNTMT ISOL GROUP 2 TRAIN "A" MANUAL RESET PUSHBUTTON	1/1	INSTRUMENT LIST
4698702		CNTMT ISOL GROUP 2 TRAIN "B" MANUAL REINITIATION PUSHBUTTON	1/1	INSTRUMENT LIST
4698701		CNTMT ISOL GROUP 2 TRAIN "A" MANUAL RESET PUSHBUTTON	1/1	INSTRUMENT LIST

VIII. RACKS, CABINETS, AND POWER SUPPLIES (Cont.)

A. RACKS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	CI220X L1A(859) SIP/B			
1E-0403		CR104 MECHANICAL CONTROL CONSOLE "C"		
4647301		CNTMT ISOL 1A MANUAL INITIATION PUSHBUTTON	1/1	INSTRUMENT LIST
4647601		CNTMT ISOL 1B MANUAL INITIATION PUSHBUTTON	1/1	INSTRUMENT LIST
4647602		CNTMT ISOL 1A MANUAL RESET PUSHBUTTON	1/1	INSTRUMENT LIST
	CIRB L22(794) CI20X L1(862) CI21X L2(863) CI22X L3(864) VB			
1E-0403		CR104 MECHANICAL CONTROL CONSOLE "C"		
4647101		CNTMT SPRAY 1A MANUAL INITIATION PUSHBUTTON	1/1	INSTRUMENT LIST
4647401		CNTMT SPRAY 1B MANUAL INITIATION PUSHBUTTON	1/1	INSTRUMENT LIST
4647301		CNTMT ISOL 1A MANUAL INITIATION PUSHBUTTON	1/1	INSTRUMENT LIST
4647601		CNTMT ISOL 1B MANUAL INITIATION PUSHBUTTON	1/1	INSTRUMENT LIST
1E-0401		CR102 MECHANICAL CONTROL CONSOLE "A"		
46046		CNTMT VENT ISOL 1B MANUAL RESET PUSHBUTTON	1/1	INSTRUMENT LIST
	VRB			
1E-0415		CR116 R.M.S. RACK		
	K201/R11 K201/R12			

VIII. RACKS, CABINETS, AND POWER SUPPLIES (Cont.)

A. RACKS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	L23(795) L4(865) V20X V21X L10(867) CSB CSRB L27(809)			
1E-0403 4647402		CR104 MECHANICAL CONSOLE "C" CNTMT SPRAY 1B MANUAL RESET PUSHBUTTON	1/1	INSTRUMENT LIST
	PC945B/XB PC945B/BT PC946B/XB PC946B/BT PC947B/XB PC947B/BT PC948A/XB PC948A/BT PC949B/XB PC949B/BT PC950B/XB PC950B/BT CS20X L11(866) L13(803) FB1			
1E-0401 46049		CR102 MECHANICAL CONSOLE "A" FEEDWATER ISOLATION TRAIN "B" RESET PUSHBUTTON	1/1	INSTRUMENT LIST

VIII. RACKS, CABINETS, AND POWER SUPPLIES (Cont.)

A. RACKS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	FRB1			
	LC461A/XB			
	LC461A/BT			
	LC462B/XB			
	LC462B/BT			
	LC463D/XB			
	LC463D/BT			
	L14(804)			
	F20/X1			
	F20/X2			
	RTB			
	1E-0455	RD106 REACTOR TRIP BREAKERS		
	52b/RTB			
	52H/RTB			
	52b/BYB			
	52H/BYB			
	TC401F/XB			
	TC401F/BT			
	TC402F/XB			
	TC402F/BT			
	TC403F/XB			
	TC403F/BT			
	TC404F/XB			
	TC404F/BT			
	FB2			
	L20(860)			
	LC471A/XB			
	LC471A/BT			
	LC472B/XB			
	LC472B/BT			
	LC473D/XB			
	LC473D/BT			

