(MC) Rev. 35 Effective Date 3/16/99

ANNUNCIATOR RESPONSE AR-403 FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3

PSA H ANNUNCIATOR RESPONSE

APPROVED BY: Protedure Owner (SIGNATURE ON FELE) DATE: \_3/15/99

PROCEDURE WRITER: Michael A. Winship

9903310076 990316 PDR ADOCK 05000302

PDR

PDR

Responisble Department: Nuclear Plant Operations Support

#### TABLE OF CONTENTS

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

#### 1.0 PURPOSE

- 1.1 Establish a reference document for each Annunciator Window on the PSA-Z Lamp box.
- 1.2 Establish operator actions for valid Annunciator alarms on the PSA-Z Lamp box.
- 1.3 Establish a reference to other procedures which address operator actions for valid Annunciator alarms on the PSA-Z Lamp box.

#### 2.0 REFERENCES

#### 2.1 IMPLEMENTING REFERENCES

- 2.1.1 EOP, Emergency Operating Procedure
- 2.1.2 AP-250, Radiation Monitor Actuation
- 2.1.3 AP-1050, Flooding
- 2.1.4 CP-138, Secondary Water Chemistry Guidelines
- 2.1.5 OP-103B, Heat-Up Cooldown Curves
- 2.1.6 SP-146, EFIC Monthly Functional Test
- 2.1.7 OP-302, RC Pump Operation
- 2.1.8 OP-301, Operation Of The Reactor Coolant System
- 2.1.9 AP-470, Loss of Instrument Air
- 2.1.10 OP-408, Nuclear Services Cooling System
- 2.1.11 OP-505, Radiation Monitoring System
- 2.1.12 CP-152, Primary to Secondary Leakage Operating Guideline
- 2.1.13 AP-520, Loss of RCS Coolant or Pressure

#### 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
- 2.2.3 I-85-0004, Rev. 4 (EFW Tank Level Accuracy)

2.2.4 MAR 87-10-27-01, Resolution of Back-Up Meteorological Tower Instrument Failures

#### 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 PSA-Z Lamp box as indicated on Enclosure 1, Annunciator Response.
- 5.0 FOLLOW-UP ACTIONS

None

ENCLOSURE 1

(Page 1 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-01-01	H-01-01

GAMMA RADIATION HIGH

### **EVENT POINT 1748**

INDICATED CONDITION:

O RM-G1 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- O RM-G1 INDICATION AT RADIATION MONITORING PANEL.
- o RM-G1 INDICATION AT DETECTOR.
- RM-G1 RED ALARM LIGHT.
- o RM-G1 HORN.
- O SPDS ALPHA PAGE.

OPERATOR ACTIONS FOR A VALID ALARM:

INVESTIGATE CAUSE OF HIGH RADIATION.

- NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S).
- O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- O REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-G1 MONITORS THE CONTROL ROOM. THE DETECTOR IS ON THE BACK WALL NEXT TO THE ES RELAY ACTUATION CABINETS. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-22

ENCLOSURE 1 (Page 2 of 190)

PSA-Z	ANNUNCIATOR	RESPONSE	PSA-Z-01-01	H-01-01
 FJA-L	AMMUNCIATUR	RESPUNSE	PSA-Z-01-01	H-01-0

GAMMA RADIATION HIGH

### **EVENT POINT 1750**

INDICATED CONDITION:

o RM-G2 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

o RM-G2 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

INVESTIGATE CAUSE OF HIGH RADIATION.

NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S).

O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.

O REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-G2 MONITORS THE CHEMICAL LABORATORY. THE DETECTOR IS LOCATED ON THE EAST WALL INSIDE THE CHEMICAL LABORATORY. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-23

ENCLOSURE 1 (Page 3 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-01-01	H-01-01
A REAL PROPERTY AND			

GAMMA RADIATION HIGH

### **EVENT POINT 1752**

INDICATED CONDITION:

o RM-G3 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

o RM-G3 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

O INVESTIGATE CAUSE OF HIGH RADIATION.

NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S).

• OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.

O REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-G3 MONITORS THE PRIMARY SAMPLE ROOM. THE DETECTOR IS LOCATED ON THE SOUTH WALL INSIDE THE PRIMARY SAMPLE ROOM. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-23

ENCLOSURE 1 (Page 4 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-01-01	H-01-01
THE OWNER AND			

GAMMA RADIATION HIGH

#### **EVENT POINT 1754**

INDICATED CONDITION:

o RM-G4 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

o RM-G4 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

O INVESTIGATE CAUSE OF HIGH RADIATION.

- NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S).
- O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- O REFER TO OP-505, RADIATION RING SYSTEM.

DISCUSSION:

RM-G4 MONITORS THE AUXILIARY BUILDING ENTRANCE HALLWAY. THE DETECTOR IS LOCATED ON THE WALL OPPOSITE THE PAX PHONE NEAR THE ENTRANCE TO THE INTERMEDIATE BUILDING. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-24

ENCLOSURE 1 (Page 5 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-01-01	H-01-01
	1 211 6 03 03	IL OT OT

GAMMA RADIATION HIGH

#### **EVENT POINT 1756**

INDICATED CONDITION:

o RM-G5 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

o RM-G5 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

INVESTIGATE CAUSE OF HIGH RADIATION.

- NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S).
- O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- O REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-G5 MONITORS THE WASTE GAS TANK VALVE ALLEY. THE DETECTOR IS LOCATED ON THE 95' AB, ON THE WALL IN THE WASTE GAS VALVE ALLEY, ADJACENT TO THE DETECTOR. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-24

ENCLOSURE 1 (Page 6 of 190)

PSA-Z ANNUNCIATOR RESPONSE PSA-	-Z-01-01 H-01-01	
---------------------------------	------------------	--

GAMMA RADIATION HIGH

### **EVENT POINT 1758**

INDICATED CONDITION:

O RM-G6 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

o RM-GS INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

O INVESTIGATE CAUSE OF HIGH RADIATION.

- NOTIFY HEALTH PHYSICS TO MCNITOR AFFECTED AREA(S).
- OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- REFER TO OP-505, RADIATION MONITORING SYSTEM.

#### DISCUSSION:

RM-G6 MONITORS THE MAKEUP TANK VALVE ALLEY. THE DETECTOR IS LOCATED ON THE WALL NEAR THE ENTRANCE LOCKED GATE. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-25

ENCLOSURE 1 (Page 7 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-01-01	H-01-01

GAMMA RADIATION HIGH

## **EVENT POINT 1760**

INDICATEL	CONDITION:
o RM-G7	RADIATION LEVEL EXCEEDS HIGH SETPOINT.
REDUNDANT	T INDICATION WHICH WILL VERIFY ALARM:
o RM-G7	INDICATION AT RADIATION MONITORING PANEL.
OPERATOR	ACTIONS FOR A VALID ALARM:
o INVES o NOTIF o OBSER o REFER	TIGATE CAUSE OF HIGH RADIATION. Y HEALTH PHYSICS TO MONITOR AFFECTED AREA(S). VE AREA MONITORS/RECORDERS FOR TREND INFORMATION. TO OP-505, RADIATION MONITORING SYSTEM.
DISCUSSIO	DN :
RM~G7 M NEAR TH SYSTEM I	ONITORS THE RC BLEED TANK AREA. THE DETECTOR IS LOCATED ON THE WALL E ENTRANCE INSIDE THE LOCKED GATE ON THE 95' ELEVATION. THE REDAS MAY ALSO BE USED TO OBSERVE TREND INFORMATION.
REFERENCE	ES: DRAWING 208-049-RM-25
SENSING	ELEMENT: RADIATION MONITORING PANEL

AR-403

•

ENCLOSURE 1 (Page 8 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-01-01	H-01-01
A STATE OF A STATE OF A STATE AND A STATE			


GAMMA RADIATION HIGH

### **EVENT POINT 1762**

INDICATED CONDITION:

O RM-G8 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-G8 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

INVESTIGATE CAUSE OF HIGH RADIATION.

NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S).

O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.

REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-G8 MONITORS THE RC BLEED TANK AREA. THE DETECTOR IS LOCATED ON THE WALL NEAR THE ENTRANCE INSIDE THE LOCKED GATE ON THE 119' ELEVATION. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-26

ENCLOSURE 1 (Page 9 of 190)

PSA-7 ANNUNCTATOR RE	SPONSE	DCA 7 01 01	11 01 01	
TON E THINK LATON NE	JFONSE.	PSA-2-01-01	H-01-01	L

MOLECULAR INCOME.	COLUMN TO A	THE OWNER AND ADDRESS OF	Notes to be a series of the	COMPANY OR OTHER	COLUMN STREET,	 and the second second second
•						

GAMMA
RADIATION
HIGH

## **EVENT POINT 1764**

INDICATED CONDITION:
O RM-G9 RADIATION LEVEL EXCEEDS HIGH SETPOINT.
REDUNDANT INDICATION WHICH WILL VERIFY ALARM:
O RM-G9 INDICATION AT RADIATION MONITORING PANEL.
OPERATOR ACTIONS FOR A VALID ALARM: • INVESTIGATE CAUSE OF HIGH RADIATION. • NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S). • OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION. • REFER TO OP-505, RADIATION MONITORING SYSTEM.
DISCUSSION: RM-G9 MONITORS THE AREA OUTSIDE THE PERSONNEL HATCH. THE DETECTOR IS LOCATED ON THE WALL NEAR THE ENTRANCE INSIDE THE LOCKED GATE ON THE 119' ELEVATION. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.
REFERENCES: DRAWING 208-049-RM-26

ENCLOSURE 1 (Page 10 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-01-01	H-01-01
----------------------------	-------------	---------

GAMMA
RADIATION
HIGH

# **EVENT POINT 1766**

INDICATED CONDITION:	
o RM-G10 RADIATION LEVEL EXCEEDS HIGH SETPOINT.	
REDUNDANT INDICATION WHICH WILL VERIFY ALARM:	
o RM-G10 INDICATION AT RADIATION MONITORING PANEL.	
OPERATOR ACTIONS FOR A VALID ALARM: • INVESTIGATE CAUSE OF HIGH RADIATION.	
<ul> <li>NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S).</li> <li>OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.</li> <li>REFER TO OP-505, RADIATION MONITORING SYSTEM.</li> </ul>	
DISCUSSION:	
RM-G10 MONITORS THE MAKE-UP PUMP AREA. THE DETECTOR IS LOC NEAR THE ENTRANCE TO THE 'C' MAKE-UP PUMP (SOUTH ENTRANCE) SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.	ATED ON THE WALL . THE REDAS
REFERENCES: DRAWING 208-049-RM-27	
SENSING ELEMENT: RADIATION MONITORING PANEL	



T

ENCLOSURE 1 (Page 11 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-01-01	H-01-01
----------------------------	-------------	---------

GAMMA RADIATION HIGH

## **EVENT POINT 1768**

INDICATED CONDITION:	
o RM-G11 RADIATION LEV	/EL EXCEEDS HIGH SETPOINT.
REDUNDANT INDICATION WH	ICH WILL VERIFY ALARM:
• RM-G11 INDICATION AT	F RADIATION MONITORING PANEL.
OPERATOR ACTIONS FOR A O INVESTIGATE CAUSE OF O NOTIES HEALTH PHYSIC	VALID ALARM: F HIGH RADIATION.
<ul> <li>OBSERVE AREA MONITOR</li> <li>OBSERVE TO OP-505, RAI</li> </ul>	RS/RECORDERS FOR TREND INFORMATION. DIATION MONITORING SYSTEM.
DISCUSSION:	
RM-G11 MONITORS THE DE WALL INSIDE THE DEMIN ALSO BE USED TO OBSERV	BORATING DEMIN ROOM. THE DETECTOR IS LOCATED ON THE ROOM ON THE 119' ELEVATION. THE REDAS SYSTEM MAY /E TREND INFORMATION.
REFERENCES: DRAWING 20	18-049-RM-27
SENSING ELEMENT: RADIA	MONITORING PANEL

ENCLOSURE 1 (Page 12 of 190)

	a construction of a line of part in surgering a law surgering and a rest of the surgering and the	Providences and the second s
PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-01-01	H-01-01
A DESCRIPTION OF A DESC		

GAMMA RADIATION HIGH

## **EVENT POINT 1770**

INDICATED CONDITION:
o RM-G12 RADIATION LEVEL EXCEEDS HIGH SETPOINT.
REDUNDANT INDICATION WHICH WILL VERIFY ALARM:
0 RM-G12 INDICATION AT RADIATION MONITORING PANEL.
OPERATOR ACTIONS FOR A VALID ALARM: • INVESTIGATE CAUSE OF HIGH RADIATION. • NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S). • OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION. • REFER TO OP-505, RADIATION MONITORING SYSTEM.
DISCUSSION: RM-G12 MONITORS THE SPENT RESIN STORAGE TANK ROOM. THE DETECTOR IS LOCATED IN THE DECANT AND SLURRY PUMP ROOM JUST INSIDE THE LOCKED GATE ON THE WALL. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.
REFERENCES: DRAWING 208-049-RM-28

ENCLOSURE 1 (Page 13 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-01-01	H-01-01

GAMMA RADIATION HIGH

### **EVENT POINT 1772**

INDICATED CONDITION:

o RM-G13 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-G13 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

INVESTIGATE CAUSE OF HIGH RADIATION.

- NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S).
- OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- O REFER TO OP-505, RADIATION MONITORING SYSTEM.

#### DISCUSSION:

RM-G13 MONITORS THE DECONTAMINATION PIT AREA. THE DETECTOR IS LOCATED ON THE 143' ELEVATION, CLOSE TO THE STAIRWELL BY THE ECSTs. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-28

ENCLOSURE 1 (Page 14 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-01-01	H-01-01
----------------------------	-------------	---------

GAMMA RADIATION HIGH

#### **EVENT POINT 1774**

INDICATED CONDITION:

o RM-G14 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

o RM-G14 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

O INVESTIGATE CAUSE OF HIGH RADIATION.

NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S).

O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.

O REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-G14 MONITORS THE SPENT FUEL STORAGE AREA. THE DETECTOR IS LOCATED ON THE 143' AB, ON THE WALL OF THE REACTOR BUILDING IN THE PASSAGEWAY TO THE SPENT FUEL SYSTEM FILTERS. THIS DETECTOR IS THE ONLY J T.S. AMA MONITOR AND IS COMMONLY REFERRED TO AS THE "SPENT FUEL CRITICALITY MONITOR". THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-29

ENCLOSURE 1 (Page 15 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-01-01	H-01-01
A REAL PROPERTY AND A REAL			

GAMMA RADIATION HIGH

## **EVENT POINT 1776**

INDICATED CONDITION:
o RM-G15 RADIATION LEVEL EXCEEDS HIGH SETPOINT.
REDUNDANT INDICATION WHICH WILL VERIFY ALARM:
o RM-G15 INDICATION AT RADIATION MONITORING PANEL.
<ul> <li>OPERATOR ACTIONS FOR A VALID ALARM:</li> <li>INVESTIGATE CAUSE OF HIGH RADIATION.</li> <li>NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S).</li> <li>OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.</li> <li>IF FUEL MOVEMENT IS IN PROGRESS, ENSURE FUEL IS PLACED IN A SAFE</li> </ul>
CONDITION PRIOR TO PERSONNEL EXIT. • REFER TO OP-505, RADIATION MONITORING SYSTEM.
DISCUSSION: RM-G15 MONITORS THE SPENT FUEL AREA. THE DETECTOR IS LOCATED ON THE SPENT FUEL BRIDGE AND MOVES WITH THE BRIDGE. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.
REFERENCES: DRAWING 208-049-RM-29
SENSING ELEMENT: RADIATION MONITORING PANEL

ENCLOSURE 1 (Page 16 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-01-01	H-01-01
	I THE OT OT	11-01-01

GAMMA RADIATION HIGH

## **EVENT POINT 1778**

IND	ICATED CONDITION:
0	RM-G16 RADIATION LEVEL EXCEEDS HIGH SETPOINT.
RED	UNDANT INDICATION WHICH WILL VERIFY ALARM:
0	RM-G16 INDICATION AT RADIATION MONITORING PANEL.
0PE 0 0 0 0	RATOR ACTIONS FOR A VALID ALARM: INVESTIGATE CAUSE OF HIGH RADIATION. NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S). OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION. IF FUEL MOVEMENT IS IN PROGRESS, ENSURE FUEL IS PLACED IN A SAFE CONDITION PRIOR TO PERSONNEL EXIT. REFER TO OP-505, RADIATION MONITORING SYSTEM.
DIS RM MA US	CUSSION: -G16 MONITORS THE FUEL TRANSFER AREA. THE DEFECTOR IS LOCATED ON THE IN FUEL BRIDGE AND MOVES WITH THE BRIDGE. THE REDAS SYSTEM MAY ALSO BE ED TO OBSERVE TREND INFORMATION.
REF	ERENCES: DRAWING 208-049-RM-30
SEN	SING ELEMENT: RADIATION MONITORING PANEL

ENCLOSURE 1 (Page 17 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-01-01	H-01-01
		it was was

GAMMA RADIATION HIGH

### **EVENT POINT 1780**

INDICATED CONDITION: o RM-G17 RADIATION LEVEL EXCEEDS HIGH SETPOINT. REDUNDANT INDICATION WHICH WILL VERIFY ALARM: O RM-G17 INDICATION AT RADIATION MONITORING PANEL. OPERATOR ACTIONS FOR A VALID ALARM: INVESTIGATE CAUSE OF HIGH RADIATION. NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S). O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION. O REFER TO OP-505, RADIATION MONITORING SYSTEM. DISCUSSION: RM-G17 MONITORS THE 119' ELEVATION OF THE REACTOR BUILDING. THE DETECTOR IS LOCATED ON THE STANCHION NEAR THE PERSONNEL HATCH. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION. REFERENCES: DRAWING 208-049-RM-30 SENSING ELEMENT: RADIATION MONITORING PANEL

ENCLOSURE 1 (Page 18 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-01-01	H-01-01
	In second data water water a base of the second data and the secon		

		PAR NEW YORK PROPERTY.		

GAMMA RADIATION HIGH

### **EVENT POINT 1782**

INDICATED CONDITION:

O RM-G18 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-G18 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

INVESTIGATE CAUSE OF HIGH RADIATION.

• NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S).

- O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- VERIFY TRANSFER CANAL LEVEL AT DESIRED HEIGHT.
- O REFER TO OP-505, RADIATION MONITORING SYSTEM.

#### DISCUSSION:

RM-G18 MONITORS THE INCORE PIT AREA. THE DETECTOR IS LOCATED IN THE PIT ON THE 164' ELEVATION NEAR THE TRANSFER CANAL. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-31

ENCLOSURE 1 (Page 19 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-01-01	H-01-01
----------------------------	-------------	---------

GAMMA RADIATION HIGH

## **EVENT POINT 1784**

INDICATED	CONDITION:
o RM-G29	/30 RADIATION LEVEL EXCEEDS HIGH SETPOINT.
REDUNDANT	INDICATION WHICH WILL VERIFY ALARM:
o RM-G29 o SPDS A	/30 INDICATION ON HVAC SECTION OF MAIN CONTROL BOARD. LPHA PAGE.
OPERATOR A o INVEST o NOTIFY o OBSERV o REFER	IGATE CAUSE OF HIGH RADIATION. HEALTH PHYSICS TO MONITOR AFFECTED AREA(S). E AREA MONITORS/RECORDERS FOR TREND INFORMATION. TO OP-505, RADIATION MONITORING SYSTEM.
DISCUSSION	4:
RM-G29/30 THE DETE ELEVATION	) ARE THE REACTOR BUILDING HIGH RANGE POST ACCIDENT MONITORS. TTORS ARE LOCATED ON THE TOP OF EACH 'D' RING AT THE 180' N. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND ION.
REFERENCES	: DRAWING 208-049-RM-32

SENSING ELEMENT: RADIATION MONITORING PANEL

6

ENCLOSURE 1 (Page 20 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-01-02	H-01-02
	I DA E CE VE	11-01-02

GAMMA MONITOR WARNING

### **EVENT POINT 1749**

#### INDICATED CONDITION:

- o RM-G1 RADIATION LEVEL EXCEEDS WARNING SETPOINT OR
- RM-G1 RADIATION MONITOR FAILED LOW.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- O RM-G1 INDICATION AT RADIATION MONITORING PANEL.
- O RM-G1 INDICATION AT DETECTOR.
- O SPDS ALPHA PAGE.

OPERATOR ACTIONS FOR A VALID ALARM:

- INVESTIGATE CAUSE OF HIGH RADIATION OR, MONITOR LOW READING.
- O NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S).
- O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- O REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-G1 MONITORS THE CONTROL ROOM. THE DETECTOR IS ON THE BACK WALL NEXT TO THE ES RELAY ACTUATION CABINETS. EITHER WARNING SETPOINT EXCEEDED OR A DETECTOR FAILED LOW WILL GIVE THIS ALARM. THE PEDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-22

ENCLOSURE 1 (Page 21 of 190)

PSA-Z ANNUNCIATOR R	ESPONSE	PSA-Z-01-02	H-01-02

GAMMA MONITOR WARNING

### **EVENT POINT 1751**

INDICATED CONDITION:

 RM-G2 RADIATION LEVEL EXCEEDS WARNING SETPOINT OR, RM-G2 RADIATION MONITOR FAILED LOW.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-G2 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- INVESTIGATE CAUSE OF HIGH RADIATION OR, MONITOR LOW READING.
- O NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S).
- O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-G2 MONITORS THE CHEMICAL LABORATORY. THE DETECTOR IS LOCATED ON THE EAST WALL INSIDE THE CHEMICAL LABORATORY. EITHER WARNING SETPOINT EXCEEDED OR A DETECTOR FAILED LOW WILL GIVE THIS ALARM. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-23

ENCLOSURE 1 (Page 22 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-01-02	H-01-02
And country for the anti-Anti-Anti-Anti-Anti-Anti-Anti-Anti-A			

production in the second s	COLUMN TRADE OF A	And a state of the state of the	CONTRACTOR OF STREET, ST. OF S	the sub-column second second	 
101 M					

GAMMA
MONITOR
WARNING

## **EVENT POINT 1753**

INDICATED CONDITION:

- O RM-G3 RADIATION LEVEL EXCEEDS WARNING SETPOINT OR,
- O RM-G3 RADIATION MONITOR FATLED LOW.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-G3 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- INVESTIGATE CAUSE OF HIGH RADIATION OR, MONITOR LOW READING.
- NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S).
- O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- O REFER TO OP-505, RADIATION MONITORING SYSTEM.

#### DISCUSSION:

RM-G3 MONITORS THE PRIMARY SAMPLE ROOM. THE DETECTOR IS LOCATED ON THE WALL INSIDE THE PRIMARY SAMPLE ROOM. EITHER WARNING SETPOINT EXCEEDED OR A DETECTOR FAILED LOW WILL GIVE THIS ALARM. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-23

ENCLOSURE 1 (Page 23 of 190)

		A Development of the second seco	second second spectra in the second district planet second s
PSA-Z ANNUNCIATOR RESPO	INSE PSA	Z-01-02	H-01-02

the statement of the st	and the state of the state of the	our party of the loss of the l	NAMES AND POST OFFICE ADDRESS	NAME OF TAXABLE PARTY.	 

