Rev. 34

Effective Date 10-1-98

INFORMATION ONLY

Holder # 1242

ANNUNCIATOR RESPONSE

AR-403

FLORIDA POWER CORPORATION

CRYSTAL RIVER UNIT 3

PSA H ANNUNCIATOR RESPONSE

APPROVED BY: Procedure Owner

R. L. Womack FOR MA TRUMP

(SIGNATURE ON FILE)

DATE: 9/28/98

PROCEDURE OWNER: Manager, Nuclear Plant Operations Support

TABLE OF CONTENTS

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.

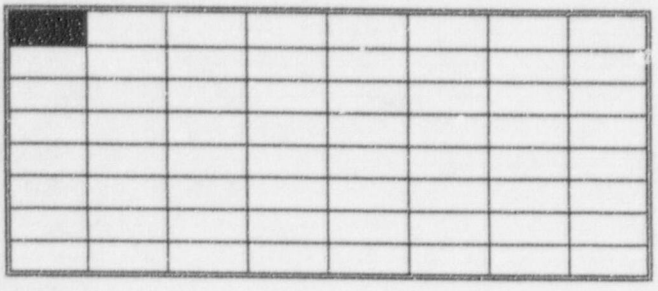
4.0 INSTRUCTIONS

4.1 Respond to alarms on the PSA-Z Lamp box as indicated on Enclosure 1, Annunciator Response.

5.0 FOLLOW-UP ACTIONS

None

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.
- o RM-G1 RED ALARM LIGHT.
- o RM-G1 HORN.
- o SPDS ALPHA PAGE.

OPERATOR ACTIONS FOR A VALID ALARM:

- o INVESTIGATE CAUSE OF HIGH RADIATION.
- 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.

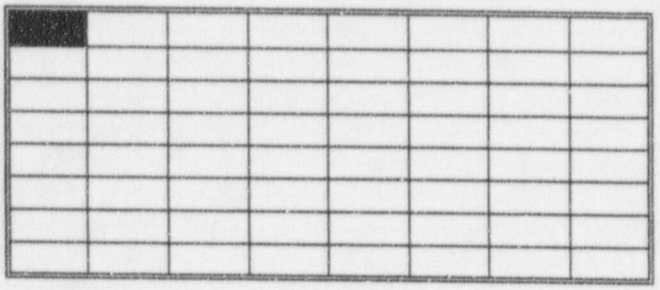
DISCUSSION:

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

REFERENCES: DRAWING 208-049-RM-22

SENSING ELEMENT: RADIATION MONITORING PANEL

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



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:

- o INVESTIGATE CAUSE OF HIGH RADIATION.
- 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.

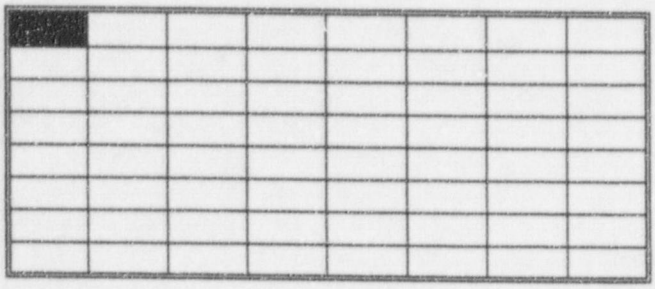
DISCUSSION:

RM-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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



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.
- 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.

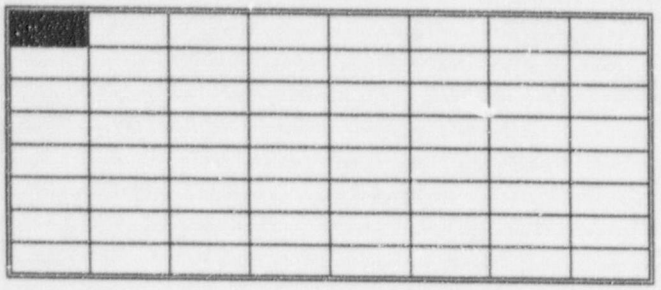
DISCUSSION:

RM-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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



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.
- 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.

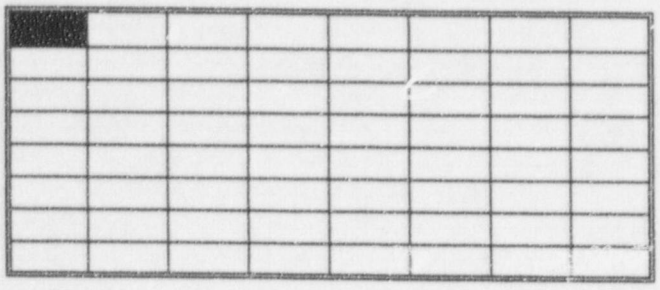
DISCUSSION:

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

REFERENCES: DRAWING 208-049-RM-24

SENSING ELEMENT: RADIATION MONITORING PANEL

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



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:

- o INVESTIGATE CAUSE OF HIGH RADIATION.
- 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.

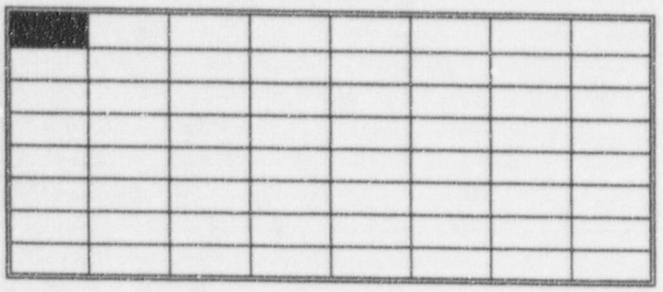
DISCUSSION:

RM-G5 MONITORS THE WASTE GAS TANK VALVE ALLEY. THE DETECTOR IS LOCATED ON THE 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

SENSING ELEMENT: RADIATION MONITORING PANEL

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-G6 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o INVESTIGATE CAUSE OF HIGH RADIATION.
- 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.

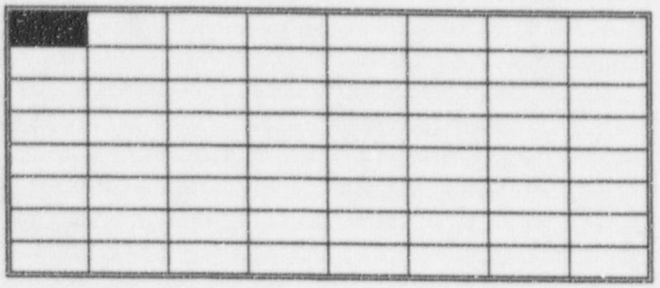
DISCUSSION:

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

REFERENCES: DRAWING 208-049-RM-25

SENSING ELEMENT: RADIATION MONITORING PANEL

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



GAMMA
RADIATION
HIGH

EVENT POINT 1760

INDICATED CONDITION:

- o RM-G7 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RM-G7 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o INVESTIGATE CAUSE OF HIGH RADIATION.
- 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.

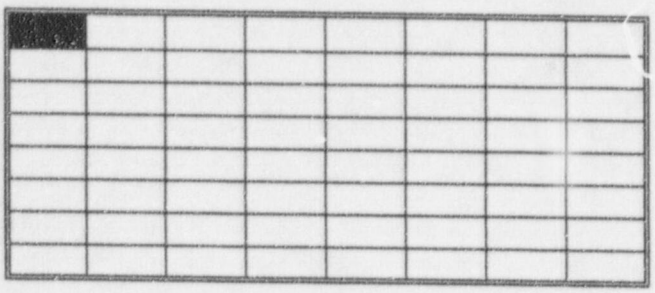
DISCUSSION:

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

REFERENCES: DRAWING 208-049-RM-25

SENSING ELEMENT: RADIATION MONITORING PANEL

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



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:

- o INVESTIGATE CAUSE OF HIGH RADIATION.
- 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.

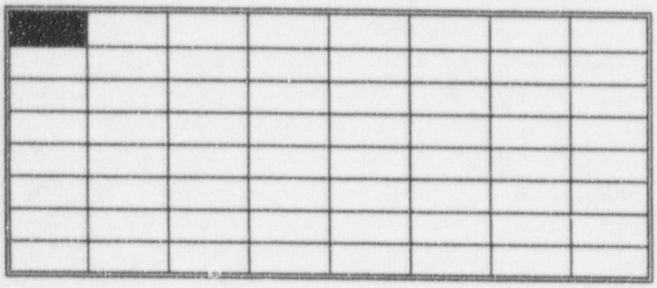
DISCUSSION:

RM-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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



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:

- o INVESTIGATE CAUSE OF HIGH RADIATION.
- 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.

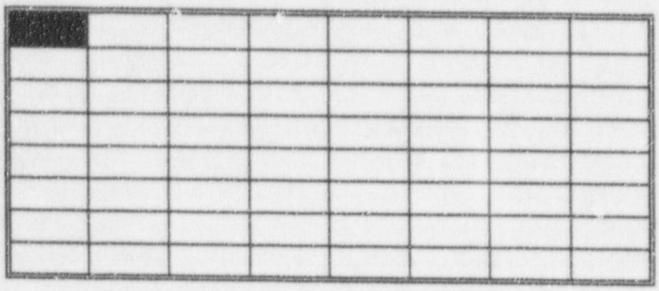
DISCUSSION:

RM-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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



GAMMA
RADIATION
HIGH

EVENT POINT 1766

INDICATED CONDITION:

- RM-G10 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- RM-G10 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.

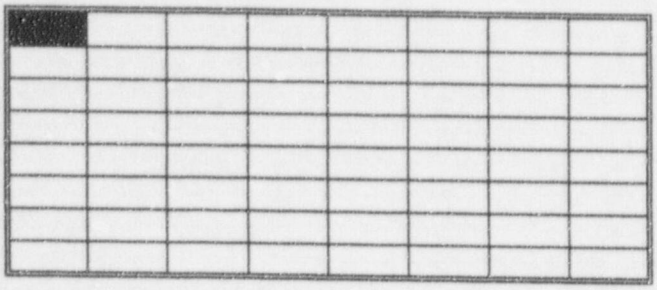
DISCUSSION:

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

REFERENCES: DRAWING 208-049-RM-27

SENSING ELEMENT: RADIATION MONITORING PANEL

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



GAMMA
RADIATION
HIGH

EVENT POINT 1768

INDICATED CONDITION:

- o RM-G11 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RM-G11 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o INVESTIGATE CAUSE OF HIGH RADIATION.
- 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.

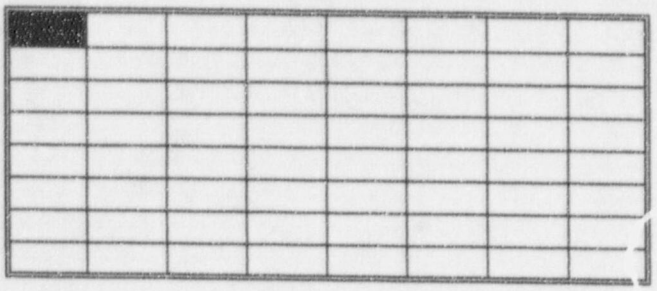
DISCUSSION:

RM-G11 MONITORS THE DEBORATING DEMIN ROOM. THE DETECTOR IS LOCATED ON THE WALL INSIDE THE DEMIN ROOM ON THE 119' ELEVATION. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-27

SENSING ELEMENT: RADIATION MONITORING PANEL

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



GAMMA
RADIATION
HIGH

EVENT POINT 1770

INDICATED CONDITION:

- o RM-G12 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RM-G12 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o INVESTIGATE CAUSE OF HIGH RADIATION.
- 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.

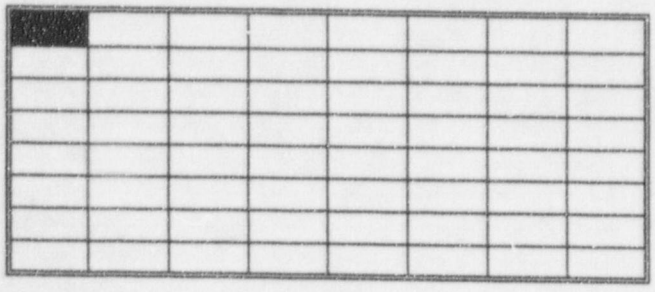
DISCUSSION:

RM-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

SENSING ELEMENT: RADIATION MONITORING PANEL

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:

- o INVESTIGATE CAUSE OF HIGH RADIATION.
- 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.

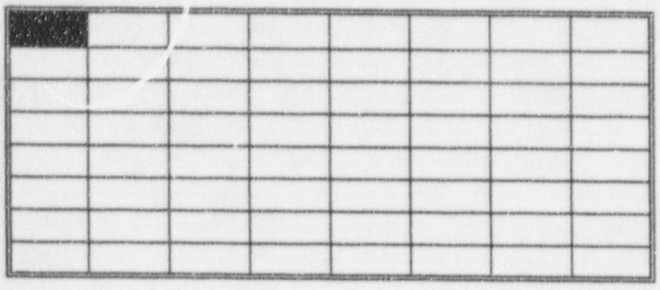
DISCUSSION:

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

REFERENCES: DRAWING 208-049-RM-28

SENSING ELEMENT: RADIATION MONITORING PANEL

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.
- 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.

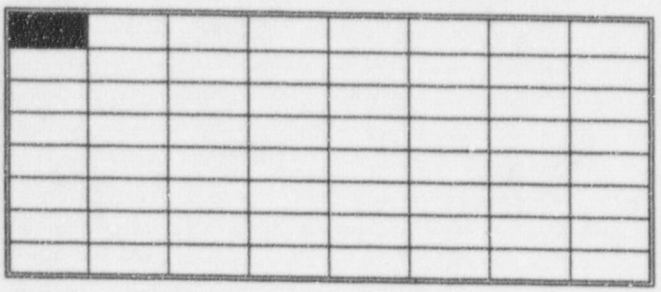
DISCUSSION:

RM-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 S.T.S. AREA 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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



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.

OPERATOR ACTIONS FOR A VALID ALARM:

- o INVESTIGATE CAUSE OF HIGH RADIATION.
- o NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S).
- o OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- o IF FUEL MOVEMENT IS IN PROGRESS, ENSURE FUEL IS PLACED IN A SAFE CONDITION PRIOR TO PERSONNEL EXIT.
- o REFER TO OP-505, RADIATION MONITORING SYSTEM.

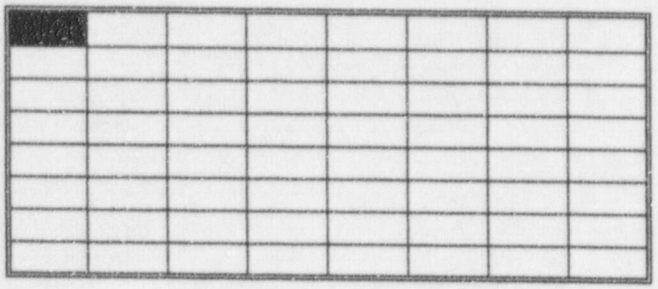
DISCUSSION:

RM-G15 MONITORS THE SPENT FUEL AREA. THE DETECTOR IS LOCATED ON THE SPENT FUEL BRIDGE AND MOVES WITH THE BRIDGE. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-29

SENSING ELEMENT: RADIATION MONITORING PANEL

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



GAMMA
RADIATION
HIGH

EVENT POINT 1778

INDICATED CONDITION:

- o RM-G16 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RM-G16 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o INVESTIGATE CAUSE OF HIGH RADIATION.
- o NOTIFY HEALTH PHYSICS TO MONITOR AFFECTED AREA(S).
- o OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- o IF FUEL MOVEMENT IS IN PROGRESS, ENSURE FUEL IS PLACED IN A SAFE CONDITION PRIOR TO PERSONNEL EXIT.
- o REFER TO OP-505, RADIATION MONITORING SYSTEM.

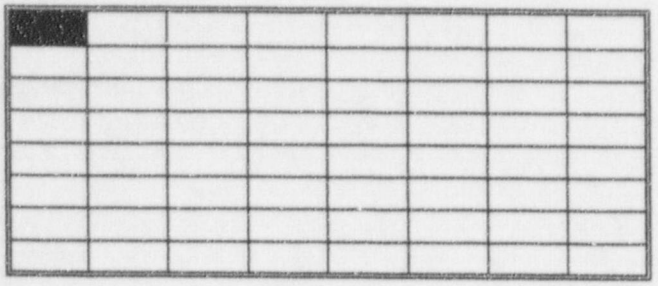
DISCUSSION:

RM-G16 MONITORS THE FUEL TRANSFER AREA. THE DETECTOR IS LOCATED ON THE MAIN FUEL BRIDGE AND MOVES WITH THE BRIDGE. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-30

SENSING ELEMENT: RADIATION MONITORING PANEL

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



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:

- o INVESTIGATE CAUSE OF HIGH RADIATION.
- 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.

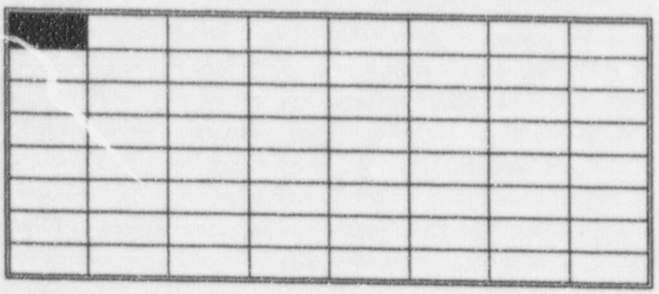
DISCUSSION:

RM-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

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



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:

- o INVESTIGATE CAUSE OF HIGH RADIATION.
- 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.

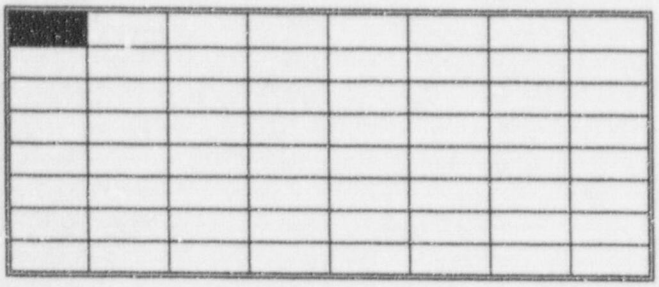
DISCUSSION:

RM-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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



GAMMA
RADIATION
HIGH

EVENT POINT 1784

INDICATED CONDITION:

- RM-G29/30 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- RM-G29/30 INDICATION ON HVAC SECTION OF MAIN CONTROL BOARD.
- SPDS ALPHA PAGE.

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.

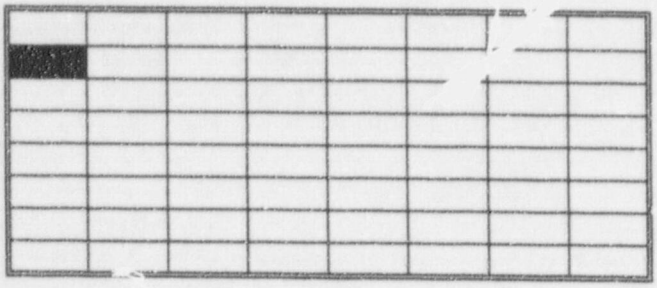
DISCUSSION:

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

REFERENCES: DRAWING 208-049-RM-32

SENSING ELEMENT: RADIATION MONITORING PANEL

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



GAMMA
MONITOR
WARNING

EVENT POINT 1749

INDICATED CONDITION:

- o RM-G1 RADIATION LEVEL EXCEEDS WARNING SETPOINT OR
- o 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:

- o 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.

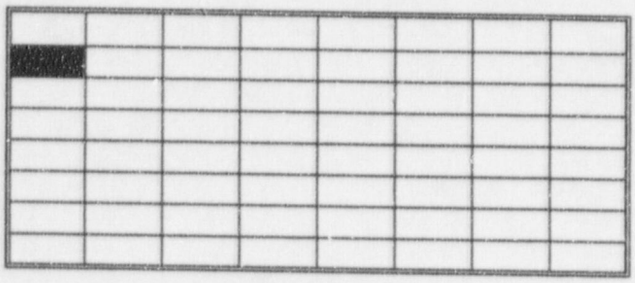
DISCUSSION:

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 REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-22

SENSING ELEMENT: RADIATION MONITORING PANEL

PSA-Z ANNUNCIATOR RESPONSE	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:

- RM-G2 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.
- REFER TO OP-505, RADIATION MONITORING SYSTEM.

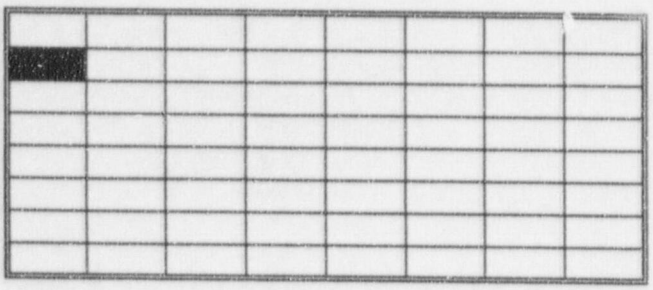
DISCUSSION:

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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



GAMMA
MONITOR
WARNING

EVENT POINT 1753

INDICATED CONDITION:

- o RM-G3 RADIATION LEVEL EXCEEDS WARNING SETPOINT OR,
- o RM-G3 RADIATION MONITOR FAILED LOW.

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 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.

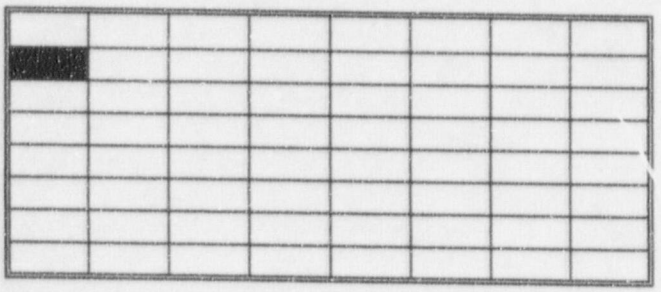
DISCUSSION:

RM-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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



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:

- o 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.

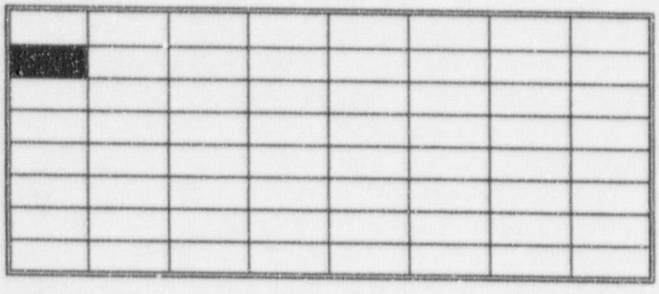
DISCUSSION:

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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



GAMMA
MONITOR
WARNING

EVENT POINT 1757

INDICATED CONDITION:

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

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RM-G5 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o 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.

