

DATE: 08/18/00
TIME: 07:15:33

AMEREN/UE
DOCUMENT CONTROL SYSTEM
DOCUMENT TRANSMITTAL

50-483
PAGE: 50
ARDC8801

TRANSMITTAL NUMBER: 449227
TO CONTROL NUMBER: 338U
TITLE: OTHER
DEPT: NUCLEAR REGULATORY COMM.
LOCATION: USNRC - WASH DC
TRANSMITTAL DATE: 20000818

RETURN ACKNOWLEDGED TRANSMITTAL AND
SUPERSEDED DOCUMENTS (IF APPLICABLE) TO:
ADMINISTRATION RECORDS
AMEREN/UE
CALLAWAY PLANT
P.O. BOX 620
FULTON, MO 65251

TRAN	DOC			RET		ALT	ALT				
CODE	TYPE	DOCUMENT	NUMBER	REV	REV	MED	COPY	MED	COPY	AFFECTED	DOCUMENT
R	PROC	EIP-ZZ-00240		025	024	C	1				

ACKNOWLEDGED BY:

DATE:

A045

CALLAWAY PLANT
EMERGENCY PLAN IMPLEMENTING PROCEDURE
EIP-ZZ-00240
TECHNICAL SUPPORT CENTER OPERATIONS

RESPONSIBLE DEPARTMENT EMERGENCY PERPAREDNESS

PROCEDURE OWNER P. J. Sudnak

WRITTEN BY P. J. Sudnak

PREPARED BY P. J. Sudnak

APPROVED BY 

DATE ISSUED 8-18-00

This procedure contains the following:

Pages	<u>1</u>	through	<u>7</u>
Attachments	<u>1</u>	through	<u>9</u>
Tables	<u> </u>	through	<u> </u>
Figures	<u> </u>	through	<u> </u>
Appendices	<u> </u>	through	<u> </u>
Checkoff Lists	<u> </u>	through	<u> </u>

This procedure has checkoff list(s) maintained in the mainframe

Conversion of commitments to TRS reference/hidden text completed by Revision

ITS Commitments N/A Non-T/S Commitments 22

**ORIGINAL
for the NRC**

TABLE OF CONTENTS

<u>Section</u>		<u>Page Number</u>
1	PURPOSE AND SCOPE	1
2	RESPONSIBILITIES	1
3	PROCEDURE	4
3.1	TSC STARTUP	4
3.2	TSC OPERATION	4
3.3	TSC EVACUATION	4
3.4	EVENT CLOSEOUT	5
3.5	TSC SHUTDOWN	5
4	REFERENCES	6
5	RECORDS	7
Attachment 1	Emergency Coordinator Checklist	2 Pages
Attachment 2	Technical Assessment Coordinator (TAC) Checklist	5 Pages
Attachment 3	Operations Support Coordinator (OSC) Checklist.....	2 Pages
Attachment 4	Administrative (Admin.) Coordinator Checklist.....	3 Pages
Attachment 5	Health Physics (HP) Coordinator Checklist.....	7 Pages
Attachment 6	TSC (ENS) Communicator Checklist	1 Page
Attachment 7	Chemistry Coordinator Checklist.....	3 Pages
Attachment 8	Security Coordinator (SC) Checklist.....	2 Pages
Attachment 9	Emergency Team Coordinator (ETC) Checklist.....	2 Pages

TECHNICAL SUPPORT CENTER OPERATIONS

1 PURPOSE AND SCOPE

- 1.1 Establishes responsibilities for the Emergency Response Organization, provides guidance and checklists for each coordinator in the Technical Support Center (TSC) during emergency operation of the TSC, including the Operations Support Area (SA).

2 RESPONSIBILITIES

2.1 EMERGENCY COORDINATOR (EC)

- 2.1.1 The Emergency Coordinator has overall responsibility for TSC operations.

2.2 TECHNICAL ASSESSMENT COORDINATOR (TAC)

- 2.2.1 The TAC reports to the EC. The TAC is responsible for directing technical analysis of plant conditions to formulate EAL'S and emergency mitigating recommendations to the EC. Responsible for coordinating Protective Action Recommendations (PAR'S) consistent with plant conditions with the Recovery Manager and Dose Assessment Coordinator in the EOF prior to the arrival of the Protective Measures Coordinator (PMC) and Plant Assessment Coordinator (PAC). The TAC also evaluates Severe Accident Management Guidelines (SAMG's). (COMN 3333)

2.3 ADMINISTRATIVE COORDINATOR (AC)

- 2.3.1 The AC reports to the Emergency Coordinator in the TSC. The AC is responsible for ensuring the completion of the Admin Coordinator checklists. The AC is also responsible for ensuring that technical documents are available, providing food and beverage needs, and ensuring continuity of resources for the On-Site Emergency Response Organization. (COMN 3341)

2.4 TSC (ENS) COMMUNICATOR (TC)

- 2.4.1 The TSC Communicator reports to the EC. He is responsible for manning the ENS Communication Line and relaying technical information to the NRC.

- 2.5 HEALTH PHYSICS COORDINATOR (HPC)
 - 2.5.1 The HPC reports to the emergency coordinator. The HPC is responsible for assessing on-site radiological conditions, reviewing radiological EAL's, and directing in-plant radiation protection activities. (COMN 3331)
- 2.6 OPERATIONS SUPPORT COORDINATOR (OSC)
 - 2.6.1 The OSC reports to the Emergency Coordinator in the TSC. The OSC assesses plant information from the control room and technical support staff to establish emergency team priorities and direct operation support activities. (COMN 3336)
- 2.7 SECURITY COORDINATOR (SC)
 - 2.7.1 The SC reports to the Emergency Coordinator in the TSC. The SC establishes communications with the Shift Security Supervisor (SSS), assumes overall plant security responsibility, and directs the security force through the SSS. These responsibilities include access control, personnel evacuation and accountability, coordination of any off-site law enforcement agency involvement, and normal and emergency security activities in accordance with the security plan. (COMN 3347)
- 2.8 CHEMISTRY COORDINATOR (CC)
 - 2.8.1 The CC reports to the Technical Assessment Coordinator, and assumes responsibility for plant chemistry operations from the shift supervisor. The Chemistry Coordinator directs primary and secondary chemistry operations, (including post-accident chemistry) and non-radiological environmental monitoring. The CC ensures that the TAC is aware of chemistry activities and provides input to the TSC engineering staff in assessing plant chemistry problems. The CC directs the Rad/Chem Technicians - Chemistry. (COMN 3349)
- 2.9 EMERGENCY TEAM COORDINATOR (ETC)
 - 2.9.1 The ETCs report to the OSC and assist in formation, briefing, direction, and tracking of emergency teams. The Fire Brigade and MERT continue to report to the Shift Supervisor in the Control Room.

2.10 STORES PERSONNEL

2.10.1 A member of the Materials Department reports to the OSC and is responsible for obtaining parts, supplies, and materials when needed.

2.11 OTHER TSC STAFF MEMBERS

2.11.1 Each TSC coordinator that arrives at the TSC is responsible for starting their Checklist. If the TSC is without power, they should start the TSC diesel per **OOA-UB-EPG70** if it is within their capability.

2.11.2 All personnel are responsible for walking through the portal monitor and signing in on appropriate sign-in boards as they enter the TSC during a radiological emergency or drill. (**SOS 97-1061**)

<p><u>NOTE:</u> The portal monitor should be response checked as soon as possible by the Health Physics group</p>

2.11.3 Personnel that leave the Facility should check out with the Security Officer. If a release has occurred or is likely to occur a HP brief is required (**SOS 97-1061**).

2.11.4 The following TSC coordinators are responsible for their attachment to this procedure.

- a) Emergency Coordinator (EC)
- b) Technical Assessment Coordinator (TAC)
- c) Operations Support Coordinator (OSC)
- d) Administrative (Admin) Coordinator (AC)
- e) Health Physics (HP) Coordinator (HPC)
- f) TSC (ENS) Communicator (TC)
- g) Chemistry Coordinator (CC)
- h) Security Coordinator (SC)
- i) Emergency Team Coordinator (ETC)

3 PROCEDURE

3.1 TSC STARTUP

3.1.1 Each TSC staff member that arrives at the TSC is responsible for signing in with name and badge number, assisting in the facility startup and completing their checklist.

