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CALLAWAY PLANT

EMERGENCY PLAN IMPLEMENTING PROCEDURE

EIP-ZZ-C0010

EMERGENCY OPERATIONS FACILITY OPERATIONS

RESPONSIBLE DEPARTMENT **EMERGENCY PREPAREDNESS**

PROCEDURE OWNER **D. E. Trokey**

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This procedure contains the following:

Pages	1	through	6
Attachments	1	through	7
Tables		through	
Figures		through	
Appendices		through	
Checkoff Lists		through	

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

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

Non-T/S Commitments 018

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EMERGENCY OPERATIONS FACILITY OPERATIONS

1 PURPOSE AND SCOPE

1.1 The purpose of this procedure is to provide guidance to Emergency Response Personnel who report to the Emergency Operations Facility (EOF) and Backup EOF (BEOF).

2 RESPONSIBILITIES

2.1 RECOVERY MANAGER (RM)

2.1.1 The Recovery Manager is responsible for ensuring that the EOF/BEOF becomes operational after notification of an ALERT, SITE or GENERAL EMERGENCY classification and has overall command and control of the entire Ameren-UE Emergency Response Organization. Duties include the following: **(COMN 3361, 3415)**

NOTE:	The responsibilities that the RM may delegate are indicated with an asterisk (*).

2.1.1.1 * Establishing and maintaining communications with the Emergency Coordinator.

2.1.1.2 * Requesting off-site support (i.e., NSSS, A/E, INPO, Federal, State and Local).

2.1.1.3 * Ensuring responsibility for notifications and communications with off-site agencies is transferred from the Control Room to the EOF Emergency Response Organization (excluding NRC ENS communications).

2.1.1.4 Authorizing notifications to off-site agencies.

2.1.1.5 Assuming responsibility from the Control Room for dose assessment.

2.1.1.6 Assuming responsibility from the Control Room for making Protective Action Recommendations.

2.1.1.7 * Maintaining command and control over personnel in the EOF and providing considerations necessary for their safety.

2.1.1.8 * Ensuring coordinated emergency response among Ameren UE and off-site agencies

2.1.1.9 Authorizing personnel exposure in excess of 10CFR20 limits (the Emergency Coordinator also has this authority).

2.2 PROTECTIVE MEASURES COORDINATOR (PMC)

2.2.1 The PMC reports to the RM and is responsible for formulating Protective Action Recommendations and assisting the RM, State and Federal Officials in the interpretation of any plant related data.

2.3 PLANT ASSESSMENT COORDINATOR (PAC)

2.3.1 The PAC reports to the PMC and reviews plant conditions and EALs to verify the adequacy of the existing Protective Action Recommendations (PARs) and assists in formulating new PARs when necessary.

2.4 PLANT ASSESSMENT STAFF

2.4.1 The Plant Assessment Staff reports to the PAC and is knowledgeable in plant equipment, systems, and operations. They may provide additional technical expertise while maintaining status boards displaying plant conditions.

2.5 DOSE ASSESSMENT COORDINATOR (DAC)

2.5.1 The Dose Assessment Coordinator reports to the PMC (or the RM if the PMC has not arrived) and is responsible for providing dose projection calculations based on radiological effluent monitors and field data. The DAC directs Field Monitoring Teams (FMTs), reviews effluent based EALs and assists the PMC in formulating Protective Action Recommendations. **(COMN 3375)**

2.6 DOSE ASSESSMENT STAFF

2.6.1 The Dose Assessment Staff reports to the DAC and is responsible for FMT communications and updating radiological status boards. **(COMN 3355)**

2.7 FIELD MONITORING TEAMS (FMTs)

2.7.1 Field Monitoring Teams are dispatched by the DAC and are responsible for taking direct radiation measurements and collecting air, soil, water and vegetation samples.

2.8 LOGISTICAL SUPPORT COORDINATOR (LSC)

2.8.1 The LSC reports to the RM and is responsible for contracting with vendors for engineering services, materials, and services needed for emergency mitigation and restoration. The LSC also provides administrative and logistical support to the Emergency Response Organization (ERO).

2.9 LOGISTICAL SUPPORT STAFF

2.9.1 The Logistical Support Staff reports to the LSC and is responsible for the development of specifications for repair parts, equipment, and services, locating materials and services needed, and expediting their delivery to the site. They may initiate purchase orders, contracts for services, or use whatever procurement means approved by the RM to obtain goods and services to assist in mitigation and recovery of this situation. The Logistical Support Staff also provides administrative support to the EOF Emergency Response Organization.

2.10 OFF-SITE LIAISON COORDINATOR (OSL)

2.10.1 The OSL reports to the RM and assumes off-site notification responsibilities from the Communicator in the Control Room. The OSL is also responsible for keeping off-site authorities up-to-date regarding on-site emergency response activities, receiving responding representatives from off-site agencies, assisting in meeting their communications and logistic needs, and other duties as assigned by the RM. **(COMN 3329)**

2.11 EOF COMMUNICATOR

2.11.1 The EOF Communicator reports to the Off-site Liaison Coordinator. The EOF Communicator transmits PARs and emergency notification updates to State and Local agencies and other off-site authorities as directed by the Off-Site Liaison Coordinator.

3 INITIATING CONDITIONS

This procedure is initiated to startup the Emergency Operations Facility upon declaration of an ALERT or higher emergency classification. The EOF ERO may also be activated at the discretion of the EC for any classification.

4 PROCEDURE

4.1 STARTUP

4.1.1 Staff members arriving at the EOF are responsible for signing in with name and badge number on the facility sign-in board.

4.1.2 Coordinators should obtain their emergency packet and commence activation of their respective areas utilizing checklists 1 through 6.

4.1.3 The Control Room Staff should be expeditiously relieved of peripheral duties and communications not directly related to Control Room manipulations.

4.2 OPERATIONS

4.2.1 EOF personnel ensure the assumption of the following responsibilities:

- Notifications.
- Protective Action Recommendations.
- Dose Assessment.
- Requests for outside assistance.
- Interface with Federal, State and Local authorities.

4.2.2 Declaration of Recovery

4.2.2.1 The Recovery Manager should coordinate the establishment of a Recovery Organization with the Emergency Coordinator per **EIP-ZZ-00260**, Event Closeout/Plant Recovery.

4.2.2.2 EOF personnel continue activities until the Recovery Organization is established.

4.2.3 Event Closeout

4.2.3.1 The Recovery Manager should coordinate Closeout with the Emergency Coordinator per **EIP-ZZ-00260**, Event Closeout/Plant Recovery.

4.3 BACKUP EOF (BEOF)

4.3.1 If the EOF is uninhabitable, the Recovery Manager directs the Off-site Liaison Coordinator to ensure EOF responsibilities are transferred to the TSC and/or Control Room, EOF personnel are relocated, and the BEOF is activated in accordance with Attachment 7, Backup EOF Checklist **(COMN 5730, 42514)**

4.3.1.1 If time permits, operations should continue at the EOF until the designated individuals reach the BEOF and assume responsibilities. Then the remaining personnel should report to their designated facilities.

