DOCUMENT TRANSMITTAL

TRANSMITTAL NUMBER: 519784
TO CONTROL NUMBER: 338U
TITLE: OTHER
DEPT: NUCLEAR REGULATORY COMM.
LOCATION: USNRC - WASH DC
TRANSMITTAL DATE: 20031208

RETURN ACKNOWLEDGED TRANSMITTAL AND SUPERSEDED DOCUMENTS (IF APPLICABLE) TO: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

TRAN CODE	DOC TYPE	DOCUMENT NUMBER	REV	RET REV	MED	COPY	ALT MED	ALT COPY	AFFECTED DOCUMENT
R	PROC	EIP-ZZ-00201	038	037	C	1			
R	PROC	EIP-ZZ-00260	013	012	C	1			

ACKNOWLEDGED BY: DATE:

A045

CALLAWAY PLANT

EMERGENCY PLAN IMPLEMENTING PROCEDURE

EIP-ZZ-00201

NOTIFICATIONS

RESPONSIBLE DEPARTMENT **Emergency Preparedness**

PROCEDURE OWNER **S. J. Crawford**

WRITTEN BY **S. J. Crawford**

PREPARED BY **S. J. Crawford**

APPROVED BY Warren J. Witt

DATE ISSUED 12-8-03

This procedure contains the following:

Pages	1	through	7
Attachments	1	through	3
Tables		through	
Figures		through	
Appendices		through	
Checkoff Lists		through	

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

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

Non-T/S Commitments 028

TABLE OF CONTENTS

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 information 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

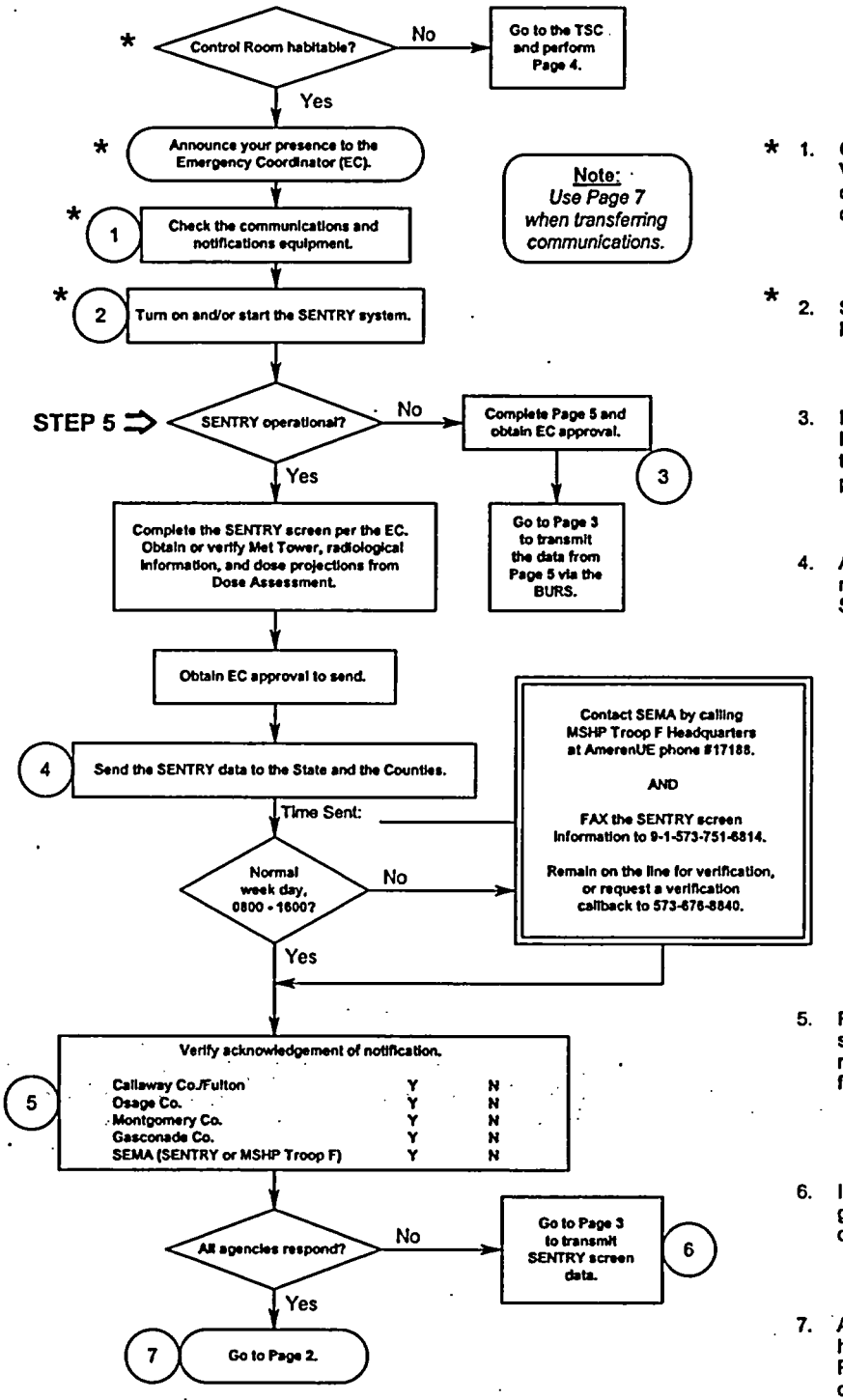
6.1.1 Printout copy of each notification from SENTRY. (File K171.0010)

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. Check that the ENS and Verification Callback lines have dial tones, and that the BURS is on and displays EOC.

* 2. Start the SENTRY System by opening Microsoft Outlook on the SENTRY PC.

3. If SENTRY is not working, fill out Page 5, get EC approval, and make the notification using the BURS per Page 3.

4. After EC approval, transmit the notification by clicking the SEND button.

5. From the SENTRY Inbasket or tracking screen ensure all locations acknowledge receipt of the nofication. Circle Y or N for each location on this flowchart.