VIII. RACKS, CABINETS, AND POWER SUPPLIES (Cont.)

A. RACKS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	FRB2 F40/X1 F40/X2 L21(861)			
	1E-0401 46139	CR102 MECHANICAL CONTROL CONSOLE "A" STEAM DUMP INTERLOCK TRAIN "B" SWITCH	1/1	INSTRUMENT LIST
	SDX/5B SDX/6B SDX/7B1 SDX/7B2 SDX/8B TC401D/XB TC401D/BT TC402D/XB TC402D/BT TC403D/XB TC403D/BT TC404D/XB TC404D/BT L24(796) 74/TB-B 71/B1 71/B1X 71/B2 LC190C/XB LC190C/BT LC172C/XB LC172C/BT LC189C/XB LC189C/BT LC102C/XB LC102C/BT L25(797)			

VIII. RACKS, CABINETS, AND POWER SUPPLIES (Cont.)

A. RACKS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	1E-0403 46328	CR104 MECHANICAL CONTROL CONSOLE "C" BORIC ACID TANK SWITCH (1/9159A)	1/1	INSTRUMENT LIST
	LC196C/XB LC196C/BT LC106C/XB LC106C/BT LC197C/XB LC197C/BT LC171C/XB LC171C/BT L26(798) 71/B2X			
	1E-0522	BRA104 125V DC DISTRIBUTION CABINET		
1E-0227		RR128 ENG'RD SAFEGRD TRAIN "A" (1C156)	1	E853/ELECTRICAL COMPONENT LIST
	1E-0522	BRA104 125V DC DISTRIBUTION CABINET		
1E-0228		RR129 ENG'RD SAFEGRD TRAIN "A" (1C157)	1	E853/ELECTRICAL COMPONENT LIST
		NOTE: THE COMPONENTS LISTED TO FOLLOW ARE ASSOCIATED WITH EITHER SAFEGUARD TRAIN "A" CABINET (1E-0227 OR 1E-0228). WHILE THESE COMPONENTS DO NOT PROVIDE A SAFETY INJECTION SIGNAL, THEIR FAILURE COULD PREVENT A SAFETY INJECTION SIGNAL FROM BEING ACTUATED.		
	F3 F4 VT L7(799) SI10X L9(801)			

VIII. RACKS, CABINETS, AND POWER SUPPLIES (Cont.)

A. RACKS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	SI12X			
	L8(807)			
	SI13X			
	L6(808)			
	SI14X			
	L28(868)			
	RCPA			
	SI15X			
	L15(805)			
	MSA1			
	PC946A/XA			
	PC946A/AT			
	PC948A/XA			
	PC948A/AT			
	PC950A/XA			
	PC950A/AT			
	FC464A/XA			
	FC464A/AT			
	FC465A/XA			
	FC465A/AT			
	TC401D/XA			
	TC401D/AT			
	TC403D/XA			
	TC403D/AT			
	TC402D/XA			
	TC402D/AT			
	TC404D/XA			
	TC404D/AT			
	FC464B/XA			
	FC464B/AT			
	FC465B/XB			
	FC465B/AT			
	74/XA			
	L17(810)			

VIII. RACKS, CABINETS, AND POWER SUPPLIES (Cont.)

A. RACKS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	L16(806) MS/A2 FC474A/XA FC474A/AT FC475A/XA FC475A/AT FC474B/XA FC474B/AT FC475B/XA FC475B/AT CI2A CI2RA CIA L22A(858)			
1E-0405		CR106 MECHANICAL VERTICAL PANEL "A"		
4698602		CNTMT ISOL GROUP 2 TRAIN "A" MANUAL RESET PUSHBUTTON	1/1	INSTRUMENT LIST
4698702		CNTMT ISOL GROUP 2 TRAIN "B" MANUAL REINITIATION PUSHBUTTON	1/1	INSTRUMENT LIST
4698601		CNTMT ISOL GROUP 2 TRAIN "A" MANUAL REINITIATION PUSHBUTTON	1/1	INSTRUMENT LIST
	CI210X L1A(859) SIP/A			
1E-0403		CR104 MECHANICAL CONTROL CONSOLE "C"		
4647301		CNTMT ISOL 1A MANUAL INITIATION PUSHBUTTON	1/1	INSTRUMENT LIST
4647601		CNTMT ISOL 1B MANUAL INITIATION PUSHBUTTON	1/1	INSTRUMENT LIST
4647302		CNTMT ISOL 1A MANUAL RESET PUSHBUTTON	1/1	INSTRUMENT LIST
	CI1RA L22(794) CI10X			

