DATE: 09/14/01 TIME: 08:57:55 DC	CUMEN DOCUM	T CC		DL SYS			PAGE: 49 ARDC8801
TRANSMITTAL NUMBER: 475132 TO CONTROL NUMBER: 338U TITLE: OTHER DEPT: NUCLEAR REGULATORY COMM LOCATION: USNRC - WASH DC TRANSMITTAL DATE: 20010914				SEDED ADM AMEN CALI P.O	DOCU INIST REN/U LAWAY . BOX	JMENTS [RATIO	
TRAN DOC CODE TYPE DOCUMENT NUMBER		RET REV	MED	COPY	ALT MED		AFFECTED DOCUMENT
R         PROC EIP-ZZ-C0010           R         PROC EIP-ZZ-00200           D         PROC 99-0679	024		с С С	1 1 1			EIP-ZZ-00200

ACKNOWLEDGED BY:

AOH5

EIP-ZZ-C0010 Revision 024 August 3, 2001

### CALLAWAY PLANT

## EMERGENCY PLAN IMPLEMENTING PROCEDURE

#### EIP-ZZ-C0010

## EMERGENCY OPERATIONS FACILITY OPERATIONS

RESPONSIBLE DEPA	RESPONSIBLE DEPARTMENT <u>EMERGENCY PREPAREDNESS</u>					
PROCEDURE OWNE	R <u>S. J. Crawford</u>					
WRITTEN BY	S. J. Crawford					
PREPARED BY	S. J. Crawford			<del></del> .		
APPROVED BY	Ubren A.	W III				
DATE ISSUED	-14-01	\ HOL				
Pages	1	through	6			
Attachments	1	through	7			
Tables		through				
Figures		through				
Appendices		through				
Checkoff Lists		through				
This procedure has checkoff list(s) maintained in the mainframe computer.				er.		
Conversion of commit	ments to TRS referen	nce/hidden text con	npleted by <u>Revision Numb</u>	<u>oer</u> :		
Non-T/S Commitments018						

ŧ

## TABLE OF CONTENTS

Section	Page Number
1 PURPOSE AND SCOPE	1
2 RESPONSIBILITIES	1
3 INITIATING CONDITIONS	3
4 PROCEDURE	4
5 REFERENCES	5
6 RECORDS	6
Attachment 1 – Recovery Manager Checklist Attachment 2 – Off-Site Liaison Coordinator Checklist Attachment 3 – Protective Measures Coordinator Checklist Attachment 4 – Plant Assessment Coordinator Checklist	2 Pages 2 Pages 4 Pages 4 Pages 2 Pages
Attachment 5 – Logistics Support Coordinator Checklist Attachment 6 – Dose Assessment Coordinator Checklist	3 Pages 7 Pages
Attachment 7 – Backup EOF Checklist	4 Pages

#### 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 <u>RESPONSIBILITIES</u>

#### 2.1 <u>RECOVERY MANAGER (RM)</u>

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

<u>NOTE:</u> 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 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 making Protective Action Recommendations.
- 2.1.1.6 \* Maintaining command and control over personnel in the EOF and providing considerations necessary for their safety.
- 2.1.1.7 \* Ensuring coordinated emergency response among Ameren UE and off-site agencies

- 2.1.1.8 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 COMMUNICATORS
- 2.11.1 The EOF Communicators report to the Off-site Liaison Coordinator. EOF Communicators transmit 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 <u>PROCEDURE</u>

#### 4.1 <u>STARTUP</u>

- 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 <u>OPERATIONS</u>

- 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 <u>Declaration of Recovery</u>
- 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 <u>BACKUP EOF (BEOF)</u>
- 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

#### RECORDS

6

NOTE:All Facility Logs, SENTRY or MAGNEM screen prints,<br/>office memos, notes, etc. should be attached to the<br/>Coordinator Checklist and turned in to the Logistics Support<br/>Coordinator and/or the EP Department.

#### 6.1 <u>QA RECORDS</u>

6.1.1	Attachment	1. Recover	y 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)

EIP-ZZ-C0010

## Rev. 024

# RECOVERY MANAGER CHECKLIST

DATE: \_\_\_\_\_\_ TIME\_\_\_\_\_

	INITIATION
<b>1</b> .	Sign in on Facility Sign-in board. Obtain the RM package and clip on Recovery Manager badge. (If the EOF is uninhabitable, direct the OSL to initiate Attachment 7 and relocate to the BEOF.)
<b>2</b> .	Initiate Facility Log Sheet.
3.	Receive briefing by:         Image: Construction of the second state
4.	Direct the OSL and DAC to begin turnover from the control room, and the Protective Measures Coordinator to begin turnover of Protective Action Recommendations (PARs).
	NOTE: DO NOT assume responsibility for communications, Dose Assessment, and PARs until both the OSL & DAC have completed turnover.
<b>D</b> 5.	Notify the Control Room and the EC prior to assuming responsibilities for Communications, Dose Assessment and PARs using the EML phone, if available.
<b>G</b> 6.	Make a site wide announcement that, "The EOF has accepted emergency responsibilities for Offsite Notifications, Dose Assessment and PARs from the Control Room."
7.	Upon arrival of the PMC and PAC, direct the PMC to coordinate Notifications with the PAC and DAC for your review and approval.
8.	Ensure the following positions have been filled in the EOF
	Communicator PMC
	PMC PAC
	□ LSC
9.	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."
<b>1</b> 10.	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.
<b>D</b> 11.	Instruct Logistical Support Coordinator to assign Clerical Support to the Priorities white board.

