ATTACHMENT I

Consumers Power Company
Palisades Plant
Docket 50-255

Generic Letter 83-28
Palisades Procedure No. 4.08
"Information Copy"
July 1, 1985

(23 Pages)

TITLE: POST TRIP REVIEW REQUIREMENTS

1.0 PURPOSE

This procedure is to provide a systematic method for diagnosing the cause(s) of a reactor trip, ascertaining the proper functioning of safety related and other important equipment during the trip, determining any detrimental effect on plant equipment caused by the trip, and making the determination that the plant can be restarted safely.

2.0 SCOPE

A documented review should help ensure events that have had an impact on the cause of the trip and subsequent equipment responses are identified and thoroughly understood. The review results will permit a determination to be made as to the readiness of the plant to be safely returned to operation. The format of this procedure can also be used to diagnose reactor plant transients other than those involving reactor trips.

3.0 REFERENCES

3.1 NODS-A17, "Management Overview"

3.2 NODS-P15, "Shift Operations"

3.3 Palisades Administrative Procedure 10.41, "Procedure On Procedures"

3.4 Palisades Administrative Procedure 10.42, "Procedure/Document Matrix"

3.5 Palisades Administrative Procedure 10.46, "Plant Records"

3.6 Palisades Administrative Procedure 4.01, "Shift Operations"

3.7 Nuclear Assurance Department Procedure XIX-2, "Plant Safety Engineering Assessment Program".

3.8 Palisades Plant Site Emergency Plan

4.0 RESPONSIBILITIES

4.1 PLANT GENERAL MANAGER

The Plant General Manager or the Duty and Call Superintendent is responsible for making the decision to start up the reactor. For the purpose of this procedure, reference to the Plant General Manger includes the Duty and Call Superintendent when applicable.

In addition the Plant General Manager shall verify the cause of the trip has been determined and appropriate corrective action taken.

4.2 PLANT SAFETY ENGINEERING (PSE)

PSE shall perform an assessment of every inadvertant plant trip and provide the results of such assessment to the Plant General Manager in accordance with Reference 3.7.

4.3 OPERATIONS SUPERINTENDENT

For a Condition II event, as determined by Step 5.3.4, the Operations Superintendent or his designated alternate shall:

a. Report to the Plant site to assist in the further investigation of the trip and to determine necessary corrective action before restart.

b. Analyze the event reconstruction and supply information per Step 5.4.2 to the Plant General Manager.

4.4 LEAD SHIFT ENGINEER

The Lead Shift Engineer shall review all completed Reactor Trip Reports.

4.5 DUTY SHIFT ENGINEER

The Shift Engineer (SE) on duty shall:

a. Complete offsite personnel and agency notification in accordance with Reference 3.6 and 3.8 as apprpriate.

b. Interview plant personnel involved in the trip.

c. Collect data for inclusion in trip report.

d. Make recommendations to Plant General Manager on reactor startup.

e. Prepare Trip Report.

4.6 SHIFT SUPERVISOR/OPERATIONS

The Shift Supervisor/Operations (SS) shall:

a. Assist the SE with data collection as Plant conditions allow.

b. Make recommendation to Plant General Manager on reactor startup.

c. Assure Plant shutdown actions are completed after the reactor trip.

d. Maintain the Plant in a safe condition.

TITLE: POST TRIP REVIEW REQUIREMENTS

5.0 PROCEDURE

5.1 GENERAL INSTRUCTIONS

5.1.1 Post Trip Review Process

The post-trip review process is a five-step process. The five steps are as follows:

Step	Responsiblity
(1) Data collection	Shift Engineer
(2) Trip investigation	Shift Engineer
(3) Restart decision	Plant General Manager
(4) Trip investigation review	Plant General Manager/PRC
(5) Independent assessment/ comparison with past trips for trends.	Plant Safety Engineering

5.1.2 Initiation

Any unscheduled reactor trip will require the post-trip review process to be initiated. The post-trip review shall be initiated after plant conditions have stabilized. The Post-Trip Review Report, Attachment 1, guides and documents the post-trip process. The post-trip review shall not distract the Shift Supervisor, Shift Engineer, or operating personnel from their primary responsibility of monitoring plant parameters and maintaining the plant in a safe condition.

5.2 DATA COLLECTION

5.2.1 Hard Copy Information

The Shift Engineer is responsible for the collection of required hard copy information. The purpose of this data is to reconstruct the transient from prior to the initiating event until plant parameters have stabilized. Part 2(a) and (b) of the Post-Trip Review Report, Attachment 1, lists the information that should be collected. Strip chart recordings must accurately reflect real time to have meaningful information. If this is not the case, the SE should ensure the chart paper is annotated with a time mark, chart speed (chart speed may change during the transient), and time scale.

5.2.2 Operator Statements

After the plant is in a safe, stable condition, the SE should ensure each individual involved in the trip (eg, reactor operator, repairman/technician, Maintenance Supervisor, etc) provides a statement concerning his/her involvement in the reactor trip. These statements may be obtained in one of the following ways:

a. Written operator statements (use Attachment 2).

b. SS/SE interviews with personnel involved in the reactor trip.

c. Critique with all involved personnel.

If either of the last two techniques are used, the information should be recorded to ensure future availability of the information. The operator statements should be restricted to facts concerning the event, and the facts should be stated chronologically, if possible. The statement should include the following:

a. Plant conditions prior to the trip (for maintenance personnel, this will include the status of maintenance or testing).

b. First indication that a problem existed.

c. Individual's actions as a result of the indications.

d. Subsequent indications and plant response, including manual actions.

e. Noted equipment malfunctions or inadequacies.

f. Procedure deficiencies identified during the situation.

g. Recommendations to prevent recurrence.

The written statements or tape recordings shall be included in the reactor trip data package to assist in the event reconstruction.

5.2.3 Post-Trip Review Report Data

The SE shall complete Part 1 and Part 2 of the Post-Trip Review Report, documenting the initial plant conditions and the plant response. Information for the Post-Trip Review Report shall come from a compilation of available data.

5.2.4 Post-Trip Review Data Package

The SE should collect the hard copy information, operator statements, and the Post-Trip Review Report. This will be the post-trip review data package that will be used during the post-trip investigation.

5.3 POST-TRIP INVESTIGATION

5.3.1 Event Reconstruction

The Shift Engineer is responsible for the initial post-trip investigation. The purpose of this investigation is to determine the cause of the trip, verify proper plant response, and to assess the plant's readiness to return to operation. The SE will reconstruct the transient in Part 3 of the Post-Trip Review Report, Attachment 1, using the collected data. A chronological description of the event will be developed, using all available data. Pertinent alarms, trips, actuations, and isolations will be listed or marked on the sequence-of-events or Feedwater Purity Data Logger printout. Pertinent plant parameters should be incorporated into the chronological list of events during the reconstruction.

5.3.2 Analysis and Evaluation

The Shift Supervisor, and the Shift Engineer shall analyze and evaluate the event reconstruction to determine the cause of the trip and the following:

a. If all major safety-related and other important equipment involved in the trip operated as anticipated or expected.

b. If the trip/transient caused any detrimental effects on plant equipment.

c. If it is acceptable to restart the reactor.

The Shift Supervisor and the Shift Engineer should look beyond the obvious indications to diagnose the cause of the trip and evaluate the plant response. They should review the available information thoroughly, looking for:

a. abnormal indications or degraded trends in equipment performance,

b. events occurring out of the normal or anticipated sequence,

c. failed or degraded response of equipment to control signals,

d. unusual chemistry results or radiation readings, and

e. unanticipated alarms.

The actual or suspected cause of the trip and any abnormal or degraded indication identified during the transient shall be documented in Parts 4 through 6 of the Post-Trip Review Report.

5.3.3 Preliminary Safety Assessment

A preliminary safety assessment of the trip and subsequent plant response shall be performed by the Shift Supervisor and the Shift Engineer. The maximum and minimum values of selected parameters shall be compared with their established limits in the Technical Specifications. Parts 7 and 8 of the Post-Trip Review Report will document this safety assessment.

5.3.4 Trip Classification

Based on the results of the analysis and evaluation of the plant trip and subsequent response, the Shift Supervisor and the Shift Engineer shall classify the event as one of the following conditions:

a. Condition I

The cause of the trip is positively known and has been corrected; all safety-related and other important equipment functioned properly during the trip, or if not, the malfunction has either been corrected or redundant equipment is available for reactor start-up.

b. Condition II

1. The cause of the trip is not positively known.

Or

2. Safety related equipment or other equipment functioned in an abnormal or degraded manner during the trip and the malfunction has not been corrected.

Or

3. Safety related equipment or other equipment functioned in an abnormal or degraded manner during the trip and redundant equipment is not available for startup.

If the Shift Supervisor and Shift Engineer cannot agree on classification of the transient, the event will be referred to the Plant General Manager for re-evaluation and classification.

5.3.5 Notifications

Once the reactor trip event is classified, the Shift Supervisor/Shift Engineer shall inform the Plant General Manager. If the event is classified Condition II, the SS/SE shall also inform the Operations Superintendent. If necessary, emergency plan notifications shall be made as required in References 3.6 and 3.8.

5.4 RESTART DECISION

The Plant General Manager has the responsibility and authority to grant permission to commence a reactor startup following a reactor trip.

5.4.1 Condition I Events

The Shift Supervisor/Shift Engineer shall inform the Plant General Manager if the unscheduled reactor trip event is classified as Condition I. Based upon this classification, the SS/SE recommends restart of the reactor.

5.4.2 Condition II Event

The Shift Supervisor/Shift Engineer shall inform the Plant General Manager when an event is classified Condition II or when the classification cannot be agreed upon. The Operations Superintendent or his designated alternate shall report to the plant site to assist in the further investigation of the trip and to determine necessary corrective action before restart.

The Operations Superintendent will analyze the event reconstruction, emphasizing the root cause of the trip and the resolution of abnormal or degraded indications. He should use available expertise to resolve questions concerning the cause and plant response. Sources of expertise that should be considered include nuclear steam supply vendors, vendor engineers, onsite engineering staff and other experienced operations and maintenance personnel. The Operations Superintendent should supply the following information to the Plant Manager:

a. The actual or most probable cause of the trip.

b. The maintenance and testing necessary before reactor restart including additional measures to verify the most probable cause.

c. Additional monitoring or trending required during and/or after reactor restart.

d. Necessary briefings to operations and/or maintenance personnel concerning specific equipment indications or possible malfunctions.

e. The conditions necesary for a reactor restart.

5.4.3 Plant General Manager Evaluation and Decision

The Plant General Manager should evaluate the recommendation made by the personnel performing the trip investigation. The Plant General Manager should consider convening the PRC to review the trip investigation prior to reactor restart for Condition II events. The

PRC can advise the Plant General Manager on the thoroughness, technical accuracy and consistency of the trip investigation.

The Plant General Manager's decision to restart the reactor shall include the following considerations:

a. The most probable cause of the trip is known and corrected.

b. Major safety-related and other important equipment functioned properly during the transient, or corrective maintenance and satisfactory testing has been performed or will be completed when plant conditions permit.

c. The plant response during the event has been analyzed and the plant responded as anticipated, or all abnormalties are understood and corrected as required by Technical Specifications.

   If the cause of the trip has not been positively identified, the Plant General Manager shall determine if the cause and the circumstances surrounding the cause have been analyzed adequately. He shall take adequate measures to prevent repetitive challenges to safety systems during future power operations.

5.5 INVESTIGATION REVIEW

5.5.1 Condition I Events

Condition I event trip reports shall be reviewed by the Lead Shift Engineer, Operations Superintendent, and Plant General Manager within two weeks of the trip. The report should be reviewed by the PRC during the next regularly scheduled PRC meeting.

5.5.2 Condition II Events

If directed by the Plant General Manager, a Condition II event shall be reviewed by the PRC before a reactor restart is commenced. Otherwise, a Condition II event will receive a PRC review during the next regularly scheduled PRC meeting.

5.6 PLANT SAFETY ENGINEERING ASSESSMENT PROGRAM

Plant Safety Engineering will perform an independent assessment of each unplanned reactor trip as addressed in Reference 3.7.

The Lead Assessor shall provide his/her conclusion, independent of the full report, on at least a preliminary basis to the Shift Supervisor or Plant General Manager prior to startup following a trip. The preliminary report will normally consist of a verbal report or Form 40.

6.0 ATTACHMENTS AND RECORDS

6.1 ATTACHMENTS

6.1.1 Attachment 1, "Post-Trip Review Report"

6.1.2 Attachment 2, "Plant Personnel Statements"

6.2 RECORDS

The post-trip review data packages shall be retained for the life of the plant. This will allow the data package to be available for comparison with future trips.

POST-TRIP REVIEW REPORT

Date of Occurrence: _____ Time of Occurrence: _____

PART 1: INITIAL CONDITIONS

a. Reactor Power _____%

b. Reactor Coolant Pumps Operating (circle) A B C D

c. Main Feed Pump(s) Operating (circle) A B

d. Status of Control Stations (circle)

1.	Turbine Control	Man	Oper Imp	Auto In/Imp Out
2.	A Feedpump Control	Man		Auto
	B Feedpump Control	Man		Auto
3.	A Main Feedwater Reg Valve	Man		Auto
	B Main Feedwater Reg Valve	Man		Auto
4.	Turbine Bypass Valve (**CV-0511)	Man		Auto
5.	Pressurizer Level Control Channel A/B	Man		Auto
6.	Pressurizer Pressure Control Channel A/B	Man		Auto

e. PORV Block Valves (circle) OPEN CLOSED

f. Off-normal Status (of any trains/portions of safety systems)

	DETAILS
1. Reactor Protection System	_____
	_____
	_____
2. Safety Injection Actuation System	_____
	_____
	_____

POST-TRIP REVIEW REPORT

3. Containment Cooling & Spray _____

_____

_____

4. Auxiliary Feedwater _____

_____

_____

	Test #	Status/Step
g. Testing/Surveillances in progress:	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____

POST-TRIP REVIEW REPORT

PART 2: PLANT RESPONSE

a. Obtain a copy of the applicable parameter plots given below:

Check If Included	Parameter
_____	1. Rx Power
_____	2. Pzr Level
_____	3. Pzr Pressure
_____	4. T_{ave}
_____	5. Tc WR
_____	6. SG Levels

b. Obtain a Printout from:

_____ 1. Tennecomp Data Logger

_____ 2. Event Recorder

_____ 3. Critical Function Monitor

c. Obtain pertinent logs from past 24 hours (Chemistry, Control Room, Auxiliary Operator, etc).

d. Safety System Actuation and Performance

1. Reactor Protection System

Type of Trip: _____ Time of Trip: _____

2. Safety Injection Actuation System

	Actuation Time	Actuation Signal/ Number of Trains
HPSI	_____:_____	_____/_____
LPSI	_____:_____	_____/_____

3. Containment Isolation _____:_____ _____/_____

POST-TRIP REVIEW REPORT

4. PZR Code Safety Valves Lifted YES NO

   Did they reseat properly? YES NO

   How Confirmed? _____

   _____

   _____

5. Main Steam Relief Valves Lifted YES NO

   Did they reseat properly? YES NO

   How confirmed? _____

   _____

   _____

e. Control System Actions

1. Turbine Trip Trip Time _____:_____

   Trip Signal _____

2. PCS Pressure Control (circle)

   Did PORV lift? YES NO

   Was PZR heater response normal? YES NO

   Was PZR spray response normal? YES NO

   Was PZR level control normal? YES NO

3. Were additional HPSI pumps started? YES NO

   Auto Start Signal _____

   Manual Start Time Start _____

   Time Stop _____

f. Manual Actions

Were any control stations taken from Auto to Manual? YES NO

POST-TRIP REVIEW REPORT

Specify Station Time/Sequence: _____

_____

_____

Other Manual Actions: _____

_____

_____

g. Radiological response: (include abnormal area radiation monitor, process radiation monitor, or environmental monitoring indication)

_____

_____

_____

_____

_____

h. Chemistry conditions:

1. Primary _____

_____

2. Secondary _____

_____

Comments:

_____

_____

_____

_____

_____

_____

_____

POST-TRIP REVIEW REPORT

PART 3: SEQUENCE OF EVENT

Shift Supervisor: _____

Shift Engineer: _____

TIME:	EVENT DESCRIPTION:

POST-TRIP REVIEW REPORT

PART 4: PROBABLE CAUSE OF TRIP ANALYSIS AND EVALUATIONS

Comments:

PART 5: UNEXPECTED ASPECT OF TRANSIENT BEHAVIOR

(if event compared with previous similar transient, note the transient with which compared)

Compared With

Previous trip on: ____/____
Date Time

POST-TRIP REVIEW REPORT

PART 6: IDENTIFICATION OF SYSTEMS WITH INADEQUATE PERFORMANCE

System/Component	Description of Problem

Shift Supervisor _____ / ____ / _____
Signature Date Time

Shift Engineer _____ / ____ / _____
Signature Date Time

POST-TRIP REVIEW REPORT

PART 7: TRANSIENT DATA FOR PERTINENT PLANT PARAMETERS

		Maximum	Minimum
a.	RCS Pressure	Loop A____B____	Loop A____B____
b.	RCS Temp	Loop A____B____	Loop A____B____
c.	SG Press	Loop A____B____	Loop A____B____
d.	SG Level	Loop A____B____	Loop A____B____

PART 8: PRELIMINARY SAFETY ASSESSMENT (circle)

a.	PCS Pressure Remained Above Setpoint for Automatic SI Actuation.	YES	NO
b.	PCS Pressure Remained Below Setpoint for PZR Code Safety Valve Actuation.	YES	NO
c.	PCS Temp. Decrease Less Than 100° F/hr (Tech Spec).	YES	NO
d.	Reactor Coolant Was Contained Within The PCS and Quench Tank.	YES	NO
e.	Indicated PZR Level Remained On Scale.	YES	NO
f.	Indicated SG Level Remained On Scale.	YES	NO

Comments:

_____

_____

_____

_____

_____

_____

POST-TRIP REVIEW REPORT

PART 9: EVENT CONDITION

Classify trip as Condition I or Condition II according to guidelines in procedure.