GAMMA
MONITOR
WARNING

### **EVENT POINT 1755**

INDICATED CONDITION:

- o RM-G4 RADIATION LEVEL EXCEEDS WARNING SETPOINT OR.
- O RM-G4 RADIATION MONITOR FAILED LOW.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-G4 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- INVESTIGATE CAUSE OF HIGH RADIATION OR, MONITOR LOW READING.
- O NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S).
- O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- O REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-G4 MONITORS THE AUXILIARY BUILDING ENTRANCE HALLWAY. THE DETECTOR IS LOCATED ON THE WALL OPPOSITE THE PAX PHONE NEAR THE ENTRANCE TO THE INTERMEDIATE BUILDING. EITHER WARNING SETPOINT EXCEEDED OR A DETECTOR FAILED LOW WILL GIVE THIS ALARM. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-24

ENCLOSURE 1 (Page 24 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-01-02	H-01-02

GAMMA MONITOR WARNING

#### **EVENT POINT 1757**

INDICATED CONDITION:

- RM-G5 RADIATION LEVEL EXCEEDS WARNING SETPOINT OR,
- O RM-G5 RADIATION MONITOR FAILED LOW.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

RM-G5 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- INVESTIGATE CAUSE OF HIGH RADIATION OR, MONITOR LOW READING.
- O NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S).
- O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- O REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-G5 MONITORS THE WASTE GAS TANK VALVE ALLEY. THE DETECTOR IS LOCATED ON THE WALL OPPOSITE THE WASTE GAS COMPRESSOR ROOM. EITHER WARNING SETPOINT EXCEEDED OR A DETECTOR FAILED LOW WILL GIVE THIS ALARM. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-24

ENCLOSURE 1 (Page 25 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-01-02	H-01-02
	The second s		

GAMMA MONITOR WARNING

### **EVENT POINT 1759**

INDICATED CONDITION:

- o RM-G6 RADIATION LEVEL EXCEEDS WARNING SETPOINT OR
- O RM-G6 RADIATION MONITOR FAILED LOW.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-G6 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- INVESTIGATE CAUSE OF HIGH RADIATION OR, MONITOR LOW READING.
- O NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S).
- O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- O REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-G6 MONITORS THE MAKEUP TANK VALVE ALLEY. THE DETECTOR IS LOCATED ON THE WALL NEAR THE ENTRANCE LOCKED GATE. EITHER WARNING SETPOINT EXCEEDED OR A DETECTOR FAILED LOW WILL GIVE THIS ALARM. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-25.

ENCLOSURE 1 (Page 26 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-01-02	H-07 J2
A DESCRIPTION OF THE PARTY OF		

Statement of the local division in which the local division in the	Contract of the local division of the local	of the local division of the local divisiono	CRIE AND DESCRIPTION OF	a property in the second second	which is not a surgery state of a	Conception of the local division in the local division of the loca	

GAMMA MONITOR WARNING

## **EVENT POINT 1761**

#### INDICATED CONDITION:

- o RM-G7 RADIATION LEVEL EXCEEDS WARNING SETPOINT OR
- o RM-G7 RADIATION MONITOR FAILED LOW.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-G7 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- INVESTIGATE CAUSE OF HIGH RADIATION OR, MONITOR LOW READING.
- NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S).
- O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- O REFER TO OP-505, RADIATION MOMITORING SYSTEM.

DISCUSSION:

RM-G7 MONITORS THE RC BLEED TANK AREA. THE DETECTOR IS LOCATED ON THE WALL NEAR THE ENTRANCE INSIDE THE LOCKED GATE ON THE 95' ELEVATION. EITHER WARNING SETPOINT EXCEEDED OR A DETECTOR FAILED LOW WILL GIVE THIS ALARM. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-25

ENCLOSURE 1 (Page 27 of 190)

PSA-Z ANNUNCIATOR RESPONSE PSA	-Z-01-02	H-01-02
--------------------------------	----------	---------

INDICATED CONDITION:

GAMMA MONITOR WARNING

### **EVENT POINT 1763**

# O RM-G8 RADIATION LEVEL EXCEEDS WARNING SETPOINT OR O RM-G8 RADIATION MONITOR FAILED LOW. REDUNDANT INDICATION WHICH WILL VERIFY ALARM: O RM-G8 INDICATION AT RADIATION MONITORING PANEL. OPERATOR ACTIONS FOR A VALID ALARM: O INVESTIGATE CAUSE OF HIGH RADIATION OR, MONITOR LOW READING. NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S). O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION. O REFER TO OP-505, RADIATION MONITORING SYSTEM. DISCUSSION: RM-G8 MONITORS THE RC BLEED TANK AREA. THE DETECTOR IS LOCATED ON THE WALL NEAR THE ENTRANCE INSIDE THE LOCKED GATE ON THE 119' ELEVATION. EITHER WARNING SETPOINT EXCEEDED OR A DETECTOR FAILED LOW WILL GIVE THIS ALARM. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION. REFERENCES: DRAWING 208-049-RM-26

ENCLOSURE 1 (Page 28 of 190)

PSA-Z	ANNUNCIATOR	RESPONSE	PSA-Z-01-02	H-01-02
-------	-------------	----------	-------------	---------

GAMMA MONITOR WARNING

### **EVENT POINT 1765**

INDICATED CONDITION:

- O RM-G9 RADIATION LEVEL EXCEEDS WARNING SETPOINT OR
- RM-G9 RADIATION MONITOR FAILED LOW.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-G9 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- INVESTIGATE CAUSE OF HIGH RADIATION OR, MONITOR LOW READING.
- NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S).
- O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-G9 MONITORS THE PERSONNEL HATCH. THE DETECTOR IS LOCATED ON THE WALL NEAR THE ENTRANCE INSIDE THE LOCKED GATE ON THE 119' ELEVATION. EITHER WARNING SETPOINT EXCEEDED OR A DETECTOR FAILED LOW WILL GIVE THIS ALARM. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-26

ENCLOSURE 1 (Page 29 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-01-02	H-01-02


GAMMA MONITOR WARNING

### EVENT POINT 1767

INDICATED CONDITION:

o RM-G10 RADIATION LEVEL EXCEEDS WARNING SETPOINT OR

O RM-G10 RADIATION MONITOR FAILED LOW.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-G10 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- INVESTIGATE CAUSE OF HIGH RADIATION OR, MONITOR LOW READING.
- O NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S).
- O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- O REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-G10 MONITORS THE MAKE-UP PUMP AREA. THE DETECTOR IS LOCATED ON THE WALL NEAR THE ENTRANCE TO THE 'C' MAKE-UP PUMP (SOUTH ENTRANCE). FITHER WARNING SETPOINT EXCEEDED OR A DETECTOR FAILED LOW WILL GIVE THIS ALARM. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-27

ENCLOSURE 1 (Page 30 of 190)

	Contraction of the second of the	And in case of the second
PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-01-02	H-01-02

Therease						
No. C. C.						

GAMMA
MONITOR
WARNING

# **EVENT POINT 1769**

INDICATE	CONDITION:
o RM-G1 o RM-G1	1 RADIATION LEVEL EXCEEDS WARNING SETPOINT OR 1 RADIATION MONITOR FAILED LOW.
REDUNDANT	INDICATION WHICH WILL VERIFY ALARM:
o RM-G1	1 INDICATION AT RADIATION MONITORING PANEL.
OPERATOR O INVES MONIT O NOTIF O OBSER	ACTIONS FOR A VALID ALARM: TIGATE CAUSE OF HIGH RADIATION OR, OR LOW READING. Y HEALTH PHYSICS TO MONITOR AFFECTED AREA(S). VE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
O REFER	TO OP-505, RADIATION MONITORING SYSTEM. DN: MONITORS THE DEBORATING DEMIN ROOM. THE DETECTOR IS LOCATED ON THE SIDE THE DEMIN ROOM ON THE 119' ELEVATION. EITHER WARNING SETPOINT D OR A DETECTOR FAILED LOW WILL GIVE THIS ALARM. THE REDAS SYSTEM O BE USED TO OBSERVE TREND INFORMATION
REFERENCE	ES: DRAWING 208-049-RM-27
SENSING	LEMENT: RADIATION MONITORING PANEL

T

ENCLOSURE 1 (Page 31 of 190)

		and the second se
PSA-Z ANNUNCIATOR RESPONSE	PSA-7-01-02	H-01-02
	I STA L OL OL	11 0 2 0 2

Construction of the owner of the owner of the	substances of the local division in the loca	and the set of the local division of the set	and the second second	COLUMN TWO IS NOT THE	and it is the state of the state of the state
Ø		-			

GAMMA MONITOR WARNING

## **EVENT POINT 1771**

INDI	CATED CONDITION:
o F	RM-G12 RADIATION LEVEL EXCEEDS WARNING SETPOINT OR RM-G12 RADIATION MONITOR FAILED LOW.
REDU	NDANT INDICATION WHICH WILL VERIFY ALARM:
o F	RM-G12 INDICATION AT RADIATION MONITORING FANEL.
OPER	ATOR ACTIONS FOR A VALID ALARM:
0 ]	INVESTIGATE CAUSE OF HIGH RADIATION OR, MONITOR LOW READING.
0 1	NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S).
0 (	DBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
0 1	CEPER TO OP-SUS, RADIATION MUNITURING SYSTEM.
DISC	USSION:
RM- IN WAR THE	G12 MONITORS THE SPENT RESIN STORAGE TANK ROOM. THE DETECTOR IS LOCATED THE DECANT AND SLURRY PUMP ROOM JUST INSIDE THE LOCKED GATE. EITHER NING SETPOINT EXCEEDED OR A DETECTOR FAILED LOW WILL GIVE THIS ALARM. REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.
REFE	RENCES: DRAWING 208-049-RM-28
SENS	ING ELEMENT: RADIATION MONITORING PANEL

THETCHTER

ENCLOSURE 1 (Page 32 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	PSA-7-01-02	H_01_02
	RESTORSE	F3A-2-01-02	H-01-02

GAMMA MONITOR WARNING

## **EVENT POINT 1773**

INDICATED CONDITION:

o RM-G13 RADIATION LEVEL EXCEEDS WARNING SETPOINT OR

RM-G13 RADIATION MONITOR FAILED LOW.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-G13 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- INVESTIGATE CAUSE OF HIGH RADIATION OR, MONITOR LOW READING.
- O NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S).
- O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- O REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-G13 MONITORS THE DECONTAMINATION PIT AREA. THE DETECTOR IS LOCATED ON THE 143' ELEVATION, CLOSE TO THE STAIRWELL BY THE ECSTS. EITHER WARNING SETPOINT EXCEEDED OR A DETECTOR FAILED LOW WILL GIVE THIS ALARM. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-28
ENCLOSURE 1 (Page 33 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	PSA-7-01-02	H 01 02
	RESTORSE.	PSA-2-0.1-02	H-01-02

GAMMA MONITOR WARNING

# **EVENT POINT 1775**

INDICATED CONDITION:

o RM-G14 RADIATION LEVEL EXCEEDS WARNING SETPOINT OR

RM-G14 RADIATION MONITOR FAILED LOW.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

o RM-G14 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

 INVESTIGATE CAUSE OF HIGH RADIATION OR, MONITOR LOW READING.

• NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S).

- O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- O REFEE TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-G14 MONITORS THE SPENT FUEL STORAGE AREA. THE DETECTOR IS LOCATED ON THE 143' AB, ON THE WALL OF THE REACTOR BUILDING IN THE PASSAGEWAY TO THE SPENT FUEL SYSTEM FILTERS. THIS DETECTOR IS COMMONLY REFERRED TO AS THE "SPENT FUEL CRITICALITY MONITOR". THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-29

ENCLOSURE 1 (Page 34 of 190)

PSA-Z ANNUNCIATOR SESPONSE	PSA-7-01-02	H 01 02
TOR E ANTON RESPONSE	PSA-2-01-02	H-01-02

CONTRACTOR OF CONTRACTOR					 
(第14) (14)					
the subsection of the property states of the same product of the local	CONTRACTOR OF TAXABLE PARTY OF TAXABLE P	and the second sec		A strain and a strain of the	

GAMMA MONITOR WARNING

#### **EVENT POINT 1777**

INDICATED CONDITION:

- O RM-G15 RADIATION LEVEL EXCEEDS WARNING ST POINT OR
- o RM-G15 RADIATION MONITOR FAILED LOW.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-G15 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- INVESTIGATE CAUSE OF HIGH RADIATION OR, MONITOR LOW READING.
- NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S).
- O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- O REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-G15 MONITORS THE SPENT FUEL AREA. THE DETECTOR IS LOCATED ON THE SPENT FUEL BRIDGE AND MOVES WITH THE BRIDGE. EITHER WARNING SETPOINT EXCEEDED OR A DETECTOR FAILED LOW WILL GIVE THIS ALARM. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-29

ENCLOSURE 1 (Page 35 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-01-02	H-01-02
		11 01 02

production in the state of the	the Party of the Party of the Party of the	C. Service and the second s	 	
	1			

GAMMA MONITOR WARNING

# **EVENT POINT 1779**

INDI	CATED CONDITION:
0 1	RM-G16 RADIATION LEVEL EXCEEDS WARNING SETPOINT OR RM-G16 RADIATION MONITOR FAILED LOW.
REDU	NDANT INDICATION WHICH WILL VERIFY ALARM:
0	RM-G16 INDICATION AT RADIATION MONITORING PANEL.
PER 0	ATOR ACTIONS FOR A VALID ALARM: INVESTIGATE CAUSE OF HIGH RADIATION OR, MONITOR LOW READING.
0 0	DBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION. REFER TO OP-505, RADIATION MONITORING SYSTEM.
DISC	USSION:
RM- MAI EXC MAY	G16 MONITORS THE FUEL TRANSFER AREA. THE DETECTOR IS LOCATED ON THE IN FUEL BRIDGE AND MOVES WITH THE BRIDGE. EITHER WARNING SETPOINT TEEDED OR A DETECTOR FAILED LOW WILL GIVE THIS ALARM. THE REDAS SYSTEM ( ALSO BE USED TO OBSERVE TREND INFORMATION.
REFE	RENCES: DRAWING 208-049-RM-30
SENS	ING ELEMENT: RADIATION MONITORING PANEL

Г

ENCLOSURE 1 (Page 36 of 190)

PSA-Z ANN	UNCIATOR RESPONSE	PSA-Z-01-02	H-01-02
the second se			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

GAMMA MONITOR WARNING

### **EVENT POINT 1781**

#### INDICATED CONDITION:

- RM-G17 RADIATION LEVEL EXCEEDS WARNING SETPOINT OR
   RM-G17 RADIATION MONITOR FAILED LOW.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

• RM-G17 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- INVESTIGATE CAUSE OF HIGH RADIATION OR, MONITOR LOW READING.
- NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S).
- O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- O REFER TO OP-505, RADIATION MONITORING SYSTEM.

#### DISCUSSION:

RM-G17 MONITORS THE 119' ELEVATION OF THE REACTOR BUILDING. THE DETECTOR IS LOCATED ON THE STANCHION NEAR THE PERSONNEL HATCH. EITHER WARNING SETPOINT EXCEEDED OR A DETECTOR FAILED LOW WILL GIVE THIS ALARM. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-30

ENCLOSURE 1 (Page 37 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-01-02	H-01-02
A DESCRIPTION OF A DESC		

INDICATED CONDITION:

GAMMA MONITOR WARNING

## **EVENT POINT 1783**

RM-G18 RADIATION LEVEL EXCEEDS WARNING SETPOINT OR
RM-G18 RADIATION MONITOR FAILED LOW.
REDUNDANT INDICATION WHICH WILL VERIFY ALARM:
RM-G18 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

INVESTIGATE CAUSE OF HIGH RADIATION OR, MONITOR LOW READING.
NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S).
OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
VERIFY TRANSFER CANAL LEVEL AT DESIRED HEIGHT.
REFER TO OP-S05, RADIATION MONITORING SYSTEM.

DISCUSSION:
RM-G18 MONITORS THE INCORE PIT AREA. THE DETECTOR IS LOCATED IN THE PIT ON THE 164' ELEVATION NEAR THE TRANSFER CANAL. EITHER WARNING SETPOINT

EXCEEDED OR A DETECTOR FAILED LOW WILL GIVE THIS ALARM. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-31

ENCLOSURE 1 (Page 38 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-01-02	H-01-02
----------------------------	-------------	---------

GAMMA MONITOR WARNING

### **EVENT POINT 1785**

INDICATED CONDITION: o RM-G29/30 RADIATION LEVEL EXCEEDS WARNING SETPOINT(S) OR o RM-G29/30 RADIATION MONITOR(S) FAILED LOW. REDUNDANT INDICATION WHICH WILL VERIFY ALARM: O RM-G29/30 INDICATION ON HVAC SECTION OF MAIN CONTROL BOARD. O SPDS ALPHA PAGE. OPERATOR ACTIONS FOR A VALID ALARM: O INVESTIGATE CAUSE OF HIGH RADIATION OR MONITOR(S) LOW READING. O NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S). O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION. O VERIFY TRANSFER CANAL LEVEL AT DESIRED HEIGHT. O REFER TO OP-505, RADIATION MONITORING SYSTEM. DISCUSSION: RM-G29/30 ARE THE REACTOR BUILDING HIGH RANGE POST ACCIDENT MONITORS. THE DETECTORS ARE LOCATED ON THE TOP OF EACH 'D' RING AT THE 180' ELEVATION. EITHER WARNING SETPOINT(S) EXCEEDED OR A DETECTOR FAILED LOW WILL GIVE THIS ALARM. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION. REFERENCES: DRAWING 208-049-RM-32 SENSING ELEMENT: RADIATION MONITORING PANEL

ENCLOSURE 1 (Page 39 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-01-05	H-01-05
The second of a location of the product of the second state of the			

MN STM LINE A/B HIGH RAD MONITOR FAIL

# **EVENT POINT 1977**

#### INDICATED CONDITION:

- o RM-G25/26/27/28 RADIATION LEVEL EXCEEDS ALARM SETPOINT, OR RM-G25/26/27/28 RADIATION LEVEL EXCEEDS ALARM SETPOINT, OR
- O RM-G25/26/27/28 RADIATION MONITOR FAILED LOW.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- O RM-G25/26/27/28 INDICATION ON HVAC SECTION OF MAIN CONTROL BOARD.
- AUDIBLE INDICATION ON RADIATION MONITOR(S)
- O SPDS ALPHA PAGE.

OPERATOR ACTIONS FOR A VALID ALARM:

- INVESTIGATE CAUSE OF HIGH RADIATION OR LOW MONITOR READING.
- O NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S).
- O REFER TO EOP-06, STEAM GENERATOR TUBE RUPTURE.
- REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-G25/28 MONITOR THE ATMOSPHERIC DUMP LINES MSV-25/A1 AND MSV-26/B2. RM-G26/27 MONITOR THE MAIN STEAM LINES B1 AND A2 RESPECTIVELY. THE DETECTORS ARE ALL LOCATED ON THE 119' ELEVATION OF THE INTERMEDIATE BUILDING ON THEIR RESPECTIVE STEAM LINE. EITHER RADIATION SETPOINT EXCEEDED OR A DETECTOR FAILED LOW CAN GIVE THIS ALARM.

REFERENCES: DRAWING 208-049-RM-47

ENCLOSURE 1 (Page 40 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-01-07	H-01-07
----------------------------	-------------	---------

DO STOR TANK LEVEL HIGH/LOW

## **EVENT POINT 1512**

INDICATED CONDITION:

O DO STORAGE TANK LEVEL >97" H20 AS SENSED BY DO-4-LS

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

O INVESTIGATE CAUSE OF HIGH LEVEL.

· NOTIFY SECONDARY PLANT OPERATOR TO OBSERVE LOCAL LEVEL INDICATOR.

DISCUSSION:

THE DO STORAGE TANK HAS AN AUTO FILL FEATURE. IF THE LEVEL IS HIGH AND RISING THE FILL VALVE MAY BE STUCK OPEN.

REFERENCES: DRAWING 208-022-DO-07

SENSING ELEMENT: DO-4-LS

ENCLOSURE 1 (Page 41 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-01-07	H-01-07
----------------------------	-------------	---------

DO STOR TANK LEVEL HIGH/LOW

#### **EVENT POINT 1520**

INDICATED CONDITION:

O DO STORAGE TANK LEVEL <33" H,O AS SENSED BY DO-3-LS

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

INVESTIGATE CAUSE OF LOW LEVEL.
 NOTIFY SECONDARY PLANT OPERATOR TO OBSERVE LOCAL LEVEL INDICATOR.

DISCUSSION:

THE DO STORAGE TANK HAS AN AUTO FILL FEATURE. IF THE LEVEL IS LOW AND NOT RISING THE FILL VALVE MAY BE STUCK CLOSED, OR DO WATER FROM UNITS 1/2 WATER TREATMENT BUILDING IS NOT AVAILABLE. CONTACT UNITS 1/2 TO INVESTIGATE.

REFERENCES: DRAWING 208-022-DO-07

SENSING ELEMENT: DO-3-LS

ENCLOSURE 1 (Page 42 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-02-01	H-02-01
	i serie no series series	11 04 04

ATMOSPHERIC RADIATION HIGH

#### **EVENT POINT 1712**

INDICATED CONDITION:

O RM-A1 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-A1 INDICATION AT RADIATION MONITORING PANEL.

O SPDS ALPHA PAGE.

OPERATOR ACTIONS FOR A VALID ALARM:

o REFER TO AP-250.

O INVESTIGATE CAUSE OF HIGH RADIATION.

O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.

O REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-A1 MONITORS THE REACTOR BUILDING PURGE EXHAUST DUCT. THREE DIFFERENT DETECTORS ARE USED, PARTICULATE, IODINE AND GAS. ANY ONE OF THESE CHANNELS CAN GIVE THIS ALARM. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-16

ENCLOSURE 1 (Page 43 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-02-01	H-02-01
----------------------------	-------------	---------

ATMOSPHERIC
RADIATION
HIGH

#### **EVENT POINT 1715**

INDICATED CONDITION:

o RM-A2 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

o RM-A2 INDICATION AT RADIATION MONITORING PANEL.

o SPDS ALPHA PAGE.

OPERATOR ACTIONS FOR A VALID ALARM:

o REFER TO AP-250.

O INVESTIGATE CAUSE OF HIGH RADIATION.

O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION

O REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-A2 MONITORS THE AUXILIARY BUILDING PURGE EXHAUST DUCT. THREE DIFFERENT DETECTORS ARE USED, PAPTICULATE, IODINE AND GAS. ANY ONE OF THESE CHANNELS CAN GIVE THIS ALARM. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-16



ENCLOSURE 1 (Page 44 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-02-01 H-02-01

A	TMOSPHERIC
	RADIATION
	HIGH

## **EVENT POINT 1718**

INDICATED CONDITION:

o RM-A3 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

o RM-A3 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

o REFER TO AP-250.

INVESTIGATE CAUSE OF HIGH RADIATION.

OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.

O REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-A3 MONITORS AUXILIARY BUILDING EXHAUST FROM SAMPLE AREA 'D', THE WASTE GAS COMPRESSOR ROOM, THE WASTE GAS VALVE ALLEY, AND ADJOINING AREAS. THIS DETECTOR ONLY HAS A GAS CHANNEL. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-17

ENCLOSURE 1 (Page 45 of 190)

	PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-02-01	H-02-01
--	----------------------------	-------------	---------

ATMOSPHERIC RADIATION HIGH

# **EVENT POINT 1721**

INDICATED CONDITION:

O RM-A4 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

o RM-A4 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

O REFER TO AP-250.

O INVESTIGATE CAUSE OF HIGH RADIATION.

O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.

O REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-A4 MONITORS THE SPENT FUEL AREA EXHAUST. THIS DETECTOR ONLY HAS A GAS CHANNEL. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-17

ENCLOSURE 1 (Page 46 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-02-01	H-02-01
----------------------------	-------------	---------

ATMOSPHERIC RADIATION HIGH

# **EVENT POINT 1724**

INDICATED CONDITION:

o RM-A5 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

RM-A5 INDICATION AT RADIATION MONITORING PANEL.
 SPDS ALPHA PAGE.

OPERATOR ACTIONS FOR A VALID ALARM:

o REFER TO AP-250.

O INVESTIGATE CAUSE OF HIGH RADIATION.

O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.

O REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-A5 MONITORS THE CONTROL COMPLEX RETURN DUCT. THREE DIFFERENT DETECTORS ARE USED, PARTICULATE, IODINE AND GAS. ANY ONE OF THESE CHANNELS CAN GIVE THIS ALARM. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-18

ENCLOSURE 1 (Page 47 of 190)

PSA-Z ANNUNCIATUR RESPONSE PSA-Z-02	02-01	H-02-01
-------------------------------------	-------	---------

ATMOSPHERIC RADIATION HIGH

#### **EVENT POINT 1727**

INDICATED CONDITION:

O RM-A6 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-A6 INDICATION AT RADIATION MONITORING PANEL.

O SPDS ALPHA PAGE.

OPERATOR ACTIONS FOR A VALID ALARM:

O INVESTIGATE CAUSE OF HIGH RADIATION.

O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.

O REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-A6 MONITORS THE REACTOR BUILDING ATMOSPHERE. SAMPLE POINTS ARE EITHER AHF-3B DUCT, OR THE RB ATMOSPHERE DIRECTLY. IT IS NORMALLY LINED UP TO THE DUCT OF AHF-3B. IT CAN ALTERNATELY BE LINED UP TO SAMPLE THE RB ATMOSPHERE DIRECTLY PER OP-417. TWO DIFFERENT DETECTORS ARE USED, PARTICULATE/BETA AND GAS. ANY ONE OF THESE CHANNELS CAN GIVE THIS ALARM. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-18

ENCLOSURE 1 (Page 48 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-02-01	H-02-01

ATMOSPHERIC ADIATION HIGH

#### **EVENT POINT 1730**

INDICATED CONDITION:

o RM-A7 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

o RM-A7 INDICATION AT RADIATION MONITOPING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

O INVESTIGATE CAUSE OF HIGH RADIATION.

O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.

REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-A7 MONITORS THE AHF-44A/B DISCHARGE AIR, THEREFORE THE ATMOSPHERES OF THE PRIMARY SAMPLE ROOM, PRIMARY SAMPLE ROOM SAMPLE HOOD, RADIO CHEMISTRY LAB SAMPLE HOODS, AND/OR PASS SYSTEM VALVE ALLEY MAY HAVE HIGH GASEOUS ACTIVITY. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-19

ENCLOSURE 1 (Page 49 of 190)

DCA 7 ANNUNCTATOR RECEDUCE		and the second
PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-02-01	H-02-01

ATMOSPHERIC RADIATION HIGH

## **EVENT POINT 1733**

INDICATED CONDITION:

O RM-A8 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-A8 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

INVESTIGATE CAUSE OF HIGH RADIATION.

O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.

REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-A8 MONITORS THE AUXILIARY BUILDING EXHAUST UPSTREAM OF THE PENETRATION FOR THE FUEL KANDLING FLOOR EXHAUST. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-19

ENCLOSURE 1 (Pag ~ 50 of 190)

PSA-Z	ANNUNCIATOR	RESPONSE	PSA-Z-02-01	H-02-01
WE THE R. S. P. LEWIS CO., LANSING MICH. MICH. MICH. MICH. MICH. MICH.				

ATMOSPHERIC RADIATION HIGH

#### **EVENT POINT 1736**

INDICATED CONDITION:

o RM-A1! RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-A11 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

INVESTIGATE CAUSE OF HIGH RADIATION.

- IF WASTE GAS RELEASE IN PROGRESS, NOTIFY PRIMARY PLANT OPERATOR TO ENSURE WGDT RECYCLE VALVES AND RELEASE VALVE ARE CLOSED.
- OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-A11 MONITORS THE AUXILIARY BUILDING EXHAUST PENETRATION FOR THE WASTE GAS RELEASE PATH. THE WGDT RECYCLE VALVES ARE WDV 393/394/395 AND THE RELEASE VALVE IS WDV-439. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-20

ENCLOSURE 1 (Page 51 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-02-01	H-02-01
----------------------------	-------------	---------

ATMOSPHERIC RADIATION HIGH

# **EVENT POINT 1738**

IND	ICATED CONDITION:
0	RM-A12 RADIATION LEVEL EXCEEDS HIGH SETPOINT.
RED	UNDANT INDICATION WHICH WILL VERIFY ALARM:
0	RM-A12 INDICATION AT RADIATION MONITORING PANEL.
0	MAIN STEAM LINE RAD MONITORS RMG-25, RMG-26, RMG-27, AND /OR RMG-28 READ HIGHER THAN NORMAL.
OPE	RATOR ACTIONS FOR A VALID ALARM:
0	REFER TO EOP-06, STEAM GENERATOR TUBE RUPTURE.
0	OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
U	REFER TO OP-505, RADIATION MONITORING SYSTEM.
DIS	CUSSION:
RM PL TF	A-A12 MONITORS THE AUXILIARY BUILDING EXHAUST PENETRATION FOR SECONDARY ANT CONDENSER OFF GAS. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE REND INFORMATION.
REF	ERENCES: DRAWING 208-049-RM-20
SEN	SING ELEMENT: RADIATION MONITORING PANEL

ENCLOSURE 1 (Page 52 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-02-01	H-02-01
----------------------------	-------------	---------

ATMOSPHERIC RADIATION HIGH

#### **EVENT POINT 1742**

INDICATED CONDITION:

o RM-A14 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

o RM-A14 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

O INVESTIGATE CAUSE OF HIGH RADIATION.

O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.

o REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-A14 IS A PORTABLE MONITOR, NORMALLY LOCATED NEAR THE PRIMAS, SAMPLE LABORATORY. THIS MONITOR IS NOT NORMALLY ENERGIZED. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-21

ENCLOSURE 1 (Page 53 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-02-01	H-02-01
A COMPANY OF A COM		

ATMOSPHERIC RADIATION HIGH

## **EVENT POINT 1745**

INDICATED CONDITION:

o RM-A15 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-A15 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

O INVESTIGATE CAUSE OF HIGH RADIATION.

O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.

O REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-A15 IS A PORTABLE MONITOR, NORMALLY LOCATED NEAR THE DECONTAMINATION PIT ON THE SPENT FUEL FLOOR. THIS MONITOR IS NOT NORMALLY ENERGIZED. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-22

ENCLOSURE 1 (Page 54 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-02-02	H-02-02
and an adding to physical sector of a sector of the sector			

ATMOSPHERIC MONITOR WARNING

#### **EVENT POINT 1713**

INDICATED CONDITION:

- O RM-A1 RADIATION LEVEL EXCEEDS WARNING SETPOINT, OR
- O RM-A1 RADIATION MONITOR FAILED LOW

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

RM-A1 INDICATION AT RADIATION MONITORING PANEL.
 SPDS ALPHA PAGE.

OPERATOR ACTIONS FOR A VALID ALARM:

- INVESTIGATE CAUSE OF HIGH RADIATION, OR LOW MONITOR READING.
- O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- O REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-A1 MONITORS THE REACTOR BUILDING PURGE EXHAUST DUCT. THREE DIFFERENT DELECTORS ARE USED, PARTICULATE, IODINE AND GAS. ANY ONE OF THESE CHANNELS CAN GIVE THIS ALARM, EITHER WARNING SETPOINT EXCEEDED, OR DETECTOR FAILED LOW. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-16

ENCLOSURE 1 (Page 55 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-02-02	H-02-02
----------------------------	-------------	---------

ATMOSPHERIC MONITOR WARNING

### **EVENT POINT 1714**

INDICATED CO! DITION:

O RM-A1 RADIATION MONITOR PUMP FLOW ABOVE NORMAL OR LESS THAN 5 SCFM.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-A1 FLOW INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

INVESTIGATE CAUSE OF RADIATION PUMP FLOW PROBLEM.
 REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-A1 MONITORS THE REACTOR BUILDING PURGE EXHAUST DUCT. THREE DIFFERENT DETECTORS ARE USED, PARTICULATE, IODINE AND GAS. EITHER A HIGH OR LOW FLOW CAN GIVE THIS ALARM.

REFERENCES: DRAWING 208-049-RM-01

ENCLOSURE 1 (Page 56 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-7-02-02	H=0'
	F3A-2-02-02	H-U_ J2

ATMOSPHERIC MONITOR WARNING

### **EVENT POINT 1716**

INDICATED CONDITION:

- O RM-A2 RADIATION LEVEL EXCEEDS WARNING SETPOINT, OR
- O RM-A2 RADIATION MONITOR FAILED LOW

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-A2 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- INVESTIGATE CAUSE OF HIGH RADIATION, OR LOW MONITOR READING.
- O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- O REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-A2 MONITORS THE AUXILIARY BUILDING PURGE EXHAUST DUCT. THREE DIFFERENT DETECTORS ARE USED, PARTICULATE, IODINE AND GAS. ANY ONE OF THESE CHANNELS CAN GIVE THIS ALARM, EITHER WARNING SETPOINT EXCEEDED, OR DETECTOR FAILED LOW. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-16

ENCLOSURE 1 (Page 57 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-02-02	H-02-02

Property and included a signature and and an exception of	CONTRACTOR OF CONTRACTOR OF CASE	S APPENDIX COLORED	DESCRIPTION DESCRIPTION	STATE STATE	Contraction of the local division of the loc	the statement of the local data

ATMOSPHERIC
MONITOR
WARNING

### **EVENT POINT 1717**

INDICATED CONDITION:

O RM-A2 RADIATION MONITOR PUMP FLOW ABOVE NORMAL OR LESS THAN 5 SCFM.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-A2 FLOW INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

O INVESTIGATE CAUSE OF RADIATION PUMP FLOW PROBLEM.O REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-A2 MONITORS THE AUXILIARY BUILDING PURGE EXHAUST DUCT. THREE DIFFERENT DETECTORS ARE USED, PARTICULATE, IODINE AND GAS. EITHER A HIGH OR LOW FLOW CAN GIVE THIS ALARM.

REFERENCES: DRAWING 208-049-RM-02 .

ENCLOSURE 1 (Page 58 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-02-02	H-02-02
	1 2/1 2 12 12	11-02-02

A	TMOSPHERIC
	MONITOR
	WARNING

## **EVENT POINT 1719**

INDICATED CONDITION:

- O RM-A3 RADIATION LEVEL EXCEEDS WARNING SETPOINT, OR
- O RM-A3 RADIATION MONITOR FAILED LOW

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-A3 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- INVESTIGATE CAUSE OF HIGH RADIATION, OR LOW MONITOR READING.
- O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- O REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-A3 MONITORS AUXILIARY BUILDING EXHAUST FROM SAMPLE AREA 'D', THE WASTE GAS COMPRESSOR ROOM, THE WASTE GAS VALVE ALLEY, AND ADJOINING AREAS. THIS DETECTOR ONLY HAS A GAS CHANNEL AND EITHER WARNING SETPOINT EXCEEDED OR A DETECTOR FAILED LOW WILL GIVE THIS ALARM. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-16

ENCLOSURE 1 (Page 59 of 190)

PSA-Z AN	UNCIATOR	RESPONSE	PSA-Z-02-02	H-02-02
I SA L AN	UNCIATOR	RESPONSE	PSA-2-02-02	H-0

ATMOSPHERIC MONITOR WARNING

### **EVENT POINT 1720**

INDICATED CONDITION:

O RM-A3 RADIATION MONITOR PUMP FLOW ABOVE NORMAL OR LESS THAN 5 SCFM.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-A3 FLOW INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

INVESTIGATE CAUSE OF RADIATION PUMP FLOW PROBLEM.
 REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-A3 MONITORS AUXILIARY BUILDING EXHAUST FROM SAMPLE AREA 'D', THE WASTE GAS COMPRESSOR ROOM, THE WASTE GAS VALVE ALLEY, AND ADJOINING AREAS. THIS DETECTOR ONLY HAS A GAS CHANNEL AND EITHER A HIGH OR LOW FLOW CAN GIVE THIS ALARM.

REFERENCES: DRAWING 208-049-RM-03

ENCLOSURE 1 (Page 60 of 190)

	PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-02-02	H-02-02
a management of the state of the second second	A CONTRACTOR OF A DESCRIPTION OF A DESCR			

ATMOSPHERIC MONITOR WARNING

#### **EVENT POINT 1722**

#### INDICATED CONDITION:

- O RM-A4 RADIATION LEVEL EXCEEDS WARNING SETPOINT, OR
- O RM-A4 RADIATION MONITOR FAILED LOW

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-A4 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- INVESTIGATE CAUSE OF HIGH RADIATION, OR LOW MONITOR READING.
- O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- O REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-A4 MONITORS THE SPENT FUEL AREA EXHAUST. THIS DETECTOR ONLY HAS A GAS CHANNEL AND EITHER WARNING SETPOINT EXCEEDED OR A DETECTOR FAILED LOW WILL GIVE THIS ALARM. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-17

ENCLOSURE 1 (Page 61 of 190)

PSA-Z ANNUNCIATOR RE	SPONSE	PSA-Z-02-02	H-02-02

ATMOSPHERIC
MONITOR
WARNING

### **EVENT POINT 1723**

INDICATED CONDITION:

O RM-A4 RADIATION MONITOR PUMP FLOW ABOVE NORMAL OR LESS THAN 5 SCFM.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-A4 FLOW INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

INVESTIGATE CAUSE OF RADIATION PUMP FLOW PROBLEM.
 REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-A4 MONITORS THE SPENT FUEL AREA EXHAUST. THIS DETECTOR ONLY HAS A GAS CHANNEL AND EITHER A HIGH OR LOW FLOW CAN GIVE THIS ALARM.

REFERENCES: DRAWING 208-049-RM-04

ENCLOSURE 1 (Page 62 of 190)

PSA-Z	ANNUNCIATOR RESPONSE	PSA-Z-02-02	H-02-02
and a second of a person of the second se			II OF OF

ATMOSPHERIC MONITOR WARNING

### **EVENT POINT 1725**

#### INDICATED CONDITION:

- O RM-A5 RADIATION LEVEL EXCEEDS WARNING SETPOINT, OR
- o RM-A5 RADIATION MONITOR FAILED LOW

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RM-A5 INDICATION AT RADIATION MONITORING PANEL.
- O SPDS ALPHA PAGE.

OPERATOR ACTIONS FOR A VALID ALARM:

- INVESTIGATE CAUSE OF HIGH RADIATION, OR LOW MONITOR READING.
- OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- REFER TO OP-505, RADIATION MONITORING SYSTEM.

#### DISCUSSION:

RM-A5 MONITORS THE CONTROL COMPLEX RETURN DUCT. THREE DIFFERENT DETECTORS ARE USED, PARTICULATE, IODINE AND GAS. ANY ONE OF THESE CHANNELS CAN GIVE THIS ALARM, EITHER WARNING SETPOINT EXCEEDED, OR DETECTOR FAILED LOW. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-18

ENCLOSURE 1 (Page 63 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-02-02	H-02-02
----------------------------	-------------	---------

ATMO	SPHERIC
MO	NITOR
WA	RNING

### **EVENT POINT 1726**

#### INDICATED CONDITION:

O RM-A5 RADIATION MONITOR PUMP FLOW ABOVE NORMAL OR LESS THAN 5 SCFM.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-A5 FLOW INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

INVESTIGATE CAUSE OF RADIATION PUMP FLOW PROBLEM.
 REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-A5 MONITORS THE CONTROL COMPLEX RETURN DUCT. THREE DIFFERENT DETECTORS ARE USED, PARTICULATE, IODINE AND GAS. EITHER A HIGH OR LOW FLOW CAN GIVE THIS ALARM.

REFERENCES: DRAWING 208-049-RM-05

ENCLOSURE 1 (Page 64 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-02-02	H-02-02

ATMOSPHERIC MONITOR WARNING

### **EVENT POINT 1728**

INDICATED CONDITION:

- O RM-A6 RADIATION LEVEL EXCEEDS WARNING SETPOINT, OR
- o RM-A6 RADIATION MONITOR FAILED LOW

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

RM-A6 INDICATION AT RADIATION MONITORING PANEL.
 SPDS ALPHA PAGE.

OPERATOR ACTIONS FOR A VALID ALARM:

- INVESTIGATE CAUSE OF HIGH RADIATION, OR LOW MONITOR READING.
- O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- O REFER TO OP-505, RADIATION MONITORING SYSTEM.

#### DISCUSSION:

RM-A6 MONITORS THE REACTOR BUILDING ATMOSPHERE. SAMPLE POINTS ARE EITHER AHF-3B DUCT, OR THE RB ATMOSPHERE DIRECTLY. IT IS NORMALLY LINED UP TO THE DUCT OF AHF-3B. IT CAN ALTERNATELY BE LINED UP TO SAMPLE THE RB ATMOSPHERE DIRECTLY PER OP-417.

TWO DIFFERENT DETECTORS ARE USED, PARTICULATE/BETA AND GAS. ANY ONE OF THESE CHANNELS CAN GIVE THIS ALARM.

THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-18

ENCLOSURE 1 (Page 65 of 190)

PSA-Z ANNUNCTATOR	RESPONSE	DCA 7 02 02	11 02 02
TON 2 MINUTCIATOR	RESPONSE	PSA-2-02-02	H-02-02

			A THE WEATHING AN

ATMOSPHERIC
MONITOR
WARNING

## **EVENT POINT 1729**

INDICATED CONDITION:

O RM-A6 RADIATION MONITOR PUMP FLOW ABOVE NORMAL, LESS THAN 5 SCFM, OR RMA-6 BACKUP SAMPLE PUMP IS RUNNING.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-A6 FLOW INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

INVESTIGATE CAUSE OF RADIATION PUMP FLOW PROBLEM.
 REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

EITHER A HIGH OR LOW FLOW CAN GIVE THIS ALARM. RM-A6 MONITORS THE REACTOR BUILDING ATMOSPHERE. SAMPLE POINTS ARE EITHER AHF-3B DUCT, OR THE RB ATMOSPHERE DIRECTLY. IT IS NORMALLY LINED UP TO THE DUCT OF AHF-3B. IT CAN ALTERNATELY BE LINED UP TO SAMPLE THE RB ATMOSPHERE DIRECTLY PER OP-417. TWO DIFFERENT DETECTORS ARE USED, PARTICULATE/BETA AND GAS. ANY ONE OF THESE CHANNELS CAN GIVE THIS ALARM. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INCODMATION.

THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-06

ENCLOSURE 1 (Page 66 of 190)

-02-02	H-02-02
-02	2-02

product addressed of	COLUMN TWO IS NOT	state of cash description in the local of	Contraction of the local division of the		 	
				_		
Later and the second second						

ATMOSPHERIC MONITOR WARNING

## **EVENT POINT 1731**

INDICATED CONDITION:

- O RM-A7 RADIATION LEVEL EXCEEDS WARNING SETPOINT, OR
- O RM-A7 RADIATION MONITOR FAILED LOW

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-A7 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- INVESTIGATE CAUSE OF HIGH RADIATION, OR LOW MONITOR READING.
- O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- & REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-A7 MONITORS THE AHF-44A/B DISCHARGE AIR, THEREFORE THE ATMOSPHERES OF THE PRIMARY SAMPLE ROOM, PRIMARY SAMPLE ROOM SAMPLE HOOD, RADIO CHEMISTRY LAB SAMPLE HOODS, AND/OR PASS SYSTEM VALVE ALLEY MAY HAVE HIGH GASEOUS ACTIVITY. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-19

ENCLOSURE 1 (Page 67 of 190)

PSA-Z ANNUNCIATOR RESPONSE PSA-	Z-02-02	H-02-02
---------------------------------	---------	---------

and the desired on second way of the second s	the second s	COLUMN ADDRESS OF ADDRESS OF	A PROPERTY AND INCOME.	 

ATMOSPHERIC
MONITOR
WARNING

# **EVENT POINT 1732**

INDICATED CONDITION:

O RM-A7 RADIATION MONITOR PUMP FLOW ABOVE NORMAL OR LESS THAN 5 SCFM.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-A7 FLOW INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

INVESTIGATE CAUSE OF RADIATION PUMP FLOW PROBLEM.
 REFER TO OP-505, RADIATION MONITORING SYSTEM.

#### DISCUSSION:

EITHER A HIGH OR LOW FLOW CAN GIVE THIS ALARM. RM-A7 MONITORS THE AHF-44A/B DISCHARGE AIR, THEREFORE THE ATMOSPHERES OF THE PRIMARY SAMPLE ROOM, PRIMARY SAMPLE ROOM SAMPLE HOOD, RADIO CHEMISTRY LAB SAMPLE HOODS, AND/OR PASS SYSTEM VALVE ALLEY MAY HAVE HIGH GASEOUS ACTIVITY. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-07

ENCLOSURE 1 (Page 68 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-02-02	H-02-02
NAME OF A DEPARTMENT OF A			

	Cong. or an an an an an and	the real of the second second second second	the second second	CONTRACTOR DESCRIPTION
		1		

A	TMOSPHERIC
	MONITOR
	WARNING

#### **EVENT POINT 1734**

INDICATED CONDITION:

- O RM-A8 RADIATION LEVEL EXCEEDS WARNING SETPOINT, OR
- O RM-A8 RADIATION MONITOR FAILED LOW.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-A8 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- INVESTIGATE CAUSE OF HIGH RADIATION, OR LOW MONITOR READING.
- O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- O REFER TO OP-505, RADIATION MONITORING SYSTEM.

#### DISCUSSION:

RM-A8 MONITORS THE AUXILIARY BUILDING EXHAUST UPSTREAM OF THE PENETRATION FOR THE FUEL HANDLING FLOOR EXHAUST. THIS DETECTOR ONLY HAS A GAS CHANNEL AND, EITHER WARNING SETPOINT EXCEEDED, OR DETECTOR FAILED LOW WILL GIVE THIS ALARM. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-16
ENCLOSURE 1 (Page 69 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-7-02-02	H-02-02
	1 34 6 06 06	11-02-02

1	ATMOSPHERIC
	MONITOR
	WARNING

### **EVENT POINT 1735**

INDICATED CONDITION:

O RM-A8 RADIATION MONITOR PUMP FLOW ABOVE NORMAL OR LESS THAN 5 SCFM.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-A8 FLOW INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

INVESTIGATE CAUSE OF RADIATION PUMP FLOW PROBLEM.
 REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-A8 MONITORS THE AUXILIARY BUILDING EXHAUST UPSTREAM OF THE PENETRATION FOR THE FUEL HANDLING FLOOR EXHAUST. THIS DETECTORS ONLY HAS A GAS CHANNEL AND, EITHER A HIGH OR LOW FLOW CAN GIVE THIS ALARM.

REFERENCES: DRAWING 208-049-RM-08

ENCLOSURE 1 (Page 70 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-02-02	H-02-02
	1 211 2 06 04	11-02-02

ATMOSPHERIC MONITOR WARNING

# **EVENT POINT 1737**

INDICATED CONDITION:

O RM-A11 RADIATION LEVEL EXCEEDS WARNING SETPOINT, OR

O RM-A11 RADIATION MONITOR FAILED LOW

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-A11 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- INVESTIGATE CAUSE OF HIGH RADIATION, OR LOW MONITOR READING.
- O OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- O REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

RM-A11 MONITORS THE AUXILIARY BUILDING EXHAUST PENETRATION FOR THE WASTE GAS RELEASE PATH. THIS DETECTOR ONLY HAS A GAS CHANNEL AND, EITHER WARNING SETPOINT EXCEEDED, OR DETECTOR FAILED LOW CAN GIVE THIS ALARM. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-20

ENCLOSURE 1 (Page 71 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	DCA 7.02.03	4 02 02
TON L MINUNCIATON	KLSFUNSE	PSA-2-02-02	H-02-02

ATMOSPHERIC MONITOR WARNING

#### **EVENT POINT 1739**

INDICATED CONDITION:

O RM-A12 RADIATION LEVEL EXCEEDS WARNING SETPOINT, OR

O RM-A12 RADIATION MONITOR FAILED LOW

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-A12 INDICATION AT RADIATION MONITORING PANE'.

 MAIN STEAM LINE RAD MONITORS RMG-25, RMG-26, RMG-27, AND/OR RMG-28 READ HIGHER THAN NORMAL.

OPERATOR ACTIONS FOR A VALID AL! RM:

O INVESTIGATE CAUSE OF RADIATION MONITOR PROBLEM.

O REFER TO OP-505, RADIATION MONITORING SYSTEM.

O CHECK ARV-26/27 FOR PROPER POSITION (ARP-1A/1B 3-WAY VALVES)

O REFER TO CP-152, PRIMARY TO SECONDARY LEAKAGE OPERATING GUIDELINE

DISCUSSION:

RM-A12 MONITORS THE AUXILIARY BUILDING EXHAUST PENETRATION FOR SECONDARY PLANT CONDENSER OFF GAS. THIS DETECTOR ONLY HAS A GAS CHANNEL AND, EITHER WARNING SETPOINT EXCEEDED OR DETECTOR FAILED LOW CAN GIVE THIS ALARM. CHECK FOR SUPPORTING INDICATIONS OF OTSG TUBE LEAKAGE.

