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R	PROC	EIP-ZZ-C0010	030	029	C	1			
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CALLAWAY PLANT

EMERGENCY PLAN IMPLEMENTING PROCEDURE

EIP-ZZ-C0010

EMERGENCY OPERATIONS FACILITY OPERATIONS

RESPONSIBLE DEPARTMENT EMERGENCY PREPAREDNESS

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This procedure contains the following:

Pages	1	through	7
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

TABLE OF CONTENTS

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 AmerenUE 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)

Summary of Changes

Page(s)	Section or Step Number	Description EIP-ZZ-C0010 Rev. 030
Attachment 1, page 1	6	Removed "using the EML phones, if available".
Attachment 5, page 1	Section 2 of Operations	Added "contact the Administrative Coordinator to perform callouts if necessary".
Attachment 6, page 2	6	Added "Logistic Support can be requested to track the weather via the internet)".
Attachment 6, page 3	13	Added "sets of".

RECOVERY MANAGER CHECKLIST

DATE: _____ TIME_____

	INITIATION
☐ 1.	Sign in on Facility Sign-in board. Obtain the RM package and TLD (if you do not already have one) 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. Upon arrival of the Protective Measures Coordinator, instruct the PMC to begin turnover of Protective Action Recommendations (PARs).** NOTE: Prior to assuming responsibility for notifications, Dose Assessment, and PARs, only the OSL & DAC are required to have completed turnover.
☐ 6.	Notify the Control Room and the EC prior to assuming responsibilities for Notifications, Dose Assessment and PARs. NOTE: Remind EC to contact the RM as soon as an emergency declaration is made to ensure timely notifications.
☐ 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 above normal operating limits is in progress or anticipated, announce **"an HP brief from the DAC will also be required."** *NOTE: If a release above normal operating limits 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.	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 ☐ Missouri Department of Health ☐ FEMA (if required)
☐ *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 TLD (if you do not already have one) 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 perform manual switching of the 480V supply for the EOF per OOA-UB-EPG50 . (CARS 200304574)
☐ 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-00201Attachment 3 (CA#2517C), 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 TLD (if you do not already have one) 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 perform manual switching of the 480 V supply the EOF diesel per **OOA-UB-EPG50. (CARS 200304574)** ***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 TLD (if you do not already have one) and clip on the Plant Assessment 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 perform manual switching of the 480V supply for the EOF per **OOA-UB-EPG50. (CARS 200304574)** *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 that 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.

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 TLD (if you do not already have one) 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. Contact the Administrative Coordinator to perform callouts if necessary. ☐ 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. NOTE: Consider coordination of personnel for additional shifts in the EOF if necessary.

LOGISTICS SUPPORT COORDINATOR CHECKLIST

☐ *3.	If asked to track the weather, use the internet or call 1-866-671-6176, St. Louis Flight Briefing Service. (CARS 200304577)
☐ *4.	Serve as liaison with American Nuclear Insurers and INPO as required. (NOTE: The communicators contact both groups with notifications. Logistic Support would interface with these agencies if representatives plan to travel to the area or have the need to coordinate with plant personnel. The JPIC should be contacted for press release information on ANI emergency claims office locations.) *(CARS 200302109)*
☐ *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. ☐ Contact Dose Assessment Coordinator to ensure requirements for HP briefing and dosimetry are evaluated for off-site support arriving at the site. Be aware of changing radiological conditions and request an update of HP briefing and dosimetry requirements based on new radiological conditions. Refer to KOA-ZZ-A0003 for guidance. (CARS 200302318)

LOGISTICS SUPPORT COORDINATOR CHECKLIST

☐ *12.	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.

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 TLD (if you do not already have one) 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. *Note: The Plant Computers can be re-set (if the monitor screen is locked up) by pressing the small white button on the back of the CPU.*
☐ 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 above normal operating limits is in progress or imminent, brief the FMTs on the radio. If immediate response by off-site responders is required at the site, refer to **KOA-ZZ-A0003**. (CARS 200302318)*

OPERATIONS

(*) Steps are items that MUST be frequently reviewed by the Dose Assessment Coordinator.
(**) Frequently reviewed steps that can be completed by Dose Assessment staff.

DOSE ASSESSMENT COORDINATOR CHECKLIST

☐ *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
☐ *2.	Upon determination that the emergency involves an actual or potential release of radioactive material, perform 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 or 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 *NOTE: If the release is determined to be above normal operating limits, contact* Health Physics Coordinator 68711 Security Coordinator 68701 *to inform them that the release is above normal operating limits.*
☐ *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 AmerenUE 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 Logistic Support can be requested to track the weather via 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 above normal operating limits 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.

DOSE ASSESSMENT COORDINATOR CHECKLIST

☐ *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 above information.*
☐ *12.	Initiate Free Format Logs as needed.
☐**13.	Establish Radiological Habitability Controls in the EOF. ☐ Close both sets of vestibule doors, ensure stanchions are pulled across hallway. ☐ Response check the Portal Monitor (page 6 of 8, this attachment or **HTP-ZZ-04135**) ☐ AMS 3 energized and source checked (page 7 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 5 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 for issue).
☐**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.

DOSE ASSESSMENT COORDINATOR CHECKLIST

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.

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 GAMMA-10 and AMS-3.
☐ 7.	Collect and make preparations to read TLDs issued from the EOF.

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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

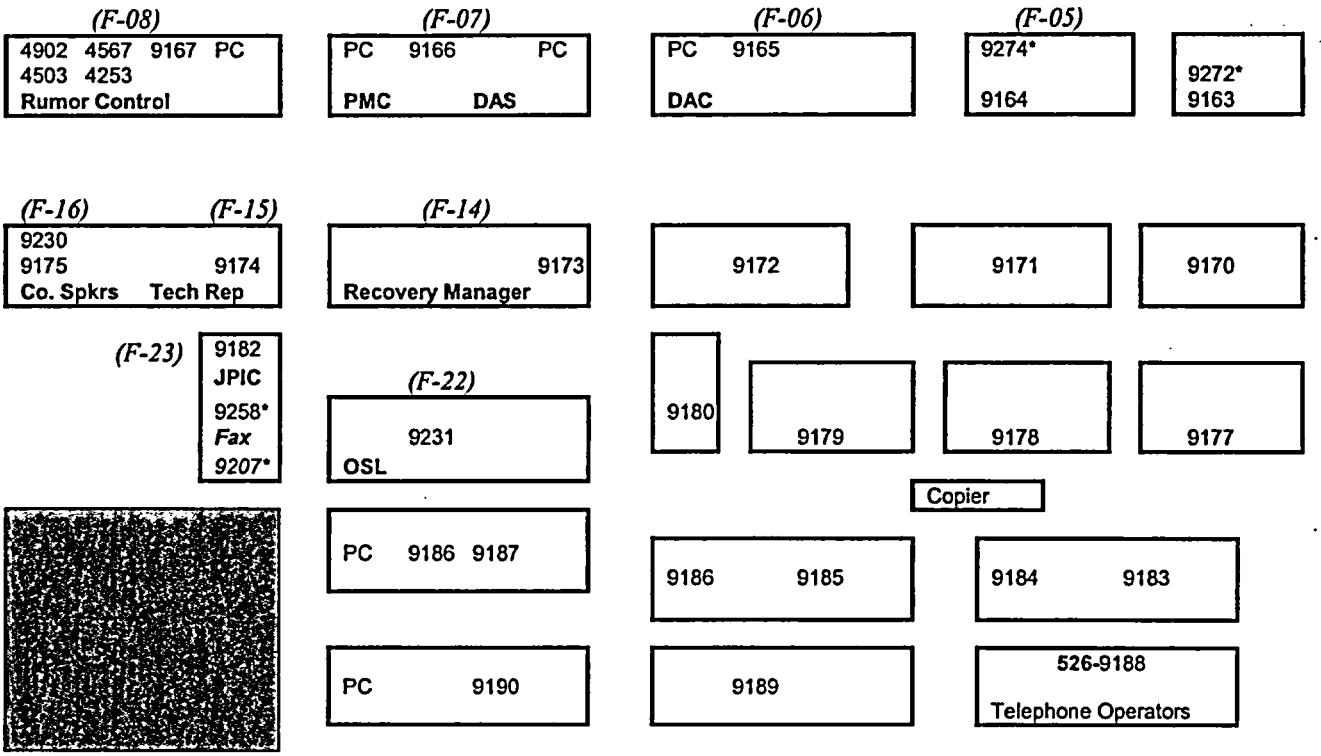
☐ 3.	**Dose Assessment Staff** - (Reporting to TSC) Assist the DAC with FMT direction.
☐ 4.	**PAC** - (Reporting to TSC) Report to the TAC and perform applicable portions of Attachment 4.
☐ 5.	**LSC** - (Reporting to TSC) Work with the Admin Coordinator performing the applicable portions of Attachment 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**. ☐ 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. The BEOF SENTRY computer does not have the capability to send notifications. The preferred order for notifications at the BEOF should be BURS, fax, and commercial telephone lines. (CARS 200302679)*
☐ 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