3.2 TSC OPERATION

3.2.1 The Emergency Coordinator ensures that Attachment 1, Emergency Coordinators Checklist, is used as a guide.

3.2.1.1 The EC should periodically discuss priorities, habitability of the facility and Site radiological conditions with the HPC. If evacuation of the TSC becomes necessary refer to Section 3.3.

3.2.1.2 The EC should ensure TSC personnel receive a periodic plant status update, including priorities, any change to facility habitability or Site radiological conditions.

3.2.2 Upon arrival at the TSC, each TSC coordinator is responsible for starting their Checklist.

3.2.3 If the TSC is without power they should start the TSC diesel per **OOA-UB-EPG70** if it is within their capability.

3.3 TSC EVACUATION

3.3.1 Evacuation of the facility should be considered:

- a) When direct dose rates reach or exceed 5,000 mrem/hour, or
- b) When cumulative dose reaches or exceeds 4,400 mrem, or
- c) When iodine concentration reaches or exceeds 1.9 E-5 $\mu\text{Ci/ml}$.

3.3.2 Evacuation may be required if power is unavailable or the ventilation system fails.

- 3.3.3 Coordinators should go to the facilities as indicated depending on their availability.
- a) Emergency Coordinator (EC) – to Control Room.
 - b) Technical Assessment Coordinator (TAC) – to Field Office if habitable then Control Room.
 - c) Operations Support Coordinator (OSC) – to Field Office if habitable then Control Room.
 - d) Administrative (Admin) Coordinator (AC) – to EOF.
 - e) Health Physics (HP) Coordinator (HPC) – to Field Office if habitable then Control Room.
 - f) TSC (ENS) Communicator (TC) – to Control Room.
 - g) Chemistry Coordinator (CC) – to EOF.
 - h) Security Coordinator (SC) – to EOF.
- 3.3.4 Coordinators reporting to the control room should evaluate minimum staff required to go with them and assign others to the EOF.
- 3.3.4.1 The OSC should take the Emergency Team Coordinators and minimum number of team members.
- 3.4 EVENT CLOSEOUT
- 3.4.1 If the emergency conditions allow the initiation of recovery operations or the closeout of the event, the Emergency Coordinator should contact the Recovery Manager (RM) and discuss implementation of **EIP-ZZ-00260**, Event Closeout/Recovery.
- 3.4.2 TSC personnel continue activities in accordance with this procedure until turned over to the Recovery Organization or closeout is declared.
- 3.5 TSC SHUTDOWN
- 3.5.1 If the TSC is to be shut down, direct the Coordinators to initiate Termination and Shutdown section of their Checklist.
- 3.5.2 The Emergency Coordinator should make preparations with the Shift Supervisor to transfer remaining responsibilities to the Control Room.

- 3.5.3 The Administrative Coordinator assesses the status of the TSC and ensures the following actions have been completed:
 - 3.5.3.1 All functional equipment/supplies have been restored to startup conditions.
 - 3.5.3.2 The entire TSC staff has been relieved of all duties associated with the operation of the TSC.
 - 3.5.3.3 All records generated during the operation of the TSC have been collected.
- 3.5.4 After shifting responsibilities, inform the Shift Supervisor and Recovery Manager that the TSC is shut down.

4 REFERENCES

- 4.1 Callaway Plant Radiological Emergency Response Plan (RERP)
- 4.2 **EIP-ZZ-00101**, Classification of Emergencies
- 4.3 **EIP-ZZ-00102**, Emergency Implementing Actions
- 4.4 **EIP-ZZ-00212**, Protective Action Recommendation
- 4.5 **EIP-ZZ-00213**, Technical Assessment
- 4.6 **EIP-ZZ-00217**, Emergency Response Data System Activation
- 4.7 **EIP-ZZ-00220**, Emergency Team Formation
- 4.8 **EIP-ZZ-00230**, Accountability
- 4.9 **EIP-ZZ-00260**, Event Closeout/Recovery
- 4.10 **OTN-ZZ-00001**, TSC Building HVAC System.
- 4.11 HPCI 96-007, Emergency Response Facility Habitability Guidelines
- 4.12 Severe Accident Management Guidelines

5 RECORDS

NOTE: All Facility Logs, SENTRY or MAGNEM screen prints, office memos, notes, etc. should be attached to the Coordinator Checklist and turned in to the Admin Coordinator and/or Emergency Preparedness (EP).

- 5.1 QA RECORDS
- 5.1.1 Attachment 1, Emergency Coordinator Checklist (File K171.0010)
 - 5.1.2 Attachment 2, Technical Assessment Coordinator (TAC) Checklist (File K171.0010)
 - 5.1.3 Attachment 3, Operations Support Coordinator (OSC) Checklist (File K171.0010)
 - 5.1.4 Attachment 4, Administrative (Admin) Coordinator Checklist (File K171.0010)
 - 5.1.5 Attachment 5, Health Physics (HP) Coordinator Checklist (File K171.0010)
 - 5.1.6 Attachment 6, TSC (ENS) Communicator Checklist (File K171.0010)
 - 5.1.7 Attachment 7, Chemistry Coordinator Checklist (File K171.0010)
 - 5.1.8 Attachment 8, Security Coordinator (SC) Checklist (File K171.0010)
 - 5.1.9 Attachment 9, Emergency Team Coordinator (ETC) Checklist (File K171.0010)

EMERGENCY COORDINATOR CHECKLIST

Date _____ Time: _____

<u>INITIATION</u>	
<input type="checkbox"/> 1.	<input type="checkbox"/> Card in on the accountability card reader. <input type="checkbox"/> Sign in on Facility Sign-in board. <input type="checkbox"/> Obtain the EC package. <input type="checkbox"/> Clip on Emergency Coordinator badge.
<input type="checkbox"/> 2.	Initiate Log Sheet.
<input type="checkbox"/> 3.	Receive briefing by: <ul style="list-style-type: none"> <input type="checkbox"/> Technical Assessment Coordinator. (EAL Monitoring). <input type="checkbox"/> Shift Supervisor and relieve him as Emergency Coordinator.
<input type="checkbox"/> 4.	Announce assumption of duties to TSC staff.
<input type="checkbox"/> 5.	Review plant/group status with TSC Coordinators: <ul style="list-style-type: none"> <input type="checkbox"/> Administrative. <input type="checkbox"/> TSC (ENS) Communicator. <input type="checkbox"/> Health Physics. <input type="checkbox"/> Operations Support/Support Area. <input type="checkbox"/> Technical Assessment. <input type="checkbox"/> Chemistry. <input type="checkbox"/> Security.
<input type="checkbox"/> 6.	Ensure the following responsibilities have been transferred from Control Room. <ul style="list-style-type: none"> <input type="checkbox"/> <u>EAL MONITORING.</u> <input type="checkbox"/> <u>ENS COMMUNICATION.</u> <input type="checkbox"/> <u>PAR MONITORING</u> (if the RM position in the EOF is not manned). <input type="checkbox"/> <u>SAMG Implementation</u> (if applicable).
<input type="checkbox"/> 7.	Make a site-wide announcement that, "The TSC has accepted emergency responsibilities from the Control Room."
<input type="checkbox"/> 8.	Announce the following: "TSC Coordinators assess your manpower needs and request additional personnel from the Admin Coordinator as needed. All excess personnel should assemble in the Operations Support Area and await further instructions."
<input type="checkbox"/> 9.	After assessing manpower needs, instruct all excess personnel to return home or return to work (ALERT) and remain near their phones. Personnel sent home should remain fit for duty and will be contacted concerning shift relief and turnover.

<u>OPERATIONS</u>	
(*) Steps are items that <i>MUST</i> be frequently reviewed	
<input type="checkbox"/> *1.	Periodically update TSC personnel including priorities, habitability status and Site radiological conditions. Note: Priorities should be listed on the Priority Status Board
<input type="checkbox"/> *2.	Continue activities per EIP-ZZ-00102, Emergency Implementing Actions.
<input type="checkbox"/> *3.	Perform periodic briefs with the below individuals concerning on-site activities: <ul style="list-style-type: none"> <input type="checkbox"/> TSC Coordinators. <input type="checkbox"/> RM. <input type="checkbox"/> SS. <input type="checkbox"/> On site NRC personnel.

EMERGENCY COORDINATOR CHECKLIST

<u>TURNOVER</u>	
<input type="checkbox"/> 1.	Incoming Emergency Coordinator briefed on TSC status and log reviewed.
<input type="checkbox"/> 2.	Recovery Manager and Shift Supervisor informed.
<input type="checkbox"/> 3.	Turnover announced to TSC staff.
<input type="checkbox"/> 4.	Turnover complete _____ Time.
<input type="checkbox"/> 5.	Turnover logged.
<input type="checkbox"/> 6.	Initiate a new checklist CA# 259.

