0032481

PLUTONIUM FINISHING PLANT

PLUTONIUM RECLAMATION FACILITY

PERFORM LIQUID EFFLUENT SYSTEMS SURVEILLANCE AND ALARM RESPONSES

ZO-180-601
Rev/Mod A-1
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ISSUE DATE 4/29/93

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1. INTRODUCTION

1.1. Purpose

This procedure provides instructions for the surveillance of alarm panels, process and chemical vessels at the 241-Z and 2735-Z areas and the necessary responses to any unusual conditions identified during surveillance. This procedure also provides instructions for the surveillance of alarm panels at Rm. 104, 234-5Z bldg.

1.2. Scope

Surveillance for the process and chemical tanks and the sample glovebox includes observations to detect leaks, hazardous objects, or other unusual conditions.

Surveillance of the alarm panels is performed to identify and document the status of all alarm panels. Alarm status and unusual conditions will be recorded in the applicable logbook located in PRF control room, 241-ZA, and Rm. 104 (234-5Z).

1.3. Applicability

Surveillance is done to keep up to date records of the status of alarm panels and notice any unusual occurrences (leaks, hazardous objects, etc.) happening around the plant. This procedure is performed by Operations and Facilities personnel on a continuous basis.

2. PRECAUTION AND LIMITATIONS

2.4. Management Information

Any time data sheet readings can not be taken or completed, the reason(s) shall be recorded on DATA SHEET(s) and shift supervision shall sign DATA SHEET(s).

3. PREREQUISITE ACTION

NONE

4. TOOLS, EQUIPMENT AND MATERIAL

4.1. References

Hanford Site Radiological Control Manual, HSRCM-1
Radiation Work Permit, Z-007
Plant Administration Manual, WHC-CM-5-8, Section 1.13
WHC-CM-5-8, Section 1.32 "Plutonium Finishing Plant Service Required Labels/Tags."
WHC-CM-5-8, Section 1.4 "Occurrence Reporting"
WHC-CM-7-5, Section 5
WHC-CM-5-8, Section 4.0
WHC-CM-5-8, Section 4.13

4.1.1. Referenced Documents

ZO-170-318, RESPOND TO CHEMICAL SPILL/LEAK IN PFP
ZO-102-010, OPERATE 2904-ZB SAMPLING FACILITY
ZO-100-011, SAMPLE MANHOLE #9 DURING PUMP OR POWER FAILURE"
ZO-101-800, RESPOND TO 241-ZA ALARMS
H-2-91796, ANNUNCIATOR & CONTROL DIAGRAM
H-2-91797, INSTRUMENTS & ELECTRICAL PANEL
H-2-80102, EFD
H-2-95148, 1-2 SCTY/SFGDS NMCCS PLAN ELEVATION & DETAIL
H-2-76854, Z-20 CRIB EFFLUENT
H-2-77438, SPECIFICATION AND DRAWING LIST
H-2-76855, SH. 2 OF 5 Z-20 "CRIB EFFLUENT INST ARRAIGNMENT, WIRING & DETAILS
H-2-80524, IEFD AMU MOD RM 40, 44 AND DR COLLECTION"

4.1.2. Records

STANDBY SURVEILLANCE - ONCE-PER-SHIFT (OUTSIDE) DATA SHEET

4.2. Tools

Jet Light

5. PERFORMANCE

5.1. Perform 241-Z and 2735-Z Surveillance And Responses

A. Perform 241-ZA Surveillance

1. Check panel board annunciator in 241-ZA.

   a. IF alarm is sounding and lights flashing, note in 241-ZA ALARM PANEL LOGBOOK, acknowledge alarm, and notify PRF Control Room and Facility Operations Shift Manager.

   b. IF alarm is sounding and no lights are flashing, press TEST button to find which light(s) is out, note in 241-ZA ALARM PANEL LOGBOOK, acknowledge alarm, and notify PRF Control Room and Facility Operations Shift Manager.

   c. Respond to alarm per ZO-101-800 and notify supervision.

> NOTE
>
> All windows on annunciator panel should light when test button is pushed.

   d. IF no alarms (no horns or flashing lights), notify PRF control room that annunciator test will be performed. Test alarm panel by pushing TEST button, record in 241-ZA ALARM PANEL LOGBOOK, and continue with surveillance.

   e. Record all illuminated windows in 241-ZA ALARM PANEL LOGBOOK. IF shift surveillance is first operations shift of week, notify PRF Control Room to record all illuminated windows in PRF CONTROL ROOM LOGBOOK.

> NOTE
>
> Unusual conditions include such things as leaks, chemical spills, sump alarm, glovebox ruptures, or anything out of the ordinary.

2. Obtain and record time, date, printed name, and signature on ONCE-PER-SHIFT SURVEILLANCE (OUTSIDE) DATA SHEET.

3. Once a shift, conduct walk-through inspection of 241-ZA for the following:
   - Sample glovebox for unusual conditions
   - TK-D4, -D5, -D7, -D8 strip charts and -D9 level and that temperature indicators are functional.