REFERENCES: DRAWING 208-049-RM-20

ENCLOSURE 1 (Page 72 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-02-04	H-02-04
And a second second second second second department and generated instance and research and a second s			

EDAS SYSTEM TROUBLE

### **EVENT POINT 2045**

#### INDICATED CONDITION:

- o LOSS OF MULTIPLEXER POWER.
- O PRIMARY METEOROLOGICAL TOWER ON BACKUP POWER.
- O PRIMARY METEOROLOGICAL TOWER BACKUP POWER OUT OF SYNCHRONIZATION.
- O PRIMARY METEOROLOGICAL TOWER SIGNAL FAILURE.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O PRIMARY METEOROLOGICAL ALARM PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

O INVESTIGATE CAUSE OF ALARM CONDITION.

DISCUSSION:

REFERENCES: DRAWING 208-070-MM-01

SENSING ELEMENT: MMP-3 METEOROLOGICAL ALARM PANEL

ENCLOSURE 1 (Page 73 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-02-05	H-02-05

COND PUMP PIT SUMP LEVEL HIGH

## **EVENT POINT 1329**

INDICATED CONDITION:

O CONDENSATE PUMP PIT SUMP A LEVEL >88.6' ELEVATION AS SENSED BY SD-31-LS.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

O REFER TO AP-1050.

O NOTIFY SECONDARY PLANT OPERATOR TO INVESTIGATE CAUSE OF ALARM CONDITION.

DISCUSSION:

REFERENCES: DRAWING 208-072-SD-07

SENSING ELEMENT: SD-31-LS

ENCLOSURE 1 (Page 74 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-02-05	H-02-05

COND PUMP PIT SUMP LEVEL HIGH

### **EVENT POINT 1317**

INDICATED CONDITION:

O CONDENSATE PUMP PIT SUMP B LEVEL >88.6' ELEVATION AS SENSED BY SD-32-LS.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

REFER TO AP-1050.
 NOTIFY SECONDARY PLANT OPERATOR TO INVESTIGATE CAUSE OF ALARM CONDITION.

DISCUSSION:

REFERENCES: DRAWING 208-072-SD-08

SENSING ELEMENT: SD-32-LS

ENCLOSURE 1 (Page 75 of 190)

PSA-Z AN	NUNCIATOR	RESPONSE	PSA-Z-02-06	H-02-06
		the second se	COMPACT OF A DESCRIPTION OF A DESCRIPTIO	And it was to a big statement of the second statement of t

and parameters	and	A second second	Contraction of the local division of the loc	and the second of the second s	CONTRACTOR PROPERTY	CONTRACTOR OF THE OWNER OWNER OF THE OWNER

AUX BLDG
SUMPLEVEL
HIGH

# **EVENT POINT 1292**

INDICATED CONDITION:

O DECAY HEAT PIT SUMP A LEVEL >74' ELEVATION AS SENSED BY WD-133-LS.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

O NOTIFY PRIMARY PLANT OPERATOR TO INVESTIGATE CAUSE OF ALARM CONDITION.

DISCUSSION:

REFERENCES: DRAWING 208-060-WD-09

SENSING ELEMENT: WD-133-LS



ENCLOSURE 1 (Page 76 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-02-06	H-02-06
----------------------------	-------------	---------

AUX BLDG SUMP LEVEL HIGH

### **EVENT POINT 1305**

INDICATED CONDITION:

O DECAY HEAT PIT SUMP B LEVEL >74' ELEVATION AS SENSED BY WD-134-LS.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

O NOTIFY PRIMARY PLANT OPERATOR TO INVESTIGATE CAUSE OF ALARM CONDITION.

DISCUSSION:

REFERENCES: DRAWING 208-060-WD-10

SENSING ELEMENT: WD-134-LS

ENCLOSURE 1 (Page 77 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-02-06	H-02-06
----------------------------	-------------	---------

CARDING THE PLAN AND AND AND AND AND AND AND AND AND A	The same in the second s	CONTRACTOR OF THE PARTY OF	Child Street Street Street	 

AUX BLDG	
SUMPLEVEL	
HIGH	

### **EVENT POINT 1300**

INDICATED CONDITION:

• AUXILIARY BUILDING SUMP LEVEL >92.5' ELEVATION AS SENSED BY WD-132-LS.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

• NOTIFY PRIMARY PLANT OPERATOR TO INVESTIGATE CAUSE OF ALARM CONDITION.

DISCUSSION:

REFERENCES: DRAWING 208-060-WD-12

SENSING ELEMENT: WD-132-LS



ENCLOSURE 1 (Page 78 of 190)

PSA-Z ANNUNCIA	TOR RESPONSE	PSA-Z-02-06	H-02-06
the second s	named and a particular particular and the second statement in the second statement of the		

AUX	BLDG
SUMP	LEVEL
HI	GH

### **EVENT POINT 1809**

INDICATED CONDITION:

O NUCLEAR SERVICE COOLER AREA SUMP >93'1" ELEVATION AS SENSED BY SD-5-LS.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

O NOTIFY PRIMARY PLANT OPERATOR TO INVESTIGATE CAUSE OF ALARM CONDITION.

DISCUSSION:

O THIS LEVEL SWITCH IS A MECHANICAL ALTERNATOR WHICH OPERATES BOTH SDP-2A AND 2B. SWITCH #1 STARTS THE LEAD PUMP AT 93'0" AND SWITCH #2 STARTS THE LAG PUMP AT 93'1" AND INITIATES THE HIGH LEVEL ALARM.

REFERENCES: DRAWING 208-072-SD-03

SENSING ELEMENT: SD-5-LS

ENCLOSURE 1 (Page 79 of 190)

PSA-Z	ANNUNCIATOR	RESPONSE	PSA-Z-02-06	H-02-06
				and the second second second to a second s



AUX BLDG
SUMP LEVEL
HIGH

### **EVENT POINT 1810**

INDICATED CONDITION:

O TENDON ACCESS GALLERY SUMP >71'1" ELEVATION AS SENSED BY SD-6-LS.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

O NOTIFY PRIMARY PLANT OPERATOR TO INVESTIGATE CAUSE OF ALARM CONDITION.

DISCUSSION:

O THIS LEVEL SWITCH IS A MECHANICAL ALTERNATOR WHICH OPERATES BOTH SDP-3A AND 3B. SWITCH #1 STARTS THE LEAD PUMP AT 71'0" AND SWITCH #2 STARTS THE LAG PUMP AT 71'1" AND INITIATES THE HIGH LEVEL ALARM.

REFERENCES: DRAWING 208-072-SD-05

SENSING ELEMENT: SD-6-LS



ENCLOSURE 1 (Page 80 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-02-07	H-02-07
	and the second	A CARGE AND A C

			DECENSION AND
 CONSIGNATION OF THE	 	 	 
 NEW CONTRACT	 	 	 

BLDG SUMPS
SUMP PUMP
TROUBLE

# **EVENT POINT 1198**

INDICATED CONDITION:

O DIESEL GENERATOR SUMP A/B LEVEL HIGH AS SENSED BY EG-027-LS.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

O NOTIFY PRIMARY PLANT OPERATOR TO INVESTIGATE CAUSE OF ALARM CONDITION.

DISCUSSION:

REFERENCES: DRAWING 208-027-EG-17

SENSING ELEMENT: EG-027-LS.

ENCLOSURE 1 (Page 81 of 190)

PSA-Z ANNUNCIATOR RESP	ONSE PS	A-Z-02-07	H-02-07
			11 VE 0/

BLDG SUMPS SUMP PUMP TROUBLE

#### **EVENT POINT 1586**

INDICATED CONDITION:

- O DECAY HEAT PIT SUMP PUMP AUTO START.
- O DECAY HEAT PIT SUMP PUMP TRIP.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

O NOTIFY PRIMARY PLANT OPERATOR TO INVESTIGATE CAUSE OF ALARM CONDITION.

DISCUSSION:

THIS ALARM MAY INDICATE AN AUTO SHUT DOWN IF THE PRIMARY PLANT OPERATOR MANUALLY STARTED THE DECAY HEAT PIT SUMP PUMP. THE ALARM IS BASED ON THE PUMP CONTROL SWITCH CONTACTS (NORMAL AFTER START OR NORMAL AFTER STOP) IN SERIES WITH THE SUMP LEVEL SWITCH.

REFERENCES: DRAWING 208-060-WD-09, WD-10, WD-134

SENSING ELEMENT: WD-133-LS, WD-134-LS, WDP-3A/3B CONTROL SWITCH CONTACTS.



ENCLOSURE 1 (Page 82 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-02-07	H-02-07

BLDG SUMPS SUMP PUMP TROUBLE

### **EVENT POINT 1587**

#### INDICATED CONDITION:

- O AUXILIARY BUILDING SUMP PUMP AUTO START.
- O AUXILIARY BUILDING SUMP PUMP TRIP.
- O WASTE GAS COMPRESSOR SEAL LEAKAGE DRAIN TANK LOW LEVEL.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

- DURING NORMAL OPERATING CONDITIONS, THIS IS AN EXPECTED ALARM WHENEVER THE AUX. BLDG. SUMP PUMP AUTO STARTS; IF ALARM DOES NOT CLEAR WITHIN 3-5 MINUTES, THEN NOTIFY PRIMARY PLANT OPERATOL. TO INVESTIGATE CAUSE OF ALARM CONDITION.
- O ENSURE WDV-1030-SV HAS CLOSED (SEAL TANK DRAIN POT DRAIN VALVE).

#### DISCUSSION:

THIS ALARM MAY INDICATE AN AUTO SHUT DOWN IF THE PRIMARY PLANT OPERATOR MANUALLY STARTED THE AUXILIARY BUILDING SUMP PUMP(S). THE ALARM IS BASED ON THE PUMP CONTROL SWITCH CONTACTS (NORMAL AFTER START/STOP) IN SERIES WITH THE SUMP LEVEL SWITCH. THE WASTE GAS COMPRESSOR SEAL LEAKAGE DRAIN TANK CAN GIVE THIS ALARM BY OPERATING WDV-1030-SV TO LOWER THE DRAIN TANK LEVEL UNTIL THE LOW LEVEL SWITCH CONTACT OPENS. (SEE DRAWING WD-175)

REFERENCES:	DRAWING 20	8-060-WD-11,	WD-12, WD-135,	WD-175		
SENSING ELEME	ENT: WD-13	2-LS, WD-357-	LS2, WDP-4A/4B	CONTROL	SWITCH	CONTACTS.

ENCLOSURE 1 (Page 83 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-7-02-07	H-02-07
TON E AMOREATOR RESTORE	F3A-2-02-07	n-02-07

BLDG SUMPS SUMP PUMP TROUBLE

# **EVENT POINT 1589**

INDICATED CONDITION:

- O LAUNDRY AND SHOWER SUMP PUMP AUTO START.
- O LAUNDRY AND SHOWER SUMP PUMP TRIP.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

DISCUSSION:

**REFERENCES:** 

SENSING ELEMENT:

ENCLOSURE 1 (Page 84 of 190)

PSA-Z ANNI	INCIATOR RESPONSE	PSA-Z-02-07	H-02-07
			we are a substantial of the state of the sta

BLDG SUMPS SUMP PUMP TROUBLE

# **EVENT POINT 1806**

INDICATED CONDITION:

O DIESEL GENERATOR ROOM 'A' SUMP LEVEL HIGH AS SENSED BY SD-19-LS.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

O NOTIFY PRIMARY PLANT OPERATOR TO INVESTIGATE CAUSE OF HIGH LEVEL.

DISCUSSION:

REFERENCES: DRAWING 208-072-SD-15.

SENSING ELEMENT: SD-19-LS

ENCLOSURE 1 (Page 85 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-02-07	H-02-07
----------------------------	-------------	---------

BLDG SUMPS SUMP PUMP TROUBLE

# **EVENT POINT 1807**

INDICATED CONDITION:

O DIESEL GENERATOR ROOM 'B' SUMP LEVEL HIGH AS SENSED BY SD-20-LS.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

O NOTIFY PRIMARY PLANT OPERATOR TO INVESTIGATE CAUSE OF HIGH LEVEL.

DISCUSSION:

REFERENCES: DRAWING 208-072-SD-16.

SENSING ELEMENT: SD-20-LS

ENCLOSURE 1 (Page 86 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-02-07	H-02-07
----------------------------	-------------	---------

BLDG SUMPS SUMP PUMP TROUBLE

# **EVENT POINT 1811**

INDICATED CONDITION:

O INTAKE ELECTRIC VAULT SUMP LEVEL HIGH AS SENSED BY SD-14-LS.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

O NOTIFY SECONDARY PLANT OPERATOR TO INVESTIGATE CAUSE OF HIGH LEVEL.

DISCUSSION:

REFERENCES: DRAWING 208-072-SD-09.

SENSING ELEMENT: SD-14-LS

ENCLOSURE 1 (Page 87 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-7-02-07	H-02-07



BLDG SUMPS SUMP PUMP TROUBLE

#### **EVENT POINT 1880**

INDICATED CONDITION:

- TURBINE ROOM SUMP LEVEL HIGH AS SENSED BY SD-24-LS
- O OILY WATER SEPARATOR TROUBLE

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

• NOTIFY SECONDARY FLANT OPERATOR TO INVESTIGATE CAUSE OF HIGH LEVEL AND/OR OILY WATE SEPARATOR PROBLEM

DISCUSSION:

OILY WATER SEPARATOR TROUBLE MAY BE CAUSED BY ANY OF THE FOLLOWING: HIGH/LOW VACUUM PRE-FILTER HIGH AP OIL DISCHARGE EMERGENCY STOP WHEN IN AUTO THE ALARM WINDOW DOES NOT TYPE "OILY WATER SEPARATOR TROUBLE" BUT IN FACT IS LABELED "TURBINE BUILDING SUMP LEVEL HIGH".

REFERENCES: DRAWING 208-072 SD-01, SD-17.

SENSING ELEMENT: SD-24-LS, SD-24-DPIS, SD-26-PIS

ENCLOSURE 1 (Page 88 of 190)

PSA-Z	ANNUNCIATOR	RESPONSE	PSA-Z-02-07	H-02-07
			The supervision of the second s	

BLDG SUN	IPS
SUMP PUI	MP
TROUBL	E

#### **EVENT POINT 1913**

INDICATED CONDITION:

O SEWAGE PUMP SUMP LEVEL HIGH AS SENSED BY LOCAL CIRCUIT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O SEP-1A AND/OR SEP-1B RUNNING.

OPERATOR ACTIONS FOR A VALID ALARM:

 NOTIFY TURBINE BUILDING OPERATOR TO ENSURE LEVEL DOES NOT OVERFLOW ONTO TURBINE BUILDING FLOOR AND THAT SEP-1A AND OR SEP-1B ARE RUNNING TO LOWER LEVEL.

DISCUSSION:

REFERENCES: DRAWING 208-064 ME-10

SENSING ELEMENT: R1.

ENCLOSURE 1 (Page 89 of 190)

PSA-2-02-08 H-02-	PSA	-Z ANNUNCIATOR	RESPONSE	PSA-Z-02-08	H-02-08
-------------------	-----	----------------	----------	-------------	---------

SEC	SAN	APLE
S	STE	EM
A	LAR	M

### **EVENT POINT 0798**

INDICATED CONDITION:

HOTWELL/CONDENSATE CONDUCTIVITY HIGH.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

SS-141-CIR, CONDUCTIVITY RECORDER ON HVAC SECTION OF MCB.
 COMPUTER POINTS A-100 TO A-104.

OPERATOR ACTIONS FOR A VALID ALARM:

NOTIFY SECONDARY CHEMISTRY TO INVESTIGATE CAUSE OF HIGH CONDUCTIVITY.
 REFER TO CP-138

DISCUSSION:

REFERENCES: DRAWING 208-054-SS-10

SENSING ELEMENT: SS-141-CIR



ENCLOSURE 1 (Page 90 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-02-08	H-02-08
	A STATE OF THE OWNER AND A DESCRIPTION OF T	

SEC	SAMPLE
SI	STEM
A	LARM

## **EVENT POINT 0887**

INDICATED CONDITION:

O SECONDARY CYCLE SAMPLE ANALYSIS ALARM.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

• NOTIFY SECONDARY CHEMISTRY TO INVESTIGATE CAUSE OF SAMPLE ALARM.

DISCUSSION:

THIS ALARM INDICATES AN ALARM HAS NOT BEEN ACKNOWLEDGED IN THE SECONDARY CHEMISTRY LABORATORY WITHIN AN ADJUSTABLE TIMER SETTING.

REFERENCES: DRAWING 208-054-SS-11

SENSING ELEMENT: SSCP-1 (SECONDARY CYCLE SAMPLE ANALYZER PANEL)

ENCLOSURE 1 (Page 91 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSAZ-03-01	H-03-01

and a second the second of the second second second	CONTRACTOR OF	This constant	ALCONDET CRIME	A STATE OF COLORADOR	PARTICIPACTOR
and the second s			 		

LIQUID RADIATION HIGH

INDICATED CONDITION:
O RM-L1 RADIATION LEVEL EXCEEDS HIGH SETPOINT.
REDUNDANT INDICATION WHICH WILL VERIFY ALARM:
<ul> <li>RM-L1 INDICATION AT RADIATION MONITORING PANEL.</li> <li>SPDS ALPHA PAGE</li> </ul>
OPERATOR ACTIONS FOR A VALID ALARM:
<ul> <li>INVESTIGATE CAUSE OF HIGH RADIATION.</li> <li>REFER TO OP-301, OPERATION OF THE REACTOR COOLANT SYSTEM.</li> <li>REFER TO OP-505, RADIATION MONITORING SYSTEM.</li> </ul>
DISCUSSION:
REFERENCES: DRAWING 208-049-RM-32
SENSING ELEMENT: RADIATION MONITORING PANEL

ENCLOSURE 1 (Page 92 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-7-03-01	H-03-01
The finite and the first	F3A-2-03-01	H-03-01

ţ.

l	JQUID
RA	DIATION
	HIGH

IND	ICATED CONDITION:
0	RM-L2 RADIATION LEVEL EXCEEDS HIGH SETPOINT.
RED	DUNDANT INDICATION WHICH WILL VERIFY ALARM:
000	RM-L2 INDICATION AT RADIATION MONITORING PANEL. SPDS ALPHA PAGE
OPE	RATOR ACTIONS FOR A VALID ALARM:
0000	INVESTIGATE CAUSE OF HIGH RADIATION. NOTIFY PRIMARY PLANT OPERATOR TO ENSURE WDV-891 AND WDV-892 CLOSED. REFER TO OP-505, RADIATION MONITORING SYSTEM. CONTACT CHEMISTRY FOR EVALUATION OF MONITOR PRIOR TO MONITOR FLUSH.
DIS	CUSSION: DV-891 AND WDV-892 ARE PRIMARY LIQUID RELEASE VALVES.
REF	ERENCES: DRAWING 208-049-RM-31
SEM	SING ELEMENT: RADIATION MONITORING PANEL

ENCLOSURE 1 (Page 93 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-03-01	H-03-01
----------------------------	-------------	---------

LIQUID RADIATION HIGH

INDIC	ATED CONDITION:
o Ri	M-L3 RADIATION LEVEL EXCEEDS HIGH SETPOINT.
REDUN	DANT INDICATION WHICH WILL VERTEY ALARM.
o Pi	M L2 INDICATION AT DADIATION MONTTODING DUNC
OPERA	TOR ACTIONS FOR A VALID ALARM:
o I	NVESTIGATE CAUSE OF HIGH RADIATION.
O R O R	EFER TO AP-520, LOSS OF RCS COOLANT OR PRESSURE. EFER TO OP-408, NUCLEAR SERVICES COOLING SYSTEM TO CONNECT SW SURCE
T	ANK TO WASTE GAS HDR
OK	EFER TO UP-505, RADIATION MONITORING SYSTEM.
DISCU	ISSION:
REFER	RENCES: DRAWING 208-049-RM-32
SENSI	NG ELEMENT: RADIATION MONITORING PANEL

ENCLOSURE 1 (Page 94 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-03-01	H-03-01
----------------------------	-------------	---------

LIQUID RADIATION HIGH

### **EVENT POINT 1794**

INDICATED CONDITION:

o RM-L5 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

o RM-L5 INDICATION AT PADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

INVESTIGATE CAUSE OF HIGH RADIATION.
 REFER TO AP-520, LOSS OF RCS COOLANT OR POLSSURE.

o REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

REFERENCES: DRAWING 208-049-RM-32

ENCLOSURE 1 (Page 95 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-03-01	H-03-01
----------------------------	-------------	---------

LIQUID RADIATION HIGH

### **EVENT POINT 1796**

INDICATED CONDITION:

O RM-L6 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

o RM-L6 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

INVESTIGATE CAUSE OF HIGH RADIATION.
 REFER TO AP-520, LOSS OF RCS COOLANT OR PRESSURE.

• REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

REFERENCES: DRAWING 208-049-RM-32

ENCLOSURE 1 (Page 96 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-03-01	H-03-01
ar y along the set of		1011 - 00 02	11 02 01

LIQUID RADIATION HIGH

IND	CATED CONDITION:
0	RM-L7 RADIATION LEVEL EXCEEDS HIGH SETPOINT.
REDI	INDANT INDICATION WHICH WILL VERIFY ALARM:
0	RM-L7 INDICATION AT RADIATION MONITORING PANEL.
OPEI	RATOR ACTIONS FOR A VALID ALARM:
0 0 0	INVESTIGATE CAUSE OF HIGH RADIATION. NOTIFY PRIMARY PLANT OPERATOR TO ENSURE SDV-90 CLOSED. CONTACT CHEMISTRY FOR EVALUATION OF MONITOR PRIOR TO MONITOR FLUSH. REFER TO OP-505, RADIATION MONITORING SYSTEM.
DIS	CUSSION:
SD	V-90 IS THE SECONDARY LIQUID RELEASE VALVE.
REF	ERENCES: DRAWING 208-049-RM-31
SEN	SING ELEMENT: RADIATION MONITORING PANEL

ENCLOSURE 1 (Page 97 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-03-02	H-03-02
----------------------------	-------------	---------

LIQUID MONITOR WARNING

INDI	CATED CONDITION:
0 1	RM-L1 RADIATION LEVEL EXCEEDS WARNING SETPOINT.
REDU	NDANT INDICATION WHICH WILL VERIFY ALARM:
0	RM-L1 INDICATION AT RADIATION MONITORING PANEL. SPDS ALPHA PAGE
OPER	ATOR ACTIONS FOR A VALID ALARM:
0	INVESTIGATE CAUSE OF HIGH RADIATION. REFER TO OP-301, OPERATION OF THE REACTOR COOLANT SYSTEM. REFER TO OP-505, RADIATION MONITORING SYSTEM.
DISC	USSION:
REFE	RENCES: DRAWING 208-049-RM-32
SENS	ING ELEMENT: RADIATION MONITORING PANEL

ENCLOSURE 1 (Page 98 of 190)

			And the second s	general intercents and intercent and interaction of the second state of the second sta
PSA-Z	ANNUNCIATOR	RESPONSE	PSA-Z-03-02	H-03-02
Contraction of the second of the second	THE RECORDER OF CONTRACTOR AND ADDRESS OF CONTRACT OF A ADDRESS OF CONTRACTOR ADDRESS OF CONTRACT OF CONTRACT.			

LIQUID MONITOR WARNING

# **EVENT POINT 1789**

INDICATED CONDITION:

o RM-L2 RADIATION LEVEL EXCEEDS WARNING SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

RM-L2 INDICATION AT RADIATION MONITORING PANEL.
 SPDS ALPHA PAGE

OPERATOR ACTIONS FOR A VALID ALARM:

INVESTIGATE CAUSE OF HIGH RADIATION.
 REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

REFERENCES: DRAWING 208-049-RM-31

ENCLOSURE 1 (Page 99 of 190)

PSA-Z ANNUNCIAT	OR RESPONSE	PSA-Z-03-02	H-03-02
One was the real phone and the real phone the second second and so the real phone in the real phone is a second		1	11 03 04

LIQUID MONITOR WARNING

INDICATED	CONDITION:
o RM-L3 F	RADIATION LEVEL EXCEEDS WARNING SETPOINT.
REDUNDANT o RM-L3 1	INDICATION WHICH WILL VERIFY ALARM: INDICATION AT RADIATION MONITORING PANEL.
OPERATOR A o INVESTI o REFER T o REFER T	CTIONS FOR A VALID ALARM: IGATE CAUSE OF HIGH RADIATION. TO AP-520, LOSS OF RCS COOLANT OR PRESSURE. TO OP-505, RADIATION MONITORING SYSTEM.
DISCUSSION	:
REFERENCES	: DRAWING 208-049-RM-32
SENSING EL	EMENT: RADIATION MONITORING PANEL

ENCLOSURE 1 (Page 100 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-03-02	H-03-02
The second s		1	11 00 02

			and the second second	Postanticianti arregi
	07/01/15			 
CARDEN DE CONTRACTOR	1			

LIQUID
MONITOR
WARNING

### **EVENT POINT 1795**

INDICATED CONDITION:

o RM-L5 RADIATION LEVEL EXCEEDS WARNING SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-L5 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

• INVESTIGATE CAUSE OF HIGH RADIATION.