4.3.2 The Recovery Manager transfers responsibilities to the Emergency Coordinator until the Backup EOF is activated.

5 REFERENCES

5.1 **EIP-ZZ-00201**, Notifications

5.2 **EIP-ZZ-00211**, Field Monitoring

5.3 **EIP-ZZ-00212**, Protective Action Recommendations

5.4 **EIP-ZZ-00260**, Event Closeout/Plant Recovery

5.5 **EIP-ZZ-01211**, Management Action Guides for Nuclear Emergencies (MAGNEM)

5.6 **OOA-UB-EPG50**, EOF Diesel Emergency Start

5.7 **OOA-UB-00004**, Emergency Operations Center Ventilation

5.8 **HPCI 96-0007**, Emergency Response Facility Habitability Guidelines

5.9 **OOA-HD-00001**, EOF Chemical & RW Drain Tank (THD01) Level Indication Panel (HD001) Operation.

5.10 **HTP-ZZ-04101**, Operation of the Ludlum Model 177 Series Alarm Ratemeter.

5.11 **HTP-ZZ-04135**, Operation of the NNC Gamma-10 Portal Monitor.

5.12 **HTP-ZZ-04137**, Operation of the Eberline AMS-3

6 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 Logistics Support Coordinator and/or the EP Department.

6.1 QA RECORDS

6.1.1 Attachment 1, Recovery Manager Checklist (File #K171.0010)

6.1.2 Attachment 2, Off-Site Liaison Coordinator Checklist (File #K171.0010)

6.1.3 Attachment 3, Protective Measures Coordinator (PMC) Checklist (File #K171.0010)

6.1.4 Attachment 4, Plant Assessment Coordinator (PAC) Checklist (File #K171.0010)

6.1.5 Attachment 5, Logistics Support Coordinator (LSC) Checklist (File #K171.0010)

6.1.6 Attachment 6, Dose Assessment Coordinator (DAC) Checklist (File #K171.0010)

6.1.7 Attachment 7, Backup EOF Checklist (File #K171.0010)

RECOVERY MANAGER CHECKLIST

DATE: _____ TIME_____

	INITIATION
☐ 1.	Sign in on Facility Sign-in board. Obtain the RM package and clip on Recovery Manager badge. (If the EOF is uninhabitable, direct the OSL to initiate Attachment 7 and relocate to the BEOF.)
☐ 2.	Review **KOA-ZZ-A0002** , Command and Control Guidelines.
☐ 3.	Initiate Facility Log Sheet.
☐ 4.	Receive briefing by: ☐ Off-Site Liaison Coordinator (facility conditions). ☐ Emergency Coordinator (plant conditions).
☐ 5.	Direct the OSL and DAC to begin turnover from the control room, and the Protective Measures Coordinator to begin turnover of Protective Action Recommendations (PARs). *NOTE: DO NOT assume responsibility for communications, Dose Assessment, and PARs until both the OSL & DAC have completed turnover.*
☐ 6.	Notify the Control Room and the EC prior to assuming responsibilities for Communications, Dose Assessment and PARs using the EML phone, if available.
☐ 7.	Make a site wide announcement that, "The EOF has accepted emergency responsibilities for Offsite Notifications, Dose Assessment and PARs from the Control Room."
☐ 8.	Make Facility Announcement that **"All personnel leaving the EOF should check out with the Security Officer prior to leaving the facility."** If a release is in progress or anticipated, announce **"an HP brief from the DAC will also be required."** *NOTE: If a release is in progress or anticipated, ensure all personnel dispatched from the EOF have dosimetry. The Security Officer will verify HP briefs prior to exit.*
☐ 9.	Upon arrival of the PMC and PAC, direct the PMC to coordinate Notifications with the PAC and DAC for your review and approval.
☐ 10.	Ensure the following positions have been filled in the EOF ☐ Communicator ☐ PMC ☐ PAC ☐ LSC
☐ 11.	Make a facility announcement; "EOF Coordinators should assess manpower requirements in your respective areas. Request for additional support staff should be addressed to the Logistics Coordinator for callout. All excess personnel should assemble in the Media Area and await further instructions."
☐ 12.	Discuss any additional manpower support or supplies required with the Logistical Support Coordinator. Instruct the Logistical Support Coordinator to inform excess personnel to return home and remain near their phones for further instructions concerning shift relief schedules and report times.
☐ 13.	Instruct Logistical Support Coordinator to assign Clerical Support to the Priorities white board.

RECOVERY MANAGER CHECKLIST

OPERATIONS (*) *Steps are items that MUST be frequently reviewed*	
☐ *1.	Periodically update EOF personnel including priorities, habitability status, Site radiological conditions and events, and ensure Priorities board is updated.
☐ *2	Provide status reports to: ☐ SEMA ☐ NRC ☐ Counties ☐ Corporate Spokesperson
☐ *3	If the EOF becomes uninhabitable, direct the OSL to initiate Attachment 7 and relocate to Backup Emergency Operations Facility.
☐ *4.	Authorize exposure in excess of 10CFR20 limits if required and requested from the HPC.

TURNOVER	
☐ 1.	Incoming Recovery Manager briefed on EOF status and log reviewed.
☐ 2.	Emergency Coordinator and Shift Supervisor informed.
☐ 3.	Turnover announced to EOF staff.
☐ 4.	Turnover complete _____ Time.
☐ 5.	Turnover logged.
☐ 6.	Initiate a new checklist CA#732.

RECOVERY	
☐ 1.	EOF personnel continue activities per procedures until Recovery Organization established.
☐ 2.	Discuss the expected response of State and Federal agencies.
☐ 3.	Discuss availability of and provisions for State and Federal agencies with the Off-Site Liaison Coordinator and the Logistics Support Coordinator.
☐ 4.	Declare Recovery per **EIP-ZZ-00260**, Event Closeout/Recovery. ☐ Emergency Coordinator contacted. ☐ Shift Supervisor contacted. ☐ NRC contacted.
☐ 5.	Recovery organization established.
☐ 6.	Make a site wide announcement of Recovery Declaration.

RECOVERY MANAGER CHECKLIST

TERMINATION and SHUTDOWN	
☐ 1.	Operations shutdown or transferred to the TSC, as applicable. ☐ Notifications ☐ Protective Action Recommendations ☐ Requests for Outside Assistance ☐ Authorizing exposure in excess of 10CFR20 limits
☐ 2.	Coordinators directed to shutdown EOF _____ Time.
☐ 3.	Make site wide announcement.