6. If not all of the agencies respond, go to Page 3 and transmit the data from the SENTRY screen.

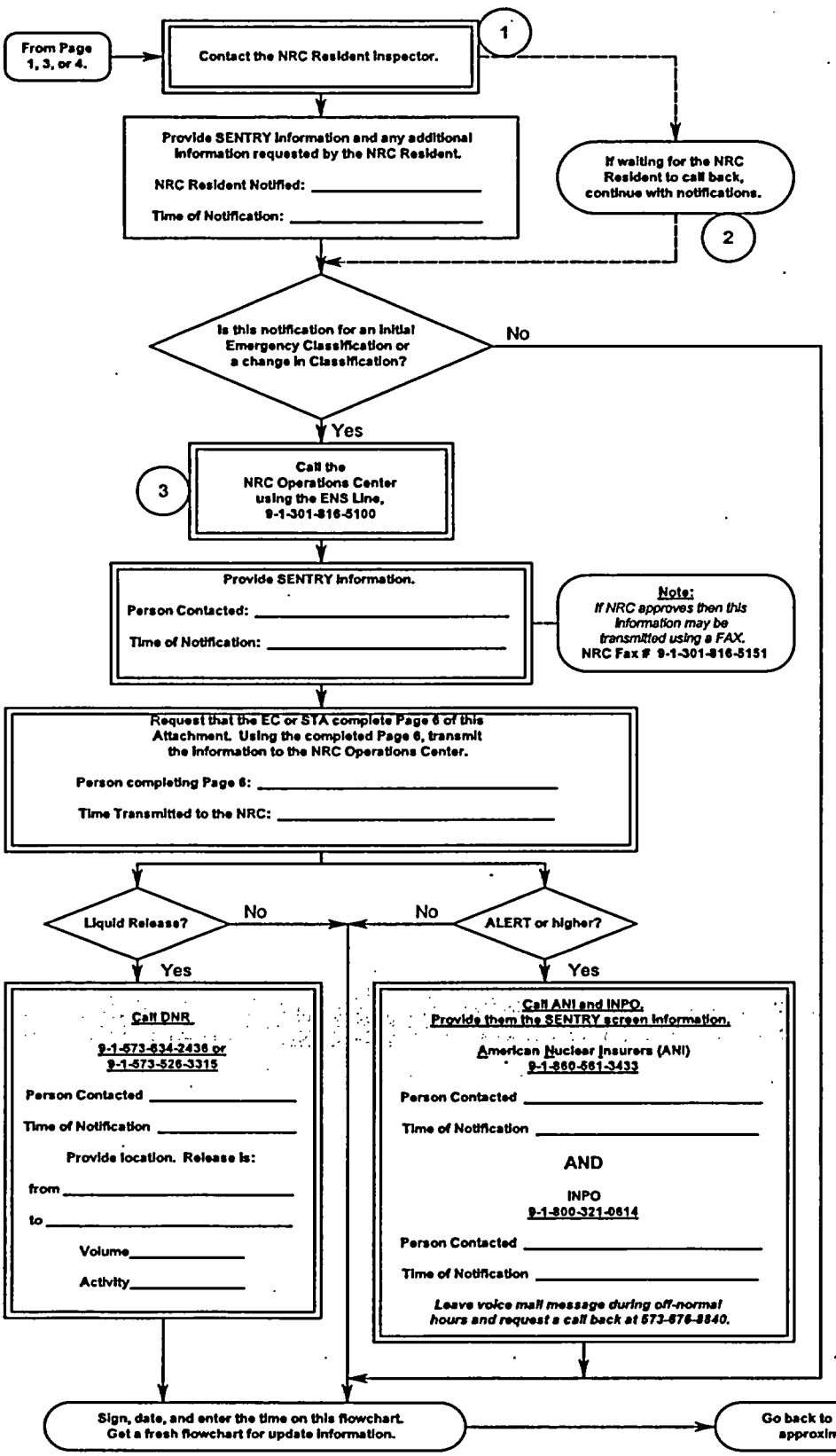
7. After the Counties and the State have been notified, go to Page 2 for notification of other off site agencies.

* **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.**

Scripts for announcements are UNDERLINED.

CONTROL ROOM NOTIFICATION PACKAGE
Flowchart (continued)



1. Notification of the NRC Resident Inspector should be performed in the following sequence. **Continue the sequence until contact has been established then move to the next step.**

Contact the NRC Resident Inspector.
If not in the Control Room, call 68667 or page on Gaitronics.

Call the NRC Cell phone
9-1-573-356-4600.
Leave a message if no answer.

Call the Senior Inspector at home
9-1-573-256-7274.
Leave a message if no answer.

Send a page using Outlook to both inspectors.
Provide a brief message about the event.
Request a verification callback to 573-676-8840 or to the Shift Supervisor @ 573-676-8234.

If Outlook paging is not available page the Inspectors by telephone.
Michael Peck - 9-1-573-808-9232
John Hanna - 9-1-573-808-9236

Call John Hanna at home.
9-1-573-875-4668

Call the NRC Branch Cell Phone
9-1-817-917-1211.

2. When the Inspector calls back read the information from the SENTRY screen notification that was made to the State and the Counties. Record the person's name and the time when notified.

3. The NRC Operations Center MUST be notified of all Initial Emergency Classifications and changes in Emergency Classifications without delay. Use the ENS phone whenever possible, but a regular AmerenUE phone may be used, if necessary.

   a. Primary 9-1-301-816-5100

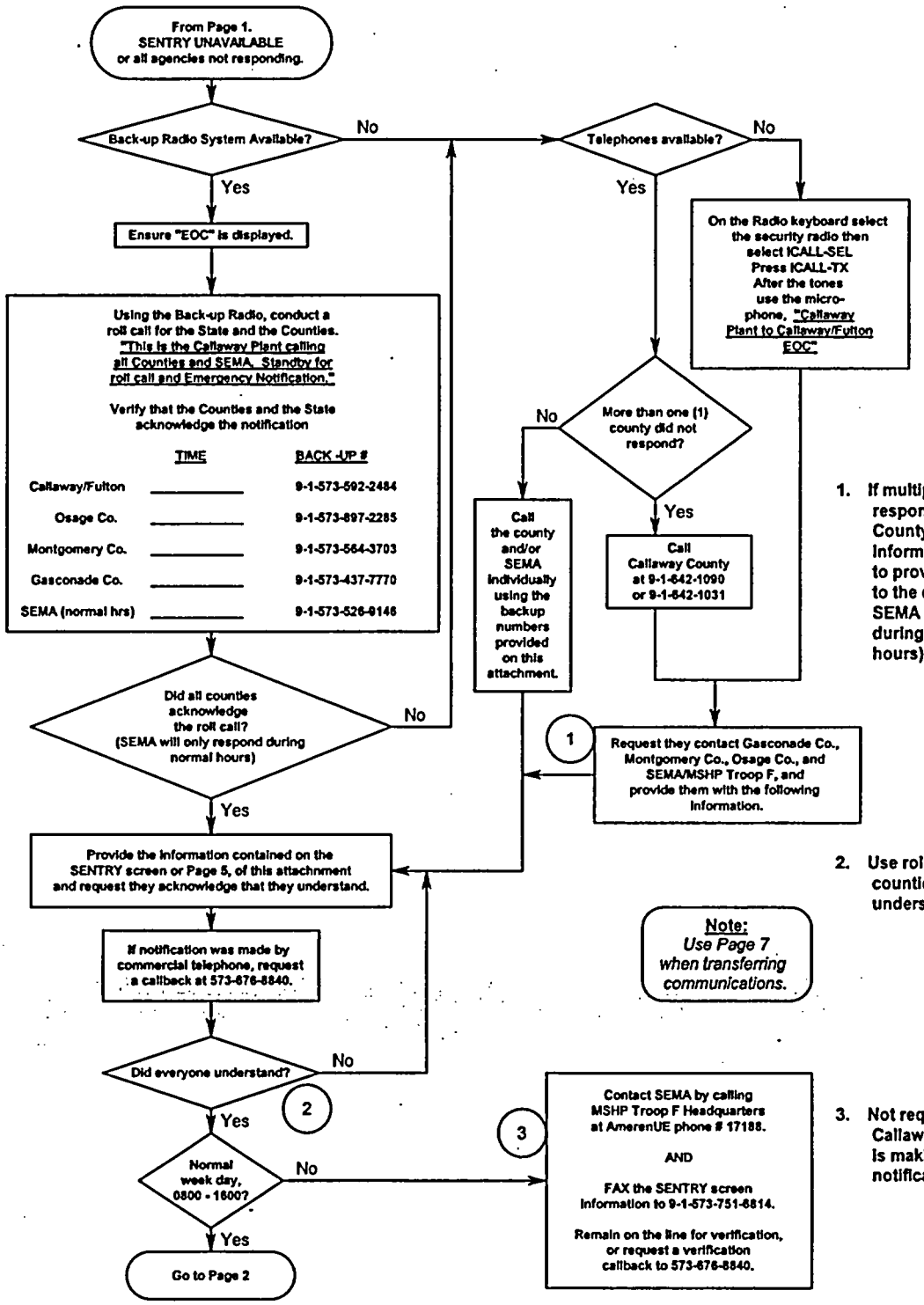
   b. Backups 9-1-301-951-0550
   9-1-301-415-0550
   9-1-301-415-0553