A. Perform 241-ZA Surveillance (Cont.)

NOTE

Tank level recorders are located on 241-ZA Panel and agitator controls are located in 241-Z near each tank manhole.

4. Once a shift, conduct walk-through inspection of 241-Z for unusual conditions and status of waste tanks agitators.

   a. IF waste tank WF is greater than 10, verify agitator is in ON position. IF agitator is off, notify supervision.

CAUTION

Technical basis for operation of the TK-D5 agitator as listed in OSD-Z-184-00010:

Operation of the agitator at liquid levels below 10 weight factor may result in mechanical damage to the agitator because of vibration. TK-D5 level indicator is interlocked with the agitator. The agitator is stopped when the liquid level falls below 10 WF. Plant Operating Procedure ZO-101-019 calls for the agitator to be turned on.

Large amounts of solids can precipitated in the absence of agitation during reverse strike additions.

CAUTION

Technical basis for operation of the TK-D4, TK-D7, and TK-D8 agitator as listed in OSD-Z-184-00010:

Operation of the agitator ,in TKS. D4, D7, and D8, at liquid levels below 10 weight factor may result in mechanical damage to the agitator because of vibration. Plant Operating Procedure ZO-101-019 and ZO-101-020 specify the conditions requiring agitator operation.

Operation of the agitator after addition of solution to a 241-Z tank insures that the contents of the tank are uniform and that local concentration gradients of chemicals do not exist.

   b. IF waste tank WF is 10 or less, verify agitator is in OFF position. IF agitator is on, notify supervision.

5. Once a shift, check that TK-D9 steam jacket trap is expelling condensate and check sump level. IF liquid is present in sump OR IF no condensate, notify supervision.

A. Perform 241-ZA Surveillance (Cont.)

6. Record any unusual conditions or abnormal readings on DATA SHEET (attachment 5), circle in red, and notify supervision of any unusual conditions.

B. Perform TK-D9 Temperature Surveillance

1. Obtain and record time, date, printed name, and signature on ONCE-PER-SHIFT SURVEILLANCE (OUTSIDE) DATA SHEET.

NOTE

TK-D9 temperature indicator is located on panel in 241-ZA.

CAUTION

Technical basis for the temperature range for TK-D9 as listed in OSD-Z-184-00010:

A temperature in the range of 40°C is required to maintain a viscosity adequate for pumping. The upper limit of 120°F is arbitrary, the bulk solution temperature should not exceed 200°F. because excessive corrosion occurs above this temperature. POP-101-009 administratively controls the temperature of TK-D9.

2. Check TK-D9 temperature indicator once a shift, or more frequently if specified by supervision. Take reading from the left hand side of the indicator, and record on TK-D9 TEMPERATURE section of DATA SHEET.

a. IF temperature is between acceptable operating range of 40-49 °C (104-120 °F), record on DATA SHEET.

B. Perform TK-D9 Temperature Surveillance (Cont.)

NOTE

Any time the temperature is above 49 °C (120 °F), valve V-16 should be closed unless the outside air temperature is below freezing.

b. IF temperature is above 49 °C (120 °F), notify supervision. Record on DATA SHEET.

c. IF temperature is below 40 °C (104 °F), ensure valve V-16 is open and notify supervision.

C. Perform 2735-Z Surveillance

1. Obtain and record time, date, printed name, and signature on ONCE-PER-SHIFT SURVEILLANCE (OUTSIDE) DATA SHEET.

NOTE

Level readings should be taken using the top bracket of the level indicator.

2. Once a shift, conduct walk-through inspection of 2735-Z for HNO_3 tank and ANN tank levels and record readings on 2735-Z section of SURVEILLANCE DATA SHEET.

3. Compare HNO_3 and ANN tanks levels with most recent ending level reading recorded on 2735-Z section of SURVEILLANCE DATA SHEET or previous SURVEILLANCE DATA SHEET.

a. IF both of existing HNO_3/ANN tank readings are same as recorded readings on 2735-Z section of SURVEILLANCE DATA SHEET, CONTINUE.

b. IF either OR both of existing HNO_3/ANN tank readings are not the same as recorded readings on 2735-Z section of SURVEILLANCE DATA SHEET, record on COMMENTS section of SURVEILLANCE DATA SHEET and notify supervision.

c. IF either OR both of the ANN/HNO_3 tank readings are found to be 10% different from most recent reading recorded on the 2735-Z section of SURVEILLANCE DATA SHEET, instruct supervision to notify Process Engineering.

C. Perform 2735-Z Surveillance (Cont.)

4. Once a shift, conduct walk-through inspection of 2735-Z for ANN tank solution temperature.

NOTE

ANN tank solution temperature can be read from the ANN temperature control panel located by the southwest corner of ANN/HNO_3 catch basin.

a. IF white light is illuminated, record color on DATA SHEET.

b. IF blue (low temperature) OR red (high temperature) light is illuminated, notify supervision and record color on DATA SHEET.