O REFER TO AP-520, LOSS OF RCS COOLANT OR PRESSURE.

• REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

REFERENCES: DRAWING 208-049-RM-32

ENCLOSURE 1 (Page 101 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-7-03-02	H=03=02
	I JA-2-03-02	H-03-02

 CONTRACTOR DESCRIPTION OF THE PARTY OF THE PARTY.	A LOW THE DOLLARS COMPANY	The state of the local division in the state of the state	ALSO, MANUAL COLOR STATISTICS.	a chose and a man man when the	Stationarity of the second

LIQUID	
MONITOR	
WARNING	

#### **EVENT POINT 1797**

INDICATED CONDITION:

O RM-L6 RADIATION LEVEL EXCEEDS WARNING SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-L6 INDICATION ADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR / VALID ALARM:

O INVESTIGATE CAUSE OF HIGH RADIATION.

O REFER TO AP-520, LOSS OF RCS COOLANT OR PRESSURE.

O REFER TO OP-505, RADIATION MONITURING SYSTEM.

DISCUSSION:

REFERENCES: DRAWING 208-049-RM-32

ENCLOSURE 1 (Page 102 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-03-02	H-03-02
		11 05 02


INDICATED CONDITION:

LIQUID
MONITOR
WARNING

# **EVENT POINT 1799**

<ul> <li>RM-L7 RADIATION LEVEL EXCEEDS WARNING SETPOINT.</li> </ul>
REDUNDANT INDICATION WHICH WILL VERIFY ALARM:
<ul> <li>RM-L7 INDICATION AT RADIATION MONITORING PANEL.</li> <li>SPDS ALPHA PAGE.</li> </ul>
OPERATOR ACTIONS FOR A VALID ALARM:
<ul> <li>INVESTIGATE CAUSE OF HIGH RADIATION.</li> <li>REFER TO OP-505, RADIATION MONITORING SYSTEM.</li> </ul>
DISCUSSION:

REFERENCES: DRAWING 208-049-RM-31

ENCLOSURE 1 (Page 103 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-03-03	H-03-03
A DESCRIPTION OF A	And and the second s		

RM-L2/7 INTERLOCK BYPASSED

### **EVENT POINT 2044**

INDICATED CONDITION:

- INTERLOCK BETWEEN SDV-90 AND RWP-3A/3B DEFEATED.
- O INTERLOCK BETWEEN WDV-892 AND RWP-1, RWP-2A/2B DEFEATED.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RM-L2/7 BYPASS KEY INSTALLED AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

DISCUSSION:

BYPASSING THE RM-L2/7 INTERLOCK ALLOWS OPENING OF SDV-90 WITH EITHER RWP-1, RWP-2A OR RWP-2B RUNNING INSTEAD OF RWP-3A OR RWP-3B. ALSO WDV-892 MAY BE OPENED WITH RWP-3A OR RWP-3B RUNNING INSTEAD OF RWP-1, RWP-2A OR RWP-2B.

REFERENCES: DRAWING 208-060-WD-60

SENSING ELEMENT: RADIATION MONITORING PANEL BYPASS INTERLOCK KEY SWITCH

ENCLOSURE 1 (Page 104 of 190)

	PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-04-01	H-04-0?
-			

MAKEUP TANK LEVEL LOW LOW

### **EVENT POINT 0792**

INDICATED CONDITION:

O MAKEUP TANK LEVEL <18" AS SENSED BY MU14-LYI-4, MU14-LY2-4.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

MU-014-LIR1, MUT LEVEL/PRESSURE RECORDER.
 MU-14-LI1, MUT LEVEL INDICATION (REDUNDANT INSTRUMENT PANEL).
 MU-14-LI2, MUT LEVEL INDICATION (REDUNDANT INSTRUMENT PANEL).

OPERATOR ACTIONS FOR A VALID ALARM:

ENSURE MUV-58, AND M' 73 OPEN.
 RESTORE MAKEUP TANK LEVEL TO NORMAL BAND.

DISCUSSION:

REFERENCES: DRAWING 208-041-MU-17, MU-18

SENSING ELEMENT: MU14-LY1-4, MU14-LY2-4.
ENCLOSURE 1 (Page 105 of 190)

	PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-04-02	H-04-02
--	----------------------------	-------------	---------

MAKEUP TANK LEVEL HIGH/LOW

# **EVENT POINT 1064**

INDICATED CONDITION:

o MAKEUP TANK LEVEL >100" AS SENSED BY MU-14-LY3.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

o MU-014-LIR1, MUT LEVEL/PRESSURE RECORDER.

O MU-14-LI1, MUT LEVEL INDICATION (REDUNDANT INSTRUMENT PANEL).

MU-14-LI2, MUT LEVEL INDICATION (REDUNDANT INSTRUMENT PANEL).
 COMPUTER POINT X359

COMPUTER PUINT X359

OPERATOR ACTIONS FOR A VALID ALARM:

O RESTORE MAKEUP TANK LEVEL TO NORMAL BAND.

DISCUSSION:

IF MUP(S) ARE ALIGNED TO BWST & RECIRC FLOW TO MUT IS CAUSING HIGH LEVEL IN MUT, THEN CONSIDER ALIGNING MUP SUCTION FROM MUT ONLY.

REFERENCES: DRAWING 208-041-MU-47.

SENSING ELEMENT: MU-14-LY3.

ENCLOSURE 1 (Page 106 of 190)

PSA-Z AN	NUNCIATOR	RESPONSE	PSA-Z-04-02	H-04-02
Records and the second second second light and the second secon	and a strength of the strength			

MAKEUP TANK LEVEL HIGH/LOW

### **EVENT POINT 1065**

INDICATED CONDITION:

o MAKEUP TANK LEVEL <55" AS SENSED BY MU-14-LY3.</p>

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

MU-014-LIR1, MUT LEVEL/PRESSURE RECORDER.
 MU-14-LI3 MUT LEVEL INDICATION (REDUNDANT INSTRUMENT PANEL).

o MU-14-LI2, MUT LEVEL INDICATION (REDUNDANT INSTRUMENT PANEL).

O COMPUTER POINT X359.

OPERATOR ACTIONS FOR A VALID ALARM:

O RESTORE MAKEUP TANK LEVEL TO NORMAL BAND.

DISCUSSION:

REFERENCES: DRAWING 208-041-MU-47.

SENSING ELEMENT: MU-14-LY3.

ENCLOSURE 1 (Page 107 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-04-03	H-04-03
----------------------------	-------------	---------

The second se	T	

MAKEUP	
FLOW	
HIGH	

### **EVENT POINT 1066**

INDICATED CONDITION:

O MAKEUP FLOW >160 GPM THROUGH MUV-31 AS SENSED BY MU-24-FS.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

o MU-24-FI

OPERATOR ACTIONS FOR A VALID ALARM:

O DETERMINE CAUSE OF HIGH FLOW ALARM.

- O OBSERVE LTOP CONCERNS
- o REFER TO OP-301

DISCUSSION:

THE HIGH FLOW ALARM WAS ESTABLISHED FOR LTOP CONDITIONS TO PROVIDE INDICATION SHOULD MUV-31 FAIL WIDE OPEN. THE INTENT WAS TO PROVIDE AT LEAST 10 MINUTES FOR OPERATOR CORRECTIVE ACTION FOR THIS TRANSIENT.

REFERENCES: DRAWING 208-041-MU-47.

SENSING ELEMENT: MU-24-FS.

ENCLOSURE 1 (Page 108 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-04-04	H-04-04
----------------------------	-------------	---------

LETDOWN TEMP HIGH

### **EVENT POINT 1027**

INDICATED CONDITION:

○ LETDOWN TEMPERATURE TO PRE-FILTERS >130°F AS SENSED BY MU-5-TS.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

o MU-5-TI

OPERATOR ACTIONS FOR A VALID ALARM:

- O REDUCE LETDOWN FLOW WITH MUV-51 FLOW CONTROL VALVE.
- NOTIFY PRIMARY PLANT OPERATOR TO VERIFY SW THROTTLE VALVES TO LETDOWN COOLERS 'SEALED'.

DISCUSSION:

IF LETDOWN HAS ISOLATED VIA MUV-49 REFER TO OP-402 FOR LETDOWN RECOVERY. IF HIGH LETDOWN FLOW IS DESIRED THEN CONSIDER STARTING SWP-1A OR SWP-1B TO PROVIDE ADDITIONAL COOLING WATER TO THE LETDOWN COOLERS.

REFERENCES: DRAWING 208-041-MU-33.

SENSING ELEMENT: MU-5-TS.

ENCLOSURE 1 (Page 109 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-04-05	H-04-05
NAMES AND ADDRESS OF TAXABLE			1 1 04 05

RC PUMP SEAL BLEED OFF HIGH

#### **EVENT POINT 1075**

INDICATED CONDITION:

O RC PUMP 1A CONTROL BLEEDOFF >1.75 GPM AS CALCULATED BY PLANT COMPUTER.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

COMPUTER POINT X-922.

OPERATOR ACTIONS FOR A VALID ALARM:

O REFER TO OP-302 'RC PUMP OPERATION'.

DIS USSION:

REFER TO TS FOR ADMINISTRATIVE REQUIREMENTS.

COMPUTER GROUP 78 CONTAINS ADDITIONAL DATA FOR RCP-1A. THIS ALARM IS A CALCULATED VALUE BASED ON SEAL PRESSURES, THEREFORE, THIS ALARM WILL COME IN IF SEAL RETURN FLOW IS ISOLATED AND SEAL DESTAGES.

SENSING ELEMENT: RX00/RC-19A-PT1

ENCLOSURE 1 (Page 110 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-04-05	H-04-05
	1	1 01 05

RC PUMP SEAL BLEED OFF HIGH

### **EVENT POINT 1076**

INDICATED CONDITION:

◦ RC PUMP 1B CONTROL BLEEDOFF >1.75 GPM AS CALCULATED BY PLANT COMPUTER.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O COMPUTER POINT X-923.

OPERATOR ACTIONS FOR A VALID ALARM:

O REFER TO OP-302 'RC PUMP OPERATION'.

DISCUSSION:

REFER TO TS FOR ADMINISTRATIVE REQUIREMENTS.

COMPUTER GROUP 79 CONTAINS ADDITIONAL DATA FOR RCP-1B. THIS ALARM IS A CALCULATED VALUE BASED ON SEAL PRESSURES, THEREFORE, THIS MLARM WILL COME IN IF SEAL RETURN FLOW IS ISOLATED AND SEAL DESTAGES

REFERENCES: DRAWING 208-047 RC 06.

SENSING ELEMENT: RX01/RC-19A-PT2

ENCLOSURE 1 (Page 111 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-04-05	H-04-05
----------------------------	-------------	---------

RC PUMP SEAL BLEED OFF HIGH

#### **EVENT POINT 1077**

INDICATED CONDITION:

O RC PUMP 1C CONTROL BLEEDOFF >1.75 GPM AS CALCULATED BY PLANT COMPUTER.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O COMPUTER POINT X-924.

OPERATOR ACTIONS FOR A VALID ALARM:

o REFER TO OP-302 'RC PUMP OPERATION'.

DISCUSSION:

REFER TO TS FOR ADMINISTRATIVE REQUIREMENTS.

COMPUTER GROUP 80 CONTAINS ADDITIONAL DATA FOR RCP-1C. THIS ALARM IS A CALCULATED VALUE BASED ON SEAL PRESSURES, THEREFORE, THIS ALARM WILL COME IN IF SEAL RETURN FLOW IS ISOLATED AND SEAL DESTAGES

REFERENCES: DRAWING 208-047 RC-07.

SENSING ELEMENT: RX02/RC-19B-PT1.

ENCLOSURE 1 (Page 112 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-04-05	H-04-05
the second se			

RC PUMP SEAL BLEED OFF HIGH

### **EVENT POINT 1078**

INDICATED CONDITION:

• RC PUMP 1D CONTROL BLEEDOFF >1.75 GPM AS CALCULATED BY PLANT COMPUTER.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

o COMPUTER POINT : 23.

OPERATOR ACTIONS FOR A VALID ALARM:

O REFER TO OP-302 'RC PUMP OPERATION'.

DISCUSSION:

REFER TO TS FOR ADMINISTRATIVE REQUIREMENTS.

COMPUTER GROUP 81 CONTAINS ADDITIONAL DATA FOR RCP-1D. THIS ALARM IS A CALCULATED VALUE BASED ON SEAL PRESSURES, THEREFORE, THIS ALARM WILL COME IN IF SEAL RETURN FLOW IS ISOLATED AND SEAL DESTAGES

REFERENCES: DRAWING 208-047 RC-08.

SENSING ELEMENT: RX-08/RC-19B-PT1.

ENCLOSURE 1 (Page 113 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-04-06	H-04-06
----------------------------	-------------	---------

MAKEUP TANK PRESS HIGH/LOW

### **EVENT PCINT 1062**

INDICATED CONDITION:

• MAKEUP TANK PRESSURE  $\geq$  THE OVERPRESSURE VALUE CALCULATED BY THE PLANT COMPUTER.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

MU-014-LIR1, MUT LEVEL/PRESSURE RECORDER.
 COMPUTER POINTS X359 AND X401.

OPERATOR ACTIONS FOR A VALID ALARM:

o ENSURE MUV-141, MUV-143 CLOSED

 IMMEDIATELY REDUCE PRESSURE WITHIN THE LIMITS OF MAKEUP TANK PRESSURE/LEVEL OF CURVE 8 OF OP-103B.

DISCUSSION:

THE VALUES OF THE COMPUTER POINTS ARE INPUT TO A CALCULATION WHICH ACTUATES THIS EVENT POINT WHEN MUT LEVEL/PRESSURE COMBINATION ARE BEING OPERATED IN THE RESTRICTED REGION OF CURVE 8 OP-103B.

REFERENCES: DRAWING 208-041-MU-47.

ENCLOSURE 1 (Page 114 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-04-06	H-04-06
	A CONTRACT OF A DESCRIPTION OF A DESCRIP		

MAKEUP TANK PRESS HIGH/LOW

### **EVENT POINT 1063**

INDICATED CONDITION:

o MAKEUP TANK PRESSURE <3 PSIG AS SENSED BY MU-17-PS.</p>

REDUNDANT INDICATION WHICH WILL VERIFY ALA. ....

MU-014-LIR1, MUT LEVEL/PRESSURE RECORDER.

OPERATOR ACTIONS FOR A VALID ALARM:

o ENSURE MUV-134 CLOSED

 INCREASE PRESSURE WITHIN LIMITS OF MAKEN TANK PRESSURE/LEVEL CURVE OF OP-103B.

DISCUSSION:

MUT PRESSURE MAY BE TEMPORARILY REDUCED BELOW 3 PSIG DURING VENTING EVOLUTIONS, BUT SHOULD BE MAINTAINED ABOVE 0 PSIG.

REFERENCES: DRAWING 208-041-MU-47.

SENSING ELEMENT: MU-17-PS.

ENCLOSURE 1 (Page 115 of 190)

PSA-Z	ANNUNCIATOR RESPONSE	PSA-Z-04-07	H-04-07

RC PUMP SEAL RTN (MUV-253) NOT FULL OPEN

### **EVENT POINT 1036**

INDICATED CONDITION:

O MUV-253 NOT FULL OPEN.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

MUV-253 VALVE INDICATION ON PSA SECTION AND E.S. LIGHT MATRIX.
 COMPUTER POINT P064.

OPERATOR ACTIONS FOR A VALID ALARM:

REOPEN MUV-253.MONITOR RCP SEALS TEMPERATURE/PRESSURE

DISCUSSION:

IF MUV-253 CANNOT BE REOPENED THEN REFER TO OP-302.

RCP DATA CAN BE OBSERVED ON COMPUTER GROUPS 78,79,80 AND 81.

REFERENCES: DRAWING 208-041-MU-44.

SENSING ELEMENT: RELAY 3MUV-2530.

ENCLOSURE 1 (Page 116 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-7-04-08	H 04 08
FOR E FRITOR RESPONSE	PSA-2-04-08	M-04-08

MAKEL	JP VALVES
	AIR
FA	ILURE

#### **EVENT POINT 1094**

INDICATED CONDITION:

O LETDOWN FLOW CONTROL VALVE MUV-51 LOCKED.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

MUV-51 AIR FAILURE PUSH-BUTTON ILLUMINATED.

OPERATOR ACTIONS FOR A VALID ALARM:

O REFER TO AP-470

O INVESTIGATE LOSS OF INCTRUMENT AIR PRESSURE TO MUV-51.

DISCUSSION:

TWO PRESSURE SWITCHES SUPPLY PRESSURE INFORMATION TO THE CONTROL CIRCUITS FOR MUV-51. MU-3-PS1 SET FOR 32 PSIG AND MU-3-PS2 SET FOR 28 PSIG. IF EITHER MU-3-PS1 OR MU-3-PJ2 IS ACTUATED, THE VALVE POSITION WILL BE LOCKED "AS IS" BY THE ISOLATION OF THE AIR LINE FROM THE POSITIONER TO THE VALVE DIAPHRAGM. OPERATION OF THE VALVE BY DEPRESSING THE AIR FAILURE RESET PUSH-BUTTON IS NOT CERTAIN AT THIS LOW AIR PRESSURE.

REFERENCES: DRAWING 208-041-MU-54

SENSING ELEMENT: MU-3-PS1, MU-3-PS2.

AR-403

ENCLOSURE 1 (Page 117 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-04-08	H-04-08
----------------------------	-------------	---------

MAKEUP VALVES AIR FAILURE

### **EVENT POINT 1095**

INDICATED CONDITION:

MAKEUP CONTROL VALVE MUV-31 LOCKED.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o NNI-AR3 LIGHT 31 IN NNI CABINET 2
- MUV-31 AIR FAILURE PUSH-BUTTON ILLUMINATED.
- o MUV-31 CONTROL STATION IN 'HAND'.

OPERATOR ACTIONS FOR A VALID ALARM:

REFER TO AP-470
 INVESTIGATE LOSS OF INSTRUMENT AIR PRESSURE TO MUV-31.

DISCUSSION:

MUV-31 WILL LOCK IN POSITION ON AIR/ELECTRICAL FAILURE. THE VALVE WILL FAIL CLOSED ON LOSS OF AIR TO THE DIAPHRAGM.

REFERENCES: DRAWING 208-041-MU-54.

SENSING ELEMENT: MU-25-PS1

ENCLOSURE 1 (Page 118 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-7-04-08	U 04 08
TOR E ANNONCLATOR RESPONSE	F3A-2-04-08	H-04-08

MAKEUP VALVES AIR FAILURE

### **EVENT POINT 1096**

INDICATED CONDITION:

O MAKEUP CONTROL VALVE MUV-16 LOCKED.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o NNI-AR4 LIGHT 16 IN NNI CABINET 2.
- MUV-16 AIR FAILURE PUSH-BUTTON ILLUMINATED.
- o MUV-16 CONTROL STATION IN 'HAND'.

OPERATOR ACTIONS FOR A VALID ALARM:

REFER TO AP-470
 INVESTIGATE LOSS OF INSTRUMENT AIR PRESSURE TO MUV-16.

DISCUSSION:

MUV-16 WILL LOCK IN POSITION ON AIR/ELECTRICAL FAILURE. THE VALVE WILL FAIL OPEN ON LOSS OF AIR TO THE DIAPHRAGM.

REFERENCES: DRAWING 208-041-MU-54.

SENSING ELEMENT: MU-15-PS1

ENCLOSURE 1 (Page 119 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-04-08	H-04-08
	1 01 2 01 00	11 04 00

MAKEUP	VALVES
AI	R
FAIL	URE

### **EVENT POINT 1102**

INDICATED CONDITION:

 RC PUMP SEAL BLEEDOFF VALVE MUV-253 AIR SUPPLY PRESSURE <80 PSIG AS SENSED BY MU-253-PS.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

O REFER TO AP-470

O INVESTIGATE LOSS OF INSTRUMENT AIR PRESSURE TO MUV-253.

DISCUSSION:

OPERATION OF THE VALVE IS NOT CERTAIN AT THIS LOW AIR PRESSURE. MUV-253 FAILS CLOSED IF THE AIR PRESSURE IS INSUFFICIENT AGAINST THE CLOSURE SPRING OF THE VALVE OPERATOR.

REFERENCES: DRAWING 208-041-MU-54.

SENSING ELEMENT: MU-15-PS1, MU-15-PS2.

ENCLOSURE 1 (Page 120 of 190)

		Construction of the second state of the second	and the local distance in the second design of the local distance in the local distance
PSA-Z ANNUNCTATOR RE	SPONSE	DCA 7 OF OI	11 05 03
The finite and the	STORSE	PSA-2-05-01	H-05-01

STM GEN A MAIN STEAM ISO ACTUATED

# **EVENT POINT 2007**

INDICATED CONDITION:

O EFIC CHANNEL "A", STEAM GENERATOR "A" MAIN STEAM LINE ISOLATION BUS 1 OR BUS 2 TRIPPED.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O HALF OR FULL TRIP ON EFIC CHANNEL "A" MAIN STEAM LINE ISOLATION.

- MS-106-PI, CHANNEL "A", OTSG A PRESSURE INDICATION.
   MS-106-PIR, CHANNEL "A", OTSG A/B PRESSURE RECORDER.

OPERATOR ACTIONS FOR A VALID ALARM:

O REFER TO EOP-05, EXCESSIVE HEAT TRANSFER.

O INVESTIGATE CAUSE OF TRIP CONDITION.

DISCUSSION:

MSLI ACTUATION SETPOINT IS OTSG PRESSURE <600 PSIG. WITH THIS EVENT POINT IN ALARM, A HALF TRIP OR FULL TRIP CONDITION EXISTS. THE OPERATOR MUST OBSERVE THE EFIC PUSH-BUTTONS TO DETERMINE EFIC ACTUATION STATUS.

NO ADDITIONAL ALARMS DIFFERENTIATE BETWEEN FULL AND HALF TRIPS.

REFERENCES: VITRO DRAWING 3801-3005 SHEET 1

ENCLOSURE 1 (Page 121 of 190)

PSA-Z ANNUNCIATOR RESPONSE PSA-Z-05	5-01	H-05-01
-------------------------------------	------	---------

STM GEN A MAIN STEAM ISO ACTUATED

### **EVENT POINT 2015**

INDICATED CONDITION:

O EFIC CHANNEL "B", STEAM GENERATOR "A" MAIN STEAM LINE ISOLATION BUS 1 OR E"S 2 TRIPPED.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O HALF OR FULL TRIP ON EFIC CHANNEL "B" MAIN STEAM LINE ISOLATION.

- MS-107-PI, CHANNEL "B", OTSG A PRESSURE INDICATION.
   MS-107-PIR, CHANNEL "B", OTSG A/B PRESSURE RECORDER.

OPERATOR ACTIONS FOR A VALID ALARM:

O REFER TO EOP-05, EXCESSIVE HEAT TRANSFER.

O INVESTIGATE CAUSE OF TRIP CONDITION.

DISCUSSION:

MSLI ACTUATION SETPOINT IS OTSG PRESSURE <600 PSIG. WITH THIS EVENT POINT IN ALARM, A HALF TRIP OR FULL TRIP CONDITION EXISTS. THE OPERATOR MUST OBSERVE THE EFIC PUSH-BUTTONS TO DETERMINE EFIC ACTUATION STATUS. NO ADDITIONAL ALARMS DIFFERENTIATE BETWEEN FULL AND HALF TRIPS.