<u>RECOVERY</u>	
<input type="checkbox"/> 1.	Declare Recovery per EIP-ZZ-00260, Event Closeout/Recovery (if applicable). <ul style="list-style-type: none"> <input type="checkbox"/> Recovery Manager contacted. <input type="checkbox"/> Shift Supervisor contacted. <input type="checkbox"/> Recovery organization established. <input type="checkbox"/> Make site wide announcement.

<u>TERMINATION and SHUTDOWN</u>	
<input type="checkbox"/> 1.	Shutdown TSC (if required). <ul style="list-style-type: none"> <input type="checkbox"/> Coordinators directed to shutdown TSC _____ Time. <input type="checkbox"/> Make site wide announcement.

Emergency Coordinator Signature

TECHNICAL ASSESSMENT COORDINATOR (TAC) CHECKLIST

<input type="checkbox"/> 15	Ensure the Facility clock is synchronized to the plant computer or control room clock
<input type="checkbox"/> 16.	Technical Assessment Group ready to accept responsibilities. Log and inform the Emergency Coordinator.
<input type="checkbox"/> 17.	Discuss any additional support or supplies required with the Admin Coordinator.

OPERATIONS

<input type="checkbox"/> *1.	Engineering Personnel that leave the Facility should check out with the Security Officer. If a release has occurred or is likely to occur a HP brief is required (SOS 97-1061).
<input type="checkbox"/> *2.	If personnel are dispatched to another facility a follow up call should be initiated in 15-20 minutes to ensure they arrive safely. SOS 99-1904.
<input type="checkbox"/> *3.	To obtain Plant Status Boards printout from the Plant Computer terminals (not PCs), Cancel , enter FF ; select the TSC printer, then F1 . To use the color printer depress Ctrl & PF20 simultaneously.
<input type="checkbox"/> *4.	Toggle between PSB1 and PSB2 using the Blue TOUCH areas on the Plant Computer terminals or keyboard commands on the PCs. To obtain area radiation monitors type ARM or PCD - Return .
<input type="checkbox"/> *5.	Inform the EC of any changes in EAL's or of any conditions or trends, that could cause a change in EAL's (i.e. radiation levels, releases, etc.).
<input type="checkbox"/> *6.	Plant Computer turn on codes <ul style="list-style-type: none"> <input type="checkbox"/> ARM Area Radiation Monitors <input type="checkbox"/> PCD Dose Assessment general overview including MET data, Rad data and flow status. <input type="checkbox"/> PCDU Dose Assessment for the Unit Vent, Containment and Aux Building releases. <input type="checkbox"/> PCDRS Dose Assessment for Radwaste and Steam releases.
<input type="checkbox"/> *7.	Upon entry into the Recirculation Phase of RHR perform the following: <ul style="list-style-type: none"> <input type="checkbox"/> Direct the Chemistry Coordinator to obtain 12 hour RWST samples per CSP-ZZ-07540. <input type="checkbox"/> Inform HPC of probable increase in Auxiliary Building. <input type="checkbox"/> Inform HPC of possible valve leakage back to RWST which could change dose and release rates.

TURNOVER

<input type="checkbox"/> 1.	Incoming Technical Assessment Coordinator briefed on TSC status and review log.
<input type="checkbox"/> 2.	Emergency Coordinator informed.
<input type="checkbox"/> 3.	Turnover announced to Technical Assessment staff.
<input type="checkbox"/> 5.	Turnover complete _____ Time.
<input type="checkbox"/> 6.	Turnover logged.
<input type="checkbox"/> 7.	Initiate a new checklist CA# 261.

RECOVERY

<input type="checkbox"/> 1.	Assess the following: <ul style="list-style-type: none"> <input type="checkbox"/> a. Plant equipment status <input type="checkbox"/> b. Accident assessment <input type="checkbox"/> c. Control of radiological releases <input type="checkbox"/> d. Ability to resume normal operations
<input type="checkbox"/> 2.	Continue Technical Assessment activities until directed otherwise by the Emergency Coordinator or RM.

TECHNICAL ASSESSMENT COORDINATOR (TAC) CHECKLIST

<u>TERMINATION and SHUTDOWN</u>	
<input type="checkbox"/> 1.	When directed by the Emergency Coordinator, inform Tech Assessment staff of deactivation.
<input type="checkbox"/> 2.	Ensure equipment and supplies are deactivated and/or stored.
<input type="checkbox"/> 3.	Ensure documents are collected and given to the Admin Coordinator.
<input type="checkbox"/> 4.	Restore PC UPS power supply to LINE.

Technical Assessment Coordinator Signature

TECHNICAL ASSESSMENT COORDINATOR (TAC) CHECKLIST**PLANT COMPUTER GUIDE****COLOR AND DESCRIPTION OF COMPUTER POINT QUALITY CODES**

The Plant Computer System (PCS) assigns a "Data Quality Code" to each field input and calculated variable at the time the point is processed. These quality codes are determined by a series of checks/tests performed during both input-data validation and point processing. A list of the quality codes follows, which is ordered by severity:

1. **UNK** (Blue) – Unknown; point not yet processed. If a point is deleted from processing when SAIPMS is first activated, "UNK" quality code is assigned. This quality code is also displayed for calculated or derived points which have not yet cycled through their first processing period.
2. **DEL** (Blue) – Point has been deleted from processing. If a point was active when the SAIPMS software was activated, and was subsequently disabled from processing, the quality code "DEL" is assigned and no further engineering unit conversion is attempted.
3. **NCAL** (Blue) – Derived point not calculable. This quality code is assigned when it has been determined that insufficient inputs exist to accurately perform the associated equation or calculation.
4. **INVL** (Blue) – Invalid code is generated when a point's defined hardware channel address has not been selected, does not exist, or cannot be accessed. This usually indicates either an invalid hardware channel address, or a failed hardware component. For example, if a defined card slot address does not contain a card, all points assigned to that card are tagged as INVL. Also, if a multiplexer has either failed or been taken offline, all points assigned to that multiplexer are tagged as INVL.
5. **RDER** (Blue) – Sensor Read Error code is generated when no test return/input is received for a point in response to a scan command/output to a valid hardware channel address. This usually indicates a faulty sensor or a multiplexer communication problem. Whenever a quality code of RDER is observed, a hardware error condition exists.
6. **OTC** (Blue) – Open thermocouple.
7. **BAD** (Blue) – The BAD (Bad Scanned Value) code is generated when the "corrected" scanned value (i.e. adjusted for A/D gain and zero-drift error) exceeds the sensor range as defined by a point's "SENSOR LIMIT LOW" and "SENSOR LIMIT HIGH" values in the database.
8. **HRL** (Blue) – Point exceeds high reasonable limits. This condition is tested after engineering unit conversion and if the value exceeds the defined High Reasonable limit, a quality code of "HRL" is assigned.
9. **LRL** (Blue) – Point exceeds low reasonable limits. This condition is tested after engineering unit conversion and if the value exceeds the defined Low Reasonable limit, a quality code of "LRL" is assigned.
10. **REDU** (Cyan) – Point fails redundant point check. If a point has a defined Redundant Point and its current value does not match the defined point within the specified tolerance, it is assigned a quality code of "REDU".

TECHNICAL ASSESSMENT COORDINATOR (TAC) CHECKLIST**PLANT COMPUTER GUIDE**

11. **HIHI**(Red) – Point above high alarm limit. This condition is met when a point's current value has exceeded the defined High Alarm limit, and is assigned a quality code of "HIHI".
12. **LOLO** (Red) – Point below low alarm limit. This condition is met when a point's current value is less than the defined LOW Alarm limit, and is assigned a quality code of "LOLO".
13. **HALM** (Yellow) – Point above high warning limit. This condition is met when a point's current value has exceeded the defined High Operating limit, and is assigned a quality code of "HALM".
14. **LALM** (Yellow) – Point below low warning limit. This condition is met when a point's current value is below the defined Low Operating limit, and is assigned a quality code of "LALM".
15. **ALM** (Red) – State/Change-of-State alarm. Any logical-value point may be alarm monitored against either a defined logical state (i.e., "TRUE", or "FALSE"), or a defined change-of-state condition (i.e., "TRUE" to "FALSE", "FALSE" to "TRUE", or either state change). A quality code of "ALM" is assigned if the point meets any of the above conditions.
16. **SUB** (Cyan) – Substitute value inserted for point. If a substitute value has been entered for a point, the point is assigned a quality code of "SUB", and no further alarm checks or engineering unit conversions are made.
17. **DALM** (Cyan) – Point is deleted from alarm checks. If a point is currently disabled from alarm processing, it is assigned a quality code of "DALM", and no further alarm checks are made.
18. **INHB** (Green) – Point is inhibited from alarm by cut-out point. If a point has an assigned cut-out point, and the current state of the cut-out point matches the specified alarm inhibit state, the point is assigned a quality code of "INHB", and no alarm transaction is generated. While inhibited, the point value WILL continue to update, only the alarm condition is inhibited.
19. **GOOD** (Green) – Point passed all the above checks. The quality code "GOOD" indicates that all defined alarm conditions, states, or values have not been exceeded or met.