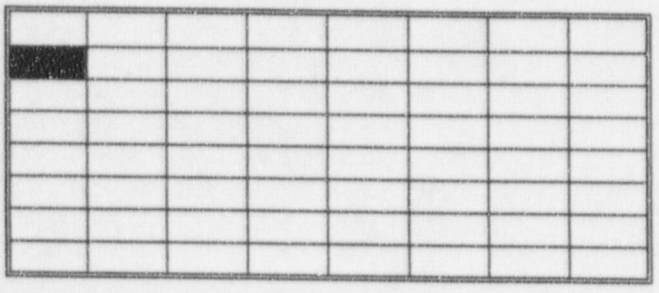
DISCUSSION:

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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



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:

- o 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.

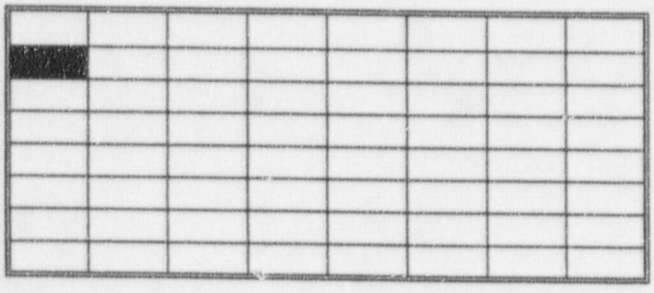
DISCUSSION:

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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



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:

- o 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.

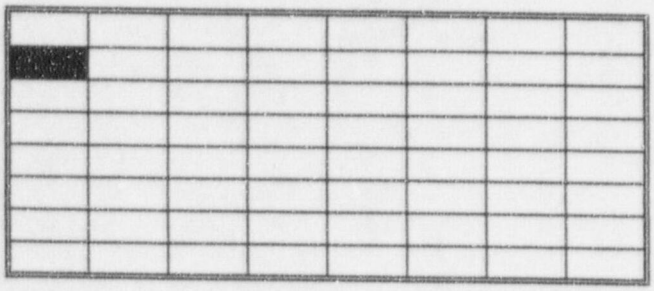
DISCUSSION:

RM-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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



GAMMA
MONITOR
WARNING

EVENT POINT 1763

INDICATED CONDITION:

- 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.
- 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.

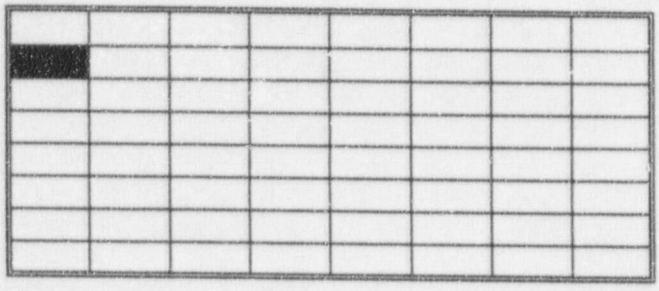
DISCUSSION:

RM-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

SENSING ELEMENT: RADIATION MONITORING PANEL

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
- o 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:

- o 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.

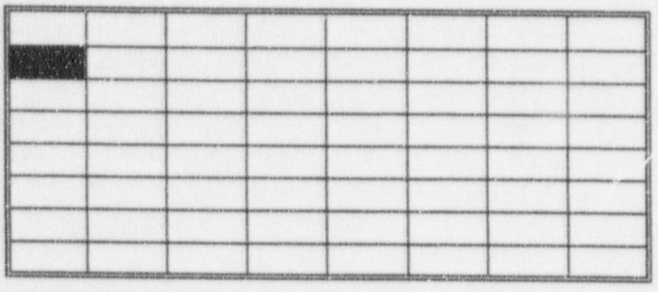
DISCUSSION:

RM-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

SENSING ELEMENT: RADIATION MONITORING PANEL

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:

- o 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.

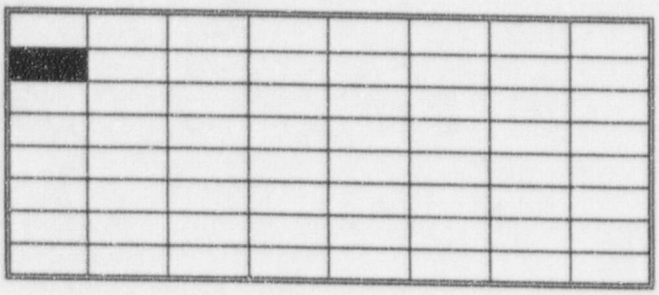
DISCUSSION:

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). 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-27

SENSING ELEMENT: RADIATION MONITORING PANEL

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



GAMMA
MONITOR
WARNING

EVENT POINT 1769

INDICATED CONDITION:

- o RM-G11 RADIATION LEVEL EXCEEDS WARNING SETPOINT OR
- o RM-G11 RADIATION MONITOR FAILED LOW.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RM-G11 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o 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.

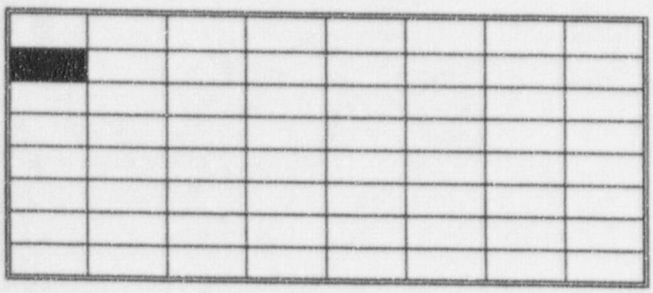
DISCUSSION:

RM-G11 MONITORS THE DEBORATING DEMIN ROOM. THE DETECTOR IS LOCATED ON THE WALL INSIDE THE DEMIN ROOM 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-27

SENSING ELEMENT: RADIATION MONITORING PANEL

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



GAMMA
MONITOR
WARNING

EVENT POINT 1771

INDICATED CONDITION:

- o RM-G12 RADIATION LEVEL EXCEEDS WARNING SETPOINT OR
- o RM-G12 RADIATION MONITOR FAILED LOW.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RM-G12 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o 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.

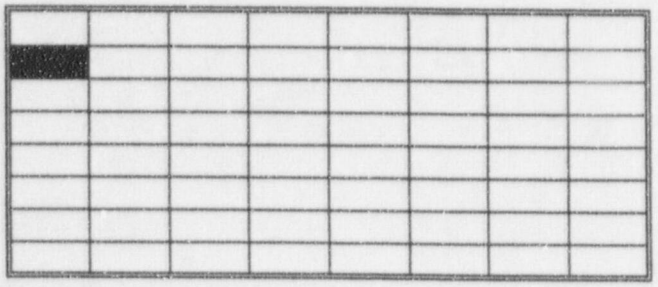
DISCUSSION:

RM-G12 MONITORS THE SPENT RESIN STORAGE TANK ROOM. THE DETECTOR IS LOCATED IN THE DECANT AND SLURRY PUMP ROOM JUST INSIDE THE 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-28

SENSING ELEMENT: RADIATION MONITORING PANEL

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



GAMMA
MONITOR
WARNING

EVENT POINT 1773

INDICATED CONDITION:

- o RM-G13 RADIATION LEVEL EXCEEDS WARNING SETPOINT OR
- o 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:

- o 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.

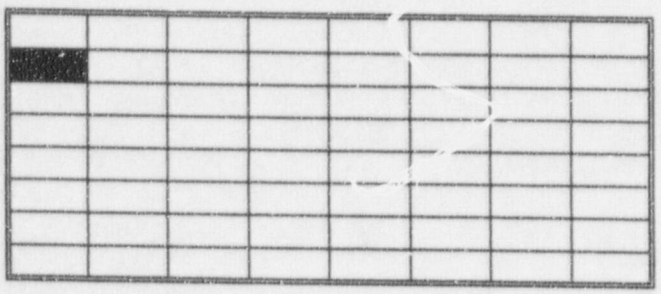
DISCUSSION:

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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



GAMMA
MONITOR
WARNING

EVENT POINT 1775

INDICATED CONDITION:

- o RM-G14 RADIATION LEVEL EXCEEDS WARNING SETPOINT OR
- o 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:

- o 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.

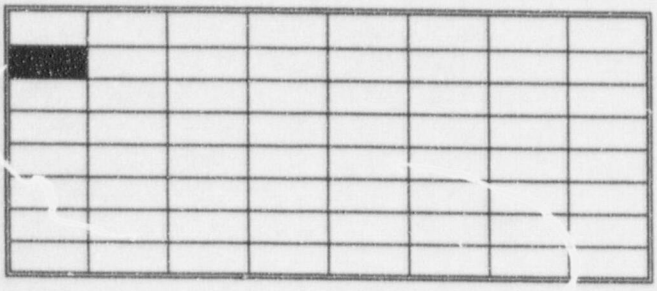
DISCUSSION:

RM-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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



GAMMA
MONITOR
WARNING

EVENT POINT 1777

INDICATED CONDITION:

- o RM-G15 RADIATION LEVEL EXCEEDS WARNING SETPOINT 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:

- o 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.

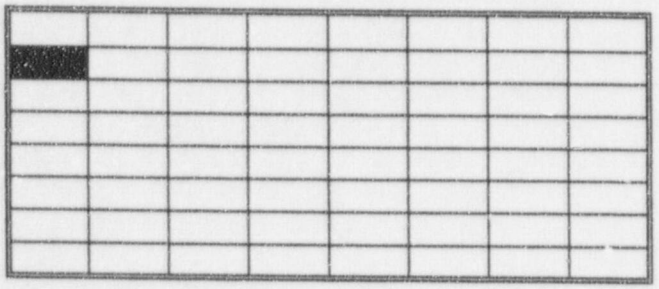
DISCUSSION:

RM-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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



GAMMA
MONITOR
WARNING

EVENT POINT 1779

INDICATED CONDITION:

- o RM-G16 RADIATION LEVEL EXCEEDS WARNING SETPOINT OR
- o RM-G16 RADIATION MONITOR FAILED LOW.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RM-G16 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o 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.

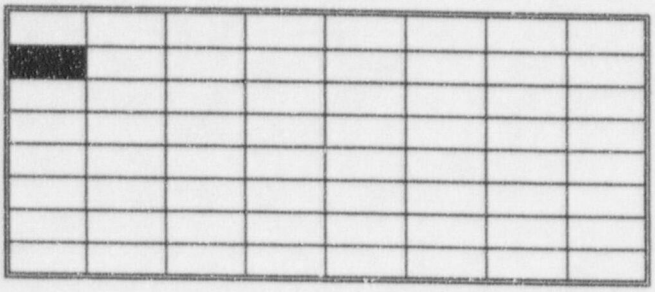
DISCUSSION:

RM-G16 MONITORS THE FUEL TRANSFER AREA. THE DETECTOR IS LOCATED ON THE MAIN 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-30

SENSING ELEMENT: RADIATION MONITORING PANEL

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



GAMMA
MONITOR
WARNING

EVENT POINT 1781

INDICATED CONDITION:

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

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RM-G17 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o 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.

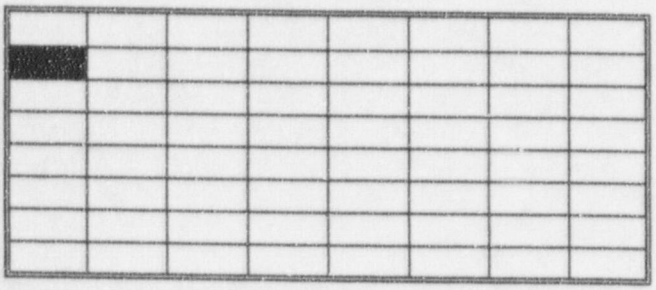
DISCUSSION:

RM-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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



GAMMA
MONITOR
WARNING

EVENT POINT 1783

INDICATED CONDITION:

- o RM-G18 RADIATION LEVEL EXCEEDS WARNING SETPOINT OR
- o RM-G18 RADIATION MONITOR FAILED LOW.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RM-G18 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o 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 VERIFY TRANSFER CANAL LEVEL AT DESIRED HEIGHT.
- o REFER TO OP-505, RADIATION MONITORING SYSTEM.

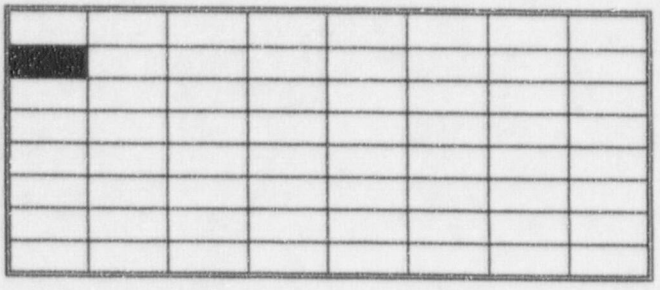
DISCUSSION:

RM-G18 MONITORS THE INCORE PIT AREA. THE DETECTOR IS LOCATED IN THE PIT ON THE 164' ELEVATION NEAR THE TRANSFER CANAL. 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-R4-31

SENSING ELEMENT: RADIATION MONITORING PANEL

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.

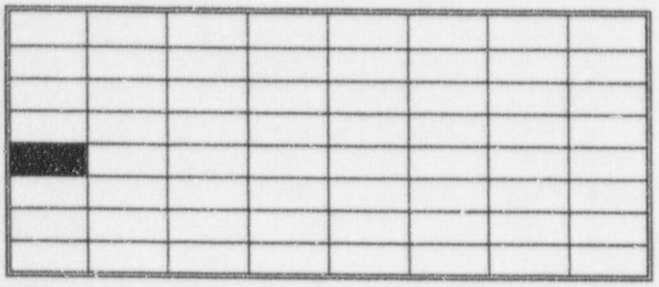
DISCUSSION:

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

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



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
- 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.
- o AUDIBLE INDICATION ON RADIATION MONITOR(S)
- o SPDS ALPHA PAGE.

OPERATOR ACTIONS FOR A VALID ALARM:

- o 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.
- o REFER TO OP-505, RADIATION MONITORING SYSTEM.

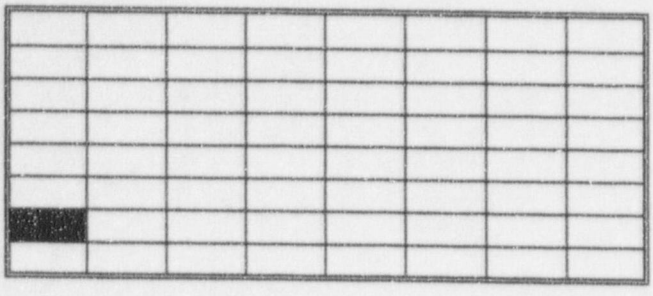
DISCUSSION:

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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



DO STOR TANK
LEVEL
HIGH/LOW

EVENT POINT 1512

INDICATED CONDITION:

- DO STORAGE TANK LEVEL >97" H_2O AS SENSED BY DO-4-LS

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

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

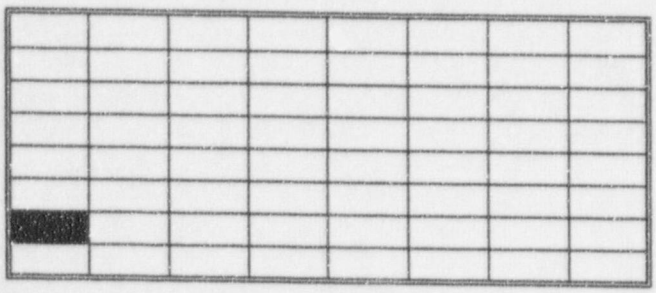
DISCUSSION:

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

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_2O AS SENSED BY DO-3-LS

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

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

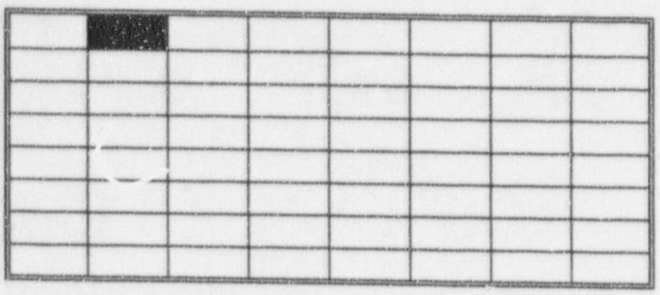
DISCUSSION:

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

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



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.

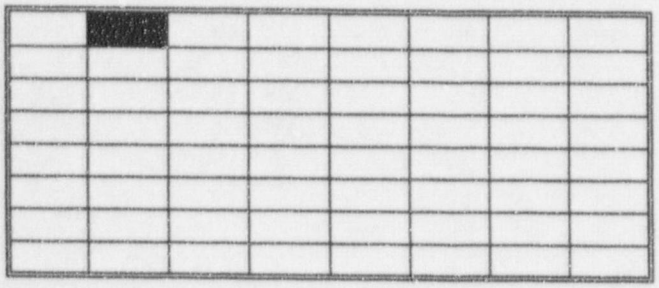
DISCUSSION:

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

SENSING ELEMENT: RADIATION MONITORING PANEL

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.

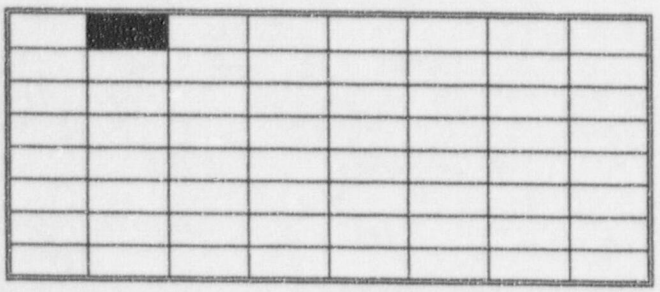
DISCUSSION:

RM-A2 MONITORS THE AUXILIARY BUILDING PURGE EXHAUST DUCT. THREE DIFFERENT DETECTORS ARE USED, 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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



ATMOSPHERIC
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.
- o INVESTIGATE CAUSE OF HIGH RADIATION.
- o OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- o REFER TO OP-505, RADIATION MONITORING SYSTEM.

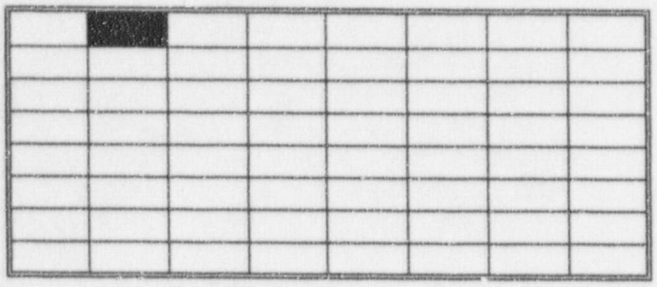
DISCUSSION:

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

REFERENCES: DRAWING 208-049-RM-17

SENSING ELEMENT: RADIATION MONITORING PANEL

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.

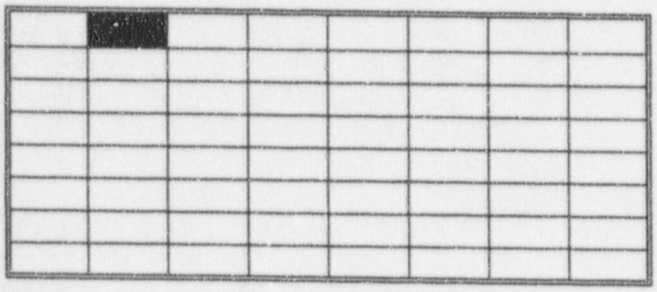
DISCUSSION:

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

SENSING ELEMENT: RADIATION MONITORING PANEL

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:

- o RM-A5 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.

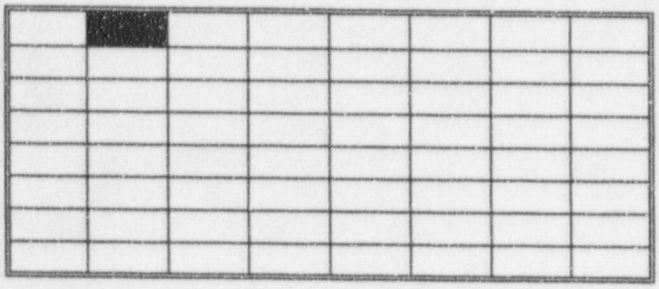
DISCUSSION:

RM-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

SENSING ELEMENT: RADIATION MONITORING PANEL

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-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.

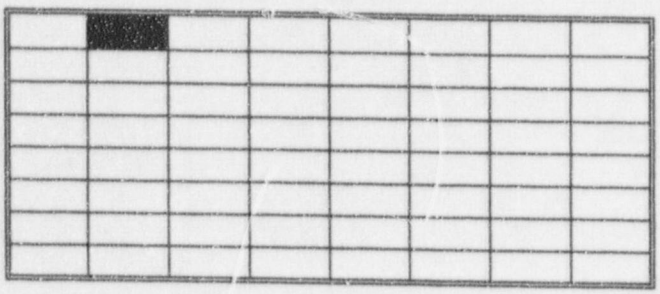
DISCUSSION:

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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



ATMOSPHERIC
RADIATION
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 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.