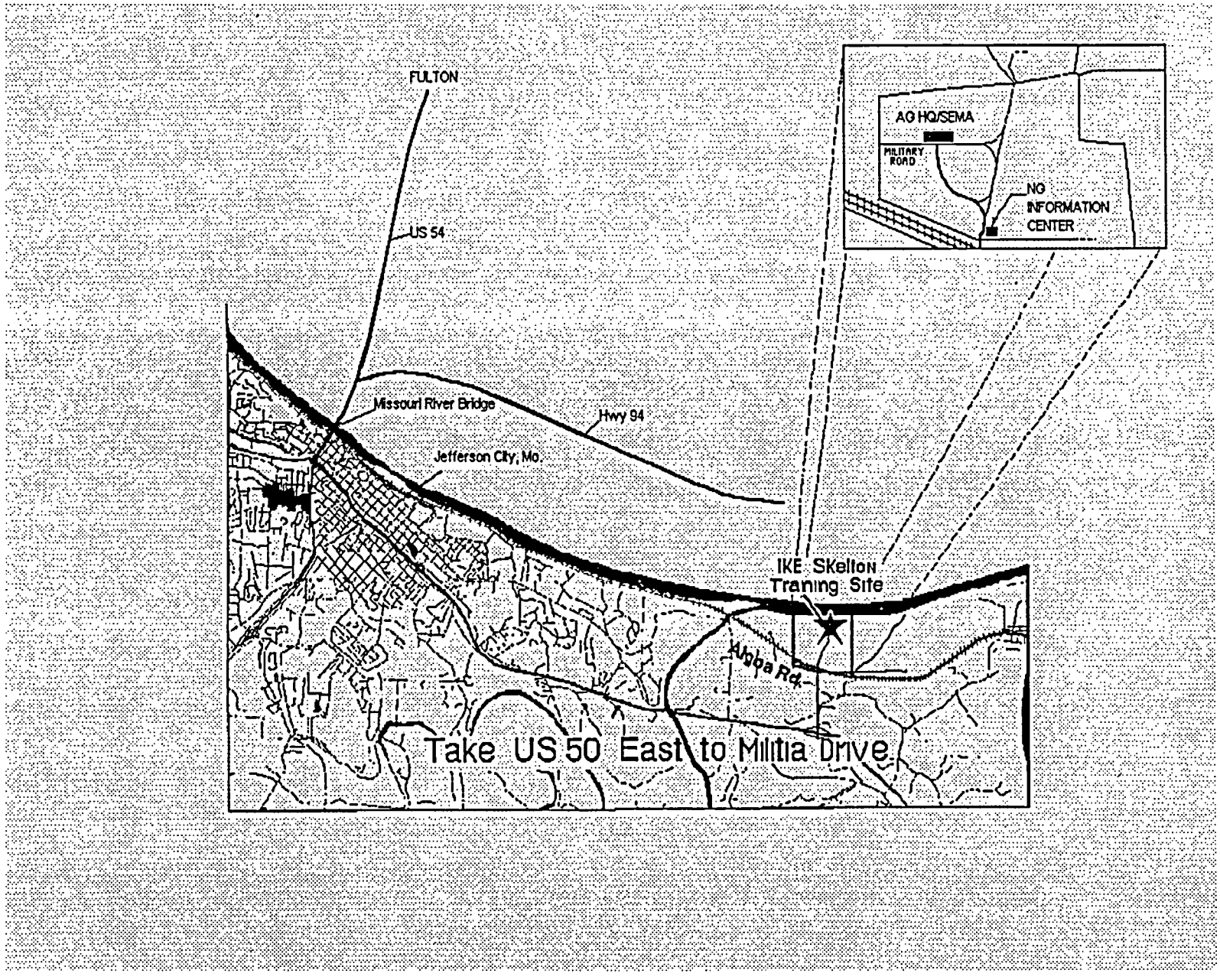


All 9XXX phone numbers are 526-9XXX
All 4XXX phone numbers are 634-4XXX
* Indicates analog phone line
Field Monitoring Team Cellular Phones

Chem Vehicle	(573) 220-0173
HPTS Vehicle	(573) 220-0628
I&C Vehicle	(573) 220-2507
OPs Vehicle	(573) 220-1096

Radio for FMT communications is located in the SEMA Radio Room

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



ATTACHMENT 7
CA-#2339

EIP-ZZ-C0010
Rev. 030

CALLAWAY PLANT

EMERGENCY PLAN IMPLEMENTING PROCEDURE

EIP-ZZ-00102

EMERGENCY IMPLEMENTING ACTIONS

RESPONSIBLE DEPARTMENT **EMERGENCY PREPAREDNESS**

PROCEDURE OWNER **W. R. Bevard**

WRITTEN BY **W. R. Bevard**

PREPARED BY **S. J. Crawford**

APPROVED BY Warren A. Witt

DOCUMENT CONTROL ISSUED JAN 23 2004 ACCOUNTABLE HOLDER 338U

DATE ISSUED 1-23-04

This procedure contains the following:

Pages	1	through	7
Attachments	1	through	5
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 019

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EMERGENCY IMPLEMENTING ACTIONS

1 PURPOSE AND SCOPE

1.1 This procedure provides guidance to the Emergency Coordinator for implementing emergency actions when an emergency has been classified or reclassified per **EIP-ZZ-00101**, Classification of Emergencies. **(COMN 3312)**

2 DEFINITIONS

2.1 RELEASE ABOVE NORMAL OPERATING LIMITS - A discharge of radioactive effluent that results in a reading of 0.1 mrem/hr or greater at the Exclusion Area Boundary (EAB).

3 RESPONSIBILITIES

3.1 EMERGENCY COORDINATOR

3.1.1 Responsible for implementing this procedure and directing emergency response as follows: **(COMN 42570)**

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

3.1.1.1 Classifying and declaring emergencies.

3.1.1.2 Authorizing personnel exposure in excess of 10CFR20 limits.

3.1.1.3 Assumes decision-making responsibilities for implementing strategies identified in the Severe Accident Management Guidelines.

3.1.1.4 *Directing operations of emergency response organizations.

3.1.1.5 *Requesting the formation of emergency teams.

3.1.1.6 *Initiating the implementation of on-site protective actions.

3.1.1.7 *Ensuring that on-site and off-site emergency response organizations are kept up to date on emergency conditions.

3.1.1.8 *Ensuring that site-wide announcements are made on the plant Public Address (PA) system.

3.2 SHIFT SUPERVISOR

3.2.1 Until relieved, the Shift Supervisor acts as the Emergency Coordinator. **(COMN 3314)**

4 PROCEDURE

NOTE:	Monitor Emergency Action Levels (EALs) throughout this procedure.
NOTE:	The flowchart Attachment 5 may be use to assist in the performance of this procedure.

4.1 **Notify Facility Personnel:**

4.1.1 Announce the Emergency Classification and the time of declaration.

4.1.2 Announce the Cause.

4.2 **Manually Initiate ERFIS** from Main Control Board and Do Not "Reset" until instructed by Tech Assessment Staff.

4.3 **Notify On-Site Personnel:**

CAUTION:	If CODE RED or CODE BLACK is in progress, on-site emergency announcements should be held to a minimum and prohibit movement of personnel until CODE condition is secured.

4.3.1 Prepare Attachment 1. If an Alert or higher is being declared, the Emergency Response Organization SHALL be activated. **(COMN 42535) (COMN 3391)**

NOTE:	The Emergency Response Organization may be activated prior to an ALERT as necessary to provide additional support. If this is done ensure on-site personnel understand the request by clearly stating the need for additional support in the pager message and the gaitronics announcement.

4.3.2 Sound the Plant Emergency Alarm from the Control Room.

4.3.3 Perform Attachment 1, making the emergency announcement applicable to the Emergency Classification. Include if there is a localized emergency (e.g., fire, flood), announcing the type and location, and instruct personnel to stand clear of the affected area.

NOTE:	Emergency Callout System activation does not need to be done if activated already at a lower classification level.
NOTE:	Pager Message Text can be reviewed on the EP WEB page and checked on the paging sytem PC. *Emergency Messages are* Message 1 – Calls all ERO members Message 2 Calls the Rapid Responders Message 10 – Used for augmentation of staff Message 12 – Security Event, ERO reports to EOF

4.4 **At an ALERT or higher classification** call out the emergency organization by having the SAS operator activate the Emergency Callout System per **KOA-ZZ-00200** for rapid responders using the appropriate message.

NOTE:	The Shift Supervisor has a Satellite Cellular Phone to be used as a last resort backup to the telephone and radio systems. If installed systems and backups fail the Satellite Cellular Phone may be used for offsite communications.

4.5 **Notify Off-Site Agencies:**

4.5.1 Shift Supervisor complete or direct completion of the SENTRY screen or complete Attachment 4 and give it to the Communicator.

NOTE:	If the condition or cause of the classification has already been corrected the form should be completed as prescribed for the emergency. A statement should then made in the Notes section, lower right hand side, "The condition that caused the (emergency classification) has been corrected and Event closeout has been declared. Also ensure NRC operations is notified within 1 hour. **CARS 199700852**

NOTE:	After the initial reporting, if the NRC Operations Center is activated, the NRC will request additional information. The personnel communicating with NRC should be knowledgeable with the facility's operation and with the event to provide and update information about the evolving incident. The level of communication will depend on the development and the significance of the event.

CAUTION:	As a minimum, the immediate protective action recommendation for a GENERAL EMERGENCY, is evacuation within a 2 mile radius and 5 miles downwind of the plant in affected sectors. **(COMN 3954)**

4.5.2 Incorporate protective action recommendations in accordance with **EIP-ZZ-00212**, Protective Action Recommendations.

4.5.3 Implement **EIP-ZZ-00201**, Notifications. Initial notifications to State and Local Authorities SHALL be initiated within **15 minutes** after declaration of an emergency. **(COMN 3946)**

NOTE:	Notifications should be initiated within 15 minutes if conditions change and approximately every 30 minutes if conditions are stable. When at an Unusual Event and conditions are stable the notification frequency may be extended with the concurrence of SEMA and the EPZ Counties.

4.6 Ensure **Attachment 2**, Operations Personnel Emergency Actions, is taken to the Field Office for use by the Field Supervisor or first available individual. Extra Operations personnel report to the Field Office at the first Emergency Announcement.

4.7 **Notify the Emergency Duty Officer** and discuss the following: **(COMN 3946)**

- Emergency Classification.
- Plant status and actions taken.
- Callout of response organizations.
- Notification of off-site agencies.

4.8 **Notify the Recovery Manager** of an Unusual Event. **(COMN 3946)**

NOTE:	Notification of the Recovery Manager is not required at an Alert or higher as this is accomplished using **EIP-ZZ-00200 and KOA-ZZ-00200.**

4.9 If a **Release above normal operating limits is in progress or projected** (as defined in this procedure) ensure dose assessment and **EIP-ZZ-00212** is initiated.

4.9.1 DISCUSS the need to dispatch the Rapid Plume Assessment Tech (RPAT) with the On Shift Dose Assessment Tech. ref **(KOA-ZZ-1212A)**.

4.9.2 If Abnormal In-plant radiological conditions exist, set up a ratemeter at the door of the Control Room per Attachment 3.

4.10 **Implement EIP-ZZ-00217**, Emergency Response Data System Activation (ERDS) as soon as possible but in all cases **within one-hour** of an **ALERT or higher classification**. The Shift Supervisor may delegate this to Tech Assessment in the TSC.

4.11 **Evaluate Assembly/Evacuation** per **EIP-ZZ-00230**, Accountability. **(COMN 3983) (COMN 3986)**

NOTE:	Accountability SHALL occur within 30 minutes of an Assembly/Evacuation announcement. **(COMN 42531)**

4.12 **Form and/or Dispatch Emergency Teams** as necessary using **EIP-ZZ-00220**, Emergency Team Formation.

4.13 Contact Chemistry and **initiate Post-Accident Sampling** as required.

4.14 Implement the **Severe Accident Management Guidelines** as required.

4.14.1 The control room should implement **SACRG-1**, Severe Accident Control Room Guideline Initial Response.

4.14.2 The control room should implement **SACRG-2**, Severe Accident Control Room Guideline for Transients after the TSC is Functional.

4.15 If **non-Ameren support** is needed, direct the Admin Coordinator to implement the Additional Assistance section of their checklist.

4.16 **Event Reclassification/Plant Recovery/Event Closeout**

4.16.1 If emergency has been **reclassified** return to **Step 3.1** and perform the applicable steps.

4.16.2 Evaluate **EIP-ZZ-00260**, Event Closeout/Plant Recovery, to determine if plant recovery or closeout conditions have been met.