The event on _____ at ____:____ is a condition _____
Date Time I,II

Signature indicates agreement with condition.

_____ / _____ / _____
Shift Supervisor Date Time

_____ / _____ / _____
Shift Engineer Date Time

Comments:

_____

_____

_____

_____

_____

_____

_____

POST-TRIP REVIEW REPORT

PART 10: PERMISSION TO START UP

Plant General Manager notified and permission granted to start up the reactor.

_____ / _____ / _____
Shift Supervisor Date Time

_____ / _____ / _____
Shift Engineer Date Time

Comments: _____

_____

_____

_____

POST-TRIP REVIEW REPORT

PART 11: INVESTIGATION REVIEW

Post-Trip Report review conducted:

_____
Lead Shift Engineer

_____
Operations Superintendent

_____
Plant General Manager

Comments (note if PRC review required for Condition I): _____

_____

_____

_____

_____

PRC review of event on: _____, meeting number: _____

Minutes of the meeting(s) are attached

_____ / _____
PRC Chairman Date

Comments:

_____

_____

_____

_____

_____

PLANT PERSONNEL STATEMENTS

(See Back for Instructions)

Signature / Date / Time

INSTRUCTIONS

Attach statements from personnel involved with the trip concerning the events that preceeded and followed the trip... Each individual should submit a statement concerning the way he remembers the event.

Example

Name: _____ Position: _____

If handwritten statements are prepared, include the Plant conditions prior to the tip, your indications that a problem existed, your action as a result of those indications, noted equipment malfunctions or inadequacies and any identified procedure deficiencies. Also, include any information you consider important to review this unscheduled reactor trip and actions to prevent recurrence.

(Use additional sheets if necessary)

ATTACHMENT II

Consumers Power Company
Palisades Plant
Docket 50-255

Generic Letter 83-28
Datalogger Digital Inputs
"Information Copy"
July 1, 1985

(11 Pages)

DATALOGGER FIELD REMOTE STATION 1 STATUS INPUTS

DLS Channel	Device	Channel Description	Signal Type	Signal Voltage	Scheme*	Schematic Dwg No	Console Section
1	Connector AW9J26	Reactor Core Neutron Flux Channel-A High	Digital	0-125 V DC	IG01	-	C06
2	Connector AW9J26	Reactor Power Rate Change Channel-A High	Digital	0-125 V DC	IG01	-	C06
3	Connector AW9J26	Pressurizer T-72 Pressure Channel-A High	Digital	0-125 V DC	IG01	-	C06
4	Connector AW9J26	Thermal Margin or Coolant Press Channel-A Low	Digital	0-125 V DC	IG01	-	C06
5	Connector AW9J26	Steam Gen E-50A Pressure Channel-A Low	Digital	0-125 V DC	IG01	-	C06
6	Connector AW9J26	Steam Gen E-50B Pressure Channel-A Low	Digital	0-125 V DC	IG01	-	C06
7	Connector AW9J26	Primary Coolant Loop 1 Flow Channel-A Low	Digital	0-125 V DC	IG01	-	C06
8	Connector AW9J26	Steam Generator E-50A Water Level Chan-A Low	Digital	0-125 V DC	IG01	-	C06
9	Connector AW9J26	Steam Generator E-50B Water Level Chan-A Low	Digital	0-125 V DC	IG01	-	C06
10	Connector AW9J26	Reactor Load (Turbine Trip) Channel-A Lost	Digital	0-125 V DC	IG01	-	C06
11	K-1	Reactor Control Rod Drive Clutch A Relay K-1	Digital	0-125 V DC	IG01	-	C06
12	42-737	Primary System Drain Tank Pump P-71A Start	Digital	0-125 V DC	IG01	E-260	B07
13	42-843	Primary System Drain Tank Pump P-71B Start	Digital	0-125 V DC	IG01	E-260	B08
14	LIAX	Dirty Waste Drain Tank T-60 Level	Digital	0-125 V DC	IG01	E-267	C40
15	LIAX	Dirty Waste Drain Tank T-60 Level	Digital	0-125 V DC	IG01	E-267	C40
16	Spare				IG01		
17	42-761	Equipment Drain Tank Pump P-75A Start	Digital	0-125 V DC	IG01	E-264	B07
18	42-831	Equipment Drain Tank Pump P-75B Start	Digital	0-125 V DC	IG01	E-264	B08
19	Spare				IG01		
20	252-103	Primary Coolant Pump P-50A	Digital	0-125 V DC	IG01	E-183	A21
21	252-203	Primary Coolant Pump P-50B	Digital	0-125 V DC	IG01	E-183	A22
22	252-104	Primary Coolant Pump P-50C	Digital	0-125 V DC	IG01	E-183	A21
23	252-204	Primary Coolant Pump P-50D	Digital	0-125 V DC	IG01	E-183	A22
24	POS-1042B	Pressurizer Power Relief Valve	Digital	0-125 V DC	S60/IG01	E-256	J307
25	POS-1043B	Pressurizer Power Relief Valve	Digital	0-125 V DC	S61/IG01	E-256	J307
26	POS-1057B	Pressurizer Spray Valve	Digital	0-125 V DC	S60/IG01	E-253, Sh 2	J307
27	POS-1059B	Pressurizer Spray Valve	Digital	0-125 V DC	S61/IG01	E-253, Sh 2	J307
28	42X-1502, 42X-1506 42X-1602, 42X-1606	Pressurizer Backup Heater On	Digital	0-125 V DC	IG01	E-254	J307
29	52-1205	Charging Pump P-55A Start	Digital	0-125 V DC	B1205/IG01	E-257, Sh 3	B12
30	52-1206	Charging Pump P-55B Start	Digital	0-125 V DC	B1206/IG01	E-257, Sh 3	B12
31	52-1105	Charging Pump P-55C Start	Digital	0-125 V DC	B1105/IG01	E-257, Sh 3	B11
32	POS-2003B	Letdown Orifice Stop Valve	Digital	0-125 V DC	S17/IG01	E-236, Sh 1	J307
33	POS-2004B	Letdown Orifice Stop Valve	Digital	0-125 V DC	S17/IG01	E-236, Sh 1	J307
34	POS-2005B	Letdown Orifice Stop Valve	Digital	0-125 V DC	S17/IG01	E-236, Sh 1	J307
35	152-307	Heater Drain Pump P-10A	Digital	0-125 V DC	IG01	E-180	A13
36	152-308	Heater Drain Pump P-10B	Digital	0-125 V DC	IG01	E-180	A13
37	POS-0703B	Feedwater Valve CV-0703	Digital	0-125 V DC	W010/IG01	E-69	C13
38	POS-0701B	Feedwater Valve CV-0701	Digital	0-125 V DC	W009/IG01	E-69	C13
39	POSX-3085	Hot Leg Letdown Valve	Digital	0-125 V DC	S97/IG01	E-245, Sh 4	C13L
40	POSX-3082	Hot Leg Letdown Valve	Digital	0-125 V DC	B2213/IG01	E-244, Sh 5	C03R
41	Connector BW9J26	Reactor Core Neutron Flux Channel-B High	Digital	0-125 V DC	IG02	-	C06
42	Connector BW9J26	Reactor Core Power Rate Change Channel-B High	Digital	0-125 V DC	IG02	-	C06
43	Connector BW9J26	Pressurizer T-72 Pressure Channel-B High	Digital	0-125 V DC	IG02	-	C06
44	Connector BW9J26	Thermal Margin or Coolant Press Channel-B Low	Digital	0-125 V DC	IG02	-	C06
45	Connector BW9J26	Steam Generator E-50A Pressure Channel-B Low	Digital	0-125 V DC	IG02	-	C06
46	Connector BW9J26	Steam Generator E-50B Pressure Channel-B Low	Digital	0-125 V DC	IG02	-	C06
47	Connector BW9J26	Primary Coolant Loop 1 Flow Channel-B Low	Digital	0-125 V DC	IG02	-	C06
48	Connector BW9J26	Steam Generator E-50A Water Level Chan-B Low	Digital	0-125 V DC	IG02	-	C06
49	Connector BW9J26	Steam Generator E-50B Water Level Chan-B Low	Digital	0-125 V DC	IG02	-	C06

DATALOGGER FIELD REMOTE STATION 1 STATUS INPUTS

DLS Channel	Device	Channel Description	Signal Type	Signal Voltage	Scheme*	Schematic Dwg No	Console Section
50	Connector BW9J26	Reactor Load (Turbine Trip) Channel-B Lost	Digital	0-125 V DC	IG02	-	C06
51	K-2	Reactor Control Rod Drive Clutch A Power Relay K-2	Digital	0-125 V DC	IG02	-	C06
52	POS-0501	Main Steam Isolation Valve	Digital	0-125 V DC	IG02	E-238	C01-2
53	POS-0510	Main Steam Isolation Valve	Digital	0-125 V DC	IG02	E-238	C01-2
54	POS-0511	Main Steam Bypass Valve	Digital	0-125 V DC	IG02	E-75	C01-2
55	POS-0780	Steam Dump Valve	Digital	0-125 V DC	IG02	E-238	J281
56	386-P	Gen Direct Trip Lockout Relay Primary (Trip)	Digital	0-125 V DC	IG02	E-120	C04
57	POS-0779	Steam Dump Valve	Digital	0-125 V DC	W001/IG02	E-238	J280
58	POS-0781	Steam Dump Valve	Digital	0-125 V DC	W001/IG02	E-238	J280
59	POS-0782	Steam Dump Valve	Digital	0-125 V DC	W002/IG02	E-238	J280
60	152-206	Low-Press Safety Injection Pump P-67A Start	Digital	0-125 V DC	IG02	E-247	A12
61	152-111	Low-Press Safety Injection Pump P-67B Start	Digital	0-125 V DC	IG02	E-248	A11
62	152-207	High-Press Safety Injection Pump P-66A Start	Digital	0-125 V DC	IG02	E-249	A12
63	152-113	High-Press Safety Injection Pump P-66B	Digital	0-125 V DC	IG02	E-249	A11
64	152-209	High-Press Safety Injection Pump P-66C	Digital	0-125 V DC	IG02	E-250	A12
65	152-210	Containment Spray Pump Injection P-54A	Digital	0-125 V DC	IG02	E-251	A12
66	152-112	Containment Spray Pump Injection P-54B	Digital	0-125 V DC	IG02	E-251	A11
67	152-114	Containment Spray Pump Injection P-54C	Digital	0-125 V DC	IG02	E-251	A11
68	POS-3029	Containment Sump Valve	Digital	0-125 V DC	S14/IG02	E-246	C03R
69	POS-3030	Containment Sump Valve	Digital	0-125 V DC	S13/IG02	E-246	C03L
70	POS-3031	Safety Inj and Refueling Water Tank Valve	Digital	0-125 V DC	S14/IG02	E-246	C03L
71	POS-3057	Safety Inj and Refueling Water Tank Valve	Digital	0-125 V DC	S13/IG02	E-246	C03R
72	POSX-3083	HPSI Train 1 Valve	Digital	0-125 V DC	B2313/IG02	E-224, Sh 5, 6	C03L
73	POS-3001	Containment Spray Valve	Digital	0-125 V DC	S19/IG02	E-237	C03L
74	POS-3002	Containment Spray Valve	Digital	0-125 V DC	S19/IG02	E-237	C03R
75	POS-3008	Low-Press Safety Inj Valve	Digital	0-125 V DC	B147/IG02	E-244, Sh 1	J307
76	POS-3010	Low-Press Safety Inj Valve	Digital	0-125 V DC	B147/IG02	E-244, Sh 1	J307
77	POS-3012	Low-Press Safety Inj Valve	Digital	0-125 V DC	B247/IG02	E-244, Sh 1	J307
78	POS-3014	Low-Press Safety Inj Valve	Digital	0-125 V DC	B251/IG02	E-244, Sh 1	J307
79	POSX-2056	Chemical and Volume Cont Letdown Valve	Digital	0-125 V DC	IG02	E-255	C02
80	POSX-3081	HPSI Train 1 Valve	Digital	0-125 V DC	B2113/IG02	E-244, Sh 5, 6	C03L
81	Connector CW9J26	Reactor Core Neutron Flux Channel-C High	Digital	0-125 V DC	IG03	-	C06
82	Connector CW9J26	Reactor Core Power Rate Change Channel-C High	Digital	0-125 V DC	IG03	-	C06
83	Connector CW9J26	Pressurizer T-72 Pressure Channel-C High	Digital	0-125 V DC	IG03	-	C06
84	Connector CW9J26	Thermal Margin or Coolant Pressure Chan-C Low	Digital	0-125 V DC	IG03	-	C06
85	Connector CW9J26	Steam Generator E-50A Pressure Channel-C Low	Digital	0-125 V DC	IG03	-	C06
86	Connector CW9J26	Steam Generator E-50B Pressure Channel-C Low	Digital	0-125 V DC	IG03	-	C06
87	Connector CW9J26	Primary Coolant Loop 1 Flow Channel-C Low	Digital	0-125 V DC	IG03	-	C06
88	Connector CW9J26	Steam Generator E-50A Water Level Channel-C Low	Digital	0-125 V DC	IG03	-	C06
89	Connector CW9J26	Steam Generator E-50B Water Level Channel-C Low	Digital	0-125 V DC	IG03	-	C06
90	Connector CW9J26	Reactor Load (Turbine Trip) Channel-C Lost	Digital	0-125 V DC	IG03	-	C06
91	K-3	Reactor Control Rod Drive Clutch B Power Relay K-3	Digital	0-125 V DC	IG03	-	C06
92	POS-0569	HP Turbine Stop Valve	Digital	0-125 V DC	T04/IG03	E-114	T04
93	POS-0571	HP Turbine Stop Valve	Digital	0-125 V DC	T04/IG03	E-114	T04
94	POS-0573	HP Turbine Stop Valve	Digital	0-125 V DC	T05/IG03	E-114	T05
95	POS-0575	HP Turbine Stop Valve	Digital	0-125 V DC	T05/IG03	E-114	T05
96	386-B	Gen Direct Trip Lockout Relay	Digital	0-125 V DC	IG03	E-120	C04
97	74-K7A1, 74-K7A2	Feedwater Pump P-1A Drive Turb K-7A	Digital	0-125 V DC	IG03	E-187	C11