OPERATIONS SUPPORT COORDINATOR (OSC) CHECKLIST

<u>TURNOVER</u>	
<input type="checkbox"/> 1.	Incoming OSC Coordinator briefed on OSC status and review log.
<input type="checkbox"/> 2.	Notify the Emergency Team Coordinators of the turnover.
<input type="checkbox"/> 3.	Notify the Control Room/TSC Liaison of the turnover.
<input type="checkbox"/> 4.	Emergency Coordinator informed.
<input type="checkbox"/> 5.	Turnover complete _____ Time.
<input type="checkbox"/> 6.	Turnover logged.
<input type="checkbox"/> 7.	Initiate a new checklist CA# 262.

<u>RECOVERY</u>	
<input type="checkbox"/> 1.	Assess the following: <ul style="list-style-type: none"><input type="checkbox"/> Plant equipment status.<input type="checkbox"/> Emergency team status. All Emergency Team work needs to be completed, turned over to Recovery or normal maintenance.<input type="checkbox"/> Ability to resume normal operations
<input type="checkbox"/> 2.	Continue Operations Support activities until directed otherwise by the Emergency Coordinator or RM.

<u>TERMINATION and SHUTDOWN</u>	
<input type="checkbox"/> 1.	Upon direction of the Emergency Coordinator/Administrative Coordinator, contact the Emergency Team Coordinator and inform of deactivation
<input type="checkbox"/> 2.	Ensure OSC/SA equipment and supplies are deactivated and/or stored.
<input type="checkbox"/> 3.	Ensure documents are collected and given to the Admin Coordinator.

Operations Support Coordinator Signature

ADMINISTRATIVE (ADMIN) COORDINATOR CHECKLIST

Date _____ Time: _____

<u>INITIATION</u>	
<input type="checkbox"/> 1.	<input type="checkbox"/> Card in on the accountability card reader. <input type="checkbox"/> Sign in on Facility Sign-in board. <input type="checkbox"/> Obtain the Admin Coordinators package. <input type="checkbox"/> Clip on the Admin Coordinators badge.
<input type="checkbox"/> 2.	Inform Emergency Coordinator and Technical Assessment Coordinator of your presence.
<input type="checkbox"/> 3.	Initiate Log Sheet.

<u>OPERATIONS (SOS 99-3558)</u>	
(*) Steps or items that must be frequently reviewed	
<input type="checkbox"/> 1.	Equipment availability and operation. Check on: <ul style="list-style-type: none"> <input type="checkbox"/> Personal Computers (PC) <input type="checkbox"/> Telephones <input type="checkbox"/> Copier <input type="checkbox"/> Fax <input type="checkbox"/> Reader/Printer <input type="checkbox"/> Print Plotter
<input type="checkbox"/> 2.	Status TSC Coordinators and keep the EC informed periodically until all positions are filled. <ul style="list-style-type: none"> <input type="checkbox"/> Technical Assessment Coordinator <input type="checkbox"/> Health Physics Coordinator <input type="checkbox"/> Operations Support Coordinator <input type="checkbox"/> TSC (ENS) Communicator <input type="checkbox"/> Chemistry Coordinator <input type="checkbox"/> Security Coordinator
<input type="checkbox"/> *3.	Check status of TSC emergency responders per EIP-ZZ-00200 Attachment 2. DO NOT delete messages until all positions are filled. Distribute copies of Attachment 2 to the coordinators periodically until all positions are filled. Paging or calling using the Emergency phone directory may be required. <ul style="list-style-type: none"> <input type="checkbox"/> Call 64777 to obtain Audix. <input type="checkbox"/> Enter 68400 and the # sign. <input type="checkbox"/> Enter the password which is only the # sign. <input type="checkbox"/> Follow the instructions to listen to the new messages and complete attachment 2.
<input type="checkbox"/> 4.	Personnel Assessment Admin. Support Personnel (call in as necessary) <ul style="list-style-type: none"> <input type="checkbox"/> _____ (name) <u>One NIS Support person should be considered.</u> <input type="checkbox"/> _____ (name) <u>One person to callout/canvass additional support.</u> <input type="checkbox"/> _____ (name) <input type="checkbox"/> _____ (name) <input type="checkbox"/> _____ (name) Clerical Support Personnel (call in as necessary) (SOS 99-3558) <ul style="list-style-type: none"> <input type="checkbox"/> _____ (name) <u>One person for the RM in the EOF.</u> <input type="checkbox"/> _____ (name) <u>One person for the LSC in the EOF.</u> <input type="checkbox"/> _____ (name) <u>One person for the EC in the TSC.</u>
<input type="checkbox"/> *5.	<input type="checkbox"/> Monitor the Declaration Status Board. <input type="checkbox"/> Ensure the Declaration Status Board is current with the Emergency Classification announcements. (SOS 99-3558)

ADMINISTRATIVE (ADMIN) COORDINATOR CHECKLIST

<input type="checkbox"/>	*6.	Personnel that leave the Facility should check out with the Security Officer. If a release has occurred or is likely to occur a HP brief is required (SOS 97-1061).
<input type="checkbox"/>	*7.	If personnel are dispatched to another facility a follow up call should be initiated in 15-20 minutes to ensure they arrive safely. (SOS 99-1904)
<input type="checkbox"/>	*8.	<p>Ensure the availability of the following administrative services:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Typing, Word Processing <input type="checkbox"/> Copying, Reproduction <input type="checkbox"/> Fax <input type="checkbox"/> Document control <input type="checkbox"/> Drawings <input type="checkbox"/> Message and mail Delivery <input type="checkbox"/> Telephone Repair and Installation <input type="checkbox"/> Radio Repair (Ameren Telecom.) <input type="checkbox"/> _____ <input type="checkbox"/> _____
<input type="checkbox"/>	*9.	<p>If operations become or have the potential to become long term, coordinate with the Logistics Support Coordinator (LSC) in the EOF to address the following items for site personnel.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Contact Security for number of personnel inside the protected area. (SOS 99-3558) <input type="checkbox"/> Meals ordered and scheduled for the entire organization; personnel informed of meal times and locations. <input type="checkbox"/> Sleeping space arranged for emergency personnel: personnel informed as to location. <input type="checkbox"/> Shift schedule prepared for emergency personnel: appropriate personnel notified. (Use the sign in board and Emergency Telephone Directory to make up roster.) <input type="checkbox"/> Janitorial/waste disposal services arrangements made.
<input type="checkbox"/>	*10.	<p>Requests for additional vendor support personnel are to be coordinated with the Logistics Support Coordinator in the EOF.</p> <p>Obtain the following information from the Logistics Support Coordinator:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Name(s) of personnel <input type="checkbox"/> Social Security Number <input type="checkbox"/> Work space requirements <input type="checkbox"/> Estimated time of arrival <p>Contact:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Supervisor Admin, Access Control and arrange for plant access as required. <input type="checkbox"/> Plant helper group to set up desk etc., as required.
<input type="checkbox"/>	*11.	<p>Coordinate requests for additional equipment with the Logistics Support Coordinator in the EOF.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Obtain the information from the requesting organization and supply it to the Logistics Support Coordinator: <input type="checkbox"/> Explicit equipment requirements in writing <input type="checkbox"/> Amount needed <input type="checkbox"/> Delivery location <input type="checkbox"/> Person on site to contact
<input type="checkbox"/>	*12.	Contact the Logistical Support Coordinator in the EOF and coordinate to provide Administrative Support to the entire organization.
<input type="checkbox"/>	*13.	<p>In the event of an accident or illness perform the following: (<i>Note: DO NOT release the individual's name.</i>) Call the control room (CR/TSC Liaison via OSC) and obtain the following. (SOS 99-3558)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Nature of injury or illness. <input type="checkbox"/> Contaminated? <input type="checkbox"/> Transported offsite to doctor, hospital etc. <input type="checkbox"/> If the incident may attract media attention call the JPIC Administrator or Coordinator and supply them with the information.