_____
Recovery Manager Signature

OFF-SITE LIAISON COORDINATOR CHECKLIST

DATE: _____ TIME_____

	INITIATION
☐ 1.	Sign in on Facility Sign-in board. Obtain the OSL and Communicators packages and clip on the Off-Site Liaison badge.
☐ 2.	Inform Recovery Manager of your presence.
☐ 3.	Adjust Gai-tronics to an acceptable level.
☐ 4.	Ensure the EOF has power. ☐ Normal power, (i.e. lights on, power available to computers, etc.). ☐ No Power-Start the EOF diesel and contact Radwaste personnel in EOF Dose Assessment Staff **or** call for an Equipment Operator to perform manual switching of the 480V supply for the EOF per **OOA-UB-EPG50**. Inform the person performing the manual switch over that appropriate PPE is available at the EOF to perform this task to expedite their arrival.
☐ 5.	Shift/verify the PC power supplies to the UPS position. ☐ Communicator (2). ☐ Phone room (134) bridge. ☐ Telecommunications room (130) bridge located inside the ERFIS cabinet (not locked).
☐ 6.	Check fax machine for any communications.
☐ 7.	Initiate Facility Log sheet.
☐ 8.	Ensure the SENTRY PC is powered on, and the OUTLOOK application is running.
☐ 9.	Check OSL and Communicator phone lines for dial tone.
☐ 10.	Turn on projected statusboard.
☐ 11.	Upon direction of the RM, using **EIP-ZZ-00201**Attachment 3 (CA#234), contact the Control Room Communicator to get a brief on the status of Communications (prepare to transfer communications to EOF). (If the EOF is uninhabitable, communications should remain in the Control Room until the BEOF is staffed.)
☐ 12.	Notify the RM when you are ready to assume your duties. TIME: _____
☐ 13.	Obtain RM approval to transfer communications to the EOF, then relieve the control room communicator of communications and notifications. (Communications and Dose Assessment should be transferred to the EOF at the same time.)
☐ 14.	Communicator: (as assigned) ☐ _____ Name
☐ 15.	Contact County EMDs and assess the need for County Technical Representatives and dispatch Technical Representatives as needed. (Use list of JPIC Technical Representatives.)

	OPERATIONS (*) *Steps are items that MUST be frequently reviewed.*
☐ *1.	Using the flowchart from Attachment 3, **EIP-ZZ-00201**, Notifications, notify the required authorities and agencies. *NOTE: Notifications of a new classification or Protective Action Recommendations must be made in 15 minutes. Follow up notifications are made approximately every 30 minutes.*
☐ *2.	Provide support to Federal, State, and Local personnel in the EOF, as appropriate, including provisions for office space and communications.
☐ *3.	Ensure the Emergency Classification status board is properly updated.

OFF-SITE LIAISON COORDINATOR CHECKLIST

	TURNOVER
☐ 1.	Brief the oncoming Off-Site Liaison Coordinator on the status of the facility and on-site and off-site emergency response activities. Review log.
☐ 2.	Brief the oncoming Communicator on the status, information transmitted and the frequency of updates.
☐ 3.	Inform the Recovery Manager.
☐ 4.	Turnover complete _____ Time.
☐ 5.	Turnover logged.
☐ 6.	Initiate a new checklist CA#733.

	RECOVERY
☐ 1.	Continue providing requested information.
☐ 2.	Continue activities per procedures and checklist until Recovery Organization is established or until directed otherwise by the Recovery Manager.

	EOF SHUTDOWN
☐ 1.	Ensure area is put into order and logs collected and give to the Logistics Support Coordinator.
☐ 2.	Ensure EOF operations, if any, as specified by the Recovery Manager are transferred to the plant operating staff or the TSC, if operational.
☐ 3.	Ensure that emergency equipment and supplies are returned and/or stored to their normal condition. ☐ Radio ☐ Emergency Equipment Kits ☐ Emergency Diesel Generator ☐ Ventilation System ☐ Portable Monitoring Equipment ☐ Microfiche Reader ☐ Return ALL UPS's to LINE position.
☐ 4.	After completion of the above steps, inform the Emergency Coordinator that the EOF has been shutdown.
☐ 5.	Ensure that all EOF emergency records are collected and given to the Logistics Support Coordinator/Emergency Preparedness Department.
☐ 6.	Ensure that State and Local officials are informed of the EOF shutdown.

_____
Off-Site Liaison Coordinator Signature

PROTECTIVE MEASURES COORDINATOR CHECKLIST

DATE: _____ TIME_____

	INITIATION
☐ 1.	Sign in on Facility Sign-in board. Obtain the PMC package and clip on the Protective Measures Coordinator badge.
☐ 2.	Ensure the EOF has power. ☐ Normal power, (i.e. lights on, power available to computers, etc.). ☐ No Power-Start the EOF diesel and contact Radwaste personnel in EOF Dose Assessment Staff **or** call for an Equipment Operator to perform manual switching of the 480 V supply the EOF diesel per **OOA-UB-EPG50**. Inform the person performing the manual switchover that appropriate PPE is available at the EOF to perform this task to expedite their arrival. ***NOTE:*** These steps are performed if the Off-Site Liaison has not reported for duty.
☐ 3	Ensure the EOF HVAC system is in recirculation/filter mode per **OOA-UB-00004.** Keys to the HVAC room are in the OSL packet. .
☐ 4	Check computer and printer power supplies have been shifted to the UPS position: ☐ Computer ☐ Color Printer
☐ 5.	Recovery Manager informed of your presence.
☐ 6.	Initiate Facility Log sheet.
☐ 7.	☐ Plant Assessment Coordinator (PAC) _____ Name ☐ Dose Assessment Coordinator (DAC) _____ Name
☐ 8.	Check PMC phone lines for dial tone.
☐ 9	Assist in the transfer of PARs to Plant Assessment Coordinator and dose assessment to the Dose Assessment Coordinator.
☐ 10.	Inform the Recovery Manager when ready to assume PARs, Dose Assessment, and Notifications.
☐ 11.	Assume responsibilities when Recovery Manager gives permission.

NOTE: If the Plant Assessment Coordinator is not staffed, it is your responsibility to provide the Recovery Manager with Protective Action Recommendations (PARs) based on Plant Conditions per **EIP-ZZ-00212**, PROTECTIVE ACTION RECOMMENDATIONS. Ensure the Technical Assessment Coordinator in the TSC is aware of your presence in the EOF. Inquire of any PARs already in place.

	OPERATION (* Steps are recurring items that need to be reviewed on a continual bases)
☐ *1.	Evaluate input from plant conditions (PAC), dose assessment (DAC), and **EIP-ZZ-00212**, Protective Action Recommendations. Default to the most conservative recommendation, time is essential.
☐ *2.	Request release duration estimate from the PAC or Tech Assessment Coordinator (TAC) and provide updates to the DAC
☐ *3.	Review all notifications and obtain Recovery Manager approval for all notifications prepared by the EOF Communicator. Notifications to the State and Counties are made within 15 minutes of a classification declaration or a change in Protective Action Recommendations and at approximately 30-minute intervals thereafter.