DATALOGGER FIELD REMOTE STATION 1 STATUS INPUTS

DLS Channel	Device	Channel Description	Signal Type	Signal Voltage	Scheme*	Schematic Dwg No	Console Section
98	74-K7B1, 74-K7B2	Feedwater Pump P-1B Drive Turb K-7B	Digital	0-125 V DC	IG03	E-196	C11
99	152-104	Aux Feedwater Pump P-8A Drive Motor	Digital	0-125 V DC	IG03	E-196	A11
100	POS-3007	HP Safety Inj Valve	Digital	0-125 V DC	B137/IG03	E-244	J307
101	POS-3009	HP Safety Inj Valve	Digital	0-125 V DC	B197/IG03	E-244	J307
102	POS-3064	HP Safety Inj Valve	Digital	0-125 V DC	B257/IG03	E-244	J307
103	POS-3062	HP Safety Inj Valve	Digital	0-125 V DC	B241/IG03	E-244	J307
104	5P-7,8; 5R-7,8	Cont Isolation (High Press/High Radiation)	Digital	0-125 V DC	IG03	E-208	C13
105	RIAX	Radwaste Area Isolation	Digital	0-125 V DC	1809/IG03	E-275	C13
106	Spare				IG03		
107	POS-0867	Cont Air Clg Service Wtr Valve	Digital	0-125 V DC	B1108/IG03	E-217	J350
108	POS-0873	Cont Air Clg Service Wtr Valve	Digital	0-125 V DC	B1210/IG03	E-216	J350
109	POS-0864	Cont Air Clg Service Wtr Valve	Digital	0-125 V DC	B1209/IG03	E-216	J350
110	POS-0861	Cont Air Clg Service Wtr Valve	Digital	0-125 V DC	B1208/IG03	E-216	J350
111	152-204	Service Water Pump P-7A	Digital	0-125 V DC	IG03	E-154	A12
112	152-103	Service Water Pump P-7B	Digital	0-125 V DC	IG03	E-154	A11
113	152-205	Service Water Pump P-7C	Digital	0-125 V DC	IG03	E-154	A12
114	42X-1305	Main Plant Electric Fire Pump P-9A	Digital	0-125 V DC	B1305/IG03	E-163	C36
115	15CRX	Main Plant Diesel Fire Pump P-9B	Digital	0-125 V DC	J025/IG03	E-164	J359
116	POS-0618	Htr E1A Dump to Condenser Valve	Digital	0-125 V DC	T06/IG03	E-115, Sh 1	C01
117	POS-0629	Htr E1B Dump to Condenser Valve	Digital	0-125 V DC	T06/IG03	E-115, Sh 1	C01
118	POS-0626	Htr E2B Dump to Condenser Valve	Digital	0-125 V DC	T06/IG03	E-115, Sh 1	C01
119	POSX-3080	HPSI Train 2 Valve	Digital	0-125 V DC	B2413/IG03	E-244, Sh 5, 6	C03R
120	PSX-0741	Aux Feedwater Pump P-8A Suc Press	Digital	0-125 V DC	W001/IG03	E-238, Sh 2	C01
121	Connector DW9J26	Reactor Core Neutron Flux Channel-D High	Digital	0-125 V DC	IG04	-	C06
122	Connector DW9J26	Reactor Core Power Rate Change Channel-D High	Digital	0-125 V DC	IG04	-	C06
123	Connector DW9J26	Pressurizer T-72 Pressure Channel-D High	Digital	0-125 V DC	IG04	-	C06
124	Connector DW9J26	Thermal Margin or Coolant Press Channel-D Low	Digital	0-125 V DC	IG04	-	C06
125	Connector DW9J26	Steam Generator E-50A Pressure Channel-D Low	Digital	0-125 V DC	IG04	-	C06
126	Connector DW9J26	Steam Generator E-50B Pressure Channel-D Low	Digital	0-125 V DC	IG04	-	C06
127	Connector DW9J26	Primary Coolant Loop 1 Flow Channel-D Low	Digital	0-125 V DC	IG04	-	C06
128	Connector DW9J26	Steam Generator E-50A Water Level Chan-D Low	Digital	0-125 V DC	IG04	-	C06
129	Connector DW9J26	Steam Generator E-50B Water Level Chan-D Low	Digital	0-125 V DC	IG04	-	C06
130	Connector DW9J26	Reactor Load (Turbine Trip) Channel-D Lost	Digital	0-125 V DC	IG04	-	C06
131	K-4	Control Rod Drive Clutch Power Relay K-4	Digital	0-125 V DC	IG04	-	C06
132	POS-0534	Reheat Stop Valve	Digital	0-125 V DC	T04/IG04	E-113	T51
133	POS-0544	Reheat Stop Valve	Digital	0-125 V DC	T04/IG04	E-113	T52
134	POS-0537	Reheat Stop Valve	Digital	0-125 V DC	T04/IG04	E-113	T53
135	POS-0548	Reheat Stop Valve	Digital	0-125 V DC	T04/IG04	E-113	T54
136	POSX-0522B	Turbine-Driven Aux Feed Pump P-8B	Digital	0-125 V DC	IG04	E-238, Sh 5	C01
137	POS-0731	Condensate Reject Valve	Digital	0-125 V DC	IG04	-	-
138	POS-0732	Condensate Makeup Valve	Digital	0-125 V DC	IG04	E-189	C11
139	POS-0733	Condensate Past Makeup Valve	Digital	0-125 V DC	IG04	E-189	C11
140	POS-0535	Reheat Intercept Valve	Digital	0-125 V DC	T04/IG04	E-113	T51
141	POS-0545	Reheat Intercept Valve	Digital	0-125 V DC	T04/IG04	E-113	T52
142	POS-0547	Reheat Intercept Valve	Digital	0-125 V DC	T04/IG04	E-113	T53
143	POS-0540	Reheat Intercept Valve	Digital	0-125 V DC	T04/IG04	E-113	T54
144	POS-0539	Rehtr Drain Tank T-4A Dump Valve	Digital	0-125 V DC	IG04	-	-
145	POS-0555	Rehtr Drain Tank T-4B Dump Valve	Digital	0-125 V DC	IG04	-	-
146	POS-0602	Heater E6A Bleed Steam Inlet Valve	Digital	0-125 V DC	T03/IG04	E-112	C11
147	POS-0606	Heater E6B Bleed Steam Inlet Valve	Digital	0-125 V DC	T03/IG04	E-112	C11

DATALOGGER FIELD REMOTE STATION 1 STATUS INPUTS

DLS Channel	Device	Channel Description	Signal Type	Signal Voltage	Scheme*	Schematic Dwg No	Console Section
148	POS-0603	Heater E6A Dump to Condenser Valve	Digital	0-125 V DC	T03/IG04	-	-
149	POS-0607	Heater E6B Dump to Condenser Valve	Digital	0-125 V DC	T03/IG04	-	-
150	POS-0610	Heater E4A Bleed Steam Inlet Valve	Digital	0-125 V DC	T03/IG04	E-112	C11
151	POS-0620	Heater E4B Bleed Steam Inlet Valve	Digital	0-125 V DC	T03/IG04	E-112	C11
152	POS-0612	Heater E3A Bleed Steam Inlet Valve	Digital	0-125 V DC	T03/IG04	E-112	C11
153	POS-0611	Htr E4A Dump to Condenser Valve	Digital	0-125 V DC	T06/IG04	E-115	C11
154	POS-0621	Htr E4B Dump to Condenser Valve	Digital	0-125 V DC	T06/IG04	E-115	C11
155	POS-0623	Htr E3B Bleed Steam Inlet Valve	Digital	0-125 V DC	T06/IG04	E-112	C11
156	POS-0614	Htr E3A Dump to Condenser Valve	Digital	0-125 V DC	T06/IG04	E-115	C11
157	POS-0624	Htr E3B Dump to Condenser Valve	Digital	0-125 V DC	T06/IG04	E-115	C11
158	POS-0617	Htr E2A Dump to Condenser Valve	Digital	0-125 V DC	T06/IG04	E-115	C11
159	POSX-3084	Hot Leg Letdown Valve	Digital	0-125 V DC	S96/IG04	E-245, Sh 4	C13R
160	9CCR/a	Cooling Tower Diesel Fire Pump P-41	Digital	0-125 V DC	J135/IG04	E-739, Sh 2	C137
161	252-102	Bus 1A 4160 V Bkr 250-102 From Stup XFMR 1-1	Digital	0-48 V DC	IG05	E-132, Sh 2	A21
162	252-101	Bus 1A 4160 V Bkr 252-101 From Stn XFMR 1-1	Digital	0-48 V DC	IG05	E-131	A21
163	252-202	Bus 1B 4160 V Bkr 252-202 From Stup XFMR 1-3	Digital	0-48 V DC	IG05	E-132, Sh 2	A22
164	252-201	Bus 1B 4160 V Bkr 252-201 From Stn XFMR 1-1	Digital	0-48 V DC	IG05	E-131	A22
165	152-303	Bus 1E 2400 V Bkr 152-303 From Stup XFMR 1-2	Digital	0-48 V DC	IG05	E-132, Sh 2	A13
166	152-302	Bus 1E 2400 V Bkr 152-302 From Stn XFMR 1-2	Digital	0-48 V DC	IG05	E-131	A13
167	252-301/302	Bus 1F 4160 V Bkr 252-301 or 302	Digital	0-48 V DC	IG05	E-728, Sh 1, 2	A23
168	252-401/402	Bus 1G 4160 V Bkr 252-401 or 402	Digital	0-48 V DC	IG05	E-728, Sh 1, 2	A24
169	305 R	Turbine Trip Relay 305R	Digital	0-48 V DC	T07/IG05	E-121, Sh 1	C04
170	486TT	Main Transformer Bkr 25H5 and 25F3	Digital	0-48 V DC	IG05	E-117, Sh 2	C04
171	LOR386C	Turbine Coastdown Trip Relay K386C	Digital	0-48 V DC	G03/IG05	E-120	C04
172	305L/AST	Turbine Trip Relay K-305	Digital	0-48 V DC	T07/IG05	E-121, Sh 2	C04
173	K3	Reactor Trip	Digital	0-48 V DC	K09/IG05	E-291, Sh 5	C06
174	38 3-11	Bus 1C Fast Transfer	Digital	0-48 V DC	A0011/IG05	E-136, Sh 1, 2	C04
175	TPS1, RIC	Generator Range of Change of Current	Digital	0-48 V DC	H01/IG05	E-9	C04, C11
176		Switchyard Oscillograph	Digital	0-48 V DC	K01/IG05	E-287, Sh 3	C50
177	POS-2140	Boric Acid Pumped Feed Valve	Digital	0-48 V DC	B227/IG101	E-241	M27
178	POS-2169	Boric Acid Gravity Feed Valve	Digital	0-48 V DC	B127/IG101	E-241	M27
179	POS-2170	Boric Acid Gravity Feed Valve	Digital	0-48 V DC	B187/IG101	E-241	M87
180	POS-2087	Volume Control Tank T-54 Outlet Valve	Digital	0-48 V DC	B161/IG101	E-242, Sh 1	M61
181	POS-3013	Redundant High-Pressure Injection Valve	Digital	0-48 V DC	B151/IG101	E-244, Sh 4	C13L
182	POS-3011	Redundant High-Pressure Injection Valve	Digital	0-48 V DC	B157/IG101	E-244, Sh 4	C13L
183	POS-3066	Redundant High-Pressure Injection Valve	Digital	0-48 V DC	B257/IG101	E-244, Sh 4	C13R
184	POS-3068	Redundant High-Pressure Injection Valve	Digital	0-48 V DC	B261/IG101	E-244, Sh 4	C13R
185	52-1208	Containment Air Cooler Recirc Fan V-1A	Digital	0-48 V DC	IG101	E-216	B12
186	52-1209	Containment Air Cooler Recirc Fan V-2A	Digital	0-48 V DC	IG101	E-216	B12
187	52-1210	Containment Air Cooler Recirc Fan V-3A	Digital	0-48 V DC	IG101	E-216	B12
188	52-1108	Containment Air Cooler Recirc Fan V-4A	Digital	0-48 V DC	IG101	E-217	B11
189	152-109	Component Cooling Water Pump P-52A	Digital	0-48 V DC	IG101	E-259	A11
190	152-208	Component Cooling Water Pump P-52B	Digital	0-48 V DC	IG101	E-259	A12
191	152-116	Component Cooling Water Pump P-52C	Digital	0-48 V DC	IG101	E-259	A11
192	R56A	Boric Acid Pump P-56A	Digital	0-48 V DC	IG101	E-203	C13R
193	R56B	Boric Acid Pump P-46B	Digital	0-48 V DC	IG101	E-203	C13L
194	PSX-1801	Containment Pressure	Digital	0-48 V DC	S31/IG101	E-207, Sh 1	C13L
195	PSX-1802	Containment Pressure	Digital	0-48 V DC	S32/IG101	E-207, Sh 1	C13R
196	PSX-1803	Containment Pressure	Digital	0-48 V DC	S33/IG101	E-207, Sh 1	C13L
197	PSX-1804	Containment Pressure	Digital	0-48 V DC	S34/IG101	E-207, Sh 1	C13R

DATALOGGER FIELD REMOTE STATION 1 STATUS INPUTS

DLS Channel	Device	Channel Description	Signal Type	Signal Voltage	Scheme*	Schematic Dwg No	Console Section
198	XPA1	Pressurizer Pressure	Digital	0-48 V DC	S37/IG101	E-206, Sh 1	C12L
199	XPB1	Pressurizer Pressure	Digital	0-48 V DC	S38/IG101	E-206, Sh 1	C12R
200	XPC1	Pressurizer Pressure	Digital	0-48 V DC	S39/IG101	E-206, Sh 1	C12L
201	XPD1	Pressurizer Pressure	Digital	0-48 V DC	S40/IG101	E-206, Sh 1	C12R
202	RL2	Aux Building Inverter Y210 Sync	Digital	0-48 V DC	IG101	E-144	Y210
203	RL1	Aux Building Inverter Y220	Digital	0-48 V DC	IG101	E-144	Y210
204	RL2	Aux Building Inverter Y220 Sync	Digital	0-48 V DC	IG101	E-144	Y210
205	K2-4	Aux Building Battery Charger D-206	Digital	0-48 V DC	IG101	E-144	Y210
206	-	Aux Building Battery Charger D-206 Output Amps	Digital	0-48 V DC	IG101	E-9008	-
207	K2-4	Aux Building Battery Charger D-207	Digital	0-48 V DC	IG101	E-144	Y210
208	-	Aux Building Battery Charger D-207 Output Amps	Digital	0-48 V DC	IG101	E-9008	-
209		Sequencer	Digital	0-48 V DC	IG102		
210		Sequencer	Digital	0-48 V DC	IG102		
211		Sequencer	Digital	0-48 V DC	IG102		
212		Sequencer	Digital	0-48 V DC	IG102		
213		Sequencer	Digital	0-48 V DC	IG102		
214		Sequencer	Digital	0-48 V DC	IG102		
215		Sequencer	Digital	0-48 V DC	IG102		
216		Sequencer	Digital	0-48 V DC	IG102		
217		Sequencer	Digital	0-48 V DC	IG102		
218		Sequencer	Digital	0-48 V DC	IG102		
219		Sequencer	Digital	0-48 V DC	IG102		
220		Sequencer	Digital	0-48 V DC	IG102		
221		Sequencer	Digital	0-48 V DC	IG102		
222		Sequencer	Digital	0-48 V DC	IG102		
223		Sequencer	Digital	0-48 V DC	IG102		
224		Sequencer	Digital	0-48 V DC	IG102		
225		Sequencer	Digital	0-48 V DC	IG102		
226		Sequencer	Digital	0-48 V DC	IG102		
227		Sequencer	Digital	0-48 V DC	IG102		
228		Sequencer	Digital	0-48 V DC	IG102		
229		Sequencer	Digital	0-48 V DC	IG102		
230		Sequencer	Digital	0-48 V DC	IG102		
231		Sequencer	Digital	0-48 V DC	IG102		
232		Sequencer	Digital	0-48 V DC	IG102		
233		Sequencer	Digital	0-48 V DC	IG102		
234		Sequencer	Digital	0-48 V DC	IG102		
235		Sequencer	Digital	0-48 V DC	IG102		
236		Sequencer	Digital	0-48 V DC	IG102		
237		Sequencer	Digital	0-48 V DC	IG102		
238		Sequencer	Digital	0-48 V DC	IG102		
239		Sequencer	Digital	0-48 V DC	IG102		
240		Sequencer	Digital	0-48 V DC	IG102		
241		Sequencer	Digital	0-48 V DC	IG102		
242		Sequencer	Digital	0-48 V DC	IG102		
243		Sequencer	Digital	0-48 V DC	IG102		
244		Sequencer	Digital	0-48 V DC	IG102		
245		Sequencer	Digital	0-48 V DC	IG102		
246		Sequencer	Digital	0-48 V DC	IG102		
247		Sequencer	Digital	0-48 V DC	IG102		

DATALOGGER FIELD REMOTE STATION 1 STATUS INPUTS

DLS Channel	Device	Channel Description	Signal Type	Signal Voltage	Scheme*	Schematic Dwg No	Console Section
248		Sequencer	Digital	0-48 V DC	IG102		
249	R11	Aux Bldg Invtr Y210	Digital	0-48 V DC	IG103	E-144	Y210
250	R1-201	Aux Bldg Static Switch Y230	Digital	0-48 V DC	IG103	E-144	Y210
251	-	Aux Bldg DLS Power Supply	Digital	0-48 V DC	IG103	-	S9003
252	1CR and 3CR	Superheater Temperature	Digital	0-48 V DC	IG103	E-942	C248
253	Spare		Digital	0-48 V DC	IG103		
254	-	Datalogger System Annunciator Breaker	Digital	0-48 V DC	IG104	-	-

*If two scheme numbers are given, the first corresponds to the given device and its related equipment, the second gives the connection to the datalogger. If only one number is given, it corresponds to the datalogger connection scheme.