NOTE:	The NRC should be notified of the intent to declare recovery.

4.17 Return to Step 3.11 and continue assessment if emergency has not been reclassified or event closeout/plant recovery has not been declared.

5 REFERENCES

5.1 Callaway Plant Radiological Emergency Response Plan (RERP)

5.2 **APA-ZZ-00743**, Fire Team Organization and Duties

5.3 **EIP-ZZ-00200**, Augmentation of the Emergency Organization

5.4 **EIP-ZZ-00201**, Notifications

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

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

5.7 **EIP-ZZ-00217**, Emergency Response Data System Activation

5.8 **EIP-ZZ-00230**, Accountability

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

5.10 **KOA-ZZ-1212A**, Rapid Plume Assessment Tech

5.11 **KOA-ZZ-00200**, Activation of the Callaway Plant Emergency Callout System

5.12 NRC Correspondence 11/27/2000, Recording Emergency Notification System Telephone Conversations

6 RECORDS

6.1 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)

6.2 Recordings of Emergency Notification System (ENS) and Health Physics Network (HPN) lines are available from the NRC recording system following the termination of an emergency event.

6.3 QA Records

6.3.1 Attachment 1, Emergency Announcement (File K171.0010)

7 SUMMARY OF CHANGES

Page(s)	Section or Step Number	Description of Change
I	TOC	Corrected Table of contents to remove reference placed there in error.
2	4.3.2	Added additional statement to the note prior to step 4.3.2 to ensure an announcement is made to on-site personnel when additional support is called for by the SS/EC.
3	4.4	Added a note before step 4.4 to state that Pager messages are reviewable on the EP Web page on the Callaway Intranet and listed a brief summary of the 4 messages that would be used in an actual event.
3	4.4	Changed to state, "using the appropriate message" instead of only message 1.
4	4.7	Bulletted items instead of substeps as it is not important in which order these items are done.
5	4.9	Added, "as defined in this procedure" to describe the limits for a release above normal operating limits.
6	6.1	Changed the note after this step to a new step for clarity.
1	Attachment 1	Added EAL # to the Emergency Announcement form at the request of ERO Drill participants to ensure understanding of which event was being declared.
1	Attachment 2	Removed step numbering and added simple place keeping for ease of use.
1	Attachment 5	Changed flowchart to add the information added in the note before step 4.4 and the step itself.

Emergency Announcement

NOTE:	If CODE RED or CODE BLACK is in progress, on-site emergency announcements should be held to a minimum and prohibit movement of personnel until CODE condition is secured.

SOUND THE PLANT EMERGENCY ALARM

ATTENTION ALL PERSONNEL! ATTENTION ALL PERSONNEL!

A(N)	UNUSUAL EVENT ALERT SITE EMERGENCY GENERAL EMERGENCY	**HAS BEEN DECLARED AT ___:___** (time)

THE CAUSE OF THE EMERGENCY IS EAL # _____

_____

_____

Emergency Organization Activation	
☐ Unusual Event	ALL MEMBERS OF THE ON-SHIFT EMERGENCY ORGANIZATION REPORT TO YOUR STATIONS.
☐ Alert or Higher	ALL MEMBERS OF THE EMERGENCY RESPONSE ORGANIZATION REPORT TO YOUR STATIONS.

Actions For Non-Essential Personnel		
☐ Unusual Event	ALL NON-ESSENTIAL PERSONNEL CONTINUE WITH YOUR NORMAL DUTIES UNLESS FURTHER INSTRUCTIONS ARE GIVEN.	
☐ Alert	ALL NON-ESSENTIAL PERSONNEL CONTINUE WITH YOUR NORMAL DUTIES UNLESS FURTHER INSTRUCTIONS ARE GIVEN. IF YOU ARE NOT BADGED FOR PROTECTED AREA ACCESS, YOU MUST EVACUATE THE PLANT SITE.	
☐ Site/General (Consider weather and radiological conditions PRIOR to making announcement.)	☐ Normal hours	ALL NON-ESSENTIAL PERSONNEL REPORT TO YOUR PRE-DESIGNATED ASSEMBLY AREAS IN THE CMB AND TRAINING CENTER. TAKE ALL PERSONAL BELONGINGS SUCH AS COATS, CAR KEYS AND PURSES. FOLLOW THE INSTRUCTIONS OF YOUR SUPERVISOR AND SECURITY OFFICERS. ACCOUNTABILITY WILL BE PERFORMED.
	☐ Off-normal hours	ALL NON-ESSENTIAL PERSONNEL PROCEED TO THE TSC AND AWAIT FURTHER INSTRUCTIONS. ACCOUNTABILITY WILL BE PERFORMED.

Special instructions, (i.e. special routes during releases. seek cover during storms)_____

_____

_____

PERSONNEL CAUTION (If required)	
☐ **Potential** Airborne Contamination	THERE WILL BE NO EATING, DRINKING, SMOKING, OR CHEWING UNTIL FURTHER NOTICE.

(REPEAT ALL ANNOUNCEMENTS)

_____
EC/RM APPROVAL

OPERATIONS PERSONNEL EMERGENCY ACTIONS

NOTE:	Pre-designated Personnel inside the Protected Area report to the Control Room/Field Office upon a Reactor Trip or at the first Emergency Announcement. All are Essential Personnel unless specifically released by the Shift Supervisor. Once released they do not report to the Field Office if accountability is declared, they respond as all other Non-Essential Personnel.

THE FIELD SUPERVISOR, OR DESIGNEE, PERFORMS THE FOLLOWING:

____ Prepare a list of personnel reporting to the field office along with their badge numbers. (Note: A security officer is generally assigned to pick up a copy of the list for accountability). Include on-watch equipment operators, (EO's). Have all personnel card into the field office conference room card reader (The card reader is used for accountability only).

____ The Polisher and Primary EO's should report to the Control Room to provide assistance. They should return to the Field Office when relieved by I&C Technicians.

____ The formation and dispatch of emergency teams should use **EIP-ZZ-00220** as a guide.

____ Rad Chem Technician(s) report to the Control Room/Field Office to assist in personnel monitoring, team briefing and rapid dose assessment. Emergency Team Briefing Form in **EIP-ZZ-00220** may be used as a guide.

NOTE:	When personnel leave the Field Office on assignment they should sign out, card out and be tracked to maintain accountability.

____ Designate the Fire Brigade members using personnel not on watch if available. Refer to **APA-ZZ-00743** , Fire Team Organization and Duties.

____ All Field Office personnel should go to HP Access, obtain an Electronic Dosimeter (ED) and sign in on RWP 911. If released as Non-Essential Personnel, individuals should sign off of RWP 911 and return their ED prior to leaving the site. This is to ensure all personnel dispatched from the Control Room or Field Office have their dose tracked.

CAUTION:	Remain aware of plant radiological conditions and do not dispatch operators into areas where conditions may be changing without Health Physics support and briefings.

____ If radiological conditions are a potential hazard, set up a ratemeter at the door and allow entrance only through that door. Refer to Attachment 3.

____ If the Field Office is required to be evacuated, all personnel then report to the Control Room or TSC as needed.

____ Assign Operators to the TSC for emergency team support as required and available.

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 located behind the control boards. There are two instruments, one for the door to the field office, one for the door to the Control Room.

2. Connect detector and power cords, if not already connected, to the Model 177 ratemeter and verify the following switch settings:

   Front Panel:
   - ☐ On/Off switch in "ON" position.
   - ☐ Volume adjusted to hear audible counts.
   - ☐ Response switch in "slow" position.

   Rear Panel:
   - ☐ Subtract switch in "Off" position (if meter has Subtract Switch.)

3. Prior to the first use of the day, 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.)
   - ☐ Return the check source to the E-Kit cabinet.

4. Set up one ratemeter at the door to the Field Office and one rate meter at the door to the Control Room for use. For each:

   - ☐ Connect detector and power cords, if not already connected, to the Model 177 ratemeter and verify the following switch settings:

     Front Panel:
     - ☐ On/Off switch in "ON" position.
     - ☐ Volume adjusted to hear audible counts.
     - ☐ Response switch in "slow" position.
     - ☐ Range switch to the value necessary to maintain "on scale" display. Normally, this should be the "X1" scale.

     Rear Panel:
     - ☐ Alarm set at "5".
     - ☐ Subtract switch in "Off" position if meter has Subtract Switch.

   - ☐ Ensure the probe sets "face up" when not being used. (This allows the next user to frisk prior to handling the detector, and allows the detector to monitor area and airborne radiation levels.)

5. If the ratemeter background reading exceeds the "X1" scale (500 CPM) during use, notify the Health Physics Coordinator.

OFF SITE NOTIFICATION FORM

(FAX Copy to TSC-68604 & EOF-64900)

EIP-ZZ-0010
Rev. 032

GENERAL INFORMATION:

1) DRILL MESSAGE: (Yes/No)

2) EMERGENCY CLASSIFICATION:

3) DATE/TIME DECLARED: / / :

4) EMERGENCY ACTION LEVEL:

5)

6) REACTOR STATUS:

RELEASE STATUS:

8) RELEASE INFORMATION:

9)

10) RELEASE START TIME:

11) RELEASE DURATION: Hrs.

12) WIND DIRECTION: From to 13) Deg 14) SECTORS:

15) WIND SPEED:

PLUME ARRIVAL TIME:

16) 2 Miles : 17) 5 Miles : 18) 10 Miles :

PROTECTIVE ACTIONS:

19) PROTECTIVE ACTIONS RECOMMENDED: (Yes/No)

20) PROTECTIVE ACTION BASIS::

TYPE	LOCATION	SECTORS
21)	22)	23)
24)	25)	26)
27)	28)	29)

30) Additional Protective Actions:

PROJECTED DOSES:

31) PROJECTED DOSE BASIS:

Distance	TEDE (Rem)	Thyroid (Rem)
EAB	32)	36)
2 miles	33)	37)
5 miles	34)	38)
10 miles	35)	39)