5. Record any unusual conditions and circle in red on DATA SHEET and notify supervision.

D. Perform Rm. 104 Surveillance

1. Obtain and record time, date, printed name, and signature on ONCE-PER-SHIFT SURVEILLANCE (OUTSIDE) DATA SHEET.

2. Check panel board annunciator in Rm. 104, 234-5Z bldg.

   a. IF alarm is sounding and lights flashing, note in Rm. 104 ALARM PANEL LOGBOOK, acknowledge alarm, and notify PRF Control Room and Fac. Ops Shift Manager.

   b. IF alarm is sounding and no lights are flashing, press TEST button to find which light(s) is out, note in Rm. 104 ALARM PANEL LOGBOOK, acknowledge alarm, and notify PRF Control Room and Facility Operations Shift Manager.

   c. Respond to alarm per Attachment 4.

NOTE

All lights on annunciator panel should light when test button is pushed.

   d. IF no alarms (no horns or flashing lights), test alarm panel by pushing TEST button, record in Rm. 104 ALARM PANEL LOGBOOK, and continue with surveillance.

   e. IF shift surveillance is first operations shift of week, notify PRF Control Room to record all illuminated windows in PRF CONTROL ROOM LOGBOOK.

Attachment 1 - 2735-Z PANEL BOARD
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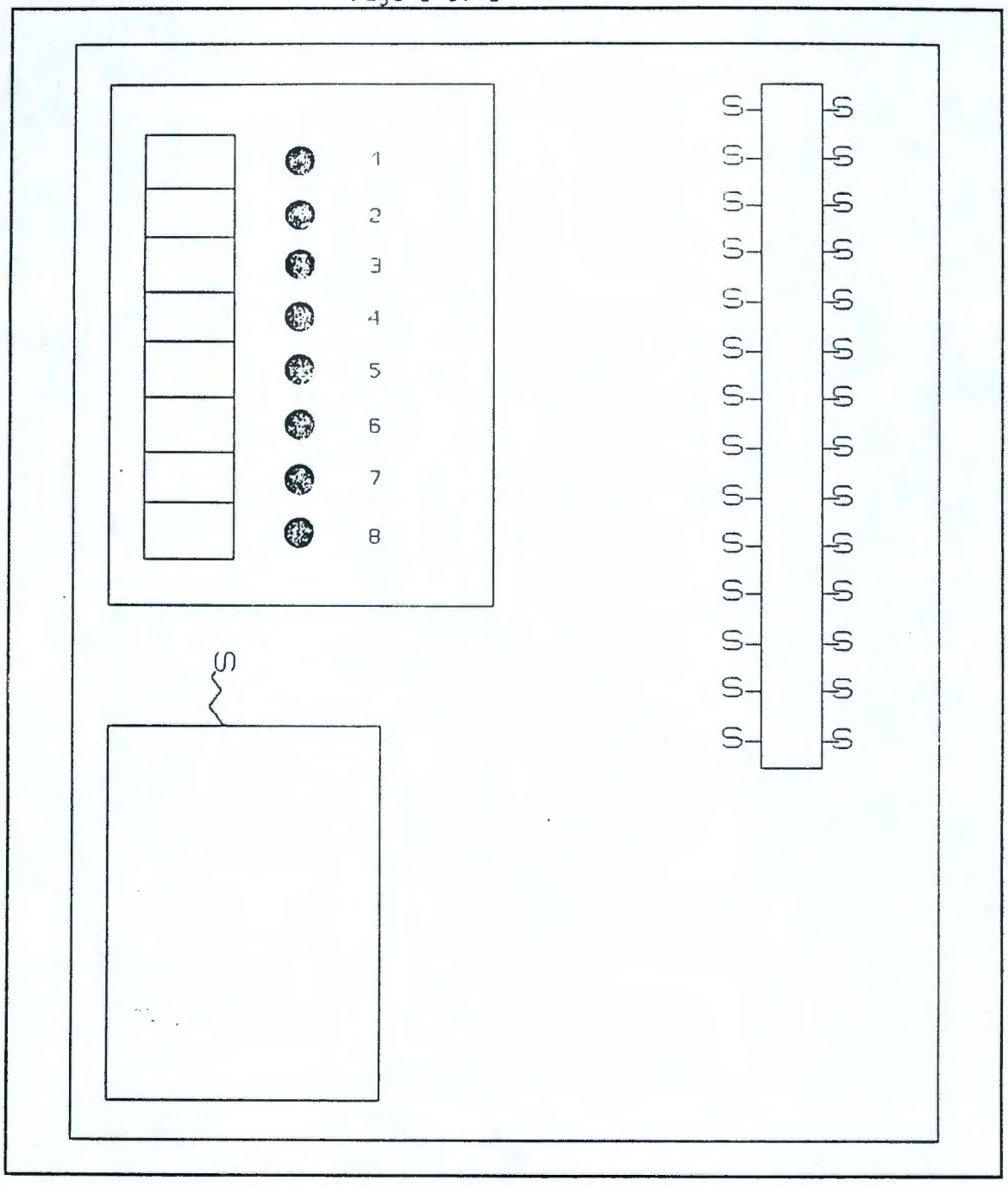