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

# **RECOVERY MANAGER CHECKLIST**

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

	RECOVERY				
<b>1</b> .	EOF personnel continue activities per procedures until Recovery Organization established.				
2.	Discuss the expected response of State and Federal agencies.				
<b>3</b> .	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.				
<b>G</b> 6.	Make a site wide announcement of Recovery Declaration.				

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

Recovery Manager Signature

1

# **OFF-SITE LIAISON COORDINATOR CHECKLIST**

DATE: \_\_\_\_\_ TIME\_\_\_\_\_

		INITIATION
[	1.	Sign in on Facility Sign-in board. Obtain the OSL and Communicators packages and clip on the Off-Site Liaison badge.
Π	2.	Inform Recovery Manager of your presence.
Ī	3.	Adjust Gai-tronics to an acceptable level.
	4.	<ul> <li>Ensure the EOF has power.</li> <li>Normal power, (i.e. lights on, power available to computers, etc.).</li> <li>No Power-Start the EOF diesel per OOA-UB-EPG50 or call for Equipment Operator if available.</li> </ul>
	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.
Π	 7.	Initiate Facility Log sheet.
1	 8.	Ensure the SENTRY PC is powered on, and the OUTLOOK application is running.
1	 9.	Check OSL and Communicator phone lines for dial tone.
	10.	Turn on projected statusboard.
	11.	Upon direction of the RM, using <b>EIP-ZZ-00201</b> Attachment 3 (CA#234), contact the Control Room Communicator to get a brief on the status of Communications (prepare to transfer communications to EOF). (If the EOF is uninhabitable, communications should remain in the Control Room until the BEOF is staffed.)
	12.	Notify the RM when you are ready to assume your duties. TIME:
1	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.)
F	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.)

	<b>OPERATIONS</b> (*) Steps are items that MUST be frequently reviewed.
<b>•</b> *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.
<b>□</b> *3.	Ensure the Emergency Classification status board is properly updated.

į

# OFF-SITE LIAISON COORDINATOR CHECKLIST

	TURNOVER				
<b>□</b> 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.				
<b>3</b> .	Inform the Recovery Manager.				
4.	Turnover complete Time.				
<b>D</b> 5.	Turnover logged.				
6.	Initiate a new checklist CA#733.				
L	1				

RECOVERY	
<b>1</b> 1.	Continue providing requested information.
<b>2</b> .	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.	
<b>3</b> .	Ensure that emergency equipment and supplies are returned and/or stored to their normal condition.	
	<ul> <li>Radio</li> <li>Emergency Equipment Kits</li> <li>Emergency Diesel Generator</li> <li>Ventilation System</li> <li>Portable Monitoring Equipment</li> <li>Microfiche Reader</li> <li>Return ALL UPS's to LINE position.</li> </ul>	
4.	After completion of the above steps, inform the Emergency Coordinator that the EOF has been shutdown.	
<b>G</b> 5.	Ensure that all EOF emergency records are collected and given to the Logistics Support Coordinator/Emergency Preparedness Department.	
<b>G</b> 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	
<b>□</b> 1.	Sign in on Facility Sign-in board. Obtain the PMC package and clip on the Protective Measures Coordinator badge.	
<b>2</b> .	<ul> <li>Ensure the EOF has power.</li> <li>Normal power, (i.e. lights on, power available to computers, etc.).</li> <li>No Power-Start the EOF diesel per OOA-UB-EPG50 or call for Equipment Operator if available</li> </ul>	
3	Ensure the EOF HVAC system is in recirculation/filter mode per <b>OOA-UB-00004.</b> 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	
<b>D</b> 5.	Recovery Manager informed of your presence.	
6.	Initiate Facility Log sheet.	
<b>1</b> 7.	Image: Plant Assessment Coordinator (PAC)       Name         Image: 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.	
<b>1</b> 0.	Inform the Recovery Manager when your ready to assume duties.	

**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.

	<u>OPERATION</u> (* Steps are recurring items that need to be reviewed on a continual bases)
• *1.	Evaluate input from plant conditions (PAC), dose assessment (DAC), and <b>EIP-ZZ-00212</b> , Protective Action Recommendations. Default to the most conservative recommendation, time is essential.
<b>•</b> *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	
<b>1</b> .	Brief the oncoming PMC on the status of the facility and on-site and off-site emergency response activities.
2.	Review log.
<b>3</b> .	Inform the Recovery Manager.
4.	Turnover complete Time.
5.	Turnover logged.
<b>G</b> 6.	Initiate a new checklist CA# 737.

RECOVERY	
<b>1</b> .	Continue providing requested information.
<b>Q</b> 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.
<b>2</b> .	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.
- 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.
- 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.
- 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 cutout 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
<b>D</b> 1.	Sign in on Facility Sign-in board. Obtain the PAC package and clip on the Plant Assessment Coordinator badge
<b>Q</b> 2.	<ul> <li>Ensure the EOF has power.</li> <li>Normal power, (i.e. lights on, power available to computers, etc.).</li> <li>No Power-Start the EOF diesel per OOA-UB-EPG50 or call for Equipment Operator if available</li> </ul>
3.	Ensure the EOF HVAC system is in recirculation/filter mode per <b>OOA-UB-00004.</b> 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.	Protective Measures Coordinator informed of your presence.
6.	Initiate Facility Log sheet.
7.	Plant Assessment StaffName
	Name
8.	Turn on projected statusboards.
9.	Check PAC phone lines for dial tones.
<b>1</b> 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.
<b>D</b> 11.	Notify the PMC when you are ready to assume your duties, including PARs.
<b>1</b> 2.	Evaluate PSB1, PSB2, and PSB3 on the Plant Computer.
<b>1</b> 3.	Initiate Free Format Logs as needed.
<b>1</b> 4.	Formally accept PARs from the TSC.