Reference Dwg

Datalogger System Input Signals - Field Remote Station No 1, E-53, Sh 1 through Sh 19.

DATALOGGER FIELD REMOTE STATION 2 STATUS INPUTS

DLS Channel	Device	Channel Description	Signal Type	Signal Voltage	Scheme*	Schematic Dwg No	Console Section
1	DPS-8733A	Filter Demin Vessel T-929A Diff Pressure	Digital	0-48 V DC	K901/IG901	E-925, Sh 19	C201
2	DPS-8733B	Filter Demin Vessel T-929B Diff Pressure	Digital	0-48 V DC	K901/IG901	E-925, Sh 19	C201
3	DPS-8733C	Filter Demin Vessel T-929C Diff Pressure	Digital	0-48 V DC	K901/IG901	E-925, Sh 19	C201
4	DPS-8733D	Filter Demin Vessel T-929D Diff Pressure	Digital	0-48 V DC	K901/IG901	E-925, Sh 19	C201
5	CIS-8612	Cond Demin System Influent Conductivity	Digital	0-48 V DC	K901/IG901	E-925, Sh 19	C204
6	DPIS-8734A	Post Vessel Resin Strainer F-908A Diff Press	Digital	0-48 V DC	K901/IG901	E-925, Sh 19	J9107
7	DPIS-8734B	Post Vessel Resin Strainer F-908B Diff Press	Digital	0-48 V DC	K901/IG901	E-925, Sh 19	J9105
8	DPIS-8734C	Post Vessel Resin Strainer F-908C Diff Press	Digital	0-48 V DC	K901/IG901	E-925, Sh 19	J9104
9	DPIS-8734D	Post Vessel Resin Strainer F-908D Diff Press	Digital	0-48 V DC	K901/IG901	E-925, Sh 19	J9105
10	CIS-8613	Cond Demin System Effluent Conductivity	Digital	0-48 V DC	K901/IG901	E-925, Sh 19	C204
11	FQIS-8704A	Filter Demin Vessel T-929A Effluent Total Flow	Digital	0-48 V DC	K901/IG901	E-925, Sh 19	C201
12	FQIS-8704B	Filter Demin Vessel T-929B Effluent Total Flow	Digital	0-48 V DC	K901/IG901	E-925, Sh 19	C201
13	FQIS-8704C	Filter Demin Vessel T-929C Effluent Total Flow	Digital	0-48 V DC	K901/IG901	E-925, Sh 19	C201
14	FQIS-8704D	Filter Demin Vessel T-929D Effluent Total Flow	Digital	0-48 V DC	K901/IG901	E-925, Sh 19	C201
15	Spare				IG901		
16	Spare				IG901		
17	AIS-8615	Cond Demin System Effluent Sodium	Digital	0-48 V DC	K901/IG901	E-925, Sh 19	C205
18	FS-8737A	Filter Demin Vessel T-929A Recirc Flow	Digital	0-48 V DC	K901/IG901	E-925, Sh 19	C201
19	FS-8737B	Filter Demin Vessel T-929B Recirc Flow	Digital	0-48 V DC	K901/IG901	E-925, Sh 19	C201
20	FS-8737C	Filter Demin Vessel T-929C Recirc Flow	Digital	0-48 V DC	K901/IG901	E-925, Sh 19	C201
21	FS-8737D	Filter Demin Vessel T-929D Recirc Flow	Digital	0-48 V DC	K901/IG901	E-925, Sh 19	C201
22	CIS-8600	Filter Demin Vessel T-929A Sample Conductivity	Digital	0-48 V DC	K901/IG901	E-925, Sh 19	C204
23	FS-8704A	Filter Demin Vessel T-929A Effluent Flow	Digital	0-48 V DC	K901/IG901	E-925, Sh 20	C201
24	FS-8704B	Filter Demin Vessel T-929B Effluent Flow	Digital	0-48 V DC	K901/IG901	E-925, Sh 20	C201
25	FS-8704C	Filter Demin Vessel T-929C Effluent Flow	Digital	0-48 V DC	K901/IG901	E-925, Sh 20	C201
26	FS-8704D	Filter Demin Vessel T-929D Effluent Flow	Digital	0-48 V DC	K901/IG901	E-925, Sh 20	C201
27	CIS-8601	Filter Demin Vessel T-929B Sample Conductivity	Digital	0-48 V DC	K901/IG901	E-925, Sh 20	C204
28	FIS-8747	Cond Demin System Backwash Water Flow	Digital	0-48 V DC	K901/IG901	E-925, Sh 20	J9204
29	PR-A, PR-B, PR-C, PR-D	Cond Demin System Precoat Sequence	Digital	0-48 V DC	K901/IG901	E-925, Sh 20	C201
30	Spare				IG901		
31	Spare				IG901		
32	Spare				IG901		
33	TD-8M, -9M, -10M, ZS-12A, -13A, -12B, -13B, -12C, -13C	Cond Demin System Body Feed Isolation Valve	Digital	0-48 V DC	K901/IG901	E-925, Sh 20	C201
34	CIS-8602	Filter Demin Vessel T-929C Sample Conductivity	Digital	0-48 V DC	K901/IG901	E-925, Sh 20	C204
35	8M-X, 9M-X, 10M-X	Cond Demin System Body Feed Any Pump	Digital	0-48 V DC	K901/IG901	E-925, Sh 20	C201
36	LS-8769	Recoat Recirc Tank T-935 Level	Digital	0-48 V DC	K901/IG901	E-925, Sh 20	C201
37	LS-8787	Resin Body Feed Tank T-932 Level	Digital	0-48 V DC	K901/IG901	E-925, Sh 20	C201
38	FQIS-8743	Cond Demin System Body Feed Total Flow	Digital	0-48 V DC	K901/IG901	E-925, Sh 20	C201
39	CIS-8603	Filter Demin Vessel T-929D Sample Conductivity	Digital	0-48 V DC	K901/IG901	E-925, Sh 20	C204
40	ESR-8768	Cond Demin System AC Power	Digital	0-48 V DC	K901/IG901	E-925, Sh 20	C201
41	PDS-8778	Cond Demin System Differential Pressure	Digital	0-48 V DC	K901/IG901	E-925, Sh 20	C201
42	PS-8766	Cond Demin System Oil-Free Air Supply	Digital	0-48 V DC	K901/IG901	E-925, Sh 20	C201
43	PS-8767	Cond Demin System Instrument Air Supply	Digital	0-48 V DC	K901/IG901	E-925, Sh 20	C201
44	49	Cond Demin System MCC-B92 Any Motor	Digital	0-48 V DC	K901/IG901	E-925, Sh 20	B92
45	74-901	Cond Demin System DC Power	Digital	0-48 V DC	K901/IG901	E-925, Sh 20	C201
46	Spare				IG901		

DATALOGGER FIELD REMOTE STATION 2 STATUS INPUTS

DLS Channel	Device	Channel Description	Signal Type	Signal Voltage	Scheme*	Schematic Dwg No	Console Section
47	Spare				IG901		
48	Spare				IG901		
49	LS-8523	Sodium Hypochlorite Storage Tank T-919 level	Digital	0-48 V DC	J910/IG903	E-926, Sh 19	C202
50	C2	Filter Train-A Run	Digital	0-48 V DC	IG903	5935-9/M111-139	C202
51	LS-8516	Sodium Hypochlorite Day Tank T-920 level	Digital	0-48 V DC	IG903	5935-9/M111-124	C202
52	CIS-8632	Anion Demin Vessel T-916A Conductivity	Digital	0-48 V DC	IG903	E-926, Sh 47	C204
53	LS-8415	Raw Water Tank T-910 level	Digital	0-48 V DC	IG903	5935-9/M111-124	C202
54	AST-W	Filter Train-A Regeneration	Digital	0-48 V DC	IG903	5935-9/M111-130	C202
55	DPS-8430	Anthracite Filters Diff Pressure	Digital	0-48 V DC	IG903	5935-9/M111-125	C202
56	LR10, R9, LR11	Filter Train-A Regeneration	Digital	0-48 V DC	IG903	5935-9/M111-130	C202
57	DPIS-8429	Carbon Filters Diff - Pressure	Digital	0-48 V DC	IG903	5935-9/M111-127	C202
58	AIS-8622	Anion Demin Vessel T-916A Silica	Digital	0-48 V DC	J1006/IG903	E-926, Sh 47	C204
59	LS-8448, 8444	Filtered Water Storage Tank Level	Digital	0-48 V DC	IG903	5935-9/M111-307	C202
60	AIS-8626	Cation Demin Vessel T-914A Sodium	Digital	0-48 V DC	J1003/IG903	E-926, Sh 46	C205
61	AIS-8638	Raw Water Chlorine	Digital	0-48 V DC	J1005/IG903	E-926, Sh 47	C204
62	R5A, R2A, R13	Filter Train-A Rinse	Digital	0-48 V DC	IG903	5935-9/M111-135	C202
63	49	Makeup Water System Any Motor Overload	Digital	0-48 V DC	J1001/IG903	E-926, Sh 45	P9000
64	PS-8363	Vacuum Degasifier Vessel T-915	Digital	0-48 V DC	IG903	5935-9/M111-135	C202
65	C4	Filter Train-B Run	Digital	0-48 V DC	IG903	5935-9/M111-139	C202
66	C6	Mixed Bed Demin Vessel T-917A Run	Digital	0-48 V DC	IG903	5935-9/M111-124	C202
67	CIS-8633	Anion Demin Vessel T-916B Conductivity	Digital	0-48 V DC	J1006/IG903	E-926, Sh 47	C204
68	CIS-8630	Mixed Bed Demin Vessel T-917A Conductivity	Digital	0-48 V DC	J1006/IG903	E-926, Sh 47	C204
69	BSTW	Filter Train-B Regeneration	Digital	0-48 V DC	IG903	5935-9/M111-130	C202
70	AMST-U	Mixed Bed Demin Vessel T-917A Regeneration	Digital	0-48 V DC	IG903	5935-9/M111-130	C202
71	LR10, LR11	Filter Train-B Regeneration	Digital	0-48 V DC	IG903	5935-9/M111-130	C202
72	LR12, LR13	Mixed Bed Demin Vessel T-917A Regeneration	Digital	0-48 V DC	IG903	5935-9/M111-130	C202
73	AIS-8623	Anion Demin Vessel T-916B Silica	Digital	0-48 V DC	J1006/IG903	E-926, Sh 47	C204
74	AIS-8620	Mixed Bed Demin Vessel T-917A Silica	Digital	0-48 V DC	J1006/IG903	E-926, Sh 47	C204
75	AIS-8627	Cation Demin Vessel T-914B Sodium	Digital	0-48 V DC	J1003/IG903	E-926, Sh 46	C202
76	DPIS-8391A	Mixed Bed Demin Vessel T-917A Diff Press	Digital	0-48 V DC	IG903	5935-9/M111-136	C202
77	R5A, R2A	Filter Train-B Rinse	Digital	0-48 V DC	IG903	5935-9/M111-130	C202
78	R3A, R4A	Mixed Bed Demin Vessel T-917A Rinse	Digital	0-48 V DC	IG903	5935-9/M111-130	C202
79	LS-8361	Vacuum Degasifier Vessel T-915 Water	Digital	0-48 V DC	IG903	5935-9/M111-135	C205
80	LR14	Either Filter Train Regeneration	Digital	0-48 V DC	IG903	5935-9/M111-132	C202
81	C8	Mixed Bed Demin Vessel T-917B Run	Digital	0-48 V DC	IG903	5935-9/M111-139	C202
82	LS-8467A	Caustic Storage Tank T-908 level	Digital	0-48 V DC	IG903	5935-9/M111-131	C202
83	CIS-8631	Mixed Bed Demin Vessel T-917B Conductivity	Digital	0-48 V DC	J1006/IG903	E-926, Sh 47	C204
84	FIS-8539	Caustic Mixing-Tee Input Caustic Flow	Digital	0-48 V DC	IG903	5935-9/M111-131	C202
85	BMST-U	Mixed Bed Demin Vessel T-917B Regen End	Digital	0-48 V DC	IG903	5935-9/M111-130	C202
86	CIS-8625	Caustic Mixing-Tee Output Dilute Caustic Concentrate	Digital	0-48 V DC	J1002/IG903	E-926, Sh 46	C204
87	LR12, LR13	Mixed Bed Demin Vessel T-917B Regen Fail	Digital	0-48 V DC	IG903	5935-9/M111-130	C202
88	PS-8548	Caustic Feed Pump P-908 Pressure	Digital	0-48 V DC	IG903	5935-9/M111-131	C202
89	AIS-8621	Mixed Bed Demin Vessel T-917B Silica	Digital	0-48 V DC	J1006/IG903	E-926, Sh 47	C204
90	FIS-8534	Caustic Dilution Water Flow	Digital	0-48 V DC	IG903	5935-9/M111-131	C202
91	DPIS-8391B	Mixed Bed Demin Vessel T-917B Diff Press	Digital	0-48 V DC	IG903	5935-9/M111-136	C202
92	TS-8502	Caustic Storage Tank T-908 Temp	Digital	0-48 V DC	IG903	5935-9/M111-131	C202
93	R3A, R4A	Mixed Bed Demin Vessel T-917B Rinse	Digital	0-48 V DC	IG903	5935-9/M111-130	C202
94	TICS-8535	Dilute Caustic Tank T-908 Temp	Digital	0-48 V DC	IG903	5935-9/M111-131	C202
95	PS-8343	Mixing Air Blower C-902 Press	Digital	0-48 V DC	IG903	5935-9/M111-134	C202