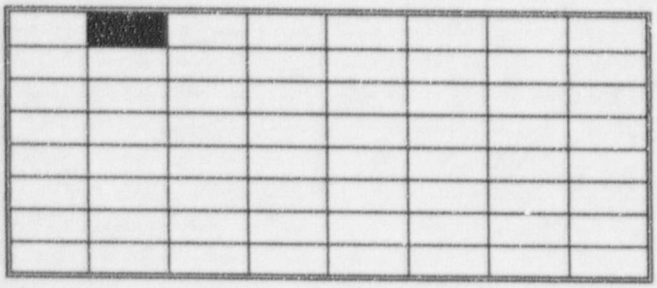
DISCUSSION:

RM-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

SENSING ELEMENT: RADIATION MONITORING PANEL

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:

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

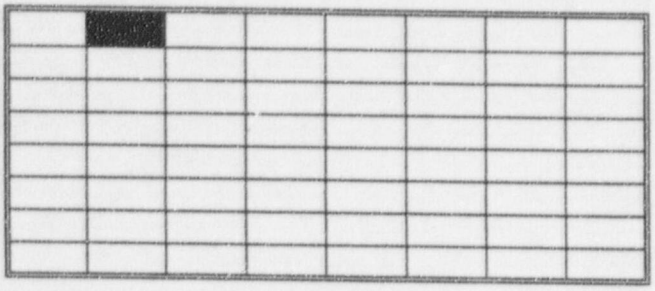
DISCUSSION:

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

REFERENCES: DRAWING 208-049-RM-19

SENSING ELEMENT: RADIATION MONITORING PANEL

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



ATMOSPHERIC
RADIATION
HIGH

EVENT POINT 1736

INDICATED CONDITION:

- o RM-A11 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:

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

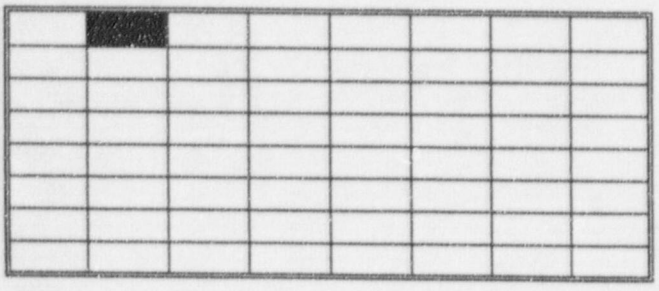
DISCUSSION:

RM-A11 MONITORS THE AUXILIARY BUILDING EXHAUST PENETRATION FOR THE WASTE GAS RELEASE PATH. 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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



ATMOSPHERIC
RADIATION
HIGH

EVENT POINT 1738

INDICATED CONDITION:

- o RM-A12 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RM-A12 INDICATION AT RADIATION MONITORING PANEL.
- o SPDS ALPHA PAGE.
- o MAIN STEAM LINE RAD MONITORS RMG-25, RMG-26, RMG-27, AND /OR RMG-28 READ HIGHER THAN NORMAL.

OPERATOR ACTIONS FOR A VALID ALARM:

- o REFER TO EOP-06, STEAM GENERATOR TUBE RUPTURE.
- o INVESTIGATE CAUSE OF HIGH RADIATION.
- o OBSERVE AREA MONITORS/RECORDERS FOR TREND INFORMATION.
- o REFER TO OP-505, RADIATION MONITORING SYSTEM.

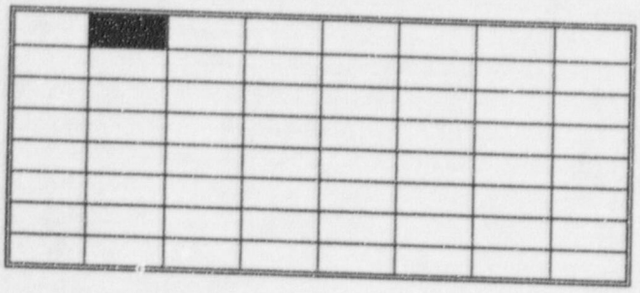
DISCUSSION:

RM-A12 MONITORS THE AUXILIARY BUILDING EXHAUST PENETRATION FOR SECONDARY PLANT CONDENSER OFF GAS. THE REDAS SYSTEM MAY ALSO BE USED TO OBSERVE TREND INFORMATION.

REFERENCES: DRAWING 208-049-RM-20

SENSING ELEMENT: RADIATION MONITORING PANEL

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



ATMOSPHERIC
RADIATION
HIGH

EVENT POINT 1742

INDICATED CONDITION:

- RM-A14 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- RM-A14 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

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

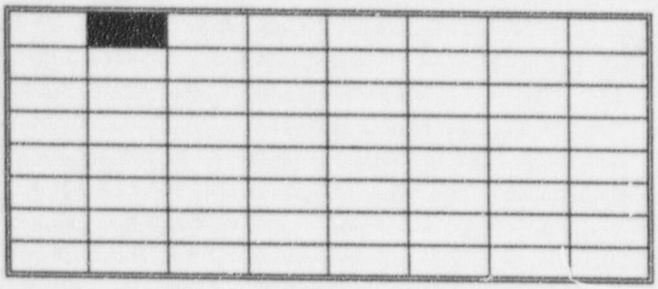
DISCUSSION:

RM-A14 IS A PORTABLE MONITOR, NORMALLY LOCATED NEAR THE PRIMARY 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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



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.

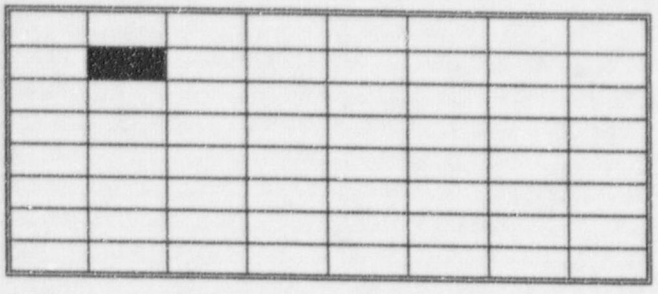
DISCUSSION:

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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



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:

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

OPERATOR ACTIONS FOR A VALID ALARM:

- o 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.

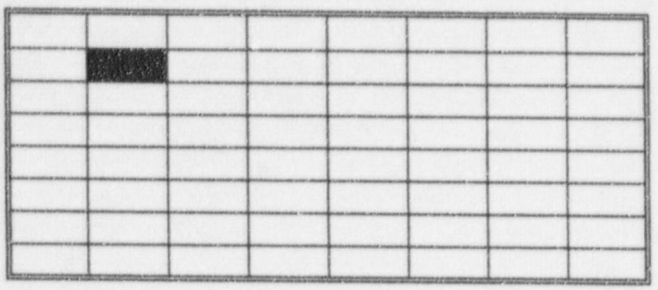
DISCUSSION:

RM-A1 MONITORS THE REACTOR BUILDING PURGE EXHAUST DUCT. THREE DIFFERENT 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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



ATMOSPHERIC
MONITOR
WARNING

EVENT POINT 1714

INDICATED CONDITION:

- 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:

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

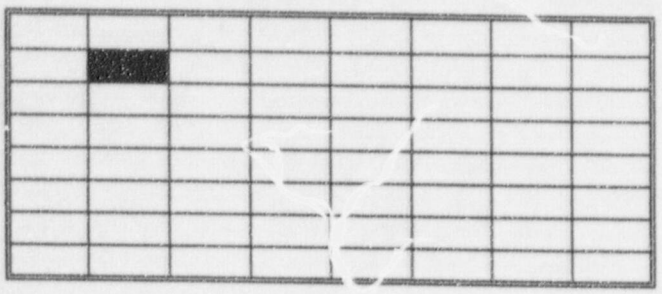
DISCUSSION:

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

REFERENCES: DRAWING 208-049-RM-01

SENSING ELEMENT: RADIATION MONITORING PANEL

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



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:

- o 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.

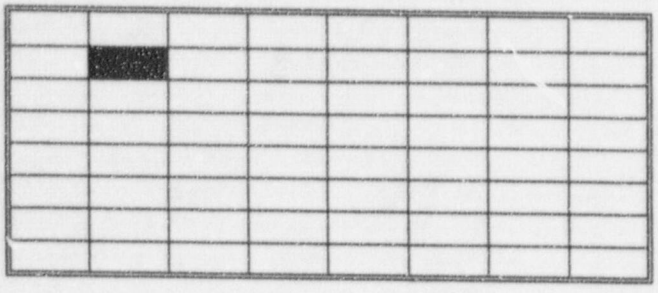
DISCUSSION:

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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



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.

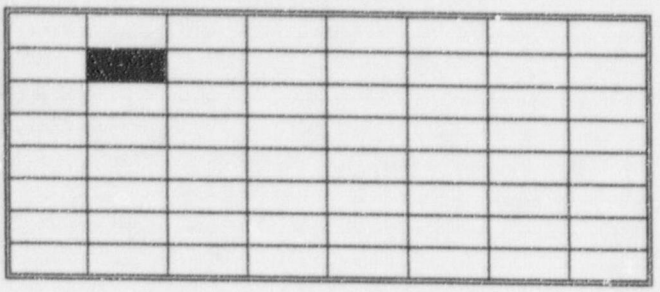
DISCUSSION:

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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



ATMOSPHERIC
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:

- o 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.

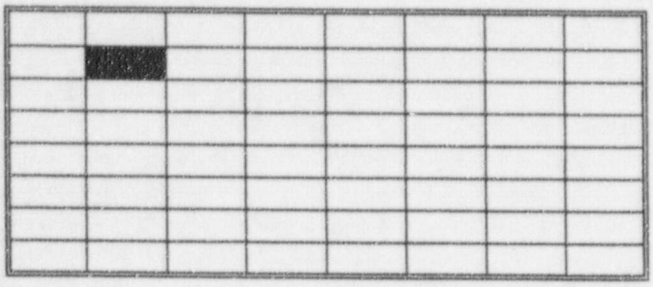
DISCUSSION:

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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



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:

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

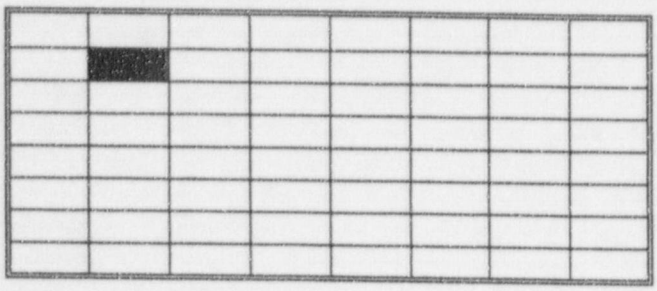
DISCUSSION:

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 A HIGH OR LOW FLOW CAN GIVE THIS ALARM.

REFERENCES: DRAWING 208-049-RM-03

SENSING ELEMENT: RADIATION MONITORING PANEL

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



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:

- o 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.

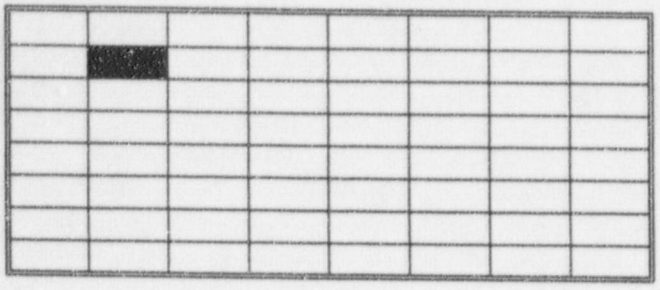
DISCUSSION:

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

SENSING ELEMENT: RADIATION MONITORING PANEL

PSA-Z ANNUNCIATOR RESPONSE	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:

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

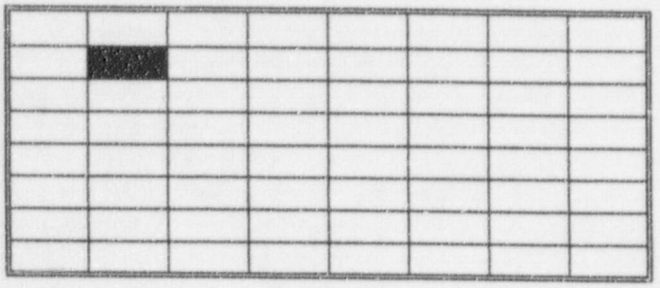
DISCUSSION:

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

REFERENCES: DRAWING 208-049-RM-04

SENSING ELEMENT: RADIATION MONITORING PANEL

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



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:

- o 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.

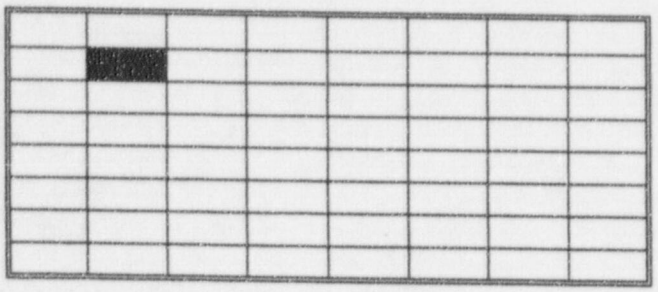
DISCUSSION:

RM-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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



ATMOSPHERIC
MONITOR
WARNING

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:

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

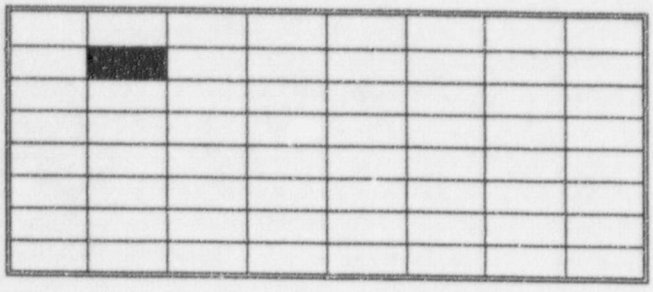
DISCUSSION:

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

REFERENCES: DRAWING 208-049-RM-05

SENSING ELEMENT: RADIATION MONITORING PANEL

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:

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

OPERATOR ACTIONS FOR A VALID ALARM:

- o 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.

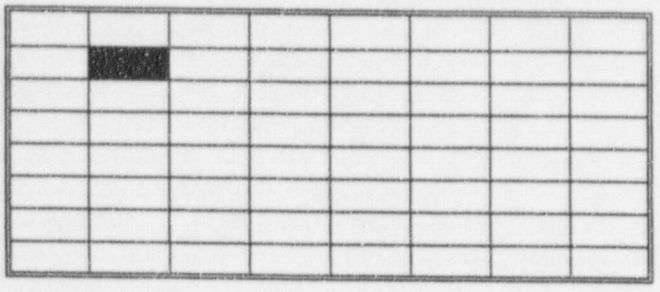
TWO DIFFERENT DETECTORS ARE USED, PARTICULATE/BETA AND GAS. ANY ONE OF THESE CHANNELS CAN GIVE THIS ALARM.

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

REFERENCES: DRAWING 208-049-RM-18

SENSING ELEMENT: RADIATION MONITORING PANEL

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



ATMOSPHERIC
MONITOR
WARNING

EVENT POINT 1729

INDICATED CONDITION:

- 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:

- 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.

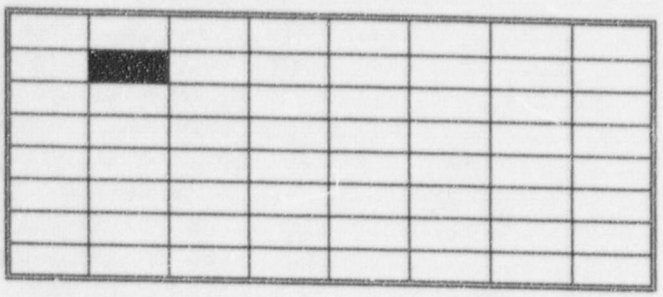
TWO DIFFERENT DETECTORS ARE USED, PARTICULATE/BETA AND GAS. ANY ONE OF THESE CHANNELS CAN GIVE THIS ALARM.

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

REFERENCES: DRAWING 208-049-RM-06

SENSING ELEMENT: RADIATION MONITORING PANEL

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



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:

- o 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.

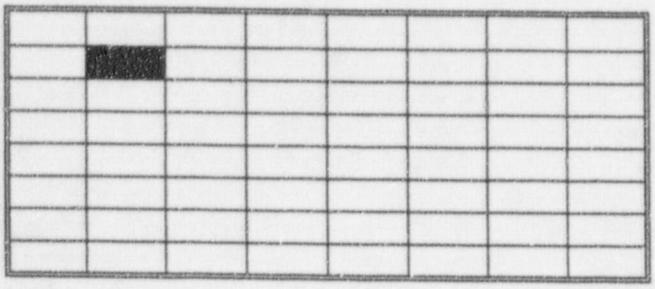
DISCUSSION:

RM-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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



ATMOSPHERIC
MONITOR
WARNING

EVENT POINT 1732

INDICATED CONDITION:

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

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- 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.

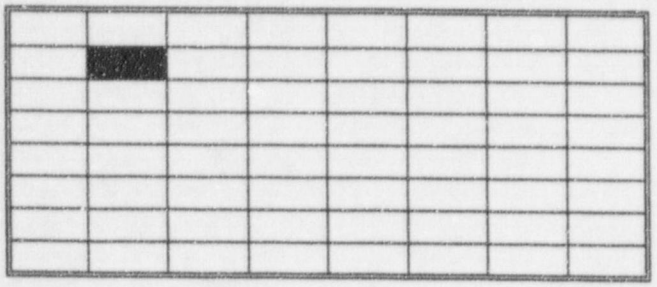
DISCUSSION:

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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



ATMOSPHERIC
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:

- o 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.

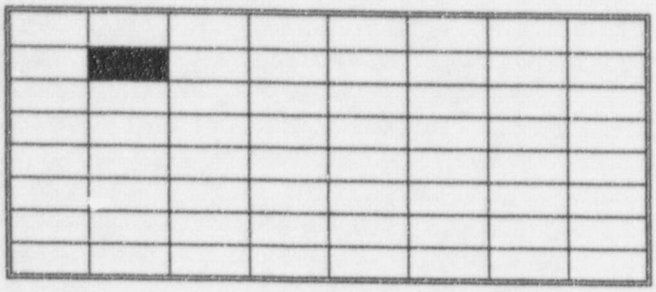
DISCUSSION:

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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



ATMOSPHERIC
MONITOR
WARNING

EVENT POINT 1735

INDICATED CONDITION:

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

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- 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.

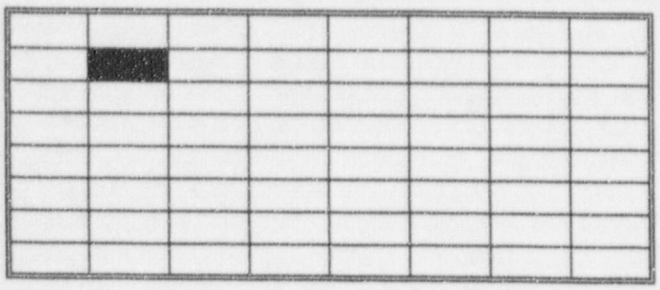
DISCUSSION:

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

SENSING ELEMENT: RADIATION MONITORING PANEL

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

- o 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.

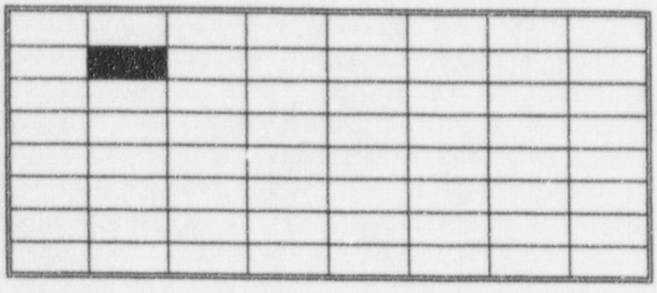
DISCUSSION:

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

SENSING ELEMENT: RADIATION MONITORING PANEL

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-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 PANEL.
- o MAIN STEAM LINE RAD MONITORS RMG-25, RMG-26, RMG-27, AND/OR RMG-28 READ HIGHER THAN NORMAL.

OPERATOR ACTIONS FOR A VALID ALARM:

- 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

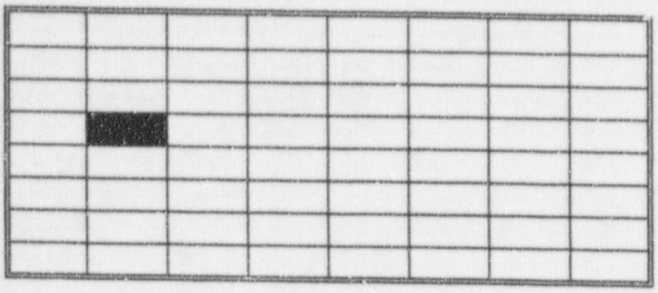
DISCUSSION:

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

SENSING ELEMENT: RADIATION MONITORING PANEL

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



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:

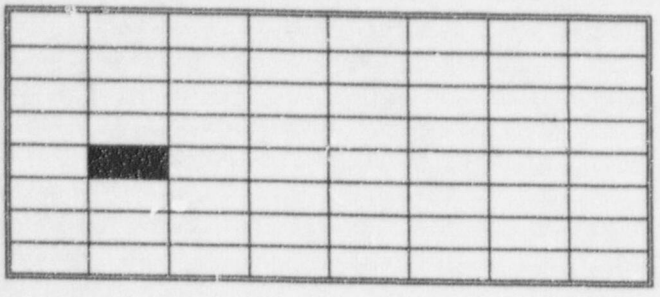
- o INVESTIGATE CAUSE OF ALARM CONDITION.