PROTECTIVE MEASURES COORDINATOR CHECKLIST

	TURNOVER
☐ 1.	Brief the oncoming PMC on the status of the facility and on-site and off-site emergency response activities.
☐ 2.	Review log.
☐ 3.	Inform the Recovery Manager.
☐ 4.	Turnover complete _____ Time.
☐ 5.	Turnover logged.
☐ 6.	Initiate a new checklist CA# 737.

	RECOVERY
☐ 1.	Continue providing requested information.
☐ 2.	Continue activities per procedures and checklist until Recovery Organization established or until directed otherwise by the Recovery Manager.

	TERMINATION and SHUTDOWN
☐ 1.	When directed, assist with the EOF deactivation.
☐ 2.	Ensure area is put into order and logs collected and give to the Logistics Support Coordinator.

_____
Protective Measures Coordinator

PROTECTIVE MEASURES COORDINATOR 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 will be assigned. This quality code will also be 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 will be tagged as INVL. Also, if a multiplexer has either failed or been taken offline, all points assigned to that multiplexer will be 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".

PROTECTIVE MEASURES COORDINATOR 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.

PLANT ASSESSMENT COORDINATOR CHECKLIST

DATE: _____ TIME_____

	INITIATION
☐ 1.	Sign in on Facility Sign-in board. Obtain the PAC package and clip on the Plant Assessment Coordinator bad
☐ 2.	Ensure the EOF has power. ☐ Normal power, (i.e. lights on, power available to computers, etc.). ☐ No Power-Start the EOF diesel and contact Radwaste personnel in the EOF Dose Assessment Staff **or** call for an Equipment Operator to perform manual switching of the 480V supply for the EOF per **OOA-UB-EPG50**. Inform the person performing the manual switch over that appropriate PPE is available at the EOF to perform this task to expedite their arrival. ***NOTE:*** These steps are performed if not previously performed by the OSL or PMC.
☐ 3.	Ensure the EOF HVAC system is in recirculation/filter mode per **OOA-UB-00004.** Keys to the HVAC room are in the OSL packet. ***NOTE:*** These steps are performed if not previously performed by the PMC.
☐ 4	Check computer and printer power supplies have been shifted to the UPS position. ☐ Computer ☐ Color Printer ***NOTE:*** These steps are performed if not previously performed by the PMC.
☐ 5.	Protective Measures Coordinator informed of your presence.
☐ 6.	Initiate Facility Log sheet.
☐ 7.	☐ Plant Assessment Staff _____ Name _____ Name
☐ 8.	Turn on projected statusboards.
☐ 9.	Check PAC phone lines for dial tones.
☐ 10.	Contact the TAC in the TSC and request information on any EALs and PARs already in place, and request tha preparations be made to transfer PARs to the EOF.
☐ 11.	Notify the PMC when you are ready to assume your duties, including PARs.
☐ 12.	Evaluate PSB1, PSB2, and PSB3 on the Plant Computer.
☐ 13.	Initiate Free Format Logs as needed.
☐ 14.	Formally accept PARs from the TSC, when permission is granted from the PMC or RM.

	OPERATIONS (*) *Steps are items that MUST be frequently reviewed*
☐ *1.	Evaluate input from plant conditions and **EIP-ZZ-00101** and **EIP-ZZ-00212**, Protective Action Recommendations.
☐ *2.	Provide the Protective Measures Coordinator with plant based Protective Action Recommendations.
☐ *3.	Request release duration from TAC.

PLANT ASSESSMENT COORDINATOR CHECKLIST

	TURNOVER
☐ 1.	Brief the oncoming PAC on the status of the facility and on-site and off-site emergency response activities.
☐ 2.	Review log.
☐ 3.	Inform the Protective Measures Coordinator.
☐ 4.	Turnover complete _____ Time.
☐ 5.	Turnover logged.
☐ 6.	Initiate a new checklist CA#735.

	RECOVERY
☐ 1.	Continue providing requested information.
☐ 2.	Continue activities per procedures and checklist until Recovery Organization established or until directed otherwise by the Protective Measures Coordinator/Recovery Manager.

	TERMINATION and SHUTDOWN
☐ 1.	When directed, assist the OSL with the EOF deactivation.
☐ 2.	Ensure area is put into order and logs collected and give to the Logistics Support Coordinator.

_____
Plant Assessment Coordinator

PLANT ASSESSMENT COORDINATOR 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 will be assigned. This quality code will also be 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 will be tagged as INVL. Also, if a multiplexer has either failed or been taken offline, all points assigned to that multiplexer will be 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.

PLANT ASSESSMENT COORDINATOR CHECKLIST

PLANT COMPUTER GUIDE

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".

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.

LOGISTICS SUPPORT COORDINATOR CHECKLIST

DATE: _____ TIME_____

	INITIATION
☐ 1.	Sign in on Facility Sign-in board. Obtain the Logistics Support Coordinator (LSC) package and clip on the Logistics Support Coordinator badge
☐ 2.	Recovery Manager informed of your presence.
☐ 3.	Initiate Facility Log sheet.
☐ 4.	Equipment energized / made ready. ☐ Check and Synchronize clock ☐ Copier ☐ FAX (Out) ☐ LSC Computers ☐ Microfiche Reader ☐ LAN Printer ☐ LSC Telephones ☐ FAX (In)
☐ 5.	Admin Coordinator contacted and administrative operations and responsibilities discussed. Obtain the names of the clerical support staff reporting. Assume the responsibility of requesting outside assistance.
☐ 6.	Personnel Assessment Logistics Support Staff _____ (name) _____ (Name) Clerical Support Staff _____ (name) (assign to Recovery Manager) _____ (Name) (assign to Priorities board) _____ (Name)
☐ 7.	When directed by the RM, evaluate extra personnel. ☐ Assemble all extra responders in the Media Area to await further instructions. (Obtain key from the Off Site Liaison Coordinator.) ☐ Establish needs of coordinators. ☐ Inform extra responders of established routes to take when leaving. ☐ Send personnel home, or to a designated Reception and Care Center, with instructions to stand by until they can be contacted with a designated time to return.
☐ 8.	If adverse radiological conditions exist or occur, post signs and posters regarding "No Eating, Drinking, Smoking, or Chewing".
☐ 9.	If additional support is needed, contact the Administrative Coordinator for callout.

	OPERATIONS (*) *Steps are items that MUST be frequently reviewed*
☐ *1.	Contact Administrative Coordinator and request additional clerical support as needed.
☐ *2.	Check status of EOF/JPIC emergency responders per **EIP-ZZ-00200**, Attachment 3. Do NOT delete messages until all positions are filled. Distribute copies of Attachment 3 to Coordinators periodically until all positions are filled. Paging or calling using the Emergency Telephone Directory may be required. ☐ Call 64777 Audix. ☐ Enter 68202 and the # sign. ☐ Enter the password which is the # sign. ☐ Follow instructions to listen to new messages and complete Attachment 3. ☐ Contact SAS (**68785**) for any positions that were logged due to Audix message transfer.