Note:
Use Page 7 when transferring communications.

_____
Communicator

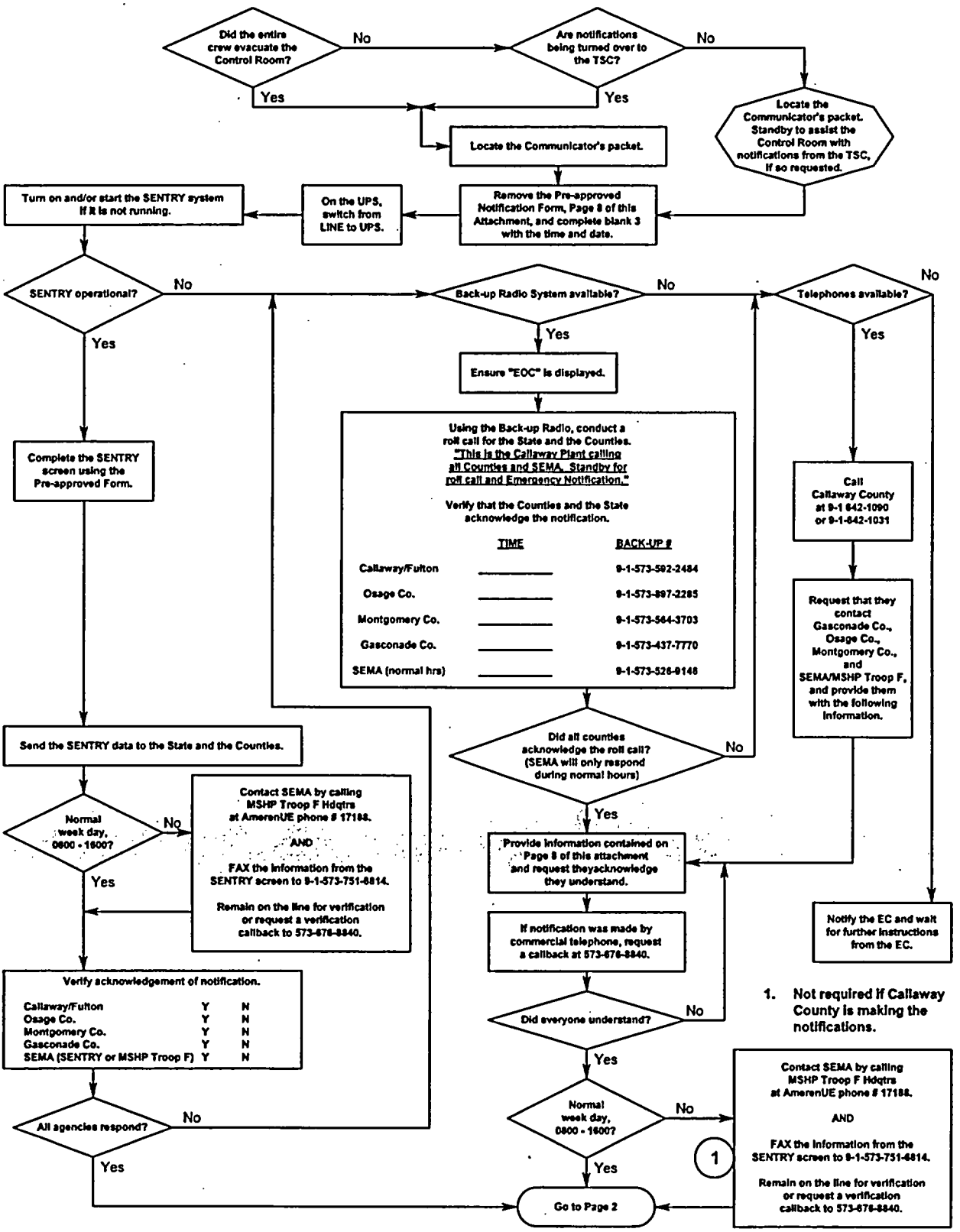
_____ / _____
Date Time

CONTROL ROOM NOTIFICATION PACKAGE
Flowchart (continued)



1. If multiple agencies did not respond, provide Callaway County with the notification information. Instruct them to provide this information to the other counties and SEMA (MSHP Troop F if not during normal working hours).
2. Use roll call of counties to ensure understanding.
3. Not required if Callaway County is making the notifications.

CONTROL ROOM NOTIFICATION PACKAGE
Evacuation Flowchart



1. Not required if Callaway County is making the notifications.

CONTROL ROOM N...IFICATION PACKAGE

Control Room Off-site Notification Form

(FAX copy to TSC 68604 & EOF 64900)

GENERAL INFORMATION:

1) DRILL MESSAGE: _____ (Yes/No)

2) EMERGENCY CLASSIFICATION: _____

3) DATE/TIME DECLARED: ___/___/___ ___:___

4) EMERGENCY ACTION LEVEL: _____

5) _____

6) REACTOR STATUS: _____

RELEASE STATUS:

8) RELEASE INFORMATION: _____

9) _____

10) RELEASE START TIME: _____

11) RELEASE DURATION: _____ Hrs.