DISCUSSION:

REFERENCES: DRAWING 208-070-MM-01

SENSING ELEMENT: MMP-3 METEOROLOGICAL ALARM PANEL

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

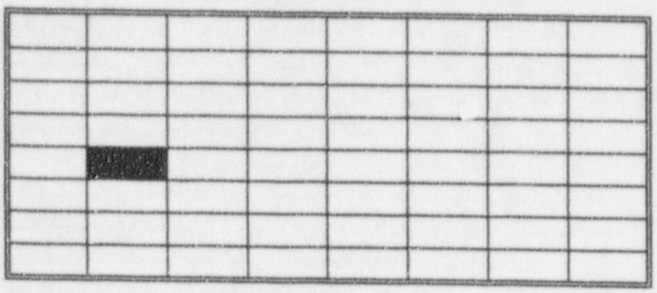


COND PUMP PIT
SUMP LEVEL
HIGH

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

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

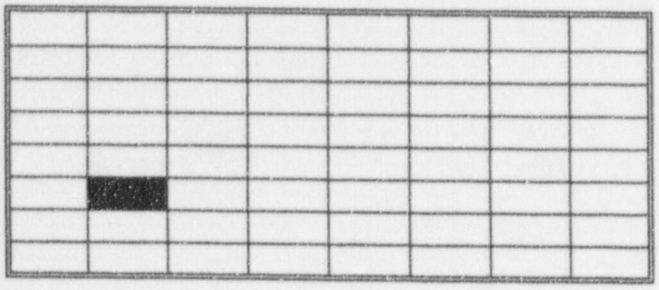


COND PUMP PIT
SUMP LEVEL
HIGH

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: o REFER TO AP-1050. o NOTIFY SECONDARY PLANT OPERATOR TO INVESTIGATE CAUSE OF ALARM CONDITION.
DISCUSSION:
REFERENCES: DRAWING 208-072-SD-08
SENSING ELEMENT: SD-32-LS

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

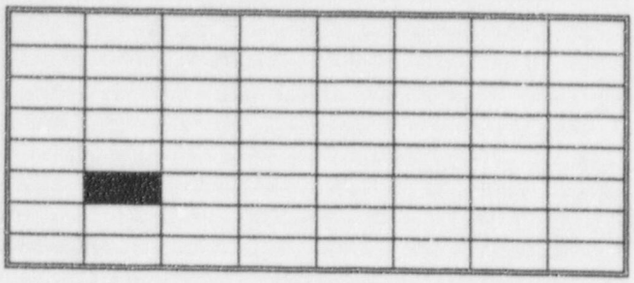


AUX BLDG
SUMP LEVEL
HIGH

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

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

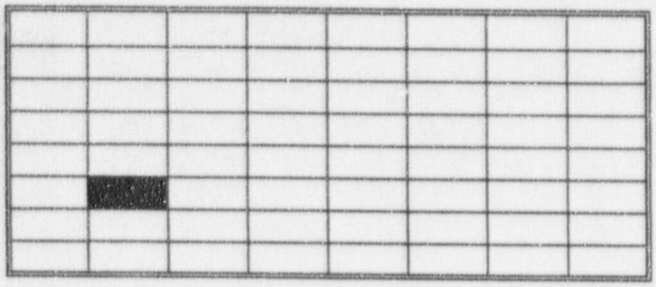


AUX BLDG
SUMP LEVEL
HIGH

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

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

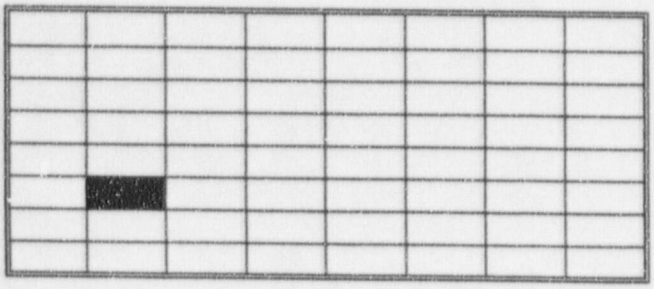


AUX BLDG
SUMP LEVEL
HIGH

EVENT POINT 1300

INDICATED CONDITION: o 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: o NOTIFY PRIMARY PLANT OPERATOR TO INVESTIGATE CAUSE OF ALARM CONDITION.
DISCUSSION:
REFERENCES: DRAWING 208-060-WD-12
SENSING ELEMENT: WD-132-LS

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

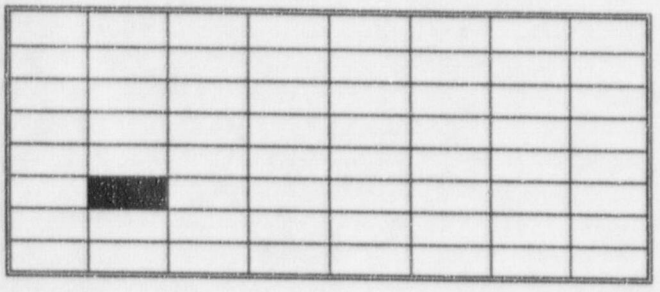


AUX BLDG SUMP LEVEL HIGH

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

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

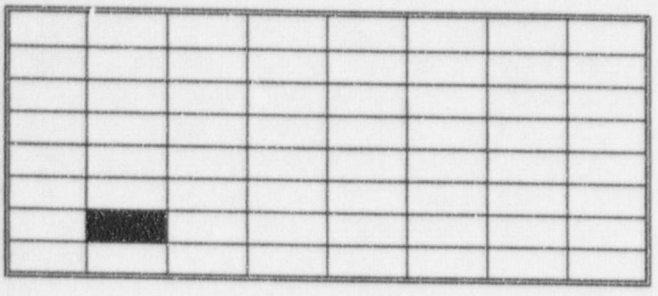


AUX BLDG SUMP LEVEL HIGH

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

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



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:

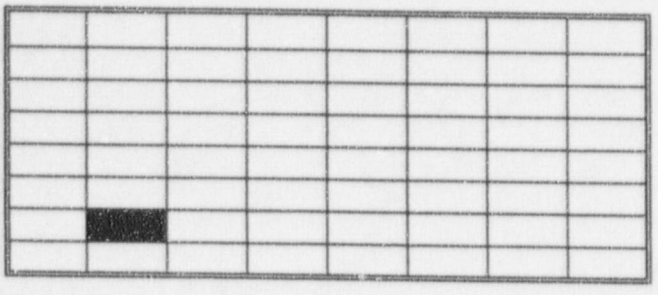
- o NOTIFY PRIMARY PLANT OPERATOR TO INVESTIGATE CAUSE OF ALARM CONDITION.

DISCUSSION:

REFERENCES: DRAWING 208-027-EG-17

SENSING ELEMENT: EG-027-LS.

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



**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.

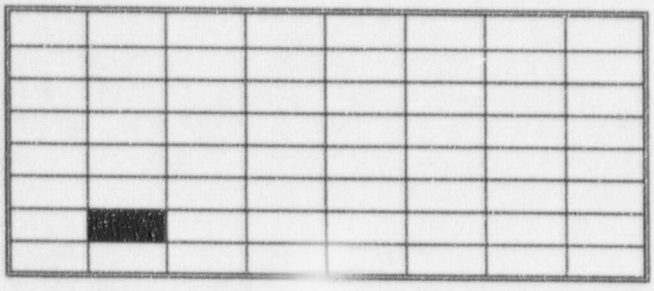
DISCUSSION:

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.

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:

- o 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 OPERATOR TO INVESTIGATE CAUSE OF ALARM CONDITION.
- o ENSURE WDV-1030-SV HAS CLOSED (SEAL TANK DRAIN POT DRAIN VALVE).

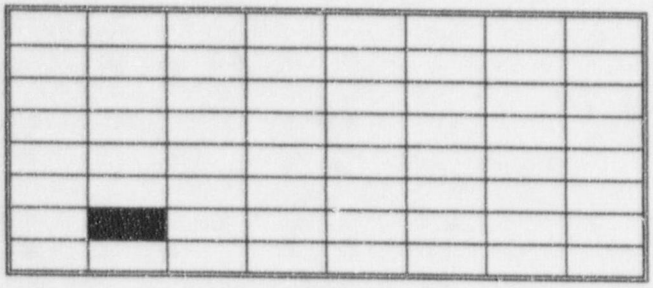
DISCUSSION:

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 208-060-WD-11, WD-12, WD-135, WD-175

SENSING ELEMENT: WD-132-LS, WD-357-LS2, WDP-4A/4B CONTROL SWITCH CONTACTS.

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

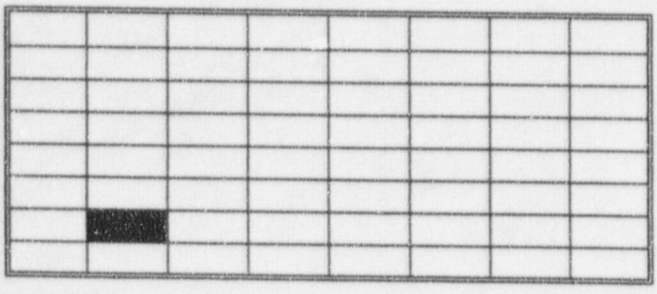


BLDG SUMPS
SUMP PUMP
TROUBLE

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:

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

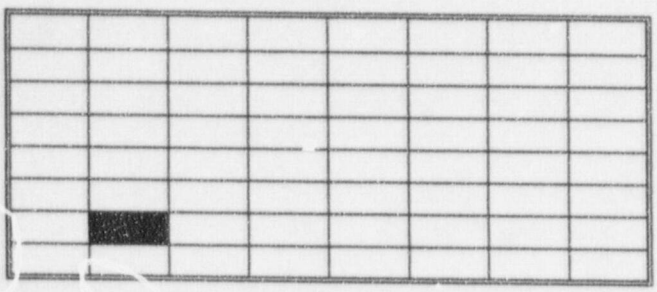


BLDG SUMPS
SUMP PUMP
TROUBLE

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

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

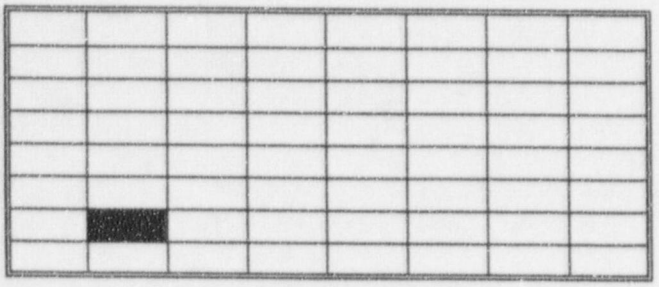


BLDG SUMPS
SUMP PUMP
TROUBLE

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

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:

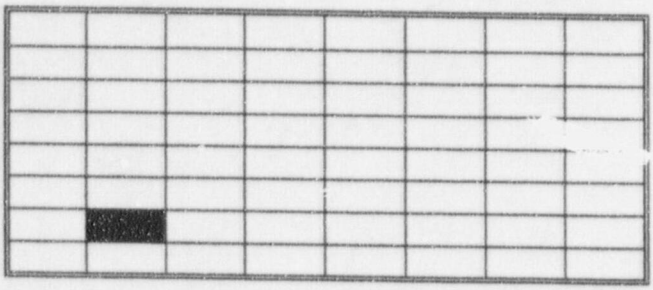
- o NOTIFY SECONDARY PLANT OPERATOR TO INVESTIGATE CAUSE OF HIGH LEVEL.

DISCUSSION:

REFERENCES: DRAWING 208-072-SD-09.

SENSING ELEMENT: SD-14-LS

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



BLDG SUMPS
SUMP PUMP
TROUBLE

EVENT POINT 1880

INDICATED CONDITION:

- o TURBINE ROOM SUMP LEVEL HIGH AS SENSED BY SD-24-LS

OR

- o OILY WATER SEPARATOR TROUBLE

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

- o NOTIFY SECONDARY PLANT OPERATOR TO INVESTIGATE CAUSE OF HIGH LEVEL AND/OR OILY WATER SEPARATOR PROBLEM

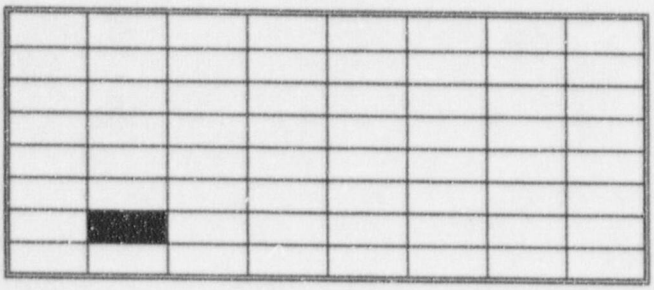
DISCUSSION:

OILY WATER SEPARATOR TROUBLE MAY BE CAUSED BY ANY OF THE FOLLOWING:
HIGH/LOW VACUUM PRE-FILTER HIGH ΔP 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

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



BLDG SUMPS
SUMP PUMP
TROUBLE

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:

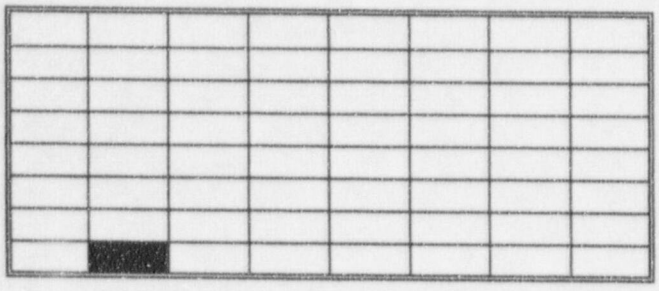
- o NOTIFY TURBINE BUILDING OPERATOR TO ENSURE LEVEL DOES NOT OVERFLOW ONTO TURBINE BUILDING FLOOR AND THAT SEP-1A AND OR SEP-1B ARE RUNNING TO LOWER LEVEL.

DISCUSSION:

REFERENCES: DRAWING 208-064 ME-10

SENSING ELEMENT: R1.

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



SEC SAMPLE
SYSTEM
ALARM

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:

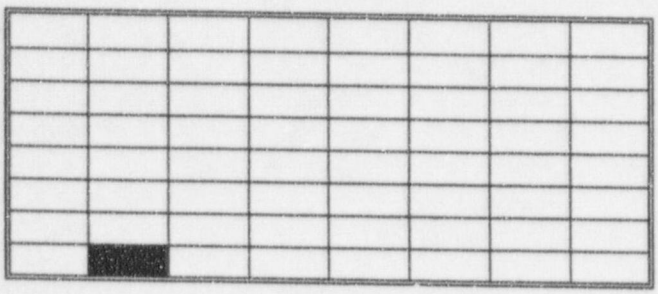
- NOTIFY SECONDARY CHEMISTRY TO INVESTIGATE CAUSE OF HIGH CONDUCTIVITY.
- REFER TO CP-138

DISCUSSION:

REFERENCES: DRAWING 208-054-SS-10

SENSING ELEMENT: SS-141-CIR

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



SEC SAMPLE SYSTEM ALARM

EVENT POINT 0887

INDICATED CONDITION:

- o SECONDARY CYCLE SAMPLE ANALYSIS ALARM.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

- o NOTIFY SECONDARY CHEMISTRY TO INVESTIGATE CAUSE OF SAMPLE ALARM.

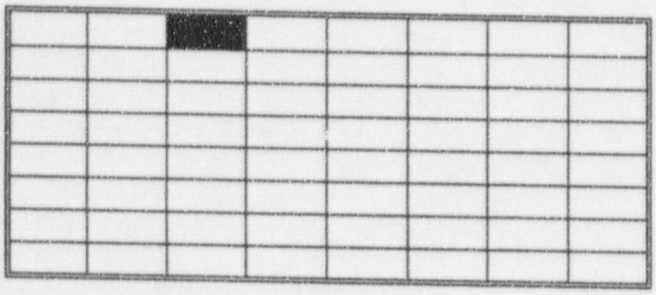
DISCUSSION:

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)

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



LIQUID
RADIATION
HIGH

EVENT POINT 1786

INDICATED CONDITION:

- o RM-L1 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RM-L1 INDICATION AT RADIATION MONITORING PANEL.
- o SPDS ALPHA PAGE

OPERATOR ACTIONS FOR A VALID ALARM:

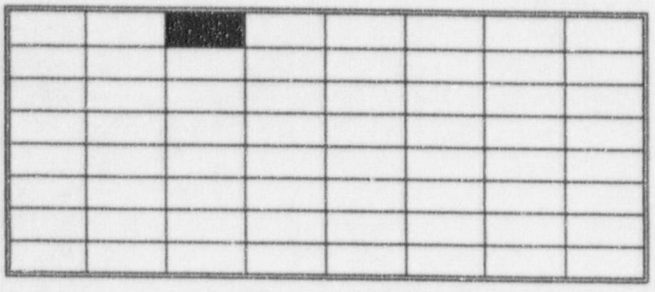
- o INVESTIGATE CAUSE OF HIGH RADIATION.
- o REFER TO OP-301, OPERATION OF THE REACTOR COOLANT SYSTEM.
- o REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

REFERENCES: DRAWING 208-049-RM-32

SENSING ELEMENT: RADIATION MONITORING PANEL

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



LIQUID
RADIATION
HIGH

EVENT POINT 1788

INDICATED CONDITION:

- o RM-L2 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

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

OPERATOR ACTIONS FOR A VALID ALARM:

- o INVESTIGATE CAUSE OF HIGH RADIATION.
- o NOTIFY PRIMARY PLANT OPERATOR TO ENSURE WDV-891 AND WDV-892 CLOSED.
- o REFER TO OP-505, RADIATION MONITORING SYSTEM.
- o CONTACT CHEMISTRY FOR EVALUATION OF MONITOR PRIOR TO MONITOR FLUSH.

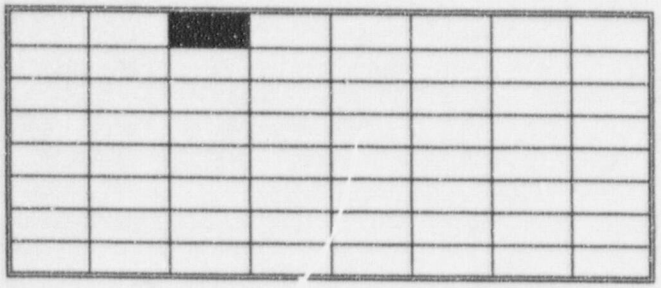
DISCUSSION:

WDV-891 AND WDV-892 ARE PRIMARY LIQUID RELEASE VALVES.

REFERENCES: DRAWING 208-049-RM-31

SENSING ELEMENT: RADIATION MONITORING PANEL

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



LIQUID
RADIATION
HIGH

EVENT POINT 1792

INDICATED CONDITION:

- o RM-L3 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RM-L3 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

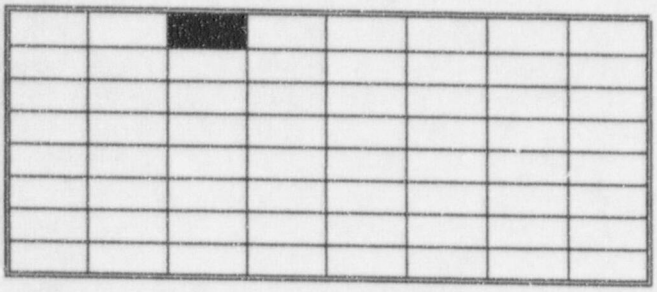
- o INVESTIGATE CAUSE OF HIGH RADIATION.
- o REFER TO AP-520, LOSS OF RCS COOLANT OR PRESSURE.
- o REFER TO OP-408, NUCLEAR SERVICES COOLING SYSTEM TO CONNECT SW SURGE TANK TO WASTE GAS HDR
- o REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

REFERENCES: DRAWING 208-049-RM-32

SENSING ELEMENT: RADIATION MONITORING PANEL

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 RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

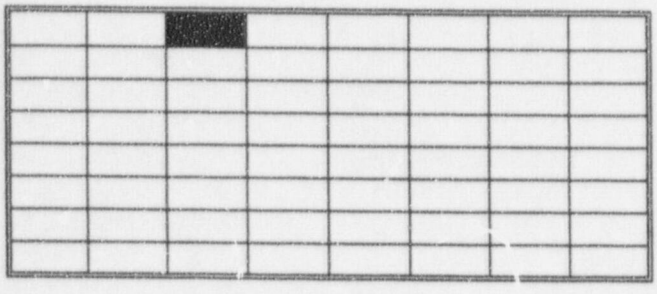
- o INVESTIGATE CAUSE OF HIGH RADIATION.
- o REFER TO AP-520, LOSS OF RCS COOLANT OR PRESSURE.
- o REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

REFERENCES: DRAWING 208-049-RM-32

SENSING ELEMENT: RADIATION MONITORING PANEL

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:

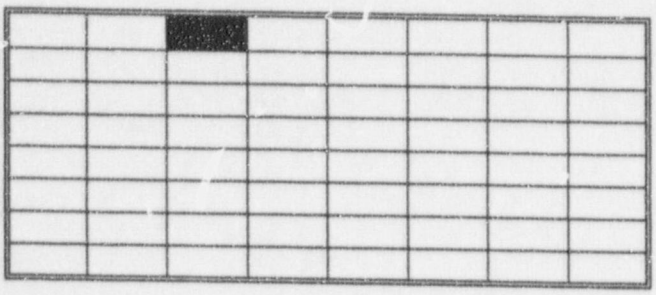
- o INVESTIGATE CAUSE OF HIGH RADIATION.
- o REFER TO AP-520, LOSS OF RCS COOLANT OR PRESSURE.
- o REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

REFERENCES: DRAWING 208-049-RM-32

SENSING ELEMENT: RADIATION MONITORING PANEL

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



LIQUID
RADIATION
HIGH

EVENT POINT 1798

INDICATED CONDITION:

- o RM-L7 RADIATION LEVEL EXCEEDS HIGH SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RM-L7 INDICATION AT RADIATION MONITORING PANEL.
- o SPDS ALPHA PAGE.

OPERATOR ACTIONS FOR A VALID ALARM:

- o INVESTIGATE CAUSE OF HIGH RADIATION.
- o NOTIFY PRIMARY PLANT OPERATOR TO ENSURE SDV-90 CLOSED.
- o CONTACT CHEMISTRY FOR EVALUATION OF MONITOR PRIOR TO MONITOR FLUSH.
- o REFER TO OP-505, RADIATION MONITORING SYSTEM.

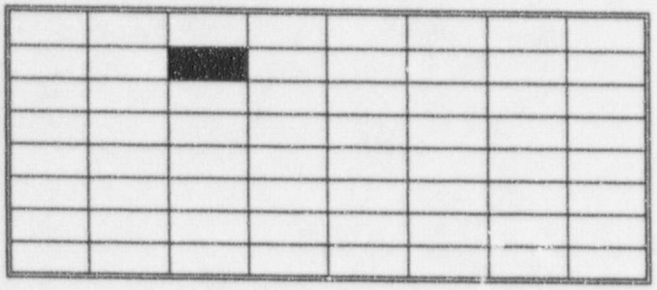
DISCUSSION:

SDV-90 IS THE SECONDARY LIQUID RELEASE VALVE.

