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TRAN CODE	DOC TYPE	DOCUMENT NUMBER	REV	RET REV	MED	COPY	ALT MED	ALT COPY	AFFECTED DOCUMENT
R	PROC	EIP-ZZ-00102	028	027	C	1			
R	PROC	EIP-ZZ-00201	035	034	C	1			
R	PROC	EIP-ZZ-00212	019	018	C	1			
R	PROC	EIP-ZZ-00240	027	026	C	1			

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EIP-ZZ-00102
Revision 028
August 17, 2001

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 **W. R. Bevard**

APPROVED BY [illegible] for MCP

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DATE ISSUED 8-30-01

This procedure contains the following:

Pages	1	through	7
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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 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- Any unplanned, quantifiable discharge to the environment of radioactive effluent attributable to a declared emergency event.

2.2 UNPLANNED- The release is related to an event that was not planned or scheduled.

2.3 Quantifiable- An indication of elevated radioactivity above normal levels, either by installed or portable instruments,

2.4 Environment- A pathway for radioactive material to reach the environment.

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.

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:	Pager activation does not need to be done if the pagers have been activated already at a lower classification level.

4.4 **At an ALERT or higher classification** call out the emergency organization by having the SAS operator activate the Emergency Paging System per **KOA-ZZ-00200** for rapid responders using **MESSAGE #1**.

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)**

4.7.1 Emergency Classification.

4.7.2 Plant status and actions taken.

4.7.3 Callout of response organizations.

4.7.4 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 is in progress or projected** 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.

NOTE:	Release defined as: "Any unplanned, quantifiable discharge to the environment of radioactive effluent attributable to a declared emergency event."

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

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 Admin Coordinator and/or Emergency Preparedness (EP).

NOTE:	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.

6.1 QA Records

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

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

_____
_____
_____
_____

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/Alert	ALL NON-ESSENTIAL PERSONNEL CONTINUE WITH YOUR NORMAL DUTIES UNLESS FURTHER INSTRUCTIONS ARE GIVEN.	
☐ 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.

1 THE FIELD SUPERVISOR, OR DESIGNEE, PERFORMS THE FOLLOWING:

1.1 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).

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

1.1.2 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.

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

1.3 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.

1.4 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.

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

1.6 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-00102
Rev. 028

GENERAL INFORMATION:

1) DRILL MESSAGE: O YES O NO

2) EMERGENCY CLASSIFICATION:

3) DATE/TIME DECLARED: / / :

4) EMERGENCY ACTION LEVEL:

5)

6) REACTOR STATUS:

PROTECTIVE ACTIONS:

19) PROTECTIVE ACTIONS RECOMMENDED: O YES O NO

20) BASED ON:

TYPE	LOCATION	SECTORS	SUBAREAS
21)	22)	23)	24)
25)	26)	27)	28)
29)	30)	31)	32)

33) Other PAR's:

RELEASE STATUS:

THERE 7) IS / WAS / WILL BE 8) NO / AIRBORNE / LIQUID RELEASE OF RADIOACTIVE MATERIAL.

9)RELEASE SIGNIFICANCE:

10) RELEASE START TIME: :

11) RELEASE DURATION: Hrs.

12) CURRENT WIND SPEED: MPH

13) WIND DIRECTION: From Degrees 14) To Degrees

15) AFFECTED SECTORS:

PLUME ARRIVAL TIME:

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

PROJECTED DOSES:

34) BASED ON:

Distance	TEDE (Rem)	Thyroid (Rem)
EAB	35)	36)
2 miles	37)	38)
5 miles	39)	40)
10 miles	41)	42)

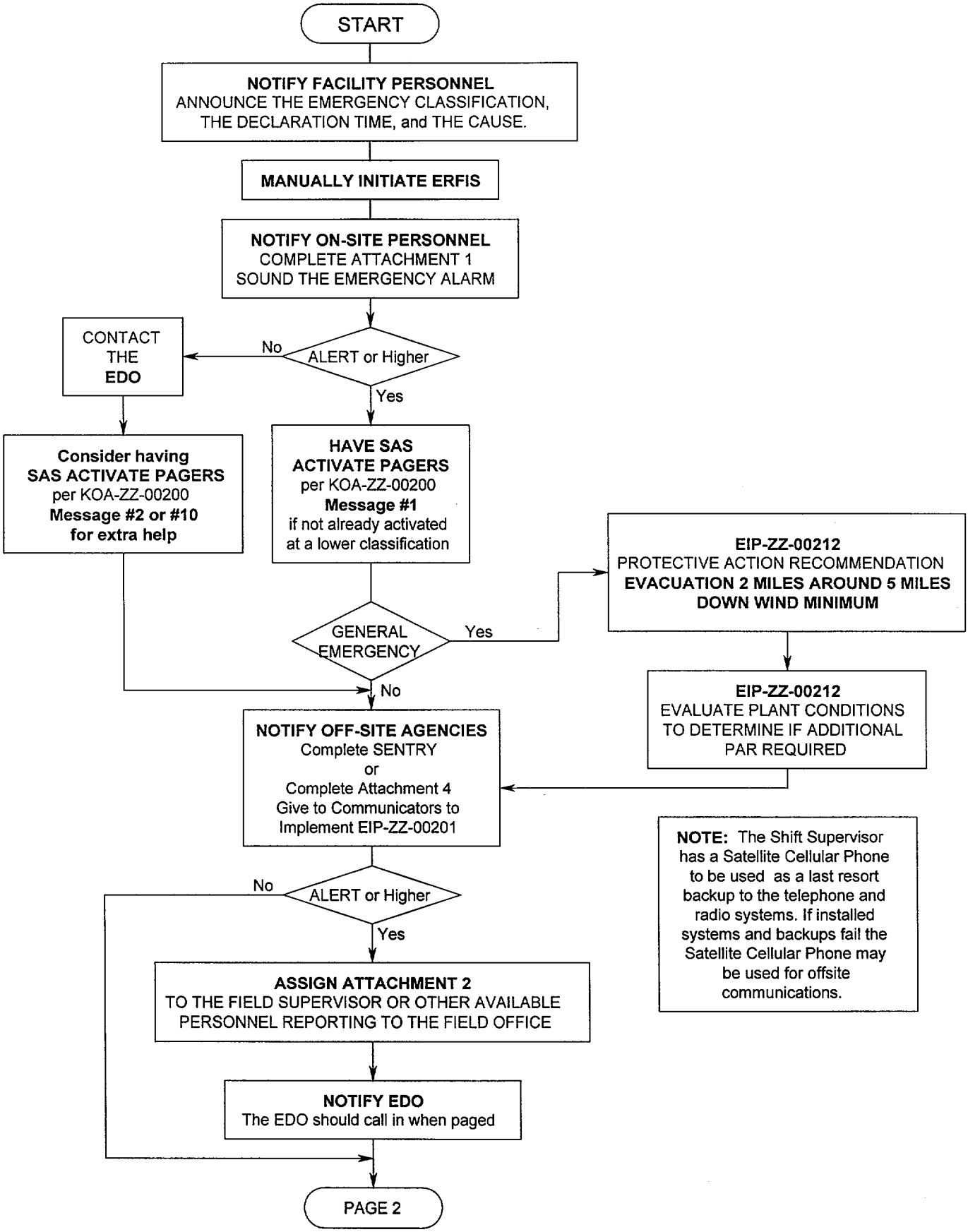
ADDITIONAL NOTES:

43)

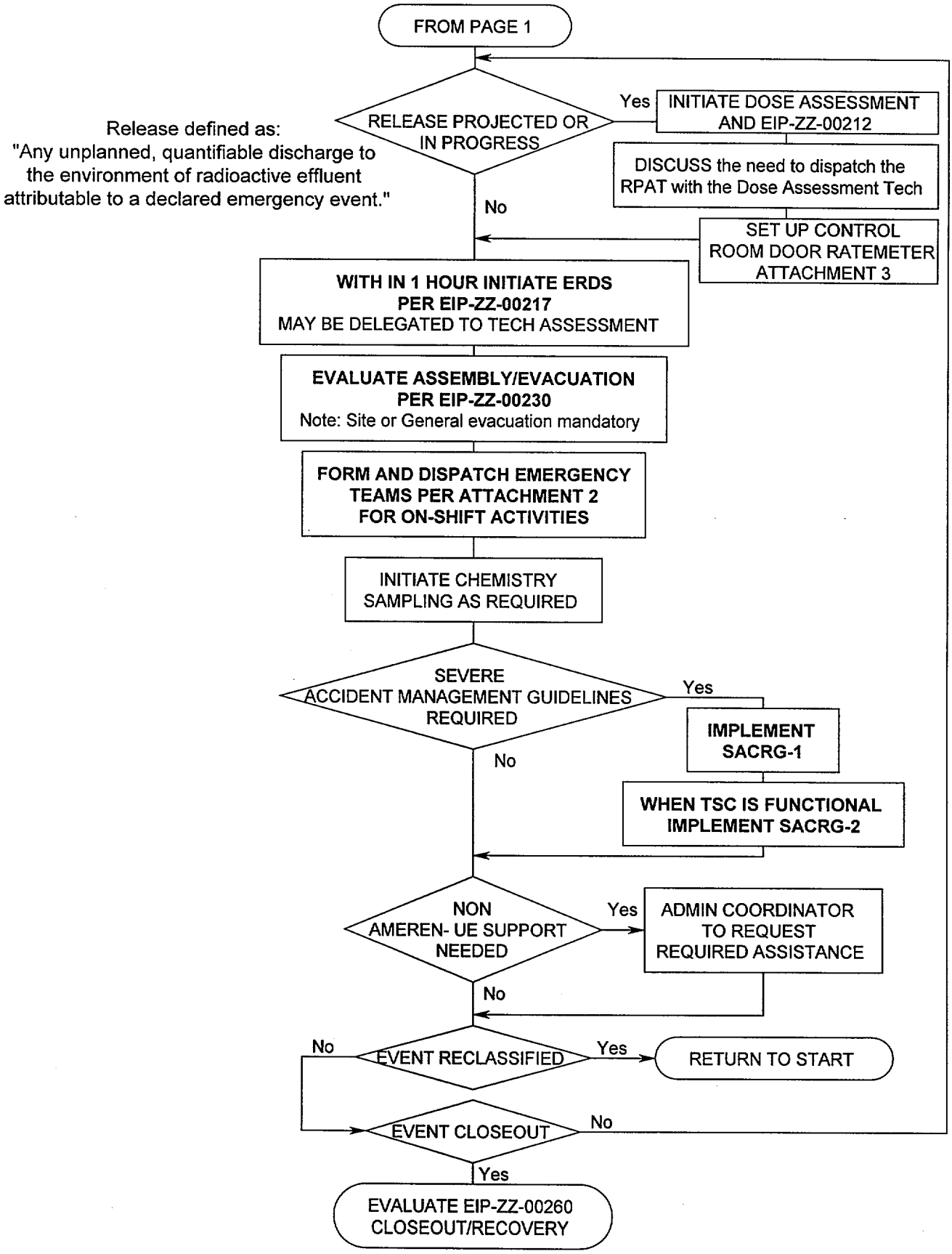
EC/RM APPROVAL:_____ COMMUNICATOR: _____

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

ATTACHMENT 4
CA-#0231



ATTACHMENT 5


FROM PAGE 1
RELEASE PROJECTED OR IN PROGRESS
Yes
INITIATE DOSE ASSESSMENT AND EIP-ZZ-00212
DISCUSS the need to dispatch the RPAT with the Dose Assessment Tech
SET UP CONTROL ROOM DOOR RATEMETER ATTACHMENT 3
Release defined as:
"Any unplanned, quantifiable discharge to the environment of radioactive effluent attributable to a declared emergency event."
No
WITH IN 1 HOUR INITIATE ERDS PER EIP-ZZ-00217
MAY BE DELEGATED TO TECH ASSESSMENT
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
No
WHEN TSC IS FUNCTIONAL IMPLEMENT SACRG-2
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

EIP-ZZ-00201
Revision 035
August 8, 2001

CALLAWAY PLANT

EMERGENCY PLAN IMPLEMENTING PROCEDURE

EIP-ZZ-00201

NOTIFICATIONS

RESPONSIBLE DEPARTMENT **Emergency Preparedness**

PROCEDURE OWNER **S. J. Crawford**

WRITTEN BY **W. R. Bevard**

PREPARED BY **W. R. Bevard**

APPROVED BY [signature] for MCP

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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 028

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NOTIFICATIONS

1 PURPOSE AND SCOPE

1.1 Provide responsibilities and guidance for notifying off-site agencies that an emergency has occurred at the Callaway Plant.

2 DEFINITIONS

2.1 INITIAL NOTIFICATION - Any notification that results from any of the following:

a. Initiation of an emergency classification.

b. Change of an existing emergency classification.

c. Entering into plant recovery from an existing emergency classification.

d. Declaration of the close out of any emergency classification.

2.2 FOLLOW-UP NOTIFICATION - Any notification which periodically updates off-site emergency organizations regarding emergency conditions or changes to Protective Action Recommendations but does not meet the conditions of an initial notification.

2.3 SENTRY - A computerized notification system linked between the Callaway Plant, the State Emergency Management Agency (SEMA) and the four (4) Emergency Planning Zone (EPZ) risk counties. It allows the Communicator to fill out a notification form on screen and then transmit the data simultaneously to all agencies. Notifications on SENTRY can be initiated from the Control Room, Control Room Simulator, Technical Support Center and Emergency Operations Facility (EOF).