ADMINISTRATIVE (ADMIN) COORDINATOR CHECKLIST

<u>TURNOVER</u>	
<input type="checkbox"/> 1.	Brief the incoming Admin. Coordinator of the status of administrative activities and review log.
<input type="checkbox"/> 2.	Notify the Admin. and clerical staff of the turnover.
<input type="checkbox"/> 3.	Notify the Emergency Coordinator turnover complete.
<input type="checkbox"/> 4.	Turnover complete _____ Time.
<input type="checkbox"/> 5.	Turnover logged.
<input type="checkbox"/> 6.	Initiate a new Checklist CA# 263.

<u>RECOVERY</u>	
<input type="checkbox"/> 1.	Continue Administrative activities until directed otherwise by the Emergency Coordinator or RM.

<u>TERMINATION and SHUTDOWN</u>	
<input type="checkbox"/> 1.	Upon direction of the Emergency Coordinator, begin terminating operation as follows <input type="checkbox"/> Responsibilities transferred to the Control Room. <input type="checkbox"/> All functional equipment/supplies have been restored to startup conditions. <input type="checkbox"/> Records collected, and forwarded to Emergency Preparedness Department. <input type="checkbox"/> Staff relieved of TSC duties.
<input type="checkbox"/> 2.	Control Room informed of TSC shutdown.
<input type="checkbox"/> 3.	TSC shut down Time _____.

Administrative Coordinator Signature

HEALTH PHYSICS (HP) COORDINATOR CHECKLIST

Date _____ Time: _____

<u>INITIATION</u>	
<input type="checkbox"/> 1.	<input type="checkbox"/> Card in on the accountability card reader. <input type="checkbox"/> Sign in on Facility Sign-in board. <input type="checkbox"/> Obtain the Health Physics Coordinators package. <input type="checkbox"/> Clip on the Health Physics Coordinators badge.
<input type="checkbox"/> 2.	Inform Emergency Coordinator and Admin. Coordinator of your presence.
<input type="checkbox"/> 3.	Initiate Log Sheet.
<input type="checkbox"/> 4.	Shift the HPC Plant Computer power supply to the UPS position.
<input type="checkbox"/> 5.	Personnel Assessment On Shift: <input type="checkbox"/> _____ (name) HP Ops Shift Technician (HPOPS) . Obtain Plant status and radiological concerns. Status setup of Control Room / Field Office in accordance with EIP-ZZ-00102 , Attachment 2. HPOPS Tech to provide HP coverage for On Shift personnel as directed by Shift Supervisor. <input type="checkbox"/> _____ (name) HP Tech Support Technician (HPTS) . Obtain Plant, radiological release, meteorological, and Protective Action Recommendation status from the HPTS Tech performing dose assessment.
<input type="checkbox"/> 6.	OSA Responders NOTE: Minimum 14 R/C Support Personnel required, (one MUST be a Chemistry Tech.) Assign personnel as they arrive to the TSC based on priorities, <u>not</u> as listed, using the below guidance.
1. _____ 2. _____	<input type="checkbox"/> Assign 2 R/C Support Personnel to FMTs. Request Drivers from the OSC. Brief the teams and drivers in accordance with EIP-ZZ-00211 . (HP Tech Support preferred).
3. _____ 4. _____	<input type="checkbox"/> Assign 2 R/C Support Personnel to the EOF for Dose Assessment Staff and FMT Communicator. Brief with FMTs if personnel are available, but do not delay dispatching. (RW Preferred).
5. _____	<input type="checkbox"/> Assign R/C Support Personnel to maintain Habitability of TSC per Initiation Step 8 and Operation Step 10 of HPC Checklist. Direct R/C Tech to conduct HP briefs and provide dosimetry for personnel leaving the facility that are not assigned to Emergency Teams (as needed). (HP Ops. preferred).
6. _____	<input type="checkbox"/> Assign R/C Support Personnel to monitor Plant Computer Screens, maintain Facility Log, and answer phones / radio. Initiate FF Logs and update HPC on any changes approx. every 15 minutes. Wind speed and wind direction should be closely monitored along with In Plant radiological conditions. (HP Ops. preferred).
7. _____ 8. _____ 9. _____ 10. _____	<input type="checkbox"/> Assign R/C Support Personnel to the report directly to the OSC to support Radiological Briefing and Emergency Teams. Have R/C Techs response check portable instruments and prepare equipment and supplies. All prepared radiological briefings should be reviewed with HPC prior to conducting brief of Emergency Team. (HP Ops. preferred).
11. _____	<input type="checkbox"/> Assign R/C Support Personnel to perform Onsite survey of plume if a release is suspected or in progress to quantify release. RO2 open / closed readings should be used. (HP Ops. preferred).

HEALTH PHYSICS (HP) COORDINATOR CHECKLIST

12. _____	<input type="checkbox"/> Assign Chemistry Support Personnel to the Chemistry Coordinator (if needed).
13. _____	<input type="checkbox"/> Assign R/C Support Personnel to communicate with the NRC via the HPN line (if requested from NRC). (HP Ops. preferred).
14. _____	<input type="checkbox"/> Assign R/C Support Personnel to monitor habitability of MAF, Field Office, HPAC, and Control Room as needed. (HP Ops. preferred).
<input type="checkbox"/> 7.	Contact Dose Assessment Coordinator (DAC) at EOF (ext. 64999): <input type="checkbox"/> Inform DAC of FMT, Dose Assessment Staff, and FMT Communicator deployment status.
<input type="checkbox"/> 8.	Establish Radiological Habitability Controls in the TSC: <input type="checkbox"/> Close front door to vestibule and back hallway door from support area. <input type="checkbox"/> Portal Monitor energized and response checked. Incoming traffic directed through portal monitor. <input type="checkbox"/> Set up a frisking station using a model 177 Rate Meter, as needed, to backup the portal monitor. <input type="checkbox"/> AMS 3 energized and source checked. <input type="checkbox"/> Control Dosimetry placed at HPC Desk.
<input type="checkbox"/> 9.	HP Group ready for responsibilities at _____ Time. (Also make log entry).
<input type="checkbox"/> 10.	Discuss any additional manpower support or supplies required with the Admin. Coordinator.
<input type="checkbox"/> 11.	Notify Emergency Coordinator that HP is ready for operation and habitability in the TSC is established.

OPERATIONS

(*) Steps are items that must be frequently reviewed.

<input type="checkbox"/> *1.	Make Facility Announcement that "All personnel leaving the TSC should check out with the Security Officer prior to leaving the facility." If a release is in progress or anticipated announce "an HP brief will also be required." NOTE: If a release is in progress or anticipated, ensure all personnel dispatched from the TSC are issued Electronic Dosimeters and dose is tracked. The Security Officer will verify HP briefs prior to exit.
<input type="checkbox"/> *2.	If personnel are dispatched to another facility a follow up call should be initiated in 15-20 minutes to ensure they arrive safely. SOS 99-1904.
<input type="checkbox"/> *3.	Review needed protective actions for On Site personnel: <input type="checkbox"/> Ensure dosimetry issued to Security personnel and Security Coordinator briefed on radiological conditions, wind speed and direction. <input type="checkbox"/> Coordinate Assembly and Evacuation actions per EIP-ZZ-00230 with the Security Coordinator. (Assembly and Evacuation are required at a SITE and GENERAL EMERGENCY) <input type="checkbox"/> Determine which Care and Reception Center is preferred based on plume direction (if needed). <input type="checkbox"/> Determine need for R/C Support Personnel to monitor Assembly and Evacuation. <input type="checkbox"/> Evaluate restricting access to areas due to release or potential release based on wind direction. <input type="checkbox"/> Evaluate need for Respiratory Protection per HTP-ZZ-01201 . <input type="checkbox"/> Evaluate Potassium Iodide (KI) distribution to Emergency Teams, Ops Department and Security personnel per HDP-ZZ-01300 .
<input type="checkbox"/> 4.	Obtain Respirator Issue Log and Daily Dose Report from HPACA if LAN and Mainframe Computer are unavailable in the TSC.
<input type="checkbox"/> *5.	Monitor Area Radiation Monitors and appropriate Group 1 & 2 EAL's from EIP-ZZ-00101 , Classification of Emergencies. Report any Area Radiation Monitor that is approaching or has exceeded EAL values to the Technical Assessment Coordinator and EC.
<input type="checkbox"/> *6.	Personnel requiring decontamination should be sent to HPACA. If needed, the back entrance of the TSC can be staged to receive contaminated personnel.