REFERENCES: DRAWING 208-049-RM-31

SENSING ELEMENT: RADIATION MONITORING PANEL

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



LIQUID
MONITOR
WARNING

EVENT POINT 1787

INDICATED CONDITION:

- o RM-L1 RADIATION LEVEL EXCEEDS WARNING SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RM-L1 INDICATION AT RADIATION MONITORING PANEL.
- o SPDS ALPHA PAGE

OPERATOR ACTIONS FOR A VALID ALARM:

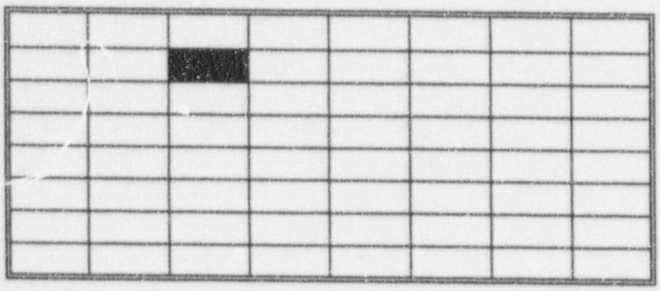
- o INVESTIGATE CAUSE OF HIGH RADIATION.
- o REFER TO OP-301, OPERATION OF THE REACTOR COOLANT SYSTEM.
- o REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

REFERENCES: DRAWING 208-049-RM-32

SENSING ELEMENT: RADIATION MONITORING PANEL

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

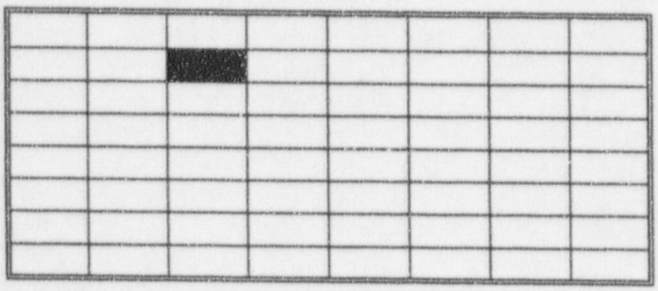


LIQUID
MONITOR
WARNING

EVENT POINT 1789

INDICATED CONDITION: o RM-L2 RADIATION LEVEL EXCEEDS WARNING SETPOINT.
REDUNDANT INDICATION WHICH WILL VERIFY ALARM: o RM-L2 INDICATION AT RADIATION MONITORING PANEL. o SPDS ALPHA PAGE
OPERATOR ACTIONS FOR A VALID ALARM: o INVESTIGATE CAUSE OF HIGH RADIATION. o REFER TO OP-505, RADIATION MONITORING SYSTEM.
DISCUSSION:
REFERENCES: DRAWING 208-049-RM-31
SENSING ELEMENT: RADIATION MONITORING PANEL

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



LIQUID
MONITOR
WARNING

EVENT POINT 1791

INDICATED CONDITION:

- o RM-L3 RADIATION LEVEL EXCEEDS WARNING SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RM-L3 INDICATION AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

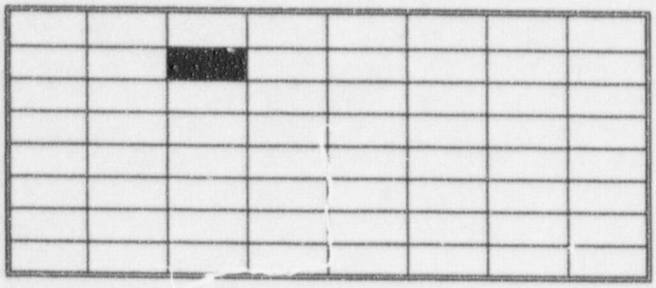
- o INVESTIGATE CAUSE OF HIGH RADIATION.
- o REFER TO AP-520, LOSS OF RCS COOLANT OR PRESSURE.
- o REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

REFERENCES: DRAWING 208-049-RM-32

SENSING ELEMENT: RADIATION MONITORING PANEL

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



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:

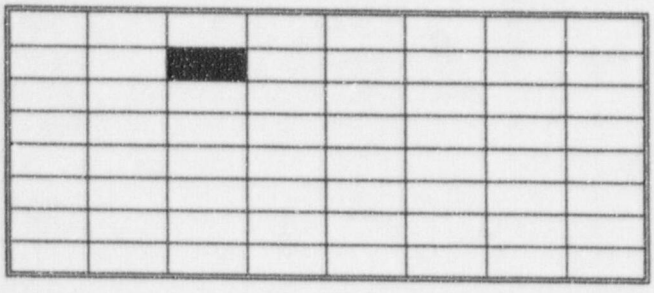
- o INVESTIGATE CAUSE OF HIGH RADIATION.
- o REFER TO AP-520, LOSS OF RCS COOLANT OR PRESSURE.
- o REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

REFERENCES: DRAWING 208-049-RM-32

SENSING ELEMENT: RADIATION MONITORING PANEL

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



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 AT RADIATION MONITORING PANEL.

OPERATOR ACTIONS FOR A VALID ALARM:

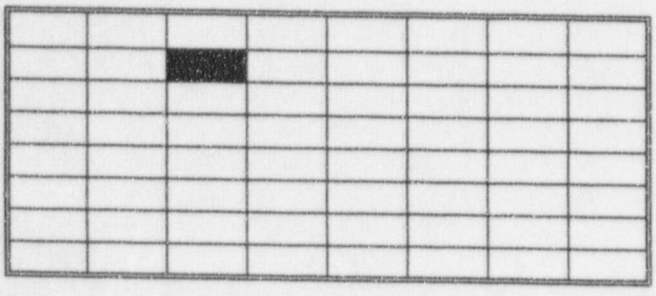
- o INVESTIGATE CAUSE OF HIGH RADIATION.
- o REFER TO AP-520, LOSS OF RCS COOLANT OR PRESSURE.
- o REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

REFERENCES: DRAWING 208-049-RM-32

SENSING ELEMENT: RADIATION MONITORING PANEL

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



LIQUID
MONITOR
WARNING

EVENT POINT 1799

INDICATED CONDITION:

- o RM-L7 RADIATION LEVEL EXCEEDS WARNING SETPOINT.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o RM-L7 INDICATION AT RADIATION MONITORING PANEL.
- o SPDS ALPHA PAGE.

OPERATOR ACTIONS FOR A VALID ALARM:

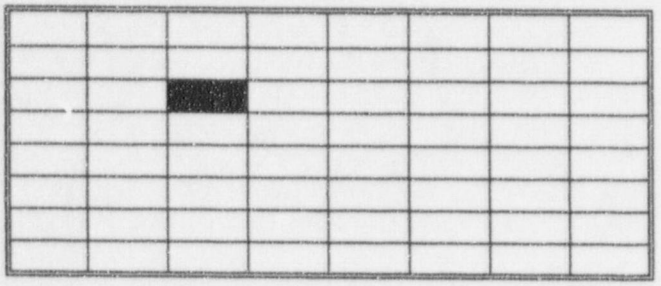
- o INVESTIGATE CAUSE OF HIGH RADIATION.
- o REFER TO OP-505, RADIATION MONITORING SYSTEM.

DISCUSSION:

REFERENCES: DRAWING 208-049-RM-31

SENSING ELEMENT: RADIATION MONITORING PANEL

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



RM-L2/7
INTERLOCK
BYPASSED

EVENT POINT 2044

INDICATED CONDITION:

- o 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:

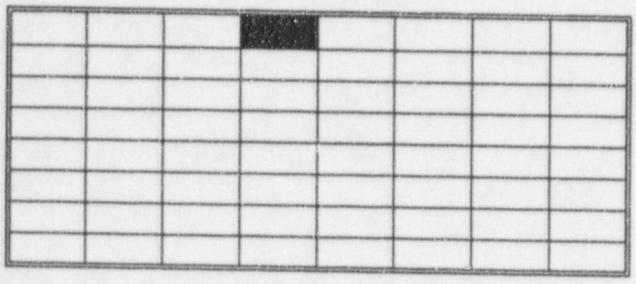
DISCUSSION:

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

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



MAKEUP TANK LEVEL LOW LOW

EVENT POINT 0792

INDICATED CONDITION:

- 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:

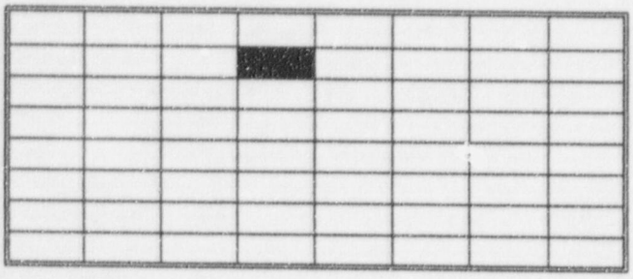
- ENSURE MUV-58, AND MUV-73 OPEN.
- RESTORE MAKEUP TANK LEVEL TO NORMAL BAND.

DISCUSSION:

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

SENSING ELEMENT: MU14-LY1-4,MU14-LY2-4.

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



MAKEUP TANK
LEVEL
HIGH/LOW

EVENT POINT 1064

INDICATED CONDITION:

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

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).
- COMPUTER POINT X359

OPERATOR ACTIONS FOR A VALID ALARM:

- RESTORE MAKEUP TANK LEVEL TO NORMAL BAND.

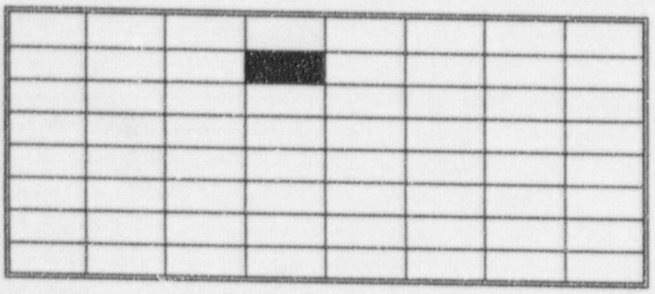
DISCUSSION:

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.

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



MAKEUP TANK LEVEL HIGH/LOW

EVENT POINT 1065

INDICATED CONDITION:

- MAKEUP TANK LEVEL <55" AS SENSED BY MU-14-LY3.

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).
- COMPUTER POINT X359.

OPERATOR ACTIONS FOR A VALID ALARM:

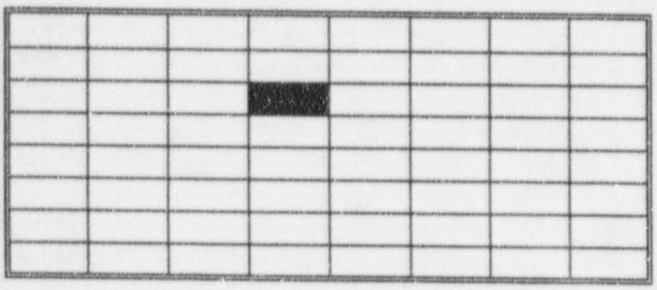
- RESTORE MAKEUP TANK LEVEL TO NORMAL BAND.

DISCUSSION:

REFERENCES: DRAWING 208-041-MU-47.

SENSING ELEMENT: MU-14-LY3.

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



MAKEUP
FLOW
HIGH

EVENT POINT 1066

INDICATED CONDITION:

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

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- MU-24-FI

OPERATOR ACTIONS FOR A VALID ALARM:

- DETERMINE CAUSE OF HIGH FLOW ALARM.
- OBSERVE LTOP CONCERNS
- REFER TO OP-301

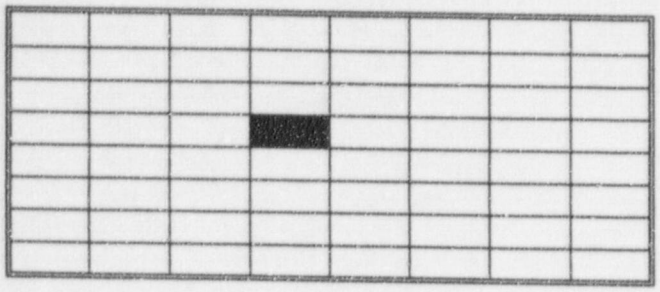
DISCUSSION:

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.

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:

- MU-5-TI

OPERATOR ACTIONS FOR A VALID ALARM:

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

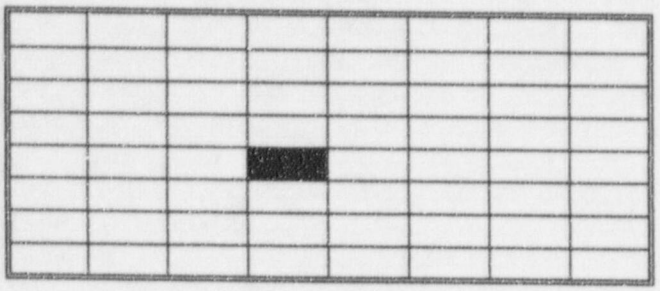
DISCUSSION:

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.

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

- o COMPUTER POINT X-922.

OPERATOR ACTIONS FOR A VALID ALARM:

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

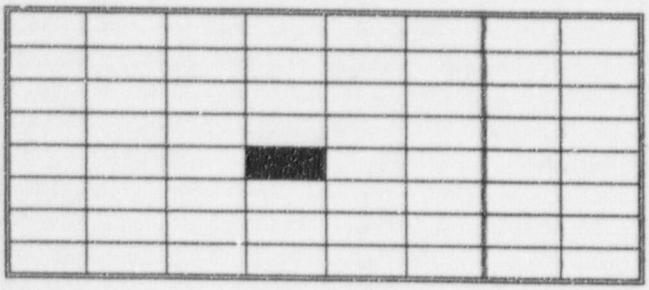
DISCUSSION:

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

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



RC PUMP
SEAL BLEED OFF
HIGH

EVENT POINT 1076

INDICATED CONDITION:

- o 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:

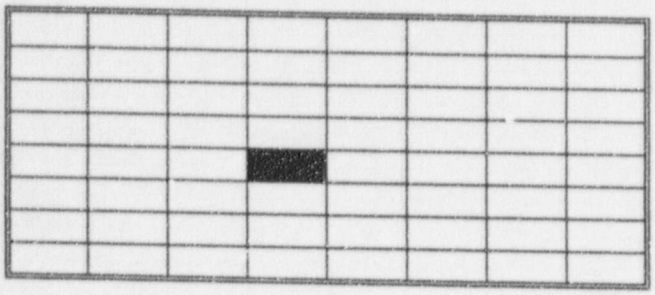
REFER TO TS FOR ADMINISTRATIVE REQUIREMENTS.

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

REFERENCES: DRAWING 208-047 RC 06.

SENSING ELEMENT: RX01/RC-19A-PT2

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:

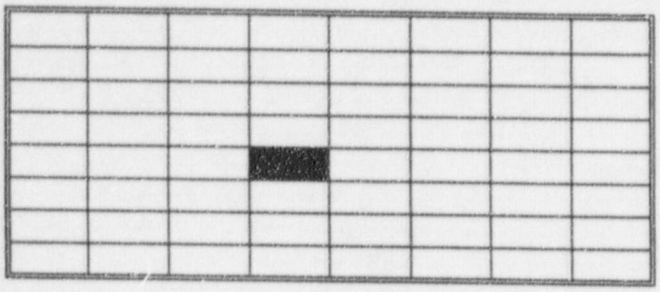
REFER TO TS FOR ADMINISTRATIVE REQUIREMENTS.

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.

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



RC PUMP
SEAL BLEED OFF
HIGH

EVENT POINT 1078

INDICATED CONDITION:

- o RC PUMP 1D CONTROL BLEEDOFF **>1.75 GPM** AS CALCULATED BY PLANT COMPUTER.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o COMPUTER POINT X-925.

OPERATOR ACTIONS FOR A VALID ALARM:

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

DISCUSSION:

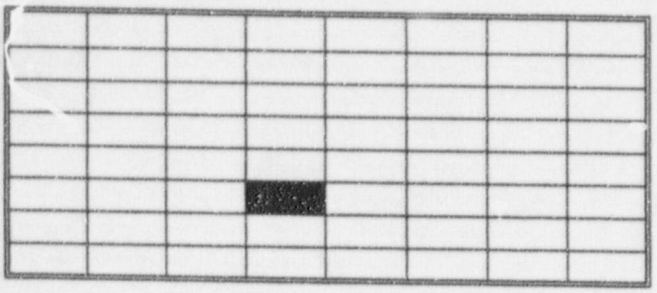
REFER TO TS FOR ADMINISTRATIVE REQUIREMENTS.

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.

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



MAKEUP TANK
PRESS
HIGH/LOW

EVENT POINT 1062

INDICATED CONDITION:

- MAKEUP TANK PRESSURE ≥ 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:

- ENSURE MUV-141, MUV-143 CLOSED
- IMMEDIATELY REDUCE PRESSURE WITHIN THE LIMITS OF MAKEUP TANK PRESSURE/LEVEL OF CURVE 8 OF OP-103B.

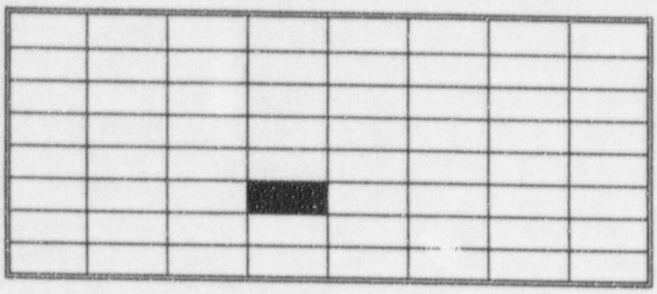
DISCUSSION:

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.

SENSING ELEMENT: CX82

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



MAKEUP TANK
PRESS
HIGH/LOW

EVENT POINT 1063

INDICATED CONDITION:

- MAKEUP TANK PRESSURE **<3 PSIG** AS SENSED BY MU-17-PS.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

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

OPERATOR ACTIONS FOR A VALID ALARM:

- ENSURE MUV-134 CLOSED
- INCREASE PRESSURE WITHIN LIMITS OF MAKEUP TANK PRESSURE/LEVEL CURVE OF OP-103B.

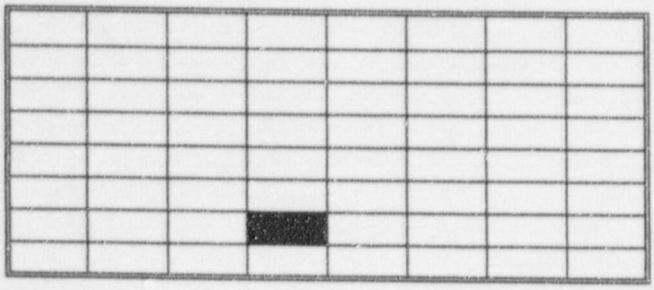
DISCUSSION:

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.

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:

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

OPERATOR ACTIONS FOR A VALID ALARM:

- o REOPEN MUV-253.
- o MONITOR RCP SEALS TEMPERATURE/PRESSURE

DISCUSSION:

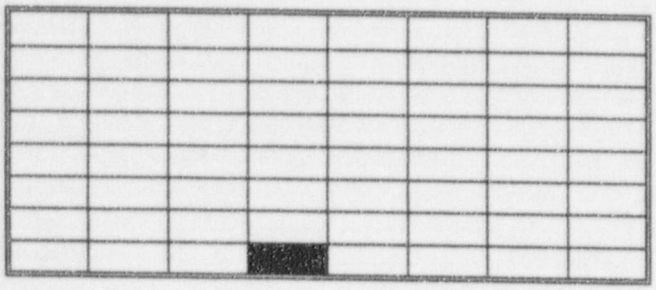
IF MUV-253 CANNOT BE REOPENED THEN REFER TO OP-302.

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

REFERENCES: DRAWING 208-041-MU-44.

SENSING ELEMENT: RELAY 3MUV-2530.

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



MAKEUP VALVES
AIR
FAILURE

EVENT POINT 1094

INDICATED CONDITION:

- o LETDOWN FLOW CONTROL VALVE MUV-51 LOCKED.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o MUV-51 AIR FAILURE PUSH-BUTTON ILLUMINATED.

OPERATOR ACTIONS FOR A VALID ALARM:

- o REFER TO AP-470
- o INVESTIGATE LOSS OF INSTRUMENT AIR PRESSURE TO MUV-51.

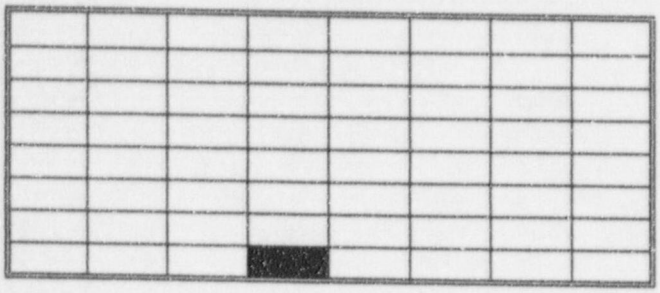
DISCUSSION:

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-PS2 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.

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



MAKEUP VALVES
AIR
FAILURE

EVENT POINT 1095

INDICATED CONDITION:

- o MAKEUP CONTROL VALVE MUV-31 LOCKED.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

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

OPERATOR ACTIONS FOR A VALID ALARM:

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

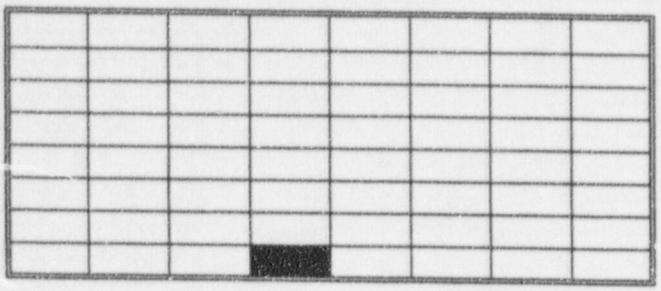
DISCUSSION:

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

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-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.
- o MUV-16 AIR FAILURE PUSH-BUTTON ILLUMINATED.
- o MUV-16 CONTROL STATION IN 'HAND'.

OPERATOR ACTIONS FOR A VALID ALARM:

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

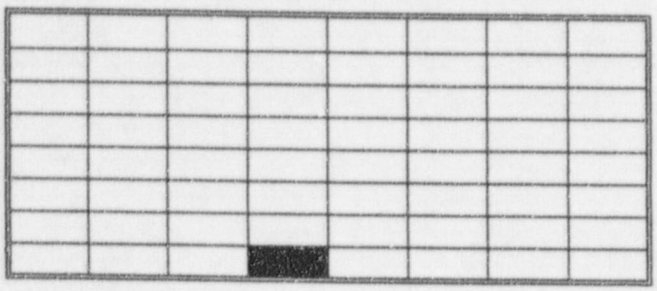
DISCUSSION:

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

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



MAKEUP VALVES AIR FAILURE

EVENT POINT 1102

INDICATED CONDITION:

- o 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.

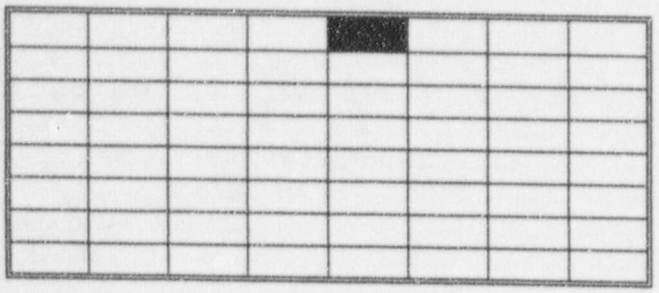
DISCUSSION:

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.