REFERENCES: VITRO DRAWING 3801-3005 SHEET 2

ENCLOSURE 1 (Page 122 of 190)

PSA-Z A	ANNUNCIATOR	RESPONSE	PSA-Z-05-02	H-05-02
The second second reaction of the second	THE R. P. LEWIS CO., LANSING MICH. & MICH. MICH. LANSING MICH.	NAME OF TAXABLE PARTY OF TAXABLE PARTY OF TAXABLE PARTY OF TAXABLE PARTY.		

STM GEN A FEEDWATER ISO ACTUATED

### **EVENT POINT 2009**

INDICATED CONDITION:

O EFIC CHANNEL "A", STEAM GENERATOR "A" MAIN FEEDWATER ISOLATION BUS 1 OR BUS 2 TRIPPED.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O HALF OR FULL TRIP ON EFIC CHANNEL "A" MAIN FEEDWATER ISOLATION.

- MS-106-PI, CHANNEL "A", OTSG A PRESSURE INDICATION.
   MS-106-PIR, CHANNEL "A", OTSG A/B PRESSURE RECORDER.

OPERATOR ACTIONS FOR A VALID ALARM:

O REFER TO EOP-05, EXCESSIVE HEAT TRANSFER.

O INVESTIGATE CAUSE OF TRIP CONDITION.

DISCUSSION:

MFWI ACTUATION SETPOINT IS OTSG PRESSURE <600 PSIG. WITH THIS EVENT POINT IN ALARM, A HALF TRIP OR FULL TRIP CONDITION EXISTS. THE OPERATOR MUST OBSERVE THE EFIC PUSH-BUTTONS TO DETERMINE EFIC ACTUATION STATUS. NO ADDITIONAL ALARMS DIFFERENTIATE BETWEEN FULL AND HALF TRIPS.

REFERENCES: VITRO DRAWING 3801-3005 SHEET 1

ENCLOSURE 1 (Page 123 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-7-)5-02	H-05-02
Port 2 minorezation Repronde	F3A-2-33-02	H-05-02

STM GEN A FEEDWATER ISO ACTUATED

#### **EVENT POINT 2017**

INDICATED CONDITION:

 EFIC CHANNEL "B", STEAM GENERATOR 'A' MAIN FEEDWATER ISOLATION BUS 1 OR BUS 2 TRIPPED.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O HALF OR FULL TRIP ON EFIC CHANNEL "B" MAIN FEEDWATER ISOLATION.

- MS-107-PI, CHANNEL "B", OTSG A PRESSURE INDICATION.
- O MS-107-PIR, CHANNEL "B", OTSG A/B PRESSURE RECORDER.

OPERATOR ACTIONS FOR A VALID ALARM:

• REFER TO EOP-05, EXCESSIVE HEAT TRANSFER.

O INVESTIGATE CAUSE OF TRIP CONDITION.

DISCUSSION:

MFWI ACTUATION SETPOINT IS OTSG PRESSURE <600 PSIG. WITH THIS EVENT POINT IN ALARM, A HALF TRIP OR FULL TRIP CONDITION EXISTS. THE OPERATOR MUST OBSERVE THE EFIC PUSH-BUTTONS TO DETERMINE EFIC ACTUATION STATUS. NO ADDITIONAL ALARMS DIFFERENTIATE BETWEEN FULL AND HALF TRIPS.

REFERENCES: VITRO DRAWING 3801-3005 SHEET 2

ENCLOSURE 1 (Page 124 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-7-05-03	H-05-03
The render ATOR RESPONSE	PSA-2-05-03	H-05-05

MAIN STEAM ISO VALVE AIR FAILURE

### **EVENT POINT 0956**

INDICATED CONDITION:

O MSV-413 AND MSV-414 AIR SUPPLY PRESSURE <80 PSIG AS SENSED BY MS-99-PS.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

O REFER TO AP-470

O INVESTIGATE LOSS OF INSTRUMENT AIR PRESSURE TO MSIVS.

.

DISCUSSION:

ON A LOSS OF INSTRUMENT AIR, THE ACCUMULATORS SHOULD MAINTAIN THE MSIVS OPEN FOR AT LEAST 1 HOUR DEPENDENT ON ACTUATOR LEAKAGE. DEGRADATION OF THE ACCUMULATOR PRESSURE WILL BE INDICATED BY THE ILLUMINATION OF THE SV-1/SV-2 WHITE TEST LIGHT ON THE PSA PANEL.

REFERENCES: DRAWING 208-039 MS-14

SENSING ELEMENT: MS-99-PS

ENCLOSURE 1 (Page 125 of 190)

	of any operation of a second data level of an additional or all states and the distribution of the second	
PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-05-03	H-05-03

MAIN STEAM ISO VALVE AIR FAILURE

#### **EVENT POINT 0959**

INDICATED CONDITION:

o MSV-411 AND MSV-412 AIR SUPPLY PRESSURE <80 PSIG AS SENSED BY MS-98-PS.</p>

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

o REFER TO AP-470

O INVESTIGATE LOSS OF INSTRUMENT AIR PRESSURE TO MSIVS.

DISCUSSION:

ON A LOSS OF INSTRUMENT AIR, THE ACCUMULATORS SHOULD MAINTAIN THE MSIVS OPEN FOR AT LEAST 1 HOUR DEPENDENT ON ACTUATOR LEAKAGE. DEGRADATION OF THE ACCUMULATOR PRESSURE WILL BE INDICATED BY THE ILLUMINATION OF THE SV-1/SV-2 WHITE TEST LIGHT ON THE PSA PANEL.

REFERENCES: DRAWING 208-039 MS-14

SENSING ELEMENT: MS-98-PS

ENCLOSURE 1 (Page 126 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-05-04	H-05-04
A DESCRIPTION OF A DESC	and the second se		

LETDOWN
PRESSURE
HIGH

# **EVENT POINT 1060**

INDICATED CON	NDITION:
O LETDOWN P	RESSURE AFTER BLOCK ORIFICE >145 PSIG AS SENSED BY MU-6-PS.
REDUNDANT IN	DICATION WHICH WILL VERIFY ALARM:
OPERATOR ACT	POINT X002.
<ul> <li>INVESTIGA</li> <li>REDUCE LE</li> </ul>	TE CAUSE OF HIGH PRESSURE CONDITION. TDOWN FLOW.
DISCUSSION: A POSSIBLE OF DOWNSTRE POST-FILTER ITS CAUSE C PREVENT POS	CAUSE OF HIGH PRESSURE AT THIS POINT IN THE SYSTEM IS ISOLATION AM COMPONENTS OR ANY FLOW RESTRICTIONS IN THE PRE-FILTERS, S OR MAKEUP DEMINS. IF THE HIGH PRESSURE CONDITION EXISTS AND ANNOT BE DETERMINED THEN CLOSURE OF MUV-49 MAY BE REQUIRED TO SIBLE RELIEF VALVE OPERATION TO THE A.B. SUMP.
REFERENCES:	DRAWING 208-041 MU-47
SENSING ELEM	ENT: MU-6-PS

ENCLOSURE 1 (Page 127 of 190)

PSA-Z ANNUM	NCIATOR	RESPONSE	PSA-Z-05-05	H-05-05
AND A DESCRIPTION OF A	Construction of the local division of the second	and the second state of th		

MAKEUP FILTERS <sup>Δ</sup> PRESS HIGH

### **EVENT POINT 1061**

INDICATED CONDITION:

o MAKEUP POSTFILTER DIFFERENTIAL PRESSURE >25 PSIG AS SENSED BY MU-18-DPS.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

MAKEUP POSTFILTER DIFFERENTIAL PRESSURE MU-18-DPI.

OPERATOR ACTIONS FOR A VALID ALARM:

PLACE "A" AND "B" POST-FILTERS IN SERVICE.REDUCE LETDOWN FLOW.

DISCUSSION:

 DO NOT INITIATE FILTER CHANGE OUT UNTIL STEADY STATE DP REACHES 25 PSID, AS INDICATED ON MU-18-DPI

REFERENCES: DRAWING 208-041 MU-47

SENSING ELEMENT: MU-18-DPS

ENCLOSURE 1 (Page 128 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-05-05	H-05-05
----------------------------	-------------	---------

# **EVENT POINT 1082**

INDICATED CONDITION: o MAKEUP PRE-FILTER DIFFERENTIAL PRESSURE >12 PSIG AS SENSED BY MU-81-DPS. REDUNDANT INDICATION WHICH WILL VERIFY ALARM: O MAKEUP PRE-FILTER DIFFERENTIAL PRESSURE INDICATION MU-81-DPI. OPERATOR ACTIONS FOR A VALID ALARM: ○ PLACE "A" AND "B" PRE-FILTERS IN SERVICE. O REDUCE LETDOWN FLOW. DISCUSSION: O DO NOT INITIATE FILTER CHANGE OUT UNTIL STEADY STATE DP REACHES 12 PSID, AS INDICATED ON MU-81-DPI REFERENCES: DRAWING 208-041 MU-47 SENSING ELEMENT: MU-81-DPS

ENCLOSURE 1 (Page 129 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-05-06	H-05-06
----------------------------	-------------	---------

### **EVENT POINT 1083**

INDICATED CONDITION:

o MAKEUP DEMIN DIFFERENTIAL PRESSURE >14 PSIG AS SENSED BY MU-75-DPS.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

MAKEUP DEMIN DIFFERENTIAL PRESSURE INDICATION MU-75-DPI.

OPERATOR ACTIONS FOR A VALID ALARM:

O REFER TO OP-402

- O BYPASS DEMINERALIZERS OR PLACE ALTERNATE DEMIN IN SERVICE
- O REDUCE LETDOWN FLOW

DISCUSSION:

CONSIDERATION SHOULD BE GIVEN TO THE AFFECT ON THE RCS OF PLACING THE ALTERNATE DEMIN IN SERVICE. IF IT IS NOT SATURATED AT THE SAME LEVEL AS THE RCS IS AT THE TIME THE ALTERNATE DEMIN IS PLACED IN SERVICE THERE WILL BE A SIGNIFICANT CHANGE IN CORE REACTIVITY THAT MAY CAUSE A SIGNIFICANT OPERATIONAL EXCURSION OF REDUCTION OF THE SHUTDOWN MARGIN.

REFERENCES: DRAWING 208-041 MU-47

SENSING ELEMENT: MU-75-DPS

ENCLOSURE 1 (Page 130 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-05-07	H-05-07
		11 05 07

RC PUMP SEAL FLOWS HIGH/LOW

# **EVENT POINT 1079**

INDI	ATED CONDITION:
o R	EACTOR COOLANT PUMP TOTAL SEAL FLOW >42 GPM AS SENSED BY MU-27-FS.
REDU	DANT INDICATION WHICH WILL VERIFY ALARM:
O R	EACTOR COOLANT PUMP TOTAL SEAL FLOW INDICATION MU-27-FI.
OPER	ATOR ACTIONS FOR A VALID ALARM:
O R O R	EFER TO OP-302. EESTABLISH NORMAL SEAL FLOW.
DISC	JSSION:
REFE	RENCES: DRAWING 208-041 Mil-47

ENCLOSURE 1 (Page 131 of 190)

PSA-Z ANNUNCIATOR RESPO	NSE PSA-Z-05-0	7 H- 05-07

RC PUMP SEAL FLOWS HIGH/LOW

### **EVENT POINT 1080**

INDICATED CONDITION:

• REACTOR COOLANT PUMP TOTAL SEAL FLOW <22 GPM AS SENSED BY MU-27-FS.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O REACTOR COOLANT PUMP TOTAL SEAL FLOW INDICATION MU-27-FI.

OPERATOR ACTIONS FOR A VALID ALARM:

O RCP'S MUST BE SHUTDOWN WITHIN 2 MINUTES FOLLOWING LOSS OF BOTH SW FLOW AND SEAL INJECTION FLOW

- O REESTABLISH NORMAL SEAL FLOW.
- o REFER TO OP-302.

DISCUSSION:

REFERENCES: DRAWING 208-041 MU-47

SENSING ELEMENT: MU-27-FS

ENCLOSURE 1 (Page 132 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-05-07	H-05-07
		11 05 01

RC PUMP SEAL FLOWS HIGH/LOW

### **EVENT POINT 1084**

INDICATED CONDITION:

O REACTOR COOLANT PUMP 1A SEAL FLOW <3 GPM AS SENSED BY MU-7-FS1.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

• REACTOR COOLANT PUMP 1A SEAL FLOW INDICATION MU-7-FI1.

OPERATOR ACTIONS FOR A VALID ALARM:

O RCP'S MUST BE SHUTDOWN WITHIN 2 MINUTES FOLLOWING LOSS OF BOTH SW FLOW AND SEAL INJECTION FLOW.

- O REESTABLISH NORMAL SEAL FLOW.
- o REFER TO OP-302.

DISCUSSION:

REFERENCES: DRAWING 208-041 MU-47

SENSING ELEMENT: MU-7-FS1

AR-403

ENCLOSURE 1 (Page 133 of 190)

PSA-Z ANNUNCIATOR RE	SPONSE	PSA-Z-05-07	H-05-07

			AND AND I MADE AND A DECK

RC PUMP SEAL FLOWS HIGH/LOW

# **EVENT POINT 1085**

INDICATED CONDITION:

○ REACTOR COOLANT PUMP 1B SEAL FLOW <3 GPM AS SENSED BY MU-7-FS2.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O REACTOR COOLANT PUMP 1B SEAL FLOW INDICATION MU-7-FI2.

OPERATOR ACTIONS FOR A VALID ALARM:

 O RCP'S MUST BE SHUTDOWN WITHIN 2 MINUTES FOLLOWING LOSS OF BOTH SW FLOW AND SEAL INJECTION FLOW.
 O REESTABLISH NORMAL SEAL FLOW.

- O RELSTABLISH NORMAL SEAL FLOW
- o REFER TO OP-302

DISCUSSION:

REFERENCES: DRAWING 208-041 MU-47

SENSING ELEMENT: MU-7-FS2

ENCLOSURE 1 (Page 134 of 190)

		and an a second set of the second second second second second, here a second rest part that should second second	of the state of the second
PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-05-07	H-05-07

RC PUMP SEAL FLOWS HIGH/LOW

# **EVENT POINT 1086**

INDICATED CONDITION:
○ REACTOR COOLANT PUMP 1C SEAL FLOW <3 GPM AS SENSED BY MU-7-FS3.
REDUNDANT INDICATION WHICH WILL VERIFY ALARM:
• REACTOR COOLANT PUMP 1C SEAL FLOW INDICATION MU-7-FI3.
OPERATOR ACTIONS FOR A VALID ALARM:
<ul> <li>RCP'S MUST BE SHUTDOWN WITHIN 2 MINUTES FOLLOWING LOSS OF BOTH SW FLOW AND SEAL INJECTION FLOW</li> <li>REESTABLISH NORMAL SEAL FLOW.</li> <li>REFER TO OP-302.</li> </ul>
DISCUSSION:
REFERENCES: DRAWING 208-041 MU-47
SENSING ELEMENT: MU-7-FS3

ENCLOSURE 1 (Page 135 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-05-07	H-05-07
A STATE OF A STAT		

RC PUMP SEAL FLOWS HIGH/LOW

### **EVENT POINT 1087**

INDICATED CONDITION:

O REACTOR COOLANT PUMP 1D SEAL FLOW <3 GPM AS SENSED BY MU-7-FS4.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O REACTOR COOLANT PUMP 1D SEAL FLOW INDICATION MU-7-FI4.

OPERATOR ACTIONS FOR A VALID ALARM:

G RCP'S MUST BE SHUTDOWN WITHIN 2 MINUTES FOLLOWING LOSS OF BOTH SW FLOW AND SEAL INJECTION FLOW.

- O REESTABLISH NORMAL SEAL FLOW.
- o REFER TO OP-302.

DISCUSSION:

REFERENCES: DRAWING 208-041 MU-47

SENSING ELEMENT: MU-7-FS4

ENCLOSURE 1 (Page 136 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-05-08	H-05-08
----------------------------	-------------	---------

BWST VLV INTERLOCK BYPASSED

### **EVENT POINT 2048**

INDICATED CONDITION:

O MAKEUP TANK LOW-LOW LEVEL INTERLOCK DEFEATED FOR MUV-58 AND/OR MUV-73

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

SWITCH POSITIONS IN "A" AND "B" REMOTE SHUTDOWN AUXILIARY CABINETS.

OPERATOR ACTIONS FOR A VALID ALARM:

DISCUSSION:

THE SWITCH FOR MUV-73 INTERLOCK IS LOCATED IN THE "A" REMOTE SHUTDOWN AUXILIARY CABINET IN THE "A" ES 4160V SWITCHGEAR ROOM. THE SWITCH FOR MUV-58 INTERLOCK IS LOCATED IN THE "B" REMOTE SHUTDOWN AUXILIARY CABINET IN THE "B" ES 4160V SWITCHGEAR ROOM. USE SSOD KEY 47 TO ACCESS THE AUXILIARY CABINETS.

REFERENCES: DRAWING 205-041 MU-07

SENSING ELEMENT: ZZ SS/BYP, RS-AUX A/B

ENCLOSURE 1 (Page 137 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-06-01	H-06-01

STM GEN B MAIN STEAM ISO ACTUATED

### **EVENT POINT 2008**

INDICATED CONDITION:

 EFIC CHANNEL "A", STEAM GENERATOR "B" MAIN STEAM LINE ISOLATION BUS 1 OR BUS 2 TRIPPED.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O HALF OR FULL TRIP ON EFIC CHANNEL "A" MAIN STEAM LINE ISOLATION.

- o MS-110-PI, CHANNEL "A", OTSG B PRESSURE INDICATION.
- O MS-106-PIR, CHANNEL "A", OTSG A/B PRESSURE RECORDER.

OPERATOR ACTIONS FOR A VALID ALARM:

REFER TO EOP-05, EXCESSIVE HEAT TRANSFER.
 INVESTIGATE CAUSE OF TRIP CONDITION.

DISCUSSION:

MSLI ACTUATION SETPOINT IS OTSG PRESSURE <600 PSIG. WITH THIS EVENT POINT IN ALARM, A HALF TRIP OR FULL TRIP CONDITION EXISTS. THE OPERATOR MUST OBSERVE THE EFIC PUSH-BUTTONS TO DETERMINE EFIC ACTUATION STATUS. NO ADDITIONAL ALARMS DIFFERENTIATE BETWEEN FULL AND HALF TRIPS.

REFERENCES: VITRO DRAWING 3801-3005 SHEET 1

ENCLOSURE 1 (Page 138 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-06-01	H-06-01
----------------------------	-------------	---------

STM GEN B MAIN STEAM ISO ACTUATED

# **EVENT POINT 2016**

INDICATED CONDITION:

O EFIC CHANNEL "B", STEAM GENERATOR "B" MAIN STEAM LINE ISOLATION BUS 1 OR BUS 2 TRIPPED.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O HALF OR FULL TRIP ON EFIC CHANNEL "B" MAIN STEAM LINE ISOLATION.

- MS-111-PI, CHANNEL "B", OTSG A PRESSURE INDICATION.
   MS-107-PIR, CHANNEL "B", OTSG A/B PRESSURE RECORDER.

OPERATOR ACTIONS FOR A VALID ALARM:

O REFER TO EOP-05, EXCESSIVE HEAT TRANSFER.

O INVESTIGATE CAUSE OF TRIP CONDITION.

DISCUSSION:

MSLI ACTUATION SETPOINT IS OTSG PRESSURE <600 PSIG. WITH THIS EVENT POINT IN ALARM, A HALF TRIP OR FULL TRIP CONDITION EXISTS. THE OPERATOR MUST OBSERVE THE EFIC PUSH-BUTTONS TO DETERMINE EFIC ACTUATION STATUS. NO ADDITIONAL ALARMS DIFFERENTIATE BETWEEN FULL AND HALF TRIPS.

REFERENCES: VITRO DRAWING 3801-3005 SHEET 2

ENCLOSURE 1 (Page 139 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-06-02	H-06-02
	And the second se		

STM GEN B FEEDWATER ISO ACTUATED

# **EVENT POINT 2010**

INDICATED CONDITION:

O EFIC CHANNEL "A", STEAM GENERATOR "B" MAIN FEEDWATER ISOLATION BUS 1 OR BUS 2 TRIPPED.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O HALF OR FULL TRIP ON EFIC CHANNEL "A" MAIN FEEDWATER ISOLATION.

- MS-110-PI, CHANNEL "A", OTSG B PRESSURE INDICATION.
   MS-106-PIR, CHANNEL "A", OTSG A/B PRESSURE RECORDER.

OPERATOR ACTIONS FOR A VALID ALARM:

O REFER TO EOP-05, EXCESSIVE HEAT TRANSFER.

O INVESTIGATE CAUSE OF TRIP CONDITION.

DISCUSSION:

MFWI ACTUATION SETPOINT IS OTSG PRESSURE <600 PSIG. WITH THIS EVENT POINT IN ALARM, A HALF TRIP OR FULL TRIP CONDITION EXISTS. THE OPERATOR MUST OBSERVE THE EFIC PUSH-BUTTONS TO DETERMINE EFIC ACTUATION STATUS. NO ADDITIONAL ALARMS DIFFERENTIATE BETWEEN FULL AND HALF TRIPS.

REFERENCES: VITRO DRAWING 3801-3005 SHEET 1

ENCLOSURE 1 (Page 140 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-06-02	H-06-02

STM GEN B FEEDWATER ISO ACTUATED

### **EVENT POINT 2018**

INDICATED CONDITION:

O EFIC CHANNEL "B", STEAM GENERATOR "B" MAIN FEEDWATER ISOLATION BUS 1 OR BUS 2 TRIPPED.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O HALF OR FULL TRIP ON EFIC CHANNEL "B" MAIN FEEDWATER ISOLATION.

- MS-111-PI, CHANNEL "B", OTSG B PRESSURE INDICATION.
   MS-107-PIR, CHANNEL "B", OTSG A/B PRESSURE RECORDER.

OPERATOR ACTIONS FOR A VALID ALARM:

O REFER TO EOP-05, EXCESSIVE HEAT TRANSFER. O INVESTIGATE CAUSE OF TRIP CONDITION.

DISCUSSION:

MFWI ACTUATION SETPOINT IS OTSG PRESSURE <600 PSIG. WITH THIS EVENT POINT IN ALARM, A HALF TRIP OR FULL TRIP CONDITION EXISTS. THE OPERATOR MUST OBSERVE THE EFIC PUSH-BUTTONS TO DETERMINE EFIC ACTUATION STATUS. NG ADDITIONAL ALARMS DIFFLRENTIATE BETWEEN FULL AND HALF TRIPS.

REFERENCES: VITRO DRAWING 3801-3005 SHEET 2


ENCLOSURE 1 (Page 141 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-06-03	H-06-03
----------------------------	-------------	---------

EMERG FW ACTUATION

# **EVENT POINT 2006**

INDICATED CONDITION:

O EFIC CHANNEL "A", EMERGENCY FEEDWATER BUS 1 OR BUS 2 TRIPPED.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O HALF OR FULL TRIP ON EFIC CHANNEL "A" EMERGENCY FEEDWATER ACTUATION.

OPERATOR ACTIONS FOR A VALID ALARM:

O REFER TO EOP.

INVESTIGATE CAUSE OF TRIP CONDITION.

DISCUSSION:

WITH THIS EVENT POINT IN ALARM, A HALF TRIP OR FULL TRIP CONDITION EXISTS. THE PERATOR MUST OBSERVE THE EFIC PUSH-BUTTONS TO DETERMINE EFIC ACTUATION STATUS. EFIC ACTUATES BY ANY OF THE FOLLOWING CONDITIONS:

EITHER OTSG <600 PSIG EITHER OTSG APPROACHING O" MANUAL ACTUATION LOSS OF ALL RCPs NI POWER >45% W/FW <17% HPI A AND B ACTUATION LOSS OF BOTH MFPs W/RPS NOT IN S/D BYPASS REFER TO OP-450 TO RESET HALF TRIP

REFERENCES: VITRO DRAWING 3801-3005 SHEET 1

ENCLOSURE 1 (Page 142 of 190)

PSA-	Z ANNUNCIATOR	RESPONSE	PSA-Z-06-03	H-06-03
With the state of				1

EMERG FW ACTUATION

### **EVENT POINT 2014**

INDICATED CONDITION:

O EFIC CHANNEL "B", EMERGENCY FEEDWATER BUS 1 OR BUS 2 TRIPPED.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O HALF OR FULL TRIP ON EFIC CHANNEL "B" EMERGENCY FEEDWATER ACTUATION.