DATALOGGER FIELD REMOTE STATION 2 STATUS INPUTS

DLS Channel	Device	Channel Description	Signal Type	Signal Voltage	Scheme*	Schematic Dwg No	Console Section
96	TS-8530	Hot-Water Tank T-918 Temp	Digital	0-48 V DC	IG903	5935-9/M111-131	C202
97	LS-8487A	Acid Storage Tank T-907	Digital	0-48 V DC	IG903	5935-9/M111-132	C202
98	LS-8564	Waste Neutralizer Tank T-921	Digital	0-48 V DC	IG903	5935-9/M111-136	C202
99	FIS-8545	Acid Mixing-Tee Input Acid Flow	Digital	0-48 V DC	IG903	5935-9/M111-132	C202
100	PHIS-8634	Waste Neutralizer Tank T-921 pH	Digital	0-48 V DC	IG903	5935-9/M111-136	C202
101	CIS-8624	Acid Mixing-Tee Output Dilute Concentration	Digital	0-48 V DC	J1002/IG903	E-926, Sh 46	C204
102	TS-8503	Waste Neutralizer Tank T-921 Temp	Digital	0-48 V DC	IG903	5935-9/M111-135	C202
103	PS-8518	Acid Feed Pump P-907 Pressure	Digital	0-48 V DC	IG903	5935-9/M111-132	C202
104	LS-8504	Waste Neutralizer Tank T-921 Full Regen	Digital	0-48 V DC	IG903	5935-9/M111-136	C202
105	FIS-8540A	Acid Mixing-Tee Input Water Flow	Digital	0-48 V DC	IG903	5935-9/M111-132	C202
106	TS-8410	Raw Water Heat Exchanger E-901 Outlet Temp	Digital	0-48 V DC	IG903	5935-9/M111-124	C202
107	LS-8511	Sodium Hypochlorite Leakage Sump	Digital	0-48 V DC	J910/IG903	E-926, Sh 19	C238
108	Spare				IG903		
109	CIS-8636	Makeup Water System Effluent Conductivity	Digital	0-48 V DC	J1005/IG903	E-926, Sh 47	C204
110	Spare				IG903		
111	AIS-8635	Makeup Water System Effluent Sodium	Digital	0-48 V DC	J1005/IG903	E-926, Sh 47	C205
112	Spare				IG903		
113	27	480 V Load Center B90 Bus	Digital	0-48 V DC	K902/IG902	E-932, Sh 51	B90
114	49	Sump Pumps MCC B93 Motor	Digital	0-48 V DC	K902/IG902	E-932, Sh 51	B93
115	49	Feedwater Bldg Services and HVAC MCC B94 Motor	Digital	0-48 V DC	K902/IG902	E-932, Sh 51	B94
116	49	Feedwater Bldg Services and HVAC MCC B95 Motor	Digital	0-48 V DC	K902/IG902	E-932, Sh 51	B95
117	27	480 V Load Center B91 Bus	Digital	0-48 V DC	K902/IG902	E-932, Sh 51	B91
118	49	Spent Resin Handling MCC B97 Motor	Digital	0-48 V DC	K902/IG902	E-932, Sh 51	B97
119	49	Spent Resin Handling 140 V MCC P9000 Motor	Digital	0-48 V DC	K902/IG902	E-932, Sh 51	P9000
120	49	Bldg Services 120 V MCC P9001 Motor	Digital	0-48 V DC	K902/IG902	E-932, Sh 51	P9001
121	LIS-8946	Demin Water Tank T-939 Level	Digital	0-48 V DC	IL909/IG902	E-932, Sh 51	C203
122	TIS-8945	Demin Water Tank T-939 Temp	Digital	0-48 V DC	IT901/IG902	E-932, Sh 51	C203
123	FS-8264	Filtered Air Exhaust Sample System Flow	Digital	0-48 V DC	B9745/IG902	E-932, Sh 52	C251
124	Spare				IG902		
125	LS-8884	Dirty Waste Sump Level High	Digital	0-48 V DC	IL904/IG902	E-932, Sh 53	U9014
126	LS-8884	Dirty Waste Sump Level Hi-Hi	Digital	0-48 V DC	IL904/IG902	E-932, Sh 53	U9014
127	Spare				IG902		
128	Spare				IG902		
129	TDR-8637	Demin Water Tank T-939 Recirc Conductivity	Digital	0-48 V DC	K902/IG902	E-932, Sh 51	C204
130	3R, 4R, 8R, 9R, 10R	Heating Boiler System	Digital	0-48 V DC	K902/IG902	E-932, Sh 51	C226
131	LIS-8314	Fuel Oil Tank T-926 Level	Digital	0-48 V DC	IL908/IG902	E-932, Sh 52	C13
132	Spare				IG902		
133	LS-8882	Recoverable Water Sump Level	Digital	0-48 V DC	IL901/IG902	E-932, Sh 52	U9012
134	Spare				IG902		
135	LS-8886	Floor and Equipment Drain Sump Level	Digital	0-48 V DC	IL903/IG902	E-932, Sh 52	U9011
136	LS-8888	Chemical Drain Sump Level	Digital	0-48 V DC	IL902/IG902	E-932, Sh 52	U9013
137	LX-1138X	Aux Bldg Sump Level	Digital	0-48 V DC	J1021/IG902	E-932, Sh 52	C203
138	LS-5210X	Turb Bldg Drain Tank T-41 Level	Digital	0-48 V DC	J1021/IG902	E-932, Sh 52	C203
139	FS-8896A, B, C, D, E	Eyewash Shower Flow	Digital	0-48 V DC	K906/IG902	E-932, Sh 52	C203
140	BA, CR1	Feedwater Bldg Air Compressor C903A	Digital	0-48 V DC	J1100/IG902	E-932, Sh 52	C203
141	PS-8867	Service Air Header Pressure	Digital	0-48 V DC	K902/IG902	E-932, Sh 53	C257
142	1R1	Instrument Air Dryer Valve Shift	Digital	0-48 V DC	J1102/IG902	E-932, Sh 53	C255
143	Spare				IG902		

DATALOGGER FIELD REMOTE STATION 2 STATUS INPUTS

DLS Channel	Device	Channel Description	Signal Type	Signal Voltage	Scheme*	Schematic Dwg No	Console Section
144	Spare				IG902		
145	BA, CR2	Feedwater Bldg Air Compressor C-903B	Digital	0-48 V DC	J1101/IG902	E-932, Sh 53	C203
146	FS-8590, TS-8590	Sampling System Cooling Wtr Pump P-949	Digital	0-48 V DC	K902/IG902	E-932, Sh 53	C206
147	2R1	Instrument Air Dryer Dew Point	Digital	0-48 V DC	J1102/IG902	E-932, Sh 53	C255
148	AITS-8230AX	Phase Separator Tank T-936A Turbidity	Digital	0-48 V DC	J1020/IG902	E-932, Sh 53	C203
149	LITS-8792A	Phase Separator Tank T-936A Level	Digital	0-48 V DC	IL905/IG902	E-932, Sh 53	C203
150	FS-8234A	Decant Pump P-930A Discharge Flow Low	Digital	0-48 V DC	IF901/IG902	E-932, Sh 53	C203
151	FS-8234A	Decant Pump P-930A Discharge Flow High	Digital	0-48 V DC	IF901/IG902	E-932, Sh 53	C203
152	AITS-8230BX	Phase Separator T-936B Turbidity	Digital	0-48 V DC	J1020/IG902	E-932, Sh 53	C203
153	LITS-8792B	Phase Separator T-936B Level	Digital	0-48 V DC	IL906/IG902	E-932, Sh 54	C203
154	FS-8234B	Decant Pump P-930B Discharge Flow Lo	Digital	0-48 V DC	IF902/IG902	E-932, Sh 54	C203
155	FS-8234B	Decant Pump P-930B Discharge Flow High	Digital	0-48 V DC	IF902/IG902	E-932, Sh 54	C203
156	Spare				IG902		
157	Spare				IG902		
158	Spare				IG902		
159	Spare				IG902		
160	Spare				IG902		
161	PS-8671A	Boiler Room Fire Sprinkler Flow	Digital	0-48 V DC	K902/IG902	E-932, Sh 55	C257
162	PS-8671B	Boiler Room Fire Sprinkler Flow	Digital	0-48 V DC	K902/IG902	E-932, Sh 55	C257
163	Spare				IG902		
164	Spare				IG902		
165	Spare				IG902		
166	Spare				IG902		
167	Spare				IG902		
168	Spare				IG902		
169	Spare				IG902		
170	Spare				IG902		
171	K2, 74	Feedwater Bldg Battery Charger/Invert Y250	Digital	0-48 V DC	K902/IG902	E-932, Sh 51	C203
172	S9001-3	Feedwater Bldg DLS Pwr Supply	Digital	0-48 V DC	K902/IG902	E-932, Sh 51	C203
173	LS-8303	Condensate Receiver Tank T-927 Level Low	Digital	0-48 V DC	K902/IG902	E-932, Sh 52	C225
174	LS-8303	Condensate Receiver Tank T-927 Level High	Digital	0-48 V DC	K902/IG902	E-932, Sh 52	C225
175	Spare				IG902		
176	Spare				IG902		
177	125CR, 243CR	Flatbed Filter M-904	Digital	0-48 V DC	J931/IG902	E-932, Sh 54	C210
178	108M-OL	Flatbed Filter M-904 Conveyor Motor	Digital	0-48 V DC	J931/IG902	E-932, Sh 54	C210
179	Spare				IG902		
180	Spare				IG902		
181	115CR	Flatbed Filter M-904 Instr Air Press	Digital	0-48 V DC	J931/IG902	E-932, Sh 54	C210
182	Spare				IG902		
183	Spare				IG902		
184	Spare				IG902		
185	-	Annun Logic Cabinet, C-257 DC Power	Digital	0-48 V DC	IG902	-	C257
186	3K1	Pretreat and Makeup Demin Cont Pnl C-202 DC Power	Digital	0-48 V DC	IG902	E-926, Sh 30	C202

DATALOGGER FIELD REMOTE STATION 2 STATUS INPUTS

DLS Channel	Device	Channel Description	Signal Type	Signal Voltage	Scheme*	Schematic Dwg No	Console Section
187	Spare				IG902		
188	Spare				IG902		
189	Spare				IG902		
190	Spare				IG902		
191	Spare				IG902		
192	Spare				IG902		

*If two scheme numbers are given, the first corresponds to the device and its related equipment, the second gives the connection to the datalogger. If only one number is given, it corresponds to the datalogger connection scheme.

Reference Dwg

Datalogger System Input Signals - Field Remote Station No 2, E-54, Sh 1 through Sh 12.

ATTACHMENT III

Consumers Power Company
Palisades Plant
Docket 50-255

Generic Letter 83-28
Event Recorders Inputs
"Information Copy"
July 1, 1985

(2 Pages)

SERVICE	Events Recorder Channel	SERVICE	Events Recorder Channel
High neutron flux Channel "A"	1-1	Primary coolant pump P50B Off	1-21
High power rate of exchange " "	1-2	Primary coolant pump P50C Off	1-22
High pressurizer pressure " "	1-3	Primary coolant pump P50D Off	1-23
Low thermal margin/pressure " "	1-4	Pressurizer Pow RV CV1042 open	1-24
S.G. No. 1 Low Press " "	1-5	Pressurizer Pow RV CV1043 open	1-25
S.G. No. 2 Lo Press " "	1-6	Pressurizer spray valve CV1057 open	1-26
Lo Pri coolant flo loop 1 " "	1-7	Pressurizer spray valve CV1059 open	1-27
S.G. No. 1 Lo level " "	1-8	Back-up heaters on	1-28
S.G. No. 2 Lo level " "	1-9	Charging pump P55A on	1-29
Loss of load (turbine trip) " "	1-10	Charging pump P55B on	1-30
Clutch power relay K1-open	1-11	Charging pump P55C on	1-31
PDTK P71A on	1-12	L.D. CRF stop CV2003 open	1-32
PDTK P71B on	1-13	L.D.CRF stop CV2004 open	1-33
Dirty waste Hi level alarm	1-14	L.D. CRF stop CV2005 open	1-34
Dirty waste Hi level alarm	1-15	Heater drain pump P10A Off	1-35
Equipment drain pump P75A on	1-16	Heater drain pump P10B Off	1-36
Equipment drain pump P75B on	1-17	CV0703 (F.W.) closed	1-37
Spare	1-18	CV0701 (F.W.) closed	1-38
Time mark - slow speed / fast speed	1-19	Time mark	1-39
Primary coolant pump P50A Off	1-20	Spare - slow speed / fast speed	1-40

SERVICE	Events Recorder Channel	SERVICE	Events Recorder Channel
High neutron flux Channel "B"	2-1	Containment spray pump P54A on	2-25
High power rate of change " "	2-2	Containment spray pump P54B on	2-26
High pressurizer pressure " "	2-3	Containment spray pump P54C on	2-27
Low thermal margin pressure " "	2-4	Containment sump valve CV3029 open	2-28
Low pressure steam gen. #1 " "	2-5	Containment sump valve CV3030 open	2-29
Low pressure steam gen. #2 " "	2-6	SIRW tank valve CV3031 close	2-30
Low primary coolant flow loop#1"	2-7	SIRW tank valve CV3057 close	2-31
		Containment spray CV3001 open	2-32
Low water level steam gen. #1" "	2-8	Containment spray CV3002 open	2-33
Low water level steam gen. #2" "	2-9	L.P. inject M03008 open	2-34
Loss of load (turbine trip) " "	2-10	L.P. inject M03010 open	2-35
Clutch power relay K2 open " "	2-11	L.P. inject M03012 open	2-36
Main stm. isolation valve CV0501 closed	2-12	L.P. inject M03014 open	2-37
Main stm. isolation valve CV0510 "	2-13	CV-2056 let down to RWS	2-38
Main stm. bypass valve CV0511 open	2-14	Time mark - slow speed / fast speed	2-39
Steam dump valve CV0780 open	2-15	Spare	2-40
Steam dump valve CV0779 open	2-16		
Steam dump valve CV0781 open	2-17		
Steam dump valve CV0782 open	2-18		
Time mark - slow speed / fast speed	2-19		
L.P.S.I. pump P67A on	2-20		
L.P.S.I. pump P67B on	2-21		
H.P.S.I. pump P66A on	2-22		
H.P.S.I. pump P66B on	2-23		
Aux FW pp P8C (Started)	2-24		

INFORMATION COPY

SERVICE	Events Recorder Channel
High neutron flux Channel "C"	3-1
High power rate of exchange " "	3-2
High pressurizer pressure " "	3-3
Low thermal margin pressure " "	3-4
Low pressure steam gen. #1 " "	3-5
Low pressure steam gen. #2 " "	3-6
Low primary coolant flow loop #1"	3-7
Low water level steam gen. #1 "	3-8
Low water level steam gen. #2 "	3-9
Loss of load (turbine trip) "	3-10
Clutch power relay K3 " "	3-11
Turbine stop valve 0569 closed	3-12
Turbine stop valve 0571 closed	3-13
Turbine stop valve 0573 closed	3-14
Turbine stop valve 0575 closed	3-15
F.W. pump turbine driver A trip	3-16
F.W. pump turbine driver B trip	3-17
Aux FW pp P8A (Started)	3-18
Time mark - slow speed fast speed	3-19
H.P. inject. M03007 open	3-20
H.P. inject. M03009 open	3-21
H.P. inject. M03064 open	3-22
H.P. inject. M03062 open	3-23
Cont. isolation signal	3-24

SERVICE	Events Recorder Channel
Hi rad. isolation signal radwaste vent	3-25
Aux FW pp P8C Suction Press (Low)	3-26
Cont. air cooler serv. wtr. CV0867 open	3-27
Cont. air cooler serv. wtr. CV0873 open	3-28
Cont. air cooler serv. wtr. CV0864 open	3-29
Cont. air cooler serv. wtr. CV0861 open	3-30
Service water pump P7A on	3-31
Service water pump P7B on	3-32
Service water pump P7C on	3-33
Fire pump - motor on	3-34
Fire pump - diesel on	3-35
Heater E1A drain CV0618 open	3-36
Heater E1B drain CV0629 ~~closed~~ open SG	3-37
Heater E2B drain CV0626 open	3-38
Time mark - slow speed fast speed	3-39
Aux FW pp P8A Suction Press (Low)	3-40

SERVICE	Events Recorder Channel
High neutron flux Channel "D"	4-1
High power rate of change " "	4-2
High pressurizer pressure " "	4-3
Low thermal margin/press " "	4-4
Low pressure steam gen. #1 " "	4-5
Low pressure steam gen. #2 " "	4-6
Low pri coolant flow loop#1 " "	4-7
S G No. 1 Low level " "	4-8
S G No. 2 Low level " "	4-9
Loss of load (turbine trip) " "	4-10
Clutch power relay K-4 open " "	4-11
Reheat stop valve CV0534 closed	4-12
Reheat stop valve CV0544 closed	4-13
Reheat stop valve CV0537 closed	4-14
Reheat stop valve CV0548 closed	4-15
CV0731 (reject) open	4-16
CV0732 (make-up) open	4-17
CV0733 (fast make-up) open each min slow speed	4-18
Time mark - each sec fast speed	4-19
Reheat intercept valve CV0535 closed	4-20

SERVICE	Events Recorder Channel
E9D Reheat intercept valve CV0545 closed	4-21
E9A Reheat intercept valve CV0540 closed	4-22
E9C Reheat intercept valve CV0547 closed	4-23
Tank T4A CV0539 open	4-24
Tank T4B CV0555 open	4-25
BTV 0602 closed	4-26
BTV 0606 closed	4-27
CV 0602 closed	4-28
CV 0606 closed	4-29
BTV 0610 closed	4-30
BTV 0620 closed	4-31
BTV 0612 closed	4-32
CV 0612 closed	4-33
CV 0621 closed	4 34
BTV 0623 closed	4-35
CV 0614 closed	4-36
CV 0624 closed	4-37
CV 0617 open	4-38
Time - slow speed fast speed	4-39
Spare E9B	4-40

INFORMATION COPY

ATTACHMENT IV

Consumers Power Company
Palisades Plant
Docket 50-255

Generic Letter 83-28
Datalogger Analog Inputs
"Information Copy"
July 1, 1985

(2 Pages)