VIII. RACKS, CABINETS, AND POWER SUPPLIES (Cont.)

A. RACKS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	L1(862) CI11X L2(863) CI12X L3(864) VA			
	1E-0403 4647101 4647401 4647301 4647601	CR104 MECHANICAL CONTROL CONSOLE "C" CNTMT SPRAY 1A MANUAL INITIATION PUSHBUTTON CNTMT SPRAY 1B MANUAL INITIATION PUSHBUTTON CNTMT SPRAY 1A MANUAL INITIATION PUSHBUTTON CNTMT SPRAY 1B MANUAL INITIATION PUSHBUTTON	1/1 1/1 1/1 1/1	INSTRUMENT LIST INSTRUMENT LIST INSTRUMENT LIST INSTRUMENT LIST
	1E-0401 46043	CR102 MECHANICAL CONTROL CONSOLE "A" CNTMT VENT ISOL 1A MANUAL RESET PUSHBUTTON	1/1	INSTRUMENT LIST
	VRA			
	1E-0417 K43/4 K45/4	CR118 R.M.S. RACK		
	L23(795) L4(865) V10X V11X L10(867) CSA CSRA L27(809)			
	1E-0403 4647102	CR104 MECHANICAL CONTROL CONSOLE "C" CNTMT SPRAY 1A MANUAL RESET PUSHBUTTON	1/1	INSTRUMENT LIST

VIII. RACKS, CABINETS, AND POWER SUPPLIES (Cont.)

A. RACKS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	PC945B/XA			
	PC945B/AT			
	PC946B/XA			
	PC946B/AT			
	PC947B/XA			
	PC947B/AT			
	PC948B/XA			
	PC948B/AT			
	PC949B/XA			
	PC949B/AT			
	PC950B/XA			
	PC950B/AT			
	CS10X			
	L11(866)			
	L13(803)			
	FA1			
	1E-0401	CR102 MECHANICAL CONTROL CONSOLE "A"		
	46048	FEEDWATER ISOL TRAIN "A" RESET PUSHBUTTON	1/1	INSTRUMENT LIST
	FRA1			
	LC461A/XA			
	LC461A/AT			
	LC462B/XA			
	LC462B/AT			
	LC463D/XA			
	LC463D/AT			
	L14(804)			
	F10/X1			
	F10/X2			
	RTA			

VIII: RACKS, CABINETS, AND POWER SUPPLIES (Cont.)

A. RACKS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	1E-0455	RD106 REACTOR TRIP BREAKERS		
	52b/RTA			
	52H/RTA			
	52b/BYA			
	52H/BYA			
	TC401F/XA			
	TC401F/AT			
	TC402F/XA			
	TC402F/AT			
	TC403F/XA			
	TC403F/AT			
	TC404F/XA			
	TC404F/AT			
	FA2			
	L20(860)			
	LC471A/XA			
	LC471A/AT			
	LC472B/XA			
	LC472B/AT			
	LC473D/XA			
	LC473D/AT			
	FRA2			
	F30/X1			
	F30/X2			
	L21(861)			
	1E-0401	CR102 MECHANICAL CONTROL CONSOLE "A"		
	46138	STEAM DUMP INTERLOCK TRAIN "A" SWITCH	1/1	INSTRUMENT LIST
	SDX/5A			
	SDX/6A			
	SDX/7A1			
	SDX/7A2			
	SDX/8A			

VIII. RACKS, CABINETS, AND POWER SUPPLIES (Cont.)

A. RACKS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	TC401D/XA			
	TC401D/AT			
	TC402D/XA			
	TC402D/AT			
	TC403D/XA			
	TC403D/AT			
	TC404D/XA			
	TC404D/AT			
	L24(796)			
	74/TB-A			
	71/A1			
	71/A1X			
	71/A2			
	LC190C/XA			
	LC190C/AT			
	LC172C/XA			
	LC172C/AT			
	LC189C/XA			
	LC189C/AT			
	LC102C/XA			
	LC102C/AT			
	L25(797)			
1E-0403 46328		CR104 MECHANICAL CONTROL CONSOLE "C" BORIC ACID TANK SWITCH (1/9159A)	1/1	INSTRUMENT LIST
	LC196C/XA			
	LC196C/AT			
	LC106C/XA			
	LC106C/AT			
	LC197C/XA			
	LC197C/AT			
	LC171C/XA			
	LC171C/AT			