LOGISTICS SUPPORT COORDINATOR CHECKLIST

☐ *3.	If asked to track the weather, use the internet or call 1-800-992-7433, St. Louis Flight Briefing Service.
☐ *4.	Serve as liaison with American Nuclear Insurers and INPO as required. (NOTE: The communicators contact both groups with notifications.)
☐ *5.	Contact Regional Regulatory Affairs Group and have them review notifications required per **APA-ZZ-00520**, Reporting Requirements And Responsibilities.
☐ *6.	Contact area Motels to begin prearranging lodging: ☐ Ensure motels being contacted are outside the Plume Exposure Pathway. ☐ Establish a list of motels with number of rooms available for each (the list should be generated for the next several days at a minimum). ☐ Request if some (your best estimate dividing between available motels) rooms may be held for 6:00PM cancellation daily for the next several days.
☐ *7.	Meal Arrangements ☐ Contact area restaurants/caterers to determine availability of meals. (This should be coordinated with the Admin Coordinator in the TSC who shares this responsibility.)
☐ *8.	Temporary facilities needed.
☐ *9.	Contact the Emergency Procurement personnel at the Ameren GOB to establish a working relationship.
☐ *10.	Review letters of agreement and the INPO Resources book for resources available from other plants.
☐ *11.	If requests for additional support personnel and services are made: ☐ Keep Recovery Manager informed of request being made for additional support. ☐ Contact vendors and obtain the following information: 1) Name(s) of personnel. 2) Social Security Number(s). 3) Point of Departure. 4) Transportation requirements (airline tickets, land transportation, etc.). 5) Lodging requirements. 6) Anticipated Work Location. 7) Estimated time of arrival. ☐ Contact Admin Coordinator to ensure access requirements are obtained and required training is scheduled.
☐ *11.	Request additional equipment as needed: ☐ Keep Recovery Manager informed of request being made for additional support services/equipment. ☐ Requesting organization should provide: 1) Explicit equipment requirements in writing. 2) Amount needed. 3) Delivery location. 4) Person on site to contact. 5) Justifiable reason for request. ☐ Contact vendor and obtain the following information: 1) Availability. 2) Shipping Mode. 3) Special handling requirements. 4) Estimated arrival time. ☐ Contact the following to coordinate the delivery/arrival: 1) Security Coordinator. 2) OSL for traffic control. 3) Requesting group.

LOGISTICS SUPPORT COORDINATOR CHECKLIST

	TURNOVER
☐ 1.	Brief the oncoming LSC on the status of the facility and on-site and off-site emergency response activities.
☐ 2.	Review log.
☐ 3.	Inform the Recovery Manager, Logistics and Clerical Staff of the turnover.
☐ 4.	Turnover complete _____ Time.
☐ 5.	Turnover logged.
☐ 6.	Initiate a new checklist CA# 736.

	RECOVERY
☐ 1.	Continue providing requested information.
☐ 2.	Continue activities per procedures and checklist until Recovery Organization established or until directed otherwise by the Recovery Manager.

	TERMINATION and SHUTDOWN
☐ 1.	When directed, assist the OSL with the EOF deactivation.
☐ 2.	Ensure area is put into order and all EOF logs collected and forward to the Emergency Preparedness Department.

_____
Logistics Support Coordinator

DOSE ASSESSMENT COORDINATOR CHECKLIST

DATE: _____ TIME_____

	INITIATION
☐ 1.	Sign in on Facility Sign-in board. Obtain the DAC package and clip on the Dose Assessment Coordinator badge.
☐ 2.	Inform Recovery Manager/Protective Measures Coordinator of your presence.
☐ 3.	Adjust Gai-tronics in Recovery Center to an acceptable level.
☐ 4.	Switch the DAC's computers (2) power supplies to the UPS position.
☐ 5.	Initiate Facility Log sheet.
☐ 6.	Check DAC phone lines for dial tone and Dose Assessment Equipment available and operable. Report any deficiencies to the Logistics Support Coordinator.
☐ 7.	Turn on overhead projector.
☐ 8.	Upon direction of the RM, Contact the Rad/Chem Technician in the Control Room who is performing dose assessment and request a turnover of dose assessment activities including elevated Radiation Monitor readings and trends (prepare to accept transfer of Dose Assessment to EOF). (If the EOF is uninhabitable, Dose Assessment is maintained in the TSC until the BEOF is staffed.)
☐ 9.	If vital busses NB01 and NB02 are degraded, refer to **KOA-ZZ-00125** to determine effect of degraded condition of Plant computer points.
☐ 10.	Notify the RM or PMC when you are ready to assume your duties. TIME: _____
☐ 11.	Obtain RM approval to transfer Dose Assessment to the EOF, and then relieve the Rad/Chem Technician in the Control Room of his Dose Assessment responsibility. (Communications and Dose Assessment should be transferred to the EOF at the same time.)
☐ 12.	Contact the HP Coordinator (HPC) and discuss the need to Assign R/C Support Personnel to the Rapid Plume Assessment Tech. position, if not already dispatched.
☐ 13.	Contact the HP Coordinator (HPC) in the TSC and request: • Two (2) Field Monitoring Teams (FMT) be dispatched, and • Two (2) Dose Assessment Staff personnel to be sent to the EOF. *NOTE: If release is in progress or imminent, brief the FMTs on the radio.*

	OPERATIONS
	(*) *Steps are items that MUST be frequently reviewed.* (**) *Frequently reviewed steps that can be completed by Dose Assessment staff.*
☐ *1.	When the Missouri Department of Health arrives at the EOF, provide them the following information: ☐ Plant Status Operating / Reducing Power / Shutdown ☐ Emergency Declaration ALERT / SITE / GENERAL ☐ Meteorological Conditions Wind Direction / Speed / Stability Class ☐ Release Start Time _____ ☐ Estimated Release Duration _____ ☐ Affected Map Sectors ☐ Protective Action Recommendations ☐ Ameren Field Monitoring Team Locations ☐ Comments / Questions