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-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.
- o MS-106-PI, CHANNEL "A", OTSG A PRESSURE INDICATION.
- o 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:

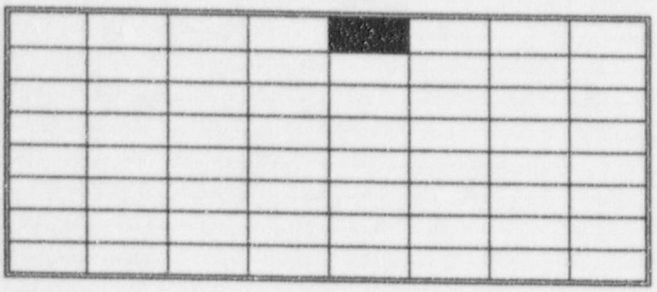
MSLI ACTUATION SETPOINT IS OTSG PRESSURE <600 PSIG. WITH THIS EVENT POINT IN ALARM, A HALF TRIP OR FULL TRIP CONDITION EXISTS. THE OPERATOR MUST OBSERVE THE EFIC PUSH-BUTTONS TO DETERMINE EFIC ACTUATION STATUS.

NO ADDITIONAL ALARMS DIFFERENTIATE BETWEEN FULL AND HALF TRIPS.

REFERENCES: VITRO DRAWING 3801-3005 SHEET 1

SENSING ELEMENT:

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-05-01	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 BUS 2 TRIPPED.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o HALF OR FULL TRIP ON EFIC CHANNEL "B" MAIN STEAM LINE ISOLATION.
- o 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:

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

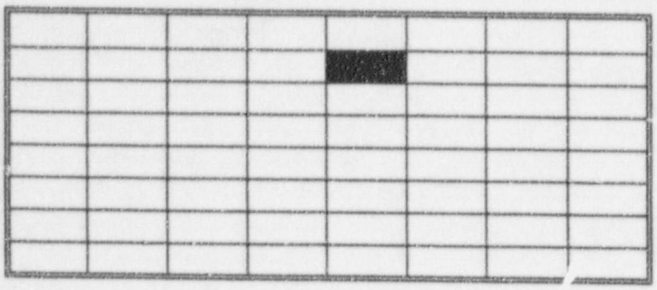
DISCUSSION:

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

SENSING ELEMENT:

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



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.
- o MS-106-PI, CHANNEL "A", OTSG A PRESSURE INDICATION.
- o 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.

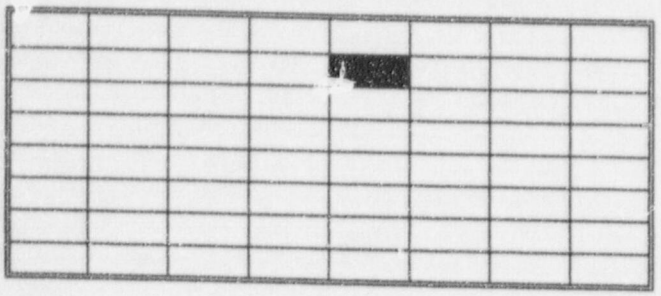
DISCUSSION:

MFW1 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

SENSING ELEMENT:

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



STM GEN A
FEEDWATER ISO
ACTUATED

EVENT POINT 2017

INDICATED CONDITION:

- o 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.
- o 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:

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

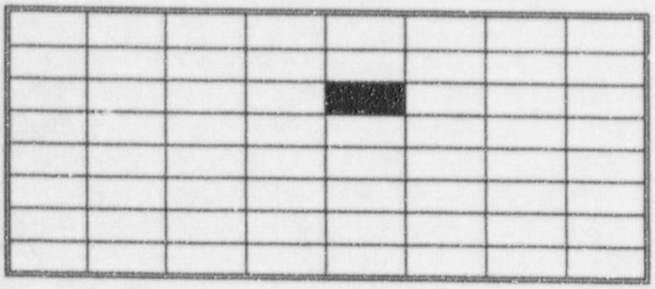
DISCUSSION:

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 2

SENSING ELEMENT:

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



MAIN STEAM
ISO VALVE
AIR FAILURE

EVENT POINT 0956

INDICATED CONDITION:

- 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:

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

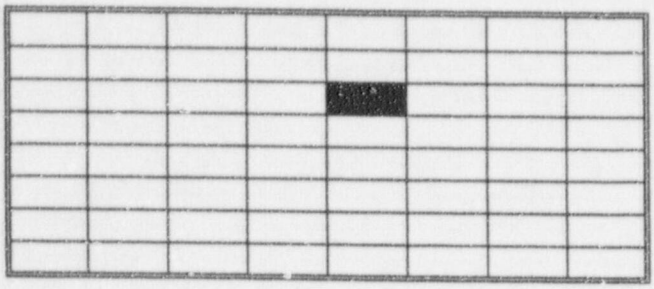
DISCUSSION:

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

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



MAIN STEAM
ISO VALVE
AIR FAILURE

EVENT POINT 0959

INDICATED CONDITION:

- MSV-411 AND MSV-412 AIR SUPPLY PRESSURE **<80 PSIG** AS SENSED BY MS-98-PS.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

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

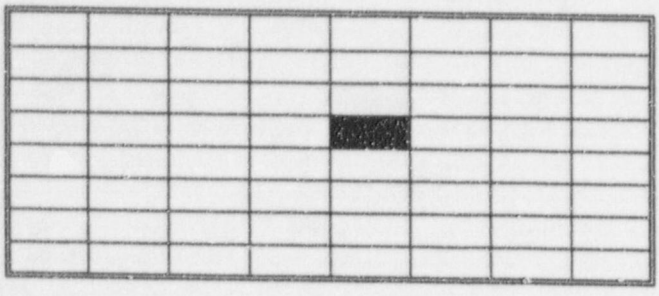
DISCUSSION:

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

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



LETDOWN
PRESSURE
HIGH

EVENT POINT 1060

INDICATED CONDITION:

- LETDOWN PRESSURE AFTER BLOCK ORIFICE **>145 PSIG** AS SENSED BY MU-6-PS.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- COMPUTER POINT X002.

OPERATOR ACTIONS FOR A VALID ALARM:

- INVESTIGATE CAUSE OF HIGH PRESSURE CONDITION.
- REDUCE LETDOWN FLOW.

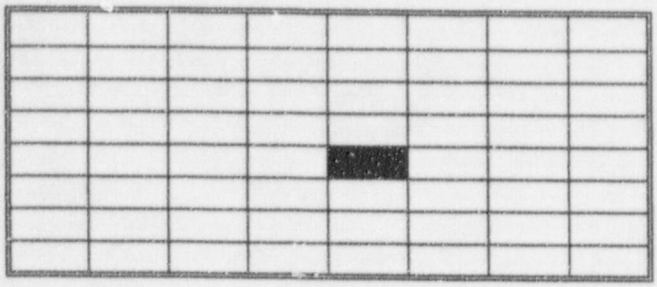
DISCUSSION:

A POSSIBLE CAUSE OF HIGH PRESSURE AT THIS POINT IN THE SYSTEM IS ISOLATION OF DOWNSTREAM COMPONENTS OR ANY FLOW RESTRICTIONS IN THE PRE-FILTERS, POST-FILTERS OR MAKEUP DEMINS. IF THE HIGH PRESSURE CONDITION EXISTS AND ITS CAUSE CANNOT BE DETERMINED THEN CLOSURE OF MUV-49 MAY BE REQUIRED TO PREVENT POSSIBLE RELIEF VALVE OPERATION TO THE A.B. SUMP.

REFERENCES: DRAWING 208-041 MS-47

SENSING ELEMENT: MS-6-PS

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



MAKEUP FILTERS
Δ PRESS
HIGH

EVENT POINT 1061

INDICATED CONDITION:

- 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.

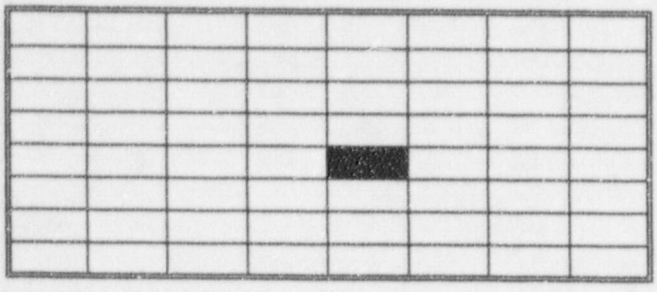
DISCUSSION:

- 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

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



MAKEUP FILTERS
Δ PRESS
HIGH

EVENT POINT 1082

INDICATED CONDITION:

- MAKEUP PRE-FILTER DIFFERENTIAL PRESSURE **>12 PSIG** AS SENSED BY MU-81-DPS.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- MAKEUP PRE-FILTER DIFFERENTIAL PRESSURE INDICATION MU-81-DPI.

OPERATOR ACTIONS FOR A VALID ALARM:

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

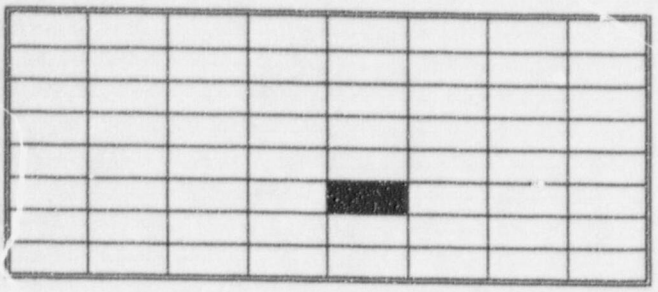
DISCUSSION:

- 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

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



MAKEUP DEMIN
Δ PRESS
HIGH

EVENT POINT 1083

INDICATED CONDITION:

- 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:

- REFER TO OP-402
- BYPASS DEMINERALIZERS OR PLACE ALTERNATE DEMIN IN SERVICE
- REDUCE LETDOWN FLOW

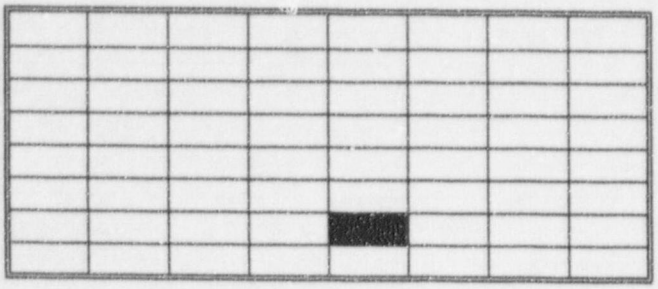
DISCUSSION:

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 OR REDUCTION OF THE SHUTDOWN MARGIN.

REFERENCES: DRAWING 208-041 MU-47

SENSING ELEMENT: MU-75-DPS

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



RC PUMP
SEAL FLOWS
HIGH/LOW

EVENT POINT 1079

INDICATED CONDITION:

- o REACTOR COOLANT PUMP TOTAL SEAL FLOW **>42 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:

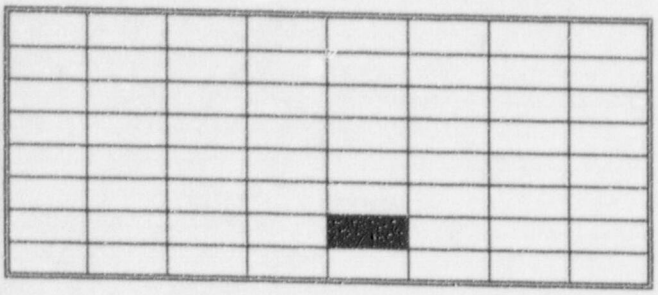
- o REFER TO OP-302.
- o REESTABLISH NORMAL SEAL FLOW.

DISCUSSION:

REFERENCES: DRAWING 208-041 MU-47

SENSING ELEMENT: MU-27-FS

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



RC PUMP
SEAL FLOWS
HIGH/LOW

EVENT POINT 1080

INDICATED CONDITION:

- o 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:

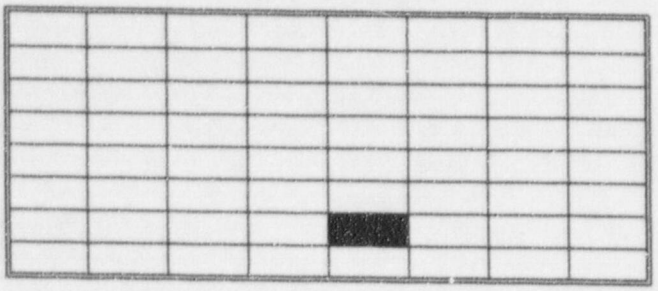
- o RCP'S MUST BE SHUTDOWN WITHIN 2 MINUTES FOLLOWING LOSS OF BOTH SW FLOW AND SEAL INJECTION FLOW
- o REESTABLISH NORMAL SEAL FLOW.
- o REFER TO OP-302.

DISCUSSION:

REFERENCES: DRAWING 208-041 MU-47

SENSING ELEMENT: MU-27-FS

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



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:

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

OPERATOR ACTIONS FOR A VALID ALARM:

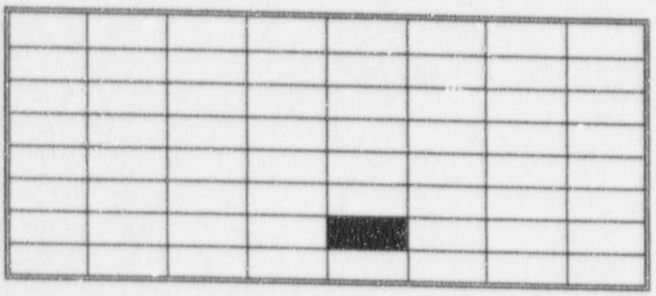
- o RCP'S MUST BE SHUTDOWN WITHIN 2 MINUTES FOLLOWING LOSS OF BOTH SW FLOW AND SEAL INJECTION FLOW.
- o REESTABLISH NORMAL SEAL FLOW.
- o REFER TO OP-302.

DISCUSSION:

REFERENCES: DRAWING 208-041 MU-47

SENSING ELEMENT: MU-7-FS1

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



RC PUMP SEAL FLOWS HIGH/LOW

EVENT POINT 1085

INDICATED CONDITION:

- o 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:

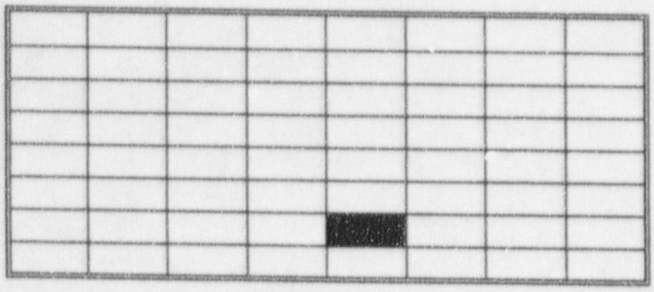
- .o RCP'S MUST BE SHUTDOWN WITHIN 2 MINUTES FOLLOWING LOSS OF BOTH SW FLOW AND SEAL INJECTION FLOW.
- o REESTABLISH NORMAL SEAL FLOW.
- o REFER TO OP-302

DISCUSSION:

REFERENCES: DRAWING 208-041 MU-47

SENSING ELEMENT: MU-7-FS2

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



RC PUMP
SEAL FLOWS
HIGH/LOW

EVENT POINT 1086

INDICATED CONDITION:

- o REACTOR COOLANT PUMP 1C SEAL FLOW **<3 GPM** AS SENSED BY MU-7-FS3.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o REACTOR COOLANT PUMP 1C SEAL FLOW INDICATION MU-7-FI3.

OPERATOR ACTIONS FOR A VALID ALARM:

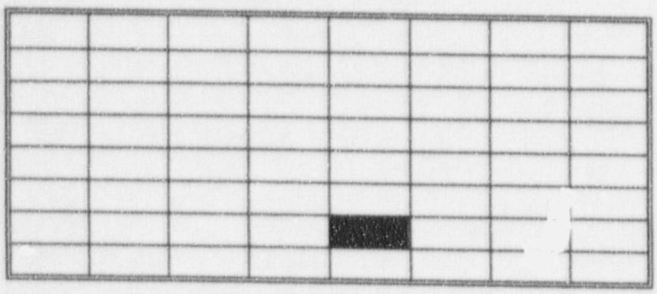
- o RCP'S MUST BE SHUTDOWN WITHIN 2 MINUTES FOLLOWING LOSS OF BOTH SW FLOW AND SEAL INJECTION FLOW
- o REESTABLISH NORMAL SEAL FLOW.
- o REFER TO OP-302.

DISCUSSION:

REFERENCES: DRAWING 208-041 MU-47

SENSING ELEMENT: MU-7-FS3

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



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:

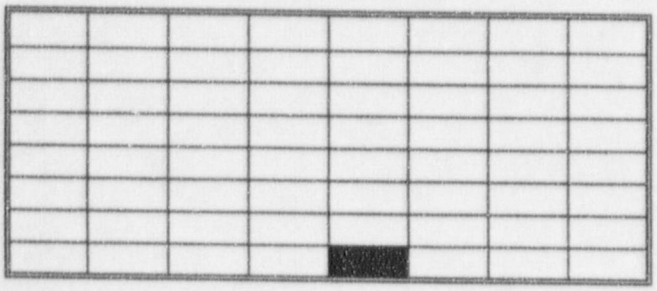
- o RCP'S MUST BE SHUTDOWN WITHIN 2 MINUTES FOLLOWING LOSS OF BOTH SW FLOW AND SEAL INJECTION FLOW.
- o REESTABLISH NORMAL SEAL FLOW.
- o REFER TO OP-302.

DISCUSSION:

REFERENCES: DRAWING 208-041 MU-47

SENSING ELEMENT: MU-7-FS4

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:

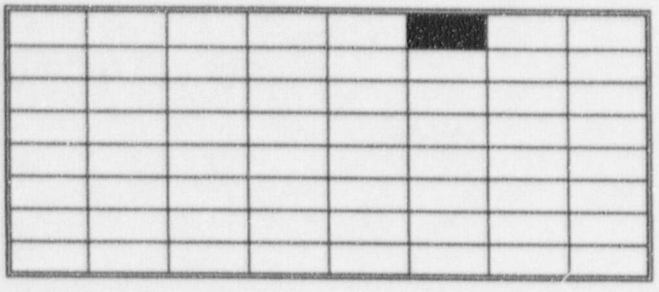
DISCUSSION:

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

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



**STM GEN B
MAIN STEAM ISO
ACTUATED**

EVENT POINT 2008

INDICATED CONDITION:

- o 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:

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

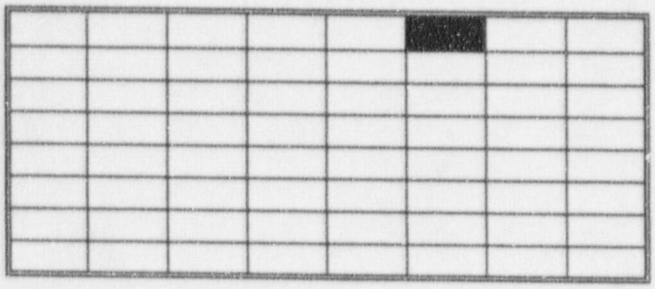
DISCUSSION:

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

SENSING ELEMENT:

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



**STM GEN B
MAIN STEAM ISO
ACTUATED**

EVENT POINT 2016

INDICATED CONDITION:

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

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- 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:

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

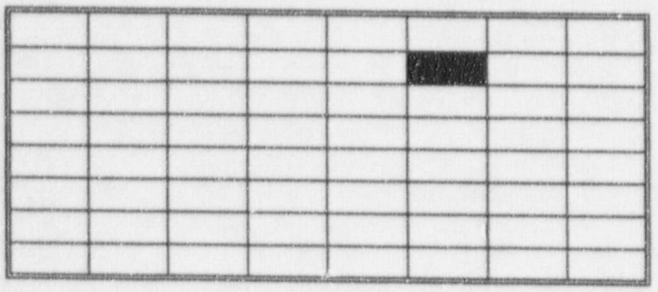
DISCUSSION:

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 2

SENSING ELEMENT:

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



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.
- 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:

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

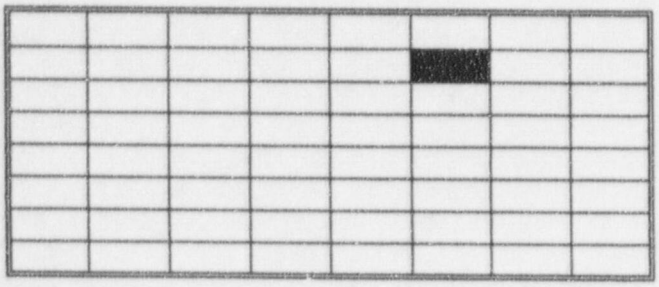
DISCUSSION:

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

SENSING ELEMENT:

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.
- o MS-111-PI, CHANNEL "B", OTSG B PRESSURE INDICATION.
- o 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.

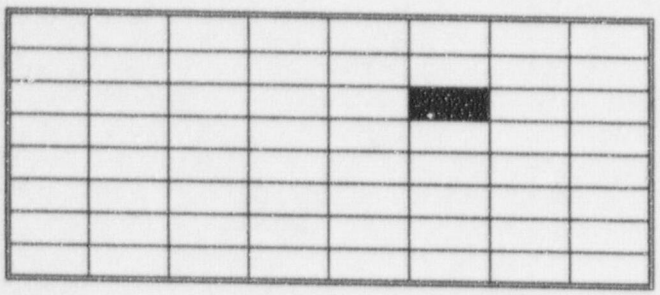
DISCUSSION:

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. NO ADDITIONAL ALARMS DIFFERENTIATE BETWEEN FULL AND HALF TRIPS.