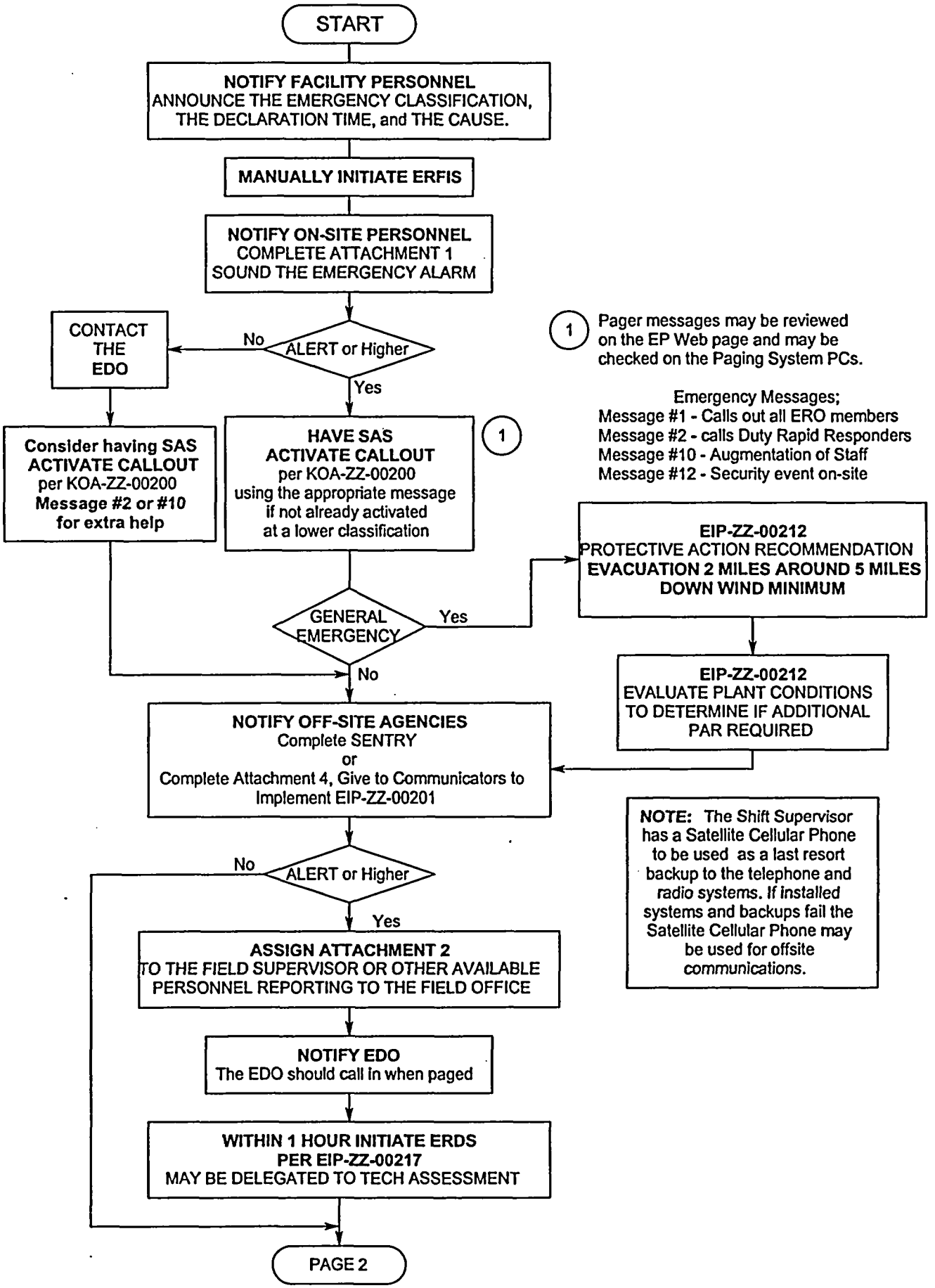
ADDITIONAL NOTES:

40)

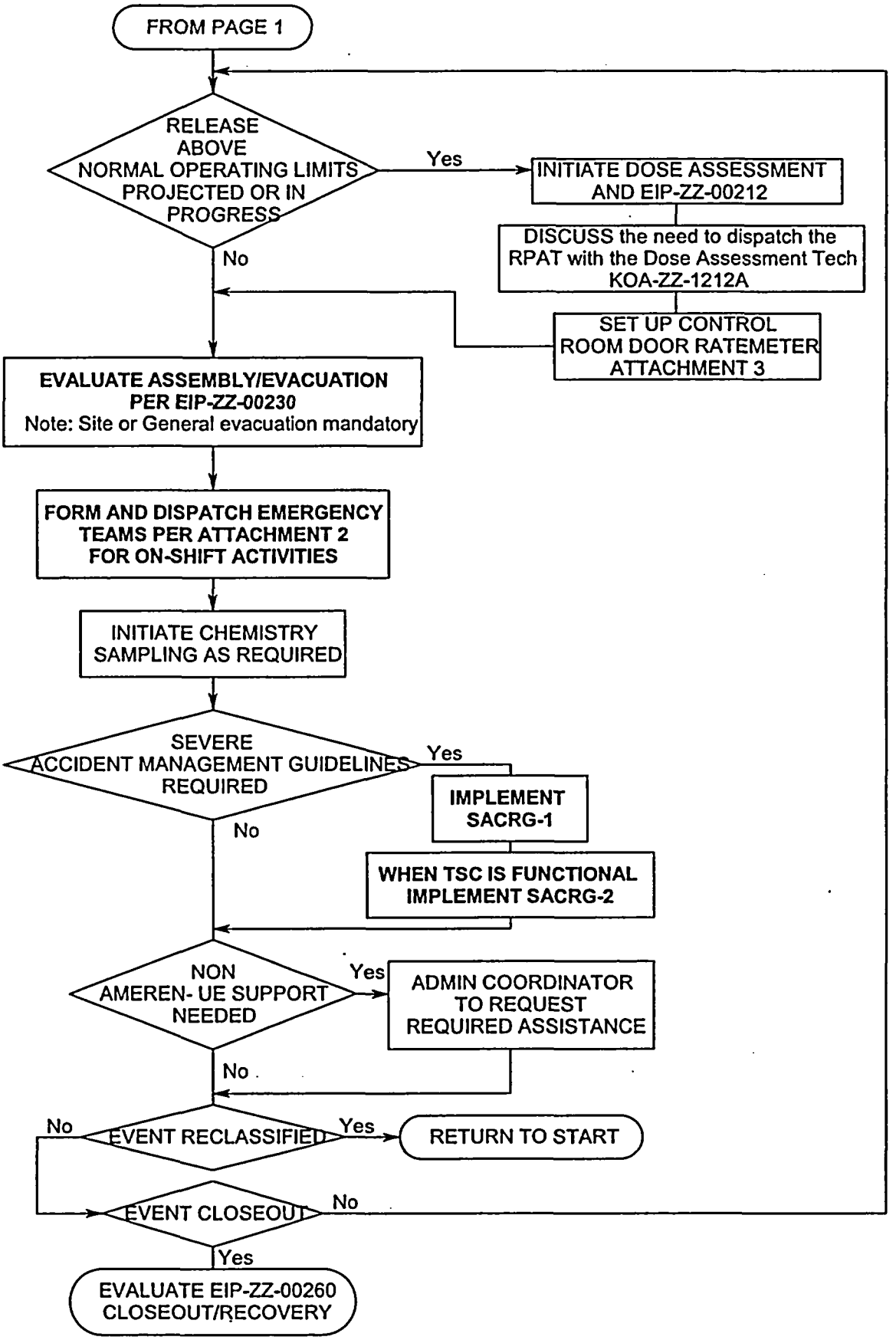
EC/RM APPROVAL:_____ COMMUNICATOR:_____

Distribution: Recovery Manager
Communicator
State of Missouri
File # K171.0010

ATTACHMENT 4
CA-#0231



ATTACHMENT 5


FROM PAGE 1
RELEASE ABOVE NORMAL OPERATING LIMITS PROJECTED OR IN PROGRESS
Yes
INITIATE DOSE ASSESSMENT AND EIP-ZZ-00212
DISCUSS the need to dispatch the RPAT with the Dose Assessment Tech KOA-ZZ-1212A
SET UP CONTROL ROOM DOOR RATEMETER ATTACHMENT 3
No
EVALUATE ASSEMBLY/EVACUATION PER EIP-ZZ-00230
Note: Site or General evacuation mandatory
FORM AND DISPATCH EMERGENCY TEAMS PER ATTACHMENT 2 FOR ON-SHIFT ACTIVITIES
INITIATE CHEMISTRY SAMPLING AS REQUIRED
SEVERE ACCIDENT MANAGEMENT GUIDELINES REQUIRED
Yes
IMPLEMENT SACRG-1
WHEN TSC IS FUNCTIONAL IMPLEMENT SACRG-2
No
NON AMEREN- UE SUPPORT NEEDED
Yes
ADMIN COORDINATOR TO REQUEST REQUIRED ASSISTANCE
No
No
EVENT RECLASSIFIED
Yes
RETURN TO START
EVENT CLOSEOUT
No
Yes
EVALUATE EIP-ZZ-00260 CLOSEOUT/RECOVERY

CALLAWAY PLANT

EMERGENCY PLAN IMPLEMENTING PROCEDURE

EIP-ZZ-00240

TECHNICAL SUPPORT CENTER OPERATIONS

RESPONSIBLE DEPARTMENT **EMERGENCY PREPAREDNESS**

PROCEDURE OWNER **S. L. Turner**

WRITTEN BY **S. L. Turner**

PREPARED BY **S. L. Turner**

APPROVED BY Warren A. Witt

DOCUMENT CONTROL ISSUED
JAN 23 2004
ACCOUNTABLE HOLDER 338U

DATE ISSUED 1-23-04

This procedure contains the following:

Pages	1	through	7
Attachments	1	through	9
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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 022

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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 in the TSC. 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 carding in on the accountability reader as they enter the TSC during a radiological emergency or drill.

NOTE:	The portal monitor should be response checked as soon as possible by the Health Physics group

2.11.3 Personnel that leave the Facility should check out with the Security Officer and card out on the accountability reader. If a release above normal operating limits has occurred or is likely to occur a HP brief is required. **CARS 199701061**

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 carding in on the accountability card reader, assisting in the facility startup and initiating 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 Each TSC coordinator is responsible for completing their Checklist.

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 μCi/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 and 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: _____

INITIATION	
☐ 1.	☐ Card in on the accountability card reader. ☐ Sign in on Facility Sign-in board. ☐ Obtain the EC package. ☐ Clip on Emergency Coordinator badge. ☐ Adjust Gaitronics Volume ☐ Review KOA-ZZ- A0002 "COMMAND AND CONTROL GUIDELINES"
☐ 2.	Initiate Log Sheet.
☐ 3.	Receive briefing by: ☐ Technical Assessment Coordinator. (EAL Monitoring). ☐ Shift Supervisor and relieve him as Emergency Coordinator.
☐ 4.	Announce assumption of "Emergency Coordinator" duties to TSC staff.
☐ 5.	Review plant/group status with TSC Coordinators: ☐ Administrative. ☐ TSC (ENS) Communicator. ☐ Health Physics. ☐ Operations Support/Support Area. ☐ Technical Assessment. ☐ Chemistry. ☐ Security.
☐ 6.	Ensure the following responsibilities have been transferred from Control Room. ☐ EAL MONITORING. ☐ ENS COMMUNICATION. ☐ PAR MONITORING (if the RM position in the EOF is not manned). ☐ SAMG Implementation (if applicable).
☐ 7.	Make a site-wide announcement that, **"The TSC has accepted emergency responsibilities from the Control Room."**
☐ 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."**
☐ 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.