<u>OPERATIONS</u> (*) Steps are items that MUST be frequently reviewed	
<b>1</b> *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.
<b>4</b> *3.	Request release duration from TAC.

# PLANT ASSESSMENT COORDINATOR CHECKLIST

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

RECOVERY	
1.	Continue providing requested information.
<b>Q</b> 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.
- BAD (Blue) The BAD (Bad Scanned Value) code is generated when the "corrected" scanned value (i.e. adjusted for A/D gain and zero-drift error) exceeds the sensor range as defined by a point's "SENSOR LIMIT LOW" and "SENSOR LIMIT HIGH" values in the database.
- 8. **HRL** (Blue) Point exceeds high reasonable limits. This condition is tested after engineering unit conversion and if the value exceeds the defined High Reasonable limit, a quality code of "HRL" is assigned.
- 9. LRL (Blue) Point exceeds low reasonable limits. This condition is tested after engineering unit conversion and if the value exceeds the defined Low Reasonable limit, a quality code of "LRL" is assigned.

# PLANT ASSESSMENT COORDINATOR CHECKLIST PLANT COMPUTER GUIDE

- 10. **REDU** (Cyan) Point fails redundant point check. If a point has a defined Redundant Point and its current value does not match the defined point within the specified tolerance, it is assigned a quality code of "REDU".
- 11. **HIHI** (Red) Point above high alarm limit. This condition is met when a point's current value has exceeded the defined High Alarm limit, and is assigned a quality code of "HIHI".
- 12. **LOLO** (Red) Point below low alarm limit. This condition is met when a point's current value is less than the defined LOW Alarm limit, and is assigned a quality code of "LOLO".
- 13. **HALM** (Yellow) Point above high warning limit. This condition is met when a point's current value has exceeded the defined High Operating limit, and is assigned a quality code of "HALM".
- 14. **LALM** (Yellow) Point below low warning limit. This condition is met when a point's current value is below the defined Low Operating limit, and is assigned a quality code of "LALM".
- 15. ALM (Red) State/Change-of-State alarm. Any logical-value point may be alarm monitored against either a defined logical state (i.e., "TRUE", or "FALSE"), or a defined change-of-state condition (i.e., "TRUE" to "FALSE", "FALSE" to "TRUE", or either state change). A quality code of "ALM" is assigned if the point meets any of the above conditions.
- 16. SUB (Cyan) Substitute value inserted for point. If a substitute value has been entered for a point, the point is assigned a quality code of "SUB", and no further alarm checks or engineering unit conversions are made.
- 17. **DALM** (Cyan) Point is deleted from alarm checks. If a point is currently disabled from alarm processing, it is assigned a quality code of "DALM", and no further alarm checks are made.
- 18. **INHB** (Green) Point is inhibited from alarm by cut-out point. If a point has an assigned cutout 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		
<b>1</b> .	Sign in on Facility Sign-i Logistics Support Coordi	n board. Obtain the Logistics Support Coordinator (LSC) package and clip on the
<b>2</b> .	Recovery Manager inform	ned of your presence.
<b>D</b> 3.	Initiate Facility Log shee	t.
4.	Equipment energized / m	ade ready.
	Check and LSC Com LSC Teler	
<b>1</b> 5.		acted and administrative operations and responsibilities discussed. Obtain the names of reporting. Assume the responsibility of requesting outside assistance.
<b>G</b> 6.	Personnel Assessment Logistics Support Staff	(name)
		(name)
	Clerical Support Staff	(name) (assign to Recovery Manager)
		(name) (assign to Priorities board)
		(name)
7.	<ul> <li>Assemble a the Off Site</li> <li>Establish n</li> <li>Inform extr</li> <li>Send perso</li> </ul>	A, evaluate extra personnel. Il extra responders in the Media Area to await further instructions. (Obtain key from E Liaison Coordinator.) eeds of coordinators. a responders of established routes to take when leaving. nnel home, or to a designated Reception and Care Center, with instructions to stand by an be contacted with a designated time to return.
8.	If adverse radiological co Smoking, or Chewing".	onditions exist or occur, post signs and posters regarding "No Eating, Drinking,
9.	If additional support is n	eeded, contact the Administrative Coordinator for callout.
۲ <u>ــــــ</u>	······································	

	<u>OPERATIONS</u> (*) Steps are items that MUST be frequently reviewed	
• *1.	Contact Administrative Coordinator and request additional clerical support as needed.	
<b>a</b> *2.	Check status of EOF/JPIC emergency responders per EIP-ZZ-00200, Attachment 2. Do NOT delete messages until all positions are filled. Distribute copies of Attachment 2 to Coordinators periodically until all positions are filled. Paging or calling using the Emergency Telephone Directory may be required.	
	<ul> <li>Call 64777 Audix.</li> <li>Enter 68202 and the # sign.</li> <li>Enter the password which is the # sign.</li> <li>Follow instructions to listen to new messages and complete Attachment 2.</li> </ul>	
<b>•</b> *3.	Serve as liaison with American Nuclear Insurers and INPO as required. (NOTE: The communicators contact both groups with notifications.)	