OPERATOR ACTIONS FOR A VALID ALARM:

REFER TO EOP.INVESTIGATE CAUSE OF TRIP CONDITION.

DISCUSSION:

WITH THIS EVENT POINT IN ALARM, A HALF TRIP OR FULL TRIP CONDITION EXISTS. THE OPERATOR MUST OBSERVE THE EFIC PUSHBUTTONS TO DETERMINE EFIC ACTUATION STATUS. EFIC ACTUATES BY ANY OF THE FOLLOWING CONDITIONS:

EITHER OTSG <600 PSIG EITHER OTSG APPROACHING O" MANUAL ACTUATION LOSS OF ALL RCPs NI POWER >45% W/FW <17% HPI A AND B ACTUATION LOSS OF BOTH MVPs W/RPS NOT IN S/D BYPASS REFER TO OP-450 TO RESET HALF TRIP

REFERENCES: VITRO DRAWING 3801-3005 SHEET 1

ENCLOSURE 1 (Page 143 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-06-04	H-06-04
	1 511 2 00 04	11-00-04

EF PUMP 1 TRIP DEFEATED

### **EVENT POINT 1179**

INDICATED CONDITION:

EFP-1 TRIP DEFEAT CONTROL SWITCH IS IN "DEFEAT" POSITION

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

VISUAL OBSERVATION OF ONE, TWO, OR THREE EFP-1 TRIP DEFEAT CONTROL SWITCHES IN DEFEAT POSITION. ES ACTUATION TEST CABINETS 1, 2, AND 3 EACH CONTAIN ONE CONTROL SWITCH.

OPERATOR ACTIONS FOR A VALID ALARM:

VERIFY THE REQUIREMENTS FOR PLACING CONTROL SWITCH TO "DEFEAT" ARE MET: EFP-2 NOT AVAILABLE, FEEDWATER IS REQUIRED, A LOSS OF OFFSITE POWER EVENT IS IN PROGRESS AND LPI INITIATION IS IMMINENT OR HAS OCCURRED

DISCUSSION:

ESAS GENERATES A TRIP SIGNAL TO EFP-1 WHEN AS RCS LOW LOW ESAS INITIATION SIGNAL COINCIDENT WITH A LOOP IS PRESENT. THIS IS PART OF THE LOAD MANAGEMENT SCHEME FOR EDG-1A. THE TRIP CAN BE DEFEATED IF EFP-2 IS UNAVATLABLE AND FEEDWATER IS REQUIRED. DEFEATING THE TRIP IS ACCOMPLISHED BY PLACING THE CONTROL SWITCH TO DEFEAT IN ES ACTUATION CABINETS 1, 2, AND 3. OPERATION OF ANY ONE SWITCH CAUSES ANNUNCIATION OF THIS ALARM. OPERATION OF THE REMAINING SWITCHES CAUSE THIS ALARM REFLASH.

REFERENCES: DRAWING 211-028 ES-A35

ENCLOSURE 1 (Page 144 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-06-04	H-06-04
----------------------------	-------------	---------

EF PUMP 1 TRIP DEFEATED

## **EVENT POINT 1181**

INDICATED CONDITION:

EFP-1 TRIP DEFEAT CONTROL SWITCH IS IN "DEFEAT" POSITION

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

VISUAL OBSERVATION OF ONE, TWO, OR THREE EFP-1 TRIP DEFEAT CONTROL SWITCHES IN DEFEAT POSITION. ES ACTUATION TEST CABINETS 1, 2, AND 3 EACH CONTAIN ONE CONTROL SWITCH.

OPERATOR ACTIONS FOR A VALID ALARM:

VERIFY THE REQUIREMENTS FOR PLACING CONTROL SWITCH TO "DEFEAT" ARE MET: EFP-2 NOT AVAILABLE, FEEDWATER IS REQUIRED, A LOSS OF OFFSITE POWER EVENT IS IN PROGRESS AND LPI INITIATION IS IMMINENT OR HAS OCCURRED

DISCUSSION:

ESAS GENERATES A TRIP SIGNAL TO EFP-1 WHEN AS RCS LOW LOW ESAS INITIATION SIGNAL COINCIDENT WITH A LOOP IS PRESENT. THIS IS PART OF THE LOAD MANAGEMENT SCHEME FOR EDG-1A. THE TRIP CAN BE DEFEATED IF EFP-2 IS UNAVAILABLE AND FEEDWATER IS REQUIRED. DEFEATING THE TRIP IS ACCOMPLISHED BY PLACING THE CONTROL SWITCH TO DEFEAT IN ES ACTUATION CABINETS 1, 2, AND 3. OPERATION OF AN' ONE SWITCH CAUSES ANNUNCIATION OF THIS ALARM. OPERATION OF THE REMAINING SWITCHES CAUSE THIS ALARM REFLASH.

REFERENCES: DRAWING 211-028 ES-A36

ENCLOSURE 1 (Page 145 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-06-04	H-06-04
and a second state of the			

EF PUMP 1 TRIP DEFEATED

#### **EVENT POINT 1301**

INDICATED CONDITION:

EFP-1 TRIP DEFEAT CONTROL SWITCH IS IN "D. EAT" POSITION

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

VISUAL OBSERVATION OF ONE, TWO, OR THREE EFP-1 TRIP DEFEAT CONTROL SWITCHES IN DEFEAT POSITION. ES ACTUATION TEST CABINETS 1, 2, AND 3 EACH CONTAIN ONE CONTROL SWITCH.

OPERATOR ACTIONS FOR A VALID ALARM:

VERIFY THE REQUIREMENTS FOR PLACING CONTROL SWITCH TO "DEFEAT" ARE MET: EFP-2 NOT AVAILABLE, FEEDWATER IS REQUIRED, A LOSS OF OFFSITE POWER EVENT IS J? PROGRESS AND LPI INITIATION IS IMMINENT OR HAS OCCURRED

DISCUSSION:

ESAS GENERATES A TRIP SIGNAL TO EFP-1 WHEN AS RCS LOW LOW ESAS INITIATION SIGNAL COINCIDENT WITH A LOOP IS PRESENT. THIS IS PART OF THE LOAD MANAGEMENT SCHEME FOR EDG-1A. THE TRIP CAN BE DEFEATED IF EFP-2 IS UNAVAILABLE AND FEEDWATER IS REQUIRED. DEFEATING THE TRIP IS ACCOMPLISHED BY PLACING THE CONTROL SWITCH TO DEFEAT IN ES ACTUATION CABINETS 1, 2, AND 3. OPERATION OF ANY ONE WHICH CAUSES ANNUNCIATION OF THIS ALARM. OPERATION OF THE REMAINING SWITCHES CAUSE THIS ALARM REFLASH.

REFERENCES: DRAWING 211-028 ES-A37

ENCLOSURE 1 (Page 146 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-06-06	H-06-06
----------------------------	-------------	---------



EFIC BYPASS

# **EVENT POINT 2012**

#### INDICATED CONDITION:

- O EFIC CHANNEL A IN MAINTENANCE BYPASS.
- O ANY EFIC CHANNEL A TEST SWITCH NOT IN NORMAL.
- O ANY EFIC CHANNEL A CIRCUIT BREAKER OPEN.
- O ANY EFIC CHANNEL A MODULE WITHDRAWN.
- O EFIC CHANNEL A CABINET POWER SUPPLY FAILURE.
- O EFIC CHANNEL A MAINTENANCE BYPASS ISOLATOR FAILURE.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

O INVESTIGATE CAUSE OF ALARM CONDITION.

DISCUSSION:

 MAINTENANCE BYPASS DIGITAL ISOLATOR FAILURE IS INDICATED BY MAINTENANCE BYPASS ALARM WITHOUT THE LOCAL CHANNEL MAINTENANCE BYPASS LED FLASHING.

REFERENCES: VITRO DRAWING 3801-3005 SHEET 1



ENCLOSURE 1 (Page 147 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-06-06	H-06-06
		11 00 00

 		a and the	

EFIC BYPASS

# **EVENT POINT 2020**

#### INDICATED CONDITION:

- O EFIC CHANNEL B IN MAINTENANCE BYPASS.
- O ANY EFIC CHANNEL B TEST SWITCH NOT IN NORMAL.
- ANY EFIC CHANNEL B CIRCUIT BREAKER OPEN.
- O ANY EFIC CHANNEL B MODULE WITHDRAWN.
- O EFIC CHANNEL B CABINET POWER SUPPLY FAILURE.
- O EFIC CHANNEL B MAINTENANCE BYPASS ISOLATOR FAILURE.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

O INVESTIGATE CAUSE OF ALARM CONDITION.

DISCUSSION:

 MAINTENANCE BYPASS DIGITAL ISOLATOR FAILURE IS INDICATED BY MAINTENANCE BYPASS ALARM WITHOUT THE LOCAL CHANNEL MAINTENANCE BYPASS LED FLASHING.

REFERENCES: VITRO DRAWING 3801-3005 SHEET 2



ENCLOSURE 1 (Page 148 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-06-06	H-06-06
----------------------------	-------------	---------

EFIC BYPASS

### **EVENT POINT 2025**

#### INDICATED CONDITION:

- O EFIC CHANNEL C IN MAINTENANCE BYPASS.
- O ANY EFIC CHANNEL C TEST SWITCH NOT IN NORMAL.
- O ANY EFIC CHANNEL C CIRCUIT BREAKER OPEN.
- ANY EFIC CHANNEL C MODULE WITHDRAWN.
- O EFIC CHANNEL C CABINET POWER SUPPLY FAILURE.
- O EFIC CHANNEL C MAINTENANCE BYPASS DIGITAL ISOLATOR FAILURE.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

O INVESTIGATE CAUSE OF ALARM CONDITION.

DISCUSSION:

• MAINTENANCE BYPASS DIGITAL ISOLATOR FAILURE IS INDICATED BY MAINTENANCE BYPASS ALARM WITHOUT THE LOCAL CHANNEL MAINTENANCE BYPASS LED FLASHING.

REFERENCES: VITRO DRAWING 3801-3005 SHEET 3

ENCLOSURE 1 (Page 149 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-06-06	H-06-06



EFIC BYPASS

### **EVENT POINT 2029**

INDICATED CONDITION:

- O EFIC CHANNEL D IN INTENANCE BYPASS.
- O ANY EFIC CHANNEL D EST SWITCH NOT IN NORMAL.
- ANY EFIC CHANNEL D CIRCUIT BREAKER OPEN.
- O ANY EFIC CHANNEL D MODULE WITHDRAWN.
- O EFIC CHANNEL D CABINET POWER SUPPLY FAILURE.
- O EFIC CHANNEL D MAINTENANCE BYPASS DIGITAL ISOLATOR FAILURE.

REDUNDANT INDICATION WHICH WILL VERIFY ALARN:

OPERATOR ACTIONS FOR A VALID ALARM:

O INVESTIGATE CAUSE OF ALARM CONDITION.

DISCUSSION:

 MAINTENANCE BYPASS DIGITAL ISOLATOR FAILURE IS INDICATED BY MAINTENANCE BYPASS ALARM WITHOUT THE LOCAL CHANNEL MAINTENANCE BYPASS LED FLASHING.

REFERENCES: VITRO DRAWING 3801-3005 SHEET 4

ENCLOSURE 1 (Page 150 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-06-06	H-06-06
	1 011 10 00 00	11 00 00

				Convertiers an our opening of
				Printikalphine of London and
Construction of the second structure of the second str	 	 	er flas biller meller en, mar sin	
		 1		
	 	 <b>REACTION</b>		
Lanner and the second second	 	 		

EFIC BYPASS

### **EVENT POINT 2030**

#### INDICATED CONDITION:

- O EFIC CHANNEL A EFW TEST SWITCH IN "TEST" POSITION.
- "M.S. ISOLATION VALVES AIR SUPPLY TEST A" SWITCH SELECTED TO NUMBER 2, "MSI SV-2 EFIC HALF/TRIP" OR NUMBER 1, "MS & FW ISOLATION".

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

 KEY OPERATED TEST SWITCH IN RELAY RACK RR3A IS SELECTED TO THE "TEST" POSITION. (CRD ROOM)

OPERATOR ACTIONS FOR A VALID ALARM:

INVESTIGATE CAUSE OF ALARM CONDITION.
NOTIFY SSOD OF KEY SWITCH POSITION.

DISCUSSION:

 SELECTING THE "TEST" POSITION BLOCKS THE OUTPUT OF "A" EFW BUS 1 AND BUS 2.

REFERENCES: DRAWING 208-032-FW-47, 208-026-EF-15

ENCLOSURE 1 (Page 151 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-06-06	H-06-06
----------------------------	-------------	---------

EFIC BYPASS

### **EVENT POINT 2031**

#### INDICATED CONDITION:

- O EFIC CHANNEL B EFW TEST SWITCH IN TEST POSITION.
- o "M.S. ISOLATION VALVES AIR SUPPLY TEST B" SWITCH SELECTED TO NUMBER 2, "MSI SV-1 EFIC HALF TRIP" OR NUMBER 1, "MS & FW ISOLATION".

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O KEY OPERATED TEST SWITCH IN RELAY RACK RR5B1 IS SELECTED TO THE "TEST" POSITION. (EFIC ROOM B)

OPERATOR ACTIONS FOR A VALID ALARM:

O INVESTIGATE CAUSE OF ALARM CONDITION. O NOTIFY SSOD OF KEY SWITCH POSITION.

DISCUSSION:

O SELECTING THE "TEST" POSITION BLOCKS THE OUTPUT OF "B" EFW BUS 1 AND BUS 2.

REFERENCES: DRAWING 208-032-FW-48, 208-026-EF-16

ENCLOSURE 1 (Page 152 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-06-06	H-06-06
	And a series of the series of	

EFIC BYPASS

# **EVENT POINT 2032**

INDICATED CONDITION:

O EFIC AUXILIARY RELAY BOX 1C TEST SWITCH IN TEST.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

O INVESTIGATE CAUSE OF ALARM CONDITION.

DISCUSSION:

 AUTOMATIC REPOSITIONING OF EFV-11 AND EFV-32 BY EFIC IS BLOCKED WHEN IN TEST.

REFERENCES: DRAWING 208-026-EF-21

ENCLOSURE 1 (Page 153 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-06-06	H-06-06
	and the state of the second state of the secon	

E	FIC	
RY	DAG	2
Br	PAS	5

## **EVENT POINT 2033**

INDICATED CONDITION:

O EFIC AUXILIARY RELAY BOX 1D TEST SWITCH IN TEST.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

INVESTIGATE CAUSE OF ALARM CONDITION.

DISCUSSION:

 AUTOMATIC REPOSITIONING OF EFV-14 AND EFV-33 BY EFIC IS BLOCKED WHEN IN TEST.

REFERENCES: DRAWING 208-026-EF-22

ENCLOSURE 1 (Page 154 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-06-06	H-06-06
----------------------------	-------------	---------

EFIC BYPASS

#### **EVENT POINT 2034**

INDICATED CONDITION:

o EFIC ES-A BYPASS/TESTING.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

O INVESTIGATE CAUSE OF ALARM CONDITION.

DISCUSSION:

THIS EVENT POINT IS RECEIVED DURING EFIC TESTING BY PLACING THE SPRING RET'JRN TO NORMAL SWITCH TO EITHER TEST 1 OR TEST 2 POSITION IN THE ES-A MANUAL ACTUATION CABINET 4D. THESE TEST POSITIONS SIMULATE AN ES "A" SIGNAL TO EFIC CHANNELS "A" OR "B". THIS SWITCH DOES NOT BYPASS ANY ACTUATION SIGNAL FROM ENGINEERED SAFEGUARDS.

REFERENCES: DRAWING 208-028-ES-A65

ENCLOSURE 1 (Page 155 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-06-06	H-06-06
----------------------------	-------------	---------

 	 	WOLLING COMPANY	 
1			

EFIC	3	
BYPA	SS	

### **EVENT POINT 2035**

INDICATED CONDITION:

o EFIC ES-B BYPASS/TESTING.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

O INVESTIGATE CAUSE OF ALARM CONDITION.

DISCUSSION:

THIS EVENT POINT IS RECEIVED DURING EFIC TESTING BY PLACING THE SPRING RETURN TO NORMAL SWITCH TO EITHER TEST 1 OR TEST 2 POSITION IN THE ES-B MANUAL ACTUATION CABINET 50. THESE TEST POSITIONS SIMULATE AN ES "B" SIGNAL TO EFIC CHANNELS "A" OR "B". THIS SWITCH DOES NOT BYPASS ANY ACTUATION SIGNAL FROM ENGINEERED SAFEGUARDS.

REFERENCES: DRAWING 208-028-ES-B65

ENCLOSURE 1 (Page 156 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-06-07	H-06-07

EFIC SHUTDOWN BYPASS

#### **EVENT POINT 2013**

INDICATED CONDITION:

O EFIC CHANNEL "A" MAIN STEAM ISOLATION ACTUATION BYPASSED.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

 CHANNEL "A" <725 PSI STM GEN PRESS EFIC ACT BYPASS' PUSH-BUTTON ILLUMINATED.

OPERATOR ACTIONS FOR A VALID ALARM:

DISCUSSION:

THIS EVENT POINT IS RECEIVED WHEN PLANT CONDITIONS ALLOW THE BYPASSING OF MSLI/MWFI ACTUATION, AND THE BYPASS PUSH-BUTTON HAS BEEN DEPRESSED. THE ACTUATION SETPOINT IS <600 PSIG AND THE BYPASS IS ALLOWED WHEN OTSG PRESSURES ARE APPROXIMATELY <725 PSIG.

REFERENCES: VITRO DRAWING 3801-3005 SHEET 1

ENCLOSURE 1 (Page 157 of 190)

PSA-Z ANNUNCIATOR RES	SPONSE	PSA-Z-06-07	H-06-07

EFIC
SHUTDOWN
BYPASS

### **EVENT POINT 2021**

INDICATED CONDITION:

• EFIC CHANNEL "B" MAIN STEAM ISOLATION ACTUATION BYPASSED.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O CHANNEL "B" <725 PSI STM GEN PRESS EFIC ACT BYPASS' PUSH-BUTTON ILLUMINATED.

OPERATOR ACTIONS FOR A VALID ALARM:

DISCUSSION:

THIS EVENT POINT IS RECEIVED WHEN PLANT CONDITIONS ALLOW THE BYPASSING OF MSLI/MWFI ACTUATION, AND THE BYPASS PUSH-BUTTON HAS BEEN DEPRESSED. THE ACTUATION SETPOINT IS <600 PSIG AND THE BYPASS IS ALLOWED WHEN OTSG PRESSURES ARE APPROXIMATELY <725 PSIG.

REFERENCES: VITRO DRAWING 3801-3005 SHEET 2

ENCLOSURE 1 (Page 158 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-06-07	H-06-07
	the second s	

EFIC SHUTDOWN BYPASS

#### **EVENT POINT 2024**

INDICATED CONDITION:

O EFIC CHANNEL "C" MAIN STEAM ISOLATION ACTUATION BYPASSED.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

 CHANNEL "C" <725 PSI STM GEN PRESS EFIC ACT BYPASS' PUSH-BUTTON ILLUMINATED.

OPERATOR ACTIONS FOR A VALID ALARM:

DISCUSSION:

THIS EVENT POINT IS RECEIVED WHEN PLANT CONDITIONS ALLOW THE BYPASSING OF MSLI/MWFI ACTUATION, AND THE BYPASS PUSH-BUTTON HAS BEEN DEPRESSED. THE ACTUATION SETPOINT IS <600 PSIG AND THE BYPASS IS ALLOWED WHEN OTSG PRESSURES ARE APPROXIMATELY <725 PSIG.

REFERENCES: VITRO DRAWING 3801-3005 SHEET 3

SENSING ELEMENT:



M

ENCLOSURE 1 (Page 159 of 190)

PSA-Z	ANNUNCIATOR	RESPONSE	PSA-Z-06-07	H-06-07
Rest Day rates have revised relations from the same states are valued and the second states of the second state	The second se			

	EFIC	;	
SHL	ITD	NWC	1
B	YPA	SS	

## **EVENT POINT 2028**

INDICATED CONDITION:

O EFIC CHANNEL "D" MAIN STEAM ISOLATION ACTUATION BYPASSED.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

 CHANNEL "D" <725 PSI STM GEN PRESS EFIC ACT BYPASS' PUSH-BUTTON ILLUMINATED.

OPERATOR ACTIONS A VALID ALARM:

DISCUSSION:

THIS EVENT POINT IS RECEIVED WHEN PLANT CONDITIONS ALLOW THE BYPASSING OF MSLI/MWFI ACTUATION, AND THE BYPASS PUSH-EUTTON HAS BEEN DEPRESSED. THE ACTUATION SETPOINT IS <600 PSIC AND THE BYPASS IS ALLOWED WHEN OTSG PRESSURES ARE APPROXIMATELY <725 PSIG.

REFERENCES: VITRO DRAWING 3801-3005 SHEET 4

ENCLOSURE 1 (Page 160 of 190)

PSA-2 ANNUNCIATOR RESPONSE PSA-2-06-08	PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-06-08	H-06-08
--	-------------------	----------	-------------	---------

EFIC AH	
SYSTEM	
TROUBLE	

## **EVENT POINT 0767**

INDICATED CONDITION:

O AHF-54A/AHF-54B DUCT, SMOKE DETECTED, OR TROUBLE AS SENSED BY PYROTRONIC SMOKE DETECTION MODULES AH-934-CE1 OR AH-934-CE2.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

O INVESTIGATE CAUSE OF SMOKE DETECTED OR TROUBLE ALARM.

**DISCUSSION:** 

REFERENCES: DRAWING 208-005-AH-185

SENSING ELEMENT: AH-934-CE1, AH-934-CE2

ENCLOSURE 1 (Page 161 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-06-08	H-06-08

		The second secon	T	The state of the s	an our statement of the	printer strategy loss of
					3.210.101	
states water and the second states of the second st						
	which for many successive our reserves in					
Contraction of the Person of Street, or other data	which is not set of the local data of the					
				1		
confight to our contraction of the local data						
				-		
Contraction of Contraction of States of States		Lannana				

EFIC AH	
SYSTEM	
TROUBLE	

# **EVENT POINT 0768**

INDICATED CONDITION:

○ AHF-54A/AHF-54B DUCT, TEMPERATURE >85° AS SENSED BY AH-932-TS1/TS2.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

O INVESTIGATE CAUSE OF DUCT HIGH TEMPERATURE ALARM.

DISCUSSION:

REFERENCES: DRAWING 208-005-AH-185

SENSING ELEMENT: AH-932-TS1, AH-932-TS2

ENCLOSURE 1 (Page 162 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-06-08	H-06-08

EFIC AH	
SYSTEM	
TROUBLE	

## EVENT POINT 0774

INDICATED CONDITION:

O AHF-54A/AHF-54B DUCT, FLOW LOW AS SENSED BY AH-933-FS1/FS2.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

O INVESTIGATE CAUSE OF LOW AIRFLOW ALARM.

DISCUSSION:

THIS ALARM POINT IS ACTUATED WHEN EFIC DUCT AIRFLOW IS LESS THAN 70% OF DESIGN AIRFLOW.

REFERENCES: DRAWING 208-005-AH-185

SENSING ELEMENT: AH-933-FS1, AH-933-FS2

ENCLOSURE 1 (Page 163 of 190)

PSA-Z	ANNUNCIATOR RESPONSE	PSA-Z-06-0	08 H-0	6-08
			And a second second design of the second sec	And the other designation of the other days of t

EFIC AH	
SYSTEM	
TROUBLE	

# **EVENT POINT 0775**

INDICATED CONDITION:

o EFIC ROOM(S) TEMPERATURE HIGH/LOW AS SENSED BY AH-944-TS1/TS2/TS3/TS4.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

O INVESTIGATE CAUSE OF EFIC ROOM TEMPERATURE ALARM.