OPERATIONS (*) *Steps are items that MUST be frequently reviewed*	
☐ *1.	Periodically update TSC personnel including priorities, habitability status and Site radiological conditions. **Note: Priorities should be listed on the Priority Status Board**
☐ *2.	Continue activities per **EIP-ZZ-00102**, Emergency Implementing Actions.
☐ *3.	Perform periodic briefs with the below individuals concerning on-site activities: TSC Coordinators. ☐ SS. ☐ On site NRC personnel. ☐ RM. ☐ Notify the RM as soon as an emergency is declared to insure Notifications are timely.

EMERGENCY COORDINATOR CHECKLIST

TURNOVER	
☐ 1.	Incoming Emergency Coordinator briefed on TSC status and log reviewed.
☐ 2.	Recovery Manager and Shift Supervisor informed.
☐ 3.	Turnover announced to TSC staff.
☐ 4.	Turnover complete _____ Time.
☐ 5.	Turnover logged.
☐ 6.	Initiate a new checklist CA# 259.

RECOVERY	
☐ 1.	Declare Recovery per **EIP-ZZ-00260**, Event Closeout/Recovery (if applicable). ☐ Recovery Manager contacted. ☐ Shift Supervisor contacted. ☐ Recovery organization established. ☐ Make site wide announcement.

TERMINATION and SHUTDOWN	
☐ 1.	Shutdown TSC (if required). ☐ Coordinators directed to shutdown TSC _____ Time. ☐ Make site wide announcement.

_____
Emergency Coordinator Signature

TECHNICAL ASSESSMENT COORDINATOR (TAC) CHECKLIST

Date _____ Time: _____

	INITIATION
☐ 1.	☐ Card in on the accountability card reader. ☐ Sign in on Facility Sign-in board. ☐ Obtain the TAC package ☐ Clip on the Tech. Assessment Coordinators badge. ☐ Adjust Gaitronics Volume
☐ 2.	Ensure the TSC has power. ☐ Normal power, (i.e. lights on, power available to computers, etc.). ☐ No Power. Start the TSC diesel per **OOA-UB-EPG70. CARS 200304574**
☐ 3.	Shift the following to UPS power: ☐ Computer link located in the closet near the kitchen. ☐ PC power supplies **CARS 200105972**
☐ 4.	If outside temperature is approximately 40°F or above, locate panel FIKUB7001 TSC Air Handling Unit Control Panel, just inside the TSC Equipment Room Door and to the left. Place the TSC Air Handling Unit Control Switch CSUB7005 in the **COOL** position. **CARS 200002783**
☐ 5.	Initiate Log Sheet.
☐ 6.	Activate Plant Status Boards from the Plant Computer (**Cancel, type PSB, Return**) or use keyboard commands on the PC. *NOTE:* In the event of Plant Computer System failure, refer to **EIP-ZZ-00213**, Technical Assessment, for further guidance.
☐ 7.	Turn on the Projected Status Boards using the remote control. They are connected to the PCs. Keyboard controls MUST be used for the PCs.
☐ 8.	Obtain brief from the SS, STA or other CR personnel. Contact CR via phone as little as possible until the Control Room TSC Liaison is staffed then use the Tech Assessment Line (dial 211), always provide your name and title.
☐ 9.	The following should be logged: ☐ Plant Status/Event Status ☐ Current EAL(s) ☐ Equipment Status (equipment out of service?) ☐ Protective Action Recommendations (PAR) Issued per **EIP-ZZ-00212.** ☐ Dose Assessment contact _____ (name) section Inform Control Room when accepting EAL(s) PAR(s) SAMG(s) responsibilities Additional instructions?_____
☐ 10.	Activate Emergency Response Data System **ERDS** per **EIP-ZZ-00217** (if not already activated) from the Plant Computer. (**Cancel, type ERDS, return** type in password **NRCERDS, return,** select **F2** to activate) When ERDS is activated the system displays "Data Transmission in Progress". To return to **PSB's**, select **Cancel, type PSB, Return**; ERDS continues to run unaffected in the background. Inform the ENS Communicator if ERDS cannot be activated (i.e., loss of Plant Computer). **CARS 199903613**
☐ 11.	Assign the Reactor Engineer to: ☐ Project Shutdown margins for current and anticipated conditions taking into consideration transient Xenon and Boron concentration. ☐ Perform core damage assessment using EDP-ZZ-00005.
☐ 12.	Begin monitoring Emergency Action Levels (EAL) per **EIP-ZZ-00101.**
☐ 13.	Brief the Emergency Coordinator, upon his arrival, on the TSC activities.
☐ 14.	Place TSC Ventilation System in the Filter Mode per **OOA-UB-00005.** (An EO may be used if available.)

TECHNICAL ASSESSMENT COORDINATOR (TAC) CHECKLIST

☐ 15.	Personnel Assessment ☐ Chemistry Coordinator _____(Name)(1 required) ☐ Technical Assessment Status Board Keepers _____(Name) (3 required) _____(Name) _____(Name) Engineers Lead Engineer (1 required)_____ Mechanical (1 required)_____ Electrical (1 required)_____ Reactor (1 required)_____ I&C (1 required)_____ Other _____ Other _____
☐ 16	Ensure the Facility clock is synchronized to the plant computer or control room clock
☐ 17.	Technical Assessment Group ready to accept responsibilities. Log and inform the Emergency Coordinator.
☐ 18.	Discuss any additional support or supplies required with the Admin Coordinator.

OPERATIONS (*) *Steps are items that MUST be frequently reviewed*	
☐ *1.	Engineering Personnel that leave the Facility should check out with the Security Officer. If a release above normal operating limits has occurred or is likely to occur a HP brief is required. **CARS 199701061**
☐ *2.	If personnel are dispatched to another facility a follow up call should be initiated in 15-20 minutes to ensure they arrive safely. **CARS 199901904**
☐ *3.	To obtain Plant Status Boards Free Format Log printouts from the Plant Computer terminals (not PCs), depress the **Cancel key**, enter **FF**; select the **PSB** from TSC, then enter **F1 to assign**. To get a screen capture to the color printer depress **Ctrl & PF20** simultaneously.
☐ *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**.
☐ *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.).
☐ *6.	Plant Computer turn on codes ☐ **ARM** Area Radiation Monitors ☐ **PCD** Dose Assessment general overview including MET data, Rad data and flow status. ☐ **PCDU** Dose Assessment for the Unit Vent, Containment and Aux Building releases. ☐ **PCDRS** Dose Assessment for Radwaste and Steam releases.
☐ *7.	Upon entry into the Recirculation Phase of RHR perform the following: ☐ Direct the Chemistry Coordinator to obtain 12 hour RWST samples per **CSP-ZZ-07540.** ☐ Inform HPC of probable increase in Auxiliary Building dose rates. ☐ Inform HPC of possible valve leakage back to RWST, which could change dose rates.

TECHNICAL ASSESSMENT COORDINATOR (TAC) CHECKLIST

TURNOVER	
☐ 1.	Incoming Technical Assessment Coordinator briefed on TSC status and review log.
☐ 2.	Emergency Coordinator informed.
☐ 3.	Turnover announced to Technical Assessment staff.
☐ 5.	Turnover complete _____ Time.
☐ 6.	Turnover logged.
☐ 7.	Initiate a new checklist CA# 261.

RECOVERY	
☐ 1.	Assess the following: ☐ a. Plant equipment status ☐ b. Accident assessment ☐ c. Control of radiological releases ☐ d. Ability to resume normal operations
☐ 2.	Continue Technical Assessment activities until directed otherwise by the Emergency Coordinator or RM.

TERMINATION and SHUTDOWN	
☐ 1.	When directed by the Emergency Coordinator, inform Tech Assessment staff of deactivation.
☐ 2.	Ensure equipment and supplies are deactivated and/or stored.
☐ 3.	Ensure documents are collected and given to the Admin Coordinator.
☐ 4.	Restore PC UPS power supply to LINE.
☐ 5.	Contact Operations to return TSC Ventilation to Normal Mode
☐ 6.	Restore TSC Air Handling Unit Control Switch to AUTO position.
☐ 7.	Secure Free Format Log assignment from *3 under OPERATIONS.

_____
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

Date _____ Time: _____

INITIATION	
☐ 1.	☐ Card in on the accountability card reader. ☐ Sign in on Facility Sign-in board. ☐ Obtain the OSC package. ☐ Clip on the Operations Support Coordinator badge. ☐ Adjust Gaitronics Volume
☐ 2.	Ensure the TSC has power. ☐ Normal power ☐ No Power. Start the TSC diesel per **OOA-UB-EPG70. CARS 200304574**
☐ 3.	Inform Emergency Coordinator and Admin. Coordinator of your arrival.
☐ 4.	Initiate Log Sheet.
☐ 5.	Control Room/TSC Liaison contacted and status brief obtained. ☐ Identify on-going jobs that need to be tracked to ensure appropriate actions are taken for briefing /tracking purposes. **CARS 200205024**
☐ 6.	Contact Emergency Team Coordinator(s) (ETC) and obtain the Support Area (SA) status.
☐ 7.	Personnel Assessment a. Emergency Team Coordinator (s) Mechanical:_____ (name) (1 required) Electrical:_____(name) (1 required) b. Personnel: Mechanics _____ (number) (2 required) Electricians _____ (number) (2 required) I&C Techs. _____ (number)(This should include the shift Techs) (2 required) Storekeeper _____ (name) (1 required)
☐ 8.	OSC Group ready for responsibilities _____ Time. (Also make log entry).
☐ 9.	Emergency Coordinator and Admin. Coordinator informed OSC ready.
☐ 10.	Discuss any additional support or supplies required with the Admin Coordinator. OSA Support Request may be made utilizing page 3 of 3 of this attachment.

OPERATIONS (*) *Steps are items that MUST be frequently reviewed*	
☐ *1.	Maintain contact with Control Room/TSC Liaison and keep Emergency Coordinator informed of significant activities/events.
☐ *2.	Periodically brief the Emergency Coordinator on the priorities that have been established for Emergency Teams. **CARS 199903669**
☐ *3.	Inform the ETC that Support Area Personnel that leave the Facility should check out with the Security Officer. If a release above normal operating limits has occurred or is likely to occur a HP brief is required. **CARS 199701061**
☐ *4.	If personnel are dispatched to another facility a follow up call should be initiated in 15-20 minutes to ensure they arrive safely. **CARS 199901904**
☐ *5.	Ensure Emergency Teams are formed and briefed as needed per **EIP-ZZ-00220** Emergency Team Formation.
☐ *6.	Ensure Emergency Team Coordinators track Teams as to location and progress of their assignment.