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

15) WIND SPEED: _____

PLUME ARRIVAL TIME:

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

PROTECTIVE ACTIONS:

19) PROTECTIVE ACTIONS RECOMMENDED: _____ (Yes/No)

20) PROTECTIVE ACTION BASIS:: _____

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

30) Additional Protective Actions:

PROJECTED DOSES:

31) PROJECTED DOSE BASIS: _____

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

ADDITIONAL NOTES:

40)

EC/RM APPROVAL:_____ COMMUNICATOR:_____

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

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

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_____ Transferring 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_____ Transferring Communicator _____

CONTROL ROOM N[illegible]IFICATION PACKAGE

Pre-Approved Notification Form For Control Room Evacuation

(FAX copy to the EOF 64900)

EIP-2[illegible]-00201
Rev. 038

GENERAL INFORMATION:

1) DRILL MESSAGE: NO (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:

8) RELEASE INFORMATION:

9)

10) RELEASE START TIME: N/A

11) RELEASE DURATION: N/A Hrs.

12) WIND DIRECTION: From N/A to 13) N/A Deg 14) SECTORS: N/A

15) WIND SPEED: 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: NO (Yes/No)

20) PROTECTIVE ACTION BASIS:: N/A

TYPE		LOCATION		SECTORS	
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) Additional Protective Actions:
N/A

PROJECTED DOSES:

31) PROJECTED DOSE BASIS: N/A

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

ADDITIONAL NOTES:
40)

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

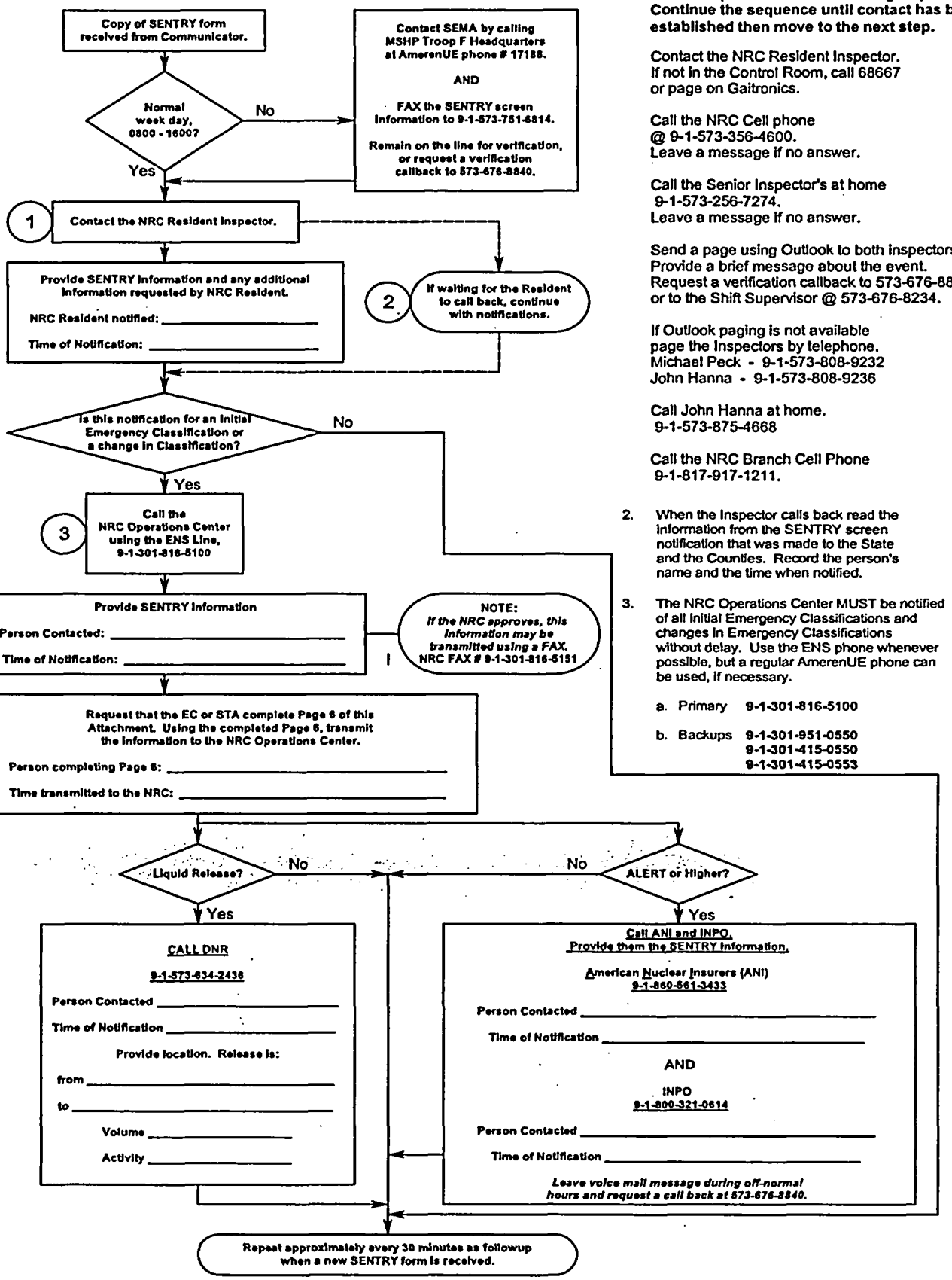
Distribution: *Emergency Coordinator*
Communicator

ATTACHMENT 1
CA-#2517a

File K171.0010

CONTROL ROOM NOTIFICATION PACKAGE

Telephone Flowchart



1. Notification of the NRC Resident Inspector should be performed in the following sequence. **Continue the sequence until contact has been established then move to the next step.**

   Contact the NRC Resident Inspector.
   If not in the Control Room, call 68667 or page on Gaitronics.

   Call the NRC Cell phone
   @ 9-1-573-356-4600.
   Leave a message if no answer.

   Call the Senior Inspector's at home
   9-1-573-256-7274.
   Leave a message if no answer.

   Send a page using Outlook to both inspectors.
   Provide a brief message about the event.
   Request a verification callback to 573-676-8840 or to the Shift Supervisor @ 573-676-8234.

   If Outlook paging is not available page the Inspectors by telephone.
   Michael Peck - 9-1-573-808-9232
   John Hanna - 9-1-573-808-9236

   Call John Hanna at home.
   9-1-573-875-4668

   Call the NRC Branch Cell Phone
   9-1-817-917-1211.

2. When the Inspector calls back read the information from the SENTRY screen notification that was made to the State and the Counties. Record the person's name and the time when notified.