HEALTH PHYSICS (HP) COORDINATOR CHECKLIST

<input type="checkbox"/> *7.	Verify sufficient inventory of the following (additional quantities are available from HPAC or Cal Facility): <ul style="list-style-type: none"> <input type="checkbox"/> Electronic Dosimeters (ED) <input type="checkbox"/> Portable Instruments <input type="checkbox"/> Respirators <input type="checkbox"/> Protective Clothing (PC) <input type="checkbox"/> Consumables (rope, postings, bags, etc.)
<input type="checkbox"/> *8.	Consider preparation of Emergency Dose Extensions for selected Operations Support Area personnel in the event Plant radiological conditions change in accordance with HDP-ZZ-01450 .
<input type="checkbox"/> *9.	Monitor Plant conditions and emergency activities to ensure personnel dose is maintained ALARA. <ul style="list-style-type: none"> <input type="checkbox"/> Monitor and trend Plant Area Radiation monitors, including Control Room and HPACA. <input type="checkbox"/> Radiation levels are expected to increase when Safety Injection recirculation is lined up to Containment. <input type="checkbox"/> Monitor the RWST radiation levels and tank vent effluent when in the recirculation mode. <input type="checkbox"/> Notify the EC and make announcements to the TSC as Radiological Conditions change. <input type="checkbox"/> Establish radiological postings in the Plant as time and resources allow (MUST be performed prior to Re-entry).
<input type="checkbox"/> *10.	Monitor facility habitability radiological conditions and recommended appropriate protective actions: <ul style="list-style-type: none"> <input type="checkbox"/> Direct dose rate ≥ 600 mrem/hr, inform the EC, and commence monitoring cumulative dose. <input type="checkbox"/> Cumulative dose of $\geq 4,400$ mrem, recommend evacuation of the facility. <input type="checkbox"/> Direct dose rate of $\geq 5,000$ mrem/hr, recommend evacuation. <input type="checkbox"/> Iodine concentrations of $\geq 2.4E^{-6}$ $\mu\text{Ci/ml}$, inform the EC, and commence air sampling to ensure total intake does not exceed 25 rem CDE. <input type="checkbox"/> Iodine concentrations of $\geq 1.9E^{-5}$ $\mu\text{Ci/ml}$, recommend evacuation.
<input type="checkbox"/> *11.	Periodically update the Emergency Coordinator on radiological conditions in the Plant and the status of TSC habitability.
<input type="checkbox"/> *12.	If additional HP support or supplies are needed, coordinate requests through the Admin. Coordinator or Stores person.

TURNOVER

<input type="checkbox"/> 1.	Brief the oncoming HP Coordinator on radiological information, and any protective actions, both recommended and implemented.
<input type="checkbox"/> 2.	Brief the oncoming HP Coordinator on the status of deployed Emergency Teams.
<input type="checkbox"/> 3.	Review HPC Checklist and Log.
<input type="checkbox"/> 4.	Contact Dose Assessment Coordinator in EOF <ul style="list-style-type: none"> <input type="checkbox"/> Arrange for FMT turnover. <input type="checkbox"/> Obtain weather forecast. <input type="checkbox"/> Inform DAC of oncoming relief.
<input type="checkbox"/> 5.	Notify the Emergency Coordinator of the Turnover
<input type="checkbox"/> 6.	Turnover complete _____ Time.
<input type="checkbox"/> 7.	Turnover logged.
<input type="checkbox"/> 8.	Initiate a new Checklist CA# 264.

HEALTH PHYSICS (HP) COORDINATOR CHECKLIST

<u>RECOVERY</u>	
<input type="checkbox"/> 1.	Discuss: <ul style="list-style-type: none"> <input type="checkbox"/> Maintaining of personnel exposure ALARA and preventing spread of contamination. <input type="checkbox"/> Survey and Posting Status. <input type="checkbox"/> Need to implement EIP-ZZ-00225, Reentry <input type="checkbox"/> Decontamination activities. <input type="checkbox"/> Need for additional assistance, supplies, or equipment. <input type="checkbox"/> Long term monitoring.
<input type="checkbox"/> 2.	Continue HP operations until directed otherwise by the Emergency Coordinator or RM.

<u>TERMINATION and SHUTDOWN</u>	
<input type="checkbox"/> 1.	Upon direction of the Emergency Coordinator/Admin. Coordinator, notify R/C personnel of shutdown.
<input type="checkbox"/> 2.	Turn over any HP support to normal plant staff.
<input type="checkbox"/> 3.	Contact DAC in EOF.
<input type="checkbox"/> 4.	Ensure HP equipment is de-energized, supplies and materials are stored as required. (Note: Gamma 10 should remain on.)
<input type="checkbox"/> 5.	Ensure documents are collected and given to the Admin. Coordinator.
<input type="checkbox"/> 6.	Restore HPC Plant Computer UPS power supply to LINE position.

HP Coordinator Signature

HEALTH PHYSICS (HP) COORDINATOR CHECKLIST**GAMMA-10 PORTAL MONITOR RESPONSE CHECK**

NOTE: The key for the electronics cabinet is attached to the response source.

1. Verify 110 VAC power to the unit (green operational light is illuminated and no alarms are activated).
2. Set the NIMBIN power supply On-Off switch to ON and ensure the power light is illuminated.
3. Set the HV-2 NIM On-Off switch to on and ensure the Positive LED is illuminated.
4. Verify that a current calibration label is affixed to the Electronics Box and the pot settings, on the box, are the same as identified on the label.
5. Inspect the monitor for physical damage.
6. Verify no alarms are activated. If alarms are activated clear alarms before continuing.
7. Ensure green operational light is illuminated.
8. Pass the Gamma-10 Response Source through the central region of the monitor. The Contamination alarm should activate on the box, a light and buzzer, and a red light on the portal should illuminate.
9. Depress the reset button on the portal. The alarms should clear and the green operational light should remain lit.
10. If the monitor passes this check, initial and date the Pre-Operational Check Sticker affixed to the Electronics Box.

If the monitor fails the Pre-Operational Checks, tag the unit Out Of Service and notify the Health Physics Coordinator. Set up Frisking Station and have personnel entering the building and those already in the building frisk for contamination, if it is expected.

HEALTH PHYSICS (HP) COORDINATOR CHECKLIST**AMS-3 STARTUP AND OPERATION**

This Startup Sequence augments HTP-ZZ-04137, Operation of the Eberline AMS-III. It is designed to be used in an Emergency Response Facility when an HP Operations Technician is not immediately available.

- 1) Connect AMS-3 (monitor) and air sampler to 110 VAC power.
- 2) Ensure monitor and air sampler have current calibration label.
- 3) Inspect the chart paper. Ensure an adequate supply of paper remains. If a RED line appears on the chart paper, notify Health Physics and continue the startup procedure.
- 4) Set monitor ON-OFF switch (located on back of monitor) to the ON position. Allow monitor to warm-up for 5 minutes.
- 5) Set BACKGROUND SUBTRACT switch (located on front of monitor) to the ON position.
- 6) Push in "PUSH TO SET" on bottom left side of monitor and note the alarm setpoint value of 20,000 cpm (this is the first scale mark to the right of the 10^4 scale value).
- 7) Set alarm setpoint to 1000 cpm by adjusting the SET knob while holding in "PUSH TO SET" button.
- 8) Remove sample holder located on the right front side of monitor by loosening the clamp and pulling out on handle.
- 9) Obtain check source from HP E-Kit Locker. Center source over sample holder opening with the recessed side of the source bracket facing the opening.
- 10) The audible alarm and the alarm light should energize (activate). If not notify Health Physics. (The startup procedure should not continue until the problem is resolved).
- 11) Press ACKNOWLEDGE button to silence alarm.
- 12) Verify count rate on chart recorder is as indicated on the response value listed on back of source bracket or a sticker on the instrument.
- 13) Remove check source. Ensure alarm light resets and count rate decreases on chart recorder.
- 14) Remove the filter in the filter holder. (Remove the filter retaining ring on the filter holder, this snaps on the end of the filter holder assembly, and may fit somewhat tight.)
- 15) Obtain a new filter from the HP Emergency Kit Locker and place it on the sample holder with the "ROUGH SIDE" of filter facing upwards.
- 16) Replace retaining ring on the sample holder and insert the sample holder into the sample chamber. Lock the filter holder into place.
- 17) Set the alarm setpoint to 20,000 cpm by adjusting the SET knob while holding in the "PUSH TO SET" button.
- 18) Place the toggle switch on the power cord to the "ON" position. The air sampler pump should start.
- 19) Ensure airflow as indicated on flowmeter is within the tolerance listed on the calibration label (read the flow at the center of the rotometer float ball.) If it is not, notify Health Physics.
- 20) Initial and date the Preoperational Check sticker.