REFERENCES: VITRO DRAWING 3801-3005 SHEET 2

SENSING ELEMENT:

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.
- o 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 PUSH-BUTTONS TO DETERMINE EFIC ACTUATION STATUS. EFIC ACTUATES BY ANY OF THE FOLLOWING CONDITIONS:

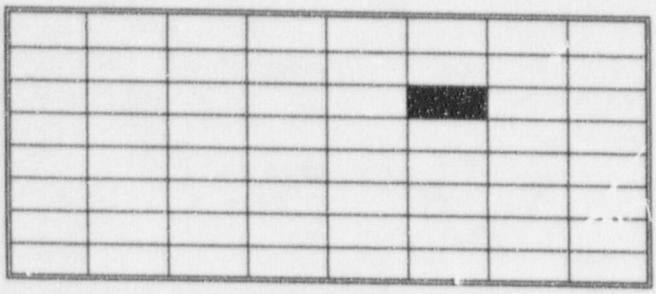
EITHER OTSG <600 PSIG OF ALL RCPs	EITHER OTSG APPROACHING 0" NI POWER >45% W/FW <17%	MANUAL ACTUATION LOSS HPI A AND B ACTUATION

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

SENSING ELEMENT:

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



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:

- o REFER TO EOP.
- o 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:

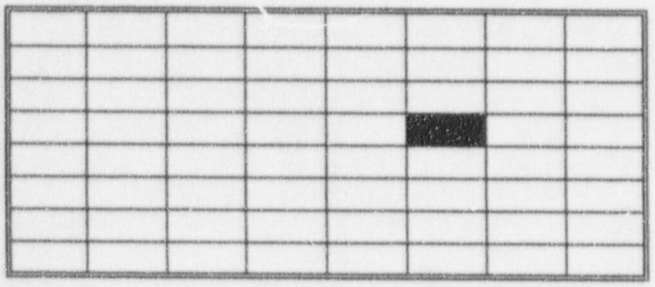
EITHER OTSG <600 PSIG	EITHER OTSG APPROACHING 0"	MANUAL ACTUATION
LOSS OF ALL RCPs	NI POWER >45% W/FW <17%	HPI A AND B ACTUATION

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

SENSING ELEMENT:

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



**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

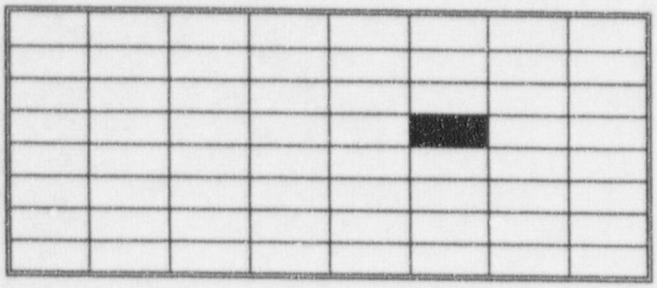
DISCUSSION:

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 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 SWITCH CAUSES ANNUNCIATION OF THIS ALARM. OPERATION OF THE REMAINING SWITCHES CAUSE THIS ALARM REFLASH.

REFERENCES: DRAWING 211-028 ES-A35

SENSING ELEMENT:

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

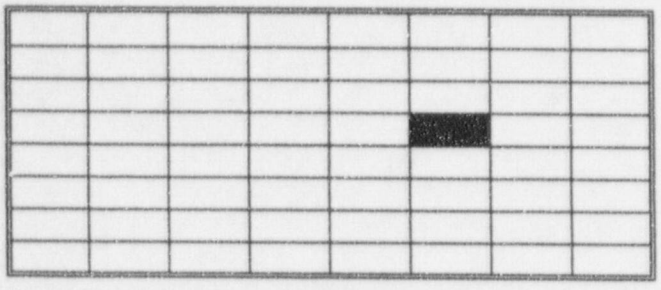
DISCUSSION:

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 ANY ONE SWITCH CAUSES ANNUNCIATION OF THIS ALARM. OPERATION OF THE REMAINING SWITCHES CAUSE THIS ALARM REFLASH.

REFERENCES: DRAWING 211-028 ES-A36

SENSING ELEMENT:

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



EF PUMP 1
TRIP DEFEATED

EVENT POINT 1301

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

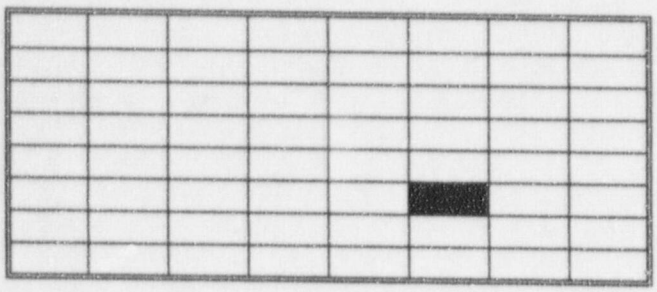
DISCUSSION:

ESAS GENERATES A TRIP SIGNAL TO EFP-1 WHEN AS PCS 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

SENSING ELEMENT:

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.

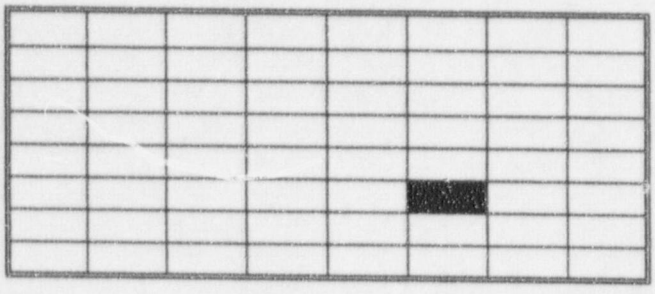
DISCUSSION:

- o 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

SENSING ELEMENT:

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



EFIC
BYPASS

EVENT POINT 2020

INDICATED CONDITION:

- o EFIC CHANNEL B IN MAINTENANCE BYPASS.
- o ANY EFIC CHANNEL B TEST SWITCH NOT IN NORMAL.
- o 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.

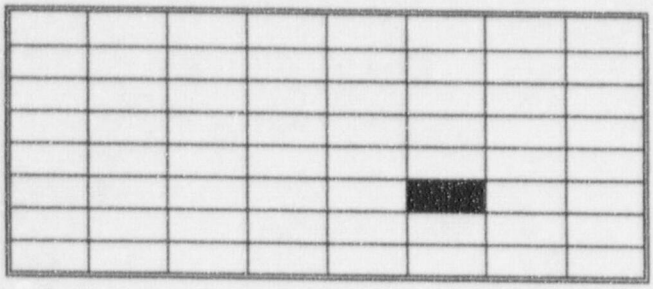
DISCUSSION:

- o 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

SENSING ELEMENT:

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.
- o 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.

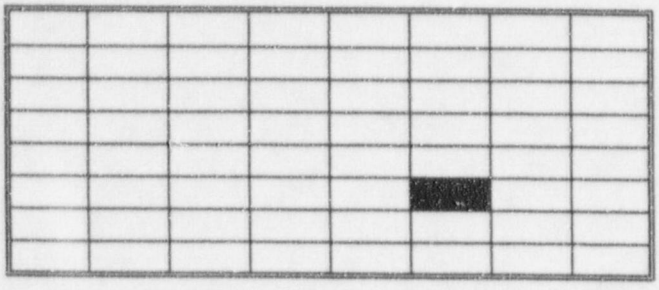
DISCUSSION:

- o 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

SENSING ELEMENT:

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



EFIC
BYPASS

EVENT POINT 2029

INDICATED CONDITION:

- o EFIC CHANNEL D IN MAINTENANCE BYPASS.
- o ANY EFIC CHANNEL D TEST SWITCH NOT IN NORMAL.
- o 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 ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

- o INVESTIGATE CAUSE OF ALARM CONDITION.

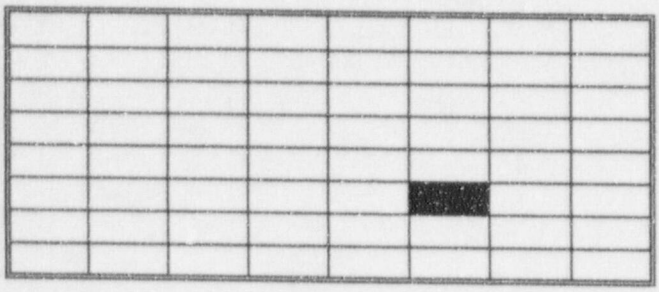
DISCUSSION:

- o 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

SENSING ELEMENT:

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



EFIC
BYPASS

EVENT POINT 2030

INDICATED CONDITION:

- o EFIC CHANNEL A EFW TEST SWITCH IN "TEST" POSITION.
- o "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:

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

OPERATOR ACTIONS FOR A VALID ALARM:

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

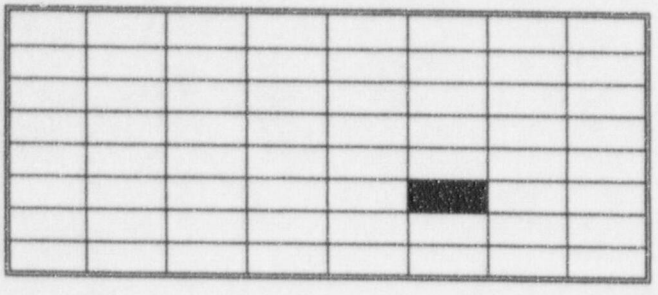
DISCUSSION:

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

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

SENSING ELEMENT:

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.

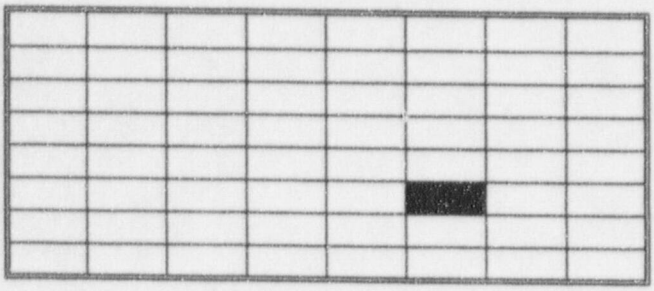
DISCUSSION:

- 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

SENSING ELEMENT:

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



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.

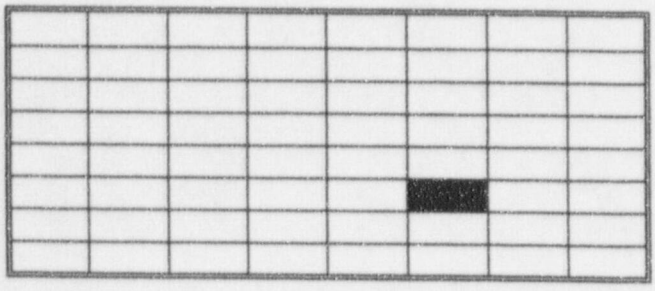
DISCUSSION:

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

REFERENCES: DRAWING 208-026-EF-21

SENSING ELEMENT:

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

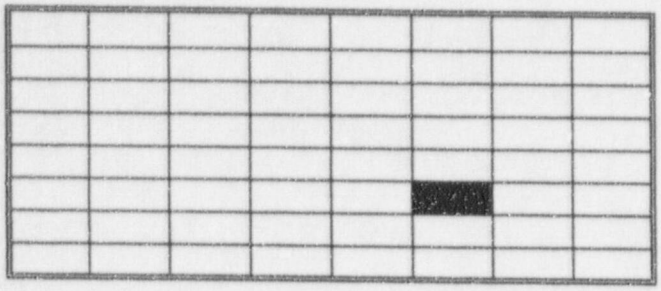


EFIC
BYPASS

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: o INVESTIGATE CAUSE OF ALARM CONDITION.
DISCUSSION: o AUTOMATIC REPOSITIONING OF EFV-14 AND EFV-33 BY EFIC IS BLOCKED WHEN IN TEST.
REFERENCES: DRAWING 208-026-EF-22
SENSING ELEMENT:

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.

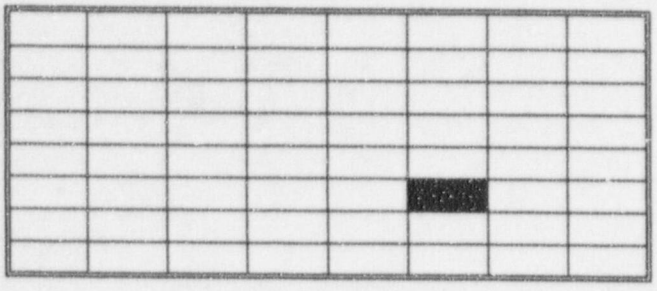
DISCUSSION:

THIS EVENT POINT IS RECEIVED DURING EFIC TESTING BY PLACING THE SPRING RETURN 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

SENSING ELEMENT:

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

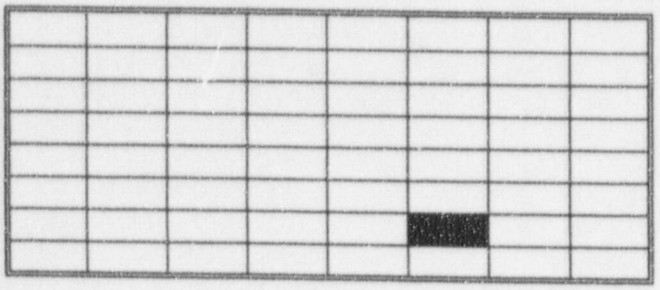


EFIC
BYPASS

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 5D. 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
SENSING ELEMENT:

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:

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

OPERATOR ACTIONS FOR A VALID ALARM:

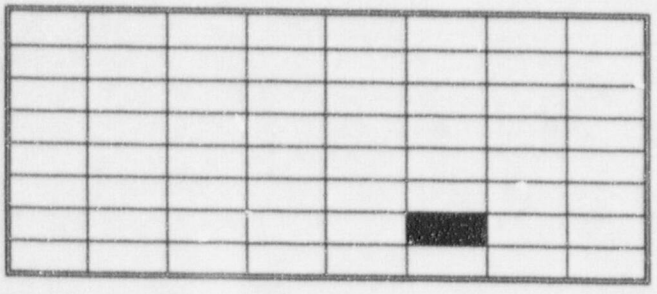
DISCUSSION:

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

SENSING ELEMENT:

PSA-Z ANNUNCIATOR RESPONSE	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:

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

OPERATOR ACTIONS FOR A VALID ALARM:

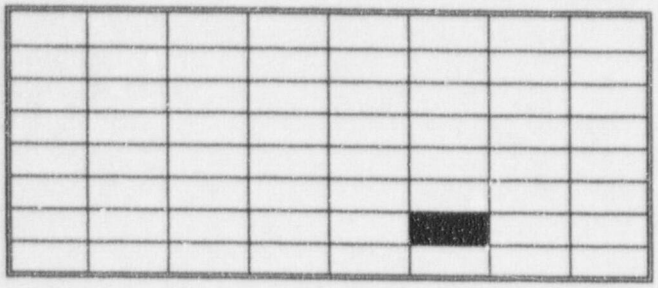
DISCUSSION:

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

SENSING ELEMENT:

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



EFIC SHUTDOWN BYPASS

EVENT POINT 2024

INDICATED CONDITION:

- o EFIC CHANNEL "C" MAIN STEAM ISOLATION ACTUATION **BYPASSED.**

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

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

OPERATOR ACTIONS FOR A VALID ALARM:

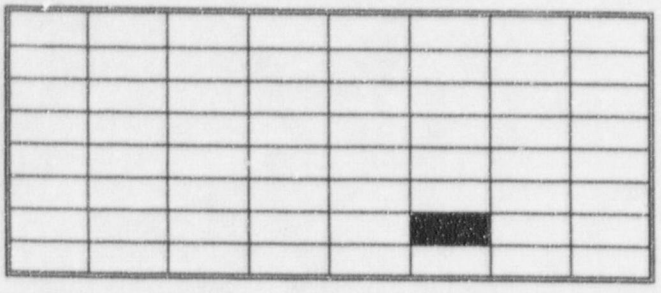
DISCUSSION:

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:

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



EFIC
SHUTDOWN
BYPASS

EVENT POINT 2028

INDICATED CONDITION:

- o EFIC CHANNEL "D" MAIN STEAM ISOLATION ACTUATION BYPASSED.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

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

OPERATOR ACTIONS FOR A VALID ALARM:

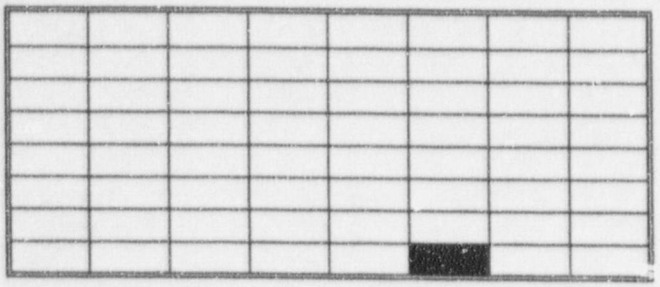
DISCUSSION:

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 4

SENSING ELEMENT:

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



EFIC AH
SYSTEM
TROUBLE

EVENT POINT 0767

INDICATED CONDITION:

- 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:

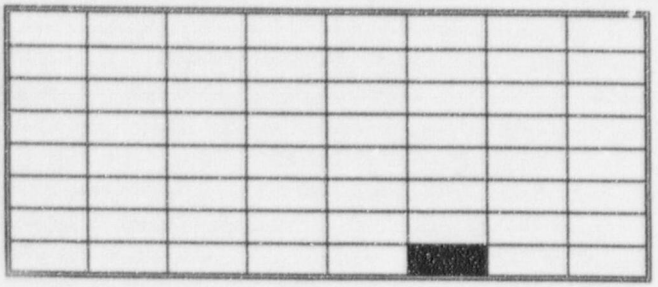
- INVESTIGATE CAUSE OF SMOKE DETECTED OR TROUBLE ALARM.

DISCUSSION:

REFERENCES: DRAWING 208-005-AH-185

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

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



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:

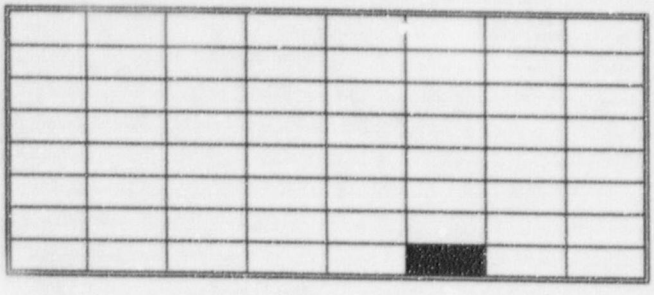
- INVESTIGATE CAUSE OF DUCT HIGH TEMPERATURE ALARM.

DISCUSSION:

REFERENCES: DRAWING 208-005-AH-185

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

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.

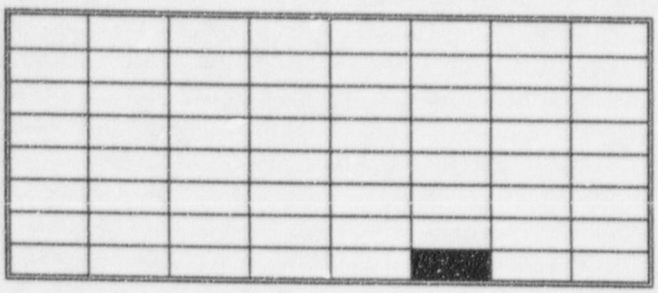
DISCUSSION:

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

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



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.

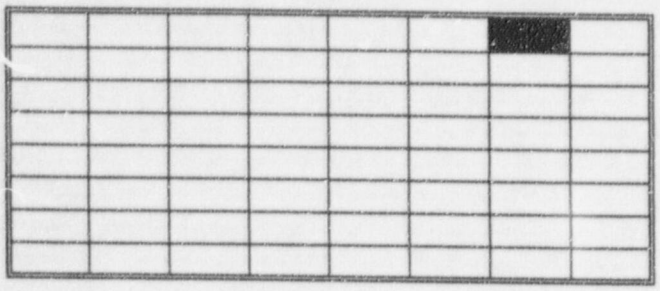
DISCUSSION:

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

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



EF TANK
LEVEL
LOW-LOW

EVENT POINT 0815

INDICATED CONDITION:

- 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:

- REFER TO EOP.

DISCUSSION:

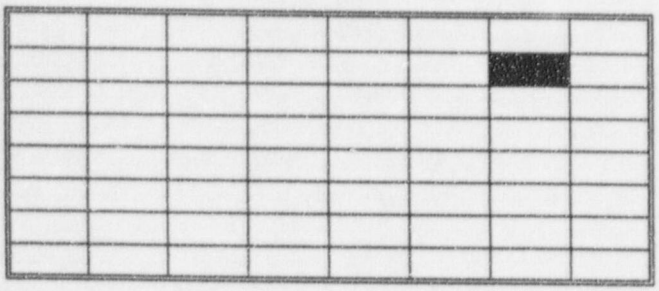
REFER TO TS FOR ADMINISTRATIVE REQUIREMENTS.

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

REFERENCES: DRAWING 205-026-EF-05

SENSING ELEMENT: EF-98-LT

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



EF PUMP 1
AUTO START

EVENT POINT 1681

INDICATED CONDITION:

- o 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:

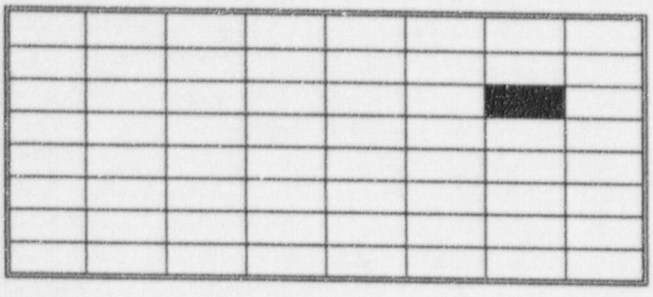
- o REFER TO EOP.

DISCUSSION:

REFERENCES: DRAWING 208-026-EF-01B

SENSING ELEMENT: EFP-1 CONTROL SWITCH CONTACTS CS/ST, CS/0

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-07-03	H-07-03



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:

- REFER TO EOP.
- MANUALLY START EFP-1

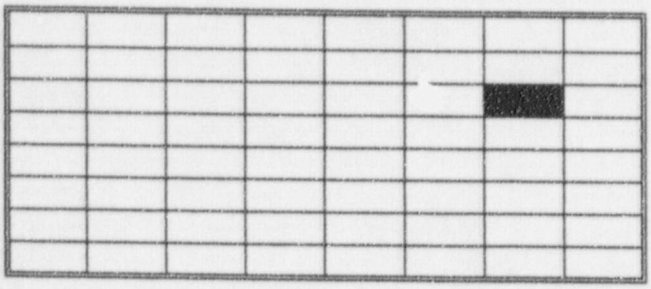
DISCUSSION:

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

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-07-03	H-07-03

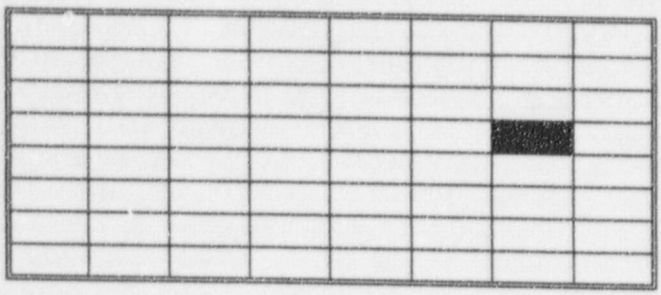


EF PUMP 1
START
FAILURE

EVENT POINT 1682

INDICATED CONDITION: o 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: o 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

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:

- 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.