2.4 FEDERAL TELECOMMUNICATIONS SYSTEM (FTS) - A telephone network provided for governmental use. The NRC telephone network is part of FTS.

2.4.1 EMERGENCY NOTIFICATION SYSTEM (ENS) - An FTS telephone connecting the Callaway Plant with the NRC Operations Center. ENS lines are installed in the Control Room, Simulator, TSC, and EOF.

2.4.2 HEALTH PHYSICS NETWORK (HPN) - An FTS telephone used for official communication between the Callaway Plant and the NRC Operations Center. It is primarily used for the transmittal of radiological information. HPN phones are located in the EOF and TSC.

2.4.3 BACK UP RADIO SYSTEM (BURS) - An 800 MHz radio system used to communicate with the State and EPZ Counties when SENTRY is unavailable. There are radios located in the Control Room, Simulator, TSC, EOF, EPZ Counties, and State EOC.

2.4.4 COMMERCIAL TELEPHONES - Callaway Plant Commercial Telephones are used to communicate with State and EPZ Counties as a backup to SENTRY and BURS.

3 RESPONSIBILITIES

3.1 EMERGENCY COORDINATOR (EC)/RECOVERY MANAGER (RM)

3.1.1 Until relieved, the Shift Supervisor (SS) acts as the Emergency Coordinator and from this point will be referred to as the EC. **COMN 3314**

3.1.2 The EC, in the absence of the RM, is responsible for initiating this procedure and authorizing the release of notifications to off-site authorities. The RM, when present in the EOF, accepts this responsibility. **COMN 3946 COMN 3361 COMN 42570**

3.2 OFF-SITE LIAISON COORDINATOR (OSL)

3.2.1 The OSL reports to the RM in the EOF and assumes off-site notification responsibilities, except ENS, 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.

3.3 CONTROL ROOM COMMUNICATOR

3.3.1 The Control Room Communicators report to the Control Room when an emergency is announced and initiate notifications to off-site authorities as directed by the Emergency Coordinator (EC). If an ALERT (or higher) emergency is declared, the responsibility for communication with the NRC via the ENS line is transferred to the TSC (ENS) Communicator and responsibility for off-site notifications is transferred to the Off-Site Liaison Coordinator/EOF Communicator in the EOF. After being relieved of communication responsibilities, the Control Room Communicators may be assigned other duties or report to the appropriate coordinator in the TSC as directed by the EC. **COMN 3319**.

3.4 TSC (ENS) COMMUNICATOR

3.4.1 The TSC (ENS) Communicator reports to the EC in the TSC to relieve the Control Room Communicator, as soon as possible, of the Emergency Notification System (ENS) communications with the NRC, as directed by the NRC.

NOTE:	If not in contact with the NRC at time of transfer, it is permissible to accept communications then notify the NRC that the ENS line has been transferred to the TSC.

3.5 EOF COMMUNICATOR

3.5.1 The EOF Communicator reports to the EOF and relieves the Control Room Communicator, per Recovery Manager (RM) instruction, of all off-site notification responsibilities, except (ENS). **COMN 3398**

4 PROCEDURE

NOTE:	Attachment 1, Control Room Notification Flowchart, should be used as guidance for making notifications from the Control Room. Attachment 2, TSC (ENS) Communicator Flowchart, should be used as guidance for communicating with the NRC from the TSC. Attachment 3, EOF Communicator Flowchart, should be used to make notifications from the EOF. **CARS 200000531**

4.1 COMMON GUIDELINES

4.1.1 Communicators announce their presence and availability to the appropriate Coordinator when arriving at their Emergency Response Facility (Control Room, TSC, or EOF).

4.1.2 Prior to initiating any communications, or assuming communications responsibility, the Control Room or TSC Communicator should ensure that there is a dial tone on the ENS telephone.

4.1.3 Prior to initiating any communications, or assuming communications responsibility, the Control Room or EOF Communicator should ensure that:

4.1.3.1 SENTRY Notification System is operational and ready for use:

4.1.3.1.1 Turn the SENTRY computer on if it is not already running.

4.1.3.1.2 If Outlook is not running or does not load automatically, from the Windows based desktop select **Start**, then **Programs** then **Outlook**.

4.1.3.2 Check that the verification call-back line (676-8840) has a dial tone and that the Backup Radio is on and displays "EOC".

4.1.4 If the primary means of communication for any notification point is unavailable, the appropriate back-up means of communication indicated on the notification flowchart should be utilized.

4.2 INITIAL NOTIFICATIONS

4.2.1 Notification of State and Local Authorities SHALL be initiated within 15 minutes and the NRC within 60 minutes following the DECLARATION of an emergency. **COMN 3947 COMN 1119**

4.2.2 Notification of the four counties (Callaway/Fulton, Montgomery, Gasconade, and Osage) is initiated upon direction from the Emergency Coordinator (or Recovery Manager), by a Communicator simultaneously transmitting the notification to all the county Emergency Communication Centers via SENTRY. **COMN 3948**

4.2.3 The first notification to the State Emergency Management Agency (SEMA), upon direction from the EC, is initiated by a Communicator via SENTRY. If it is off normal working hours or a back-up method of notification is needed, the Communicator uses the telephone to call Missouri State Highway Patrol Troop F, the State notification point, at 17188 using an Ameren phone. A copy of the SENTRY screen or Page 5 of Attachment 1 is to be faxed to Troop F at 9-1-573-751-6814. Verification that the fax was received can be done while holding on the line or by asking for a verification callback at 573-676-8840. If verification is not received within approximately 30 minutes, the Communicator re-initiates notification to the State notification point. **COMN 3949**

4.2.4 Notification of the NRC is initiated by a communicator (upon direction from the Emergency Coordinator) utilizing the Emergency Notification System (ENS). Once communications with the NRC are established, they are maintained until the NRC directs otherwise. **COMN 42037**

4.2.5 For Control Room Evacuation in accordance with **OTO-ZZ-00001**, use Attachment 1, page 4 of 9, for guidance.

4.3 FOLLOW-UP NOTIFICATIONS

4.3.1 Follow-up notifications are made approximately every 30 minutes, or as an initial check immediately after a transfer of communications has occurred.

4.3.1.1 When at an Unusual Event and conditions are stable, the notification frequency may be reduced, with the concurrence of SEMA and the EPZ Counties.

4.3.1.2 Follow-up notifications are made more frequently if conditions are changing.

4.3.1.3 Follow-up notifications that initiate or change Protective Action Recommendations should be completed with the same urgency as initial notifications (i.e., within 15 minutes of PAR declaration).

4.3.1.4 Once plant recovery has been declared following an Alert or higher emergency, follow-up notifications should be made only when conditions change and the results could affect off-site evolutions.

4.4 TRANSFERRING NOTIFICATION RESPONSIBILITY

NOTE:	The transfer of ENS line from the Control Room to the TSC is under the guidance of the NRC.

4.4.1 When the TSC (ENS) Communicator is staffed:

NOTE:	Attachment 1, page 7 of 9, Section I, is used by the Control Room Communicator, and Attachment 2, page 3 of 3, is used by the TSC Communicator.

4.4.1.1 If in continuous contact with the NRC perform the following:

4.4.1.1.1 The Control Room Communicator should inform the NRC that the TSC is ready for the transfer.

4.4.1.1.2 The NRC will supply guidance as to how and when they want that transfer to occur.

4.4.1.2 If currently not in contact with the NRC, perform the following:

4.4.1.2.1 The TSC (ENS) Communicator notifies the NRC that communications are now with the TSC.

4.4.1.3 Log the transfer of responsibility in the facility logs and inform the EC.

4.4.2 When the EOF Off Site Liaison Coordinator or EOF Communicator is staffed:

NOTE:	Attachment 1, page 7 of 9, Section II, is used by the Control Room Communicator and Attachment 3, page 6 of 6, is used by the EOF Communicator.

4.4.2.1 The RM or Protective Measures Coordinator (PMC) will coordinate the transfer of notification responsibility, except ENS line, from the Control Room to the EOF.

CAUTION:	Once SENTRY responsibilities are turned over, do not send SENTRY messages unless accepting notification responsibilities back from the EOF.

4.4.3 Notify the EC/RM that the transfer is complete.

4.4.4 When notifications are assumed in the EOF, prepare, get approval, and send a follow-up notification. This is to ensure proper notification system operation in the EOF.

5 REFERENCES

5.1 **OTO-ZZ-00001**, Control Room Inaccessibility.

6 RECORDS

6.1 QA RECORDS

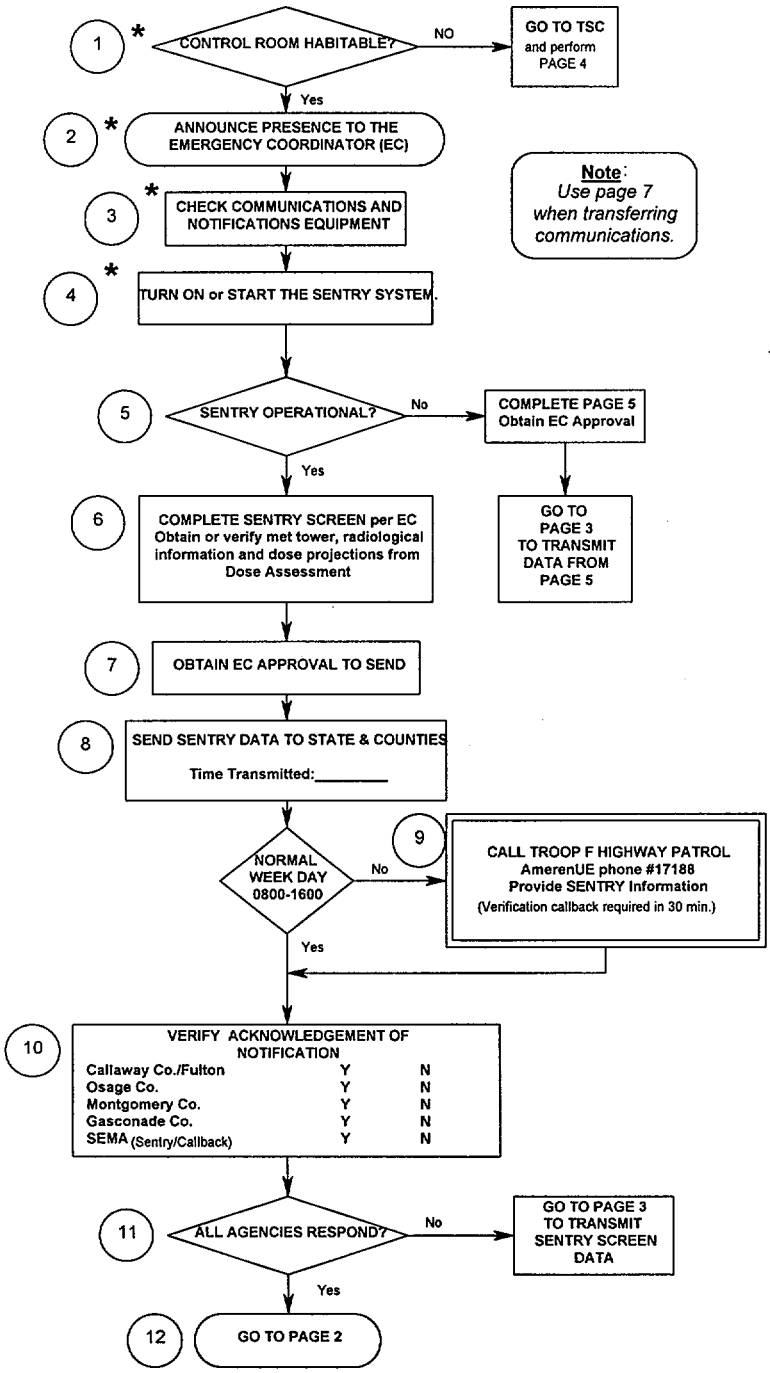
6.1.1 Printout copy of each notification from SENTRY. (File K171.0010)

6.1.2 Attachment 1, Control Room Notification package. (File K171.0010)

6.1.3 Attachment 2, TSC (ENS) Communicator package. (File K171.0010)

6.1.4 Attachment 3, EOF Notification package. (File K171.0010)

CONTROL ROOM NOTIFICATION PACKAGE
Flowchart



* 1. If the Control Room is declared uninhabitable move to the TSC and prepare to complete notifications per Page 4 of this attachment.

* 2. Announce to the Shift Supervisor that you are a communicator.

* 3. Check that the ENS and Callback lines have dial tone and the BURS is on.

* 4. Turn on or start SENTRY System by opening Microsoft Outlook on the SENTRY PC.

5. If SENTRY is not working, fill out page 5, get approval, and make the notification using the Backup Radio System per page 3.

6. If SENTRY is operational, fill in the notification form on the SENTRY screen per instruction of the EC. Met Tower and Radiological release data can be obtained or verified from the Dose Assessment Technician.

7. Have the Emergency Coordinator review and approve the SENTRY information for transmission.

8. After approval, transmit the notification by clicking the SEND button.

9. If it is not a normal work day , then call the Highway Patrol Troop F Headsquarters using phone # 17188. FAX the information from the SENTRY screen to 9-1-573-751-6814. Remain on-line for verification or ask for a verification call back on 573-676-8840.

10. From the SENTRY Inbasket or tracking screen ensure all locations acknowledge receipt of the nofication by checking Y or N by each location.