HEALTH PHYSICS (HP) COORDINATOR CHECKLIST**SET-UP AND OPERATION OF THE MODEL 177 RATEMETER**

1. Remove Model 177 ratemeter, frisker probe, detector cable, power cord, and check source from the E-Kit cabinet.
2. Connect detector and power cords, if not already connected, to the Model 177 ratemeter and verify the following switch settings:
 - Front Panel:
 1. On/Off switch in "ON" position.
 2. Volume adjusted to hear audible counts.
 3. Response switch in "slow" position.
 4. Range switch to "X1" scale.
 - Rear Panel:
 1. Alarm set at '5'.
 2. Subtract switch in "Off" position if meter has Subtract Switch.
3. Perform response check as follows:
 - Ensure instrument has a current calibration sticker.
 - Set the range switch to the appropriate position and place the detector on the check source bracket.
 - Verify the response is within the acceptable range as specified on the response value determination form/sticker for that check source.
 - Check the instrument alarm by adjusting the ALARM SET switch so that it is slightly less than the count rate of the source.
 - Remove the source from the detector.
 - Depress the RESET button. The alarm condition should clear.
 - If the pre-operational checks are satisfactory, complete the attached pre-operational check sticker. If either the alarm or the response check failed, notify the Health Physics Coordinator and obtain an operational ratemeter.
4. Return the check source to the E-Kit cabinet.

TSC COMMUNICATOR (ENS) CHECKLIST

Date _____ Time: _____

INITIATION	
<input type="checkbox"/> 1.	<input type="checkbox"/> Card in on the accountability card reader. <input type="checkbox"/> Sign in on Facility Sign-in board. <input type="checkbox"/> Obtain the ENS Communicators package. <input type="checkbox"/> Clip on the Communicators badge.
<input type="checkbox"/> 2.	Ensure the TSC has power. <input type="checkbox"/> Normal power, (i.e. lights on, power available to computers, etc.). <input type="checkbox"/> No Power. Start the TSC diesel per OOA-UB-EPG70 call for Equipment Operator if available.
<input type="checkbox"/> 3.	Shift the PC power supplies to the UPS position.
<input type="checkbox"/> 4.	Emergency Coordinator and Admin Coordinator informed of your presence.
<input type="checkbox"/> 5.	Initiate Log sheet.
<input type="checkbox"/> 6.	Activate Plant Status Boards on the Plant Computer (Cancel, type PSB, Return).
<input type="checkbox"/> 7.	Check dial tone on the ENS line.
<input type="checkbox"/> 8.	Contact Control Room Communicator.
<input type="checkbox"/> 9.	Get a brief as to the status of ENS Communications.
<input type="checkbox"/> 10.	Accept responsibility of ENS Communications per EIP-ZZ-00201, CA-#234, as directed by the NRC.
<input type="checkbox"/> 11.	Discuss any additional support or supplies required with the Admin Coordinator.

OPERATIONS	
<i>(*) Steps are items that must be frequently reviewed.</i>	
<input type="checkbox"/> 1.	Call the NRC or accept transfer from the Control Room on the ENS line and inform them of your name and that you are communicating from the Callaway Plant Technical Support Center.
<input type="checkbox"/> *2.	Remain on the phone and gather facts as requested by the NRC from individual positions, plant computer or status boards and relay those facts back to the NRC, per EIP-ZZ-00201 . (All notifications transmitted to the State and local agencies should also be given to the NRC Operations Center unless directed otherwise.)
<input type="checkbox"/> *3.	Log information requested and relayed to the NRC as deemed appropriate.
<input type="checkbox"/> *4.	Personnel that leave the Facility should check out with the Security Officer. If a release has occurred or is likely to occur a HP brief is required (SOS 97-1061).
<input type="checkbox"/> *5.	If personnel are dispatched to another facility a follow up call should be initiated in 15-20 minutes to ensure they arrive safely. SOS 99-1904 .

TURNOVER	
<input type="checkbox"/> 1.	Brief the incoming ENS Communicator on the status of NRC requests, awaiting information and review log.
<input type="checkbox"/> 2.	Log turnover.
<input type="checkbox"/> 3.	Turnover complete _____ Time.
<input type="checkbox"/> 4.	Inform Emergency Coordinator or Technical Assessment Coordinator turnover complete.
<input type="checkbox"/> 5.	Initiate a new checklist CA# 265.

RECOVERY	
<input type="checkbox"/> 1.	Continue providing the NRC with requested information.

TERMINATION and SHUTDOWN	
<input type="checkbox"/> 1.	When directed, assist with the TSC deactivation.
<input type="checkbox"/> 2.	Ensure area is put into order and logs collected and give to the Admin Coordinator.
<input type="checkbox"/> 3.	Restore PC UPS power supply to LINE.

CHEMISTRY COORDINATOR CHECKLIST

Date _____ Time: _____

<u>INITIATION</u>	
<input type="checkbox"/> 1.	<input type="checkbox"/> Card in on the accountability card reader. <input type="checkbox"/> Sign in on Facility Sign-in board. <input type="checkbox"/> Obtain the Chemistry Coordinators package. <input type="checkbox"/> Clip on the Chemistry Coordinators badge.
<input type="checkbox"/> 2.	Inform Emergency Coordinator and Admin. Coordinator of arrival and ready to assume duties of Chemistry Coordinator. (Make log entry.)
<input type="checkbox"/> 3.	Initiate Log sheet.
<input type="checkbox"/> 4.	Contact on shift Chemistry Tech and ensure <ul style="list-style-type: none"> <input type="checkbox"/> Remind on-duty Chem tech to card in at the Field Office during accountability. <input type="checkbox"/> RERP vehicle is operational and in the parking lot. <input type="checkbox"/> Complete page 3, RERP Chemistry Data, with the most recent samples. <input type="checkbox"/> Have PASS system placed in RCS recirc per CTP-ZZ-08010. <input type="checkbox"/> Verify CCW is lined up to PASS and SJ panel. <p><i>NOTE: Boron concentration in the RCS is used to determine Shut Down Margin. This may be one of the first samples requested by the TAC. (SOS 98-3260)</i></p>
<input type="checkbox"/> 5.	Personnel Assessment Rad./Chem. Chemistry technicians (2 required) <ul style="list-style-type: none"> <input type="checkbox"/> _____ (name), PASS & _____ (responsibilities) <input type="checkbox"/> _____ (name), _____ (responsibilities) <input type="checkbox"/> _____ (name), _____ (responsibilities) Rad./Chem. Technicians available. (Chemistry) _____ (number).
<input type="checkbox"/> 6.	Assign an available Chemistry Supervisor to the Hot Lab as needed.
<input type="checkbox"/> 7.	Discuss plant chemistry status with Emergency Coordinator and Tech Assessment Coordinator.

<u>OPERATIONS</u>	
<i>(*) Steps are items that must be frequently reviewed.</i>	
<input type="checkbox"/> * 1.	Have RERP Chemistry Data Forms (page 3) ready to record RCS data as it becomes available: <ul style="list-style-type: none"> <input type="checkbox"/> Record RCS data on the RERP Chemistry Data form (CA#267). <input type="checkbox"/> Have the Admin Clerk make 3 copies. Give a copy of the RERP Chemistry Data form to the: <ul style="list-style-type: none"> <input type="checkbox"/> Tech Assessment Coordinator. <input type="checkbox"/> HP Coordinator. <input type="checkbox"/> Reactor Engineer. <input type="checkbox"/> Make successive updates to the latest RERP Chemistry Data form and distribute.
<input type="checkbox"/> *2.	Personnel that leave the Facility should check out with the Security Officer. If a release has occurred or is likely to occur a HP brief is required (SOS 97-1061).
<input type="checkbox"/> *3.	If personnel are dispatched to another facility a follow up call should be initiated in 15-20 minutes to ensure they arrive safely. SOS 99-1904.