3. The NRC Operations Center MUST be notified of all Initial Emergency Classifications and changes in Emergency Classifications without delay. Use the ENS phone whenever possible, but a regular AmerenUE phone can be used, if necessary.

   a. Primary 9-1-301-816-5100

   b. Backups 9-1-301-951-0550
   9-1-301-415-0550
   9-1-301-415-0553

TSC (ENS) COMMUNICATOR PACKAGE

The TSC (ENS) Communicator will follow the instructions provided in **EIP-ZZ-00240**, TSC Operations, Attachment 6 [TSC Communicator (ENS) Checklist], versus using a flowchart.

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**

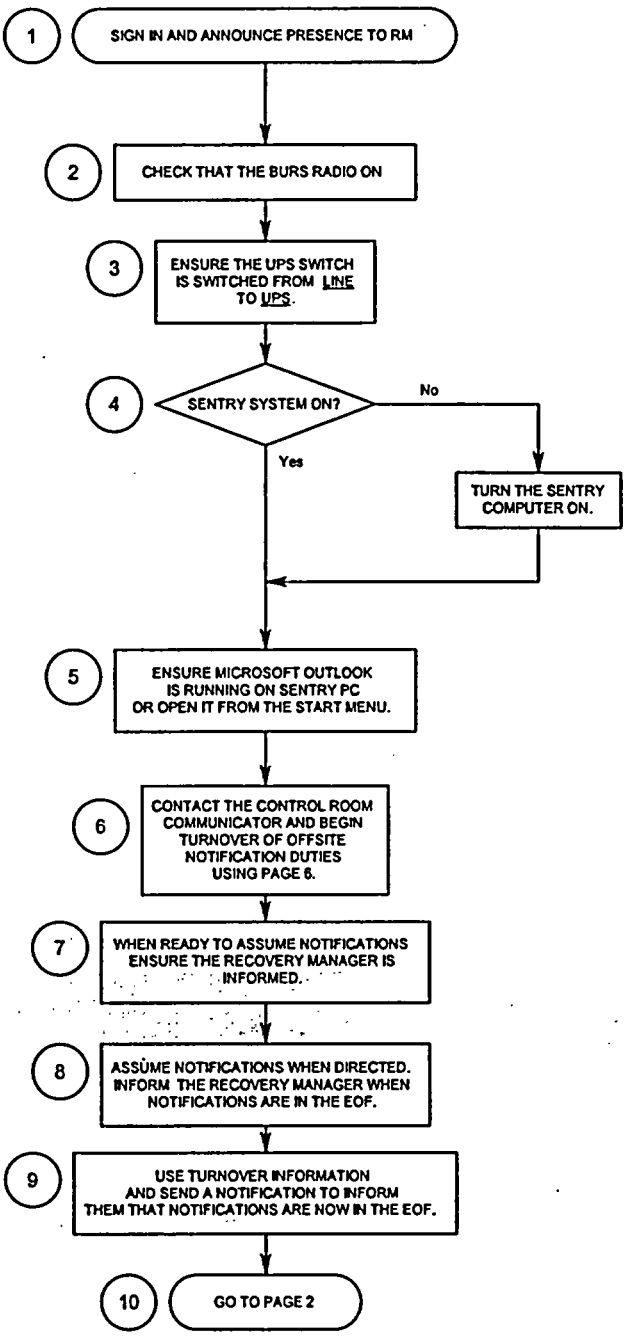
The assuming and transferring Communicator should discuss the following:

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

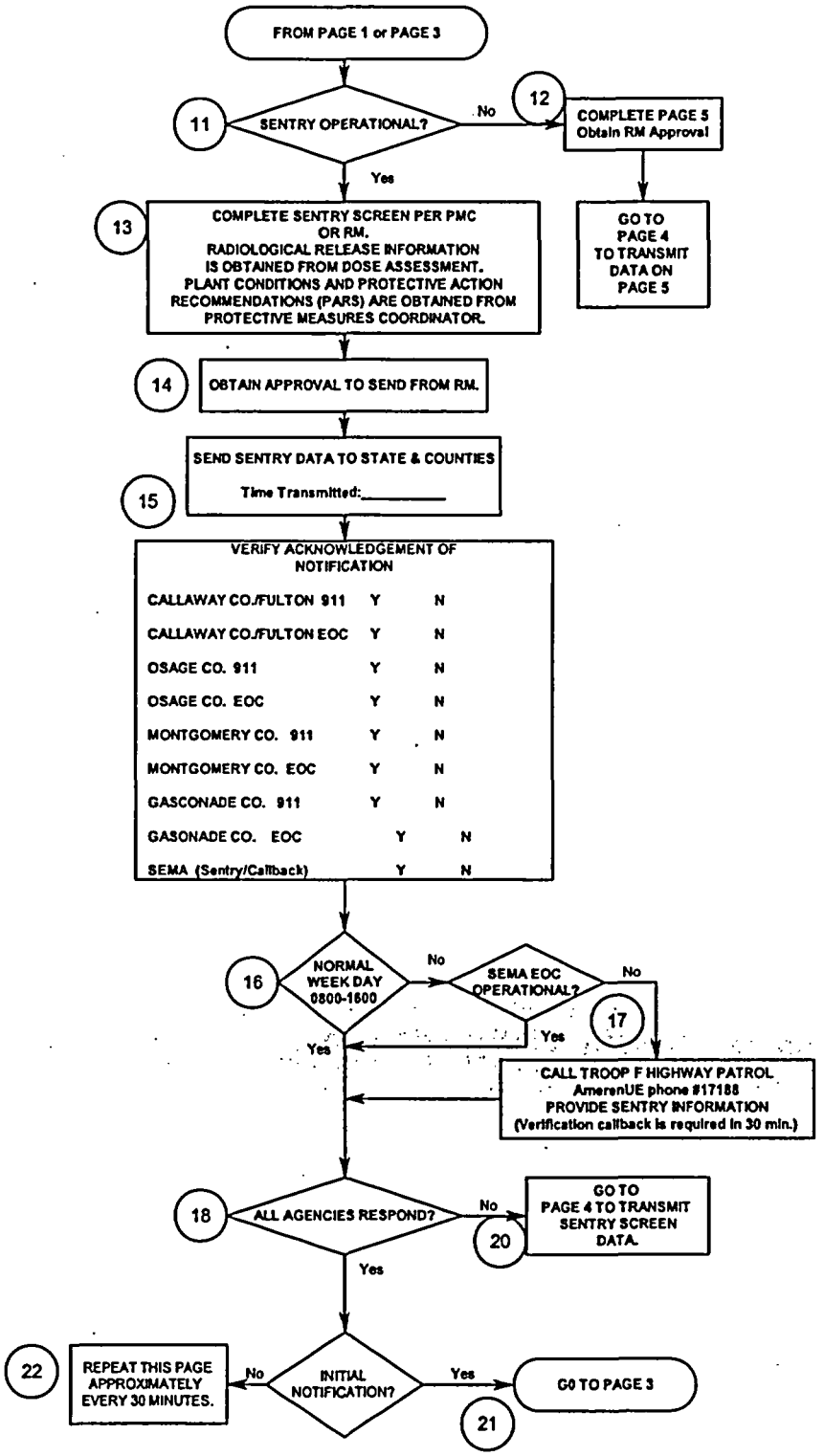
ACTIONS ON THIS PAGE ARE INITIAL STEPS AND SHOULD ONLY NEED TO BE COMPLETED ONCE.