Attachment 2 - 2735-Z PANEL BOARD RESPONSES
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WINDOW	COLOR	ALARM TITLE\ACTIVATION
1	RED (LOCAL) WHITE (REMOTE)	TITLE: LAH HNO_3

ACTIVATION: LOCAL LIGHT, REMOTE LIGHT (2735-Z COMMON ALARM) AND HORN RM. 104 234-5Z.

RESPONSE:

A. IF transfer is in progress respond per applicable transfer procedure. Proceed to 2735-Z and look for overflowing solution in containment basin. IF spill is present, continue. IF no spill is present check for increase in WF for HNO_3 tank on surveillance check sheet. Notify supervision of any increase.

B. IF spill is present, notify supervision of all findings, and respond to any chemical spill per ZO-170-318.

REFERENCES: H-2-80525, SH. 1-5

Attachment 2 - 2735-Z PANEL BOARD RESPONSES
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WINDOW	COLOR	ALARM TITLE\ACTIVATION
2	RED (LOCAL) WHITE (REMOTE)	TITLE: LAH-ANN

ACTIVATION: LOCAL LIGHT, REMOTE LIGHT (2735-Z COMMON ALARM) AND HORN RM. 104 234-5Z.

RESPONSE:

A. IF transfer is in progress respond per applicable transfer procedure. Proceed to 2735-Z and look for overflowing solution in containment basin. IF spill is present, continue. IF no spill is present check for increase in WF for ANN tank on surveillance check sheet. Notify supervision of any increase.

B. IF spill is present, notify supervision of all findings, and respond to any chemical spill per ZO-170-318.

REFERENCES: H-2-80525, SH. 1-5

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WINDOW	COLOR	ALARM TITLE\ACTIVATION
3	RED (LOCAL) WHITE (REMOTE)	TITLE: HI TEMP ANN ACTIVATION: LOCAL LIGHT, REMOTE LIGHT (2735-Z COMMON ALARM) AND HORN RM. 104 234-5Z. RESPONSE: A. This alarm is inactive - no response required. Notify supervision of faulty alarm. REFERENCES: H-2-80525, SH. 1-5

Attachment 2 - 2735-Z PANEL BOARD RESPONSES
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WINDOW	COLOR	ALARM TITLE\ACTIVATION
4	Inactive	TITLE: SPARE ACTIVATION: NONE RESPONSE: A. This alarm is inactive - no response required. Notify supervision of faulty alarm. REFERENCES: H-2-80525, SH. 1-5

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WINDOW	COLOR	ALARM TITLE\ACTIVATION
5	RED (LOCAL) WHITE (REMOTE)	TITLE: LAH-2735 CATCH TANK ACTIVATION: LOCAL LIGHT, REMOTE LIGHT (2735-Z COMMON ALARM) AND HORN RM. 104 234-5Z. RESPONSE: A. Proceed to Room 40 and Room 336, look for overflowing solution near risers for chem prep floor drains. IF spill is present, continue. Notify supervision of any findings. B. IF spill is present, notify supervision of all findings, and respond to any chemical spill per ZO-170-318. REFERENCES: H-2-80525, SH. 1-5

Attachment 2 - 2735-Z PANEL BOARD RESPONSES
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WINDOW	COLOR	ALARM TITLE\ACTIVATION
6	RED (LOCAL) WHITE (REMOTE)	TITLE: MAH-2735 CATCH ACTIVATION: LOCAL LIGHT, REMOTE LIGHT (2735-Z COMMON ALARM) AND HORN RM. 104 234-5Z. RESPONSE: A. Proceed to Room 40 and Room 336, look for overflowing solution near risers for chem prep floor drains. IF spill is present, continue. Notify supervision of any findings. B. IF spill is present, notify supervision of all findings, and respond to any chemical spill per ZO-170-318. REFERENCES: H-2-80525, SH. 1-5

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WINDOW	COLOR	ALARM TITLE\ACTIVATION
7	RED (LOCAL) WHITE (REMOTE)	TITLE: LAH/L CCL_4 ACTIVATION: LOCAL LIGHT, REMOTE LIGHT (2735-Z COMMON ALARM) AND HORN RM. 104 234-5Z. RESPONSE: A. This alarm is inactive - no response required. Notify supervision of faulty alarm. B. Notify supervision of all findings and respond to any chemical spill per ZO-170-318. REFERENCES: H-2-80525, SH. 1-5

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WINDOW	COLOR	ALARM TITLE\ACTIVATION
8	RED (LOCAL) WHITE (REMOTE)	TITLE: MAH CCl_4

ACTIVATION: LOCAL LIGHT, REMOTE LIGHT (2735-Z COMMON ALARM) AND HORN RM. 104 234-5Z.