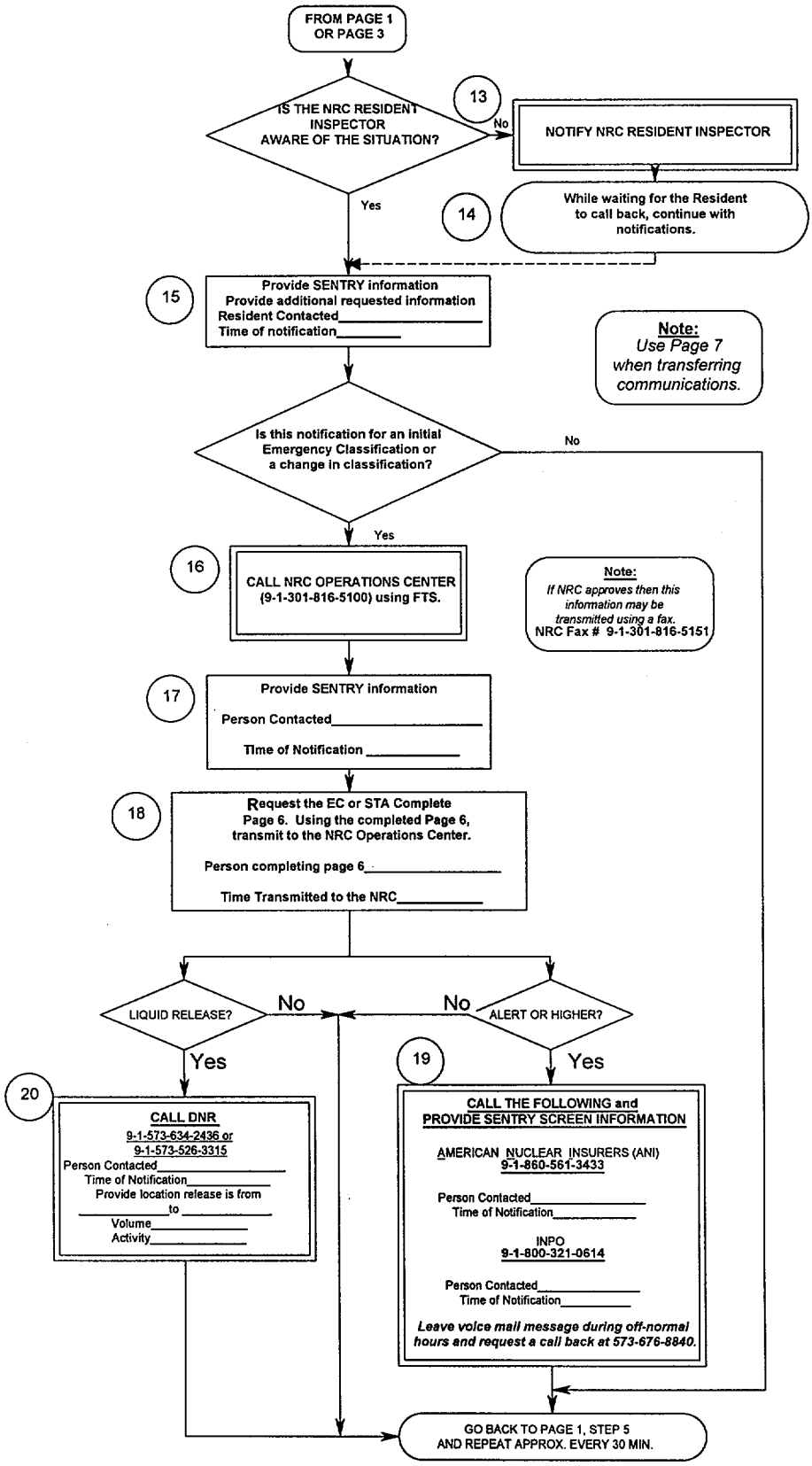
11. If not all the agencies respond go to page 3 and transmit the data from the SENTRY screen. Ask if there are any questions.

12. After the counties and State have been notified, go on to page 2 for notification of other off site agencies.

* **ITEMS THAT ONLY NEED TO BE DONE INITIALLY. REPEAT OTHER STEPS FOR NEW INFORMATION OR APPROXIMATELY EVERY 30 MINUTES.**

☐ **ITEMS THAT CAN BE COMPLETED BY A TELEPHONE COMMUNICATOR PER PAGE 9 OF 9 OF THIS ATTACHMENT.**

CONTROL ROOM NOTIFICATION PACKAGE
Flowchart (continued)



13. Contact the NRC Resident Inspector. If not in the Control Room, call **68667** or page on gaitronics. If no response call **9-1-800-443-7243** , when answered enter 019829, after the tone enter **573 676 8840** .

14. Continue on with the notifications while waiting for the inspector to call back.

15. When the inspector calls back read the information from the Sentry screen notification that was made to the counties and State. Record the person's name and the time when notified.

16. The NRC OPERATIONS CENTER must be notified of all initial Emergency Classifications and changes in Emergency Classifications. Use FTS phones when possible, but regular AMEREN phones can be used.
    a. Primary **9-1-301-816-5100**
    b. Backups **9-1-301-951-0550**
    9-1-301-415-0550
    9-1-301-415-0553

17. Read the information from the SENTRY screen, and record the person's name and the time of notification on the chart.

18. Request the EC or STA complete page 6 , Additional Information To Be Transmitted To The NRC Operation Center. Transmit this information to the NRC Operations Center.

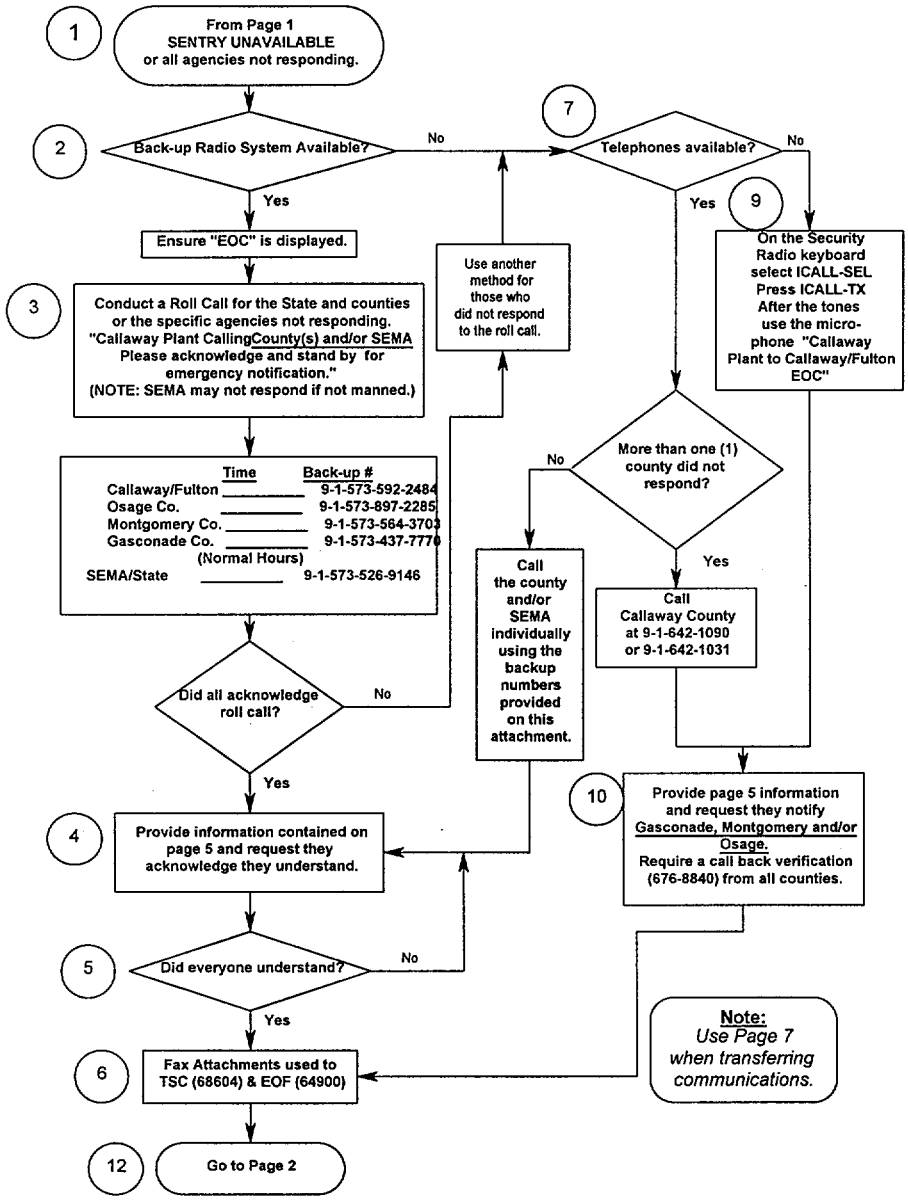
19. Contact ANI (9-1-860-3433) and INPO (9-1-800-321-0614).
    a. If no answer, leave a voice mail and call back number (573-676-8840).
    b. Provide SENTRY information.
    c. Record the name of the person and time of notification.

20. If the accident involves a liquid release contact Missouri Department of Natural Resources (DNR) 9-1-573-634-2436.
    a. Record the name of the person and time of notification.
    b. Provide the location the release was from and the location where it went.
    c. Provide the volume of the leak and activity if known.

_____
Communicator

Date:_____Time:_____

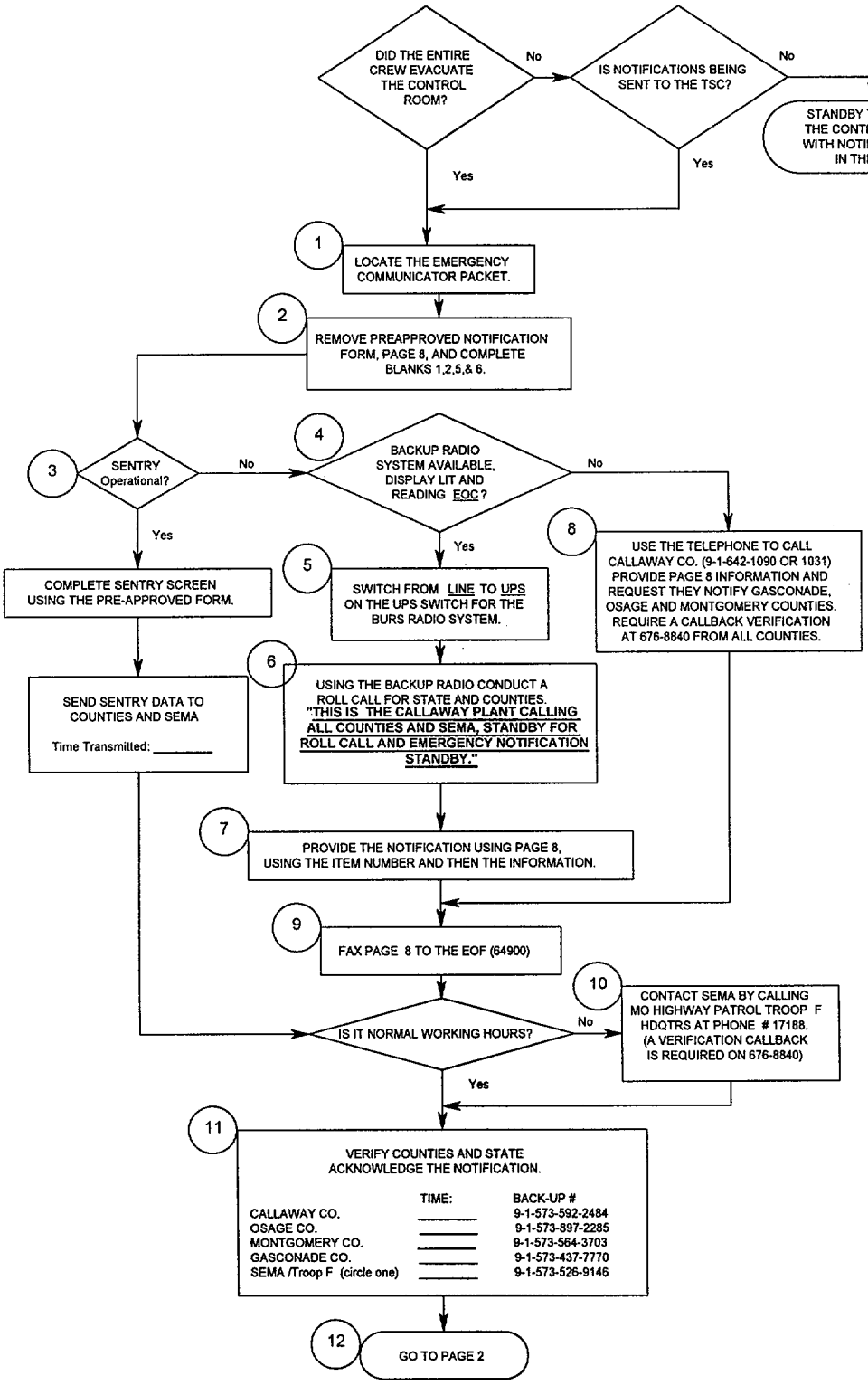
CONTROL ROOM NOTIFICATION PACKAGE
Flowchart (continued)



1. SENTRY was not able to connect with all the counties and STATE.
2. Check the Backup Radio (BURS) is operational and has EOC on the window display.
3. If the Backup Radio System is operable perform a roll call, by saying "This is the Callaway Plant with important information, stand by for roll call". Wait a few seconds, start with Callaway/Fulton and perform the roll call of all the counties and SEMA. Record the contact times on the chart.
4. Provide the notification using page 5.
5. Have them acknowledge that they understand the information provided to them.
6. FAX the notification information to the TSC and EOF.
7. If BURS is not available use the telephone and contact the location that did not respond to the roll call.