OPERATIONS SUPPORT COORDINATOR (OSC) CHECKLIST

☐ *7.	Interface with the Technical Assessment and Health Physics Groups to ensure coordination of activities.
☐ 8.	If accountability is declared, provide Security Coordinator with badge numbers of personnel that have been assigned to an emergency team that has left the TSC.
☐ *9.	Monitor TSC operating equipment periodically: ☐ TSC Emergency Diesel. ☐ TSC Emergency Ventilation Filter System. (*NOTE:* Be aware of rapidly changing radiation levels during periods of releases.)

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

RECOVERY	
☐ 1.	Assess the following: ☐ Plant equipment status. ☐ Emergency team status. All Emergency Team work needs to be completed, turned over to Recovery or normal maintenance. ☐ Ability to resume normal operations
☐ 2.	Continue Operations Support activities until directed otherwise by the Emergency Coordinator or RM.

TERMINATION and SHUTDOWN	
☐ 1.	Upon direction of the Emergency Coordinator/Administrative Coordinator, contact the Emergency Team Coordinator and inform of deactivation
☐ 2.	Ensure OSC/SA equipment and supplies are deactivated and/or stored.
☐ 3.	Ensure documents are collected and given to the Admin Coordinator.

_____
Operations Support Coordinator Signature

OPERATIONS SUPPORT COORDINATOR (OSC) CHECKLIST

OSA SUPPORT REQUEST

Administrative (Admin.) Coordinator,

The Operations Support Area (OSA) requires the following support. This support is needed (circle one)

Immediately At next Shift, at _____(enter time)

POSITION	NUMBER NEEDED
Operations Support Coordinator	_____
Electrical Emergency Team Coordinator	_____
Mechanical Emergency Team Coordinator	_____
Storekeeper	_____
Mechanical Supervisor	_____
Electrical Supervisor	_____
I&C Supervisor	_____
Mechanical Planner	_____
Electrical Planner	_____
I&C Planner	_____
Electrician	_____
Machinist	_____
Welder	_____
I & C Technician	_____
Electrical Apprentice	_____
Machinist Apprentice	_____
Welder Apprentice	_____
I&C Apprentice	_____
Insulator	_____
Plant Helper	_____
Nuclear Utility Worker	_____
Tool Room Mechanic	_____
Operating Supervisor (Shift Supervisor concurrence obtained)	_____
Equipment Operator (Shift Supervisor concurrence obtained)	_____

ADMINISTRATIVE (ADMIN) COORDINATOR CHECKLIST

Date _____ Time: _____

INITIATION	
☐ 1.	☐ Card in on the accountability card reader. ☐ Sign in on Facility Sign-in board. ☐ Obtain the Admin Coordinators package. ☐ Clip on the Admin Coordinators badge ☐ Adjust Gaitronics Volume
☐ 2.	Inform Emergency Coordinator and Technical Assessment Coordinator of your presence.
☐ 3.	Shift the SENTRY Computer power supply to UPS position.
☐ 4.	Initiate Log Sheet.

OPERATIONS CARS 199903558 (*) *Steps or items that must be frequently reviewed*	
☐ 1.	Equipment availability and operation. Check on: ☐ Personal Computers (PC) ☐ SENTRY Computer (*NOTE*: **Ensure SENTRY is operational) CARS 200105707** ☐ Telephones ☐ Copier ☐ Fax ☐ Reader/Printer ☐ Print Plotter
☐ 2.	Status TSC Coordinators and keep the EC informed periodically until all positions are filled. ☐ Technical Assessment Coordinator ☐ Health Physics Coordinator ☐ Operations Support Coordinator ☐ TSC (ENS) Communicator ☐ Chemistry Coordinator ☐ Security Coordinator
☐ *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. ☐ Call **64777** to obtain Audix. ☐ Enter **68400** and the # sign. ☐ Enter the password which is only the # sign. ☐ Follow the instructions to listen to the new messages and complete attachment 2. ☐ Contact SAS (**68785**) for any positions that was logged due to Audix message transfer.
☐ 4.	Personnel Assessment Admin/Clerical Support Personnel (call in as necessary) **CARS 199903558** ☐ _____ (name) One NIS Support person should be considered. ☐ _____ (name) One person to callout/canvass additional support. ☐ _____ (name) One person for the RM in the EOF. ☐ _____ (name) One person for the LSC in the EOF. ☐ _____ (name) One person for the EC in the TSC. ☐ _____ (name) ☐ _____ (name) ☐ _____ (name) **As personnel requests are made, contact Admin Personnel in the CMB by calling 68369 or by Gaitronics.**

ADMINISTRATIVE (ADMIN) COORDINATOR CHECKLIST

☐ *5.	☐ Monitor the Declaration Status Boards. ☐ Ensure the Declaration Status Boards are current with the Emergency Classification announcements. **CARS 199903558** ☐ Monitor the receipt of SENTRY Notifications at LAN printer and /or Fax machine and deliver to ENS Communicator.

☐ *6.	Personnel that leave the Facility should check out with the Security Officer. If a release above normal operating limits has occurred or is likely to occur a HP brief is required. **CARS 199701061**
☐ *7.	If personnel are dispatched to another facility a follow up call should be initiated in 15-20 minutes to ensure they arrive safely. **CARS 199901904**
☐ *8.	Ensure the availability of the following administrative services: ☐ Typing, Word Processing ☐ Copying, Reproduction ☐ Fax ☐ Document control ☐ Drawings ☐ Message and mail Delivery ☐ Telephone Repair and Installation ☐ Radio Repair (Ameren Telecom.) ☐ _____ ☐ _____
☐ *9.	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. ☐ Contact Security for number of personnel inside the protected area. **CARS 199903558** ☐ Meals ordered and scheduled for the entire organization; personnel informed of meal times and locations. ☐ Sleeping space arranged for emergency personnel: personnel informed as to location. ☐ Shift schedule prepared for emergency personnel: appropriate personnel notified. (Use the sign in board and Emergency Telephone Directory to make up roster.) ☐ Janitorial/waste disposal services arrangements made.
☐ *10.	Requests for additional vendor support personnel are to be coordinated with the Logistics Support Coordinator in the EOF. Obtain the following information from the Logistics Support Coordinator: ☐ Name(s) of personnel ☐ Social Security Number ☐ Work space requirements ☐ Estimated time of arrival Contact: ☐ Supervisor Admin, Access Control and arrange for plant access as required. ☐ Plant helper group to set up desk etc., as required.
☐ *11.	Coordinate requests for additional equipment with the Logistics Support Coordinator in the EOF. ☐ Obtain the information from the requesting organization and supply it to the Logistics Support Coordinator: ☐ Explicit equipment requirements in writing ☐ Amount needed ☐ Delivery location ☐ Person on site to contact
☐ *12.	Contact the Logistical Support Coordinator in the EOF and coordinate to provide Administrative Support to the entire organization.

ADMINISTRATIVE (ADMIN) COORDINATOR CHECKLIST

☐ *13.	In the event of an accident or illness perform the following: ***(Note: DO NOT release the individual's name.)*** Call the control room (CR/TSC Liaison via OSC) and obtain the following. CARS 199903558 ☐ Nature of injury or illness. ☐ Contaminated? ☐ Transported offsite to doctor, hospital etc. ☐ If the incident may attract media attention call the JPIC Administrator or Coordinator and supply them with the information.

TURNOVER	
☐ 1.	Brief the incoming Admin. Coordinator of the status of administrative activities and review log.
☐ 2.	Notify the Admin. and clerical staff of the turnover.
☐ 3.	Notify the Emergency Coordinator turnover complete.
☐ 4.	Turnover complete _____ Time.
☐ 5.	Turnover logged.
☐ 6.	Initiate a new Checklist CA# 263.

RECOVERY	
☐ 1.	Continue Administrative activities until directed otherwise by the Emergency Coordinator or RM.

TERMINATION and SHUTDOWN	
☐ 1.	Upon direction of the Emergency Coordinator, begin terminating operation as follows ☐ Responsibilities transferred to the Control Room. ☐ All functional equipment/supplies have been restored to startup conditions. ☐ Restore SENTRY Computer UPS power supply to Line position. ☐ Records collected, and forwarded to Emergency Preparedness Department. ☐ Staff relieved of TSC duties.
☐ 2.	Control Room informed of TSC shutdown.
☐ 3.	TSC shut down Time_____.

_____
Administrative Coordinator Signature

HEALTH PHYSICS (HP) COORDINATOR CHECKLIST

Date _____ Time: _____

	INITIATION
☐ 1.	☐ Card in on the accountability card reader. ☐ Close front door to vestibule and back hallway door from support area. ☐ Direct incoming traffic to enter through portal monitor ☐ Sign in on Facility Sign-in board. ☐ Obtain the Health Physics Coordinators package. ☐ Clip on the Health Physics Coordinators badge. ☐ Adjust Gaitronics Volume
☐ 2.	Inform Emergency Coordinator and Admin. Coordinator of your presence.
☐ 3.	Initiate Log Sheet.
☐ 4.	Shift the HPC Plant Computer power supply to the UPS position.
☐ 5.	**Personnel Assessment On Shift:** ☐ _____ (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. ☐ _____ (name) **HP Tech Support Technician (HPTS).** Obtain Plant, radiological release, meteorological, and Protective Action Recommendation status from the HPTS Tech performing dose assessment. ☐ _____ (name) **Chemistry Technician.** The Chemistry Technician is responsible for sampling and analysis as needed to identify the source and magnitude of the emergency. Chemistry Technicians are qualified as Support Area Personnel in the Health Physics group.
☐ 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, not as listed, using the below guidance.**

1. _____	☐ Contact the DAC and discuss the need to Assign R/C Support Personnel to the Rapid Plume Assessment Tech, (RPAT) position if not already dispatched.
2. _____ 3. _____	☐ Assign 2 R/C Support Personnel to FMTs. HPC obtains FMT Driver from OSA, Engineering or Rad Chem Departments. Dispatch the teams and drivers in accordance with **EIP-ZZ-00211.**
4. _____ 5. _____	☐ 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.
6. _____	☐ Assign R/C Support Personnel to perform Onsite survey of plume if a release above normal operating limits is suspected or in progress, monitor habitability of MAF, Field Office, HPAC, and Control Room as needed.
7. _____	☐ 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.

HEALTH PHYSICS (HP) COORDINATOR CHECKLIST

	8. _____ 9. _____ 10. _____ 11. _____	☐ Assign HP Brief Tech to report directly to the OSC to support Radiological Briefings and Emergency Teams. All prepared radiological briefings should be reviewed with HPC prior to conducting brief of Emergency Team. ☐ Have R/C Techs response check portable instruments, prepare equipment and supplies. ☐ Have R/C Tech set up EDs in Rapid Entry Mode. Request Setpoints from HPC. ☐ Have R/C Tech ensure all OSA personnel read and sign the Emergency RWP.
	12. _____	☐ Assign Chemistry Support Personnel to the Chemistry Coordinator (if needed).
	13. _____	☐ Assign R/C Support Personnel to communicate with the NRC via the HPN line (if requested from NRC). See Attachment #5 page 8 of 8.
	14. _____	☐ 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).