DOSE ASSESSMENT COORDINATOR CHECKLIST

☐ *2.	Upon determination that the emergency involves an actual or potential release of radioactive material, perfor dose projections in accordance with **EIP-ZZ-01211**, Management Action Guides For Nuclear Emergencies (MAGNEM). (**COMN** 42538) PRINT and SAVE all dose calculations. *NOTE: Request Rapid Plume Assessment Tech. (if dispatched) to obtain closed window RO-2 reading at o near Exclusion Area Boundary (EAB). This is to initially quantify the release.* Rad Chem Helper Cell Phone 573-220-4233 Hazmat Cell Phone 573-220-4232
☐ *3.	The DAC will be responsible for briefing individuals leaving the EOF once a radiological brief is required.
☐ *4.	Notify the Health Physics Coordinator (HPC) and Field Monitoring Teams (FMT) when projected thyroid dose reaches 25 Rem or greater. Recommend KI for Ameren UE Personnel and brief on KI Precautions per **HDP-ZZ-01300 section 7, items 7.1 through 7.1.4.**
☐ *5.	Wind shifts and changes in meteorological conditions should be announced to the RM, FMTs, and/or PMC and noted on maps. Notification of Offsite Agencies MUST be initiated within approximately 15 minutes of changes to Protective Action Recommendations. When available, coordinate recommendations with the Missouri Department of Health (DOH).
☐ **6.	Obtain weather forecast initially and approximately every 4 hours. Brief the PMC and/or the RM of any anticipated changes in the weather conditions and their effects on PARs. (St. Louis Flight Briefing Service 1-800-992-7433 or use the Internet)
☐ *7.	Monitor Radiation Monitor Trends for Group 1 and 2 EALs in accordance with **EIP-ZZ-00101**. Notify the RM and/or PMC of any setpoints that have been exceeded or are being approached. *NOTE: Refer to **KOA-ZZ-00125** during degraded NB01/NB02 conditions to determine validity of plant computer points.*
☐ *8.	When the field monitoring teams are available, brief and dispatch as per **EIP-ZZ-00211**, Field Monitoring Direction and Assessment. *NOTE: If release is in progress or imminent, brief the FMTs on the radio.*
☐ *9.	Evaluate input from the FMT's and monitor Protective Action Recommendations based on radiological conditions per **EIP-ZZ-00212**, Protective Action Recommendations. When available, coordinate recommendations with the Missouri Department of Health (DOH).
☐ *10.	Request update of release duration from the PMC/PAC or the TAC if the PMC/PAC is not available.
☐ *11.	Provide the Protective Measures Coordinator with the radiological based Protective Action Recommendations. *NOTE: If the Protective Measures Coordinator is not staffed, provide the Recovery Manager with the abo information.*
☐ *12.	Initiate Free Format Logs as needed.
☐ **13.	Establish Radiological Habitability Controls in the EOF. ☐ Close both vestibule doors, ensure stanchions are pulled across hallway. ☐ Response Response check the Portal Monitor (page 5 of 8, this attachment or **HTP-ZZ-04135**) ☐ AMS 3 energized and source checked (page 6 of 8, this attachment or **HTP-ZZ-04137**) ☐ Control dosimetry set ☐ Have Logistics Support post signs on doors to facility.
☐ **14.	Set up a frisking station using a model 177 ratemeter, (per page 4 of 8, this attachment or **HTP-ZZ-04101**).
☐ **15.	Issue TLDs to those plant personnel in the EOF that do not have TLDs (Use Page 8 of 8, this attachment fo issue).

DOSE ASSESSMENT COORDINATOR CHECKLIST

☐**16.	Ensure that facility habitability is maintained using portable instrumentation and secondary monitoring devices. Habitability Action Levels: ☐ 600 mrem/hr direct dose rate, inform the RM, and commence monitoring cumulative dose. ☐ 4400 mrem cumulative dose, recommend facility evacuation. ☐ 5000 mrem/hr or greater direct dose rates recommend facility evacuation. ☐ Iodine concentrations of 2.4 E –6 uCi/ml or greater, inform the Recovery Manager and commence air sampling to ensure total intake does not exceed 25 rem CDE. ☐ Iodine concentrations of 1.9 E –5 uCi/ml or greater, recommend evacuation. ☐ Appropriate protective actions, as per Health Physics procedures, should be recommended when experiencing the above radiological conditions and considering how and when to evacuate.
☐**17.	Ensure the four (4) decon sinks are directed to the Radioactive Holding Tank when handling radioactive waste. The Waste Holding Tank is to be monitored for level and disposed of properly when full. See **OOA-HD-00001**.
☐**18.	Set up frisker at entry to Decon Area for use by returning FMTs.

	TURNOVER
☐ 1.	Brief the oncoming DAC and FMTs on radiological release and dose information, field monitoring activities, and in-plant Radiation Monitor trends.
☐ *2.	Arrange for Field Monitoring Team (FMT) turnover by briefing and dispatching relief FMTs. Ensure returning FMTs access the EOF via the Decon Area in back of the Lab.
☐ 3.	Review log.
☐ 4.	Inform the Recovery Manager, Dose Assessment Staff and Field Monitoring Teams of the turnover.
☐ 5.	Notify DOH personnel of turnover.
☐ 6.	Turnover complete _____ Time.
☐ 7.	Turnover logged.
☐ 8.	Initiate a new checklist CA# 734.

	RECOVERY
☐ 1.	Continue providing requested information.
☐ 2.	Ensure that Field Monitoring Teams are informed of the Recovery declaration.
☐ 3.	Continue activities per procedures and checklist until Recovery Organization established or until directed otherwise by the Recovery Manager.

DOSE ASSESSMENT COORDINATOR CHECKLIST

TERMINATION and SHUTDOWN	
☐ 1.	When directed, assist with the EOF deactivation.
☐ 2.	Ensure area is put into order and logs collected and given to the Logistics Support Coordinator.
☐ 3.	Ensure dose assessment equipment is turned off and/or stored and UPS units selected to LINE.
☐ 4	If sinks and showers are no longer needed for decon purposed, survey sinks and showers. If free of contamination, return drains to the sanitary tank.
☐ 5.	Secure friskers and store in locker.
☐ 6.	Secure AMS-3.
☐ 7.	Collect and make preparations to read TLDs issued from the EOF.

_____
Dose Assessment Coordinator

DOSE ASSESSMENT COORDINATOR CHECKLIST

SET-UP AND OPERATION OF THE MODEL 177 RATEMETER

This Startup Sequence augments **HTP-ZZ-04101**, Operation of the Ludlum Model 177 Series Alarm Ratemeter. It is designed to be used in an Emergency Response Facility when a HP Operations Technician is not immediately available.

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.

DOSE ASSESSMENT COORDINATOR CHECKLIST

GAMMA-10 PORTAL MONITOR RESPONSE CHECK

This Startup Sequence augments **HTP-ZZ-04135**, Operation of the NNC Gamma-10 Portal Monitor. It is designed to be used in an Emergency Response Facility when a HP Operations Technician is not immediately available.

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

1. Verify 110 VAC power to the unit. If it is ON, proceed to Step 2. If the monitor is OFF, perform the following:

   - Supply 110 VAC to the unit through the UPS unit.
   - Set the NIMBIN power supply On-Off switch to ON and ensure the power light is illuminated.
   - Set the HV-2 NIM On-Off switch to on and ensure the Positive LED is illuminated.

2. 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.

3. Inspect the monitor for physical damage.

4. Verify no alarms are activated. (If an alarm is activated, clear the alarm and depress the RESET on the portal before continuing.)

5. 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.

6. Depress the RESET button on the portal. The alarms should clear and the green operational light should remain lit.

7. 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.

DOSE ASSESSMENT COORDINATOR CHECKLIST

AMS-3 STARTUP AND OPERATION

This Startup Sequence augments HTP-ZZ-04137, Operation of the Eberline AMS-3. It is designed to be used in an Emergency Response Facility when a 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 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 10^3 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 $2x10^4$ 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.