   NOTE: If multiple sites do not respond, call one county and have them relay the information to the other counties.
8. Repeat steps 4 thru 6.
9. If the telephone does not work, use the Security Radio to contact Callaway County.
10. Provide Callaway Co. with the notification information, and instruct them to provide this information to the other counties.
11. Repeat steps 5 and 6.
12. Go to page 2 to continue Notifications.

CONTROL ROOM NOTIFICATION PACKAGE
Evacuation Flowchart



1. Locate the Emergency Communicator's packet (identified with yellow and black checkered tape) in the TSC.
2. Remove the preapproved notification form page 8 from the packet and complete blanks 1, 2, 5, and 6.
3. If SENTRY is operable, complete the SENTRY screen using the pre-approved form. Send to the counties and SEMA.
4. If SENTRY is not operable, check the display on the Back Up Radio System (BURS) radio to ensure the display is lit and displaying EOC.
5. Switch the UPS unit from the LINE position to UPS. This is to prevent power supply problems while operating communication equipment.
6. Using BURS conduct a roll call for the State and counties. Begin by saying "This is the Callaway Plant calling all counites and SEMA for roll call and Emergency Notification, standby".
7. Perform a roll call provide the information from page 8. Say the item number before giving the information. Record the time, to indicate acknowledgement.
8. If SENTRY & BURS are not operable, use the telephone to call Callaway Co. (1-573-642-1090 or 1-573-642-1031). Provide the notification from page 5 information. Request a verification call back on 573-642-8840 from each of the counties.
9. Fax a copy of page 8 to the EOF (64900).
10. If it is off normal working hours SEMA must be contacted by calling the MO State Highway Patrol Troop F Headquarters at phone # 17188. FAX the information from the SENTRY screen to 9-1-573-751-6814. Remain on the line for verification or ask for a verification callback at 573-676-8840.
11. Record the ackowledgement time for each County and the State on this page.
12. Continue to page 2 to complete the notification process.

CONTROL ROOM NOTIFICATION PACKAGE

Control Room Off-site Notification Form

(FAX copy to TSC 68604 & EOF 64900)

GENERAL INFORMATION:

1) DRILL MESSAGE: O YES O NO

2) EMERGENCY CLASSIFICATION:

3) DATE/TIME DECLARED: / / :

4) EMERGENCY ACTION LEVEL:

5)

6) REACTOR STATUS:

RELEASE STATUS:

THERE 7) IS / WAS / WILL BE 8) NO / AIRBORNE / LIQUID RELEASE OF RADIOACTIVE MATERIAL.

9)RELEASE SIGNIFICANCE:

10) RELEASE START TIME: :

11) RELEASE DURATION: Hrs.

12) CURRENT WIND SPEED: MPH

13) WIND DIRECTION: From Degrees 14) To Degrees

15) AFFECTED SECTORS:

PLUME ARRIVAL TIME:

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

PROTECTIVE ACTIONS:

19) PROTECTIVE ACTIONS RECOMMENDED: O YES O NO

20) BASED ON:

TYPE	LOCATION	SECTORS	SUBAREAS
21)	22)	23)	24)
25)	26)	27)	28)
29)	30)	31)	32)

33) Other PAR's:

PROJECTED DOSES:

34) BASED ON:

Distance	TEDE (Rem)	Thyroid (Rem)
EAB	35)	36)
2 miles	37)	38)
5 miles	39)	40)
10 miles	41)	42)

ADDITIONAL NOTES:

43)

EC APPROVAL:_____ COMMUNICATOR: _____

Distribution: Recovery Manager
Communicator
State of Missouri

File K171.0010

CONTROL ROOM NOTIFICATION PACKAGE

Callaway Nuclear Plant
Additional Data to be Transmitted to the NRC Operations Center
(FAX 301-816-5151 Confirm receipt using ENS line)

☐Initial ☐Update Date:_____ Time:_____

Y	N	ACTUATIONS	INITIATING SIGNAL	DID SYSTEMS FUNCTION AS REQUIRED? ☐Y ☐N (if NO list failures)
		Rx Trip		Mechanical_____
		ESF Activation		Electrical_____
		ECCS Activation		Personnel Error_____
		SI Flow		Procedure Inadequacy_____
		Other: _____		Other:_____

Mode and power prior to the event_____ **Current Mode and power**_____
Mode of operation until corrected_____ **Estimated restart Date**_____

Y	N		If NO Explain
		Everything usual or understood?	
		Is the event under control?	

Outside Agencies and/or Personnel notified:	
☐Y☐N State (SEMA)	☐Y☐N Local (Counties)
☐Y☐N NRC Resident Inspector	☐Y☐N Press Release
☐Y☐N INPO and ANI	☐Y☐N Others: _____

RELEASE INFORMATION				
☐ GASEOUS RELEASE ☐ LIQUID RELEASE				
☐ Planned ☐ Unplanned	☐ Ongoing ☐ Terminated	☐ Monitored ☐ Unmonitored	☐ Onsite Release ☐ Offsite Release	☐ Areas Evacuated _____
☐ Personnel Exposed or Contaminated				

	Release Rate (Ci/sec)	Estimated Duration	Estimated Total Activity
Noble Gas			
Iodine			
Particulate			
Liquid (Excluding Tritium)			
Liquid Tritium			
Total Activity			

RAD MONITORS	Unit Vent	Condenser	Steam Line	SG PORV
Monitor Reading				
Alarm Setpoint				

RCS or STEAM GENERATOR TUBE LEAKAGE	
Location (i.e. SG __ tubes, valve, pipe, etc.)	
Leak Rate:_____ **gpd/gpm**	**Leak Start Date:**_____ **Time:**_____
This was a ☐ **Sudden or** ☐ **Long-Term development.**	**Activities: Primary**_____ **Secondary**_____

List any safety equipment not operational: _____

Any additional Information: _____

_____
Emergency Coordinator

CONTROL ROOM NOTIFICATION PACKAGE
Transferring Control Room Notifications

NOTE: EC MUST be aware of transfer.

DATE _____

SECTION I

☐ **TRANSFERRING TO TSC (ENS Line Only)** The assuming and transferring Communicator should discuss the following:

1. The latest information transmitted (Ref. latest Notification printout) including the time sent.
   - ☐ Initial notification made for information contained on Sentry display.
   - ☐ Additional information Attachment 2 status.
2. Obtain SS/EC approval and Transfer ENS to TSC:
   - ☐ As directed by the NRC Operations Center if in current contact.
   - ☐ TSC contact NRC and notify them that ENS communications are now in TSC.

Time of Transfer_____Communicator _____

SECTION II

☐ **TRANSFERRING TO EOF (Except ENS)** The assuming and transferring Communicator should discuss the following:

1. The latest information transmitted (Ref. latest Notification printout) including the time sent.
2. Individuals/agencies contacted and method of contact.
   - ☐ Callaway SENTRY or Other: _____
   - ☐ Osage SENTRY or Other: _____
   - ☐ Montgomery SENTRY or Other: _____
   - ☐ Gasconade SENTRY or Other: _____
   - ☐ SEMA SENTRY or Other: _____
   - ☐ Resident NRC via _____
   - ☐ ANI via_____
   - ☐ INPO via_____
   - ☐ DNR (if required) via_____
3. Any notification presently not completed: Explain: _____
   _____
4. Communicators in CR and EOF should obtain approval of their facility lead (SS/EC & RM) to complete the transfer.
5. Common line/telephones for which responsibility is being transferred (check all applicable):

NOTE:	Once notifications on SENTRY are turned over, do not send SENTRY messages unless accepting notification responsibility in your facility.

   - ☐ SENTRY.
   - ☐ Verification Callback Line (573-676-8840).
   - ☐ Back-up Radio System.

Time of Transfer_____Communicator _____

CONTROL ROOM NOTIFICATION PACKAGE

Pre-Approved Notification Form For Control Room Evacuation

(FAX copy to the EOF 64900)

GENERAL INFORMATION:

1) DRILL MESSAGE: O YES ● NO

2) EMERGENCY CLASSIFICATION: ALERT

3) DATE/TIME DECLARED: / / :

4) EMERGENCY ACTION LEVEL: 3K

5) **CONTROL ROOM EVACUATION HAS BEEN INITIATED.**

6) REACTOR STATUS: REDUCING POWER

RELEASE STATUS:

THERE 7) IS 8) NO RELEASE OF RADIOACTIVE MATERIAL.

9)RELEASE SIGNIFICANCE: N/A

10) RELEASE START TIME: N/A : N/A

11) RELEASE DURATION: N/A Hrs.

12) CURRENT WIND SPEED: N/A MPH

13) WIND DIRECTION: From N/A Degrees 14) To N/A Degrees

15) AFFECTED SECTORS: N/A

PLUME ARRIVAL TIME:

16) 2 Miles N/A 17) 5 Miles N/A 18) 10 Miles N/A

PROTECTIVE ACTIONS:

19) PROTECTIVE ACTIONS RECOMMENDED: O YES ● NO

20) BASED ON: N/A

TYPE		LOCATION		SECTORS		SUBAREAS	
21)	N/A	22)	N/A	23)	N/A	24)	N/A
25)	N/A	26)	N/A	27)	N/A	28)	N/A
29)	N/A	30)	N/A	31)	N/A	32)	N/A

33) Other PAR's:

N/A

PROJECTED DOSES:

34) BASED ON: N/A

Distance	TEDE (Rem)		Thyroid (Rem)	
EAB	35)	N/A	36)	N/A
2 miles	37)	N/A	38)	N/A
5 miles	39)	N/A	40)	N/A
10 miles	41)	N/A	42)	N/A

ADDITIONAL NOTES:

43)

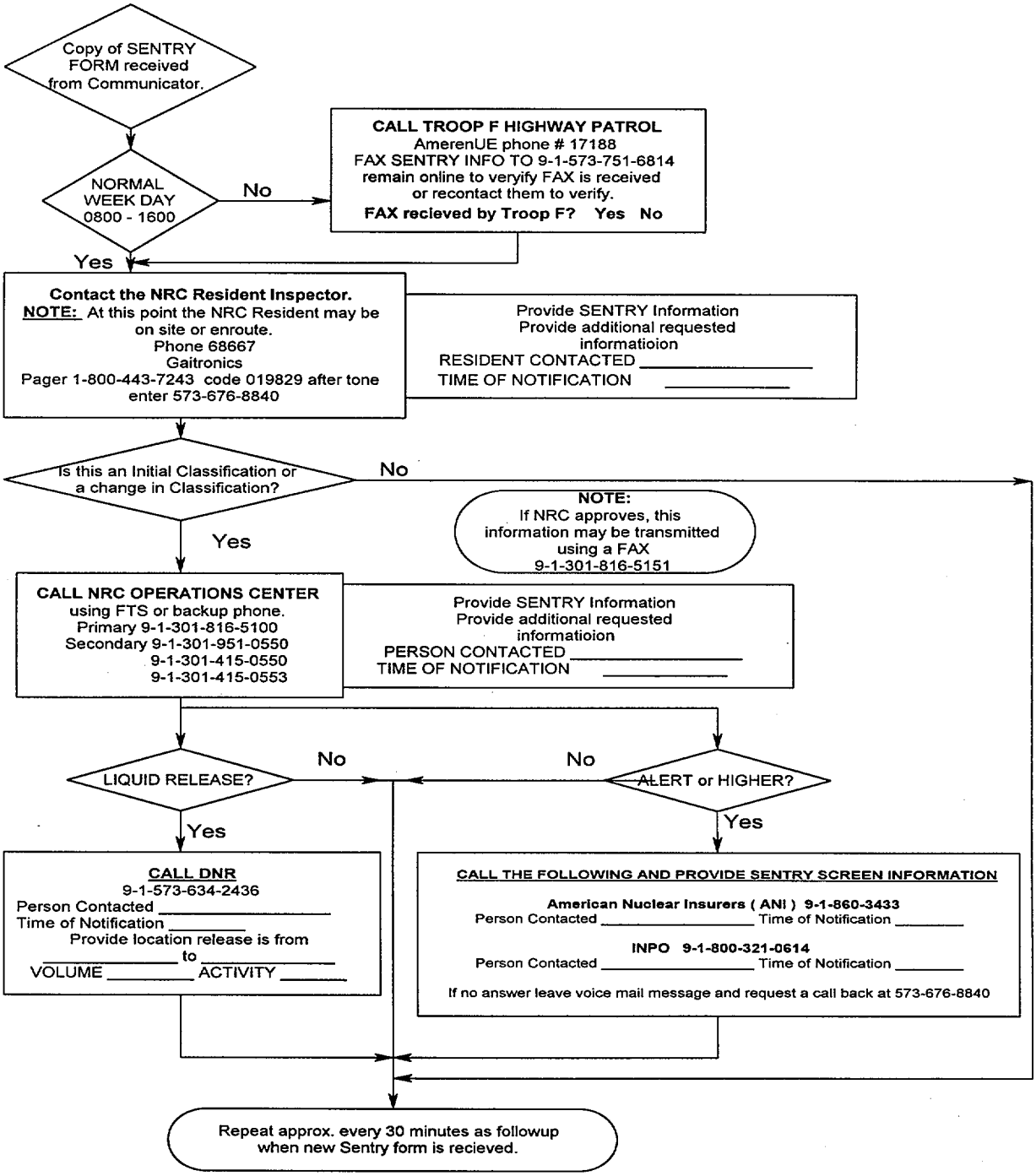
EC/RM APPROVAL: *Preapproved for OTO-ZZ-00001* COMMUNICATOR _____