☐ 7.	Contact Dose Assessment Coordinator (DAC) at EOF (ext. 64999): — Inform DAC of RPAT, FMT, Dose Assessment Staff, and FMT Communicator deployment status.
☐ 8.	Establish Radiological Habitability Controls in the TSC: ☐ Portal Monitor energized and response checked. ☐ Set up a frisking station using a model 177 Rate Meter, as needed, to backup the portal monitor. ☐ AMS 3 energized and source checked. ☐ Control Dosimetry placed at HPC Desk.
☐ 9.	Notify Emergency Coordinator that HP is ready for operation and habitability in the TSC is established.
☐ 10.	HP Group ready for responsibilities at _____ Time. (Also make log entry)..

OPERATIONS

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

☐ *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 above normal operating limits is in progress or anticipated, announce **"an HP brief will also be required."** **NOTE:** If a release above normal operating limits 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.
☐ *2.	If personnel are dispatched to another facility a follow up call should be initiated in 15-20 minutes to ensure they arrive safely. **CARS 199901904 .**

HEALTH PHYSICS (HP) COORDINATOR CHECKLIST

☐ *3.	Review needed protective actions for On Site personnel: ☐ Ensure dosimetry issued to Security personnel and Security Coordinator briefed on radiological conditions, wind speed and direction. ☐ Inform Security Coordinator if a Release Above Normal Operating Limits occurs. ☐ Coordinate Assembly and Evacuation actions per **EIP-ZZ-00230** with the Security Coordinator. **(Assembly and Evacuation are required at a SITE and GENERAL EMERGENCY. When discussing Evacuation routes utilizing MAGNEM, use the 10 Mile projected map.)** ☐ If Needed the Hearnes Center is the preferred Care and Reception Center. *NOTE*: If the Hearnes Center is not available, the Security Coordinator will provide an alternate based on discussions with SEMA. ☐ Determine need for R/C Support Personnel to monitor Assembly and Evacuation. ☐ Evaluate restricting access to areas due to release or potential release based on wind direction. ☐ Evaluate need for Respiratory Protection per **HTP-ZZ-01201**. ☐ Evaluate Potassium Iodide (KI) distribution to Emergency Teams, Ops Department and Security personnel per **HDP-ZZ-01300 section 7, items 7.1 through 7.1.4.**. **TEDE/CDE Evaluation:** mrem gamma X 3 = TEDE mrem gamma X 40 =CDE thy
☐ 4.	Obtain Respirator Issue Log and Daily Dose Report from HPACA if LAN and Mainframe Computer are unavailable in the TSC.
☐ *5.	Monitor Plant Computer Screens associated with Group 1 & 2 EALs from **EIP-ZZ-00101**, Classification of Emergencies. Report any changes in readings to the Technical Assessment Coordinator and EC.
☐ *6.	Personnel requiring decontamination should be sent to HPACA. If needed, the back entrance of the TSC can be staged to receive contaminated personnel. ☐ Inform Security Coordinator if personnel are entering the TSC via the back entrance.
☐ *7.	Verify sufficient inventory of the following (additional quantities are available from HPAC or Cal Facility): ☐ Electronic Dosimeters (ED) ☐ Portable Instruments ☐ Respirators ☐ Protective Clothing (PC) ☐ Consumables (rope, postings, bags, etc.) ☐ Plant Radios
☐ *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**.
☐ *9.	Monitor Plant conditions and emergency activities to ensure personnel dose is maintained ALARA. ☐ Monitor and trend Plant Area Radiation monitors, including Control Room and HPACA. ☐ Radiation levels are expected to increase when Safety Injection recirculation is lined up to Containment. ☐ Monitor the RWST radiation levels when in the recirculation mode. ☐ Notify the EC and make announcements to the TSC as Radiological Conditions change. ☐ Establish radiological postings in the Plant as time and resources allow (MUST be performed prior to Re-entry).
☐ *10.	Monitor facility habitability radiological conditions and recommended appropriate protective actions: ☐ Direct dose rate ≥600 mrem/hr, inform the EC, and commence monitoring cumulative dose. ☐ Cumulative dose of ≥4,400 mrem, recommend evacuation of the facility. ☐ Direct dose rate of ≥5,000 mrem/hr, recommend evacuation. ☐ Iodine concentrations of $\geq 2.4E^{-6}$ µCi/ml, inform the EC, and commence air sampling to ensure total intake does not exceed 25 rem CDE. ☐ Iodine concentrations of $\geq 1.9E^{-5}$ µCi/ml, recommend evacuation.
☐ *11.	Periodically update the Emergency Coordinator on radiological conditions in the Plant and the status of TSC

HEALTH PHYSICS (HP) COORDINATOR CHECKLIST

	habitability.
☐ *12.	For additional HP support/supplies, coordinate requests through the Admin. Coordinator or Stores person.

	TURNOVER
☐ 1.	Brief the oncoming HP Coordinator on radiological information, and any protective actions, both recommended and implemented.
☐ 2.	Brief the oncoming HP Coordinator on the status of deployed Emergency Teams.
☐ 3.	Review HPC Checklist and Log.
☐ 4.	Contact Dose Assessment Coordinator in EOF — Arrange for FMT turnover. — Obtain weather forecast. — Inform DAC of oncoming relief.
☐ 5.	Notify the Emergency Coordinator of the Turnover
☐ 6.	Turnover complete _____ Time.
☐ 7.	Turnover logged.
☐ 8.	Initiate a new Checklist CA# 264.

	RECOVERY
☐ 1.	Discuss: ☐ Maintaining of personnel exposure ALARA and preventing spread of contamination. ☐ Survey and Posting Status. ☐ Need to implement **EIP-ZZ-00225**, Reentry ☐ Decontamination activities. ☐ Need for additional assistance, supplies, or equipment. ☐ Long term monitoring. ☐ Activation of Automated Access Control.
☐ 2.	Continue HP operations until directed otherwise by the Emergency Coordinator or RM.

	TERMINATION and SHUTDOWN
☐ 1.	Upon direction of the Emergency Coordinator/Admin. Coordinator, notify R/C personnel of shutdown.
☐ 2.	Turn over any HP support to normal plant staff.
☐ 3.	Contact DAC in EOF.
☐ 4.	Ensure HP equipment is de-energized, supplies and materials are stored as required. (Note: Gamma 10 should remain on.)
☐ 5.	Ensure documents are collected and given to the Admin. Coordinator.
☐ 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.

HEALTH PHYSICS (HP) COORDINATOR CHECKLIST

HPN COMMUNICATIONS

The following are examples of specific information that may be requested during communications over the HPN:

1. Is there any change to the classification of the event?
   - If so, what is the reason?

2. Have toxic or radiological releases occurred or been projected (including changes in the release rate)?
   - If so, what are the actual or currently projected on-site and off-site releases, and what is the basis for this assessment?

3. What are the health effects or consequences to on-site and off-site people? How many onsite or offsite people are being or will be affected and to what extent?

4. Is the event under control?
   - When was control established, or what is the planned action to bring the event under control?
   - What mitigative actions are currently underway or planned?

5. What on-site protective measures have been taken or are planned?

6. What off-site protective actions are being considered or have been recommended to state and local officials?

7. What are the current meteorological conditions?
   - Wind Speed
   - Wind Direction
   - Stability Class

8. What are the dose and dose rate readings on-site and off-site?

TSC COMMUNICATOR (ENS) CHECKLIST

Date _____ Time: _____

INITIATION	
☐ 1.	☐ Card in on the accountability card reader. ☐ Sign in on Facility Sign-in board. ☐ Obtain the ENS Communicators package. ☐ Clip on the Communicators badge. ☐ Adjust Gaitronics Volume
☐ 2.	Ensure the TSC has power. ☐ Normal power, (i.e. lights on, power available to computers, etc.). ☐ No Power. Start the TSC diesel per **OOA-UB-EPG70. CARS 200304574**
☐ 3.	Shift the PC power supplies to the UPS position.
☐ 4.	Emergency Coordinator and Admin Coordinator informed of your presence.
☐ 5.	Initiate Log sheet.
☐ 6.	Activate Plant Status Boards on the Plant Computer (**Cancel, type PSB, Return**).
☐ 7.	Check dial tone on the ENS line. (If phone is manned in CR the line will not have a dial tone.)
☐ 8.	Contact Control Room Communicator and get a brief as to the status of ENS Communications.
☐ 9.	Accept responsibility of ENS Communications per **EIP-ZZ-00201, CA-#2517B , or as directed by the NRC.**
☐ 10.	Discuss any additional support or supplies required with the Admin Coordinator.

OPERATIONS (*) *Steps are items that must be frequently reviewed.*	
☐ 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.
☐ *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 (NRC fax 9-1-301-816-5151).** (All notifications transmitted to the State and local agencies should also be given to the NRC Operations Center unless directed otherwise.)
☐ *3	Log information requested and relayed to the NRC as deemed appropriate.
☐ *4	Personnel that leave the Facility should check out with the Security Officer. If a release above normal operating limits has occurred or is likely to occur a HP brief is required. **CARS 199701061**
☐ *5	If personnel are dispatched to another facility a follow up call should be initiated in 15-20 minutes to ensure they arrive safely. **CARS 199901904**

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

RECOVERY	
☐ 1.	Continue providing the NRC with requested information.

TERMINATION and SHUTDOWN	
☐ 1.	When directed, assist with the TSC deactivation.
☐ 2.	Ensure area is put into order and logs collected and give to the Admin Coordinator.
☐ 3.	Restore PC UPS power supply to LINE.

_____
TSC Communicator (ENS)

CHEMISTRY COORDINATOR CHECKLIST

Date _____ Time: _____

INITIATION	
☐ 1.	☐ Card in on the accountability card reader. ☐ Sign in on Facility Sign-in board. ☐ Obtain the Chemistry Coordinators package. ☐ Clip on the Chemistry Coordinators badge. ☐ Adjust Gaitronics Volume
☐ 2.	Inform Emergency Coordinator and Admin. Coordinator of arrival and ready to assume duties of Chemistry Coordinator. (Make log entry.)
☐ 3.	Initiate Log sheet.
☐ 4.	Contact on shift Chemistry Tech and ensure ☐ Remind on-duty Chem tech to card in at the Field Office during accountability. ☐ RERP vehicle is operational and in the parking lot. ☐ All sample results are updated immediately on Chemistry Data Management System (CDMS). ☐ Verify CCW is lined up to the SJ panel.
☐ 5.	Personnel Assessment Rad./Chem. Chemistry technicians (2 required) ☐ _____ (name), _____ (responsibilities) ☐ _____ (name), _____ (responsibilities) ☐ _____ (name), _____ (responsibilities) Rad./Chem. Technicians available. (Chemistry) _____ (number).
☐ 6.	Assign an available Chemistry Supervisor to the Hot Lab as needed.
☐ 7.	Discuss plant chemistry status with Emergency Coordinator and Tech Assessment Coordinator.