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.

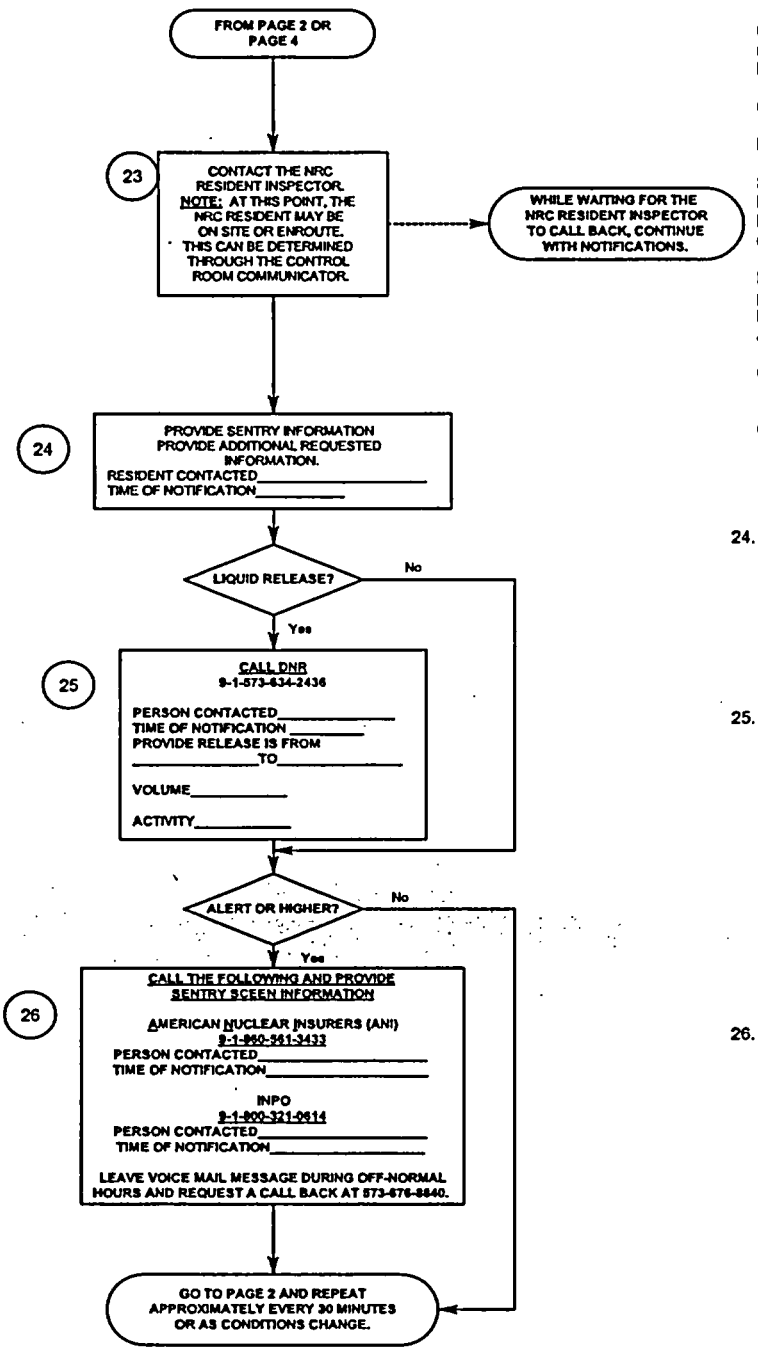
19. If all agencies acknowledged the notification, skip step 22.

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. Notification of the NRC Resident Inspector should be performed in the following sequence. **Continue the sequence until contact has been established then move to the next step.**

Contact the NRC Resident Inspector.
If not in the Control Room, call 68667 or page on Gaitronics.

Call the NRC Cell phone @ 9-1-573-356-4600.
Leave a message if no answer.

Call the Senior Inspector at home 9-1-573-256-7274.
Leave a message if no answer.

Send a page using Outlook to both Inspectors. Provide a brief message about the event. Request a verification callback to 573-676-8840 or to the Shift Supervisor @ 573-676-8234.

If Outlook paging is not available page the Inspectors by telephone.
Michael Peck - 9-1-573-808-9232
John Hanna - 9-1-573-808-9236

Call John Hanna at home.
9-1-573-875-4668

Call the NRC Branch Cell Phone
9-1-817-917-1211.