DATALOGGER FIELD REMOTE STATION 1 ANALOG INPUTS

DLS Channel	Tag No	Channel Description	Signal Type	Signal Voltage	Scheme*	Schematic Dwg No	Console Section
501	-	Main Generator Voltage Regulator Output	Analog	0-125 V DC	E01/IG05	E-9	E01
502	FY-0701	Steam Generator E-50A Flow	Analog	1-5 V DC	IF32/IG05	E-69	C12
503	FY-0703	Steam Generator E-50B Flow	Analog	1-5 V DC	IF33/IG05	E-69	C12
504	FT-0404	Safety Injection Pumps Recirculation Flow	Analog	1-5 V DC	IF40/IG05	E-94	C12
505	NI-005	Safety Channel-A Neutron Flux	Analog	0-10 V DC	IN15/IG05	E-62	C06-1
506	NI-006	Safety Channel-B Neutron Flux	Analog	0-10 V DC	IN16/IG05	E-62	C06-1
507	NI-007	Safety Channel-C Neutron Flux	Analog	0-10 V DC	IN17/IG05	E-62	C06-1
508	NI-008	Safety Channel-D Neutron Flux	Analog	0-10 V DC	IN18/IG05	E-62	C06-1
509	NI-005	Safety Channel-A Neutron Flux	Analog	0-10 V DC	IN15/IG05	E-62	C06-1
510	NI-006	Safety Channel-B Neutron Flux	Analog	0-10 V DC	IN16/IG05	E-62	C06-1
511	NI-007	Safety Channel-C Neutron Flux	Analog	0-10 V DC	IN17/IG05	E-62	C06-1
512	NI-008	Safety Channel-D Neutron Flux	Analog	0-10 V DC	IN18/IG05	E-62	C06-1
513	R1	Aux Bldg Datalogger 125 V DC Positive Bus Volt to Ground	Analog	0-125 V DC	D1007/IG05	E-9015, Sh 3	C273
514	R2	Aux Bldg Datalogger 125 V DC Negative Bus Volt to Ground	Analog	0-125 V DC	D1007/IG05	E-9015, Sh 3	C273
515	R1	Feedwater Bldg 125 V DC Positive Bus Voltage to Ground	Analog	0-125 V DC	D1006/IG05	E-9015, Sh 3	C271
516	R2	Feedwater Bldg 125 V DC Positive Bus Voltage to Ground	Analog	0-125 V DC	D1006/IG05	E-9015, Sh 3	C271
517	LT-0101A	Pressurizer T-72 Level	Analog	1-5 V DC	IL09/IG05	E-82, Sh 1	C12
518	PT-0103	Pressurizer T-72 Pressure	Analog	1-5 V DC	IP60/IG05	E-84, Sh 3	C12
519	TI-0112HA	Primary Coolant Loop One Outlet Temp	Analog	1-5 V DC	IT32/IG05	E-96, Sh 6	C12
520	TI-0112CA	Primary Coolant Loop One Inlet Temp	Analog	1-5 V DC	IT32/IG05	E-96, Sh 6	C12
521	TI-0122HA	Primary Coolant Loop Two Outlet Temp	Analog	1-5 V DC	IT32/IG05	E-96, Sh 6	C12
522	TI-0122CA	Primary Coolant Loop Two Inlet Temp	Analog	1-5 V DC	IT32/IG05	E-96, Sh 6	C12
523	FI-0102A	Reactor Coolant Flow	Analog	1-5 V DC	IF27/IG05	E-96, Sh 4	C12
524	FM-0705	Steam Generator Total Steam Flow	Analog	1-5 V DC	IF32/IG05	E-69, Sh 2	C12
525	PIC-0751A	Steam Generator E-50A Pressure	Analog	1-5 V DC	IP23/IG05	E-83	C12
526	PIC-0752A	Steam Generator E-50B Pressure	Analog	1-5 V DC	IP27/IG05	E-83	C12
527	LT-0702	Steam Generator E-50A Level	Analog	1-5 V DC	IF32/IG05	E-69, Sh 2	C12
528	LT-0704	Steam Generator E-50B Level	Analog	1-5 V DC	IF33/IG05	E-69, Sh 2	C12
529	Spare						
530	Turb EH Control	Main Turbine Speed	Analog		IG05	E-632	C01
531	WN	2400 V AC Bus 1C Voltage	Analog		A1001/IG05	E-11	C04
532	WM	2400 V AC Bus 1D Voltage	Analog	0-120 V AC	A1002/IG05	E-11	C04R
533	Spare						
534	Spare						
535	Spare						
536	Spare						
537	Spare						
538	Spare						
539	Spare						
540	Spare						
541	Spare						
542	Spare						
543	Spare						
544	Spare						
545	Spare						
546	Spare						

DATALOGGER FIELD REMOTE STATION 1 ANALOG INPUTS

DLS Channel	Tag No	Channel Description	Signal Type	Signal Voltage	Scheme*	Schematic Dwg No	Console Section
547	Spare						
548	Spare						

*The first scheme number will show the instrument and its related equipment. The second scheme number is the connection to the datalogger.

Reference Dwg:

Datalogger System Input Signals - Field Remote Station No 1, E-53, Sh 21 and 22.

ATTACHMENT V

Consumers Power Company
Palisades Plant
Docket 50-255

Generic Letter 83-28
Critical Function Monitor Inputs
"Information Copy"
July 1, 1985

(8 Pages)

CRITICAL FUNCTION MONITOR INPUTS

Item No	Tag No	Device Description	Signal Type	Signal Voltage	Scheme	Schematic Dwg No	Console Section
1	AR-0203	PCS Boron	Analog	0-5 VDC	IB01	E-70	C02-1
2	AI-0103	Pzr Htr Transformer Amps	Analog	0-5 VDC	A1305	-	C02-2
3	AI-0104	Pzr Htr Transformer Amps	Analog	0-5 VDC	A1211	-	C02-2
4	P50A	PCP A Amps	Analog	0-5 VDC	A2103	-	C12-3
5	P50B	PCP B Amps	Analog	0-5 VDC	A2203	-	C12-3
6	P50C	PCP C Amps	Analog	0-5 VDC	A2104	-	C12-3
7	P50D	PCP D Amps	Analog	0-5 VDC	A2204	-	C12-3
8	dPT-0112AA	Primary Coolant Flow Channel 1	Analog	1-5 VDC	IF27	E-96, Sh 4	C12-3
9	dPT-0112BA	Primary Coolant Flow Channel 2	Analog	1-5 VDC	IF27	E-96, Sh 4	C12-3
10	dPT-0122CA	Primary Coolant Flow Channel 3	Analog	1-5 VDC	IF27	E-96, Sh 4	C12-3
11	dPT-0122DA	Primary Coolant Flow Channel 4	Analog	1-5 VDC	IF27	E-96, Sh 4	C12-3
12	NI-001	Startup Count Rate X	Analog	0-10 VDC	IN03	E-61, Sh 2	C02-1
13	NI-002	Startup Count Rate Y	Analog	0-10 VDC	IN03	E-61, Sh 2	C02-1
14	NI-003	Wide Range Power	Analog	0-10 VDC	IN03	E-61, Sh 2	C02-1
15	NI-004	Wide Range Power	Analog	0-10 VDC	IN03	E-61, Sh 2	C02-1
16	PSX-1051A-1&B-1	Acoustical Monitor Channel 1	Digital	125 VDC	K13	E-293, Sh 6	C12-4
17							
18	FS-0954	HP Safe Injection Pump P66C Seal	Digital	125 VDC	K11	E-292, Sh 4	C13-2
19	FS-0958	Engr Safegrd Pump Seal Water	Digital	125 VDC	K11	E-292, Sh 4	C13-2
20	FT-0202	Primary Letdown Flow	Analog	1-5 VDC	IF20	E-73, Sh 4	C12-4
21	FT-0212	Charging Line Flow	Analog	1-5 VDC	IF19	E-73, Sh 7	C12-4
22	FT-0301	CNMT Spray	Analog	1-5 VDC	IF11	E-94, Sh 1	C13-1L
23	FT-0302	CNMT Spray	Analog	1-5 VDC	IF12	E-94, Sh 1	C13-1R
24	FT-0306	Shutdown Cooling Flow Control	Analog	1-5 VDC	IF21	E-73, Sh 6	C12-3
25	FT-0307	LPSI Flow Loop A	Analog	1-5 VDC	IF03	E-93, Sh 1	C13-1L
26	FT-0308	HPSI Flow Loop A	Analog	1-5 VDC	IF04	E-93, Sh 1	C13-1L
27	FT-0309	LPSI Flow Loop B	Analog	1-5 VDC	IF05	E-93, Sh 1	C13-1L
29	FT-0310	HPSI Flow Loop B	Analog	1-5 VDC	IF06	E-93, Sh 1	C13-1L
29	FT-0311	LPSI Flow Loop C	Analog	1-5 VDC	IF07	E-93, Sh 1	C13-1R
30	FT-0312	HPSI Flow Loop C	Analog	1-5 VDC	IF08	E-93, Sh 1	C13-1R
31	FT-0313	LPSI Flow Loop D	Analog	1-5 VDC	IF09	E-93, Sh 1	C13-1R
32	FT-0314	HPSI Flow Loop D	Analog	1-5 VDC	IF10	E-93	C13-1R
33	FT-0701	Stm Gen E-50A FW Flow	Analog	1-5 VDC	IF32	E-69	C12-5
34	FT-0702	Stm Gen E-50A Steam Flow	Analog	1-5 VDC	IF32	E-69	C12-5
35	FT-0703	Stm Gen E-50B FW Flow	Analog	1-5 VDC	IF33	E-69	C12-5
36	FT-0704	Stm Gen E-50B Steam Flow	Analog	1-5 VDC	IF33	E-69	C12-5
37	FT-0736	Aux FW Flow to Stm Gen E-50B	Analog	1-5 VDC	IF23	E-76, Sh 4	C12-3
38	FT-0737	Aux FW Flow to Stm Gen E-50A	Analog	1-5 VDC	IF24	E-76, Sh 4	C12-3
39	FT-0833	CNT Air Clr Serv Water Leak Det	Analog	1-5 VDC	IF35	E-74	C12-4
40	LT-0102A	Pressurizer Level Channel A	Analog	1-5 VDC	IL37	E-82, Sh 4	C12-3
41	LT-0206	Boric Acid Tk T-53B	Analog	1-5 VDC	IL36	E-90, Sh 5	C12-4
42	LT-0208	Boric Acid Tk T-53A	Analog	1-5 VDC	IL35	E-90, Sh 5	C12-4
43	LT-0331	SIRW Tank Ckt 2	Analog	1-5 VDC	IL06	E-87	C13-R
44			Analog				
45	LT-0392	CNMT Sump Level	Analog	1-5 VDC	IL152	E-87, Sh 4	C13-R
46	LT-0365	Safety Inject Tank T-82A	Analog	1-5 VDC	IL16	E-92	C13-1L
47	LT-0368	Safety Inject Tank T-82B	Analog	1-5 VDC	IL17	E-92	C13-1L
48	LT-0372	Safety Inject Tank T-82C	Analog	1-5 VDC	IL18	E-92	C13-1R
49	LT-0374	Safety Inject Tank T-82D	Analog	1-5 VDC	IL19	E-92	C13-1R

CRITICAL FUNCTION MONITOR INPUTS

Item No	Tag No	Device Description	Signal Type	Signal Voltage	Scheme	Schematic Dwg No	Console Section
50	TT-0115	Cold Leg Loop 1 Temp WR	Analog	1-5 VDC	IL20	E-96, Sh 3	C12-7
51	TT-0125	Cold Leg Loop 2 Temp WR	Analog	1-5 VDC	IT21	E-96, Sh 3	C12-7
52	LT-0702	Steam Gen E-50A Level	Analog	1-5 VDC	IT22	E-69, Sh 2	C12-1
53	LT-0704	Steam Gen E-50B Level	Analog	1-5 VDC	IF32	E-69, Sh 2	C12-1
54	LT-0729	Condenser Level	Analog	1-5 VDC	IF33	E-80	C01-2
55	LT-0752A	Steam Gen E-50B Low Level	Analog	1-5 VDC	IL25	E-78	C12-3
56	PT-0701	Stm Gen Feed Pump P1A Disch	Analog	1-5 VDC	IL49	E-81	C01-2
57	LT-1012	Clean Waste Receiver Tanks	Analog	1-5 VDC	IP04	E-63	C40
58	LT-1014	Clean Waste Receiver Tanks	Analog	1-5 VDC	IL53	E-63	C40
59	LT-1016	Clean Waste Receiver Tanks	Analog	1-5 VDC	IL54	E-63	C40
60	LT-1018	Clean Waste Receiver Tanks	Analog	1-5 VDC	IL55	E-63	C40
61	LT-2021	Condensate Storage Tank	Analog	1-5 VDC	IL56	E-87	C13-3
62	LE-0446A	CMNT Floor Level	Analog	1-5 VDC	IL24	E-87, Sh 3	C13-L
63	LT-0116	Quench Tank T-73	Analog	1-5 VDC	IL29	E-72, Sh 2	C12-3
64							
65	PT-1805A	Containment Building Pressure	Analog	1-5 VDC	IP147	E-99, Sh 5	C13-R
66	PT-0102A	Pzr Pressure SI Channel	Analog	1-5 VDC	IP33	E-84, Sh 2	C12-3
67	PT-0103	Pzr Wide Range Press	Analog	1-5 VDC	IP60	E-84, Sh 3	C12-3
68	PT-0116	Quench Tank T-73	Analog	1-5 VDC	IP61	E-72, Sh 1	C12-3
69	PT-0202	Intermed Pressure Letdown Cntrl	Analog	1-5 VDC	IP64	E-73, Sh 5	C12-4
70	PT-0205	Volume Control Tank T-54	Analog	1-5 VDC	IP65	E-71, Sh 2	C12-3
71	PT-0318	SI Pump Disch Press Ckt 4	Analog	1-5 VDC	IP44	E-86	C13-R
72	PT-0363	Safety Injection Tk T-82A	Analog	1-5 VDC	IP50	E-85, Sh 2	C13-1L
73	PT-0367	Safety Injection Tk T-82B	Analog	1-5 VDC	IP51	E-85, Sh 2	C13-1L
74	PT-0369	Safety Injection Tk T-82D	Analog	1-5 VDC	IP53	E-85, Sh 2	C13-1R
75	PT-0371	Safety Injection Tk T-82C	Analog	1-5 VDC	IP52	E-85, Sh 2	C13-1R
76	PT-0375	SI Pump Disch Press Ckt 3	Analog	1-5 VDC	IP43	E-86	C13-1L
77	PT-0521	Aux FW Pump Turb Stm Press	Analog	1-5 VDC	IP06	E-81	C01-2
78	PT-0751B	SG E-50A Low Pressure	Analog	1-5 VDC	IP24	E-83	C12-3
79	PT-0752B	SG E-50B Low Pressure	Analog	1-5 VDC	IP28	E-83	C12-3
80	PT-0763	Condenser Vacuum	Analog	1-5 VDC	IP49	E-81, Sh 2	C11-2
81	PT-0789	SG Aux Feed PP Dish Hdr Press	Analog	1-5 VDC	IP07	E-81	C01-2
82	PT-0918	Comp Cool Heat Exch Inlet Press	Analog	1-5 VDC	IP46	E-88, Sh 2	C08-R
83							
84	PT-1812A	Containment Pressure WR	Analog	1-5 VDC	IP146	E-99, Sh 5	C13-R
85	RR-0202	Process Radiation Monitor	Analog	1-5 VDC	IR59	E-57	C11
86		RCS Ht Vp Rhte					
87	FT-0210A	Boric Acid Mkup Dilut Flow	Analog	1-5 VDC	IF01	E-90	C12-3
88	LT-1115	Dirty Waste Drain Tank T-60	Analog	1-5 VDC	IL62	E-63	C40
89	LT-1117	Dirty Waste Drain Tank T-60	Analog	1-5 VDC	IL63	E-63	C40
90		SIAS Status					
91		Recirculation Activation SIG					
92							
93	LT-0103	Pzr Wide Range Level Ind	Analog	1-5 VDC	IL34	E-82, Sh 3	C12-4
94	LT-0751A	Steam Gen E-50A Low Level	Analog	1-5 VDC	IL45	E-78	C12-3
95	LT-0205	Volume Control Tank	Analog	1-5 VDC	IL28	E-71	C12-3
96		Temp Diff on Tower	Analog	1-5 VDC			
97	TE-0303	Shutdown Heat Exchange Inlet	Analog	1-5 VDC	IT12	E-95, Sh 2	C03-R
98		Standard Dev Wind Dir 30M	Analog	1-5 VDC			