DOSE ASSESSMENT COORDINATOR CHECKLIST

Emergency Operations Facility (EOF) TLD Issue Log							
TLD Label No.	**Name** (Last, First, MI)	**Badge No.(UE) or SSN(nonUE)**	**Organization**	**TLD Label No.**	**Name** (Last, First, MI)	**Badge No.(UE) or SSN(nonUE)**	**Organization**

BACK-UP EOF CHECKLIST

DATE: _____ TIME_____

	TRANSFER TO BACK-UP EOF
☐ 1.	**OSL**-Contact SEMA and County EOCs and notify them of the decision to activate the Backup EOF due to the EOF being uninhabitable. Inform SEMA of the estimated time of arrival to the Backup EOF. *NOTE: This step can be satisfied by adding this information to a SENTRY Notification Form or by using backup communication lines.*
☐ 2.	**OSL or RM**-Contact the NRC Operations Center and notify them of the decision to startup the Backup EOF **or** contact the TSC ENS Communicator and ask them to inform the NRC OPS Center of the decision.
☐ 3.	**OSL**-Inform the appropriate EOF emergency personnel to relocate as indicated below. If personnel have not arrived at the facility, inform the Security Officer in the EOF to direct arrivals to the appropriate facility (Backup EOF or TSC). See attached map and layout for the Backup EOF: *NOTE: The BEOF has Emergency Packets for the staff. Personnel reporting to the TSC need to take their packet with them.* ☐ Recovery Manager to the Backup EOF. ☐ Protective Measures Coordinator to the Backup EOF. ☐ Off-Site Liaison Coordinator to the Backup EOF. ☐ Communicator, to the TSC to report to EC. ☐ DACs, one to the Backup EOF and one to the TSC to report to EC. ☐ Dose Assessment Staff, one to the Backup EOF and one to the TSC ☐ Plant Assessment Coordinator to the TSC to report to TAC. ☐ Logistics Support Coordinator to the TSC to work with the Admin. Coord. ☐ JPIC Tech Rep (EOF) to the TSC and communicate with JPIC. ☐ All Others – Contact the Admin Coordinator in the TSC to determine if EC needs additional personnel in the TSC. If not needed, personnel should be instructed to return home and standby their phones.
☐ 4.	**RM**-Direct the **EC** and TSC to take charge of all ERO operations including the responsibility for the following until the BEOF is activated. Maintain contact, to the extent possible, using Cellular phones while in route to Backup EOF ☐ Protective Action Recommendations in accordance with **EIP-ZZ-00212.** ☐ Dose Assessment/ FMT Coordination in accordance with **EIP-ZZ-01211and EIP-ZZ-00211** . ☐ Notifications in accordance with **EIP-ZZ-00201.** *NOTE: Notifications may be sent from the Control Room using SENTRY or be initiated from the TSC using backup communication lines.*

	INTERIM OPERATION WHILE AWAITING BACKUP EOF ACTIVATION
☐ 1.	**Communicator** - (Reporting to TSC) Announce your presence to the EC and coordinate notification completion with the DAC and TAC. ☐ Make Notifications using SENTRY, BURS, or commercial phone lines in the TSC. *NOTE Ensure copies of all notifications are Faxed to the Backup EOF. (See attached drawing for phone #.)*
☐ 2.	**DAC** - (Reporting to TSC) Work with the HPC and perform all applicable portions of the DAC Checklist Attachment 6. *NOTE: Field Monitoring Teams (FMTs) should remain under the control of the TSC DAC until the DAC in the Backup EOF is ready to assume control. Primary communications with the FMTs to the Backup EOF will be via cellular phones. Secondary radio communications can be established if necessary.*

BACK-UP EOF CHECKLIST

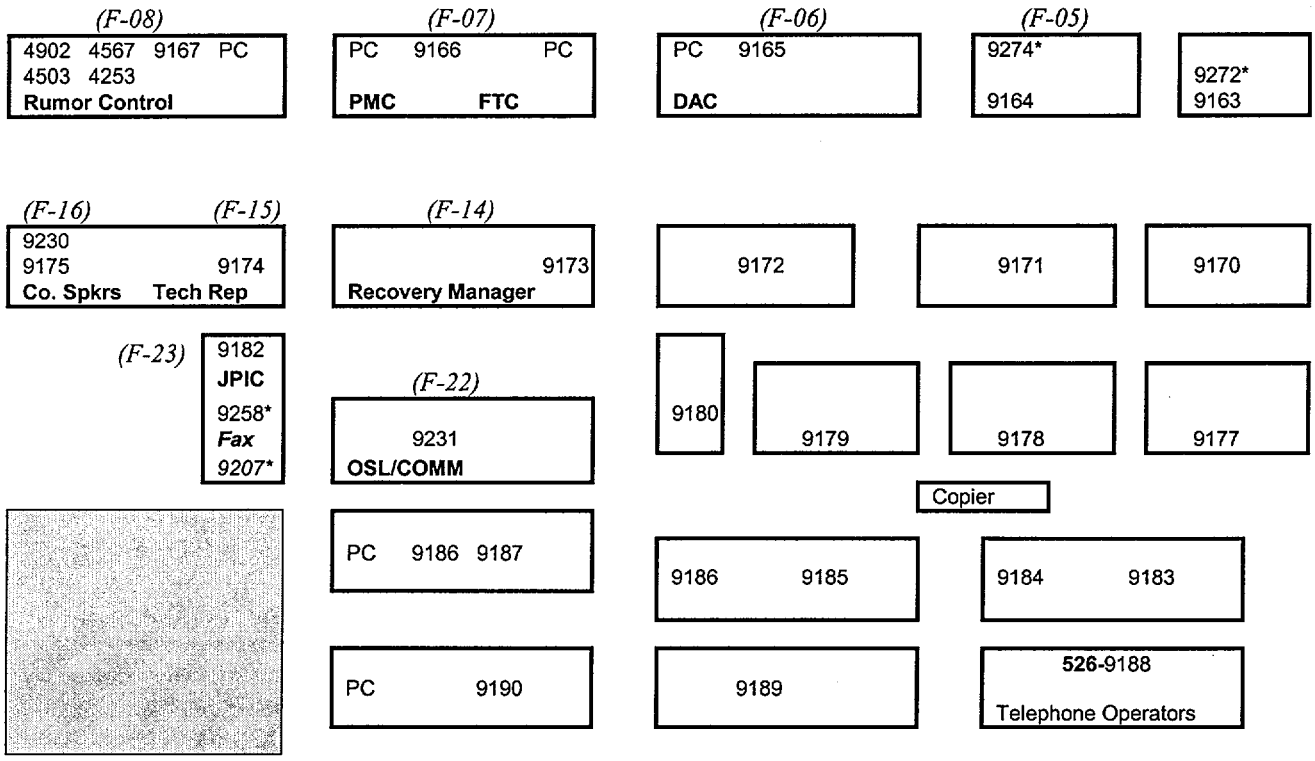
☐ 3.	**Dose Assessment Staff** - (Reporting to TSC) Assist the DAC with FMT direction.
☐ 4.	**PAC** - (Reporting to TSC) Report to the TAC and perform applicable portions of Attachment 4.
☐ 5.	**LSC** - (Reporting to TSC) Work with the Admin Coordinator performing the applicable portions of Attachment 5.