: -

	LOGISTICS SUPPORT COORDINATOR CHECKLIST
<b>•</b> *4.	Contact Regional Regulatory Affairs Group and have them review notifications required per APA-ZZ-00520, Reporting Requirements And Responsibilities.
*5.	<ul> <li>Contact area Motels to begin prearranging lodging:</li> <li>Ensure motels being contacted are outside the Plume Exposure Pathway.</li> <li>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).</li> <li>Request if some (your best estimate dividing between available motels) rooms may be held for 6:00PM cancellation daily for the next several days.</li> </ul>
<b>□</b> *6.	Meal Arrangements <ul> <li>Contact area restaurants/caterers to determine availability of meals.</li> <li>(This should be coordinated with the Admin Coordinator in the TSC who shares this responsibility.)</li> </ul>
*7.	Temporary facilities needed.
*8.	Contact the Emergency Procurement personnel at the Ameren GOB to establish a working relationship.
•9.	Review letters of agreement and the INPO Resources book for resources available from other plants.
• *10.	If requests for additional support personnel and services are made: <ul> <li>Keep Recovery Manager informed of request being made for additional support.</li> <li>Contact vendors and obtain the following information: <ol> <li>Name(s) of personnel.</li> <li>Social Security Number(s).</li> <li>Point of Departure.</li> <li>Transportation requirements (airline tickets, land transportation, etc.).</li> <li>Lodging requirements.</li> <li>Anticipated Work Location.</li> <li>Estimated time of arrival.</li> </ol> </li> </ul>
• *11.	<ul> <li>Request additional equipment as needed:</li> <li>Keep Recovery Manager informed of request being made for additional support services/equipment.</li> <li>Requesting organization should provide: <ol> <li>Explicit equipment requirements in writing.</li> <li>Amount needed.</li> <li>Delivery location.</li> <li>Person on site to contact.</li> <li>Justifiable reason for request.</li> </ol> </li> <li>Contact vendor and obtain the following information: <ol> <li>Availability.</li> <li>Shipping Mode.</li> <li>Special handling requirements.</li> <li>Estimated arrival time.</li> <li>Contact the following to coordinate the delivery/arrival:</li> <li>Security Coordinator.</li> <li>OSL for traffic control.</li> <li>Requesting group.</li> </ol> </li> </ul>

.

## LOGISTICS SUPPORT COORDINATOR CHECKLIST

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

	RECOVERY
<b>D</b> 1.	Continue providing requested information.
2.	Continue activities per procedures and checklist until Recovery Organization established or until directed otherwise by the Recovery Manager.

<b>TERMINATION and SHUTDOWN</b>	
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		
<b>1</b> .	Sign in on Facility Sign-in board. Obtain the DAC package and clip on the Dose Assessment Coordinator badge.	
<b>Q</b> 2.	Inform Recovery Manager/Protective Measures Coordinator of your presence.	
<b>3</b> .	Adjust Gai-tronics in Recovery Center to an acceptable level.	
<b>4</b> .	Switch the DAC's computers (2) power supplies to the UPS position.	
<b>1</b> 5.	Initiate Facility Log sheet.	
<b>G</b> 6.	Check DAC phone lines for dial tone and Dose Assessment Equipment available and operable. Report any deficiencies to the Logistics Support Coordinator.	
<b>1</b> 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.	
<b>1</b> 0.	Notify the RM when you are ready to assume your duties. TIME:	
<b>1</b> 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.)	
<b>1</b> 2.	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.	
<b>1</b> 3.	Contact the HP Coordinator (HPC) in the TSC and request:	
	<ul> <li>Two (2) Field Monitoring Teams (FMT) be dispatched, and</li> <li>Two (2) Dose Assessment Staff personnel to be sent to the EOF.</li> </ul>	
	NOTE: If release is in progress or imminent, brief the FMTs on the radio.	

ſ	<u>OPERATIONS</u>	
(*) Steps are items that MUST be frequently reviewed. (**) Frequently reviewed steps that can be completed by Dose Assessment staff.		
• -	<b>()</b> *1.	Make Facility Announcement that "All personnel leaving the EOF should check out with the Security Officer prior to leaving the facility." If a release is in progress or anticipated announce "an HP brief from the DAC will also be required."
		NOTE: If a release is in progress or anticipated, ensure all personnel dispatched from the EOF have dosimetry. The Security Officer will verify HP briefs prior to exit.
	<b>□</b> *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.
	*3.	Notify the Health Physics Coordinator (HPC) when thyroid dose exceeds 25 REM. Recommend KI for Plant Personnel.