CRITICAL FUNCTION MONITOR INPUTS

Item No	Tag No	Device Description	Signal Type	Signal Voltage	Scheme	Schematic Dwg No	Console Section
99		Standard Dev Wind Dir 60M	Analog	1-5 VDC			
100		Wind Direction 30M	Analog	1-5 VDC			
101	TT-0101	Pzr Vapor Temp	Analog	1-5 VDC	IT23	E-98	C-12-4
102	TT-0102	Pzr Wtr Phase Temp	Analog	1-5 VDC	IT24	E-98	C-12-3
103		Wind Direction 60M	Analog	1-5 VDC			
104		Wind Speed 30M	Analog	1-5 VDC			
105		Wind Speed 60M	Analog	1-5 VDC			
106	NI-005	Power Range Safety Channel A	Analog	1-10 VDC	IN04	E-62, Sh 2	C02-1
107	TT-0112CA	Prim Coolant Temp Protective Ch A	Analog	1-5 VDC	IT32	E-96, Sh 6	C12-7
108	TT-0112CB	Prim Coolant Temp Protective Ch B	Analog	1-5 VDC	IT33	E-96, Sh 6	C12-7
109	TT-0112HA	Prim Coolant Temp Protective Ch A	Analog	1-5 VDC	IT32	E-96, Sh 6	C12-7
110	TT-0122CA	Prim Coolant Temp Protective Ch A	Analog	1-5 VDC	IT32	E-96, Sh 6	C12-7
111	TT-0122CB	Prim Coolant Temp Protective Ch B	Analog	1-5 VDC	IT33	E-96, Sh 6	C12-7
112	TT-0122HB	Prim Coolant Temp Protective Ch B	Analog	1-5 VDC	IT33	E-96, Sh 6	C12-7
113	TT-0351B	Shtdn Cool Inlet-Outlet Temp	Analog	1-5 VDC	IT44	E-73, Sh 8	C12-8
114	NI-006	Power Range Safety Channel B	Analog	0-10 VDC	IN04	E-62, Sh 2	C02-1
115	TT-0205	Volume Control Tank	Analog	1-5 VDC	IT77	E-71, Sh 2	C02-3
116	TIA-0328	SIRW Tank	Analog	1-5 VDC	IT13	E-95	C13-L
117	TT-0201	Regen Heat Exchanger Outlet	Analog	1-5 VDC	IT41	E-73	C02-3
118	TT-0203	Letdown HX Dis Temp	Analog	1-5 VDC	IT43	E-73	C02-3
119	SP-3	CNMT High Press Tr A	Digital	120 VAC	IG20	E-208	C13-3
120	SP-6	CNMT High Press Tr B	Digital	120 VAC	IG21	E-208	C13-1R
121	SR-3	CNMT High Radiation Tr A	Digital	120 VAC	IG20	E-208	C13-3
122	SR-6	CNMT High Radiation Tr B	Digital	120 VAC	IG21	E-208	C13-1R
123	SIS-7	Safety Inj Actv Tr A	Digital	120 VAC	IG23	E-209	C13-1L
124	SIS-10	Safety Inj Actv Tr B	Digital	120 VAC	IG22	E-209	C13-1R
125	PT-0580	Turb Main Stm Inlet Press	Analog	1-5 VDC	T18	E-123, Sh 3	C01-2
126	PT-0703	Stm Gen Feed Pump P1B Disch	Analog	1-5 VDC	IP05	E-81	C01-2
127	LSX-0327	Recirculation Actuation Sig	Digital	120 VAC	IG20	E-207	C13-1L
128	LSY-0327	Recirculation Actuation Sig	Digital	120 VAC	IG20	E-207	C13-1L
129	K1	Reactor Trip Breaker 1	Digital	125 VDC	IG01	E-298, Sh 1	C13
130	K2	Reactor Trip Breaker 2	Digital	125 VDC	IG02	E-298, Sh 4	C13
131	42-1501	Prop Htr Status No 1	Digital	120 VAC	B1501	E-254	C02-2
132	42-1502	B/U Htr Status	Digital	120 VAC	B1500	E-254, Sh 2	C02-2
133	42-1506	B/U Htr Status	Digital	120 VAC	B1500	E-254, Sh 2	C02-2
134	42-1601	Prop Htr Status No 2	Digital	120 VAC	B1601	E-254, Sh 1	C02-2
135	42-1602	B/U Htr Status	Digital	120 VAC	B1600	E-254, Sh 2	C02-2
136	42-1606	B/U Htr Status	Digital	120 VAC	B1600	E-254, Sh 2	C02-2
137	P8A	Aux FW Pump A Status P8A	Digital	125 VDC	A1104	E-196	C01-2
138							
139	P2A	Condensate Pump P2A	Digital	125 VDC	A2105	E-182	C01-2
140	P2B	Condensate Pump P2B	Digital	125 VDC	A2205	E-182	C01-2
141	74-K7A1	Main Feed Pump P1A Status	Digital	125 VDC	IG03	E-298, Sh 6	C13 DR END
142	74-K7B1	Main Feed Pump P1A Status	Digital	125 VDC	IG03	E-298, Sh 6	C13 DR END
143	252-103	PCP A Status (1A)	Digital	125 VDC	IG01	E-98, Sh 2	C13 DR END
144	252-203	PCP B Status (1B)	Digital	125 VDC	IG01	E-98, Sh 2	C13 DR END
145	252-104	PCP C Status (2A)	Digital	125 VDC	IG01	E-98, Sh 2	C13 DR END
146	252-204	PCP D Status (2B)	Digital	125 VDC	IG01	E-98, Sh 2	C13 DR END
147	P54A	CNMT Spray Pump P54A Status	Digital	125 VDC	A1210	E-251	C03-R
148	P54B	CNMT Spray Pump P54B Status	Digital	125 VDC	A1112	E-251	C03-L

CRITICAL FUNCTION MONITOR INPUTS

Item No	Tag No	Device Description	Signal Type	Signal Voltage	Scheme	Schematic Dwg No	Console Section
149	P54C	CNMT Spray Pump P54C Status	Digital	125 VDC	A1114	E-251	C03-L
150	P55A	Charg Pump P55A Status	Digital	125 VDC	B1205	E-257	C02-2
151	P55B	Charg Pump P55B Status	Digital	125 VDC	B1206	E-257	C02-2
152	P55C	Charg Pump P55C Status	Digital	125 VDC	B1105	E-257, Sh 2	C02-3
153	P56A	Boric Acid Pump P56A Status	Digital	120 VAC	B287	E-203	C02-2
154	P56B	Boric Acid Pump P56B Status	Digital	120 VAC	B191	E-203	C02-3
155	P66A	HPSI Pump P66A Status	Digital	125 VDC	A1207	E-249	C03-R
156	P66B	HPST Pump P66B Status	Digital	125 VDC	A1113	E-249	C03-L
157	P66C	HPST Pump P66C Status	Digital	125 VDC	A1209	E-250	C03-R
158	P67A	LPSI Pump P67A Status	Digital	125 VDC	A1206	E-247	C03-R
159	P67B	LPSI Pump P67B Status	Digital	125 VDC	A1111	E-248	C03-L
160							
161							
162	V1A	Containment Cooling Fan #1 Status	Digital	125 VDC	B1208	E-216	C08-R
163	V2A	Containment Cooling Fan #2 Status	Digital	125 VDC	B1209	E-216	C08-R
164	V3A	Containment Cooling Fan #3 Status	Digital	125 VDC	B1210	E-216	C08-R
165	V4A	Containment Cooling Fan #4 Status	Digital	125 VDC	B1108	E-217	C08-L
166							
167							
168	POS-0522A	Main Steam Iso. Valve Cir. #2	Digital	125 VDC	W005	E-238SH.3	C01-2
169	POS-0522B	Main Steam Iso. Valve Cir. #2	Digital	125 VDC	W006	E-238SH.3	C01-2
170	33/SLU	No. 1 Main Stop Valve (SLU)	Digital	125 VDC	IG03	E-298SH.6	C13 DR. End
171	33/SLL	No. 3 Turbine Stop Valve (SLL)	Digital	125 VDC	IG03	E-298SH.6	C13 DR. End
172	33/SRU	No. 4 Main Stop Valve (SRL)	Digital	125 VDC	IG03	E-298SH.6	C13 DR. End
173	33/SRL	No. 2 Turbine Stop Valve (SRU)	Digital	125 VDC	IG03	E-298SH.6	C13 DR. End
174	POS-0701	FW to Heater E-68	Digital	125 VDC	IG01	E-298SH.2	C13 DR. End
175	POS-0703	FW to Steam Gen. E-50B	Digital	125 VDC	IG01	E-298SH.2	C13 DR. End
176	POS-0824	Service Water Valves Cir. 1	Digital	125 VDC	S07	E-219SH.2	C08-L
177	POS-0847	Service Water Valves Cir. 1	Digital	125 VDC	S07	E-219SH.2	C08-L
178	POS-0861	Cont. Air Cooler VHX-1	Digital	125 VDC	B1208	E-216	C08-R
179	POS-0862	Cont. Air Cooler VHX-1	Digital	125 VDC	B1208	E-216	C08-R
180	POS-0864	Cont. AC VHX-2 Ser. Wtr. 0809	Digital	125 VDC	B1209	E-216	C08-R
181	POS-0865	Cont. AC VHX-2 Ser. Wtr. 0809	Digital	125 VDC	B1209	E-216	C08-R
182	POS-0867	Serv. Wtr. Disc. Recirc. Fan V4A	Digital	125 VDC	B1108	E-217	C08-L
183	POS-0869	Serv. Wtr. Disc. Recirc. Fan V4A	Digital	125 VDC	B1108	E-217	C08-L
184	POS-0870	Cont. AC VHX-3 Ser. Wtr. 0810	Digital	125 VDC	B1210	E-216	C08-R
185	POS-0873	Cont. AC VHX-3 Ser. Wtr. 0811	Digital	125 VDC	B1210	E-216	C08-R
186	POS-2002	Letdn. Orifice Bypass Stp. Value	Digital	125 VDC	S20	E-236SH.3	C02-3
187	POS-2003	Let Down Orifice Valves	Digital	125 VDC	S17	E-236	C02-3
188	POS-2004	Let Down Orifice Valves	Digital	125 VDC	S17	E-236	C02-3
189	POS-2005	Let Down Orifice Valves	Digital	125 VDC	S17	E-236	C02-3
190	MO-2087	Volume Control Tank	Digital	120 VAC	B161	E-242	C02-3
191							
192	SV-2153	Boric Acid Heat TRC Alm Cir	Digital	125 VDC	S11	E-234	C02-2
193	POS-2155A	Prim. Sys. Makeup Stop Valve	Digital	125 VDC	S11	E-234	C02-2
194	MO-2169	Conc. Boric Acid Tank	Digital	120 VAC	B127	E-241	C02-2
195	MO-2170	Conc. Boric Acid Tank	Digital	120 VAC	B187	E-241	C02-2
196	POS-2191	PCP Controlled Pump Bleedoff IV	Digital	125 VDC	S30	E-255	C02-3
197	POS-3031	SIRW Tank LVL Cntr Vlv Cir #1	Digital	125 VDC	S13	E-246	C03-L
198	POS-3041	SI Tank T-82A Drain	Digital	125 VDC	S81	E-243SH.2	C03-L

CRITICAL FUNCTION MONITOR INPUTS

Item No	Tag No	Device Description	Signal Type	Signal Voltage	Scheme	Schematic Dwg No	Console Section
199	POS-3045	SI Tank T-82A Discharge 3008	Digital	125 VDC	S81	E-243SH.2	C03-L
200	POS-3049	SI Tank T-82C Discharge 3008	Digital	125 VDC	S82	E-243SH.2	C03-R
201	POS-3052	SI Tank T-82D Discharge 3007	Digital	125 VDC	S82	E-243SH.2	C03-R
202	POS-3055	SDC HX Isolation Valve	Digital	125 VDC	S17	E-236	C02-3
203	POS-3056	SIRW Tnk Lvl Cntrl Vlv Cir #2	Digital	125 VDC	S14	E-246SH.2	C03-R
204	POS-3057	SIRW Tnk Lvl Cntrl Vlv Cir #2	Digital	125 VDC	S14	E-246	C03-R
205	POS-3212	SI & Shutdown Cool Vlvs Cir #2	Digital	125 VDC	S10	E-245SH.2A	C03-R
206	POS-3213	SI & Shutdown Cool Vlvs Cir #2	Digital	125 VDC	S10	E-245SH.2A	C03-R
207	POS-3223	SI & Shutdown Cool Vlvs Cir #1	Digital	125 VDC	S09	E-245SH.2	C03-L
208	POS-3224	SI & Shutdown Cool Vlvs Cir #1	Digital	125 VDC	S09	E-245SH.2	C03-L
209	POS-3027	SI & Pump Recirc. to SIRWT	Digital	125 VDC	S13	E-246SH.2	C03-L
210							
211	POS-0501	Main Steam ISO Vlv Cir #2	Digitl	125 VDC	W002	E-238	C01-2
212	POS-0510	Main Steam From Gen E-50A	Digital	125 VDC	W001	E-238	C01-2
213	POS-0594	Reheater Temp. Control	Digital	24 VAC	T25	E-122SH.3	C11
214	POS-0595	Reheater Temp. Control	Digital	24 VAC	T25	E-122SH.3	C11
215	POS-0596	Reheater Temp. Control	Digital	24 VAC	T25	E-122SH.3	C11
216	POS-0597	Reheater Temp. Control	Digital	24 VAC	T25	E-122SH.3	C11
217	RIA-0631	Off Gas Monitoring	Analog	0-10 mV	IR88	E-228SH.2	C11-3
218	RI-0707	Liq. Dish. Sampler Motor P76	Analog	0-10 mV	IR81	E-229SH.2	C11-4
219	POS-0738	SG. E-50B Top Blowdn Iso. Valve	Digital	125 VDC	S25	E-235SH.3	C13-2
220	POS-0739	SG. E-50B Top Blowdn Iso. Valve	Digital	125 VDC	S26	E-235SH.3	C13-2
221	RI-0833	Liq. Dish. Sampler Motor P76	Analog	0-10 mV	IR85	E-229SH.2	C11-4
222	RI-0915	Liq. Dish. Sampler Motor P76	Analog	0-10 mV	IR83	E-229SH.2	C11-4
223	POS-0767	SG. E-50A Bottom Blowdn Iso. Vlv.	Digital	125 VDC	S28	E-235SH.4	C13-1R
224	POS-0768	SG. E-50B Bottom Blowdn Iso. Vlv.	Digital	125 VDC	S28	E-235SH.4	C13-1R
225	POS-0770	SG. E-50B Bottom Blowdn Iso. Vlv.	Digital	125 VDC	S27	E-235SH.4	C13-1L
226	POS-0771	SG. E-50A Bottom Blowdn Iso. Vlv.	Digital	125 VDC	S27	E-235SH.4	C13-1L
227	POS-0779	Main Stm. Iso. Vlv. Cir. #2	Digital	125 VDC	W001	E-238SH.2	C01-2
228	POS-0780	Sg. E-50B Steam Dump Cont. 0722	Digital	125 VDC	W002	E-238SH.2	C01-2
229	POS-0781	Main Stm. Iso. Vlv. Cir. #2	Digital	125 VDC	W001	E-238SH.2	C01-2
230	POS-0782	SG. E-50B Steam Dump Cont. 0723	Digital	125 VDC	W002	E-238SH.2	C01-2
231	POS-1001	PRI. Sys. Drain TK Iso. Vlv.	Digital	125 VDC	S25	E-235SH.3	C13-2
232	POS-1002	PRI. Sys. Drain TK Valve	Digital	125 VDC	S21	E-235	C13-1L
233	POS-1004	Clean Wst. Receiver TK Iso. Vlv	Digital	125 VDC	S25	E-235SH.3	C13-2
234	POS-1007	PRI Sys. Drain TK Vlv.	Digital	125 VDC	S22	E-235	C13-1R
235	POS-1036	Cln. Waste Receiver Tnk. Iso.	Digital	125 VDC	S21	E-235	C13-1L
236	POS-1037	Cln. Waste Receiver Tnk. Iso.	Digital	125 VDC	S26	E-235SH.3	C13-2
237	POS-1038	Cln. Waste Receiver Tnk. Iso.	Digital	125 VDC	S22	E-235	C13-1R
238	POS-1042A	PZR Porv Block Valves	Digital	120 VAC	B177	E-242SH.4	C02-3
239	RI-1049	Liq. Disch. Sampler Motor P 76	Analog	0-10 mV	IR82	E-229SH.2	C11-4
240	POS-1043A	PZR Porv Block Valves	Digital	120 VAC	B281	E-242SH.4	C02-3
241	RI-1323	Liq. Disch. Sampler Motor P 76	Analog	0-10 mV	IR84	E-229SH.2	C11-4
242	POS-1044	Cln. Wst. Receiver TK Pmp Seal	Digital	125 VDC	S21	E-235	C13-1L
243	POS-1045	Cln. Wst. Receiver TK Pmp Seal	Digital	125 VDC	S22	E-235	C13-3
244	RI-1805	CMNT. Iso. Monitor	Analog	1-10 mV	IR77	E-227SH.2	C11-5
245	POS-1064	Cln. Wst. Receiver TK Vent	Digital	125 VDC	S21	E-235	C13-1L
246	POS-1065	Cln. Wst. Receiver TK Vent	Digital	125 VDC	S22	E-235	C13-3
247	POS-1101	Cont. Waste Gas Inlet	Digital	125 VDC	S21	E-235	C13-1L
248	POS-1102	Cont. Waste Gas Inlet	Digital	125 VDC	S22	E-235	C13-3