CHEMISTRY COORDINATOR CHECKLIST

<input type="checkbox"/> * 4.	Compare latest results of Dose Equivalent I-131 and 100/E bar total specific activity to Group 2 & 4 EAL's per EIP-ZZ-00101 , Classification of Emergencies, and report any EAL that is being approached or exceeded to the Technical Assessment Coordinator and Emergency Coordinator.
<input type="checkbox"/> *5.	Evaluate Secondary Chemistry conditions.
<input type="checkbox"/> *6.	Monitor PASS data and provide recommendations as necessary. <ul style="list-style-type: none"> <input type="checkbox"/> If power is lost to PASS, see CTP-ZZ-08010 . <input type="checkbox"/> Initiation of SIS isolates cooling to PASS and the SJ Sink, Contact Operations to restore cooling, see CTP-ZZ-08010.
<input type="checkbox"/> *7.	On a SI actuation, SJ sample cooling water will be lost. <ul style="list-style-type: none"> <input type="checkbox"/> Request the Tech to secure high temp samples. <input type="checkbox"/> Request Ops to open EGHV69A & B and EGHV70A & B to restore cooling flow as soon as practical. <p>CVCS letdown samples will remain representative as long as letdown flow is available.</p>
<input type="checkbox"/> * 8.	Identify additional support (e.g. personnel, off-site analysis) and coordinate requests through the Admin Coordinator.

TURNOVER

<input type="checkbox"/> 1.	<input type="checkbox"/> Brief the incoming Chemistry Coordinator of Chemistry activities and review log.
<input type="checkbox"/> 2.	<input type="checkbox"/> Notify the Tech. Assessment Coordinator of the Turnover.
<input type="checkbox"/> 3.	Turnover complete _____ Time.
<input type="checkbox"/> 4.	Turnover logged.
<input type="checkbox"/> 5.	Initiate new checklist.

RECOVERY

<input type="checkbox"/> 1.	Continue Chemistry activities until directed otherwise by the Emergency Coordinator or RM.
-----------------------------	--

TERMINATION and SHUTDOWN

<input type="checkbox"/> 1.	Upon direction assist with TSC deactivation.
<input type="checkbox"/> 2.	Ensure Chemistry equipment is deactivated and/or stored.
<input type="checkbox"/> 3.	Ensure documents are collected and given to the Admin Coordinator.

Chemistry Coordinator Signature

RERP CHEMISTRY DATA

MOST RECENT 100/E Bar Limit: _____ $\mu\text{Ci/g}$ ____ / ____ / ____ date.

DATE _____

RCS SAMPLES													SECONDARY SAMPLES				
TIME	BORON (ppm)	DEI ($\mu\text{Ci/g}$)	I-131 ($\mu\text{Ci/g}$)	I-133 ($\mu\text{Ci/g}$)	I-135 ($\mu\text{Ci/g}$)	Cs-134 ($\mu\text{Ci/g}$)	Cs-137 ($\mu\text{Ci/g}$)	Te-132 ($\mu\text{Ci/g}$)	Ba-140 ($\mu\text{Ci/g}$)	Kr-87 ($\mu\text{Ci/g}$)	Xe-133 ($\mu\text{Ci/g}$)	Total Activity ($\mu\text{Ci/g}$)	Pri-Sec Leak Rate (gal/day)				
													A	B	C	D	

cc (each update): Technical Assessment Coordinator (Relay Information to Control Room)
 Reactor Engineer
 Health Physics Coordinator

SECURITY COORDINATOR (SC) CHECKLIST

Date _____ Time: _____

<u>INITIATION</u>	
<input type="checkbox"/> 1.	<input type="checkbox"/> Card in on the accountability card reader. <input type="checkbox"/> Sign in on Facility Sign-in board. <input type="checkbox"/> Obtain the Security Coordinators package. <input type="checkbox"/> Clip on the Security Coordinators badge.
<input type="checkbox"/> 2.	Inform Emergency Coordinator and Admin. Coordinator of arrival.
<input type="checkbox"/> 3.	Initiated Log sheet.
<input type="checkbox"/> 4.	Personnel Assessment (Call in extra personnel as required). <input type="checkbox"/> Contact the Shift Security Supervisor and obtain number and names of security personnel available for assignment.
<input type="checkbox"/> 5.	Station security officers at the Emergency Response Facilities entrances to log personnel entrance and egress.
<input type="checkbox"/> 6.	Discuss any additional support or supplies required with the Admin Coordinator.

<u>OPERATIONS</u>	
<i>(*) Steps are items that must be frequently reviewed.</i>	
<input type="checkbox"/> *1.	Conduct normal and emergency security activities in accordance with the Security Plan. If the plan cannot be followed, obtain authorization from the EC to deviate (refer to OTO-SK-00001 Attachment 1), in accordance with 10CFR50.54(x)(y) to deviate. Inform the ENS Communicator (1 hour NRC notification). (SOS 99-1754)
<input type="checkbox"/> *2.	Assist the EC in Evacuation and Accountability per EIP-ZZ-00230 .
<input type="checkbox"/> 3.	If accountability is declared, obtain badge numbers of personnel assigned to emergency teams that have left the TSC from the OSC, and report these badge numbers to the SSS.
<input type="checkbox"/> *4.	Personnel that leave the Facility should check out with the Security Officer. If a release has occurred or is likely to occur a HP brief is required. (SOS 97-1061)
<input type="checkbox"/> *5.	If personnel are dispatched to another facility a follow up call should be initiated in 15-20 minutes to ensure they arrive safely. (SOS 99-1904)
<input type="checkbox"/> *6.	Contact the HP Coordinator to determine the affected areas in the case of a release. If Security is to be pulled back from their posts, consider requirements in Step 1, Operations (above).
<input type="checkbox"/> *7.	Ensure that the Security Force has the appropriate dosimetry. Check with the HPC.
<input type="checkbox"/> *8.	Coordinate plant access control.
<input type="checkbox"/> *9.	Contact local law enforcement to coordinate traffic control (i.e. for evacuation routes).
<input type="checkbox"/> *10.	Coordinate personnel evacuation and accountability. (NOTE: Accountability is required within 30 minutes of declaring accountability.)
<input type="checkbox"/> *11.	Coordinate any off-site law enforcement agency involvement.

SECURITY COORDINATOR (SC) CHECKLIST

<u>TURNOVER</u>	
<input type="checkbox"/> 1.	Brief the incoming Security Coordinator of Security activities and review log.
<input type="checkbox"/> 2.	Notify the Emergency Coordinator of the turnover.
<input type="checkbox"/> 3.	Turnover complete _____ Time.
<input type="checkbox"/> 4.	Turnover logged.
<input type="checkbox"/> 5.	Initiate new checklist.

<u>RECOVERY</u>	
<input type="checkbox"/> 1.	Continue Security activities until directed otherwise by the Emergency Coordinator.

<u>TERMINATION and SHUTDOWN</u>	
<input type="checkbox"/> 1.	Upon direction assist with TSC deactivation.
<input type="checkbox"/> 2.	Ensure security equipment is deactivated and/or stored.
<input type="checkbox"/> 3.	Ensure documents are collected and given to the Admin Coordinator.

Security Coordinator Signature

EMERGENCY TEAM COORDINATOR (ETC) CHECKLIST**TURNOVER**

<input type="checkbox"/> 1.	Incoming ETC Coordinator briefed on ETC status and review log.
<input type="checkbox"/> 2.	Notify the Operations Support Coordinator of the turnover.
<input type="checkbox"/> 3.	Notify the OSA Support personnel of the turnover.
<input type="checkbox"/> 4.	Turnover complete _____ Time.
<input type="checkbox"/> 5.	Turnover logged.
<input type="checkbox"/> 6.	Initiate a new checklist CA#0262a.

RECOVERY

<input type="checkbox"/> 1.	Assess the following: <ul style="list-style-type: none"> <input type="checkbox"/> Emergency team status. All Emergency Team work is completed or turned over to the Recovery Organization or normal maintenance. <input type="checkbox"/> Able to resume normal operations.
<input type="checkbox"/> 2.	Continue Emergency Team activities until directed otherwise by the Operations Support Coordinator.

TERMINATION and SHUTDOWN

<input type="checkbox"/> 1.	Ensure OSA equipment and supplies are deactivated and/or stored.
<input type="checkbox"/> 2.	Ensure documents are collected and given to the Admin Coordinator.

 Emergency Team Coordinator Signature