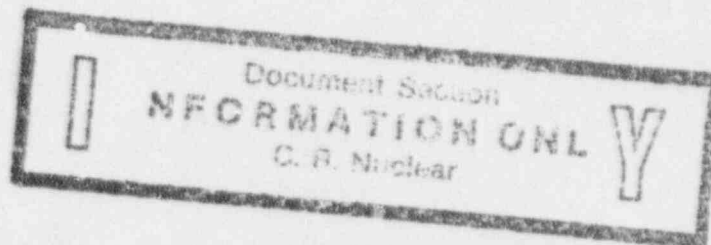


Rev. 16 04/08/93

Effective Date 4/15/93



ANNUNCIATOR RESPONSE

AR-501

FLORIDA POWER CORPORATION

CRYSTAL RIVER UNIT 3

ICS I ANNUNCIATOR RESPONSE

THIS PROCEDURE ADDRESSES SAFETY RELATED COMPONENTS

APPROVED BY: Interpretation Contact

W. Marshall

DATE: 4/14/93

Interpretation Contact: Manager, Nuclear Plant Operations

9304220055 930414  
PDR ADOCK 05000302  
P PDR

## TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
1.0 PURPOSE . . . . .	1
2.0 REFERENCES . . . . .	1
2.1 IMPLEMENTING REFERENCES . . . . .	1
2.2 DEVELOPMENTAL REFERENCES . . . . .	1
3.0 PERSONNEL INDOCTRINATION . . . . .	1
4.0 INSTRUCTIONS . . . . .	1
5.0 FOLLOW-UP ACTIONS . . . . .	1
 <u>ENCLOSURE</u>	
1 Annunciator Response . . . . .	2

## 1.0 PURPOSE

- 1.1 Establish a reference document for each Annunciator Window on the ICS-CY1 Lampbox.
- 1.2 Establish operator actions for valid Annunciator alarms on the ICS-CY1 Lampbox.
- 1.3 Establish a reference to other procedures which address operator actions for valid Annunciator alarms on the ICS-CY1 Lampbox.

## 2.0 REFERENCES

### 2.1 IMPLEMENTING REFERENCES

- 2.1.1 AP-545, Plant Runback
- 2.1.2 OP-302, RC Pump Operation
- 2.1.3 OP-506, LPMS Data Handling Recording and Analysis Equipment

### 2.2 DEVELOPMENTAL REFERENCES

- 2.2.1 INPO 90-021, Good Practice OP-217, Alarm Response Procedures
- 2.2.2 Annunciator Window Engraving Drawing E-224-048

## 3.0 PERSONNEL INDOCTRINATION

- 3.1 The Annunciator System is powered from VBDP-5 Breaker 28.

## 4.0 INSTRUCTIONS

- 4.1 Respond to alarms on the ICS-CY1 Lampbox as indicated on Enclosure 1, Annunciator Response.

## 5.0 FOLLOW-UP ACTIONS

None

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-01-01	I-01-01
----------------------------	---------------	---------

[illegible]

RC PUMP A  
TRIP

## EVENT POINT 1377

INDICATED CONDITION:

- o RCP-1A BREAKER OPEN WITH CONTROL HANDLE IN THE NORMAL AFTER START POSITION.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o GREEN LIGHT ON WITH A RED FLAG ON RCP-1A CONTROL STATION.  
o RCS FLOW IS DECREASING.

OPERATOR ACTIONS FOR A VALID ALARM:

- o REFER TO AP-545

DISCUSSION:

A RCP TRIP SHOULD CAUSE A PLANT RUNBACK AND CAUSE FEEDWATER TO RE-RATIO.  
ADDRESS STS REQUIREMENTS CONCERNING THIS CONDITION

REFERENCES: DRAWING 208-047 SHEET RC-01

SENSING ELEMENT: CONTROL SWITCH AND BREAKER CONTACTS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-01-02	I-01-02
----------------------------	---------------	---------


RC PUMP A  
MTR VIBRATION  
HIGH

## EVENT POINT 1299

### INDICATED CONDITION:

- o RCP-1A MOTOR VIBRATION >2 MILS AS SENSED BY RC-42-MS.

### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o REDUNDANT RCP VIBRATION INDICATIONS AS SEEN ON RCP VIBRATION MONITORING PANEL, LPP-1A.

### OPERATOR ACTIONS FOR A VALID ALARM:

- o REFER TO OP-302 FOR ACTIONS ON HIGH RCP VIBRATION.
- o CONSIDERATION SHOULD BE GIVEN TO SHUTTING DOWN A RCP WITH HIGH VIBRATIONS.

### DISCUSSION:

THE VIBRATION SWITCH RESET PUSHBUTTON ON THE MAIN CONTROL BOARD MUST BE DEPRESSED TO RESET THIS ALARM.

REFERENCES: DRAWING 208-047 SHEET RC-05

SENSING ELEMENT: RC-42-MS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-01-03	I-01-03
----------------------------	---------------	---------


RC PUMP A  
CLG WTR FLOW  
LOW

## EVENT POINT 1419

### INDICATED CONDITION:

- o SW FLOW TO RCP-1A IS <260 GPM AS SENSED BY SW-108-FS2

### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o WHITE RCP-1A SW FLOW INTERLOCK LIGHT NOT ON.

### OPERATOR ACTIONS FOR A VALID ALARM:

- o VERIFY NORMAL SW SYSTEM OPERATION.
- o REFER TO OP-302 FOR SW REQUIREMENTS FOR RUNNING REACTOR COOLANT PUMPS.

### DISCUSSION:

THIS ALARM MAY BE CAUSED BY LARGE SW SYSTEM LOADS. IN THESE INSTANCES CONSIDERATION SHOULD BE GIVEN TO RUNNING SWP-1A OR SWP-1B INSTEAD OF USING THE NORMAL DUTY SW PUMP, SWP-1C.

REFERENCES: DRAWING POR-047 SHEET RC-05

SENSING ELEMENT: SW-108 FS2

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-01-04	1-01-04
----------------------------	---------------	---------


RC PUMP  
OVERCURRENT

EVENT POINT 1378

INDICATED CONDITION:

- o RCP-1A MOTOR AMPS >110% RATED LOAD

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o HIGH MOTOR AMPS INDICATED ON RCP-1A CONTROL STATION.
- o RCP-1A TRIPS

OPERATOR ACTIONS FOR A VALID ALARM:

- o INVESTIGATE CAUSE OF HIGH CURRENT.
- o INSPECT BREAKER FOR DROPPED TARGETS.

DISCUSSION:

THIS ALARM INDICATES THAT EITHER THE TIMED OVERCURRENT OR INSTANTANEOUS OVERCURRENT PROTECTIVE DEVICES HAVE ACTUATED. INSTANTANEOUS OVERCURRENT PROTECTIVE RELAY ACTUATION WILL TRIP THE BREAKER.

IT IS POSSIBLE TO HAVE THIS ALARM PRIOR TO THE BREAKER TRIP.

REFERENCES: DRAWING 208-047 SHEET RC-01

SENSING ELEMENT: 74-RCP-1A

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-01-04	I-01-04
----------------------------	---------------	---------


RC PUMP  
OVERCURRENT

EVENT POINT 1380

INDICATED CONDITION:

- o RCP-1B MOTOR AMPS >110% RATED LOAD

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o HIGH MOTOR AMPS INDICATED ON RCP-1B CONTROL STATION.
- o RCP-1B TRIPS

OPERATOR ACTIONS FOR A VALID ALARM:

- o INVESTIGATE CAUSE OF HIGH CURRENT.
- o INSPECT BREAKER FOR DROPPED TARGETS.

DISCUSSION:

THIS ALARM INDICATES THAT EITHER THE TIMED OVERCURRENT OR INSTANTANEOUS OVERCURRENT PROTECTIVE DEVICES HAVE ACTUATED. INSTANTANEOUS OVERCURRENT PROTECTIVE RELAY ACTUATION WILL TRIP THE BREAKER.

IT IS POSSIBLE TO HAVE THIS ALARM PRIOR TO THE BREAKER TRIP.

REFERENCES: DRAWING 208-047 SHEET RC-02

SENSING ELEMENT: 74-RCP-1B

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-01-04	I-01-04
----------------------------	---------------	---------


RC PUMP  
OVERCURRENT

EVENT POINT 1382

INDICATED CONDITION:

- o RCP-1C MOTOR AMPS >110% RATED LOAD

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o HIGH MOTOR AMPS INDICATED ON RCP-1C CONTROL STATION.
- o RCP-1C TRIPS

OPERATOR ACTIONS FOR A VALID ALARM:

- o INVESTIGATE CAUSE OF HIGH CURRENT.
- o INSPECT BREAKER FOR DROPPED TARGETS.

DISCUSSION:

THIS ALARM INDICATES THAT EITHER THE TIMED OVERCURRENT OR INSTANTANEOUS OVERCURRENT PROTECTIVE DEVICES HAVE ACTUATED. INSTANTANEOUS OVERCURRENT PROTECTIVE RELAY ACTUATION WILL TRIP THE BREAKER.

IT IS POSSIBLE TO HAVE THIS ALARM PRIOR TO THE BREAKER TRIP.

REFERENCES: DRAWING 208-047 SHEET RC-03

SENSING ELEMENT: 74-RCP-1C

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-01-04	I-01-04
----------------------------	---------------	---------


RC PUMP  
OVERCURRENT

EVENT POINT 1384

INDICATED CONDITION:

- o RCP-1D MOTOR AMPS >110% RATED LOAD

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o HIGH MOTOR AMPS INDICATED ON RCP-1D CONTROL STATION.
- o RCP-1D TRIPS

OPERATOR ACTIONS FOR A VALID ALARM:

- o INVESTIGATE CAUSE OF HIGH CURRENT.
- o INSPECT BREAKER FOR DROPPED TARGETS.

DISCUSSION:

THIS ALARM INDICATES THAT EITHER THE TIMED OVERCURRENT OR INSTANTANEOUS OVERCURRENT PROTECTIVE DEVICES HAVE ACTUATED. INSTANTANEOUS OVERCURRENT PROTECTIVE RELAY ACTUATION WILL TRIP THE BREAKER.

IT IS POSSIBLE TO HAVE THIS ALARM PRIOR TO THE BREAKER TRIP.

REFERENCES: DRAWING 208-047 SHEET RC-04

SENSING ELEMENT: 74-RCP-1D

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-01-06	I-01-06
----------------------------	---------------	---------

[illegible]

RC PUMP  
LIFT OIL PUMP  
TRIP

EVENT POINT 1266

INDICATED CONDITION:

- 0 RCP-2A BREAKER OPEN WITH CONTROL HANDLE IN THE NORMAL AFTER START POSITION.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o GREEN LIGHT ON WITH A RED FLAG ON RCP-2A CONTROL STATION

OPERATOR ACTIONS FOR A VALID ALARM:

- o ENSURE DC LIFT OIL PUMP IS OPERATING.
- o INVESTIGATE CAUSE OF PUMP TRIP

DISCUSSION:

REFERENCES: DRAWING 208-047 SHEET RC-09

SENSING ELEMENT: CONTROL SWITCH AND BREAKER CONTACTS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-01-06	I-01-06
----------------------------	---------------	---------

[illegible]

RC PUMP  
LIFT OIL PUMP  
TRIP

EVENT POINT 1269

INDICATED CONDITION:

- 0 RCP-2B BREAKER OPEN WITH CONTROL HANDLE IN THE NORMAL AFTER START POSITION.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- 0 GREEN LIGHT ON WITH A RED FLAG ON RCP-2B CONTROL STATION

OPERATOR ACTIONS FOR A VALID ALARM:

- o ENSURE DC LIFT OIL PUMP IS OPERATING.
- o INVESTIGATE CAUSE OF PUMP TRIP

DISCUSSION:

REFERENCES: DRAWING 208-047 SHEET RC-10

SENSING ELEMENT: CONTROL SWITCH AND BREAKER CONTACTS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-01-06	I-01-06
----------------------------	---------------	---------


RC PUMP  
LIFT OIL PUMP  
TRIP

EVENT POINT 1272

INDICATED CONDITION:

- o RCP-2C BREAKER OPEN WITH CONTROL HANDLE IN THE NORMAL AFTER START POSITION.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o GREEN LIGHT ON WITH A RED FLAG ON RCP-2C CONTROL STATION

OPERATOR ACTIONS FOR A VALID ALARM:

- o ENSURE DC LIFT OIL PUMP IS OPERATING.
- o INVESTIGATE CAUSE OF PUMP TRIP

DISCUSSION:

REFERENCES: DRAWING 208-047 SHEET RC-11

SENSING ELEMENT: CONTROL SWITCH AND BREAKER CONTACTS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-01-06	I-01-06
----------------------------	---------------	---------


RC PUMP  
LIFT OIL PUMP  
TRIP

## EVENT POINT 1275

### INDICATED CONDITION:

- o RCP-2D BREAKER OPEN WITH CONTROL HANDLE IN THE NORMAL AFTER START POSITION.

### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o GREEN LIGHT ON WITH A RED FLAG ON RCP-2D CONTROL STATION

### OPERATOR ACTIONS FOR A VALID ALARM:

- o ENSURE DC LIFT OIL PUMP IS OPERATING.
- o INVESTIGATE CAUSE OF PUMP TRIP

### DISCUSSION:

REFERENCES: DRAWING 208-047 SHEET RC-12

SENSING ELEMENT: CONTROL SWITCH AND BREAKER CONTACTS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-01-06	1-01-06
----------------------------	---------------	---------


RC PUMP  
LIFT OIL PUMP  
TRIP

## EVENT POINT 1277

### INDICATED CONDITION:

- o RCP-3A BREAKER OPEN WITH CONTROL HANDLE IN THE NORMAL AFTER START POSITION.

### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o GREEN LIGHT ON WITH A RED FLAG ON RCP-3A CONTROL STATION

### OPERATOR ACTIONS FOR A VALID ALARM:

- o START AC LIFT OIL PUMP
- o INVESTIGATE CAUSE OF PUMP TRIP

### DISCUSSION:

THE AC LIFT OIL PUMP WILL NOT AUTO START ON A LOW OIL PRESSURE SIGNAL.  
SO THE AC LIFT OIL PUMP MUST BE MANUALLY STARTED.

REFERENCES: DRAWING 208-047 SHEET RC-21

SENSING ELEMENT: CONTROL SWITCH AND BREAKER CONTACTS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-01-06	I-01-06
----------------------------	---------------	---------


RC PUMP  
LIFT OIL PUMP  
TRIP

## EVENT POINT 1281

### INDICATED CONDITION:

- o RCP-3B BREAKER OPEN WITH CONTROL HANDLE IN THE NORMAL AFTER START POSITION.

### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o GREEN LIGHT ON WITH A RED FLAG ON RCP-3B CONTROL STATION

### OPERATOR ACTIONS FOR A VALID ALARM:

- o START AC LIFT OIL PUMP
- o INVESTIGATE CAUSE OF PUMP TRIP

### DISCUSSION:

THE AC LIFT OIL PUMP WILL NOT AUTO START ON A LOW OIL PRESSURE SIGNAL.  
SO THE AC LIFT OIL PUMP MUST BE MANUALLY STARTED.

REFERENCES: DRAWING 208-047 SHEET RC-22

SENSING ELEMENT: CONTROL SWITCH AND BREAKER CONTACTS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-01-06	I-01-06
----------------------------	---------------	---------

[illegible]

RC PUMP  
LIFT OIL PUMP  
TRIP

EVENT POINT 1285

INDICATED CONDITION:

- o RCP-3C BREAKER OPEN WITH CONTROL HANDLE IN THE NORMAL AFTER START POSITION.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o GREEN LIGHT ON WITH A RED FLAG ON RCP-3C CONTROL STATION

OPERATOR ACTIONS FOR A VALID ALARM:

- o START AC LIFT OIL PUMP
- o INVESTIGATE CAUSE OF PUMP TRIP

DISCUSSION:

THE AC LIFT OIL PUMP WILL NOT AUTO START ON A LOW OIL PRESSURE SIGNAL.  
SO THE AC LIFT OIL PUMP MUST BE MANUALLY STARTED.

REFERENCES: DRAWING 208-047 SHEET RC-23

SENSING ELEMENT: CONTROL SWITCH AND BREAKER CONTACTS

ICS-1 ANNUNCIATOR RESPONSE	ICS-CY1-01-06	I-01-06
----------------------------	---------------	---------


RC PUMP  
LIFT OIL PUMP  
TRIP

## EVENT POINT 1289

### INDICATED CONDITION:

- o RCP-3D BREAKER OPEN WITH CONTROL HANDLE IN THE NORMAL AFTER START POSITION.

### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o GREEN LIGHT ON WITH A RED FLAG ON RCP-3D CONTROL STATION

### OPERATOR ACTIONS FOR A VALID ALARM:

- o START AC LIFT OIL PUMP
- o INVESTIGATE CAUSE OF PUMP TRIP

### DISCUSSION:

THE AC LIFT OIL PUMP WILL NOT AUTO START ON A LOW OIL PRESSURE SIGNAL.  
SO THE AC LIFT OIL PUMP MUST BE MANUALLY STARTED.

REFERENCES: DRAWING 208-047 SHEET RC-24

SENSING ELEMENT: CONTROL SWITCH AND BREAKER CONTACTS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-02-01	I-02-01
----------------------------	---------------	---------


RC PUMP B  
TRIP

### EVENT POINT 1379

#### INDICATED CONDITION:

- o RCP-1B BREAKER IS OPEN WITH CONTROL HANDLE IN THE NORMAL AFTER START POSITION.

#### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o GREEN LIGHT ON WITH A RED FLAG ON RCP-1B CONTROL STATION.
- o RCS FLOW IS DECREASING

#### OPERATOR ACTIONS FOR A VALID ALARM:

- o REFER TO AP-545

#### DISCUSSION:

A RCP TRIP SHOULD CAUSE A PLANT RUNBACK AND CAUSE FEEDWATER TO RE-RATIO.  
ADDRESS STS REQUIREMENTS CONCERNING THIS CONDITION

REFERENCES: DRAWING 208-047 SHEET RC-02

SENSING ELEMENT: CONTROL SWITCH AND BREAKER CONTACTS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-02-02	I-02-02
----------------------------	---------------	---------


RC PUMP B  
MTR VIBRATION  
HIGH

EVENT POINT 1312

INDICATED CONDITION:

- o RCP-1B MOTOR VIBRATION >2 MILS AS SENSED BY RC-65-MS

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o REDUNDANT RCP VIBRATION INDICATION AS SEEN ON RCP VIBRATION MONITORING PANEL, LPP-1A

OPERATOR ACTIONS FOR A VALID ALARM:

- o REFER TO OP-302 FOR ACTIONS ON HIGH RCP VIBRATION.
- o CONSIDERATION SHOULD BE GIVEN TO SHUTTING DOWN A RCP WITH HIGH VIBRATION.

DISCUSSION:

THE VIBRATION SWITCH RESET PUSHBUTTON ON THE MAIN CONTROL BOARD MUST BE DEPRESSED TO RESET THIS ALARM.

REFERENCES: DRAWING 208-047 SHEET RC-05

SENSING ELEMENT: RC-65-MS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-02-03	I-02-03
----------------------------	---------------	---------


RC PUMP B  
CLG WTR FLOW  
LOW

## EVENT POINT 1420

### INDICATED CONDITION:

- o RCP-1B SW COOLING FLOW <260 GPM AS SENSED BY SW-114-FS2.

### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o WHITE RCP-1A SW FLOW INTERLOCK LIGHT NOT ON.

### OPERATOR ACTIONS FOR A VALID ALARM:

- o VERIFY NORMAL SW SYSTEM OPERATION.
- o REFER TO OP-302 FOR SW REQUIREMENTS FOR RUNNING REACTOR COOLANT PUMPS.

### DISCUSSION:

THIS ALARM MAY BE CAUSED BY LARGE SW SYSTEM LOADS. IN THESE INSTANCES CONSIDERATION SHOULD BE GIVEN TO RUNNING SWP-1A OR SWP-1B INSTEAD OF USING THE NORMAL DUTY SW PUMP, SWP-1C.

REFERENCES: DRAWING 208-047 SHEET RC-02

SENSING ELEMENT: RC-114-FS2

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-02-04	I-02-04
----------------------------	---------------	---------


RC PUMP MTR  
THRUST BRG  
TEMP HIGH

### EVENT POINT 1304

#### INDICATED CONDITION:

- o RCP UPPER OR LOWER THRUST BEARING TEMPERATURE  $>185^{\circ}$  F AS SEEN ON RCP THRUST BEARING TEMPERATURE MONITOR PANEL, RC-133-TI.

#### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RCP THRUST BEARING TEMPERATURES ON RC-133-TI
- o ABNORMAL RCP VIBRATIONS

#### OPERATOR ACTIONS FOR A VALID ALARM:

- o MONITOR RCP COMPUTER GROUPS FOR ABNORMAL TRENDS:  
RCP-1A - GROUP 78, RCP-1B - GROUP 79, RCP-1C - GROUP 80, RCP-1D - GROUP 81
- o INCREASE COOLING TO RCP'S BY STARTING AN EMERGENCY SW PUMP.
- o IF THRUST BEARING TEMP  $>200^{\circ}$  F THEN START BOTH LIFT OIL PUMPS AND CONTACT SITE NUCLEAR ENGINEERING FOR EVALUATION.

#### DISCUSSION:

THIS ALARM INDICATES A LOSS OF LUBRICATION MAY BE OCCURRING TO THE RCP THRUST BEARINGS. IF TEMPERATURES CONTINUE TO INCREASE CONSIDERATION SHOULD BE GIVEN TO SHUTTING DOWN THE RCP.

REFERENCES: DRAWING 208-047 SHEET RC-027

SENSING ELEMENT: RC-133-TI

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-02-05	I-02-05
----------------------------	---------------	---------

[illegible]

RC PUMP  
LIFT OIL PUMP  
AUTO START

EVENT POINT 1265

INDICATED CONDITION:

- o RCP-2A CONTROL POWER BREAKER CLOSED WITH THE CONTROL HANDLE IN THE NORMAL AFTER STOP POSITION.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RED LIGHT ON WITH A RED FLAG ON RCP-2A CONTROL STATION.
- o RCP-1A TRIP

OPERATOR ACTIONS FOR A VALID ALARM:

- o INVESTIGATE CAUSE OF AUTO START
- o VERIFY PROPER LIFT OIL PRESSURE BY OBSERVING WHITE LIFT OIL PERMISSIVE LIGHT ON.

DISCUSSION:

THE AC LIFT OIL PUMP WILL AUTO START IF THE REACTOR COOLANT PUMP TRIPS OR IS TURNED OFF.

REFERENCES: DRAWING 208-047 SHEET RC-09

SENSING ELEMENT: CONTROL SWITCH AND BREAKER CONTACTS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-02-05	1-02-05
----------------------------	---------------	---------


RC PUMP  
LIFT OIL PUMP  
AUTO START

## EVENT POINT 1268

### INDICATED CONDITION:

- o RCP-2B CONTROL POWER BREAKER CLOSED WITH THE CONTROL HANDLE IN THE NORMAL AFTER STOP POSITION.

### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RED LIGHT ON WITH A RED FLAG ON RCP-2B CONTROL STATION.
- o RCP-1B TRIP

### OPERATOR ACTIONS FOR A VALID ALARM:

- o INVESTIGATE CAUSE OF AUTO START
- o VERIFY PROPER LIFT OIL PRESSURE BY OBSERVING WHITE LIFT OIL PERMISSIVE LIGHT ON.

### DISCUSSION:

THE AC LIFT OIL PUMP WILL AUTO START IF THE REACTOR COOLANT PUMP TRIPS OR IS TURNED OFF.

REFERENCES: DRAWING 208-047 SHEET RC-10

SENSING ELEMENT: CONTROL SWITCH AND BREAKER CONTACTS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-02-05	I-02-05
----------------------------	---------------	---------


RC PUMP  
LIFT OIL PUMP  
AUTO START

## EVENT POINT 1271

### INDICATED CONDITION:

- o RCP-2C CONTROL BREAKER POWER CLOSED WITH THE CONTROL HANDLE IN THE NORMAL AFTER STOP POSITION.

### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RED LIGHT ON WITH A RED FLAG ON RCP-2C CONTROL STATION.
- o RCP-1C TRIP

### OPERATOR ACTIONS FOR A VALID ALARM:

- o INVESTIGATE CAUSE OF AUTO START
- o VERIFY PROPER LIFT OIL PRESSURE BY OBSERVING WHITE LIFT OIL PERMISSIVE LIGHT ON.

### DISCUSSION:

THE AC LIFT OIL PUMP WILL AUTO START IF THE REACTOR COOLANT PUMP TRIPS OR IS TURNED OFF.

REFERENCES: DRAWING 208-047 SHEET RC-11

SENSING ELEMENT: CONTROL SWITCH AND BREAKER CONTACTS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-02-05	I-02-05
----------------------------	---------------	---------


RC PUMP  
LIFT OIL PUMP  
AUTO START

## EVENT POINT 1274

### INDICATED CONDITION:

- o RCP-2D CONTROL POWER BREAKER CLOSED WITH THE CONTROL HANDLE IN THE NORMAL AFTER STOP POSITION.

### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RED LIGHT ON WITH A RED FLAG ON RCP-2D CONTROL STATION.
- o RCP-1D TRIP

### OPERATOR ACTIONS FOR A VALID ALARM:

- o INVESTIGATE CAUSE OF AUTO START
- o VERIFY PROPER LIFT OIL PRESSURE BY OBSERVING WHITE LIFT OIL PERMISSIVE LIGHT ON.

### DISCUSSION:

THE AC LIFT OIL PUMP WILL AUTO START IF THE REACTOR COOLANT PUMP TRIPS OR IS TURNED OFF.

REFERENCES: DRAWING 208-047 SHEET RC-12

SENSING ELEMENT: CONTROL SWITCH AND BREAKER CONTACTS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-02-05	1-02-05
----------------------------	---------------	---------

[illegible]

RC PUMP  
LIFT OIL PUMP  
AUTO START

EVENT POINT 1278

INDICATED CONDITION:

- 0 RCP-3A CONTROL POWER BREAKER CLOSED WITH THE CONTROL HANDLE IN THE NORMAL AFTER STOP POSITION.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RED LIGHT ON WITH A RED FLAG ON RCP-3A CONTROL STATION.
- o RCP-2A TRIP

OPERATOR ACTIONS FOR A VALID ALARM:

- o INVESTIGATE CAUSE OF AUTO START
- o VERIFY PROPER LIFT OIL PRESSURE BY OBSERVING WHITE LIFT OIL PERMISSIVE LIGHT ON.

DISCUSSION:

THE DC LIFT OIL PUMP WILL AUTO START IF THE REACTOR COOLANT PUMP TRIPS OR IS TURNED OFF AND LIFT OIL PRESSURE IS <110 PSIG AS SENSED BY RC-43-RS5.

REFERENCES: DRAWING 208-047 SHEET RC-21

SENSING ELEMENT: CONTROL SWITCH AND BREAKER CONTACTS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-02-05	1-02-05
----------------------------	---------------	---------


RC PUMP  
LIFT OIL PUMP  
AUTO START

## EVENT POINT 1282

### INDICATED CONDITION:

- o RCP-3B CONTROL POWER BREAKER CLOSED WITH THE CONTROL HANDLE IN THE NORMAL AFTER STOP POSITION.

### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RED LIGHT ON WITH A RED FLAG ON RCP-3B CONTROL STATION.
- o RCP-2B TRIP

### OPERATOR ACTIONS FOR A VALID ALARM:

- o INVESTIGATE CAUSE OF AUTO START
- o VERIFY PROPER LIFT OIL PRESSURE BY OBSERVING WHITE LIFT OIL PERMISSIVE LIGHT ON.

### DISCUSSION:

THE DC LIFT OIL PUMP WILL AUTO START IF THE REACTOR COOLANT PUMP TRIPS OR IS TURNED OFF AND LIFT OIL PRESSURE IS <110 PSIG AS SENSED BY RC-66-RS5.

REFERENCES: DRAWING 208-047 SHEET RC-22

SENSING ELEMENT: CONTROL SWITCH AND BREAKER CONTACTS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-02-05	I-02-05
----------------------------	---------------	---------


RC PUMP  
LIFT OIL PUMP  
AUTO START

## EVENT POINT 1286

### INDICATED CONDITION:

- o RCP-3C CONTROL POWER BREAKER CLOSED WITH THE CONTROL HANDLE IN THE NORMAL AFTER STOP POSITION.

### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RED LIGHT ON WITH A RED FLAG ON RCP-3C CONTROL STATION.
- o RCP-2C TRIP

### OPERATOR ACTIONS FOR A VALID ALARM:

- o INVESTIGATE CAUSE OF AUTO START
- o VERIFY PROPER LIFT OIL PRESSURE BY OBSERVING WHITE LIFT OIL PERMISSIVE LIGHT ON.

### DISCUSSION:

THE DC LIFT OIL PUMP WILL AUTO START IF THE REACTOR COOLANT PUMP TRIPS OR IS TURNED OFF AND LIFT OIL PRESSURE IS <110 PSIG AS SENSED BY RC-89-RS5.

REFERENCES: DRAWING 208-047 SHEET PG 23

SENSING ELEMENT: CONTROL SWITCH AND BREAKER CONTACTS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-02-05	I-02-05
----------------------------	---------------	---------


RC PUMP  
LIFT OIL PUMP  
AUTO START

## EVENT POINT 1290

### INDICATED CONDITION:

- o RCP-3D CONTROL POWER BREAKER CLOSED WITH THE CONTROL HANDLE IN THE NORMAL AFTER STOP POSITION.

### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RED LIGHT ON WITH A RED FLAG ON RCP-3D CONTROL STATION.
- o RCP-2D TRIP

### OPERATOR ACTIONS FOR A VALID ALARM:

- o INVESTIGATE CAUSE OF AUTO START
- o VERIFY PROPER LIFT OIL PRESSURE BY OBSERVING WHITE LIFT OIL PERMISSIVE LIGHT ON.

### DISCUSSION:

THE D<sup>o</sup> LIFT OIL PUMP WILL AUTO START IF THE REACTOR COOLANT PUMP TRIPS OR IS TURNED OFF AND LIFT OIL PRESSURE IS <110 PSIG AS SENSED BY RC-112-RS5.

REFERENCES: DRAWING 208-047 SHEET RC-24

SENSING ELEMENT: CONTROL SWITCH AND BREAKER CONTACTS

1-u2-06

RC PUMP  
OIL LIFT PUMP  
OVERLOAD

INDICATED CONDITION:

- REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- OPERATOR ACTIONS FOR A VALID ALARM:

- DISCUSSION:

REFERENCES: DRAWING 208-047 SHEET RC-21

Page 29

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-02-06	1-02-06
----------------------------	---------------	---------

[illegible]

RC PUMP  
OIL LIFT PUMP  
OVERLOAD

EVENT POINT 1283

INDICATED CONDITION:

- o RCP-3B MOTOR AMPS >115% RATED LOAD.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o HIGH BATTERY AMPS
- o LOW LIFT OIL PRESSURE (WHITE LIFT OIL PERMISSIVE LIGHT IS OFF)

OPERATOR ACTIONS FOR A VALID ALARM:

- o START RCP-2B, SHUT DOWN RCP-3B
- o INVESTIGATE CAUSE OF OVERLOAD CONDITION.

DISCUSSION:

IF PROPER LIFT OIL PRESSURE CANNOT BE MAINTAINED WITH THE AC PUMP RUNNING THEN CONSIDERATION SHOULD BE GIVEN TO SHUTTING DOWN THE AC LIFT OIL PUMP AND INVESTIGATING THE LIFT OIL SYSTEM.

REFERENCES: DRAWING 208-047 SHEET RC-22

SENSING ELEMENT: 49, BREAKER OVERLOAD RELAY

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-02-06	I-02-06
----------------------------	---------------	---------

[illegible]

RC PUMP  
OIL LIFT PUMP  
OVERLOAD

EVENT POINT 1287

INDICATED CONDITION:

- o RCP-3C MOTOR AMPS >115% RATED LOAD.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o HIGH BATTERY AMPS
- o LOW LIFT OIL PRESSURE (WHITE LIFT OIL PERMISSIVE LIGHT IS OFF)

OPERATOR ACTIONS FOR A VALID ALARM:

- o START RCP-2C, SHUT DOWN RCP-3C
- o INVESTIGATE CAUSE OF OVERLOAD CONDITION.

DISCUSSION:

IF PROPER LIFT OIL PRESSURE CANNOT BE MAINTAINED WITH THE AC PUMP RUNNING THEN CONSIDERATION SHOULD BE GIVEN TO SHUTTING DOWN THE AC LIFT OIL PUMP AND INVESTIGATING THE LIFT OIL SYSTEM.

REFERENCES: DRAWING 208-047 SHEET RC-23

SENSING ELEMENT: 49, BREAKER OVERLOAD RELAY

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-02-06	I-02-06
----------------------------	---------------	---------

[illegible]

RC PUMP  
OIL LIFT PUMP  
OVERLOAD

EVENT POINT 1291

INDICATED CONDITION:

- o RCP-3D MOTOR AMPS >115% RATED LOAD.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o HIGH BATTERY AMPS
- o LOW LIFT OIL PRESSURE (WHITE LIFT OIL PERMISSIVE LIGHT IS OFF)

OPERATOR ACTIONS FOR A VALID ALARM:

- o START RCP-2D, SHUT DOWN RCP-3D
- o INVESTIGATE CAUSE OF OVERLOAD CONDITION.

DISCUSSION:

IF PROPER LIFT OIL PRESSURE CANNOT BE MAINTAINED WITH THE AC PUMP RUNNING THEN CONSIDERATION SHOULD BE GIVEN TO SHUTTING DOWN THE AC LIFT OIL PUMP AND INVESTIGATING THE LIFT OIL SYSTEM.

REFERENCES: DRAWING 208-047 SHEET RC-24

SENSING ELEMENT: 49, BREAKER OVERLOAD RELAY

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-03-01	I-03-01
----------------------------	---------------	---------


RC PUMP C  
TRIP

### EVENT POINT 1381

#### INDICATED CONDITION:

- o RCP-1C BREAKER OPEN WITH CONTROL HANDLE IN THE NORMAL AFTER START POSITION.

#### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o GREEN LIGHT ON WITH A RED FLAG ON RCP-1C CONTROL STATION.
- o RCS FLOW IS DECREASING.

#### OPERATOR ACTIONS FOR A VALID ALARM:

- o REFER TO AP-545

#### DISCUSSION:

A RCP TRIP SHOULD CAUSE A PLANT RUNBACK AND CAUSE FEEDWATER TO RE-RATIO.  
ADDRESS STS REQUIREMENTS CONCERNING THIS CONDITION

REFERENCES: DRAWING 208-047 SHEET RC-03

SENSING ELEMENT: CONTROL SWITCH AND BREAKER CONTACTS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-03-02	I-03-02
----------------------------	---------------	---------


RC PUMP C  
MTR VIBRATION  
HIGH

## EVENT POINT 1324

### INDICATED CONDITION:

- o RCP-1C MOTOR VIBRATION >2 MILS AS SENSED BY RC-88-MS

### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o REDUNDANT RCP VIBRATION INDICATION AS SEEN ON RCP VIBRATION MONITORING PANEL, LPP-1A

### OPERATOR ACTIONS FOR A VALID ALARM:

- o REFER TO OP-302 FOR ACTIONS ON HIGH RCP VIBRATION.
- o CONSIDERATION SHOULD BE GIVEN TO SHUTTING DOWN A RCP WITH HIGH VIBRATIONS.

### DISCUSSION:

THE VIBRATION SWITCH RESET PUSHBUTTON ON THE MAIN CONTROL BOARD MUST BE DEPRESSED TO RESET THIS ALARM.

### REFERENCES: DRAWING 208-047 SHEET RC-07

SENSING ELEMENT: RC-88-MS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-03-03	I-03-03
----------------------------	---------------	---------


RC PUMP C  
CLG WTR FLOW  
LOW

## EVENT POINT 1421

### INDICATED CONDITION:

- o RCP-1C SW COOLING FLOW <260 GPM AS SENSED BY SW-96-FS2.

### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o WHITE RCP-1C SW FLOW INTERLOCK LIGHT NOT ON.