DISCUSSION:

THIS ALARM POINT IS ACTUATED WHEN ANY EFIC ROOM TEMPERATURE IS LESS THAN 60°F OR GREATER THAN 85°F. ONE DETECTOR IS LOCATED IN EACH EFIC ROOM MOUNTED ON THE WALL APPROXIMATELY 4' FROM THE FLOOR. IF ALARM IS IN FOR NO APPARENT REASON ENGINEERING CAN ADJUST DAMPER AND/OR DUCT REGISTER POSITIONS TO BETTER DISTRIBUTE AIR FLOW THROUGHOUT THE ROOMS.

REFERENCES: DRAWING 208-005-AH-185

SENSING ELEMENT: AH-944-TS1, AH-944-TS2, AH-944-TS3, AH-944-TS4

ENCLOSURE 1 (Page 164 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-07-01	H-07-01
----------------------------	-------------	---------

EF TANK LEVEL LOW-LOW

### **EVENT POINT 0815**

INDICATED CONDITION:

O EFT-2 LEVEL < 8' - 6" AS SENSED BY EF-98-LT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

EF-98-LI1, EMERGENCY FEED TANK LEVEL INDICATION.
EF-99-LI1, EMERGENCY FEED TANK LEVEL INDICATION.

OPERATOR ACTIONS FOR A VALID ALARM:

O REFER TO EOP.

DISCUSSION:

REFER TO TS FOR ADMINISTRATIVE REQUIREMENTS.

THIS EVENT POINT WILL COME INTO ALARM BETWEEN 8' 4" AND 8' 8"

REFERENCES: DRAWING 205-026-EF-05

SENSING ELEMENT: EF-98-LT

ENCLOSURE 1 (Page 165 of 190)

PSA-Z ANNUNCIATOR RESPO	DNSE PSA-Z-07-0	02 H-07-02
The second s		

EF PUMP 1 AUTO START

# **EVENT POINT 1681**

INDICATED CONDITION:

• EFP-1 MOTOR ENERGIZED WITH CONTROL SWITCH IN NORMAL AFTER STOP POSITION.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O RED LIGHT ON WITH A GREEN FLAG ON EFP-1 CONTROL STATION.

OPERATOR ACTIONS FOR A VALID ALARM:

O REFER TO EOP.

DISCUSSION:

REFERENCES: DRAWING 208-026-EF-01B

SENSING ELEMENT: EFP-1 CONTROL SWITCH CONTACTS CS/ST, CS/O

ENCLOSURE 1 (Page 166 of 190)

		and the second se	· At the second se	The second state of the second state of the local state of the local state of the second state of the seco
PSA-Z	ANNUNCIATOR	RESPONSE	PSA-Z-07-03	H-07-03
content of the second of the second	AF TWO IS A REAL DESIGNATION AND A REAL PROPERTY A			



EF PUMP 1	
START	
FAILURE	

#### **EVENT POINT 1680**

INDICATED CONDITION:

• EFP-1 MOTOR NOT ENERGIZED WITH CONTROL SWITCH IN NORMAL AFTER STOP POSITION, AND 50 SECONDS HAVE ELAPSED WITH AN ACTUATION SIGNAL PRESENT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

o REFER TO EOP.

O MANUALLY START EFP-1

DISCUSSION:

IF EFP-1 FAILED TO START FROM A VALID ACTUATION SIGNAL, BUT WAS MANUALLY STARTED THEN THIS ALARM WILL NOT ACTUATE DUE TO THE 50 SECOND TIME DELAY RELAY CIRCUIT. THE CONTROL SWITCH MUST BE IN THE NORMAL AFTER STOP POSITION TO ACTUATE THIS ALARM.

REFERENCES: DRAWING 208-026-EF-01B

SENSING ELEMENT: EFP-1 CONTROL SWITCH CONTACTS CS/ST, CS/O

ENCLOSURE 1 (Page 167 of 190)

.

	and interest on any department of second data data and an end and	The state of the s
PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-07-03	H-07-03

EF PUMP 1	
START	
FAILURE	

### **EVENT POINT 1682**

INDICATED CONDITION:

 EFP-1 DISCHARGE PRESSURE <1100 PSIG AS SENSED BY EF-17-PS WITH CONTROL SWITCH IN NORMAL AFTER START POSITION.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

C REFER TO EOP.

O INVESTIGATE CAUSE OF LOW DISCHARGE PRESSURE.

DISCUSSION:

THE CONTROL SWITCH MUST BE IN THE NORMAL AFTER START POSITION TO ACTUATE THIS EVENT POINT.

REFERENCES: DRAWING 208-026-EF-01B

SENSING ELEMENT: EFP-1 CONTROL SWITCH CONTACTS CS/SC, CS/O, EF-17-PS

ENCLOSURE 1 (Page 168 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-07-04	H-07-04
----------------------------	-------------	---------



EF PUMP 1 TRIP	

# **EVENT POINT 1261**

INDICATED CONDITION:

 EFP-1 MOTOR NOT ENERGIZED WITH CONTROL SWITCH IN NORMAL AFTER START POSITION.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O GREEN LIGHT ON WITH A RED FLAG ON EFP-1 CONTROL STATION.

OPERATOR ACTIONS FOR A VALID ALARM:

REFER TO EOP.INVESTIGATE CAUSE OF BREAKER TRIP.

DISCUSSION:

THE CONTROL SWITCH MUST BE IN THE NORMAL AFTER START FOSITION TO ACTUATE THIS EVENT POINT.

REFERENCES: DRAWING 208-026-EF-01

SENSING ELEMENT: EFP-1 CONTROL SWITCH CONTACTS CS/SC, CS/O

ENCLOSURE 1 (Page 169 of 190)

	the second s	strate scatter and descent in the second scatter of
PSA-Z ANNUNCIATOR PESPONSE	PSA-Z-07-05 H-	07-05



EF PUMP 1 OUT OF SERVICE

# **EVENT POINT 1191**

INDICATED CONDITION:

o EFP-1 CONTROL SWITCH IN PULL TO LOCK POSITION

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O GREEN AND RED LIGHTS EXTINGUISHED ON CONTROL STATION.

OPERATOR ACTIONS FOR A VALID ALARM:

DISCUSSION:

REFERENCES: DRAWING 208-026-EF-01

SENSING ELEMENT: EFP-1 CONTROL SWITCH CONTACTS CS/PTL

ENCLOSURE 1 (Page 170 of 190)

	PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-07-05	H-07-05
--	-------------------	----------	-------------	---------



INDICATED CONDITION:

E	FP	JMP1
OUT	OF	SERVICE

# **EVENT POINT 1257**

o EFP-1 CIRCUIT	BREAKER NOT RACKED IN.	
REDUNDANT TNOTCAT		
CREEN AND DED	ION WHICH WILL VERIFY ALARM:	
O GREEN AND RED	LIGHTS EXTINGUISHED ON CONTROL STATION.	
DISCUSSION:		

REFERENCES: DRAWING 208-026-EF-01

SENSING ELEMENT: EFP-1 BREAKER 52H/B CONTACTS

ENCLOSURE 1 (Page 171 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-07-05	H-07-05



E	FP	JMP1
OUT	OF	SERVICE

## **EVENT POINT 1259**

INDICATED CONDITION:

O EFP-1 CIRCUIT BREAKER LOSS OF DC CONTROL POWER.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

O GREEN AND RED LIGHTS EXTINGUISHED ON CONTROL STATION.

OPERATOR ACTIONS FOR A VALID ALARM:

DISCUSSION:

REFERENCES: DRAWING 208-026-EF-01

SENSING ELEMENT: EFP-1 BREAKER CONTROL CIRCUIT 27 RELAY



ENCLOSURE 1 (Page 172 of 190)

PSA-Z ANNUNCIATOR RESPONSE PSA-Z-07-06
--

EF PUMP 1 MOTOR OVERLOAD

### **EVENT POINT 1260**

INDICATED CONDITION:

O EFP-1 MOTOR AMPS >115% KATED LOAD.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

HIGH MOTOR AMPS.
EFP-1 BREAKER TRIP.

OPERATOR ACTIONS FOR A VALID ALARM:

O REFER TO EOP.

- o START EFP-2.
- REDUCE EMERGENCY FEEDWATER FLOW FROM EFP-1 IF STILL RUNNING.

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 208-026-EF-01

SENSING ELEMENT: EFP-1 BREAKER 51 RELAY (INSIDE 4160 BREAKER CUBICLE)

ENCLOSURE 1 (Page 173 of 190)

PSA-Z ANNUNCIATOR RESPONSE PSA-Z-07-07 H-07-07	PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-07-07	H-07-07
--	-------------------	----------	-------------	---------

	and the second s	and the second second second	Salas and the state	presidente to tarta ante es	CONTRACTOR OF THE OWNER OWNE	DOWNLASS STATES
and the second s						

FWP-7 TRIP	

# **EVENT POINT 0819**

INDICATED CONDITION:

• FWP-7 MOTOR NOT ENERGIZED WITH CONTROL STATION IN NORMAL AFTER START POSITION.

REDUNDANT INDICATION WHICH WILL VERIFY , ARM:

O GREEN LIGHT ON WITH A RED FLAG ON FWP-7 CONTROL STATION.

OPERATOR ACTIONS FOR A VALID ALARM:

O INVESTIGATE CAUSE OF BREAKER TRIP.

DISCUSSION:

REFERENCES: DRAWING 208-032 FW-55

SENSING ELEMENT: CS/SC, CS/O



ENCLOSURE 1 (Page 174 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-07-08	H-07-08
----------------------------	-------------	---------

FWP-7 OVERCURRENT

## **EVENT POINT 0780**

INDICATED CONDITION:

o FWP-7 MOTOR AMPS >115% RATED LOAD

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- O HIGH MOTOR AMPS
- O FWP-7 BREAKER TRIP

OPERATOR ACTIONS FOR A VALID ALARM:

O REDUCE FEEDWATER FLOW FROM FWP-7 IF STILL RUNNING

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 208-032 FW-55

SENSING ELEMENT: FWP-7 BREAKER 51 RELAY (INSIDE 4160 BREAKER CUBICLE)

ENCLOSURE 1 (Page 175 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-08-01	H-08-01
----------------------------	-------------	---------

EF TANK LEVEL HIGH/LOW

# **EVENT POINT 0816**

INDICATED CONDITION:

o EFT-2 LEVEL > 37' - 0" AS SENSED BY EF-98-LT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

EF-98-LI1 EMERGENCY FEED TANK LEVEL INDICATION.
EF-99-LI1 EMERGENCY FEED TANK LEVEL INDICATION.

OPERATOR ACTIONS FOR A VALID ALARM:

O RESTORE TANK LEVEL TO NORMAL OPERATING BAND.

DISCUSSION:

THIS EVENT POINT WILL COME INTO ALARM BETWEEN 36' 10" AND 37' 3"

REFERENCES: DRAWING 205-026 EF-05

SENSING ELEMENT: EF-98-LT

ENCLOSURE 1 (Page 176 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-08-01	H-08-01
----------------------------	-------------	---------

EF TANK LEVEL HIGH/LOW

# **EVENT POINT 0817**

INDICATED CONDITION:

O EFT-2 LEVEL <33'-8" AS SENSED BY EF-99-LT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

EF-98-LI1 EMERGENCY FEED TANK LEVEL INDICATION.
EF-99-LI1 EMERGENCY FEED TANK LEVEL INDICATION.

OPERATOR ACTIONS FOR A VALID ALARM:

O RESTORE TANK LEVEL TO NORMAL OPERATING BAND.

DISCUSSION:

THE LOW LEVEL ALARM SETPOINT IS > THAN TECH. SPEC. LIMIT OF 150,000 GALLONS.

REFER TO TS FOR ADMINISTRATIVE REQUIREMENTS.

THIS EVENT POINT WILL COME INTO ALARM BETWEEN 33' 6" AND 33' 10"

REFERENCES: DRAWING 205-026 EF-05

SENSING ELEMENT: EF-99-LT
ENCLOSURE 1 (Page 177 of 190)

	A support of the owner of the second se	
PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-08-02	H-08-02
	1	

1	F	PL	M	P	2	
AI	UT	0	ST	A	R	Г

## **EVENT POINT 1707**

INDICATED CONDITION:

• EFP-2 DISCHARGE PRESSURE >1100 PSIG AS SENSED BY EF-18-PS, AND 50 SECONDS HAVE ELAPSED WITH AN ACTUATION SIGNAL PRESENT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

O REFER TO EOP.

DISCUSSION:

REFERENCES: DRAWING 208-008 AS-01

SENSING ELEMENT: EF-18-PS

ENCLOSURE 1 (Page 178 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-08-03	H-08-03
	the second and show that is a real or second or set, independent on the second states, such as proved as the second states of	and and some the state of the	

EF PU	MP2
STA	RT
FAIL	URE

# **EVENT POINT 1706**

#### INDICATED CONDITION:

• EFP-2 DISCHARGE PRESSURE <1100 PSIG AS SENSED BY EF-18-PS, AND 50 SECONDS HAVE ELAPSED WITH AN ACTUATION SIGNAL PRESENT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

O PEFER TO EOP.

DISCUSSION:

REFERENCES: DRAWING 208-008 AS-01

SENSING ELEMENT: EF-18-PS

ENCLOSURE 1 (Page 179 of 190)

PSA-Z ANNUNC	IATOR RESPONSE	PSA-Z-08-04	H-08-04

		and the same same straining	and the second second second	Contract of the Contract of the
				5,-2N-25

EF	PUMP	2
	TRIP	

### **EVENT POINT 0326**

INDICATED CONDITION:

• TURBINE DRIVEN EMERGENCY FEEDWATER PUMP STEAM SUPPLY VALVE ASV-50 NOT OPEN.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

NOTIFY PRIMARY PLANT OPERATOR TO RESET ASV-50

DISCUSSION:

REFERENCES: DRAWING 208-008 AS-01

SENSING ELEMENT: 33C/ASV-50

ENCLOSURE 1 (Page 180 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-08-05	H-08-05
A STREET OF CONTRACT OF		

EF PUMP 2 OUT OF SERVICE

#### **EVENT POINT 0100**

INDICATED CONDITION:

- o ASV-5 CLOSED, WITH DC CONTROL POWER NOT AVAILABLE FOR >5 SECONDS.
- o MSV-55 CLOSED.
- o MSV-56 CLOSED.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- ASV-5 POSITION INDICATION.
- MSV-55 POSITION INDICATION.
- MSV-56 POSITION INDICATION.

OPERATOR ACTIONS FOR A VALID ALARM:

INVESTIGATE LOSS OF CONTROL POWER TO ASV-5.
 INVESTIGATE CLOSURE OF MSV-55 OR MSV-56.

DIS SSION:

IF HIS ALARM IS DUE TO THE ASV-5 CIRCUITRY THEN IT MEANS ASV-5 IS CLOSED WITH NO CONTROL POWER AVAILABLE TO ALLOW AN AUTO OPEN DURING AN EFW ACTUATION. THE MSV-55 AND MSV-56 ALARMS ARE DUE TO FULLY CLOSED LIMIT SWITCHES. CONTROL POWER FOR ASV-5 IS SUPPLIED FRO: DPDP-88 FUSE #6.

REFERENCES: DRAWING 208-008 AS-01

SENSING ELEMENT: ASV 5 LS(13), 2ASV-5 RELAY, MSV-55 LS(5), MSV-56 LS(14)

ENCLOSURE 1 (Page 181 of 190)

PSA-Z	ANNUNCIATOR	RESPONSE	PSA-Z-08-05	H-08-05
		the second s	And the second	

EF PUMP 2 OUT OF SERVICE

# **EVENT POINT 1521**

INDICATED CONDITION:

O ASV-204 CLOSED, WITH DC CONTROL POWER NOT AVAILABLE.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

ASV-204 POSITION INDICATION.

OPERATOR ACTIONS FOR A VALID ALARM:

O INVESTIGATE LOSS OF CONTROL POWER TO ASV-204.

DISCUSSION:

THIS ALARM MEANS ASV-204 IS CLOSED WITH NO CONTROL POWER AVAILABLE TO ALLOW AN AUTO OPEN DURING AN ACTUATION. CONTROL POWER FOR ASV-204 IS SUPPLIED FROM DPDP-8A FUSE #15.

REFERENCES: DRAWING 208-008 AS-07

SENSING ELEMENT: ASV-204 LS(13), 27ASV-204 RELAY

ENCLOSURE 1 (Page 182 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-08-06	H-08-06
----------------------------	-------------	---------

EMERG FW VALVE NOT FULL OPEN

### **EVENT POINT 1192**

INDICATED CONDITION:

o EFV-32 NOT FULL OPEN.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

o EFV-32 POSITION INDICATION.

OPERATOR ACTIONS FOR A VALID ALARM:

INVESTIGATE CLOSURE OF EFV-32.

DISCUSSION:

REFERENCES: DRAWING 208-026 EF-10

SENSING ELEMENT: EFV-32 FULL OPEN LIMIT SWITCH

ENCLOSURE 1 (Page 183 of 190)

	and a fully state of the second state a second state of the	The subscription of the second s
PSA-Z ANNUNCIATOR RESPONSE	DCA 7 08 06	11 00 00
	F3A-2-00-00	H-08-05

EMERG FW VALVE NOT FULL OPEN

### **EVENT POINT 1193**

INDICATED CONDITION:

O EFV-11 NOT FULL OPEN.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

• EFV-11 POSITION INDICATION.

OPERATOR ACTIONS FOR A VALID ALARM:

O INVESTIGATE CLOSURE OF EFV-11.

DISCUSSION:

REFERENCES: DRAWING 208-026 EF-08

SENSING ELEMENT: EFV-11 FULL OPEN LIMIT SWITCH

ENCLOSURE 1 (Page 184 of 190)

	And and and a second seco	i.
PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-08-06 H-08-06	
	ALTER AND	4

EMERG FW VALVE NOT FULL OPEN

#### **EVENT POINT 1194**

INDICATED CONDITION:

O EFV-14 NOT FULL OPEN.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

o EFV-14 POSITION INDICATION.

OPERATOR ACTIONS FOR A VALID ALARM:

INVESTIGATE CLOSURE OF EFV-14.

DISCUSSION:

REFERENCES: DRAWING 208-026 EF-9

SENSING ELEMENT: EFV-14 FULL OPEN LIMIT SWITCH

ENCLOSURE 1 (Page 185 of 190)

PSA-Z ANNUNCIATOR	RESPONSE	PSA-Z-08-06	H-08-06
A STATE OF A STAT	A DESCRIPTION OF THE OWNER OF THE PARTY OF	And the second	

EN	ERG FW
	VALVE
NOT	FULL OPEN

#### **EVENT POINT 1196**

INDICATED CONDITION:

o EFV-33 NOT FULL OPEN.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

o EFV-33 POSITION INDICATION.

OPERATOR ACTIONS FOR A VALID ALARM:

INVESTIGATE CLOSURE OF EFV-33.

DISCUSSION:

REFERENCES: DRAWING 208-026 EF-11

SENSING ELEMENT: EFV-33 FULL OPEN LIMIT SW. .4

ENCLOSURE 1 (Page 186 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-08-06	H-08-06
		Bolina requirements of the second sec

EMERG FW VALVE NOT FULL OPEN

### **EVENT POINT 1255**

INDICATED CONDITION:

O F.FV-3 NOT FULL OPEN.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

• EFV \_ POSITION INDICATION.

OPERATOR ACTIONS FOR A VALID ALARM:

INVESTIGATE CLOSURE OF EFV-3.

DISCUSSION:

REFERENCES: DRAWING 208-026 EF-02

SENSING ELEMENT: EFV-3 FULL OPEN LIMIT SWITCH

ENCLOSURE 1 (Page 187 of 190)

PSA-Z	ANNUNCIATOR	RESPONSE	PSA-Z-08-06	H-08-06

EA	A ERG FW
	VALVE
NOT	FULL OPEN

### **EVENT POINT 1256**

INDICATED CONDITION:

O EFV-4 NOT FULL OPEN.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

o EFV-4 POSITION INDICATION.

OPERATOR ACTIONS FOR A VALID ALARM:

O INVESTIGATE CLOSURE OF EFV-4.

REFERENCES: DRAW.ING 208-026 EF-03

SENSING ELEMENT: EFV-4 FULL OPEN LIMIT SWITCH

ENCLOSURE 1 (Page 188 of 190)

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-08-06	H-08-06
----------------------------	-------------	---------

EMERG FW VALVE NOT FULL OPEN

### **EVENT POINT 1262**

INDICATED CONDITION:

O EFV-7 NOT FULL OPEN.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

EFV-7 POSITION INDICATION.

OPERATOR ACTIONS FOR A VALID ALARM:

O INVESTIGATE CLOSURE OF EFV-7.

DISCUSSION:

REFERENCES: DRAWING 208-026 EF-04

SENSING E\_\_MENT: EFV-7 FULL OPEN LIMIT SWITCH



ENCLOSURE 1 (Page 189 of 190)

PSA-Z	ANNUNCIATOR	RESPONSE	PSA-Z-08-06	H-08-06
construction of the second descent of the second	A REAL CONTRACTOR AND A DESCRIPTION OF A	In organization want for any state of the second		

EMERG FW VALVE NOT FULL OPEN

# **EVENT POINT 1263**

INDICATED CONDITION:	
O EFV-8 NOT FULL OPEN.	
REDUNDANT INDICATION WHICH WILL VERIFY ALARM:	
o EFV-8 POSITION INDICATION.	
OPERATOR ACTIONS FOR A VALID ALARM:	
<ul> <li>INVESTIGATE CLOSURE OF EFV-8.</li> </ul>	
DISCUSSION:	
REFERENCES: DRAWING 208-026 EF-05	
SENSING ELEMENT: EFV-8 FULL OPEN LIMT SAITCH	

ENCLOSURE 1 (Page 190 of 190)

PSA-Z	ANNUNCIATOR	RESPONSE	PSA-Z-08-07	H-08-07
			the second s	Carlle Altreaction contraction of the second devices \$ . In contrast, the New York Restriction of the second devices of the

EFV-12 EF CROSS-TIE OPEN

# **EVENT POINT 1266**

INDICATED CO	NDITION:
o EFV-12 0	PEN.
REDUNDANT IN	DICATION WHICH WILL VERIFY ALARM:
SWITCHGE	AR ROOM, 124" ELEV CC.
<ul> <li>FLOW IND: INSTALLED</li> </ul>	CATED ON EF-62-FI, LCCATED ON PSA SECTION OF MCB (TO BE BY MAR 97-01-04-01
OPERATOR ACT	IONS FOR A VALID ALARM:
O VERTEY C	DOSS FLOW VIA WAY STOP FETS FLOW THEREFORE
O VERIFY C	ROSS-FLOW VIA "A" SIDE EFIC FLOW INDICATORS.
o VERIFY C	ROSS-FLOW VIA "A" SIDE EFIC FLOW INDICATORS.
o VERIFY C	ROSS-FLOW VIA "A" SIDE EFIC FLOW INDICATORS.
<pre>o VERIFY Control of the second s</pre>	ROSS-FLOW VIA "A" SIDE EFIC FLOW INDICATORS. EFV-12 POWERED FROM DPDP-8C, BKRS 5 (POWER) & 6 (CONTROL)
• VERIFY C	ROSS-FLOW VIA "A" SIDE EFIC FLOW INDICATORS. EFV-12 POWERED FROM DPDP-8C, BKRS 5 (POWER) & 6 (CONTROL)
• VERIFY C	ROSS-FLOW VIA "A" SIDE EFIC FLOW INDICATORS.
• VERIFY C	ROSS-FLOW VIA "A" SIDE EFIC FLOW INDICATORS. EFV-12 POWERED FROM DPDP-8C, BKRS 5 (POWER) & 6 (CONTROL)
• VERIFY C	ROSS-FLOW VIA "A" SIDE EFIC FLOW INDICATORS. EFV-12 POWERED FROM DPDP-8C, BKRS 5 (POWER) & 6 (CONTROL)
<ul> <li>VERIFY C</li> <li>DISCUSSION:</li> <li>REFERENCES:</li> </ul>	ROSS-FLOW VIA "A" SIDE EFIC FLOW INDICATORS. EFV-12 POWERED FROM DPDP-8C, BKRS 5 (POWER) & 6 (CONTROL) DRAWING 208-026 EF-24