VIII. RACKS, CABINETS, AND POWER SUPPLIES (Cont.)

A. RACKS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
	L26(798) 71/A2X			
	1E-0522	BRB104 125V DC DISTRIBUTION CABINET		
1E-0229		RR130 REACTOR PROTECTION TRAIN "A" (1C151)	1	E853/ELECTRICAL COMPONENT LIST
	1E-0522	BRA104 125V DC DISTRIBUTION CABINET		
1E-0230		RR131 REACTOR PROTECTION TRAIN "A" (1C152)	1	E853/ELECTRICAL COMPONENT LIST
	1E-0522	BRA104 125V DC DISTRIBUTION CABINET		
1E-0231		RR132 REACTOR PROTECTION TRAIN "A" (1C153)	1	E853/ELECTRICAL COMPONENT LIST
	1E-0522	BRA104 125V DC DISTRIBUTION CABINET		
1E-0232		RR133 REACTOR PROTECTION TRAIN "A" (1C154)	1	E853/ELECTRICAL COMPONENT LIST
	1E-0522	BRA104 125V DC DISTRIBUTION CABINET		
1E-0233		RR134 REACTOR PROTECTION TRAIN "A" (1C155)	1	E853/ELECTRICAL COMPONENT LIST
	1E-0522	BRA104 125V DC DISTRIBUTION CABINET		
1E-0242		RR143 AUX RELAY RACK TRAIN "A"	1	E853/ELECTRICAL COMPONENT LIST
1E-0243		RR144 AUX RELAY RACK TRAIN "B"	1	E853/ELECTRICAL COMPONENT LIST
1E-0401		CR102 MECHANICAL CONSOLE A	1	E854/ELECTRICAL

VIII. RACKS, CABINETS, AND POWER SUPPLIES (Cont.)A. RACKS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
1E-0402		CR103 MECHANICAL CONSOLE B	1	E854/ELECTRICAL COMPONENT LIST
1E-0403		CR104 MECHANICAL CONSOLE C	1	E854/ELECTRICAL COMPONENT LIST
1E-0405		CR106 MECHANICAL VERTICAL PANEL A	1	E854/ELECTRICAL COMPONENT LIST
1E-0407		CR108 N.I.S. RACK #4	1	E854/ELECTRICAL COMPONENT LIST
	1E-0537	BRA114 118V AC DISTRIBUTION CABINET		
1E-0408		CR109 N.I.S. RACK #3	1	E854/ELECTRICAL COMPONENT LIST
	1E-0536	BRB114 118V AC DISTRIBUTION CABINET		
1E-0409		CR110 N.I.S. RACK #2	1	E854/ELECTRICAL COMPONENT LIST
	1E-0535	BRB113 118V AC DISTRIBUTION CABINET		
1E-0410		CR111 N.I.S. RACK #1	1	E854/ELECTRICAL COMPONENT LIST
	1E-0534	BRA113 118V AC DISTRIBUTION CABINET		
TP1436		TP FOR MAIN STEAM HEADER 1A ISOL VALVE	1	E366
TP1437		TP FOR MAIN STEAM HEADER 1B ISOL VALVE	1	E366
TP1671		AUX RELAY BOX, 4160V BUS 1-1 AND 1-2	1	E2411
TB1915		AUX RELAY TERMINAL BOX	2	**
TB1916		AUX RELAY TERMINAL BOX	2	**