Distribution: *Emergency Coordinator*
Communicator

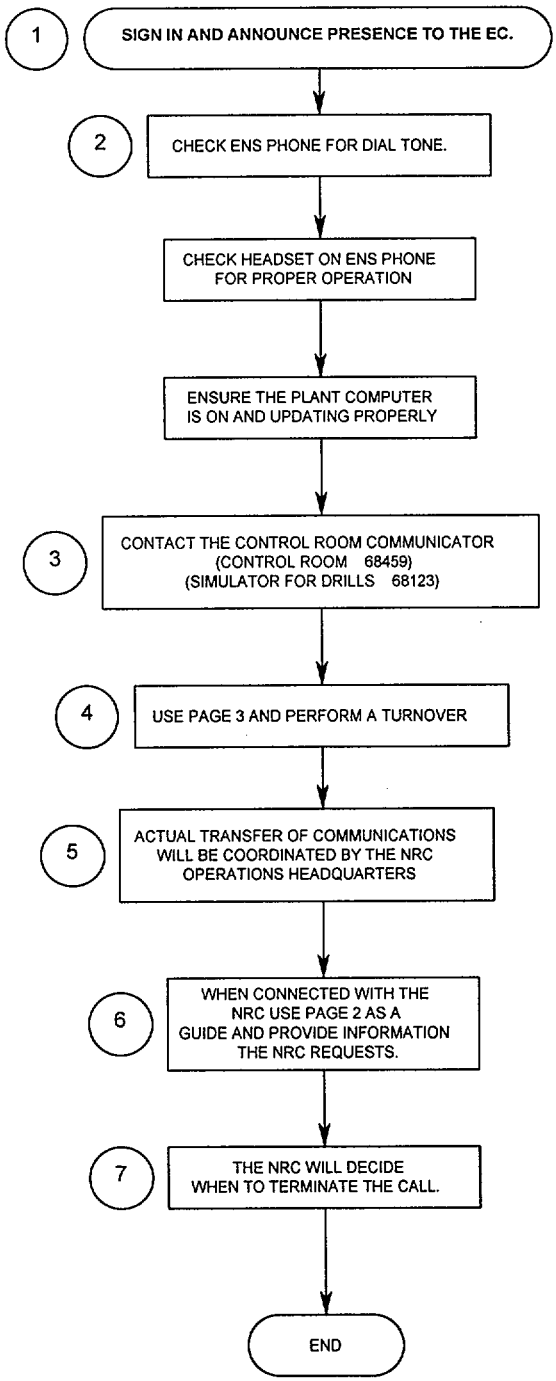
File K171.0010

CONTROL ROOM NOTIFICATION PACKAGE

Telephone Flowchart



TSC (ENS) COMMUNICATOR PACKAGE
Flowchart



1. Sign into the TSC, on the sign in board and announce to the person in charge the position you will fill.
2. Check phones, headphones, and computers for proper operation.
3. Contact the Control Room communicator to perform turnover of ENS duties.
4. Use page 3 to conduct the turnover.
5. Allow the NRC to coordinate the transfer of ENS communications.
6. Use Page 2 as a guide for information the NRC will request.
7. Termination will not occur until the NRC requests that the connection be terminated.

TSC (ENS) COMMUNICATOR PACKAGE

Callaway Nuclear Plant
Additional Data to be Transmitted to the NRC Operations Center
(FAX 301-816-5151 Confirm receipt using ENS line)

☐Initial ☐Update Date:_____ Time:_____

Y	N	ACTUATIONS	INITIATING SIGNAL	DID SYSTEMS FUNCTION AS REQUIRED? ☐Y ☐N (if NO list failures)
		Rx Trip		Mechanical_____
		ESF Activation		Electrical_____
		ECCS Activation		Personnel Error_____
		SI Flow		Procedure Inadequacy_____
		Other: _____		Other:_____

Mode and power prior to the event_____ **Current Mode and power**_____
Mode of operation until corrected_____ **Estimated restart Date**_____

Y	N		If NO Explain
		Everything usual or understood?	
		Is the event under control?	

Outside Agencies and/or Personnel notified:	
☐Y☐N State (SEMA)	☐Y☐N Local (Counties)
☐Y☐N NRC Resident Inspector	☐Y☐N Press Release
☐Y☐N INPO and ANI	☐Y☐N Others: _____

RELEASE INFORMATION				
☐ GASEOUS RELEASE ☐ LIQUID RELEASE				
☐ Planned ☐ Unplanned	☐ Ongoing ☐ Terminated	☐ Monitored ☐ Unmonitored	☐ Onsite Release ☐ Offsite Release	☐ Areas Evacuated _____
☐ Personnel Exposed or Contaminated				

	Release Rate (Ci/sec)	Estimated Duration	Estimated Total Activity
Noble Gas			
Iodine			
Particulate			
Liquid (Excluding Tritium)			
Liquid Tritium			
Total Activity			

RAD MONITORS	Unit Vent	Condenser	Steam Line	SG PORV
Monitor Reading				
Alarm Setpoint				

RCS or STEAM GENERATOR TUBE LEAKAGE	
Location (i.e. SG __ tubes, valve, pipe, etc.)	
Leak Rate:_____ **gpd/gpm**	**Leak Start Date:**_____ **Time:**_____
This was a ☐ **Sudden or** ☐ **Long-Term development.**	**Activities: Primary**_____**Secondary**_____

List any safety equipment not operational: _____

Any additional Information: _____

_____
Emergency Coordinator

TSC (ENS) COMMUNICATOR PACKAGE
Assuming ENS Notifications

NOTE: EC MUST be aware of transfer.

DATE _____

☐ **ASSUMING ENS NOTIFICATIONS**

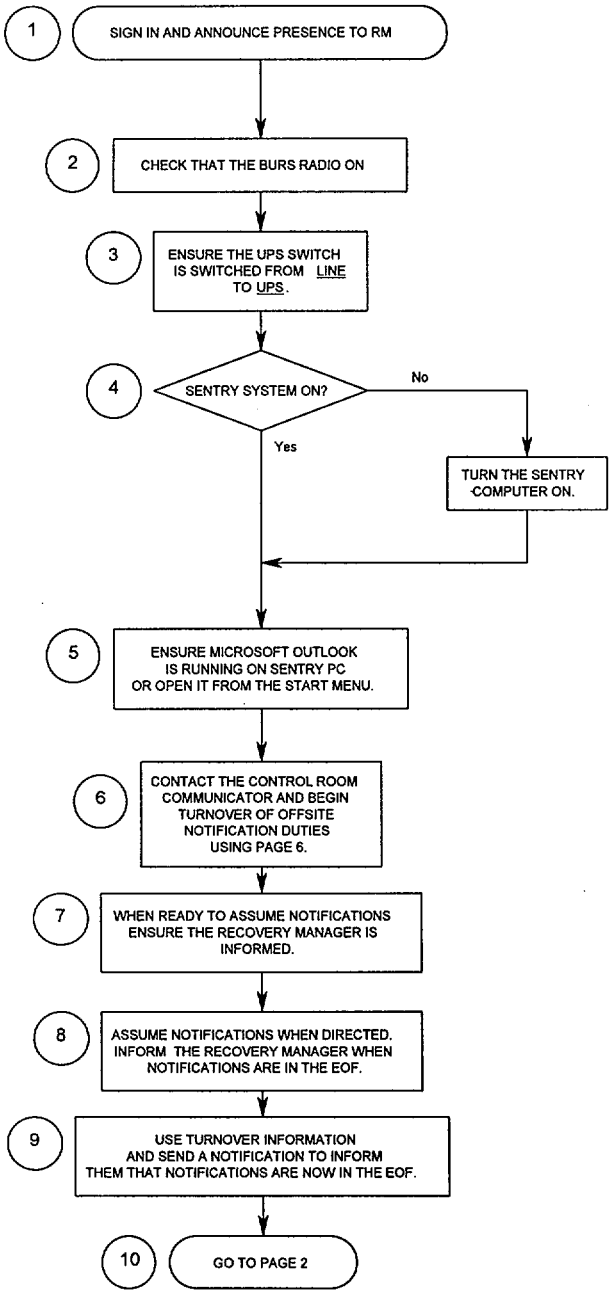
The assuming and transferring Communicator should discuss the following:

1. The latest information transmitted (Ref. latest Notification printout) including the time sent.
   - ☐ Initial notification made for information contained on Sentry display.
   - ☐ Additional information Attachment 2 status.
2. Obtain EC approval and Transfer ENS to TSC:
   - ☐ As directed by the NRC Operations Center if in current contact.
   - ☐ TSC contact NRC and notify them that ENS communications are now in TSC.

Time of Transfer_____Communicator _____

EOF NOTIFICATION PACKAGE
Flowchart

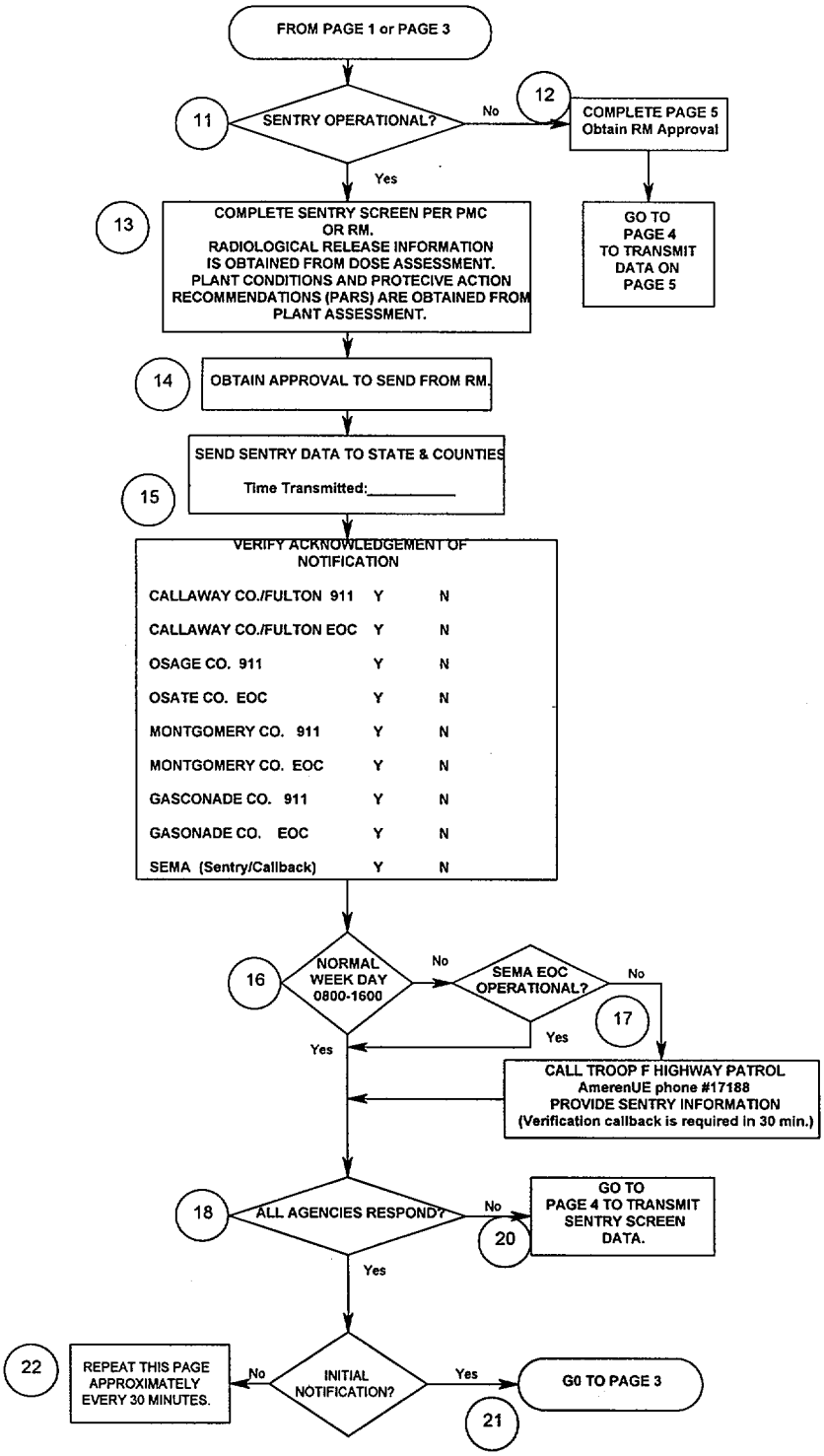
ACTIONS ON THIS PAGE ARE INITIAL STEPS AND SHOULD ONLY NEED TO BE COMPLETED ONCE.



NOTE: THIS PAGE IS INITIAL STEPS TO GET EQUIPMENT CHECKED OUT AND READY, AND TO GET A TURNOVER FROM THE CONTROL ROOM COMMUNICATOR.

1. Upon entering the EOF, sign in on the board and announce your presence to the Recovery Manager (RM).
2. Check power is supplied to the Backup Radio System (BURS). Check for a lighted display and **EOC** in the display window.
3. Make sure the switches for the UPS Units are switched from **LINE** TO **UPS**.
4. Turn the SENTRY computer ON.
5. If the Microsoft Outlook program does not automatically load then, from the START icon select **PROGRAMS** and double click **OUTLOOK**.
6. Using the telephone speed dial, contact the Control Room Communicator and begin gathering turnover information for offsite notification duties using Page 6.
7. When ready to assume notifications, inform the Recovery Manager. Assume notifications when directed by the Recovery Manager.
8. Inform the Recovery Manager when Notifications are in the EOF.
9. Using the turnover information from the Control Room, send a SENTRY notification informing offsite that the notifications are now in the EOF. Obtain the RM's approval. This will determine if SENTRY is operational to all locations.
10. Go to page 2.