	BACKUP EOF ACTIVATION
☐ 1.	**OSL** -Upon arrival at the Backup EOF. ☐ Ensure equipment/materials are setup (Refer to Page 3 of this Attachment). ☐ Ensure the MAGNEM PC is set up and operating including testing the printer. ☐ Phones are removed from the cabinet, plugged in, and operable. ☐ Introduce yourself and the RM to the appropriate State officials.
☐ 2.	**RM** -Recovery Manager contact the Emergency Coordinator, receive update, and request transfer of the following to the Backup EOF: ☐ Protective Action Recommendations in accordance with **EIP-ZZ-00212** . ☐ Dose Assessment/ FMT Coordination in accordance with **EIP-ZZ-01211** and **EIP-ZZ-00211**. *Note: Field Monitoring Teams remain under the control of the TSC DAC.* ☐ Notifications in accordance with **EIP-ZZ-00201.**
☐ 3.	**PMC** - Perform applicable portions of PMC Checklist Attachment 3 using input from the TAC, PAC (in TSC) and DAC (Backup EOF).
☐ 4.	**DAC** - Coordinate with the Missouri Department of Health (DOH) and assume Field Monitoring Team coordination from the TSC, using cellular phones as the primary communication with the Teams. Perform applicable portions of Attachment 6.
☐ 5.	**OSL** - Perform applicable portions of the OSL Checklist Attachment 2 and ensure a comprehensive turnover of offsite notifications with the concurrence of the RM. *NOTE: DO NOT assume responsibility of notifications until PMC and DAC have assumed responsibility.*
☐ 6.	**OSL** - Report the assumption of responsibilities to the Recovery Manager.
☐ 7.	**OSL** - Log the Backup EOF activation time
☐ 8.	**OSL** - Inform the Emergency Coordinator, SEMA, County EOCs and the NRC of the assumption of responsibilities in the Backup EOF.

_____
Off-Site Liaison Coordinator Signature

BACK-UP EOF CHECKLIST

BEOF LAYOUT

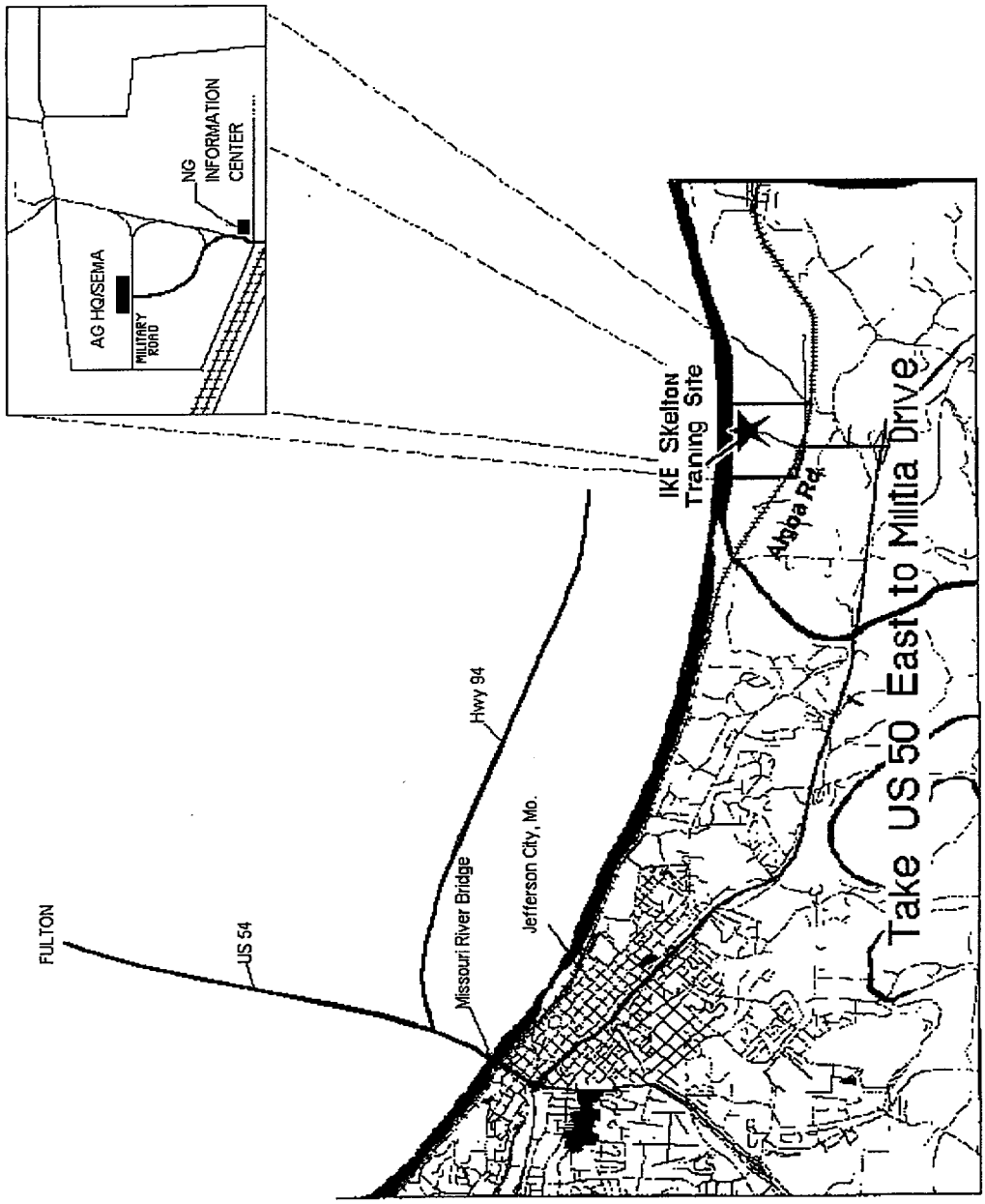


All 9XXX phone numbers are 526-9XXX
All 4XXX phone numbers are 634-4XXX
* Indicates analog phone line
Field Monitoring Team Cellular Phones

Chem Vehicle	(573) 220-0173
HPTS Vehicle	(573) 220-0628
I&C Vehicle	(573) 220-2507

Radio for FMT communications is located in the SEMA Radio Room

When dialing out, use 8 (area code) XXX-XXXX.


NG
INFORMATION
CENTER
AG HQ/SEMA
MILITARY
ROAD
IKE Skelton
Traning Site
Algoa Rd
Take US 50 East to Militia Drive
Hwy 94
Missouri River Bridge
Jefferson City, Mo.
US 54
FULTON