-

	DOSE ASSESSMENT COORDINATOR CHECKLIST
*4.	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).
<b>•</b> **5.	Obtain weather forecast initially and approximately every 4 hours. Brief the PMC and/or the RM of any anticipated changes in the weather conditions and their effects on PARs.
	(St. Louis Flight Briefing Service 1-800-992-7433 or use the Internet)
■ *6.	Monitor Radiation Monitor Trends for Group 1 and 2 EALs in accordance with <b>EIP-ZZ-00101</b> . Notify the RM and/or PMC of any setpoints that have been exceeded or are being approached.
	<i>NOTE:</i> Refer to <b>KOA-ZZ-00125</b> during degraded NB01/NB02 conditions to determine validity of plant computer points.
<b>1</b> *7.	When the field monitoring teams are available, brief and dispatch as per EIP-ZZ-00211, Field Monitoring Direction and Assessment.
	NOTE: If release is in progress or imminent, brief the FMTs on the radio.
□ *8.	Evaluate input from the FMT's and monitor Protective Action Recommendations based on radiological conditions per <b>EIP-ZZ-00212</b> , Protective Action Recommendations. When available, coordinate recommendations with the Missouri Department of Health (DOH).
<b>•</b> *9.	Request update of release duration from the PMC/PAC or the TAC if the PMC/PAC is not available.
*10.	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.
<b>•</b> *11.	Initiate Free Format Logs as needed.
<b>•</b> **12.	<ul> <li>Establish Radiological Habitability Controls in the EOF.</li> <li>Close both vestibule doors</li> <li>Response check the Portal Monitor (page 5 of 7, this attachment or HTP-ZZ-04135)</li> <li>AMS 3 energized and source checked (page 6 of 7, this attachment or HTP-ZZ-04137)</li> <li>Control dosimetry set</li> <li>Have Logistics Support post signs on doors to facility.</li> </ul>
<b>•</b> **13.	Set up a frisking station using a model 177 ratemeter, (per page 4 of 7, this attachment or HTP-ZZ-04101).
<b>•</b> **14.	Issue TLDs to personnel, as required, in the EOF (Use Page 7 of 7, this attachment for issue).
<b>•</b> **15.	<ul> <li>Ensure that facility habitability is maintained using portable instrumentation and secondary monitoring devices.</li> <li><u>Habitability Action Levels</u>:</li> <li>600 mrem/hr direct dose rate, inform the RM, and commence monitoring cumulative dose.</li> <li>4400 mrem cumulative dose, recommend facility evacuation.</li> <li>5000 mrem/hr or greater direct dose rates recommend facility evacuation.</li> <li>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.</li> <li>Iodine concentrations of 1.9 E –5 uCi/ml or greater, recommend evacuation.</li> <li>Appropriate protective actions, as per Health Physics procedures, should be recommended when experiencing the above radiological conditions and considering how and when to evacuate.</li> </ul>
<b>•</b> **16.	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.

## DOSE ASSESSMENT COORDINATOR CHECKLIST

	TURNOVER	
<b>1</b> .	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.	
<b>1</b> 3.	Review log.	
4.	Inform the Recovery Manager, Dose Assessment Staff and Field Monitoring Teams of the turnover.	
5.	Notify DOH personnel of turnover.	
<b>G</b> 6.	Turnover complete Time.	
7.	Turnover logged.	
8.	Initiate a new checklist CA# 734.	

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

	TERMINATION and SHUTDOWN	
<b>1</b> .	When directed, assist with the EOF deactivation.	
<b>2</b> .	Ensure area is put into order and logs collected and given to the Logistics Support Coordinator.	
<b>3</b> .	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.	
<b>D</b> 5.	Secure friskers and store in locker.	
<b>G</b> 6.	Secure AMS-3.	
7.	Collect and make preparations to read TLDs issued from the EOF.	

Dose Assessment Coordinator

### DOSE ASSESSMENT COORDINATOR CHECKLIST

SET-UP AND OPERATION OF THE MODEL 177 RATEMETER

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

- 1. Remove Model 177 ratemeter, frisker probe, detector cable, power cord, and check source from the E-Kit cabinet.
- 2. Connect detector and power cords, if not already connected, to the Model 177 ratemeter and verify the following switch settings:

Front Panel: 1. On/Off switch in "ON" position.

- 2. Volume adjusted to hear audible counts.
- 3. Response switch in "slow" position.
- 4. Range switch to "X1" scale.

Rear Panel: 1. Al

- : 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 preoperational 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.

<u>NOTE:</u> 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<sup>3</sup> 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

ATTACHMENT 6 CA-#734

# BACK-UP EOF CHECKLIST

DATE: \_\_\_\_\_ TIME\_\_\_\_\_

	TRANSFER TO BACK-UP EOF		
<b>1</b> .	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.		
<b>2</b> .	<b>OSL or RM</b> -Contact the NRC Operations Center and notify them of the decision to startup the Backup EOF.		
3.	<ul> <li>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:</li> <li>NOTE: The BEOF has Emergency Packets for the staff. Personnel reporting to the TSC need to take their packet with them.</li> <li>Recovery Manager to the Backup EOF.</li> <li>Protective Measures Coordinator to the Backup EOF.</li> <li>Off-Site Liaison Coordinator to the Backup EOF.</li> <li>DACs, one to the Backup EOF and one to the TSC to report to EC.</li> <li>Dose Assessment Staff, one to the Backup EOF and one to the TSC</li> <li>Plant Assessment Coordinator to the TSC to report to TAC.</li> <li>Logistics Support Coordinator to the TSC to work with the Admin. Coord.</li> <li>JPIC Tech Rep (EOF) to the TSC and communicate with JPIC.</li> <li>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.</li> </ul>		
4.	<ul> <li>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</li> <li>Protective Action Recommendations in accordance with EIP-ZZ-00212.</li> <li>Dose Assessment/ FMT Coordination in accordance with EIP-ZZ-01211and EIP-ZZ-00211</li> <li>Notifications in accordance with EIP-ZZ-00201.</li> </ul>		
l	NOTE: Notifications may be sent from the Control Room using SENTRY or be initiated from the TSC using backup communication lines.		