### OPERATOR ACTIONS FOR A VALID ALARM:

- o VERIFY NORMAL SW SYSTEM OPERATION.
- o REFER TO OP-302 FOR SW REQUIREMENTS FOR RUNNING REACTOR COOLANT PUMPS.

### DISCUSSION:

THIS ALARM MAY BE CAUSED BY LARGE SW SYSTEM LOADS. IN THESE INSTANCES CONSIDERATION SHOULD BE GIVEN TO RUNNING SWP-1A OR SWP-1B INSTEAD OF USING THE NORMAL DUTY SW PUMP, SWP-1C.

REFERENCES: DRAWING 208-047 SHEET RC-03

SENSING ELEMENT: SW-96-FS2

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-03-04	I-03-04
----------------------------	---------------	---------


RC PUMP  
VIBRATION  
ALERT

EVENT POINT 0811

INDICATED CONDITION:

- o RCP-1A VIBRATION GREATER THAN SETPOINT ON BENTLY NEVADA VIBRATION MONITORING PANEL.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o FLASHING ALERT LIGHT ON BENTLY NEVADA RCP VIBRATION MONITORING PANEL.
- o REDUNDANT READINGS ON THE BENTLY NEVADA VIBRATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o REFER TO OP-302 FOR VIBRATION GUIDELINES.

DISCUSSION:

REFERENCES: BENTLY NEVADA DRAWINGS

SENSING ELEMENT: VARIOUS RCP VIBRATION PICKUPS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-03-04	I-03-04
----------------------------	---------------	---------


RC PUMP  
VIBRATION  
ALERT

EVENT POINT 0812

INDICATED CONDITION:

- o RCP-1B VIBRATION GREATER THAN SETPOINT ON BENTLY NEVADA VIBRATION MONITORING PANEL.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o FLASHING ALERT LIGHT ON BENTLY NEVADA RCP VIBRATION MONITORING PANEL.
- o REDUNDANT READINGS ON THE BENTLY NEVADA VIBRATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o REFER TO OP-302 FOR VIBRATION GUIDELINES.

DISCUSSION:

REFERENCES: BENTLY NEVADA DRAWINGS

SENSING ELEMENT: VARIOUS RCP VIBRATION PICKUPS

ICS-1 ANNUNCIATOR RESPONSE	ICS-CY1-03-04	I-03-04
----------------------------	---------------	---------


RC PUMP  
VIBRATION  
ALERT

EVENT POINT 0813

INDICATED CONDITION:

- o RCP-1C VIBRATION GREATER THAN SETPOINT ON BENTLY NEVADA VIBRATION MONITORING PANEL.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o FLASHING ALERT LIGHT ON BENTLY NEVADA RCP VIBRATION MONITORING PANEL.
- o REDUNDANT READINGS ON THE BENTLY NEVADA VIBRATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o REFER TO OP-302 FOR VIBRATION GUIDELINES.

DISCUSSION:

REFERENCES: BENTLY NEVADA DRAWINGS

SENSING ELEMENT: VARIOUS RCP VIBRATION PICKUPS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-03-04	I-03-04
----------------------------	---------------	---------


RC PUMP  
VIBRATION  
ALERT

**EVENT POINT 0821**

INDICATED CONDITION:

- o RCP-1D VIBRATION GREATER THAN SETPOINT ON BENTLY NEVADA VIBRATION MONITORING PANEL.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o FLASHING ALERT LIGHT ON BENTLY NEVADA RCP VIBRATION MONITORING PANEL.
- o REDUNDANT READINGS ON THE BENTLY NEVADA VIBRATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o REFER TO OP-302 FOR VIBRATION GUIDELINES.

DISCUSSION:

REFERENCES: BENTLY NEVADA DRAWINGS

SENSING ELEMENT: VARIOUS RCP VIBRATION PICKUPS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-03-04	I-03-04
----------------------------	---------------	---------


RC PUMP  
VIBRATION  
ALERT

## EVENT POINT 1937

### INDICATED CONDITION:

- o RCP BENTLY NEVADA VIBRATION MONITORING PANEL VIBRATION DETECTOR NOT OK

### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o FLASHING BYPASSED INDICATION ON THE BENTLY NEVADA VIBRATION MONITORING PANEL.

### OPERATOR ACTIONS FOR A VALID ALARM:

- o CONTACT SITE NUCLEAR ENGINEERING

### DISCUSSION:

THIS ALARM INDICATES THAT ONE OF THE VIBRATION PICKUPS IS MALFUNCTIONING. ENGINEERING SHOULD BE NOTIFIED.

REFERENCES: BENTLY NEVADA DRAWINGS

SENSING ELEMENT: VARIOUS RCP VIBRATION PICKUPS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-03-05	I-03-05
----------------------------	---------------	---------


RC PUMP  
MTR OIL LEVEL  
HIGH/LOW

## EVENT POINT 1294

### INDICATED CONDITION:

- o RCP-1A MOTOR UPPER OIL LEVEL >1.25" ABOVE NORMAL AS SENSED BY RC-39-LSH.

### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RCP MOTOR OIL LEVEL INDICATION, RC-190-LI, INDICATES HIGH LEVEL.

### OPERATOR ACTIONS FOR A VALID ALARM:

- o TREND RCP-1A MOTOR UPPER OIL LEVEL WITH RC-190-LI.
- o MONITOR RCP-1A USING COMPUTER GROUP 78.
- o NOTIFY SITE NUCLEAR ENGINEERING.

### DISCUSSION:

RC PUMP MOTOR UPPER OIL RESERVOIR HOLDS APPROXIMATELY 175 GALLONS.  
NORMAL LEVEL IS 23 3/16".

REFERENCES: DRAWING 20P 47 SHEET RC-05

SENSING ELEMENT: RC-39-LSH

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-03-05	I-03-05
----------------------------	---------------	---------


RC PUMP  
MTR OIL LEVEL  
HIGH/LOW

## EVENT POINT 1295

### INDICATED CONDITION:

- o RCP-1A MOTOR UPPER OIL LEVEL >.75" BELOW NORMAL AS SENSED BY RC-39-LSL.

### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RCP MOTOR OIL LEVEL INDICATION, RC-190-LI, INDICATES LOW LEVEL.

### OPERATOR ACTIONS FOR A VALID ALARM:

- o TREND RCP-1A UPPER MOTOR OIL LEVEL WITH RC-190-LI.
- o MONITOR RCP-1A USING COMPUTER GROUP 78.
- o NOTIFY SITE NUCLEAR ENGINEERING.
- o NOTIFY ELECTRIC SHOP TO PREPARE TO ADD OIL TO MOTOR.

### DISCUSSION:

RC PUMP MOTOR UPPER OIL RESERVOIR HOLDS APPROXIMATELY 175 GALLONS.  
NORMAL LEVEL IS 23 3/16".

### REFERENCES: DRAWING 208-047 SHEET RC-05

### SENSING ELEMENT: RC-39-LSL

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-03-05	I-03-05
----------------------------	---------------	---------

[illegible]

RC PUMP  
MTR OIL LEVEL  
HIGH/LOW

EVENT POINT 1296

INDICATED CONDITION:

- o RCP-1A MOTOR LOWER OIL LEVEL >1" ABOVE NORMAL AS SENSED BY RC-40-LSH.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RCP MOTOR OIL LEVEL INDICATION, RC-190-LI, INDICATES LOW LEVEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o TREND RCP-1A LOWER MOTOR OIL LEVEL WITH RC-190-L1.
- o MONITOR RCP-1A USING COMPUTER GROUP 78.
- o NOTIFY SITE NUCLEAR ENGINEERING.

DISCUSSION:

RC PUMP MOTOR LOWER OIL RESERVOIR HOLDS APPROXIMATELY 15 GALLONS.  
NORMAL LEVEL IS 14 9/16".

REFERENCES: DRAWING 208-047 SHEET RC-05

SENSING ELEMENT: RC-40-LSH

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-03-05	I-03-05
----------------------------	---------------	---------

[illegible]

RC PUMP  
MTR OIL LEVEL  
HIGH/LOW

EVENT POINT 1297

INDICATED CONDITION:

- o RCP-1A MOTOR LOWER OIL LEVEL >1" BELOW NORMAL AS SENSED BY RC-40-LSL.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RCP MOTOR OIL LEVEL INDICATION, RC-190-LI, INDICATES LOW LEVEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o TREND RCP-1A LOWER MOTOR OIL LEVEL WITH RC-190-L1.
- o MONITOR RCP-1A USING COMPUTER GROUP 78.
- o NOTIFY SITE NUCLEAR ENGINEERING.
- o NOTIFY ELECTRIC SHOP TO PREPARE TO ADD OIL TO MOTOR.

DISCUSSION:

RC PUMP MOTOR LOWER OIL RESERVOIR HOLDS APPROXIMATELY 15 GALLONS.  
NORMAL LEVEL IS 14 9/16".

REFERENCES: DRAWING 208-047 SHEET RC-05

SENSING ELEMENT: RC-40-LSL

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-03-05	I-03-05
----------------------------	---------------	---------

[illegible]

RC PUMP  
MTR OIL LEVEL  
HIGH/LOW

EVENT POINT 1307

INDICATED CONDITION:

- o RCP-1B MOTOR UPPER OIL LEVEL >1.25" ABOVE NORMAL AS SENSED BY RC-62-LSH.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RCP MOTOR OIL LEVEL INDICATION, RC-190-LI, INDICATES HIGH LEVEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o TREND RCP-1B MOTOR UPPER OIL LEVEL WITH RC-190-LI.
- o MONITOR RCP-1B USING COMPUTER GROUP 79.
- o NOTIFY SITE NUCLEAR ENGINEERING.

DISCUSSION:

RC PUMP MOTOR UPPER OIL RESERVOIR HOLDS APPROXIMATELY 175 GALLONS.  
NORMAL LEVEL IS 23 3/16".

REFERENCES: DRAWING 208-047 SHEET RC-06

SENSING ELEMENT: RC-62-LSH

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-03-05	I-03-05
----------------------------	---------------	---------

[illegible]

RC PUMP  
MTR OIL LEVEL  
HIGH/LOW

EVENT POINT 1308

INDICATED CONDITION:

- o RCP-1B MOTOR UPPER OIL LEVEL  $>.75"$  BELOW NORMAL AS SENSED BY RC-62-LSL.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- 0 RCP MOTOR OIL LEVEL INDICATION, RC-190-LI, INDICATES LOW LEVEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o TREND RCP-1B UPPER MOTOR OIL LEVEL WITH RC-190-LI.
- o MONITOR RCP-1B USING COMPUTER GROUP 79.
- o NOTIFY SITE NUCLEAR ENGINEERING.
- o NOTIFY ELECTRIC SHOP TO PREPARE TO ADD OIL TO MOTOR.

DISCUSSION:

RC PUMP MOTOR UPPER OIL RESERVOIR HOLDS APPROXIMATELY 175 GALLONS.  
NORMAL LEVEL IS 23 3/16".

REFERENCES: DRAWING 208-047 SHEET RC-06

SENSING ELEMENT: RC-62-LSL

I-03-05

RC PUMP  
MTR OIL LEVEL  
HIGH/LOW

EVENT POINT 1309

INDICATED CONDITION:

- o RCP-1B MOTOR LOWER OIL LEVEL >1" ABOVE NORMAL AS SENSED BY RC-63-LSH.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RCP MOTOR OIL LEVEL INDICATION, RC-190-LI, INDICATES HIGH LEVEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o TREND RCP-1B LOWER MOTOR OIL LEVEL WITH RC-190-LI.
- o MONITOR RCP-1B USING COMPUTER GROUP 79.
- o NOTIFY SITE NUCLEAR ENGINEERING.

DISCUSSION:

RC PUMP MOTOR LOWER OIL RESERVOIR HOLDS APPROXIMATELY 15 GALLONS.  
NORMAL LEVEL IS 14 9/16".