RESPONSE:

A. This alarm is inactive - no response required. Notify supervision of faulty alarm.

B. Notify supervision of all findings and respond to any chemical spill per ZO-170-318.

REFERENCES: H-2-80525, SH. 1-5

Attachment 3 - ROOM 104 PANEL BOARD
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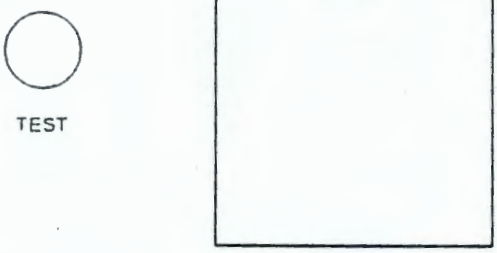
CANISTER BULGE HIGH TEMPERATURE 1	ROOM 604 HIGH TEMPERATURE WARNING 2	ROOM 306 A HIGH TEMPERATURE WARNING 3	ANN/ACID IN 2735-Z SUMP ALARM 4
Z-20 CRIB SAMPLER #1 FAIL 5	Z-20 CRIB SAMPLER #2 FAIL 6	FLOW IN DRAIN 234-5 FAH-234-5 7	HI-LEVEL AMU TANKS 8
Z-20 CRIB PH 9	10	FLOW IN DRAIN 236 FAH-236 11	MALFUNCTIONS AMU TANKS LEVEL INST 12
"RM 306 A UPS FAILURE" 13	14	COMMON ALARM 2735-Z AREA 15	DOWN TIME MONITOR AMU TANKS ALARM 16



Attachment 4 - ROOM 104 PANEL BOARD RESPONSES
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WINDOW	COLOR	ALARM TITLE\ACTIVATION
1	WHITE	TITLE: CANISTER BULGE/HI TEMP

ACTIVATION: HORN, LIGHT

RESPONSE:

A. These alarms are from the 2736-Z vaults. The canister bulge is alarmed from the can expanding and making contact with sensors. The hi temp is from a temperature differential that is out of limits. These alarms are tested weekly by NMC personnel.

B. Silence the alarm panel. IF alarm clears, log it in alarm book.

C. IF alarm does not clear, reference WHC-CM-5-8, Section 4.13, Para. 5.4.

D. Facility Operations Shift Supervisor shall notify Building Emergency Director, Safeguards, AMS and PFP Environmental Compliance Cognizant Engineer.

REFERENCES: H-2-95148, 1-2 SCTY/SFGDS NMCCS PLAN ELEVATION & DETAIL
WHC-CM-5-8, Section 4.13, Para. 5.4.

WARNING

Technical basis for the temperature control of the 2736-Z vaults is found in SD-CP-TI-009, Rev. 0; SD-HS-SAR-025, Rev. 4, Page 140. Operating Specification are found in OSD-Z-184-00013, Rev. F-4.

In the event that the ventilation can not be restored within 40 hours The Environmental Waste Operations Manager shall initiate recovery steps per Section 11.6.6.2 of SD-HS-SAR-025 (for OSR 11.3.2).

Attachment 4 - ROOM 104 PANEL BOARD RESPONSES
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WINDOW	COLOR	ALARM TITLE\ACTIVATION
2	WHITE	TITLE: ROOM 604 HIGH TEMPERATURE WARNING

ACTIVATION: HORN, LIGHT

RESPONSE:

A. 2736-ZB Room 604. Combination is in black box. This alarm will come on when the power is turned off for various reasons (Replacement of line conditioner, Room 306A power supply, etc.) as well as when the air conditioning fails.

B. Silence the alarm and log in the book.

C. IF alarm does not clear, reference WHC-CM-5-8, Section 4.13, para. 5.5.

D. Facility Operations Shift Supervisor shall notify maintenance, the Building Emergency Director, AMS, and the PFP Environmental Compliance Cognizant Engineer.

E. Facility Operations Shift Supervisor and maintenance shall access rooms as appropriate, diagnose problems, and initiate repair of air conditioner per JCS.

F. On day shift only, the safeguards computer systems analyst shall be notified (373-5194, 373-2594 or 373-2217) and his help used to bring computers down if needed, in an orderly way without loss of data.