	<b>INTERIM OPERATION WHILE AWAITING BACKUP EOF ACTIVATION</b>
1.	Communicator - (Reporting to TSC) Announce your presence to the EC and coordinate notification completion with the DAC and TAC.         Image: Image

	BACK-UP EOF CHECKLIST				
2.	<ul> <li>DAC - (Reporting to TSC) Work with the HPC and perform all applicable portions of the DAC Checklist Attachment 6.</li> <li>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.</li> </ul>				
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.				
<b>D</b> 5.	<b>LSC</b> - (Reporting to TSC) Work with the Admin Coordinator performing the applicable portions of Attachment 5.				

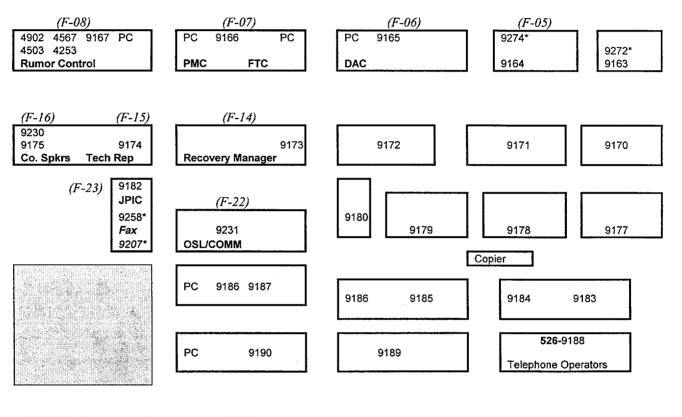
-

	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.	<ul> <li>RM -Recovery Manager contact the Emergency Coordinator, receive update, and request transfer of the following to the Backup EOF:</li> <li>Protective Action Recommendations in accordance with EIP-ZZ-00212.</li> <li>Dose Assessment/ FMT Coordination in accordance with EIP-ZZ-01211 and EIP-ZZ-00211. Note: Field Monitoring Teams remain under the control of the TSC DAC.</li> <li>Notifications in accordance with EIP-ZZ-00201.</li> </ul>			
3.	<b>PMC</b> - Perform applicable portions of PMC Checklist Attachment 3 using input from the TAC, PAC (in TSC) and DAC (Backup EOF).			
4.	<b>DAC</b> - 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.	<b>OSL</b> - Perform applicable portions of the OSL Checklist Attachment 2 and ensure a comprehensive turnover of offsite notifications with the concurrence of the RM. <i>NOTE: DO NOT assume responsibility of notifications until PMC and DAC have assumed responsibility.</i>			
6.	OSL - Report the assumption of responsibilities to the Recovery Manager.			
7.	OSL - Log the Backup EOF activation time			
8.	<b>OSL</b> - Inform the Emergency Coordinator, SEMA, County EOCs and the NRC of the assumption of responsibilities in the Backup EOF.			

Off-Site Liaison Coordinator Signature

#### **BACK-UP EOF CHECKLIST**

#### **BEOF LAYOUT**



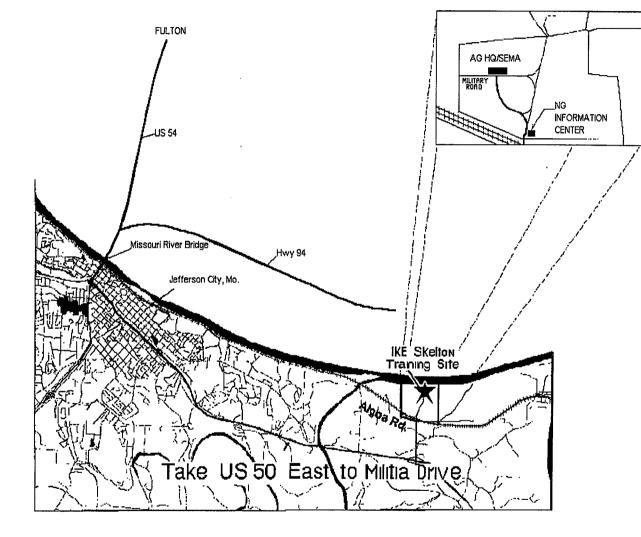
All 9XXX phone numbers are 526-9XXX All 4XXX phone numbers are 634-4XXX \* Indicates analog phone line Field Monitoring Team Cellular Phones Chem Vehicle (573) 220-0173 HPTS Vehicle (573) 220-0628 I&C Vehicle (573) 220-2507 Radio for FMT communications is located in the SEMA R

Radio for FMT communications is located in the SEMA Radio Room

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



Page 4 of 4



EIP-ZZ-C0010 Rev. 024 .

EIP-ZZ-00200 Revision 009 August 13, 2001

#### CALLAWAY PLANT

#### EMERGENCY PLAN IMPLEMENTING PROCEDURE

#### EIP-ZZ-00200

## AUGMENTATION OF THE EMERGENCY ORGANIZATION

RESPONSIBLE DEP	ARTMENT <u>Emergency Preparedness</u>
PROCEDURE OWNI	ER S. J. Crawford
WRITTEN BY	S. J. Crawford
PREPARED BY	S. J. Crawford
APPROVED BY	Wanen A. Witt

DATE ISSUED	7-14-01	S	MENT CONTRACTOR
This procedure contai	ns the following:		3380
Pages	1	through	4
Attachments	1	through	4
Tables		through	
Figures		through	
Appendices		through	
Checkoff Lists		through	
This procedure has	0 checkoff 1	ist(s) maintained	1 in the mainframe computer.
Conversion of commi	tments to TRS referenc	e/hidden text co	mpleted by <u>Revision Number</u> :