CRITICAL FUNCTION MONITOR INPUTS

Item No	Tag No	Device Description	Signal Type	Signal Voltage	Scheme	Schematic Dwg No	Console Section
249	POS-1103	Cont. Sump Drain Iso. Valve	Digital	125 VDC	S21	E-235	C13-1L
250	POS-1104	Cont. Sump Drain Iso. Valve	Digital	125 VDC	S22	E-235	C13-3
251	POS-1358	Nitrogen Iso. Valve	Digital	125 VDC	S25	E-235SH.3	C13-2
252	POS-1910	PRI Sys. Sampling Iso. Vlv.	Digital	125 VDC	S21	E-235	C13-1L
253	POS-1911	PRI Sys. Sampling Iso. Vlv.	Digital	125 VDC	S22	E-235	C13-3
254	POS-2009	PRI Coolant Letdn. Iso. Vlv.	Digital	125 VDC	S23	E-235SH.2	C02-3
255	POS-2014	Boronometer & Failed Fuel Del.	Digital	125 VDC	S30	E-255	C02-3
256	POS-2023	Purification Ion Exchange	Digital	125 VDC	S30	E-255	C02-3
257	POS-2056	Vol Cont/Radwaste Sys. Vlv.	Digital	125 VDC	S30	E-255	C02-3
258	POS-2083	PRI Coolant PMP Coolant Bleed	Digital	125 VDC	S23	E-235SH.2	C02-3
259	POS-2111	Charging Line Stop Vlv.	Digital	125 VDC	S55	E-236SH.2	C02-3
260	POS-2113	Charge Dist. Stop Valve	Digital	125 VDC	S55	E-236SH.2	C02-3
261	POS-2115	Charge Dist. Stop Valve	Digital	125 VDC	S55	E-236SH.2	C02-3
262	POS-2117	Aux. Spray Stop Valve	Digital	125 VDC	S55	E-236SH.2	C02-3
263	E/P-2122	Inrwems Pewaa. Letdn. Control	Analog	1-5VDC	IP64	E-73SH.5	C02-4
264	SV-2165	Boric Acid Heat TRC Alm Block	Digital	125 VDC	S11	E-234	C02-2
265	POS-3001	CNMT Spray Valves	Digital	125 VDC	S19	E-237	C03-L
266	POS-3002	DNMT Spray Valves	Digital	125 VDC	S18	E-237	C03-R
267	POS-3015	SD Cool From PRI LP2 3004	Digital	120 VAC	B167	E-242SH.3	C02-3
268	POS-3016	SD From PRI LP2 3004	Digital	120 VAC	B271	E-242SH.3	C02-3
269	POS-3018	SI & SD Cool VAlves Cir #1	Digital	125 VDC	S09	E-245	C03-L
270	POS-3029	SIRW TK Level Control Valve	Digital	125 VDC	S14	E-246	C03-R
271	POS-3030	SIRW TK Level Control Valve	Digital	125 VDC	S13	E-246	C03-L
272	POS-3036	SI & Shutdn. Cool Vlv. Cir. #2	Digital	125 VDC	S10	E-245	C03-R
273	POS-3037	SI & Shutdn. Cool Vlv. Cir. #2	Digital	125 VDC	S10	E-245	C03-R
274	POS-3055	Shutdn. Cool Heat Ex Iso. Vlv.	Digital	125 VDC	S17	E-236	C02-3
275	POS-3059	SI & Shutdn. Cool Iso. Vlv. Cir. #1	Digital	125 VDC	S09	E-245	C03-L
276	POS-3070	SI & Shutdn. Cool Vlv. Cir. #1	Digital	125 VDC	S09	E-245	C03-L
277	POS-3071	SI & Shutdn. Cool Vlv. Cir. #2	Digital	125 VDC	S10	E-245	C03-R
278	MO-3072	Charg. To HPSI Line Iso. Vlv.	Digital	120 VAC	B217	E-242	C03-R
279	POS-3212	SI Shutdn. Cool Vlv. Cir. #2	Digital	125 VDC	S10	E-245SH.2A	C03-R
280	POS-3213	SI Shutdn. Cool Vlv. Cir. #2	Digital	125 VDC	S10	E-245SH.2A	C03-R
281	POS-3223	SI Shutdn. Cool Vlv. Cir. #1	Digital	125 VDC	S09	E-245SH.2	C03-L
282	POS-3224	SI Shutdn. Cool Vlv. Cir #1	Digital	125 VDC	S09	E-245SH.2	C03-L
283	E/P-0306	Shutdn. Cool Flow Control	Analog	1-5 VDC	IF21	E-73SH.6	C33
284	RI-1806	Containment Isolation Monitor	Analog	0-10 mV	IR78	E-227SH.2	C11-5
285	E/P-0701	SG E-50A FW Regulator	Analog	1-5 VDC	IF32	E-69	C12-5
286	E/P-0703	SG E-50B FW Regulator	Analog	1-5 VDC	IF33	E-69	C12-5
287	E/P-0736	SG E-50B Aux. FW Control	Analog	1-5 VDC	IM05	E-79	C33
288	E/P-0737	SG E-50B Aux. FW Control	Analog	1-5 VDC	IM04	E-79	C33
289	E/P-1057	Pressurizer Spray	Analog	1-5 VDC	S56	E-253	C02-2
290	E/P-1059	Pressurizer Spray	Analog	1-5 VDC	S56	E-253	C02-2
291	RI-1809	Off Gas Monitoring	Analog	0-10 mV	IR90	E-228SH.2	C11-3
292	RI-1810	East Engr. Safeguard Mon.	Analog	0-10 mV	IR91	E-228SH.3	C11-3
293	RI-1811	West Engr. Safeguard Mon.	Analog	0-10 mV	IR92	E-228SH.3	C11-3
294	RI-1817	Off Gas Monitoring	Analog	0-10 mV	IR87	E-228SH.2	C11-3
295	RI-2310	Main Control Room Monitor	Analog	0-10 mV	IR70	E-227	C11-5
296	RI-2313	Spent Pool Pit Monitor	Analog	0-10 mV	IR73	E-227	C11-5
297	RI-2316	Fuel Handling Area Mon. 1	Analog	0-10 mV	IR74	E-227SH.2	C11-5
298	RI-2317	Fuel Handling Area Mon. 2	Analog	0-10 mV	IR93	E-227SH.2	C11-5

CRITICAL FUNCTION MONITOR INPUTS

Item No	Tag No	Device Description	Signal Type	Signal Voltage	Scheme	Schematic Dwg No	Console Section
299	RI-2318	Stack Gas Monitoring Inst.	Analog	0-10 mV	IR86	E-228	C11-3
300	E/P-3025	Shutdn. Cool Flow Control	Analog	1-5 VDC	IM10	E-79	C33
301	RI-2319	Stack Gas Monitoring Inst.	Analog	0-10 mV	IR86	E-228	C11-3
302	RI-5709	Waste Demineralizer Rad Mon.	Analog	0-10 mV		E-762SH.2	C11-5
303	RI-5711	Radwaste Addition Vent Mon.	Analog	0-10 mV		E-763SH.2	C11-5
304							
305							
306							
307							
308							
309							
310							
311							
312	TE-1815	Containment Building Dome Temp.	Analog	1-5 VDC		E-95SH.2	C13-3
313							
314							
315							
316							
317							
318							
319	PT-1119	WST Gas Delay TK1	Analog	1-5 BDC	IP100	E-66SH.6	C40
320	PT-1120	WST Gas Delay TK2	Analog	1-5 VDC	IP101	E-66SH.6	C40
321	PT-1121	WST Gas Delay TK3	Analog	1-5 VDC	IP102	E-66SH.6	C40
322	PT-1160	WST Gas Delay TK4	Analog	1-5 VDC	IP132	E-66SH.5	C40-A
323	PT-1161	WST Gas Delay TK5	Analog	1-5 VDC	IP133	E-66SH.5	C40-A
324	PT-1162	WST Gas Delay TK6	Analog	1-5 VDC	IP134	E-66SH.5	C40-A
325	K3	Reactor Trip Breaker 3	Digital	125 VDC	IG03	E-298SH.6	C-13
326	K4	Reactor Trip Breaker 4	Digital	125 VDC	IG04	E-298SH.8	C-13
327	POS-0511	Bypass to Condenser	Digital	120 VAC	IP62	E-75	C01-2
328	POS-0521	Main Steam Iso. Valve Cir. #2	Digital	125 VDC	W001	E-238SH.2	C01-2
329							
330	POS-0937	Comp. Cool & Shtdwn. HX Vlv. 2	Digital	125 VDC	S61	E-239	C08-R
331	POS-0938	Comp. Cool & Shtdwn. HX Vlv. 1	Digital	125 VDC	S15	E-239	C08-L
332	POS-1013	Receiver Tanks Recirc.	Digital	125 VDC	J039	E-268	C40
333	POS-1015	Receiver Tanks Recirc.	Digital	125 VDC	J039	E-268	C40
334	POS-1017	Receiver Tanks Recirc.	Digital	125 VDC	J039	E-268	C40
335	POS-1019	Receiver Tanks Recirc.	Digital	125 VDC	J039	E-268	C40
336	MO-2140	Make-up Control SCP Bypass	Digital	120 VAC	B227	E-241	C02-1
337	MO-2160	SIRW To Charging Pumps	Digital	120 VAC	B2007	E-242	C02-3
338	POS-2165	Boric Acid heat TRL Alm Cir.	Digital	120 VAC	M05	E-205SH.3	C30-A
339	MO-3007	HPSI React Cool Loop 1A 3002	Digital	120 VAC	B137	E-244	C03-L
340	MO-3008	LPSI React Cool Loop 1A 3002	Digital	120 VAC	B141	E-244	C03-L
341	MO-3009	LPSI React Cool Loop 1B 3002	Digital	120 VAC	B197	E-244	C03-L
342	MO-3012	LPI React Cool Loop 2A 3003	Digital	120 VAC	B247	E-244	C03-R
343	MO-3013	HPI React Cool Loop 2B 3003	Digital	120 VAC	B151	E-244SH.4	C03-L
344	MO-3014	LPI React Cool Loop 2B 3003	Digital	120 VAC	B251	E-244	C03-R
345	MO-3062	Redundant High Pressure Inj.	Digital	120 VAC	B241	E-244	C03-R
346	MO-3064	Redundant High Pressure Inj.	Digital	120 VAC	B237	E-244	C03-R
347	MO-3066	Redundant High Pressure Inj.	Digital	120 VAC	B257	E-244	C03-R
348	MO-3068	Redundant High Pressure Inj.	Digital	120 VAC	B261	E-244	C03-R

CRITICAL FUNCTION MONITOR INPUTS

Item No	Tag No	Device Description	Signal Type	Signal Voltage	Scheme	Schematic Dwg No	Console Section
349	POS-0155	Demineral Water Quench TK Vlv.	Digital	125 VDC	S23	E-235SH.2	C02-3
350							
351	POS-0511	Bypass to Condenser	Digital	120 VAC	IP62	E-75	C01-2
352	POS-0910	Comp. CLG. Wtr. Inlet to Cont.	Digital	125 VDC	S27	E-235SH.4	C13-2
353	POS-0911	Comp. CLG. Wtr. Disch. from Cont.	Digital	125 VDC	S27	E-235SH.4	C13-1L
354	POS-0939	Shield Clg. Surge TK Valve	Digital	125 VDC	S25	E-235SH.3	C13-2
355	POS-0940	Comp. Clg. Wtr. Disch Cont. CJR 1	Digital	125 VDC	S28	E-235SH.4	C13-1R
356	POS-1014	Receiver Tanks Intake	Digital	125 VDC	J040	E-268	C40
357	POS-1016	Receiver Tanks Intake	Digital	125 VDC	J040	E-268	C40
358	POS-1018	Receiver Tanks Intake	Digital	125 VDC	J040	E-268	C40
359	POS-1502	Cont. Bldg. Steam Discharge	Digital	125 VDC	S22	E-235	C13-3
360	POS-1503	Cont. Steam Iso. Vlv.	Digital	125 VDC	S25	E-235SH.3	C13-2
261	POS-1813	Cont. & Air RM Purge Iso. Vlv.	Digital	125 VDC	J002	E-221	C13-1R
362	POS-1814	Cont. & Air RM Purge Iso. Vlv.	Digital	125 VDC	J001	E-221	C13-1L
363	E/P-2012	Intermd. Press Letdn. Controller	Analog	1-5 VDC	IP64	E-73SH.5	C12-4
364	MO-2140	Make-up Control Sys. Bypass Vlv.	Digital	120 VAC	B227	E-241	C12-1
365	POS-2153	Boric Acid Heat TRC Alm. Block	Digital	120 VAC	MA111	E-205SH.3	C30-A
366	MO-3007	HPSI React Cool LP 1A 3002	Digital	120 VAC	B137	E-244	C03-L
367	MO-3008	LPSI React Cool LP 1A 3002	Digital	120 VAC	B141	E-244	C03-L
368	MO-3009	HPSI React Cool LP 1B 3002	Digital	120 VAC	B197	E-244	C03-L
369	MO-3010	LPSI React Cool LP 1B 3002	Digital	120 VAC	B147	E-244	C03-L
370	MO-3011	HPI React Cool LP 2A 3003	Digital	120 VAC	B157	E-244SH.4	C03-L
371	MO-3012	LPI React Cool LP 2A 3003	Digital	120 VAC	B247	E-244	C03-R
372	MO-3013	HPI React Cool LP 2B 3003	Digital	120 VAC	B151	E-244SH.4	C03-L
373	MO-3014	LPI React Cool LP 2B 3003	Digital	120 VAC	B251	E-244	C03-R
374	MO-3062	Redundant High Pres. Inj.	Digital	120 VAC	B241	E-244	C03-R
375	MO-3064	Redundant High Pres. Inj.	Digital	120 VAC	B237	E-244	C03-R
376	MO-3066	Redundant High Pres. Inj.	Digital	120 VAC	B257	E-244	C03-R
377	MO-3068	Redundant High Pres. Inj.	Digital	120 VAC	B261	E-244	C03-R
378	POS-1501	Cont. Bldg. Steam Discharge	Digital	125 VDC	S21	E-235	C03-1L
379	MO-3010	LPSI React Cool Loop 1B 3002	Digital	120 VAC	B147	E-244	C03-L
380	MO-3011	HPI React Cool Loop 2A 3003	Digital	120 VAC	B157	E-244SH.4	C03-L
381	AI-2401L	CNMT Hydrogen Monitor - High	Digital	125 VDC	K02	9-E-928SH.10	C11A
382	AI-2401R	CNMT Hydrogen Monitor - High	Digital	125 VDC	K02	9-E-928SH.10	C11A
383	RE-2321H	CNMT Gamma Radiation Monitor - High	Digital	125 VDC	K02	9-E-928SH.9	C11A
384	RE-2321A	CNMT Gamma Radiation Monitor - Alert	Digital	125 VDC	K02	9-E-928SH.9	C11A
385	RE-2322H	CNMT Gamma Radialton Monitor - High	Digital	125 VDC	K02	9-E-928SH.9	C11A
386	RE-2322A	CNMT Gamma Radiation Monitor - Alert	Digital	125 VDC	K02	9-E-928SH.9	C11A
387	RE-2323H	Main Steam Radiation Relief Monitor - High	Digital	125 VDC	K02	9-E-928SH.11	C11A
388	RE-2323A	Main Steam Radiation Relief Monitor - Alert	Digital	125 VDC	K02	9-E-928SH.11	C11A
389	RE-2324H	Main Steam Radiation Relief Monitor - High	Digital	125 VDC	K02	9-E-928SH.11	C11A
390	RE-2324A	Main Steam Radiation Relief Monitor - Alert	Digital	125 VDC	K02	9-E-928SH.11	C11A
391	RE-2325/26/27-H	Stack Effluent Radiation Monitor - High	Digital	125 VDC	K02	9-E-928SH.12	C11A
392	RE-2325/26/27-A	Stack Effluent Radiation Monitor - Alert	Digital	125 VDC	K02	9-E-928SH.12	C11A

REFERENCE DWG:

CE Drawing CFM Input List D-578-422-033 SH.1 Thru SH.7 M1-W