EOF NOTIFICATION PACKAGE
Flowchart (continued)



11. If the SENTRY system is successful to all locations then continue to use it for future notifications. (Skip step 12.)

12. If SENTRY is not successful to all locations, complete page 5 and go to page 4 to notify remaining sites.

13. When SENTRY screen is being completed, use the Protective Measures Coordinator as a resource for Dose Assessment, Plant Assessment information, and Protective Action Recommendations (PARs).

14. Always obtain the RM's approval prior to sending a notification.

15. Record the time the SENTRY information was transmitted.

16. If this is a normal week day between the the hours of 0800-1600 then skip step 17.

17. If it is the weekend, holiday, or outside the normal working hours of 0800-1600, SEMA will most likely not be staffed. If SEMA is not manned, contact the State Highway Patrol Troop F Headquarters using Ameren phone # 17188. FAX the notification from SENTRY so it can be relayed to SEMA (9-1-573-751-6814). Remain on the line for verification or ask for a verifcation callback at 573-676-8840 within 30 minutes.

18. Verify and document the sites that acknowledged receipt of the notification.

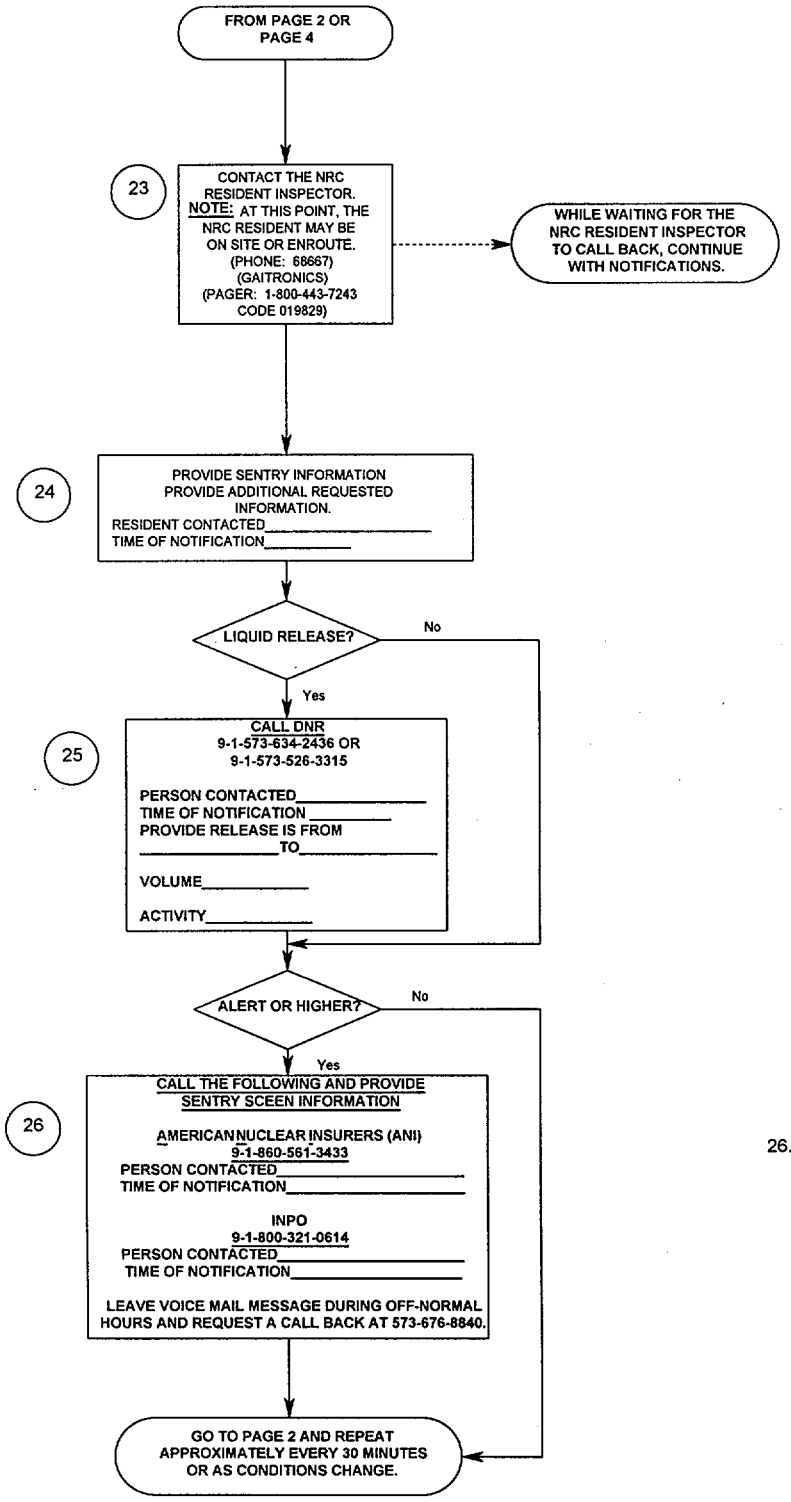
19. If all agencies acknowledged the notification, skip step 22.

20. If all agencies did not acknowledge the notification, then go to page 4 and transmitt the SENTRY screen data.

21. If this is an initial notification, continue to page 3.

22. If this is a follow up notification, repeat this page every 30 minutes.

EOF NOTIFICATION PACKAGE
Flowchart (continued)



23. Contact the NRC Resident Inspector by phone (68667, gaitronics, or page using 1-800-443-7243 code 019829, and enter 573-676-8840).

NOTE: The NRC Resident Inspector may be on site or enroute. This can be be determined through the Control Room Communicator.

24. Provide the Resident Inspector with the SENTRY Notification Information. Record name and time of notification.

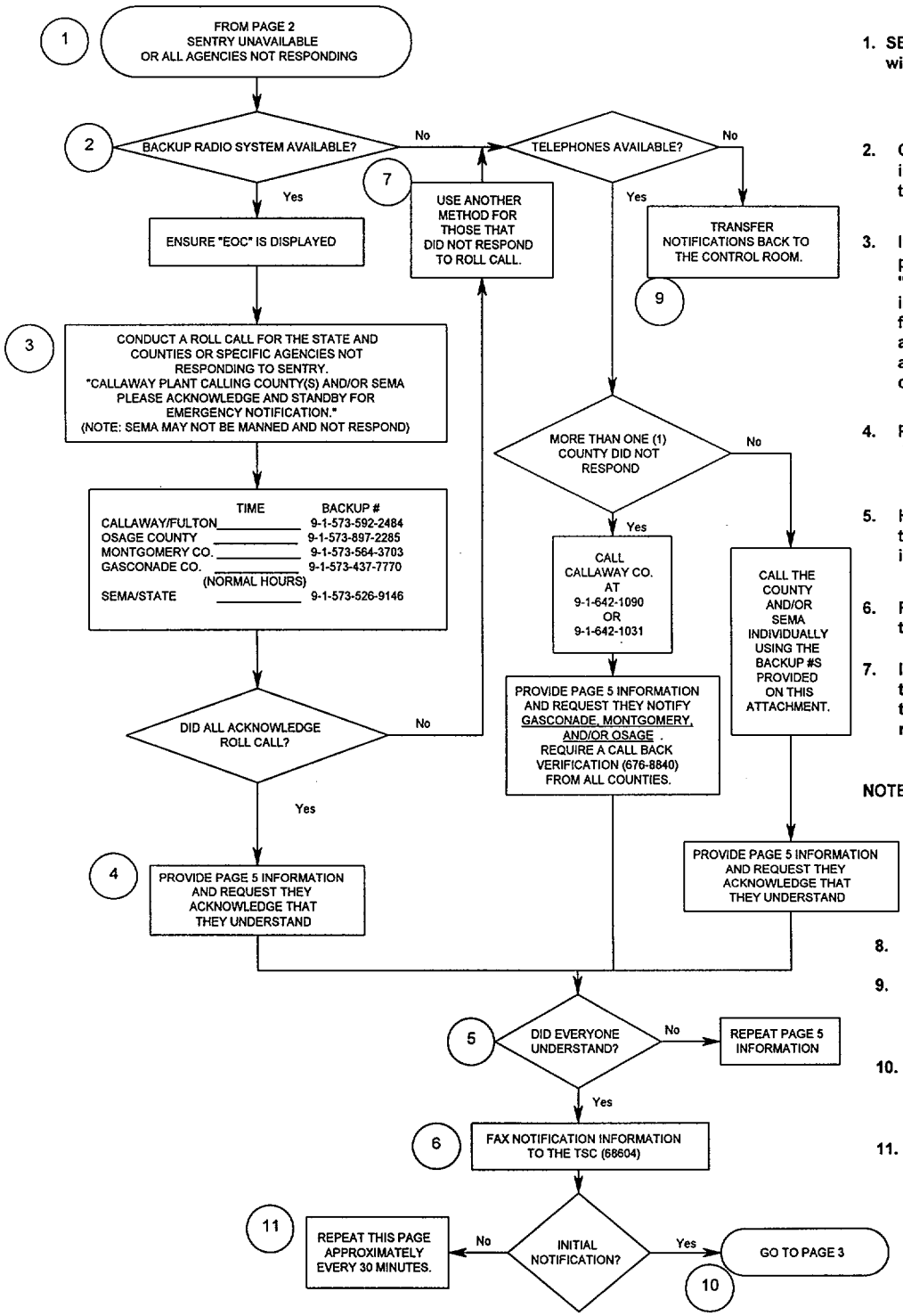
25. If the release is a liquid release, call the Department of Natural Resources and report the origin and destination of the release, if known, as well as the volume and activity.

26. If the classification is an ALERT or higher, then the American Nuclear Insurers (ANI) and Institute of Nuclear Power Operators (INPO) must be notified.

_____
Communicator

Date:_____Time:_____

EOF NOTIFICATION PACKAGE
Flowchart (continued)



1. SENTRY was unable to connect with all the counties and the STATE.
2. Check the Backup Radio (BURS) is operational and has "EOC" on the window display.
3. If the Backup Radio is operable perform a roll call by saying, "This is the Callaway Plant with important information, standby for roll call". Wait a few seconds and start with Callaway/Fulton and perform the roll call of the counties and SEMA.
4. Provide the notification information using page 5.
5. Have them acknowledge that they understand the information provided to them.
6. Fax the notification information to the TSC.
7. If BURS is not available, use the telephone and contact the locations that did not respond to the roll call.

NOTE: IF multiple sites do not respond, call one county (prefer Callaway) and have them relay the information to the other counties.

8. Repeat steps 4 thru 6.
9. If the telephones do not work, transfer notifications back to the Control Room.
10. If this is an Initial Notification, go to page 3 to complete notifications.
11. If this is an followup Notification, repeat this page approximately every 30 minutes.

EOF NOTIFICATION PACKAGE

EOF Off-site Notification Form

(FAX copy to TSC 68604)

GENERAL INFORMATION:

1) DRILL MESSAGE: O YES O NO

2) EMERGENCY CLASSIFICATION:

3) DATE/TIME DECLARED: / / :

4) EMERGENCY ACTION LEVEL:

5)

6) REACTOR STATUS:

RELEASE STATUS:

THERE 7) IS / WAS / WILL BE 8) NO / AIRBORNE / LIQUID RELEASE OF RADIOACTIVE MATERIAL.

9)RELEASE SIGNIFICANCE:

10) RELEASE START TIME: :

11) RELEASE DURATION: Hrs.

12) CURRENT WIND SPEED: MPH

13) WIND DIRECTION: From Degrees 14) To Degrees

15) AFFECTED SECTORS:

PLUME ARRIVAL TIME:

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

PROTECTIVE ACTIONS:

19) PROTECTIVE ACTIONS RECOMMENDED: O YES O NO

20) BASED ON:

TYPE	LOCATION	SECTORS	SUBAREAS
21)	22)	23)	24)
25)	26)	27)	28)
29)	30)	31)	32)

33) Other PAR's:

PROJECTED DOSES:

34) BASED ON:

Distance	TEDE (Rem)	Thyroid (Rem)
EAB	35)	36)
2 miles	37)	38)
5 miles	39)	40)
10 miles	41)	42)

ADDITIONAL NOTES:

43)

EC/RM APPROVAL:_____ COMMUNICATOR: _____

Distribution: *Emergency Coordinator*
Communicator
State of Missouri

File K171.0010

EOF NOTIFICATION PACKAGE
Assuming EOF Notifications

NOTE: Notifications should not be assumed without Dose Assessment and the RM's permission.

☐ ASSUMING TO EOF NOTIFICATIONS

The assuming and transferring Communicator should discuss the following:

1. The latest information transmitted (Ref. latest Notification printout) including the time sent.
2. Individuals/agencies contacted and method of contact.

   ☐ Callaway SENTRY or Other: _____
   ☐ Osage SENTRY or Other: _____
   ☐ Montgomery SENTRY or Other: _____
   ☐ Gasconade SENTRY or Other: _____
   ☐ SEMA SENTRY or Other: _____
   ☐ Resident NRC via _____
   ☐ ANI via _____
   ☐ INPO via _____
   ☐ DNR (if required) via _____

3. Any notification presently not completed: Explain: _____
   _____
4. Communicators in CR and EOF should obtain approval of their facility lead (SS/EC & RM) to complete the transfer.
5. Responsibilities being transferred (check all applicable):

NOTE:	Once notifications on SENTRY are turned over, do not send SENTRY messages unless accepting notification responsibility in your facility.