Non-T/S Commitments 007

## TABLE OF CONTENTS

Section			Page Number
1	PUF	RPOSE AND SCOPE	1
2	DEF	FINITIONS	1
3	RES	SPONSIBILITIES	2
4	INI	TIATING CONDITIONS	2
5	PRC	OCEDURE	2
5.1		LLAWAY PLANT EMERGENCY PAGING SYSTEM	2
5.2		ERGENCY RESPONSE FACILITIES (ERFS)	3
5.3		LURE OF THE PAGING SYSTEM	3
6	REF	FERENCES	4
7	REC	CORDS	4
Attachmo	ent 1	Pager Response – Rapid Responder Emergency Response Organization	se 1 Page
Attachme Attachme		Pager Response – TSC Emergency Response Organizati Pager Response – EOF/JPIC Emergency Response	on 1 Page
1 Machinik	JIIL J	Organization	1 Page
Attachmo	ent 4		2 Pages

#### AUGMENTATION OF THE EMERGENCY ORGANIZATION

#### 1 <u>PURPOSE AND SCOPE</u>

#### 1.1 <u>PURPOSE</u>

This procedure provides guidance for the augmentation of the Callaway Plant Emergency Response Organization (ERO).

#### 1.2 <u>SCOPE</u>

1.2.1 This procedure outlines the proper use of the Callaway Plant's Emergency Paging System.

## 2 <u>DEFINITIONS</u>

- 2.1 <u>Callaway Plant Emergency Paging System</u> An alpha/numeric paging system that uses a computer program and modem to alert and activate the Emergency Response Organization.
- 2.2 <u>Emergency Response Facility (ERF)</u> A collective name for specifically designated locations which are equipped to facilitate the control and coordination of emergency activities and assessment.
- 2.3 <u>Emergency Response Personnel</u> AmerenUE and/or contract personnel trained to fill emergency response positions within the Emergency Response Organization.
- 2.4 <u>Fitness for Duty</u> Being prepared to report for duty and function effectively, meaning abstinence from alcoholic intake at least five (5) hours proceeding working tour.
- 2.5 <u>System Activation</u> Initiating the Emergency Paging System for an event, such as an Emergency, Drill, or Test.
- 2.5.1 <u>Emergency</u> An actual event, thus giving the message to the responders that an emergency has been declared, this is not a drill, and response to their Emergency Response Facility is necessary.
- 2.5.2 <u>Drill</u> A planned mock event, thus giving the message to the responders that this is a drill, but response to their Emergency Response Facility is still necessary.

- 2.5.3 <u>Test</u> A planned event, where the message to the responders is that a test is being conducted, only a test, and response to their Emergency Response Facility is <u>not</u> required.
- 2.6 <u>System Administrator</u> Member of the Emergency Preparedness Department that oversees changes to the System and interfaces with the System vendor.

## 3 <u>RESPONSIBILITIES</u>

- 3.1 The Shift Supervisor (SS)/Emergency Coordinator (EC) is responsible for providing the Secondary Alarm Station (SAS) Operator with proper information to initiate the Callaway Plant Paging System.
- 3.2 The SAS Operator is responsible for activating the Callaway Plant Emergency Paging System as per **KOA-ZZ-00200**, Activation of the Callaway Plant Emergency Paging System.

## 4 INITIATING CONDITIONS

- 4.1 Implement this procedure upon any of the following conditions:
  - Declaration of an Alert.
  - Declaration of a Site Emergency.
  - Declaration of a General Emergency.
  - At the discretion of the Shift Supervisor/Emergency Coordinator.

#### 5 PROCEDURE

#### 5.1 <u>CALLAWAY PLANT EMERGENCY PAGING SYSTEM</u> <u>ACTIVATION</u>

5.1.1 The SS/EC notifies the Secondary Alarm Station (SAS) Operator to activate the Callaway Plant Emergency Paging System using KOA-ZZ-00200, Activation of the Callaway Plant Emergency Paging System.

5.1.2	The SAS Operator records responses to the page for Rapid
	Responders on Attachment 1 by retrieving Audix messages per
	KOA-ZZ-00200.

- 5.1.3 The SAS Operator forwards Attachment 1 to the SS/EC when complete or in approximately fifteen (15) minutes.
- 5.1.4 The SAS operator obtains the Control Room's approval to reinitiate the page if incomplete response is attained within the first 15 minutes.
- 5.1.5 After the second page if positions on Attachment 1 remain unfilled the EC/SS should initiate a manual callout per section 5.3.
- 5.1.6 When Attachment 1 is complete, FAX it to the TSC (68604) and EOF (64900).
- 5.2 EMERGENCY RESPONSE FACILITIES (ERFS)
- 5.2.1 Each Emergency Response Facility is responsible for their respective mailbox. The activity of verifying ERO Staffing for each facility could be assigned to the Logistics Support Group in the EOF, or the Admin Coordinator in the TSC.
- 5.2.2 To access the Audix mailbox, dial 64777 and enter the proper extension listed below, followed by the (#) key. Press the (#) key again for the password.
  - TSC Emergency Response Organization 68400
  - EOF/JPIC Emergency Response Organization 68202
- 5.2.3 Follow the Audix directions to get messages.
- 5.2.4 Do NOT delete messages. Press the (#) key to skip messages without deleting. Emergency Preparedness WILL delete the messages after the event.
- 5.2.5 Fill out Attachment 2 for the TSC and Attachment 3 for the EOF/JPIC.
- 5.3 FAILURE OF THE PAGING SYSTEM
- 5.3.1 If the paging system should fail or if some of the positions fail to respond fill the position using the Emergency Telephone Directory.