G. AMS shall be notified of loss of services of shutdown computers.

REFERENCES: H-2-95148, 1-2 SCTY/SFGDS NMCCS PLAN ELEVATION & DETAIL

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WINDOW	COLOR	ALARM TITLE\ACTIVATION
3	WHITE	TITLE: Room 306-A HI TEMP WARNING

ACTIVATION: HORN, LIGHT

RESPONSE:

A. This alarm occurs from room 306-A, next to the instrument shop. The normal problem is the air conditioner compressors causing feeder breaker to trip off. Breaker is located in 260 duct level, south west of elevator. This breaker also feeds the UPS system in Rm. 308 duct level. When this breaker is tripped, UPS system is running on batteries. At this time there is no indication that the UPS is on batteries. It is important that power be returned to normal ASAP. UPS batteries will provide power for up to 20 hours if computers are shut down. IF batteries are allowed to drain completely, alarm relays will drop out and UPS powered systems will go into alarm status. These alarms are "RM 306A UPS FAILURE", "ROOM 306A HI TEMP WARNING", and all AMS alarms that are run off 308 UPS (VSIS ALARMS, ETC.)

B. Facility Ops Shift Supervisor shall notify maintenance, BED and AMS.

C. Facility Ops Shift Supervisor and maintenance shall access rooms as appropriate, diagnose problems, and initiate repair of air conditioner per JCS.

D. Troubleshooting instructions shall be:

• Go up to room 306A and read the room temperature through the window in the door to the room. There is a large circular thermometer mounted on a blue cabinet which is easily visible from the window in the door.

• IF the room temperature is approximately 75° F or higher have maintenance check out the air conditioner located on the north wall of the instrument shop. Access to air conditioner is made from the instrument shop.

• IF room temp. is <70° F and air conditioner is functioning normally, then temperature sensor in room may be defective. Appropriate actions shall be taken using JCS to correct.

Attachment 4 - ROOM 104 PANEL BOARD RESPONSES
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WINDOW	COLOR	ALARM TITLE\ACTIVATION
3	WHITE	TITLE: ROOM 306-A HI TEMP WARNING

A. IF the air conditioner is malfunctioning and cannot be repaired before the room temperature reaches 86° F the computer will automatically shut itself down. Once the air conditioner is back on line and the room has cooled back to 70° F, the high temperature alarm should reset. IF the room temperature sensor appears to be defective, please wait for an analyst to open the room. The analyst can be reached at 3-2459.

B. The only time room 306A should be opened without the security analyst present is in the case of smoke in the room or fire. IF smoke or fire exists, the person that has come upon this situation shall activate the FIRE ALARM nearest the room and notify Facility Operations Shift Supervisor of the situation; the Fire Department can access the door combination from Hanford Patrol.

C. On day shift only, the safeguards computer systems analyst shall be notified (373-5194, 373-2594 or 373-2217) and his help used to bring computers down if needed, in an orderly way without loss of data.

D. AMS shall be notified of loss of services of shutdown computers.

REFERENCES: H-2-95148, 1-2 SCTY/SFGDS NMCCS PLAN ELEVATION & DETAIL

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WINDOW	COLOR	ALARM TITLE\ACTIVATION
4	WHITE	TITLE: ANN/ACID IN 2735-Z SUMP ALARM

ACTIVATION: HORN, LIGHT

RESPONSE:

A. NOT IN SERVICE

REFERENCES: H-2-95148, 1-2 SCTY/SFGDS NMCCS PLAN ELEVATION & DETAIL
H-2-76854 Z-20 CRIB EFFLUENT
H-2-77438

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WINDOW	COLOR	ALARM TITLE\ACTIVATION
5	WHITE	TITLE: Z-20 CRIB SAMPLER #1 FAIL

ACTIVATION: HORN, LIGHT

RESPONSE:

A. Reset ON/OFF switch located in Manning Sampler Cabinet #1.

B. Set Sample Mode to MANUAL and wait until Manning Sample cycles through one cycle.

C. IF sample functions properly, set Sample Mode to FLOW and observe one cycle to confirm proper function.

D. IF sampler does not operate, notify Facility Operations Shift supervisor. Facility Operations Shift Supervisor may instruct operations to switch Manning Sampler #2 station into Composite Sampling mode, or obtain thief samples at 2904-ZA or Manhole #9.

REFERENCES: H-2-95148, 1-2 SCTY/SFGDS NMCCS PLAN ELEVATION & DETAIL
H-2-76854 EFD
H-2-76855 SH. 2 OF 5 Z-20 "CRIB EFFLUENT INST ARRAIGNMENT, WIRING & DETAILS

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WINDOW	COLOR	ALARM TITLE\ACTIVATION
6	WHITE	TITLE: Z-20 CRIB SAMPLER #2 FAIL

ACTIVATION: HORN, LIGHT

RESPONSE:

A. Acknowledge alarm and proceed to 2904-ZB

B. Reset ON/OFF switch located in Manning Sampler Cabinet #2.

C. Set Sample Mode to MANUAL and wait until Manning Sampler cycles through one cycle.

D. IF sample functions properly, reset Sample Mode to FLOW.

E. Observe one cycle to confirm proper function.

F. IF sampler does not operate, notify Facility Operations Shift Supervisor.

REFERENCES: H-2-95148, 1-2 SCTY/SFGDS NMCCS PLAN ELEVATION & DETAIL
H-2-76854 EFD
H-2-76855 SH. 2 OF 5 Z-20 "CRIB EFFLUENT INST ARRAIGNMENT, WIRING & DETAILS

Attachment 4 - ROOM 104 PANEL BOARD RESPONSES
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WINDOW	COLOR	ALARM TITLE\ACTIVATION
7	WHITE	TITLE: FLOW IN DRAIN 234-5 FAH-234-5

ACTIVATION: HORN, LIGHT

RESPONSE:

A. Acknowledge alarm and Proceed to Rms. 336/337 of 234-5Z and look for solution on floor in containment basin.

B. IF spill is present, locate and stop source of leak to containment basin per ZO-170-318. IF no spill proceed to step C.

C. Report all findings to supervision.

REFERENCE: H-2-95148, 1-2 SCTY/SFGDS NMCCS PLAN ELEVATION & DETAIL
H-2-77438
H-2-80524 "IEFD AMU MOD RM 40, 44 &DR COLLECTION"

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WINDOW	COLOR	ALARM TITLE\ACTIVATION
8	WHITE	TITLE: HI-LEVEL AMU TANKS
		ACTIVATION: HORN, LIGHT
		RESPONSE:
		A. NOT IN SERVICE

Attachment 4 - ROOM 104 PANEL BOARD RESPONSES
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WINDOW	COLOR	ALARM TITLE\ACTIVATION
9	WHITE	TITLE: Z-20 CRIB pH

RESPONSE:

A. IF a HI or LO pH alarm is registered, notify Facility Operations Shift supervisor. Facility Operations Shift Supervisor will respond to pH excursion per WHC-CM-5-8, Section 1.5.

B. Acknowledge alarm by pressing the following buttons:

- RESET button on Instrument Cabinet #2 that corresponds to HI/LO alarm
- ACKNOWLEDGE button on strip chart recorder in 2904-ZB (FR-201)
- ACKNOWLEDGE button on strip chart recorder in 234-5Z, Room 104 (AIR-202).

NOTE - Manning Sampler set to respond to pH alarms will be indicated on Instrument Cabinet #2.

C. Verify that Manning Sampler set to respond to pH alarm has started to take samples. If sampler does not start, perform the following.

D. Reset ON/OFF switch located in Manning Sampler Cabinet #2.

E. Set Sample Mode to MANUAL and wait until Manning Sample cycles through one cycle.

F. IF sample functions properly, set Sample Mode to FLOW and observe one cycle to confirm proper function.

G. Refer to section D "Sample during HI or LOW pH" (ZO-102-010) for taking sample.

H. IF sampler does not operate, notify Facility Operations Shift Supervisor.

I. IF sampler does not operate, collect pH sample per section E or section F (ZO-102-010) with Environmental Cognizant Engineer and/or Facility Operations Shift Supervisor approval.

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WINDOW	COLOR	ALARM TITLE\ACTIVATION
9	WHITE	TITLE: Z-20 CRIB pH

REFERENCES: H-2-95148, 1-2 SCTY/SFGDS NMCCS PLAN ELEVATION & DETAIL
H-2-76854 EFD
H-2-76855 SH. 2 OF 5 Z-20 "CRIB EFFLUENT INST ARRAIGNMENT, WIRING & DETAILS

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WINDOW	COLOR	ALARM TITLE\ACTIVATION
10	BLANK	TITLE: BLANK
		REFERENCES:

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WINDOW	COLOR	ALARM TITLE\ACTIVATION
11	WHITE	TITLE: Flow In Drain FAH-236A.

ACTIVATION: HORN, LIGHT

RESPONSE:

A. Acknowledge alarm and proceed to Room 40 of 236-Z and look for solution on floor in containment basin.

B. IF spill is present, locate and stop source of leak to containment basin and respond to spill in Room 40 per ZO-170-318. Report all findings to supervision.

REFERENCES: H-2-95148, 1-2 SCTY/SFGDS NMCCS PLAN ELEVATION & DETAIL
H-2-77438
H-2-80524 "IEFD AMU MOD RM 40, 44 &DR COLLECTION"

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WINDOW	COLOR	ALARM TITLE\ACTIVATION
12	WHITE	TITLE: MALFUNCTION AMU TANKS LEVEL INST.
		ACTIVATION: NOT IN SERVICE
		REFERENCES: H-2-95148, 1-2 SCTY/SFGDS NMCCS PLAN ELEVATION & DETAIL

Attachment 4 - ROOM 104 PANEL BOARD RESPONSES
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WINDOW	COLOR	ALARM TITLE\ACTIVATION
13	WHITE	TITLE: RM 306A UPS FAILURE

ACTIVATION: HORN, LIGHT

RESPONSE:

A. This alarm originates from the UPS system in room 308 duct level. The alarm occurred due to loss of power from the battery side of the UPS system. An alarm might occur if the UPS system is placed in the bypass mode. There will be more information when security maintenance performs their next PM. When the UPS system is shut off at the switch on the UPS board, the alarm light will clear. There is a disconnect in the instrument shop and the main breaker is located in the 260 duct level along the south wall near the elevator. This breaker also feeds the 306A air conditioner.