VIII. RACKS, CABINETS, AND POWER SUPPLIES (Cont.)

B. DISTRIBUTION CABINETS

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
1E-0270		RR171 SUBDISTRIBUTION DC FUSE PANEL TRAIN "A"	1	E853/ELECTRICAL COMPONENT LIST
	1E-0521	BRA103 125V DC DISTRIBUTION CABINET		
1E-0275		RR176 SUBDISTRIBUTION DC FUSE PANEL TRAIN "B"	1	E853/ELECTRICAL COMPONENT LIST
	1E-0521	BRB103 125V DC DISTRIBUTION CABINET		
1E-0520		BRA102 125V DC MAIN DISTRIBUTION CABINET	1	E852/ELECTRICAL COMPONENT LIST
	1E-0542	BRA101N FUSE CABINET (NEG)		
1E-0520		BRB102 125V DC MAIN DISTRIBUTION CABINET	1	E852/ELECTRICAL COMPONENT LIST
	1E-0542	BRB101N FUSE CABINET (NEG)		
1E-0521		BRA103 125V DC DISTRIBUTION CABINET	1	E852/ELECTRICAL COMPONENT LIST
	1E-0520	BRA102 125V DC MAIN DISTRIBUTION CABINET		
1E-0521		BRB103 125V DC DISTRIBUTION CABINET	1	E852/ELECTRICAL COMPONENT LIST
	1E-0520	B B102 125V DC MAIN DISTRIBUTION CABINET		
1E-0522		BRA104 125V DC DISTRIBUTION CABINET	1	E852/ELECTRICAL COMPONENT LIST
	1E-0520	BRA102 125V DC MAIN DISTRIBUTION CABINET		
1E-0522		BRB104 125V DC DISTRIBUTION CABINET	1	E852/ELECTRICAL COMPONENT LIST
	1E-0520	BRB102 125V DC MAIN DISTRIBUTION CABINET		

VIII. RACKS, CABINETS, AND POWER SUPPLIES (Cont.)

B. DISTRIBUTION CABINETS (Cont.)

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
1E-0534		BRA113 118V AC DISTRIBUTION CABINET	1	E852/ELECTRICAL COMPONENT LIST
	1E-0526	BRA111 7.5kVA INVERTER		
1E-0535		BRB113 118V AC DISTRIBUTION CABINET	1	E852/ELECTRICAL COMPONENT LIST
	1E-0526	BRB111 7.5kVA INVERTER		
1E-0536		BRB114 118V AC DISTRIBUTION CABINET	1	E852/ELECTRICAL COMPONENT LIST
	1E-0526	BRB112 7.5kVA INVERTER		
1E-0537		BRA114 118V AC DISTRIBUTION CABINET	1	E852/ELECTRICAL COMPONENT LIST
	1E-0526	BRA112 7.5kVA INVERTER		
1E-0542		BRA101N FUSE CABINET (NEG)	1	E852/ELECTRICAL COMPONENT LIST
	1E-0539	BRA101 BATTERY - 60 CELL		
1E-0542		BRB101N FUSE CABINET (NEG)	1	E852/ELECTRICAL COMPONENT LIST
	1E-0539	BRB101 BATTERY - 60 CELL		

VIII. RACKS, CABINETS, AND POWER SUPPLIES (Cont.)

C. INVERTERS

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
1E-0526		BRA111, BRA112, BRB111, BRB112, 7.5kVA INVERTER	1	E852/ELECTRICAL

VIII. RACKS, CABINETS, AND POWER SUPPLIES (Cont.)D. BATTERIES

COMPONENT ID	ASSOCIATED COMPONENT ID	COMPONENT NAME	QA TYPE	QA DOCUMENT(S)
1E-0539		BRA101, BRB101, BATTERY - 60 CELL	1	E852/ELECTRICAL COMPONENT LIST

* COMPONENTS WITHIN THE REACTOR PROTECTION AND ENGINEERED SAFEGUARDS ACTUATION RACKS DO NOT HAVE QA TYPE CLASSIFICATION DOCUMENTATION AT THIS DETAIL LEVEL (i.e., RELAYS, SWITCHES, PUSH-TO-TEST LIGHTS, ETC.). THESE INSTRUMENTS AND CONTROL SYSTEMS ARE, HOWEVER, DOCUMENTED AS CLASS I IN APPENDIX B (SECTION B.2, TABLE B.2-1) OF THE KEWAUNEE UPDATED FINAL SAFETY ANALYSIS REPORT, AT THE SYSTEM LEVEL. BY THE KEWAUNEE OPERATIONAL QUALITY ASSURANCE PROGRAM (SECTION 3.1.4.1), ALL COMPONENTS IDENTIFIED IN THE KEWAUNEE UPDATED FSAR AS CLASS I ARE CATEGORIZED AS QA TYPE 1.

** QA TYPE 2 IS ASSUMED FOR THESE COMPONENTS; THEIR QA TYPING IS NOT DOCUMENTED.