5.3.2 Using the Emergency Telephone Directory, and Attachment 4, locate the page that contains the list of personnel qualified for the position desired and call each until a proper response is received.

<u>NOTE:</u>	The Responders MUST be asked if they are fit for
	duty.

## 6 <u>REFERENCES</u>

6.1 **KOA-ZZ-00200**, Activation of the Callaway Plant Emergency Paging System.

## 7 <u>RECORDS</u>

7.1 After the event, send Attachments 1, 2, 3, and 4 to Emergency Preparedness for proper dissemination to QA Record File K171.0010.

\_\_\_\_\_

# PAGER RESPONSE (Audix 64600)

## RAPID RESPONDERS EMERGENCY RESPONSE ORGANIZATION

DATE \_\_\_\_\_ TIME OF DECLARATION

NAME	POSITION	ESTIMATED TIME OF ARRIVAL
	EDO/EMERGENCY COORDINATOR (EDO/EC)	
	TECHNICAL ASSESSMENT COORDINATOR (TAC)	
	TSC COMMUNICATOR (ENS)	
	RECOVERY MANAGER (RM)	
	OFF-SITE LIAISON COORDINATOR (OSL)	
	DOSE ASSESSMENT COORDINATOR (DAC)	
	HEALTH PHYSICS COORDINATOR (HPC)	

## PAGER RESPONSE (Audix 68400)

#### TSC EMERGENCY RESPONSE ORGANIZATION

DATE

#### TIME OF DECLARATION

NAME	POSITION	<u>NUMBER</u> REQUIRED	ESTIMATED TIME OF ARRIVAL
	ADMINISTRATIVE COORDINATOR	1	
	CHEMISTRY COORDINATOR (CC)	1	
	CONTROL ROOM/TSC LIAISON (CTL)	1	
	ELECTRICAL ENGINEER	1	
	ELECTRICIANS	2	
	EMERGENCY TEAM COORDINATOR – Electrical	1	
	EMERGENCY TEAM COORDINATOR – Mechanical	1	
	ENGINEERING STATUS BOARD/LOGKEEPERS	3	
	I&C ENGINEER	1	
	MECHANICAL ENGINEER	1	
	MECHANICS	2	· · · · · · · · · · · · · · · · · · ·
	OPERATIONS SUPPORT COORDINATOR (OSC)	1	
	RAD CHEM SUPPORT	14	
			· · · · · · · · · · · · · · · · · · ·
·······			
	I&C TECHNICIAN	1	
	REACTOR/NUCLEAR ENGINEER	1	
	SECURITY COORDINATOR	1	
······	STORES PERSONNEL	1	
L	TSC LEAD ENGINEER	1	

## PAGER RESPONSE (Audix 68202)

# EOF/JPIC EMERGENCY RESPONSE ORGANIZATION

DATE

## TIME OF DECLARATION

NAME	POSITION	<u>NUMBER</u> REQUIRED	ESTIMATED TIME OF ARRIVAL
	COMPANY SPOKESPERSON	1	
	DOSE ASSESSMENT COORDINATOR (DAC)	1	
	EOF COMMUNICATOR	1	
	JPIC ADMINISTRATOR	1	
	JPIC COORDINATOR	1	
	JPIC EDITOR	1	
	JPIC MEDIA HOST	1	
	JPIC TECHNICAL REPRESENTATIVE	2	
	LOGISTICAL SUPPORT COORDINATOR (LSC)	1	
	LOGISTICAL SUPPORT STAFF	2	
	PLANT ASSESSMENT COORDINATOR (PAC)	1	
	PLANT ASSESSMENT STAFF	1	
	PROTECTIVE MEASURES COORDINATOR (PMC)	1	

## MANUAL CALLOUT LIST

\_\_\_\_\_

.....

	POSITION	Number Required	ACCEPTING INDIVIDUAL (name)
1	Rad Chem Support	14	
		·····	
	· .		
ļ			
2	Electricians	2	
3	Protective Measures Coordinator (PMC)	1	
4	Chemistry Coordinator	1	
5	Operations Support Coordinator (OSC)	1	
6	Emerg. Team Coordinator Electrical	1	
7	Emerg. Team Coordinator Mechanical	1	
8	Control Room (CR)/TSC Liaison	1	
9	TSC Lead Engineer	1	
10	Dose Assessment Coordinator	1	······································
11	EOF Communicator	1	

•

## MANUAL CALLOUT LIST

	POSITION	Number Required	ACCEPTING INDIVIDUAL (name)
12	Mechanics	2	
13	I&C Engineer	1	
14	Reactor/Nuclear Engineer	1	
15	Mechanical Engineer	1	
16	Electrical Engineer	1	· · · · · · · · · · · · · · · · · · ·
17	Plant Assessment Coordinator (PAC)	1	
18	Engineering Status Board/Logkeepers	3	
19	Plant Assessment Staff	1	
20	Stores Personnel	1	
21	Security Coordinator	1	· · · · · · · · · · · · · · · · · · ·
22	Administrative Coordinator	1	
23	Logistical Support Coordinator	1	· · · · · · · · · · · · · · · · · · ·
24	Logistical Support Staff	2	
25	Company Spokesperson	1	
26	JPIC Technical Representative	2	
27	JPIC Coordinator	1	
28	JPIC Administrator	1	
29	JPIC Editor	1	······
30	JPIC Media Host	1	
31	I&C Technician	1	