REFERENCES: DRAWING 208-047 SHEET RC-06

SENSING ELEMENT: RC-63-LSH

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-03-05	I-03-05
----------------------------	---------------	---------

[illegible]

RC PUMP  
MTR OIL LEVEL  
HIGH/LOW

EVENT POINT 1310

INDICATED CONDITION:

- o RCP-1B MOTOR LOWER OIL LEVEL >1" BELOW NORMAL AS SENSED BY RC-63-LSL.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RCP MOTOR OIL LEVEL INDICATION, RC-190-LI, INDICATES LOW LEVEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o TREND RCP-1B LOWER MOTOR OIL LEVEL WITH RC-190-LI.
- o MONITOR RCP-1B USING COMPUTER GROUP 79.
- o NOTIFY SITE NUCLEAR ENGINEERING.
- o NOTIFY ELECTRIC SHOP TO PREPARE TO ADD OIL TO MOTOR.

DISCUSSION:

RC PUMP MOTOR LOWER OIL RESERVOIR HOLDS APPROXIMATELY 15 GALLONS.  
NORMAL LEVEL IS 14 9/16".

REFERENCES: DRAWING 208-047 SHEET RC-06

SENSING ELEMENT: RC-63-LSL

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-03-05	I-03-05
----------------------------	---------------	---------

[illegible]

RC PUMP  
MTR OIL LEVEL  
HIGH/LOW

EVENT POINT 1319

INDICATED CONDITION:

- o RCP-1C MOTOR UPPER OIL LEVEL >1.25" ABOVE NORMAL AS SENSED BY RC-85-LSH.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RCP MOTOR OIL LEVEL INDICATION, RC-190-LI, INDICATES HIGH LEVEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o TREND RCP-1C MOTOR UPPER OIL LEVEL WITH RC-190-LI.
- o MONITOR RCP-1C USING COMPUTER GROUP 80.
- o NOTIFY SITE NUCLEAR ENGINEERING.

DISCUSSION:

RC PUMP MOTOR UPPER OIL RESERVOIR HOLDS APPROXIMATELY 175 GALLONS.  
NORMAL LEVEL IS 23 3/16".

REFERENCES: DRAWING 208-047 SHEET RC-07

SENSING ELEMENT: RC-85-LSH

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-03-05	I-03-05
----------------------------	---------------	---------

[illegible]

RC PUMP  
MTR OIL LEVEL  
HIGH/LOW

EVENT POINT 1320

INDICATED CONDITION:

- o RCP-1C MOTOR UPPER OIL LEVEL >.75" BELOW NORMAL AS SENSED BY RC-85-LSL.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RCP MOTOR OIL LEVEL INDICATION, RC-190-LI, INDICATES LOW LEVEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o TREND RCP-1C UPPER MOTOR OIL LEVEL WITH RC-190-LI.
- o MONITOR RCP-1C USING COMPUTER GROUP 80.
- o NOTIFY SITE NUCLEAR ENGINEERING.
- o NOTIFY ELECTRIC SHOP TO PREPARE TO ADD OIL TO MOTOR.

DISCUSSION:

RC PUMP MOTOR UPPER OIL RESERVOIR HOLDS APPROXIMATELY 175 GALLONS.  
NORMAL LEVEL IS 23 3/16".

REFERENCES: DRAWING 208-047 SHEET RC-07

SENSING ELEMENT: RC-85-LSL

1-03-05

RC PUMP  
MTR OIL LEVEL  
HIGH/LOW

EVENT POINT 1321

INDICATED CONDITION:

- o RCP-1C MOTOR LOWER OIL LEVEL >1" ABOVE NORMAL AS SENSED BY RC-86-LSH.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RCP MOTOR OIL LEVEL INDICATION, RC-190-LI, INDICATES HIGH LEVEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o TREND RCP-1C LOWER MOTOR OIL LEVEL WITH RC-190-LI.
- o MONITOR RCP-1C USING COMPUTER GROUP 80.
- o NOTIFY SITE NUCLEAR ENGINEERING.

DISCUSSION:

RC PUMP MOTOR LOWER OIL RESERVOIR HOLDS APPROXIMATELY 15 GALLONS.  
NORMAL LEVEL IS 14 9/16".

REFERENCES: DRAWING 208-047 SHEET RC-07

SENSING ELEMENT: RC-86-LSH

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-03-05	1-03-05
----------------------------	---------------	---------

[illegible]

RC PUMP  
MTR OIL LEVEL  
HIGH/LOW

EVENT POINT 1322

INDICATED CONDITION:

- o RCP-1C MOTOR LOWER OIL LEVEL >1" BELOW NORMAL AS SENSED BY RC-86-LSL.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RCP MOTOR OIL LEVEL INDICATION, RC-190-LI, INDICATES LOW LEVEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o TREND RCP-1C LOWER MOTOR OIL LEVEL WITH RC-190-LI.
- o MONITOR RCP-1C USING COMPUTER GROUP 80.
- o NOTIFY SITE NUCLEAR ENGINEERING.
- o NOTIFY ELECTRIC SHOP TO PREPARE TO ADD OIL TO MOTOR.

DISCUSSION:

RC PUMP MOTOR LOWER OIL RESERVOIR HOLDS APPROXIMATELY 15 GALLONS.  
NORMAL LEVEL IS 14 9/16".

REFERENCES: DRAWING 208-047 SHEET RC-07

SENSING ELEMENT: RC-86-LSL

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-03-05	I-03-05
----------------------------	---------------	---------

[illegible]

RC PUMP  
MTR OIL LEVEL  
HIGH/LOW

EVENT POINT 1331

INDICATED CONDITION:

- o RCP-1D MOTOR UPPER OIL LEVEL >1.25" ABOVE NORMAL AS SENSED BY RC-108-LSH.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RCP MOTOR OIL LEVEL INDICATION, RC-190-LI, INDICATES HIGH LEVEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o TREND RCP-1D MOTOR UPPER OIL LEVEL WITH RC-190-LI.
- o MONITOR RCP-1D USING COMPUTER GROUP 81.
- o NOTIFY SITE NUCLEAR ENGINEERING.

DISCUSSION:

RC PUMP MOTOR UPPER OIL RESERVOIR HOLDS APPROXIMATELY 175 GALLONS.  
NORMAL LEVEL IS 23 3/16".

REFERENCES: DRAWING 208-CUT SHEET RC-08

SENSING ELEMENT: RC-108-LSH

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-03-05	I-03-05
----------------------------	---------------	---------

[illegible]

RC PUMP  
MTR OIL LEVEL  
HIGH/LOW

EVENT POINT 1332

INDICATED CONDITION:

- o RCP-1D MOTOR UPPER OIL LEVEL >.75" BELOW NORMAL AS SENSED BY RC-108-LSL.

REDUNDANT INFORMATION WHICH WILL VERIFY ALARM:

- o RCP MOTOR OIL LEVEL INDICATION, RC-190-LI, INDICATES LOW LEVEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o TREND RCP-1D UPPER MOTOR OIL LEVEL WITH RC-190-LI.
- o MONITOR RCP-1D USING COMPUTER GROUP 81.
- o NOTIFY SITE NUCLEAR ENGINEERING.
- o NOTIFY ELECTRIC SHOP TO PREPARE TO ADD OIL TO MOTOR.

DISCUSSION:

RC PUMP MOTOR UPPER OIL RESERVOIR HOLDS APPROXIMATELY 175 GALLONS.  
NORMAL LEVEL IS 23 3/16".

REFERENCES: DRAWING 208-047 SHEET RC-08

SENSING ELEMENT: RC-108-LSL

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-03-05	I-03-05
----------------------------	---------------	---------

[illegible]

RC PUMP  
MTR OIL LEVEL  
HIGH/LOW

EVENT POINT 1333

INDICATED CONDITION:

- o RCP-1D MOTOR LOWER OIL LEVEL >1" ABOVE NORMAL AS SENSED BY RC-108-LSH.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RCP MOTOR OIL LEVEL INDICATION, RC-190-LI, INDICATES HIGH LEVEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o TREND RCP-1D LOWER MOTOR OIL LEVEL WITH RC-190-LI.
- o MONITOR RCP-1D USING COMPUTER GROUP 81.
- o NOTIFY SITE NUCLEAR ENGINEERING.

DISCUSSION:

RC PUMP MOTOR LOWER OIL RESERVOIR HOLDS APPROXIMATELY 15 GALLONS.  
NORMAL LEVEL IS 14 9/16".

REFERENCES: DRAWING 208-047 SHEET RC-08

SENSING ELEMENT: RC-108-LSH

I-03-05

RC PUMP  
MTR OIL LEVEL  
HIGH/LOW

INDICATED CONDITION:

- REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- OPERATOR ACTIONS FOR A VALID ALARM:

- DISCUSSION:

REFERENCES: DRAWING 208-047 SHEET RC-08

Page 56

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-03-06	I-03-06
----------------------------	---------------	---------

[illegible]

RC PUMP  
AIR COOLER  
LEAK

EVENT POINT 1298

INDICATED CONDITION:

- o RCP-1A MOTOR COOLER SW LEAK AS SENSED BY RC-41-LS

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- 6 SW COOLING WATER SUPPLY TO COOLER DIFFERENTIAL FLOW ALARM

OPERATOR ACTIONS FOR A VALID ALARM:

- o MONITOR RCP-1A PARAMETERS USING COMPUTER GROUP 78
- o NOTIFY SITE NUCLEAR ENGINEERING

DISCUSSION:

CONSIDERATION SHOULD BE GIVEN TO SHUTTING DOWN RCP-1A IF THERE IS A SUBSTANTIAL AIR COOLER LEAK.

REFERENCES: DRAWING 208-047 SHEET RC-05

SENSING ELEMENT: RC-41-LS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-03-06	I-03-06
----------------------------	---------------	---------

[illegible]

RC PUMP  
AIR COOLER  
LEAK

EVENT POINT 1311

INDICATED CONDITION:

- o RCP-1B MOTOR COOLER SW LEAK AS SENSED BY RC-64-LS

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o SW COOLING WATER SUPPLY TO COOLER DIFFERENTIAL FLOW ALARM

OPERATOR ACTIONS FOR A VALID ALARM:

- o MONITOR RCP-1B PARAMETERS USING COMPUTER GROUP 79
- o NOTIFY SITE NUCLEAR ENGINEERING

DISCUSSION:

CONSIDERATION SHOULD BE GIVEN TO SHUTTING DOWN RCP-1B IF THERE IS A SUBSTANTIAL AIR COOLER LEAK.

REFERENCES: DRAWING 208-047 SHEET RC-06

SENSING ELEMENT: RC-64-LS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-03-06	I-03-06
----------------------------	---------------	---------

[illegible]

RC PUMP  
AIR COOLER  
LEAK

EVENT POINT 1323

INDICATED CONDITION:

- 0 RCP-1C MOTOR COOLER SW LEAK AS SENSED BY RC-87-LS

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- 0 SW COOLING WATER SUPPLY TO COOLER DIFFERENTIAL FLOW ALARM

OPERATOR ACTIONS FOR A VALID ALARM:

- o MONITOR RCP-1C PARAMETERS USING COMPUTER GROUP 80  
o NOTIFY SITE NUCLEAR ENGINEERING

DISCUSSION:

CONSIDERATION SHOULD BE GIVEN TO SHUTTING DOWN A RCP-1C IF THERE IS A SUBSTANTIAL AIR COOLER LEAK.

REFERENCES: DRAWING 208-047 SHEET RC-07

SENSING ELEMENT: RC-87-LS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-03-06	1-03-06
----------------------------	---------------	---------

[illegible]

RC PUMP  
AIR COOLER  
LEAK

EVENT POINT 1335

INDICATED CONDITION:

- o RCP-1D MOTOR COOLER SW LEAK AS SENSED BY RC-110-LS

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- 6 SW COOLING WATER SUPPLY TO COOLER DIFFERENTIAL FLOW ALARM

OPERATOR ACTIONS FOR A VALID ALARM:

- o MONITOR RCP-1D PARAMETERS USING COMPUTER GROUP 81
- o NOTIFY SITE NUCLEAR ENGINEERING

### DISCUSSION:

CONSIDERATION SHOULD BE GIVEN TO SHUTTING DOWN A RCP-1D IF THERE IS A SUBSTANTIAL AIR COOLER LEAK.