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

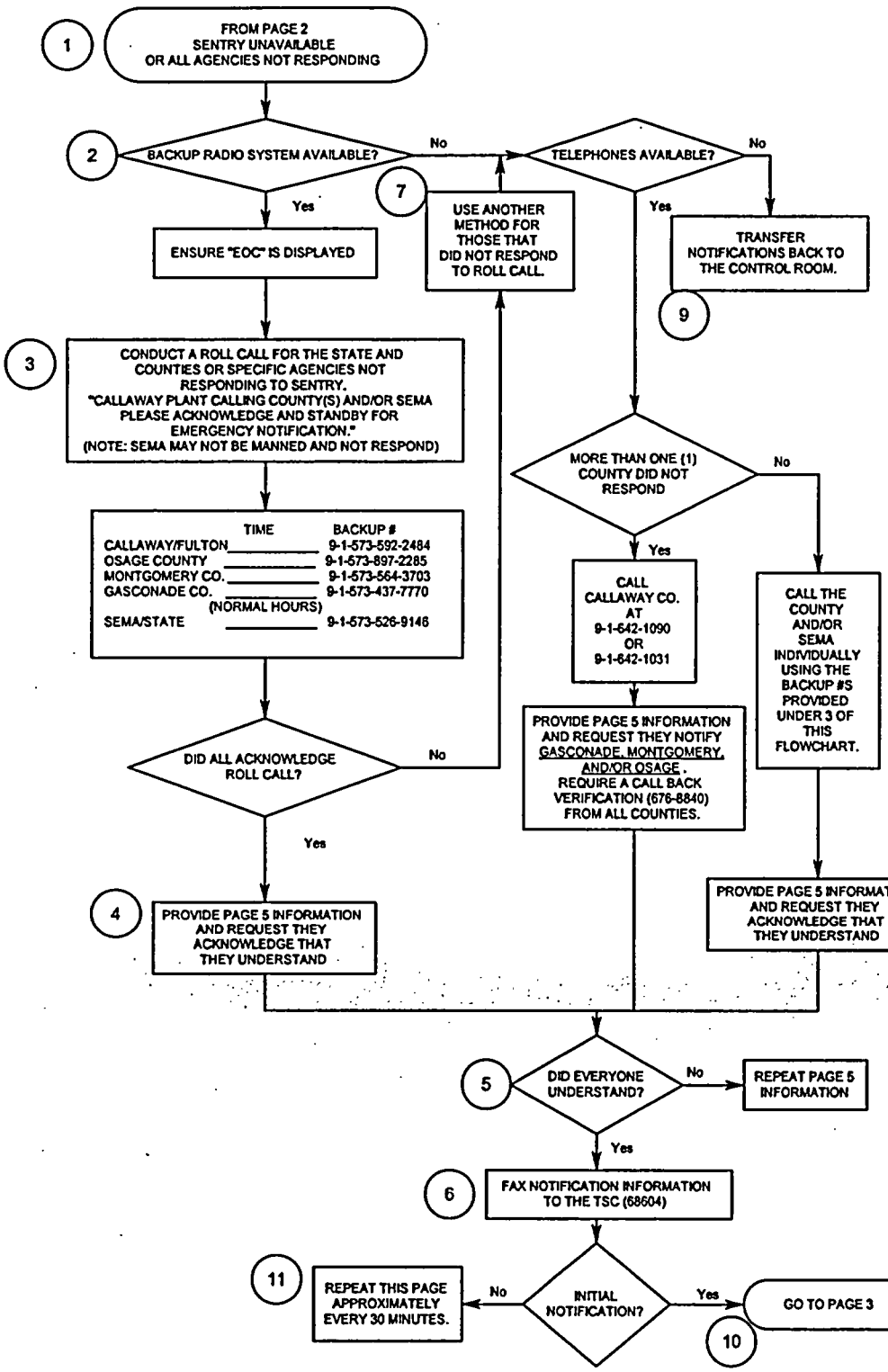
25. If the release is a liquid release, call the Department of Natural Resources and report the origin and destination of the release, if known, as well as the volume and activity.

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: (Yes/No)

2) EMERGENCY CLASSIFICATION:

3) DATE/TIME DECLARED: / / :

4) EMERGENCY ACTION LEVEL:

5)

6) REACTOR STATUS:

RELEASE STATUS:

8) RELEASE INFORMATION:

9)

10) RELEASE START TIME:

11) RELEASE DURATION: Hrs.

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

15) WIND SPEED:

PLUME ARRIVAL TIME:

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

PROTECTIVE ACTIONS:

19) PROTECTIVE ACTIONS RECOMMENDED: (Yes/No)

20) PROTECTIVE ACTION BASIS::

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

30) Additional Protective Actions:

PROJECTED DOSES:

31) PROJECTED DOSE BASIS:

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

ADDITIONAL NOTES:

40)

EC/RM APPROVAL:_____ COMMUNICATOR:_____

Distribution: *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 _____

CALLAWAY PLANT

EMERGENCY PLAN IMPLEMENTING PROCEDURE

EIP-ZZ-00260

EVENT CLOSEOUT/PLANT RECOVERY

RESPONSIBLE DEPARTMENT **EMERGENCY PREPAREDNESS**

PROCEDURE OWNER **W. R. Bevard**

WRITTEN BY **W. R. Bevard**

PREPARED BY **W. R. Bevard**

APPROVED BY Warren A. Witt

DATE ISSUED 12-8-03

This procedure contains the following:

Pages	1	through	7
Attachments	1	through	3
Tables		through	
Figures		through	
Appendices		through	
Checkoff Lists		through	

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

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

Non-T/S Commitments 010

TABLE OF CONTENTS

EVENT CLOSEOUT/PLANT RECOVERY

1 PURPOSE AND SCOPE

1.1 Provides guidelines for determining when Event Closeout can be declared.

1.2 Provides guidelines for directing plant recovery operations including:

- Determining when plant recovery can be declared.
- Establishing a recovery organization.
- Directing initial and long term recovery operations.

2 DEFINITIONS

2.1 Event Closeout - The condition declared after Emergency Action Level (EAL) specific criteria has been met and initiates the transition from emergency operations back to normal operations. Event closeout is typically declared after response to an Unusual Event or Alert has been completed.

2.2 Recovery - The condition declared after the immediate hazards to life and safety have been removed and the following conditions exist. **COMN 42504**

a. In-plant radiation levels are stable or decreasing with time,

b. The reactor is stable with adequate core cooling capability,

c. Release of radioactive materials to the environment are controlled and within Radioactive Effluent Controls limits,

d. Fire, natural events, security threats or other similar emergency conditions are under control and plant effects assessed.

Recovery is typically declared after response to a Site or General Emergency has been completed.

3 RESPONSIBILITIES

3.1 EMERGENCY COORDINATOR

3.1.1 Assesses plant conditions and determines when those plant conditions warrant the declaration of plant Recovery or Event Closeout. **COMN 42504**

3.2 RECOVERY MANAGER

3.2.1 Assumes overall command and control of Callaway Plant Recovery operations. Coordinates the recovery with the Manager, Callaway Plant and off-site organizations utilizing their input. **COMN 42488**

3.2.2 Ensures that Plant personnel and off-site authorities are informed when the emergency has been closed out or recovery declared, as appropriate. **COMN 3931**

3.2.3 Establishes a recovery organization capable of maintaining the plant in a stable condition and directs recovery operations, in an effort to restore the plant to normal operating conditions.

3.2.4 Ensures that Plant recovery operations which have a potential for affecting off-site recovery operations are coordinated with off-site authorities.

3.2.5 Provides off-site authorities with recommendations for off-site recovery activities.

3.2.6 Evaluates and approves/disapproves requests for Plant support for off-site recovery activities. **COMN 3933**

4 PROCEDURE

4.1 EVENT CLOSEOUT DECLARATION

4.1.1 Assess plant conditions using Attachment 1 to determine if Event Closeout should be implemented when the criteria for the applicable EAL(S) is(are) met. All EALS should be evaluated to ensure they are not exceeded before declaration of Event Closeout.

4.1.2 Notify site personnel of Event Closeout as follows:

4.1.2.1 Sound the plant emergency alarm

4.1.2.2 Announce the "Event Closeout" portion of Attachment 2 over the plant gai-tronics system.

4.1.2.3 Notify off-site agencies of the Event Closeout declaration in accordance with **EIP-ZZ-00201**, Notifications.

4.1.2.3.1 The Recovery Manager should provide a verbal summary of the event to the counties and SEMA upon closeout and extend an invitation to the ERT per the Event Review Team Checklist of **APA-ZZ-00542**, Event Review.

4.1.2.3.2 A written summary of the event should be provided to the counties and SEMA by Emergency Preparedness on the next working day.