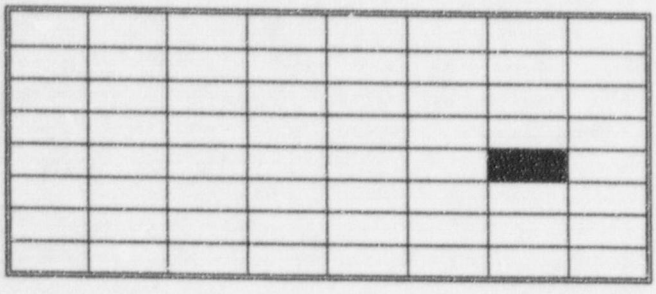
DISCUSSION:

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

REFERENCES: DRAWING 208-026-EF-01

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

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



EF PUMP 1
OUT OF SERVICE

EVENT POINT 1191

INDICATED CONDITION:

- EFP-1 CONTROL SWITCH IN PULL TO LOCK POSITION

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- GREEN AND RED LIGHTS EXTINGUISHED ON CONTROL STATION.

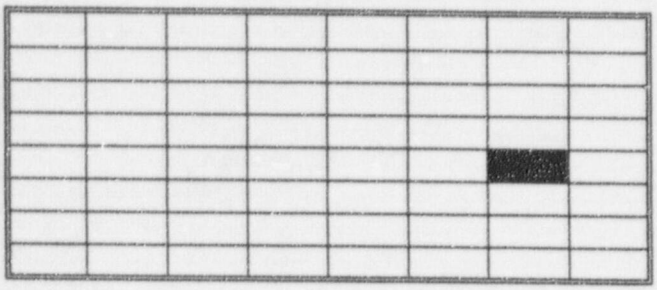
OPERATOR ACTIONS FOR A VALID ALARM:

DISCUSSION:

REFERENCES: DRAWING 208-026-EF-01

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

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



EF PUMP 1
OUT OF SERVICE

EVENT POINT 1257

INDICATED CONDITION:

- o EFP-1 CIRCUIT BREAKER NOT RACKED IN.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o GREEN AND RED LIGHTS EXTINGUISHED ON CONTROL STATION.

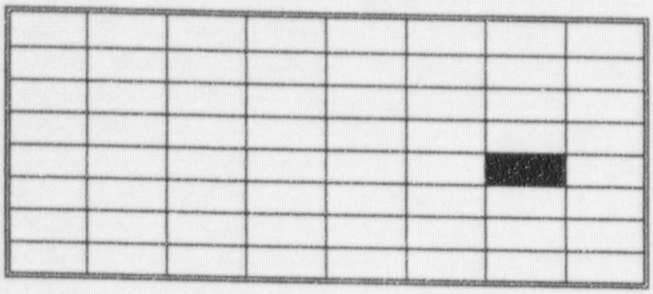
OPERATOR ACTIONS FOR A VALID ALARM:

DISCUSSION:

REFERENCES: DRAWING 208-026-EF-01

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

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



EF PUMP 1
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.

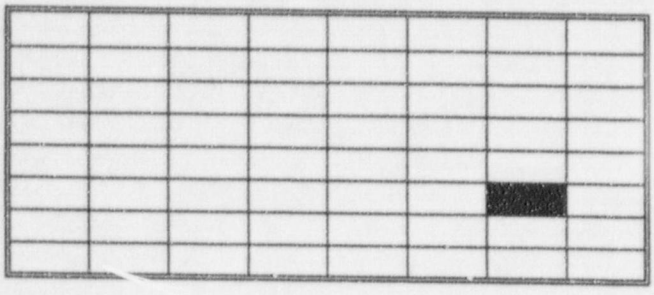
OPERATOR ACTIONS FOR A VALID ALARM:

DISCUSSION:

REFERENCES: DRAWING 208-026-EF-01

SENSING ELEMENT: EFP-1 BREAKER CONTROL CIRCUIT 27 RELAY

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



EF PUMP 1
MOTOR
OVERLOAD

EVENT POINT 1260

INDICATED CONDITION:

- o EFP-1 MOTOR AMPS **>115%** RATED LOAD.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o HIGH MOTOR AMPS.
- o EFP-1 BREAKER TRIP.

OPERATOR ACTIONS FOR A VALID ALARM:

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

DISCUSSION:

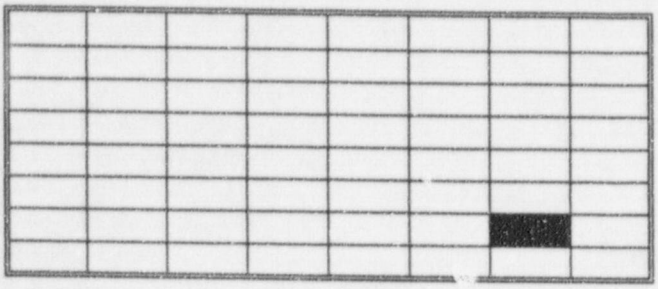
THIS ALARM INDICATES THAT EITHER THE TIMED OVERCURRENT OR INSTANTANEOUS OVERCURRENT PROTECTIVE DEVICES HAVE ACTUATED. INSTANTANEOUS OVERCURRENT PROTECTIVE RELAY ACTUATION WILL TRIP THE BREAKER.

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)

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



FWP-7
TRIP

EVENT POINT 0819

INDICATED CONDITION:

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

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

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

OPERATOR ACTIONS FOR A VALID ALARM:

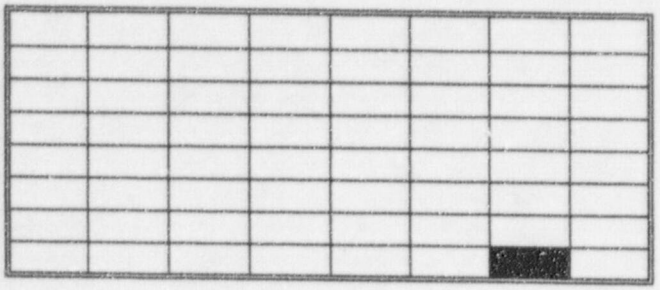
- o INVESTIGATE CAUSE OF BREAKER TRIP.

DISCUSSION:

REFERENCES: DRAWING 208-032 FW-55

SENSING ELEMENT: CS/SC, CS/O

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:

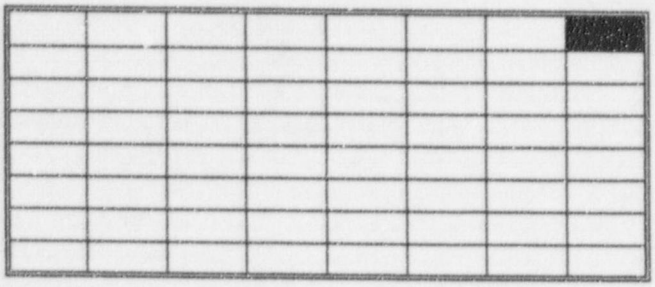
THIS ALARM INDICATES THAT EITHER THE TIMED OVERCURRENT OR INSTANTANEOUS OVERCURRENT PROTECTIVE DEVICES HAVE ACTUATED. INSTANTANEOUS OVERCURRENT PROTECTIVE RELAY ACTUATION WILL TRIP THE BREAKER.

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)

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



EF TANK
LEVEL
HIGH/LOW

EVENT POINT 0816

INDICATED CONDITION:

- 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:

- RESTORE TANK LEVEL TO NORMAL OPERATING BAND.

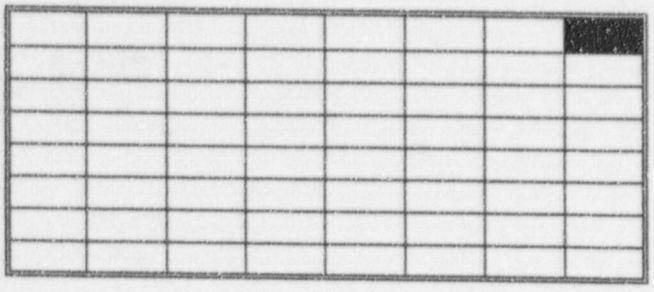
DISCUSSION:

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

REFERENCES: DRAWING 205-026 EF-05

SENSING ELEMENT: EF-98-LT

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:

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

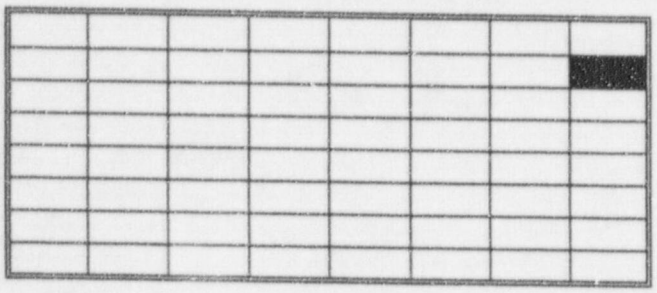
REFER TO TS FOR ADMINISTRATIVE REQUIREMENTS.

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

REFERENCES: DRAWING 205-026 EF-05

SENSING ELEMENT: EF-99-LT

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



EF PUMP 2
AUTO START

EVENT POINT 1707

INDICATED CONDITION:

- o 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:

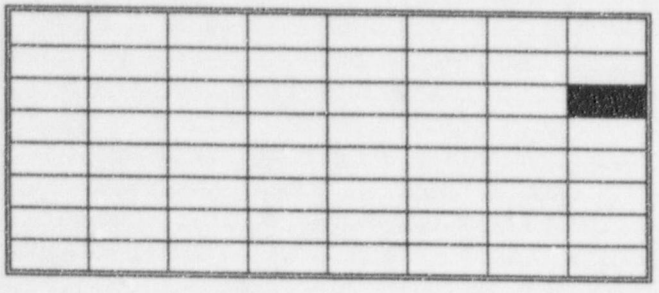
- o REFER TO EOP.

DISCUSSION:

REFERENCES: DRAWING 208-008 AS-01

SENSING ELEMENT: EF-18-PS

PSA-Z ANNUNCIATOR RESPONSE	PSA-Z-08-03	H-08-03

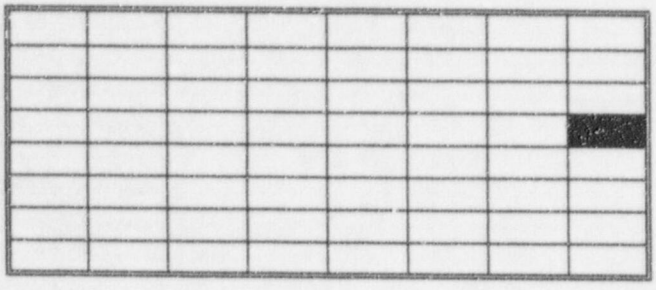


EF PUMP 2
START
FAILURE

EVENT POINT 1706

INDICATED CONDITION: o 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

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



EF PUMP 2
TRIP

EVENT POINT 0326

INDICATED CONDITION:

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

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

OPERATOR ACTIONS FOR A VALID ALARM:

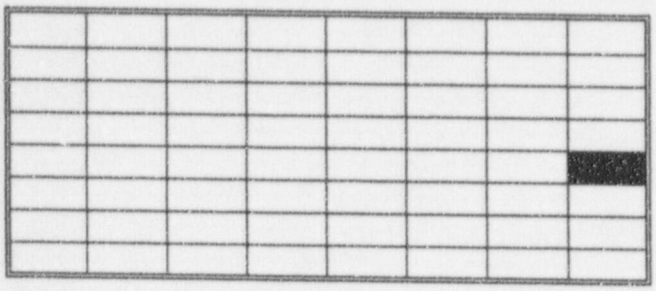
- o NOTIFY PRIMARY PLANT OPERATOR TO RESET ASV-50

DISCUSSION:

REFERENCES: DRAWING 208-008 AS-01

SENSING ELEMENT: 33C/ASV-50

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



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:

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

OPERATOR ACTIONS FOR A VALID ALARM:

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

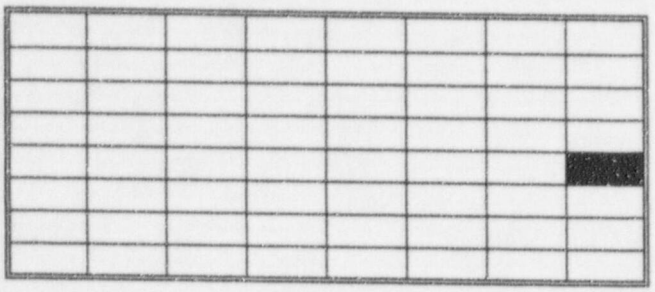
DISCUSSION:

IF THIS 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 FROM DPDP-8B 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)

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



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:

- o ASV-204 POSITION INDICATION.

OPERATOR ACTIONS FOR A VALID ALARM:

- o INVESTIGATE LOSS OF CONTROL POWER TO ASV-204.

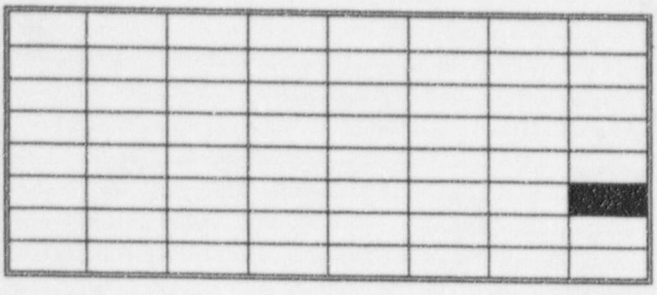
DISCUSSION:

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

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



EMERG FW
VALVE
NOT FULL OPEN

EVENT POINT 1192

INDICATED CONDITION:

- EFV-32 NOT FULL OPEN.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- EFV-32 POSITION INDICATION.

OPERATOR ACTIONS FOR A VALID ALARM:

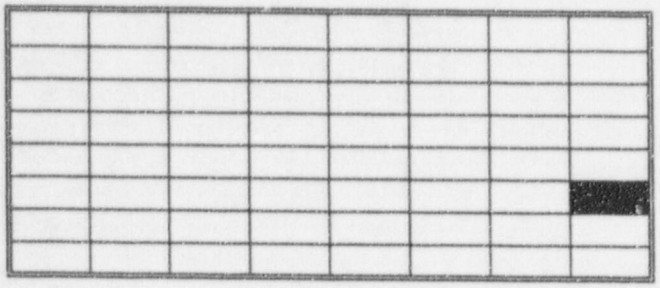
- INVESTIGATE CLOSURE OF EFV-32.

DISCUSSION:

REFERENCES: DRAWING 208-026 EF-10

SENSING ELEMENT: EFV-32 FULL OPEN LIMIT SWITCH

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



EMERG FW
VALVE
NOT FULL OPEN

EVENT POINT 1193

INDICATED CONDITION:

- o EFV-11 NOT FULL OPEN.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o EFV-11 POSITION INDICATION

OPERATOR ACTIONS FOR A VALID ALARM:

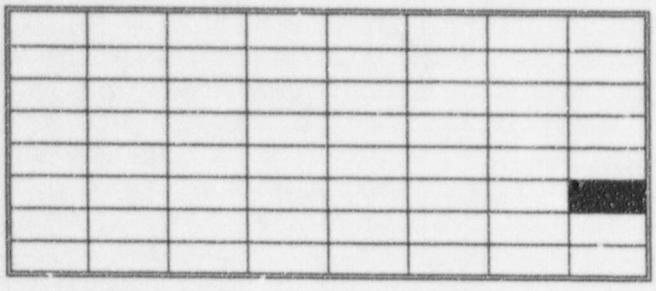
- o INVESTIGATE CLOSURE OF EFV-11.

DISCUSSION:

REFERENCES: DRAWING 208-026 EF-08

SENSING ELEMENT: EFV-11 FULL OPEN LIMIT SWITCH

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



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:

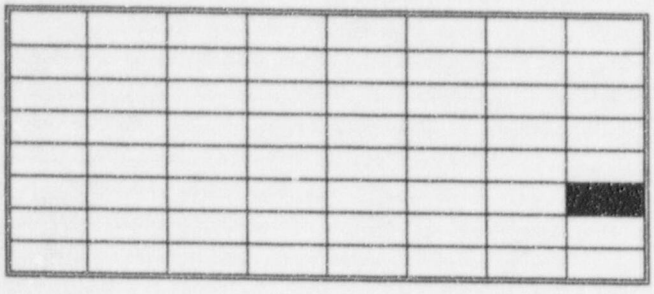
- o INVESTIGATE CLOSURE OF EFV-14.

DISCUSSION:

REFERENCES: DRAWING 208-026 EF-9

SENSING ELEMENT: EFV-14 FULL OPEN LIMIT SWITCH

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



EMERG 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:

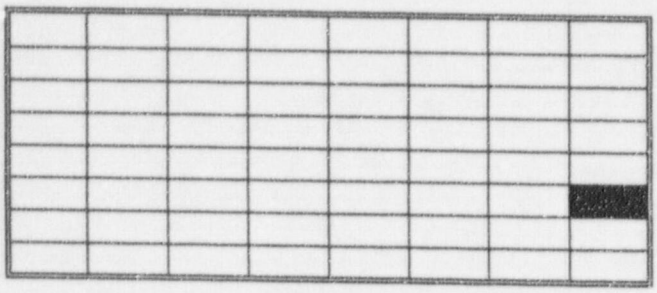
- o INVESTIGATE CLOSURE OF EFV-33.

DISCUSSION:

REFERENCES: DRAWING 208-026 EF-11

SENSING ELEMENT: EFV-33 FULL OPEN LIMIT SWITCH

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



EMERG FW
VALVE
NOT FULL OPEN

EVENT POINT 1255

INDICATED CONDITION:

- o EFV-3 NOT FULL OPEN.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- o EFV-3 POSITION INDICATION.

OPERATOR ACTIONS FOR A VALID ALARM:

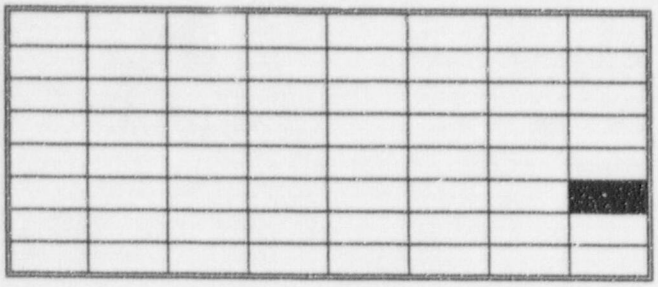
- o INVESTIGATE CLOSURE OF EFV-3.

DISCUSSION:

REFERENCES: DRAWING 208-026 EF-02

SENSING ELEMENT: EFV-3 FULL OPEN LIMIT SWITCH

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



EMERG 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.

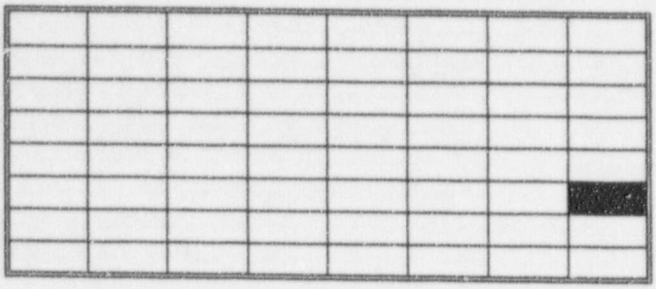
OPERATOR ACTIONS FOR A VALID ALARM:

- o INVESTIGATE CLOSURE OF EFV-4.

REFERENCES: DRAWING 208-026 EF-03

SENSING ELEMENT: EFV-4 FULL OPEN LIMIT SWITCH

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:

- o EFV-7 POSITION INDICATION.

OPERATOR ACTIONS FOR A VALID ALARM:

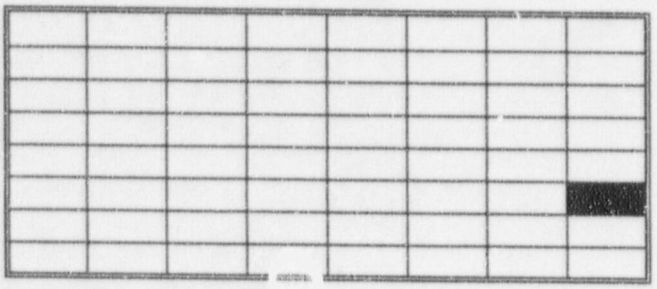
- o INVESTIGATE CLOSURE OF EFV-7.

DISCUSSION:

REFERENCES: DRAWING 208-026 EF-04

SENSING ELEMENT: EFV-7 FULL OPEN LIMIT SWITCH

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



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:

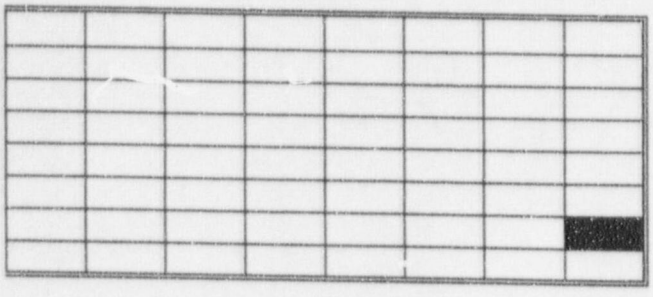
- o INVESTIGATE CLOSURE OF EFV-8.

DISCUSSION:

REFERENCES: DRAWING 208-026 EF-05

SENSING ELEMENT: EFV-8 FULL OPEN LIMIT SWITCH

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



EFV-12
EF CROSS-TIE
OPEN

EVENT POINT 1266

INDICATED CONDITION:

- EFV-12 OPEN.

REDUNDANT INDICATION WHICH WILL VERIFY ALARM:

- RED LIGHT LIT ON EFV-12 CONTROL STATION, EFV-12-MST IN "A" ES 480v SWITCHGEAR ROOM, 124" ELEV CC.
- FLOW INDICATED ON EF-62-FI, LOCATED ON PSA SECTION OF MCB (TO BE INSTALLED BY MAR 97-01-04-01

OPERATOR ACTIONS FOR A VALID ALARM:

- VERIFY CROSS-FLOW VIA "A" SIDE EFIC FLOW INDICATORS.

DISCUSSION: EFV-12 POWERED FROM DPDP-8C, BKRS 5 (POWER) & 6 (CONTROL)

REFERENCES: DRAWING 208-026 EF-24

SENSING ELEMENT: LIMIT SWITCH CONTACT #9