REFERENCES: DRAWING 208-047 SHEET 00-08

SENSING ELEMENT: RC-110-LS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-04-01	I-04-01
----------------------------	---------------	---------

[illegible]

RC PUMP D  
TRIP

EVENT POINT 1383

INDICATED CONDITION:

- o RCP-10 BREAKER OPEN WITH CONTROL HANDLE IN THE NORMAL AFTER START POSITION.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o GREEN LIGHT ON WITH A RED FLAG ON RCP-1D CONTROL STATION.
- o RCS FLOW IS DECREASING.

OPERATOR ACTIONS FOR A VALID ALARM:

- o REFER TO AP-545

DISCUSSION:

A RCP TRIP SHOULD CAUSE A PLANT RUNBACK AND CAUSE FEEDWATER TO RE-RATIO.  
ADDRESS STS REQUIREMENTS CONCERNING THIS CONDITION

REFERENCES: DRAWING 208-047 SHEET RC-04

SENSING ELEMENT:CONTROL SWITCH AND BREAKER CONTACTS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-04-02	I-04-02
----------------------------	---------------	---------


RC PUMP D  
MTR VIBRATION  
HIGH

## EVENT POINT 1336

### INDICATED CONDITION:

- o RCP-1D MOTOR VIBRATION >2 MILS AS SENSED BY RC-111-MS.

### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o REDUNDANT RCP VIBRATION INDICATIONS AS SEEN ON RCP VIBRATION MONITORING PANEL, LPP-1A

### OPERATOR ACTIONS FOR A VALID ALARM:

- o REFER TO OP-302 FOR ACTIONS ON HIGH RCP VIBRATION.
- o CONSIDERATION SHOULD BE GIVEN SHUTTING DOWN A RCP WITH HIGH VIBRATIONS.

### DISCUSSION:

THE VIBRATION SWITCH RESET PUSHBUTTON ON THE MAIN CONTROL BOARD MUST BE DEPRESSED TO RESET THIS ALARM.

REFERENCES: DRAWING 208-047 SHEET RC-08

SENSING ELEMENT: RC-111-MS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-04-03	I-04-03
----------------------------	---------------	---------


RC PUMP D  
CLG WTR FLOW  
LOW

### EVENT POINT 1422

#### INDICATED CONDITION:

- o RCP-1D SW COOLING FLOW IS <260 GPM AS SENSED BY SW-102-FS2

#### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o WHITE RCP-1D SW FLOW INTERLOCK LIGHT NOT ON.

#### OPERATOR ACTIONS FOR A VALID ALARM:

- o VERIFY NORMAL SW SYSTEM OPERATION
- o REFER TO OP-302 FOR SW REQUIREMENTS FOR RUNNING REACTOR COOLANT PUMPS.

#### DISCUSSION:

THIS ALARM MAY BE CAUSED BY LARGE SW SYSTEM LOADS. IN THESE INSTANCES CONSIDERATION SHOULD BE GIVEN TO RUNNING SWP-1A OR SWP-1B INSTEAD OF USING THE NORMAL DUTY SW PUMP, SWP-1C.

REFERENCES: DRAWING 208-047 SHEET RC-04

SENSING ELEMENT:SW-102-FS2

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-04-04	I-04-04
----------------------------	---------------	---------

[illegible]

RC PUMP SEAL  
UPPER STAGE  
TEMP HIGH

EVENT POINT 0787

INDICATED CONDITION:

- 0 RCP UPPER STAGE TEMPERATURE >150° F AS SENSED BY RC-206-TS, RC-209-TS, RC-212-TS, RC-215-TS.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- 0 RCP SEAL DATA RECORDERS, RC-19A, B-PR1,2  
0 COMPUTER POINTS:  
RCP-1A, X-383 RCP-1B, X-386 RCP-1C, X-389 RCP-1D, X-392

OPERATOR ACTIONS FOR A VALID ALARM:

- o REFER TO OP-302 FOR ABNORMAL RCP SEAL TEMPERATURES.
- o CONTACT SITE NUCLEAR ENGINEERING
- o MONITOR RCP COMPUTER GROUP FOR INCREASING TRENDS:  
RCP-1A GRP. 78      RCP-1B GRP. 79      RCP-1C GRP. 80      RCP-1D GRP. 81

DISCUSSION:

THIS ALARM COMES IN WHEN ANY RCP UPPER STAGE TEMPERATURE IS HIGH. THE OPERATOR MUST DETERMINE WHICH IS THE EFFECTED RCP BY OBSERVING THE UPPER STAGE COMPUTER POINTS LISTED OR THE RCP SEAL CHART RECORDERS BEHIND THE CONTROL BOARD.

REFERENCES: DRAWING 208-047 SHEET RC-028

SENSING ELEMENT:RC-206,209,212,215-TS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-04-05	I-04-05
----------------------------	---------------	---------

[illegible]

RC PUMP  
OIL FILTER Δ P  
HIGH

EVENT POINT 1301

INDICATED CONDITION:

- 0 RCP-2A SUCTION OIL FILTER DIFFERENTIAL PRESSURE >2 PSID AS SENSED BY RC-44-PS1.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RCP-1A WHITE LIFT OIL PERMISSIVE LIGHT IS OUT.
- o RCP-1A DC LIFT OIL PUMP, RCP-3A AUTO STARTS.

OPERATOR ACTIONS FOR A VALID ALARM:

- o START RCP-3A.
- o SHUT DOWN RCP-2A.

### DISCUSSION:

MAINTENANCE SHOULD BE NOTIFIED TO CHANGE FILTER.

REFERENCES: DRAWING 208-047 SHEET RC-05

SENSING ELEMENT: RC-44-PS1

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-04-05	1-04-05
----------------------------	---------------	---------


RC PUMP  
OIL FILTER Δ P  
HIGH

## EVENT POINT 1302

### INDICATED CONDITION:

- o RCP-3A SUCTION OIL FILTER DIFFERENTIAL PRESSURE >2 PSID AS SENSED BY RC-44-PS2.

### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RCP-1A WHITE LIFT OIL PERMISSIVE LIGHT IS OUT.

### OPERATOR ACTIONS FOR A VALID ALARM:

- o START RCP-2A.
- o SHUT DOWN RCP-3A.

### DISCUSSION:

MAINTENANCE SHOULD BE NOTIFIED TO CHANGE FILTER.

REFERENCES: DRAWING 208-047 SHEET RC-05

SENSING ELEMENT: RC-44-PS2

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-04-05	1-04-05
----------------------------	---------------	---------

[illegible]

RC PUMP  
OIL FILTER Δ P  
HIGH

EVENT POINT 1314

INDICATED CONDITION:

- o RCP-2B SUCTION OIL FILTER DIFFERENTIAL PRESSURE >2 PSID AS SENSED BY RC-67-PS1.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RCP-1B WHITE LIFT OIL PERMISSIVE LIGHT IS OUT.  
o RCP-1B DC LIFT OIL PUMP, RCP-3B AUTO STARTS.

OPERATOR ACTIONS FOR A VALID ALARM:

- o START RCP-3B.
- o SHUT DOWN RCP-2B.

DISCUSSION:

MAINTENANCE SHOULD BE NOTIFIED TO CHANGE FILTER.

REFERENCES: DRAWING 208-047 SHEET RC-06

SENSING ELEMENT: RC-67-PS1

I-04-05

RC PUMP  
OIL FILTER Δ P  
HIGH

## Page 68

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-04-05	I-04-05
----------------------------	---------------	---------

[illegible]

RC PUMP  
OIL FILTER Δ P  
HIGH

EVENT POINT 1326

INDICATED CONDITION:

- 0 RCP-1C AC LIFT OIL PUMP, RCP-2C SUCTION OIL FILTER DIFFERENTIAL PRESSURE  
>2 PSID AS SENSED BY RC-90-PS1.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RCP-1C WHITE LIFT OIL PERMISSIVE LIGHT IS OUT.
- o RCP-1C DC LIFT OIL PUMP, RCP-3C AUTO STARTS.

OPERATOR ACTIONS FOR A VALID ALARM:

- o START RCP-3C.
- o SHUT DOWN RCP-2C.

DISCUSSION:

MAINTENANCE SHOULD BE NOTIFIED TO CHANGE FILTER.

REFERENCES: DRAWING 208-047 SHEET RC-07

SENSING ELEMENT: RC-90-PS1

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-04-05	I-04-05
----------------------------	---------------	---------

[illegible]

RC PUMP  
OIL FILTER Δ P  
HIGH

EVENT POINT 1327

INDICATED CONDITION:

- o RCP-1C DC LIFT OIL PUMP, RCP-3C SUCTION OIL FILTER DIFFERENTIAL PRESSURE  
 >2 PSID AS SENSED BY RC-90-PS2.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RCP-1C WHITE LIFT OIL PERMISSIVE LIGHT IS OUT.

OPERATOR ACTIONS FOR A VALID ALARM:

- o START RCP-2C.
- o SHUT DOWN RCP-3C.

DISCUSSION:

MAINTENANCE SHOULD BE NOTIFIED TO CHANGE FILTER.

REFERENCES: DRAWING 208-047 SHEET RC-07

SENSING ELEMENT: RC-90-PS2

1-04-05

Page 71

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-04-05	I-04-05
----------------------------	---------------	---------

[illegible]

RC PUMP  
OIL FILTER Δ P  
HIGH

EVENT POINT 1339

INDICATED CONDITION:

- o RCP-3D SUCTION OIL FILTER DIFFERENTIAL PRESSURE >2 PSID AS SENSED BY RC-113-PS2.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RCP-1D WHITE LIFT OIL PERMISSIVE LIGHT IS OUT.

OPERATOR ACTIONS FOR A VALID ALARM:

- o START RCP-2D.
- o SHUT DOWN RCP-3D.

DISCUSSION:

MAINTENANCE SHOULD BE NOTIFIED TO CHANGE FILTER.

REFERENCES: DRAWING 208-047 SHEET C 23

SENSING ELEMENT: RC-113-PS2

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-05-01	I-05-01
----------------------------	---------------	---------


PORV  
SAFETY VALVE  
OPEN

## EVENT POINT 1957

### INDICATED CONDITION:

- o PRESSURIZER CODE SAFETY VALVE, RCV-8, ULTRASONIC INDICATION IS IN THE "VALVE OPEN" REGION.

### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RCS PRESSURE >2500 PSIG
- o RCS PRESSURE DECREASING
- o RC DRAIN TANK PRESSURE AND TEMPERATURE INCREASING.

### OPERATOR ACTIONS FOR A VALID ALARM:

- o LOWER RCS PRESSURE USING PORV OR SPRAY VALVE

### DISCUSSION:

THIS ALARM MUST BE RESET LOCALLY IN THE PORV POSITION INDICATION AND TSAT CABINET IN THE "B" ES 4160V. SWITCHGEAR ROOM.

REFERENCES: DRAWING 208-047 SHEET RC-027

SENSING ELEMENT: ALARM SWITCH 1

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-05-01	I-05-01
----------------------------	---------------	---------


PORV  
SAFETY VALVE  
OPEN

## EVENT POINT 1958

### INDICATED CONDITION:

- o PRESSURIZER CODE SAFETY VALVE, RCV-9, ULTRASONIC INDICATION IS IN THE "VALVE OPEN" REGION.

### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RCS PRESSURE >2500 PSIG
- o RCS PRESSURE DECREASING
- o RC DRAIN TANK PRESSURE AND TEMPERATURE INCREASING.

### OPERATOR ACTIONS FOR A VALID ALARM:

- o LOWER RCS PRESSURE USING PORV OR SPRAY VALVE

### DISCUSSION:

THIS ALARM MUST BE RESET LOCALLY IN THE PORV POSITION INDICATION AND TSAT CABINET INT THE "B" ES 4160V. SWITCHGEAR ROOM.

REFERENCES: DRAWING 208-047 SHEET RC-027

SENSING ELEMENT: ALARM SWITCH 2

1-05-01

PORV  
SAFETY VALVE  
OPEN

EVENT POINT 1959

INDICATED CONDITION:

- 0 PRESSURIZER PILOT OPERATED RELIEF VALVE, RCV-10, ULTRASONIC INDICATION IS IN THE "VALVE OPEN" REGION.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RCS PRESSURE >2450 PSIG
- o RCS PRESSURE DECREASING
- o RC DRAIN TANK PRESSURE AND TEMPERATURE INCREASING.