   ☐ SENTRY.
   ☐ Verification Callback Line (573-676-8840).
   ☐ Back-up Radio System.

6. **An initial follow-up notification should be prepared, approved, and sent to ensure proper system operation by the ASSUMING facility.** Follow-up notifications should be sent every 30 minutes.

Time of Transfer_____Communicator _____

EIP-ZZ-00212
Revision 019
August 3, 2001

CALLAWAY PLANT

EMERGENCY PLAN IMPLEMENTING PROCEDURE

EIP-ZZ-00212

PROTECTIVE ACTION RECOMMENDATIONS

RESPONSIBLE DEPARTMENT **EMERGENCY PREPAREDNESS**

PROCEDURE OWNER **T. W. PARKER**

WRITTEN BY **T. W. PARKER**

PREPARED BY **T. W. PARKER**

APPROVED BY [illegible] for MCP

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Pages	1	through	7
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This procedure has 0 checkoff list(s) maintained in the mainframe computer.

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

Non-T/S Commitments 017

TABLE OF CONTENTS

PROTECTIVE ACTION RECOMMENDATIONS

1 PURPOSE AND SCOPE

1.1 PURPOSE

This procedure provides guidance in making protective action recommendations to the State and 10 mile Emergency Planning Zone (EPZ) counties for protecting members of the general public.

1.2 SCOPE

This procedure outlines protective action recommendations based on plant conditions and radiological dose projections.

2 DEFINITIONS

2.1 Initial Phase - the early stages of a radiological emergency which is characterized by the actual or possible presence of a plume within 10 miles of the plant. The initial phase is also called the "early phase" or the "plume phase" and is primarily concerned with protecting the public from the direct effects of the plume (i.e., exposure to and inhalation of airborne radioactive materials).

2.2 Ingestion Exposure Phase - similar to the Intermediate Phase of a radiological emergency except that the primary concern is protecting the public from ingestion of radioactive materials which may have been introduced into the food chain or public water supplies by deposition from the passing plume. Because both are based on deposition from the plume, the Intermediate Phase and the Ingestion Exposure Phase can occur concurrently.

2.3 Intermediate Phase - the stage of a radiological emergency which follows the Initial Phase. It is characterized by dissipation of the airborne plume and deposition of radioactive materials and is primarily concerned with protecting the public from the long-term effects of the deposited materials. Because protective actions may involve relocation of some members of the population, this phase is sometimes called the "relocation phase". The Intermediate Phase and the Ingestion Exposure Phase of a radiological emergency can occur concurrently.

2.4 Relocation - the long-term removal of members of the population from areas where plume deposition results in chronic exposures over a 1, 2, or 50-year period which exceeds the Environmental Protection Agency (EPA) protective action guide (PAG) values. Relocation is a protective action for the public which may be recommended by the state Department of Health (DOH) during the Intermediate Phase of a radiological emergency.

3 RESPONSIBILITIES

3.1 CONTROL ROOM

3.1.1 EMERGENCY COORDINATOR

Prior to the arrival of the Recovery Manager, in the EOF, the Emergency Coordinator has responsibility of evaluating plant conditions and/or dose assessment and making protective action recommendations to the State and local authorities. **(COMN 3954)**

3.1.2 RADCHEM TECHNICIAN (TECHNICAL SUPPORT)

The Radchem Technician (TS) will report to the Control Room and supply dose projection information to the EC, until the Dose Assessment Coordinator arrives in the EOF. **(COMN 3412)**

3.1.3 CONTROL ROOM STAFF

The Control Room Staff will monitor plant conditions and assist in making protective action recommendations, until the Technical Assessment Coordinator (TSC) or the Protective Measures Coordinator (EOF), arrive at their respective facility.

3.2 TECHNICAL SUPPORT CENTER

3.2.1 TECHNICAL ASSESSMENT COORDINATOR

The Technical Assessment Coordinator will provide the Emergency Coordinator, in the absence of the Recovery Manager, with plant assessment information and assistance for making protective action recommendations until the Protective Measures Coordinator arrives at the EOF.

3.3 EMERGENCY OPERATIONS FACILITY

3.3.1 RECOVERY MANAGER

The Recovery Manager is responsible for approving protective action recommendations to the State and local authorities. **(COMN 3954)**

3.3.2 PROTECTIVE MEASURES COORDINATOR

The Protective Measures Coordinator is responsible for evaluating the information received from the Plant Assessment Coordinator and the Dose Assessment Coordinator and making a protective action recommendation to the Recovery Manager.

3.3.3 PLANT ASSESSMENT COORDINATOR

The Plant Assessment Coordinator is responsible for informing the Protective Measures Coordinator of needed protective action recommendations due to plant conditions.

3.3.4 DOSE ASSESSMENT COORDINATOR

The Dose Assessment Coordinator is responsible for informing the Protective Measures Coordinator of needed protective action recommendations due to dose assessment projections.

4 INITIATING CONDITIONS

4.1 A General Emergency has been declared.

5 PROCEDURE

5.1 INITIAL (PLUME) PHASE PROTECTIVE ACTION RECOMMENDATIONS

5.1.1 Evaluate plant parameters and determine the appropriate protective action recommendations based on plant conditions using Attachment 1.

5.1.1.1 Immediate Protective Action Recommendations (**COMN 3954**)

Upon declaration of a General Emergency the initial protective action recommendation, as a minimum, SHALL be to evacuate a 2 mile radius around the plant and 5 miles downwind of the plant in affected sectors. This recommendation SHALL be made immediately to the offsite authorities in accordance with **EIP-ZZ-00201**, Notifications.

NOTE:	This automatic protective action recommendation ensures that the public receives protection from possible hazards until a more formal assessment and protective action recommendation can be made.

5.1.1.2 Subsequent Protective Action Recommendations

Subsequent protective action recommendations are made based on plant conditions (taking into account core and containment conditions) and/or dose assessment.

NOTE:	Protective Action Recommendations should only be upgraded, never downgraded to a lesser Protective Action Recommendation.

5.1.2 If dose projections have been performed, upgrade protective action recommendations if dose projections would warrant additional protective actions.

5.1.3 If dose calculations project doses beyond 10 miles that exceed protective action recommendations for evacuation (1 Rem TEDE, 5 Rem CDE Thyroid), inform the EC/RM. Additionally, inform the State Emergency Management Agency (SEMA) and the Department of Health (DOH) and assist them in actions necessary to protect the public beyond the 10 mile Emergency Planning Zone. **CARS 199900240**

5.1.4 If affected sectors change based on meteorological conditions and weather forecasts, the protective actions should be modified accordingly and offsite authorities should be properly notified.

5.1.5 Weather forecasts MUST be updated periodically.

5.1.6 For short duration releases, (2 hours or less), sheltering of the public may be recommended for sectors that cannot be evacuated prior to plume arrival.

NOTE:	The preferred Protective Action is to Evacuate. Sheltering should only be considered for controlled releases from containment if there is assurance that the release is short term and the area near the plant cannot be evacuated before the plume arrives.

5.1.7 Attachment 2, Plume Arrival Time, may be used to determine plume arrival time.

5.1.8 Attachment 3, Evacuation Times and Population Densities, provides population estimates and evacuation time estimates.

5.2 NOTIFICATIONS

5.2.1 The Emergency Coordinator/Recovery Manager MUST ensure that appropriate notifications are made regarding protective action recommendations in accordance with **EIP-ZZ-00201**, Notifications.

5.2.2 Protective action recommendations should be coordinated with the Department of Health (DOH) and SEMA, if possible, when their Forward Command Post in the EOF is staffed.

5.3 INTERMEDIATE (RELOCATION) AND INGESTION EXPOSURE PHASES

Additional protective actions may be required during the Intermediate and Ingestion Exposure phases of an event which results in a release of radioactive material into the environment. Recommendations for these relocation and ingestion pathway protective actions are made by the Department of Health (DOH).

6 FINAL CONDITIONS

6.1 Additional offsite protective action recommendations should no longer be required once the requirements for Plant Recovery have been met and Plant Recovery has been declared in accordance with **EIP-ZZ-00260**, Event Closeout/Plant Recovery.

NOTE:	Offsite authorities may decide to continue previously implemented offsite protective actions until more information becomes available.

7 REFERENCES

7.1 EPA 400-R-92-001, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents

7.2 NUREG 0654/FEMA-REP-1, Criteria for Preparation of and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants

7.3 NUREG 0654/FEMA-REP-1, Rev.1,Supp.3 Criteria for Preparation of and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants

7.4 **EIP-ZZ-00101**, Classification of Emergencies

7.5 **EIP-ZZ-00102**, Emergency Implementing Actions

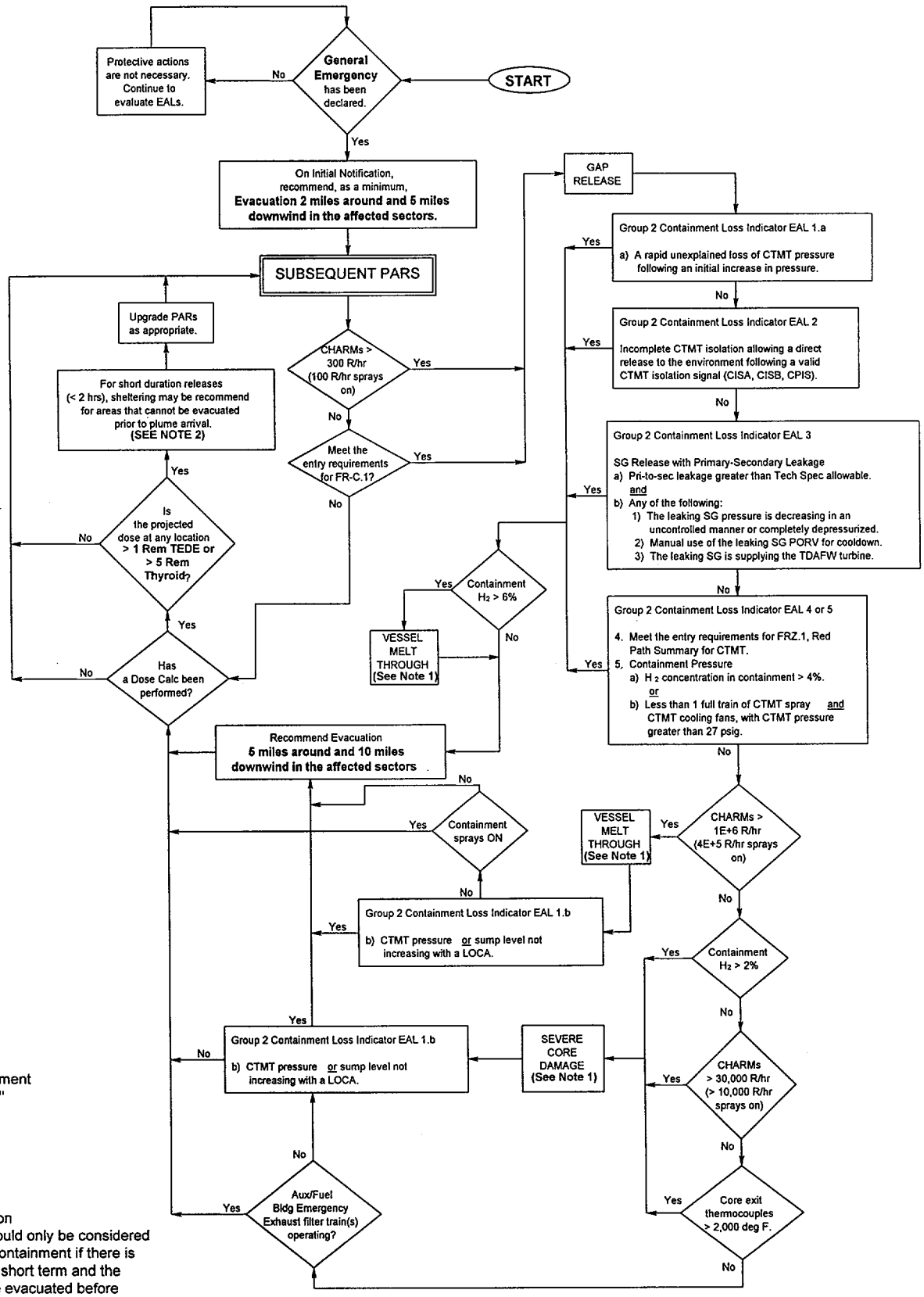
7.6 **EIP-ZZ-00201**, Notifications

7.7 **EIP-ZZ-01211**, Management Action Guides For Nuclear Emergencies (MAGNEM)

8 RECORDS

None

PAR FLOWCHART



NOTE 1: Notify Dose Assessment to use "Severe Core Damage" isotopic mix for dose calculations.

NOTE 2: The preferred Protective Action is to Evacuate. Sheltering should only be considered for controlled releases from containment if there is assurance that the release is short term and the area near the plant cannot be evacuated before the plume arrives.

PLUME ARRIVAL TIME

WIND SPEED (m/s)	DISTANCE (Miles) EAB	1	2	3	4	5	6	7	8	9	10	12	15
0.5	0.7	0.9	1.8	2.7	3.6	4.5	5.5	6.4	7.3	8.2	9.1	11.0	13.6
1.0	0.3	0.4	0.9	1.3	1.7	2.2	2.7	3.6	3.6	4.0	4.4	5.3	6.7
2.0	0.2	0.2	0.4	0.7	0.9	1.1	1.3	1.8	1.8	2.0	2.2	2.7	3.3
4.0	0.1	0.1	0.2	0.3	0.4	0.6	0.7	0.8	0.9	1.0	1.1	1.3	1.7
6.0	0.1	0.1	0.1	0.2	0.3	0.4	0.4	0.5	0.6	0.7	0.7	0.9	1.1
8.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.6	0.7	0.8
10.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.5	0.7
12.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.6
14.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.5
16.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.4
18.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3
20.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3
30.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2

NOTE

Times in above table are in hours and tenths of hours.