B. Silence alarm and log in book.

C. Respond to UPS in 308 duct level. This will show any normalities. Verify system being fed with AC power. IF not check breakers and reset, if necessary.

D. Inform patrol of loss of computer.

E. Reference WHC-CM-5-8, Section 4.13

REFERENCES: H-2-95148, 1-2 SCTY/SFGDS NMCCS PLAN ELEVATION & DETAIL
WHC-CM-5-8, Section 4.13

Attachment 4 - ROOM 104 PANEL BOARD RESPONSES
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WINDOW	COLOR	ALARM TITLE\ACTIVATION
14	BLANK	TITLE: BLANK
		REFERENCES:

Attachment 4 - ROOM 104 PANEL BOARD RESPONSES
Page 17 of 18

WINDOW	COLOR	ALARM TITLE\ACTIVATION

15 WHITE

TITLE: 2735-Z Area Common Alarm

ACTIVATION: HORN, LIGHT

RESPONSE:

A. Acknowledge alarm then proceed to 2735-Z panel board located between the ANN and Nitric Acid bulk storage tanks.

B. Identify which light is lit on the panel board and respond per Appendix H - 2735-Z Panel Board Responses(lights are numbered from top to bottom).

Light #1 - HNO_3 Tank High Level
Light #2 - ANN Tank High Level
Light #3 - Inactive
Light #4 - Inactive
Light #5 - Catch Tank High Level
Light #6 - Catch Tank Drain Leg Moisture Detector
Light #7 - CCl_4 Tank High Level/Low Level
Low level shuts off pump.
INACTIVE
Light #8 - CCl_4 Tank Moisture in Pump Exhaust Air

C. Report all findings to supervision.

REFERENCES: H-2-95148, 1-2 SCTY/SFGDS NMCCS PLAN ELEVATION & DETAIL

Attachment 4 - ROOM 104 PANEL BOARD RESPONSES
Page 18 of 18

WINDOW	COLOR	ALARM TITLE\ACTIVATION
16	WHITE	TIME: Down Time Monitor AMU Tanks Alarm

ACTIVATION: HORN, LIGHT

RESPONSE:

A. NOT IN SERVICE

REFERENCES: H-2-95148, 1-2 SCTY/SFGDS NMCCS PLAN ELEVATION & DETAIL

Attachment 5 - ONCE-PER-SHIFT SURVEILLANCE (OUTSIDE) DATA SHEET

Page 1 of 2

Return to PFP management at 0700

	GRAVE	DAYS	SWING	COMMENTS
DATE				
TIME (Hr)				
241-Z AREA (OK / NOT OK)				
	GRAVE	DAYS	SWING	COMMENTS
241-Z				
241-ZA				
STRIP CHARTS FUNCTIONAL				
AGITATORS (ON / OFF)				
	GRAVE	DAYS	SWING	COMMENTS
D-4 WF >10 ON <10 OFF				
D-5 WF >10 ON <10 OFF				
D-7 WF >10 ON <10 OFF				
D-8 WF >10 ON <10 OFF				
D-9 TEMP (40-49°C or 104-120°F) OUT OF RANGE REFER TO TASK B				
SECONDARY CONTAINMENTS (DRY / WET)				
	GRAVE	DAYS	SWING	COMMENTS
TANK D-9				
2735-Z				
Operator Initials				
Supervisor Initials				

Attachment 5 - ONCE-PER-SHIFT SURVEILLANCE (OUTSIDE) DATA SHEET
Page 2 of 2

Return to PFP management at 0700

2735-Z AREA (OK / NOT OK)				
	GRAVE	DAYS	SWING	COMMENTS
HNO3 TANK LEVEL				
ANN TANK LEVEL				
ANN TANK TEMP COLOR OF PANEL LIGHTS BLUE-LOW TEMP WHITE-NORMAL RED-HIGH TEMP REFER TO TASK C				
RM. 104 (234-5Z BLDG.) AREA (OK / NOT OK)				
	GRAVE	DAYS	SWING	COMMENTS
RM. 104 PANEL				
OPERATOR'S PRINTED NAME				
OPERATOR'S FULL SIGNATURE				
SUPERVISOR'S PRINTED NAME				
SUPERVISOR'S FULL SIGNATURE				

NOTE - CIRCLE IN RED ALL OUT OF SPECIFICATIONS OR ABNORMAL READINGS.

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