OPERATOR ACTIONS FOR A VALID ALARM:

- o LOWER RCS PRESSURE USING SPRAY VALVE

DISCUSSION:

THIS ALARM MUST BE RESET LOCALLY IN THE PORV POSITION INDICATION AND TSAT CABINET IN THE "B" ES 4160V. SWITCHGEAR ROOM.

REFERENCES: DRAWING 208-047 SHEET RC-027

SENSING ELEMENT: ALARM SWITCH 3

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-05-02	I-05-02
----------------------------	---------------	---------


PORV  
SELECTED  
CLOSED

## EVENT POINT 1445

### INDICATED CONDITION:

- o PILOT OPERATED RELIEF VALVE, RCV-10 CONTROL SWITCH SELECTED TO "CLOSED"

### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o POSITION OF PORV SELECTOR SWITCH.

### OPERATOR ACTIONS FOR A VALID ALARM:

- o EVALUATE THE NECESSITY FOR PORV TO BE SELECTED CLOSED.

### DISCUSSION:

THIS CONDITION RENDERS THE PORV INOPERABLE.  
ADDRESS STS AND LTOPS REQUIREMENTS CONCERNING THIS CONDITION.

REFERENCES: DRAWING 208-047 SHEET RC-025

SENSING ELEMENT: CONTROL SWITCH CONTACTS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-05-06	I-05-06
----------------------------	---------------	---------

[illegible]

## LOOSE PARTS MONITORING TROUBLE

EVENT POINT 1936

INDICATED CONDITION:

- 0 ANY ONE OF THE LOOSE PARTS MONITORING CHANNELS EXCEEDING ALARM SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RED ALARM INDICATION ON LOOSE PARTS MONITORING CHANNELS.

OPERATOR ACTIONS FOR A VALID ALARM:

- o REFER TO OP-506 FOR LPMS ALARM RESPONSE AND ANALYSIS GUIDELINES.

DISCUSSION:

#### REFERENCES:

SENSING ELEMENT: VARIOUS LPMs SENSORS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-06-01	I-06-01
----------------------------	---------------	---------


PORV  
SOLENOID  
ENERGIZED

EVENT POINT 1442

INDICATED CONDITION:

- 0 PILOT OPERATED RELIEF VALVE, RCV-10, SOLENOID IS ENERGIZED.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RCS PRESSURE >2450 PSIG
- o PORV SWITCH RED INDICATING LIGHT IS ON.
- o ULTRASONIC FLOW INDICATION FOR PORV IN THE "VALVE OPEN REGION"

OPERATOR ACTIONS FOR A VALID ALARM:

- o IF PORV IS NOT REQUIRED TO BE OPEN THEN SELECT PORV TO "CLOSED"
- IF RC PRESSURE IS FAST DECREASING INDICATING THE PORV IS LEAKING BY OR NOT FULL CLOSED, THEN CLOSE PORV BLOCK VALVE RCV-11.

### DISCUSSION:

THIS ALARM INDICATES ONLY THAT THE PORV OPEN SOLENOID IS ENERGIZED. THIS IS NOT ACTUAL PORV POSITION INDICATION. ULTRASONIC FLOW INDICATION SHOULD BE USED TO VERIFY THE PORV OPEN.

PORV WILL OPEN AT >2450 PSIG AND CLOSE AT <2380 PSIG WHEN SELECTED TO HIGH  
PORV WILL OPEN AT >500 PSIG AND CLOSE AT <450 PSIG WHEN SELECTED TO LOW.

REFERENCES: DRAWING 208-047 SHEET RC-025

SENSING ELEMENT: 20X-RCV-10

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-06-02	I-06-02
----------------------------	---------------	---------


PORV  
BLOCK VALVE  
CLOSED

## EVENT POINT 1360

### INDICATED CONDITION:

- o PILOT OPERATED RELIEF, RCV-10, BLOCK VALVE, RCV-11 FULL CLOSED.

### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o GREEN INDICATING LIGHT IS ON FOR RCV-11.

### OPERATOR ACTIONS FOR A VALID ALARM:

- o ASSESS REQUIREMENTS FOR PORV BLOCK VALVE, RCV-11 BEING CLOSED.

### DISCUSSION:

ADDRESS STS AND LTOP REQUIREMENTS CONCERNING THIS CONDITION.

REFERENCES: DRAWING 208-047 SHEET RC-013

SENSING ELEMENT: 33C VALVE CLOSED CONTACT

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-07-01	I-07-01
----------------------------	---------------	---------


PRESSURIZER  
LEVEL  
HIGH

EVENT POINT 1371

INDICATED CONDITION:

- o PRESSURIZER LEVEL >275" AS SENSED BY RC-1-LS1.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o PRESSURIZER LEVEL RECORDERS
- o COMPUTER POINT R-201

OPERATOR ACTIONS FOR A VALID ALARM:

- o MANUALLY CONTROL RCS MAKEUP AND LETDOWN TO REGAIN PRESSURIZER LEVEL.
- o IF PRESSURIZER LEVEL REACHES 290", REFER TO AP-580.

DISCUSSION:

HIGH PRESSURIZER LEVELS INDICATE EITHER PROBLEMS WITH MAKEUP/LETDOWN OR A RCS HEATUP HAS OCCURRED.  
REFER TO OP-402 CONCERNING LIMITS ON LETDOWN FLOW.

REFERENCES: DRAWING 208-047 SHEET RC-027

SENSING ELEMENT: RC-1-LS1

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-07-01	I-07-01
----------------------------	---------------	---------


PRESSURIZER  
LEVEL  
HIGH

EVENT POINT 1372

INDICATED CONDITION:

- o PRESSURIZER LEVEL >240" AS SENSED BY RC-1-LS2.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o PRESSURIZER LEVEL RECORDERS
- o COMPUTER POINT R-201

OPERATOR ACTIONS FOR A VALID ALARM:

- o MANUALLY CONTROL RCS MAKEUP AND LETDOWN TO REGAIN PRESSURIZER LEVEL.
- o IF PRESSURIZER LEVEL REACHES 290", REFER TO AP-580.

DISCUSSION:

HIGH PRESSURIZER LEVELS INDICATE EITHER PROBLEMS WITH MAKEUP/LETDOWN OR A RCS HEATUP HAS OCCURRED.  
REFER TO OP-402 CONCERNING LIMITS ON LETDOWN FLOW.

REFERENCES: DRAWING 208-047 SHEET RC-027

SENSING ELEMENT: RC-1-LS2

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-07-02	1-07-02
----------------------------	---------------	---------


PRESSURIZER  
HEATER SCR  
FAILURE

EVENT POINT 1303

INDICATED CONDITION:

- o RC PRESSURIZER HEATER SCR FAILURE.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RED INDICATING LIGHT ON PRESSURIZER HEATER CONTROL CABINET.
- o RCS PRESSURE ABNORMAL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o ATTEMPT TO RESET SCR FAILURE BY OPENING THEN RECLOSING FEEDER BREAKER TO HEATER GROUP WITH THE SCR FAILURE.
- o MANUALLY CONTROL RCS PRESSURE AS REQUIRED.
- o NOTIFY ELECTRIC SHOP.

DISCUSSION:

THIS ALARM INDICATES A DIFFERENTIAL VOLTAGE EXISTS OR HAS EXISTED BETWEEN TWO LEGS OF THE SCR CONTROL CIRCUIT FOR THE PRESSURIZER HEATERS. THIS DOES NOT NECESSARILY MEAN THAT CONTROL HAS BEEN LOST TO THOSE HEATERS. THIS ALARM SEALS IN AND CANNOT BE CLEARED UNTIL THE CONTROL CIRCUIT IS DEENERGIZED.

REFERENCES: DRAWING 208-047 SHEET RC-019

SENSING ELEMENT: SCR DIFFERENTIAL VOLTAGE RELAYS

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-07-05	1-07-05
----------------------------	---------------	---------

[illegible]

RCS  
PRESS HIGH  
TEMP LOW

EVENT POINT 1935

INDICATED CONDITION:

- o REACTOR COOLANT PRESSURE IS >500 PSIG AS SENSED BY RC-3A-PS4 AND THE PORV, RCV-10, IS SELECTED TO LOW RANGE.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o PORV, RCV-10, IS OPEN.
- o WIDE RANGE RCS PRESSURE INDICATION.

OPERATOR ACTIONS FOR A VALID ALARM:

- o REDUCE RCS PRESSURE BY INCREASING LETDOWN OR USE OF PRESSURIZER SPRAY VALVE.

DISCUSSION:

THIS ALARM INDICATES THAT RCS LOW TEMP AND PRESS RECORDER, RC-154-PR/TR HAS SHIFTED TO FAST SPEED.

REFERENCES: DRAWING 208-047 SHEET RC-027

SENSING ELEMENT: 86/RC3A-PS4

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-08-01	I-08-01
----------------------------	---------------	---------


PRESSURIZER  
LEVEL  
LOW

EVENT POINT 1373

INDICATED CONDITION:

- o PRESSURIZER LEVEL IS <200" AS SENSED BY RC-1-LY4.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o PRESSURIZER LEVEL INDICATION

OPERATOR ACTIONS FOR A VALID ALARM:

- o VERIFY PROPER OPERATION OF PRESSURIZER LEVEL CONTROL VALVE, MUV-31.
- o INCREASE PRESSURIZER LEVEL BY MANUALLY CONTROLLING MAKEUP/LETDOWN.
- o TERMINATE PLANT COOLDOWN AS REQUIRED.

DISCUSSION:

REFERENCES: DRAWING 208-047 SHEET RC-027

SENSING ELEMENT: RC-1-LY4

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-08-01	I- 3-01
----------------------------	---------------	---------


PRESSURIZER  
LEVEL  
LOW

### EVENT POINT 1374

#### INDICATED CONDITION:

- o PRESSURIZER LEVEL IS <40" AS SENSED BY RC-1-LS1/RC-1-LS3.

#### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o PRESSURIZER LEVEL INDICATION.
- o WHITE INDICATOR LIGHTS FOR PRESSURIZER HEATERS ARE OFF.
- o PRESSURIZER HEATER BAILEY CONTROL STATION SHIFTS TO MANUAL.

#### OPERATOR ACTIONS FOR A VALID ALARM:

- o VERIFY PROPER OPERATION OF PRESSURIZER LEVEL CONTROL VALVE, MUV-31.
- o INCREASE PRESSURIZER LEVEL BY MANUALLY CONTROLLING MAKEUP/LETDOWN.
- o TERMINATE PLANT COOLDOWN AS REQUIRED.

#### DISCUSSION:

A LOW-LOW LEVEL IN THE PRESSURIZER WILL DE-ENERGIZE PRESSURIZER HEATERS. HEATER GROUPS 7 THRU 13 ARE AFFECTED, REFER TO THE 208-47 DRAWINGS FOR SPECIFIC GROUPS ASSOCIATED WITH EACH SWITCH RELAY.

REFERENCES: DRAWING 208-047 SHEET RC-027

SENSING ELEMENT: RC-1-LS1, RC-1-LS3

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-08-02	I-08-02
----------------------------	---------------	---------


PRESSURIZER  
HEATER GROUP  
TROUBLE

EVENT POINT 1344

INDICATED CONDITION:

- o PRESSURIZER HEATER GROUP 1 OVERCURRENT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o INDICATING LIGHTS FOR HEATER GROUP OUT.
- o FEEDER BREAKER FOR THE HEATER GROUP TRIPS.

OPERATOR ACTIONS FOR A VALID ALARM:

- o STABILIZE RCS PRESSURE
- o MONITOR PRESSURIZER OPERATION.
- o NOTIFY ELECTRIC SHOP.

DISCUSSION:

THIS ALARM INDICATES AN OVERCURRENT CONDITION HAS OCCURRED ON THE PRESSURIZER HEATER GROUP FEEDER BREAKER. THIS CONDITION TRIPS THE FEEDER BREAKER.

REFERENCES: DRAWING DCC-047 SHEET RC-018

SENSING ELEMENT: BCR-4A ALARM SWITCH

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-08-02	I-08-02
----------------------------	---------------	---------


PRESSURIZER  
HEATER GROUP  
TROUBLE

EVENT POINT 1348

INDICATED CONDITION:

- o PRESSURIZER HEATER GROUP 2 OVERCURRENT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o INDICATING LIGHTS FOR HEATER GROUP OUT.
- o FEEDER BREAKER FOR THE HEATER GROUP TRIPS.