OPERATIONS (*) *Steps are items that must be frequently reviewed.*	
☐ * 1.	Review and distribute updated CDMS data as it becomes available: Give a copy of CDMS Data to the: ☐ Tech Assessment Coordinator. ☐ HP Coordinator. ☐ Reactor Engineer.
☐ *2.	Personnel that leave the Facility should check out with the Security Officer. If a release above normal operating limits has occurred or is likely to occur a HP brief is required. **CARS 199701061**
☐ *3.	If personnel are dispatched to another facility a follow up call should be initiated in 15-20 minutes to ensure they arrive safely. **CARS 199901904**
☐ * 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.
☐ * 5.	If SJRE01 or SJ room radiation levels are elevated, Evaluate if RCS specific activity limit is exceeded and if plant should be Shut down.

CHEMISTRY COORDINATOR CHECKLIST

☐ *6.	Evaluate Secondary Chemistry conditions including Primary-to-Secondary Leakage, SEE CTP-ZZ-02590 and APA-ZZ-01023..
☐ 7.	If Post Accident Sample is requested, refer to CTP-ZZ-08100 located in CC Packet.
☐ *8.	Monitor Post Accident Sampling data and provide recommendations as necessary.
☐ *9.	On a SI actuation, SJ sample cooling water will be lost. ☐ Request the Tech to secure high temp samples. ☐ Request Ops to open EGHV69A & B and EGHV70A & B to restore cooling flow as soon as practical. ☐ Discuss with HPC and EC the need to make a plant announcement due to the possibility of changing dose rates. CVCS letdown samples will remain representative as long as letdown flow is available.
☐ *10.	Identify additional support (e.g. personnel, off-site analysis) and coordinate requests through the Admin Coordinator.

TURNOVER	
☐ 1.	☐ Brief the incoming Chemistry Coordinator of Chemistry activities and review log.
☐ 2.	☐ Notify the Tech. Assessment Coordinator of the Turnover.
☐ 3.	Turnover complete _____ Time.
☐ 4.	Turnover logged.
☐ 5.	Initiate new checklist.

RECOVERY	
☐ 1.	Continue Chemistry activities until directed otherwise by the Emergency Coordinator or RM.

TERMINATION and SHUTDOWN	
☐ 1.	Upon direction assist with TSC deactivation.
☐ 2.	Ensure Chemistry work area is deactivated and/or stored.
☐ 3.	Ensure documents are collected and given to the Admin Coordinator.

_____

Chemistry Coordinator Signature

SECURITY COORDINATOR (SC) CHECKLIST

Date _____ Time: _____

INITIATION	
☐ 1.	☐ Card in on the accountability card reader. ☐ Sign in on Facility Sign-in board. ☐ Obtain the Security Coordinators package. ☐ Clip on the Security Coordinators badge ☐ Adjust Gaitronics Volume.
☐ 2.	Inform Emergency Coordinator and Admin. Coordinator of arrival.
☐ 3.	Initiated Log sheet.
☐ 4.	Personnel Assessment (Call in extra personnel as required). ☐ Contact the Shift Security Supervisor and obtain number and names of security personnel available for assignment.
☐ 5	Station security officers at the Emergency Response Facilities entrances to log personnel entrance and egress.
☐ 5.1.	Ensure patrol (s) initiate a sweep of OCA/EAB at the ALERT classification per Owner Controlled Area Patrol Post Instruction. Unbadged personnel MUST evacuate the site unless authorized be EC or Security Coordinator. **CARS 200201995**
☐ 6.	Contact Health Physics Coordinator (Health Physics Tech Support on back shift 68496) and request: • Is there a Release Above Normal Operating Limits In Progress? YES / NO • What is wind direction? From:_____ TO: _____ • What are the affected sectors? _____, _____, _____, _____ • Ensure SSS and OCA sweeps are briefed on this information.
☐ 6.1	• If YES, contact SEMA. Normal hours 751-2748, off-hours 17188 (Troop F) and request activation of Hearnes Reception and Care Center.
☐ 6.2	If YES, refer to OPERATIONS section #11.
☐ 7.	Discuss any additional support or supplies required with the Admin Coordinator.

OPERATIONS (*) *Steps are items that must be frequently reviewed.*	
☐ *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). **CARS 199901754**
☐ *2.	For Security related emergencies, refer to EIP-ZZ-SK001 "Response to Security Events"
☐ *3.	Assist the EC in Evacuation and Accountability per **EIP-ZZ-00230** .
☐ 4	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.
☐ *5.	Personnel that leave the Facility should check out with the Security Officer. If a release above normal operating limits has occurred or is likely to occur a HP brief is required. **CARS 199701061**
☐ *6.	If personnel are dispatched to another facility a follow up call should be initiated in 15-20 minutes to ensure they

SECURITY COORDINATOR (SC) CHECKLIST

	arrive safely. CARS 199901904
☐ *7.	Contact the HP Coordinator to determine the affected areas in the case of a release above normal operating limits. If Security is to be pulled back from their posts, consider requirements in Step 1, Operations (above).
☐ *8.	Ensure that the Security Force has the appropriate dosimetry. Check with the HPC.
☐ *9.	Coordinate plant access control.
☐ *10.	Contact local law enforcement to coordinate traffic control (i.e. for evacuation routes).
☐ 11.	If SITE Evacuation is announced, ensure Patrol(s) initiate sweep of OCA/EAB per Owner Controlled Area Patrol Post Instruction, to ensure all personnel have left areas in question. CARS 200201995 ☐ Coordinate with HP Coordinator to determine which site evacuation announcement is to be used. Announcements are located in EIP-ZZ-00230, Attachment 3.
☐ *12.	Coordinate personnel evacuation and accountability. (*NOTE:* Accountability is required within 30 minutes of declaring accountability.)
☐ *13.	Coordinate any off-site law enforcement agency involvement.

TURNOVER	
☐ 1.	Brief the incoming Security Coordinator of Security activities and review log.
☐ 2.	Notify the Emergency Coordinator of the turnover.
☐ 3.	Turnover complete _____ Time.
☐ 4.	Turnover logged.
☐ 5.	Initiate new checklist.

RECOVERY	
☐ 1.	Continue Security activities until directed otherwise by the Emergency Coordinator.

TERMINATION and SHUTDOWN	
☐ 1.	Upon direction assist with TSC deactivation.
☐ 2.	Ensure security equipment is deactivated and/or stored.
☐ 3.	Ensure documents are collected and given to the Admin Coordinator.

_____
Security Coordinator Signature

EMERGENCY TEAM COORDINATOR (ETC) CHECKLIST

Date _____ Time: _____

INITIATION	
☐ 1.	☐ Card in on the accountability card reader. ☐ Sign in on Facility Sign-in board. ☐ Obtain the ETC package. ☐ Clip on the Emergency Team Coordinator badge. ☐ Adjust Gaitronics Volume ☐ Adjust Gaitronics Volume in the OSA
☐ 2.	Inform Operations Support Coordinator (OSC) of your arrival. If OSC has not reported, initiate OSC Checklist.
☐ 3.	Initiate Log Sheet.
☐ 4.	Personnel Assessment (number) Supervisor / Planner a. Management: _____ / _____ b. Personnel: Machinist/Welders (2 required) _____ (machinist) _____ (welder) Electricians (2 required) _____ Plant Helpers _____ Nuclear Utility Workers _____ I&C _____ Other _____ _____
☐ 5.	Open Key Box and Tool Cabinets.
☐ 6.	ETC Group ready for responsibilities _____ Time. (Also make log entry).
☐ 7.	Operations Support Coordinator informed ETC ready.
☐ 8	Brief and Pre-stage an investigative/search & rescue team for immediate response. Team members can be reassigned after accountability and job priorities are completed.
☐ 9.	Discuss any additional support or supplies required with the Admin Coordinator. Page 3 of 3 of this attachment, OSA Support Request, may be used as an aid.

OPERATIONS (*) *Steps are items that MUST be frequently reviewed*	
☐ *1.	Keep Operations Support Coordinator informed of significant activities/events.
☐ *2.	Inform Support Area Personnel that leave the Facility that they should check out with the Security Officer. If a release above normal operating limits has occurred or is likely to occur a HP brief is required. CARS 199701061
☐ *3.	Ensure Emergency Teams are formed and briefed as needed per EIP-ZZ-00220 Emergency Team Formation.
☐ *4.	Ensure Emergency Teams are tracked to location and progress of their assignment at specified intervals.
☐ *5.	Interface with the Health Physics Groups to ensure coordination of activities.

EMERGENCY TEAM COORDINATOR (ETC) CHECKLIST

☐ *6.	Ensure log and status board is maintained.
☐ *7	Periodically brief OSA Support personnel on Plant status and job priorities.

TURNOVER	
☐ 1.	Incoming ETC Coordinator briefed on ETC status and review log.
☐ 2.	Notify the Operations Support Coordinator of the turnover.
☐ 3.	Notify the OSA Support personnel of the turnover.
☐ 4.	Turnover complete _____ Time.
☐ 5.	Turnover logged.
☐ 6.	Initiate a new checklist CA#0262a.

RECOVERY	
☐ 1.	Assess the following: ☐ Emergency team status. All Emergency Team work is completed or turned over to the Recovery Organization or normal maintenance. ☐ Able to resume normal operations.
☐ 2.	Continue Emergency Team activities until directed otherwise by the Operations Support Coordinator.

TERMINATION and SHUTDOWN	
☐ 1.	Ensure OSA equipment and supplies are deactivated and/or stored.
☐ 2.	Ensure documents are collected and given to the Admin Coordinator.

_____

Emergency Team Coordinator Signature

EMERGENCY TEAM COORDINATOR (ETC) CHECKLIST

OSA SUPPORT REQUEST

Administrative (Admin.) Coordinator,

The Operations Support Area (OSA) requires the following support. This support is needed (circle one)

Immediately At next Shift, at _____(enter time)

POSITION	NUMBER NEEDED
Operations Support Coordinator	_____
Electrical Emergency Team Coordinator	_____
Mechanical Emergency Team Coordinator	_____
Storekeeper	_____
Mechanical Supervisor	_____
Electrical Supervisor	_____
I&C Supervisor	_____
Mechanical Planner	_____
Electrical Planner	_____
I&C Planner	_____
Electrician	_____
Machinist	_____
Welder	_____
I&C Technician	_____
Electrical Apprentice	_____
Machinist Apprentice	_____
Welder Apprentice	_____
I&C Apprentice	_____
Insulator	_____
Plant Helper	_____
Nuclear Utility Worker	_____
Tool Room Mechanic	_____
Operating Supervisor (Shift Supervisor concurrence obtained)	_____
Equipment Operator (Shift Supervisor concurrence obtained)	_____