EVACUATION TIMES AND POPULATION DENSITIES

SECTOR	0 - 2 MILES		2 - 5 MILES		5 - 10 MILES	
	AFFECTED SUBAREA	EVACUATION (2) TIME	AFFECTED SUBAREA	EVACUATION (2) TIME	AFFECTED SUBAREA	EVACUATION (2) TIME
A	C1	3:30	C3	3:25	C3, C10	3:25
B	C1	3:30	C3	3:25	C3, C10, C11	3:25
C	C1	3:30	C3, C4	3:25	C11, M1	3:15
D	C1	3:30	C3	3:25	C4, C11, M1	3:25
E	C1	3:30	C4, C5	3:25	C4, M1, M2	3:25
F	C1	3:30	C4, C5	3:25	C4, M2, G1	3:25
G	C1	3:30	C4, C5	3:25	C4, 01	3:25
H	C1	3:30	C5	3:15	01	3:09
J	C1	3:30	C5, C6	3:27	01	3:09
K	C1	3:30	C6	3:27	01	3:09
L	C1	3:30	C6	3:27	C7	3:09
M	C1	3:30	C6	3:27	C6, C7	3:25
N	C1	3:30	C2, C6	3:27	C6, C2, C8, C7	3:25
P	C1	3:30	C2	3:25	C8, C9	3:07
Q	C1	3:30	C2	3:25	C2, C8, C9	3:25
R	C1	3:30	C2, C3	3:25	C10, C8	3:13

SUBAREA POPULATION AND EVACUATION ESTIMATE

SUBAREA	(1) POPULATION	(2) EVACUATION ESTIMATE	SUBAREA	(1) POPULATION	(2) EVACUATION ESTIMATE
C1	318	3:30	C9	10188	2:57
C2	521	3:25	C10	399	3:13
C3	778	3:25	C11	235	3:15
C4	406	3:25	M1	158	3:03
C5	127	3:15	M2	494	3:09
C6	365	3:27	G1	173	2:51
C7	1121	3:09	01	903	3:09
C8	1696	3:07			

1. Includes permanent and transient population

2. Maximum Time Estimates (in Hours:Minutes) for evacuation of population during most critical time period. Includes time for; a) Receiving Notification, b) Leaving Place of Work, c) Work to Home Travel, d) Preparing for Evacuating Home, and e) Travel Out of EPZ.

EIP-ZZ-00240
Revision 027
June 22,2001

CALLAWAY PLANT

EMERGENCY PLAN IMPLEMENTING PROCEDURE

EIP-ZZ-00240

TECHNICAL SUPPORT CENTER OPERATIONS

RESPONSIBLE DEPARTMENT **EMERGENCY PERPAREDNESS**

PROCEDURE OWNER **T. W. PARKER**

WRITTEN BY **T. W. PARKER**

PREPARED BY **T. W. PARKER**

APPROVED BY [illegible] for MCP

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Pages	1	through	7
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Appendices		through	
Checkoff Lists		through	

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

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Non-T/S Commitments 022

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TABLE OF CONTENTS

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

5.1 QA RECORDS

5.1.1 Attachment 1, Emergency Coordinator Checklist (File K171.0010)

5.1.2 Attachment 2, Technical Assessment Coordinator (TAC) Checklist (File K171.0010)

5.1.3 Attachment 3, Operations Support Coordinator (OSC) Checklist (File K171.0010)

5.1.4 Attachment 4, Administrative (Admin) Coordinator Checklist (File K171.0010)

5.1.5 Attachment 5, Health Physics (HP) Coordinator Checklist (File K171.0010)

5.1.6 Attachment 6, TSC (ENS) Communicator Checklist (File K171.0010)

5.1.7 Attachment 7, Chemistry Coordinator Checklist (File K171.0010)

5.1.8 Attachment 8, Security Coordinator (SC) Checklist (File K171.0010)

5.1.9 Attachment 9, Emergency Team Coordinator (ETC) Checklist (File K171.0010)

EMERGENCY COORDINATOR CHECKLIST

Date _____ Time: _____

	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.
☐ 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 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. ☐ RM. ☐ SS. ☐ On site NRC personnel.

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.
☐ 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.** (An EO may be used if available.)
☐ 3.	Shift the Computer link located in the closet near the water cooler then the PC power supplies to UPS power.
☐ 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) 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 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 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
☐ *1.	Engineering Personnel that leave the Facility should check out with the Security Officer. If a release has occurred or is likely to occur a HP brief is required. **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 printout from the Plant Computer terminals (not PCs), **Cancel**, enter **FF**; select the TSC printer, then **F1**. To use the color printer depress **Ctrl & PF20** simultaneously.
☐ *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.

	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.

TECHNICAL ASSESSMENT COORDINATOR (TAC) CHECKLIST

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.	Restore TSC Air Handling Unit Control Switch to **AUTO** position.

_____
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.
☐ 2.	Ensure the TSC has power. ☐ Normal power ☐ No Power. Start the TSC diesel per **OOA-UB-EPG70** or call for Equipment operator if available
☐ 3.	Inform Emergency Coordinator and Admin. Coordinator of your arrival.
☐ 4.	Initiate Log Sheet.
☐ 5.	Control Room/TSC Liaison contacted and status brief obtained.
☐ 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.	Inform the ETC that Support Area Personnel that leave the Facility should check out with the Security Officer. If a release has occurred or is likely to occur a HP brief is required. **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.	Ensure Emergency Teams are formed and briefed as needed per **EIP-ZZ-00220** Emergency Team Formation.
☐ *5.	Ensure Emergency Team Coordinators track Teams as to location and progress of their assignment.
☐ *6.	Interface with the Technical Assessment and Health Physics Groups to ensure coordination of activities.
☐ 7.	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.

OPERATIONS SUPPORT COORDINATOR (OSC) CHECKLIST

☐ *8.	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.)
☐ *9.	Periodically brief the Emergency Coordinator on the priorities that have been established for Emergency Teams. **CARS 199903669**

	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.
☐ 2.	Inform Emergency Coordinator and Technical Assessment Coordinator of your presence.
☐ 3.	Initiate Log Sheet.

	OPERATIONS CARS 199903558 (*) *Steps or items that must be frequently reviewed*
☐ 1.	Equipment availability and operation. Check on: ☐ Personal Computers (PC) ☐ 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.
☐ 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)
☐ *5.	☐ Monitor the Declaration Status Boards. ☐ Ensure the Declaration Status Boards are current with the Emergency Classification announcements. **CARS 199903558**

ADMINISTRATIVE (ADMIN) COORDINATOR CHECKLIST

☐ *6.	Personnel that leave the Facility should check out with the Security Officer. If a release has occurred or is likely to occur a HP brief is required. **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.
☐ *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.

ADMINISTRATIVE (ADMIN) COORDINATOR CHECKLIST

	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. ☐ 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.	
☐ 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.	
☐ 6.	**OSA Responders** NOTE: Minimum 14 R/C Support Personnel required, (one MUST be a Chemistry Tech.) **Assign personnel as they arrive to the TSC based on priorities, <u>not</u> as listed, using the below guidance.**	
	1. _____	☐ 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. Request Drivers from the OSC. Brief 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 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.
	8. _____ 9. _____ 10. _____ 11. _____	☐ Assign R/C Support Personnel to the report directly to the OSC to support Radiological Briefing and Emergency Teams. Have R/C Techs response check portable instruments, prepare equipment and supplies, and activate the Automated Access Control Station. All prepared radiological briefings should be reviewed with HPC prior to conducting brief of Emergency Team.
	12. _____	☐ Assign Chemistry Support Personnel to the Chemistry Coordinator (if needed).

HEALTH PHYSICS (HP) COORDINATOR CHECKLIST

	13. _____	☐ Assign R/C Support Personnel to communicate with the NRC via the HPN line (if requested from NRC).
	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 is in progress or anticipated announce **"an HP brief will also be required."** **NOTE:** If a release is in progress or anticipated, ensure all personnel dispatched from the TSC are issued Electronic Dosimeters and dose is tracked. The Security Officer will verify HP briefs prior to exit.
☐ *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.	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. ☐ Coordinate Assembly and Evacuation actions per **EIP-ZZ-00230** with the Security Coordinator. **(Assembly and Evacuation are required at a SITE and GENERAL EMERGENCY)** ☐ Determine which Care and Reception Center is preferred based on plume direction (if needed). ☐ 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**.
☐ 4.	Obtain Respirator Issue Log and Daily Dose Report from HPACA if LAN and Mainframe Computer are unavailable in the TSC.
☐ *5.	Monitor Area Radiation Monitors and appropriate Group 1 & 2 EAL's from **EIP-ZZ-00101**, Classification of Emergencies. Report any Area Radiation Monitor that is approaching or has exceeded EAL values to the Technical Assessment Coordinator and EC.
☐ *6.	Personnel requiring decontamination should be sent to HPACA. If needed, the back entrance of the TSC can be staged to receive contaminated personnel.

☐ *7.	Verify sufficient inventory of the following (additional quantities are available from HPAC or Cal Facility): ☐ Electronic Dosimeters (ED)

HEALTH PHYSICS (HP) COORDINATOR CHECKLIST

	☐ Portable Instruments ☐ Respirators ☐ Protective Clothing (PC) ☐ Consumables (rope, postings, bags, etc.)
☐ *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 habitability.
☐ *12.	If additional HP support or supplies are needed, 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.

HEALTH PHYSICS (HP) COORDINATOR CHECKLIST

	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.
☐ 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.

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.
☐ 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** call for Equipment Operator if available.
☐ 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.
☐ 8.	Contact Control Room Communicator.
☐ 9.	Get a brief as to the status of ENS Communications.
☐ 10.	Accept responsibility of ENS Communications per **EIP-ZZ-00201, CA-#2517B , or as directed by the NRC**.
☐ 11.	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**. (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 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.

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.
☐ 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. ☐ Complete page 3, RERP Chemistry Data, with the most recent samples. ☐ Have PASS system placed in RCS recirc per **CTP-ZZ-08010.** ☐ Verify CCW is lined up to PASS and SJ panel. *NOTE: Boron concentration in the RCS is used to determine Shut Down Margin. This may be one of the first samples requested by the TAC.* **CARS 199803260**
☐ 5.	Personnel Assessment Rad./Chem. Chemistry technicians (2 required) ☐ _____ (name), PASS & _____ (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.	Have RERP Chemistry Data Forms (page 3) ready to record RCS data as it becomes available: ☐ Record RCS data on the RERP Chemistry Data form (CA#267). ☐ Have the Admin Clerk make 3 copies. Give a copy of the RERP Chemistry Data form to the: ☐ Tech Assessment Coordinator. ☐ HP Coordinator. ☐ Reactor Engineer. ☐ Make successive updates to the latest RERP Chemistry Data form and distribute.
☐ *2.	Personnel that leave the Facility should check out with the Security Officer. If a release has occurred or is likely to occur a HP brief is required. **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**

CHEMISTRY COORDINATOR CHECKLIST

☐ * 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.	Evaluate Secondary Chemistry conditions.
☐ *6.	Monitor PASS data and provide recommendations as necessary. ☐ If power is lost to PASS, see **CTP-ZZ-08010** . ☐ Initiation of SIS isolates cooling to PASS and the SJ Sink, Contact Operations to restore cooling, see **CTP-ZZ-08010.**
☐ *7.	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. CVCS letdown samples will remain representative as long as letdown flow is available.
☐ * 8.	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 equipment is deactivated and/or stored.
☐ 3.	Ensure documents are collected and given to the Admin Coordinator.

_____

Chemistry Coordinator Signature

RERP CHEMISTRY DATA

MOST RECENT 100/E Bar Limit:_____µCi/g ____/____/____ date. **DATE** _____

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

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

SECURITY COORDINATOR (SC) CHECKLIST

Date _____ Time: _____

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.
☐ 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.
☐ 6.	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.	Assist the EC in Evacuation and Accountability per **EIP-ZZ-00230** .
☐ 3.	If accountability is declared, obtain badge numbers of personnel assigned to emergency teams that have left the TSC from the OSC, and report these badge numbers to the SSS.
☐ *4.	Personnel that leave the Facility should check out with the Security Officer. If a release has occurred or is likely to occur a HP brief is required. **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**
☐ *6.	Contact the HP Coordinator to determine the affected areas in the case of a release. If Security is to be pulled back from their posts, consider requirements in Step 1, Operations (above).
☐ *7.	Ensure that the Security Force has the appropriate dosimetry. Check with the HPC.
☐ *8.	Coordinate plant access control.
☐ *9.	Contact local law enforcement to coordinate traffic control (i.e. for evacuation routes).
☐ *10.	Coordinate personnel evacuation and accountability. (***NOTE:*** Accountability is required within 30 minutes of declaring accountability.)
☐ *11.	Coordinate any off-site law enforcement agency involvement.

SECURITY COORDINATOR (SC) CHECKLIST

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.
☐ 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 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.
☐ *6.	Ensure log and status board are maintained.

EMERGENCY TEAM COORDINATOR (ETC) CHECKLIST

☐ *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)	_____