OPERATOR ACTIONS FOR A VALID ALARM:

- o STABILIZE RCS PRESSURE.
- o MONITOR PRESSURIZER OPERATION.
- o NOTIFY ELECTRIC SHOP.

DISCUSSION:

THIS ALARM INDICATES AN OVERCURRENT CONDITION HAS OCCURRED ON THE PRESSURIZER HEATER GROUP FEEDER BREAKER. THIS CONDITION TRIPS THE FEEDER BREAKER.

REFERENCES: DRAWING 208-047 SHEET RC-018

SENSING ELEMENT: BKR.2A ALARM SWITCH

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-08-02	1-08-02
----------------------------	---------------	---------


PRESSURIZER  
HEATER GROUP  
TROUBLE

EVENT POINT 1352

INDICATED CONDITION:

- o PRESSURIZER HEATER GROUP 3 OVERCURRENT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o INDICATING LIGHTS FOR HEATER GROUP OUT.
- o FEEDER BREAKER FOR THE HEATER GROUP TRIPS.

OPERATOR ACTIONS FOR A VALID ALARM:

- o STABILIZE RC PRESSURE.
- o MONITOR PRESSURIZER OPERATION.
- o NOTIFY ELECTRIC SHOP.

DISCUSSION:

THIS ALARM INDICATES AN OVERCURRENT CONDITION HAS OCCURRED ON THE PRESSURIZER HEATER GROUP FEEDER BREAKER. THIS CONDITION TRIPS THE FEEDER BREAKER.

REFERENCES: DRAWING 208-047 SHEET RC-018

SENSING ELEMENT: BKR.4B ALARM SWITCH

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-08-02	I-08-02
----------------------------	---------------	---------


PRESSURIZER  
HEATER GROUP  
TROUBLE

EVENT POINT 1356

INDICATED CONDITION:

- o PRESSURIZER HEATER GROUP 4 OVERCURRENT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o INDICATING LIGHTS FOR HEATER GROUP OUT.
- o FEEDER BREAKER FOR THE HEATER GROUP TRIPS.

OPERATOR ACTIONS FOR A VALID ALARM:

- o STABILIZE RCS PRESSURE.
- o MONITOR PRESSURIZER OPERATION.
- o NOTIFY ELECTRIC SHOP.

DISCUSSION:

THIS ALARM INDICATES AN OVERCURRENT CONDITION HAS OCCURRED ON THE PRESSURIZER HEATER GROUP FEEDER BREAKER. THIS CONDITION TRIPS THE FEEDER BREAKER.

REFERENCES: DRAWING 208-047 SHEET PC-018

SENSING ELEMENT: BKR.4C ALARM SWITCH

ICS-I ANNUNCIATOR RESPONSE		ENCLOSURE (Page 89 of 9	
		ICS-CYJ-08-02	I-08-02

ENCLOSURE 1  
(Page 89 of 97)

ICS-CY1-08-02

I-08-02

[illegible]

PRESSURIZER  
HEATER GROUP  
TROUBLE

EVENT POINT 1359

INDICATED CONDITION:

- 0 PRESSURIZER HEATER GROUP 5 OVERCURRENT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o INDICATING LIGHTS FOR HEATER
- o FEEDER BREAKER FOR

- o INDICATING LIGHTS FOR HEATER GROUP OUT.  
o FEEDER BREAKER FOR THE HEATER GROUP TRIPS.

OPERATOR ACTIONS FOR A VALID ALARM:

- o STABILIZE RCS PRESSURE
- o MONITOR

- o STABILIZE RCS PRESSURE.
- o MONITOR PRESSURIZER OPERATION.
- o NOTIFY ELECTRIC SHOP.

DISCUSSION:

THIS ALARM INDICATES AN OVERCURRENT CONDITION HAS OCCURRED ON THE PRESSURIZER HEATER GROUP FEEDER BREAKER. THIS CONDITION TRIPS THE FEEDER BREAKER.

REFERENCES: DRAWING 208-047 SHEET RC-018  
SENSING ELEMENT: BKR.3A ALARM

DRAWING 208-047 SHEET RC  
NSING ELEMENT: BKR.3A ALARM SWITCH

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-08-02	1-08-02
----------------------------	---------------	---------


PRESSURIZER  
HEATER GROUP  
TROUBLE

EVENT POINT 1387

INDICATED CONDITION:

- o PRESSURIZER HEATER GROUP 6 OVERCURRENT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o INDICATING LIGHTS FOR HEATER GROUP OUT.
- o FEEDER BREAKER FOR THE HEATER GROUP TRIPS.

OPERATOR ACTIONS FOR A VALID ALARM:

- o STABILIZE RCS PRESSURE.
- o MONITOR PRESSURIZER OPERATION.
- o NOTIFY ELECTRIC SHOP.

DISCUSSION:

THIS ALARM INDICATES AN OVERCURRENT CONDITION HAS OCCURRED ON THE PRESSURIZER HEATER GROUP FEEDER BREAKER. THIS CONDITION TRIPS THE FEEDER BREAKER.

REFERENCES: DRAWING 208-047 SHEET RC-018

SENSING ELEMENT: DCR.4A ALARM SWITCH

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-08-02	I-08-02
----------------------------	---------------	---------


PRESSURIZER  
HEATER GROUP  
TROUBLE

EVENT POINT 1388

INDICATED CONDITION:

- o PRESSURIZER HEATER GROUP 7 OVERCURRENT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o INDICATING LIGHTS FOR HEATER GROUP OUT.
- o FEEDER BREAKER FOR THE HEATER GROUP TRIPS.

OPERATOR ACTIONS FOR A VALID ALARM:

- o STABILIZE RCS PRESSURE.
- o MONITOR PRESSURIZER OPERATION.
- o NOTIFY ELECTRIC SHOP.

DISCUSSION:

THIS ALARM INDICATES AN OVERCURRENT CONDITION HAS OCCURRED ON THE PRESSURIZER HEATER GROUP FEEDER BREAKER. THIS CONDITION TRIPS THE FEEDER BREAKER.

REFERENCES: DRAWING 208-047 SHEET RC-020

SENSING ELEMENT: BKR.1C ALARM SWITCH

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-08-02	1-08-02
----------------------------	---------------	---------


**PRESSURIZER  
HEATER GROUP  
TROUBLE**

**EVENT POINT 1389**

INDICATED CONDITION:

- o PRESSURIZER HEATER GROUP 8 OVERCURRENT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o INDICATING LIGHTS FOR HEATER GROUP OUT.
- o FEEDER BREAKER FOR THE HEATER GROUP TRIPS.

OPERATOR ACTIONS FOR A VALID ALARM:

- o STABILIZE RCS PRESSURE.
- o MONITOR PRESSURIZER OPERATION.
- o NOTIFY ELECTRIC SHOP.

DISCUSSION:

THIS ALARM INDICATES AN OVERCURRENT CONDITION HAS OCCURRED ON THE PRESSURIZER HEATER GROUP FEEDER BREAKER. THIS CONDITION TRIPS THE FEEDER BREAKER.

REFERENCES: DRAWING 208-047 SHEET RC-020

SENSING ELEMENT: BKR.2C ALARM SWITCH

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-08-02	I-08-02
----------------------------	---------------	---------


PRESSURIZER  
HEATER GROUP  
TROUBLE

EVENT POINT 1390

INDICATED CONDITION:

- o PRESSURIZER HEATER GROUP 9 OVERCURRENT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o INDICATING LIGHTS FOR HEATER GROUP OUT.
- o FEEDER BREAKER FOR THE HEATER GROUP TRIPS.

OPERATOR ACTIONS FOR A VALID ALARM:

- o STABILIZE RCS PRESSURE.
- o MONITOR PRESSURIZER OPERATION.
- o NOTIFY ELECTRIC SHOP.

DISCUSSION:

THIS ALARM INDICATES AN OVERCURRENT CONDITION HAS OCCURRED ON THE PRESSURIZER HEATER GROUP FEEDER BREAKER. THIS CONDITION TRIPS THE FEEDER BREAKER.

REFERENCES: DRAWING 208-047 SHEET RC-020

SENSING ELEMENT: BKR.3C ALARM SWITCH

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-08-02	1-08-02
----------------------------	---------------	---------


PRESSURIZER  
HEATER GROUP  
TROUBLE

## EVENT POINT 1391

### INDICATED CONDITION:

- o PRESSURIZER HEATER GROUP 10 OVERCURRENT.

### REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o INDICATING LIGHTS FOR HEATER GROUP OUT.
- o FEEDER BREAKER FOR THE HEATER GROUP TRIPS.

### OPERATOR ACTIONS FOR A VALID ALARM:

- o STABILIZE RCS PRESSURE.
- o MONITOR PRESSURIZER OPERATION.
- o NOTIFY ELECTRIC SHOP.

### DISCUSSION:

THIS ALARM INDICATES AN OVERCURRENT CONDITION HAS OCCURRED ON THE PRESSURIZER HEATER GROUP FEEDER BREAKER. THIS CONDITION TRIPS THE FEEDER BREAKER.

REFERENCES: DRAWING 208-047 SHEET RC-020

SENSING ELEMENT: BKR.1D ALARM SWITCH

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-08-02	1-08-02
----------------------------	---------------	---------


PRESSURIZER  
HEATER GROUP  
TROUBLE

EVENT POINT 1392

INDICATED CONDITION:

- o PRESSURIZER HEATER GROUP 11 OVERCURRENT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o INDICATING LIGHTS FOR HEATER GROUP OUT.
- o FEEDER BREAKER FOR THE HEATER GROUP TRIPS.

OPERATOR ACTIONS FOR A VALID ALARM:

- o STABILIZE RCS PRESSURE.
- o MONITOR PRESSURIZER OPERATION.
- o NOTIFY ELECTRIC SHOP.

DISCUSSION:

THIS ALARM INDICATES AN OVERCURRENT CONDITION HAS OCCURRED ON THE PRESSURIZER HEATER GROUP FEEDER BREAKER. THIS CONDITION TRIPS THE FEEDER BREAKER.

REFERENCES: DRAWING 208-047 SHEET RC-000

SENSING ELEMENT: BKR.2C ALARM SWITCH

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-08-02	I-08-02
----------------------------	---------------	---------


PRESSURIZER  
HEATER GROUP  
TROUBLE

EVENT POINT 1393

INDICATED CONDITION:

- o PRESSURIZER HEATER GROUP 12 OVERCURRENT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o INDICATING LIGHTS FOR HEATER GROUP OUT.
- o FEEDER BREAKER FOR THE HEATER GROUP TRIPS.

OPERATOR ACTIONS FOR A VALID ALARM:

- o STABILIZE RCS PRESSURE.
- o MONITOR PRESSURIZER OPERATION.
- o NOTIFY ELECTRIC SHOP.

DISCUSSION:

THIS ALARM INDICATES AN OVERCURRENT CONDITION HAS OCCURRED ON THE PRESSURIZER HEATER GROUP FEEDER BREAKER. THIS CONDITION TRIPS THE FEEDER BREAKER.

REFERENCES: DRAWING 208-047 SHEET RC-020

SENSING ELEMENT: BKR.3C ALARM SWITCH

ICS-I ANNUNCIATOR RESPONSE	ICS-CY1-08-02	I-08-02
----------------------------	---------------	---------


PRESSURIZER  
HEATER GROUP  
TROUBLE

EVENT POINT 1394

INDICATED CONDITION:

- o PRESSURIZER HEATER GROUP 13 OVERCURRENT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o INDICATING LIGHTS FOR HEATER GROUP OUT.
- o FEEDER BREAKER FOR THE HEATER GROUP TRIPS.

OPERATOR ACTIONS FOR A VALID ALARM:

- o STABILIZE RCS PRESSURE.
- o MONITOR PRESSURIZER OPERATION.
- o NOTIFY ELECTRIC SHOP.

DISCUSSION:

THIS ALARM INDICATES AN OVERCURRENT CONDITION HAS OCCURRED ON THE PRESSURIZER HEATER GROUP FEEDER BREAKER. THIS CONDITION TRIPS THE FEEDER BREAKER.

REFERENCES: DRAWING 208-047 SHEET RC-020

SENSING ELEMENT: BKR.4C ALARM SWITCH