4.1.3 Ensure that a CARS documenting the event which led to the emergency has been submitted in accordance with **APA-ZZ-00500**, Corrective Action Program.

4.1.4 Ensure that an in service inspection is conducted on all steam generators per the Callaway Plants' Technical Specifications, when any of the following have occurred:

a. Reactor Coolant System (RCS) to secondary tube leak greater than allowed by Technical Specification,

b. A seismic occurrence greater than Operating Basis Earthquake (OBE),

c. A Loss of Coolant Accident (LOCA) requiring activation of the Engineered Safety Features (ESF),

d. A Main Steam or Feedwater line break.

4.1.5 If the emergency was due to high winds/tornado hitting the plant site, ensure divers check the Ultimate Heat Sink (UHS) pond for debris.

4.2 PLANT RECOVERY DECLARATION

4.2.1 Assess plant conditions using Attachment 1 to determine if Plant Recovery can be declared when the criteria for the applicable EAL is met. All EALS should be evaluated to ensure they are not exceeded before declaration of Plant Recovery.

NOTE:	Review **APA-ZZ-00521**, Government Agency Interface Instructions, if a NRC Incident Investigation Team is mobilized.

4.2.2 Discuss with the NRC the intent to declare Plant Recovery prior to the declaration if possible. **COMN 42504**

4.2.3 Notify site personnel of 'Plant Recovery' as follows: **COMN 3934**

4.2.3.1 Sound the plant emergency alarm.

4.2.3.2 Announce the 'Plant Recovery' portion of Attachment 2 over the plant gai-tronics system.

4.2.4 Notify off-site agencies of the declaration of Plant Recovery in accordance with **EIP-ZZ-00201**, Notifications. **COMN 3934**

4.2.4.1 The Recovery Manager should provide a verbal summary of the event to the counties and SEMA upon declaration of plant recovery and extend an invitation to the ERT per the Event Review Team Checklist of **APA-ZZ-00542**, Event Review.

4.2.4.2 A written summary of the event should be provided to the counties and SEMA by Emergency Preparedness on the next working day.

4.2.5 Determine the staffing requirements necessary to support recovery operations. **COMN 3932**

4.3 RECOVERY ACTIONS

4.3.1 RECOVERY ORGANIZATION

4.3.1.1 As recovery operations commence, the Recovery Manager should use Attachment 3 as a basic structure for an organization to support on-site and off-site recovery operations. This organization can be modified as necessary to provide 24 hr/day operations as required.

4.3.2 SHORT TERM OBJECTIVES **COMN 42496**

4.3.2.1 Maintain the plant in a safe and stable condition.

4.3.2.1.1 Assign individuals to close out Emergency Plan Implementing Procedures as conditions allow. Modify/revise normal plant procedures as necessary to facilitate recovery operations.

4.3.2.1.2 Administrative controls imposed on normal operations should be maintained during the recovery phase as conditions allow. Procedures should be generated for each specific operation and maintenance evolution and be reviewed for nuclear safety concerns, personnel safety, and environmental impact by the Onsite Review Committee. **COMN 3974**

4.3.2.1.3 Ensure that applicable Limiting Conditions for Operations (LCO's) and surveillance requirements are complied with, to the extent practical, based on equipment availability and status and safety aspects of post-accident conditions.

4.3.2.2 Maintain control of the release of radioactive material to the environment within Radioactive Effluent Controls limits.

4.3.2.3 Maintain control of personnel exposures.

4.3.2.3.1 Exposure controls will be based upon ALARA considerations, plant conditions and 10CFR20 limits.

4.3.2.3.2 Establish reentry requirements for evacuated plant areas using **EIP-ZZ-00225**, Reentry, as guidance.

4.3.2.4 Maintain adequate communications with Federal, State and local agencies.

4.3.2.4.1 Provide Plant support to off-site agencies if requested (i.e. decontamination assistance, etc.).

4.3.2.4.2 The Plant will assist, if requested, the Department of Health (DOH) in evaluating and determining:

- The adequacy of existing off-site Protective Actions;
- The need for population relocation and/or return;
- The total population exposure due to radioactive releases from the plant. **COMN 42503**

4.3.2.5 Maintain adequate capability to provide timely and factual information to the general public.

4.3.3 LONG TERM OBJECTIVES **COMN 42497**

4.3.3.1 Restore the plant to its pre-emergency condition

4.3.3.1.1 Ensure that an in service inspection is conducted on all steam generators per the Callaway Plant's Technical Specifications, when any of the following have occurred:

- RCS to secondary tube leak greater than allowed by technical specification for operation.
- A seismic occurrence greater than OBE,
- A LOCA requiring activation of the engineered safety features,
- A main steam or feedwater line break.

4.3.3.2 If the emergency was due to high winds/tornado hitting the plant site, ensure divers check the UHS Pond for debris.

4.3.3.3 Provide for the Storage and/or Disposal of Waste Materials Generated During the Emergency and Recovery Phase.

4.3.3.4 Evaluate the Cause of the Emergency, Response to the Emergency and Potential Effects on Future Plant Operations.

5 FINAL CONDITIONS

5.1 The plant has been restored to a safe operating condition and responsibilities of the Emergency/Recovery Organization have been assumed by the normal plant organization.

6 REFERENCES

6.1 Callaway Plant Radiological Emergency Response Plan (RERP)

6.2 Callaway Plant Technical Specifications

6.3 **APA-ZZ-00500**, Corrective Action Program

6.4 **APA-ZZ-00521**, Government Agency Interface Instructions

6.5 **APA-ZZ-00542**, Event Review

6.6 **APA-ZZ-01003**, Off-site Dose Calculation Manual

6.7 **EIP-ZZ-00201**, Notifications

6.8 **EIP-ZZ-00225**, Reentry

6.9 10CFR20

7 RECORDS

None

EVENT CLOSEOUT/RECOVERY CRITERIA

The following table should be used as guidance to determine when an emergency classification (based on a specific Emergency Action Level) can be closed out or when recovery should be declared.

Group 1 ABNORMAL RADIATION EVENTS
Offsite Events

UNUSUAL EVENT	ALERT	SITE EMERGENCY	GENERAL EMERGENCY
A. Any Unplanned Release of Radioactivity to the Environment That Exceeds 2 Times the Radiological Effluent Control Limits in the ODCM, (APA-ZZ-01003) for ≥60 minutes. MODES: At All Times	B. Any Unplanned Release of Radioactivity to the Environment That Exceeds 200 Times the Radiological Effluent Control Limits in the ODCM, (APA-ZZ-01003) for ≥15 minutes. MODES: At All Times	C. EAB Dose Resulting From an Actual or Imminent Release of Gaseous Radioactivity Exceeds 100 mrem TEDE or 500 mrem CDE Thyroid for the Actual or Projected Duration of the Release. MODES: At All Times	D. EAB Dose Resulting From an Actual or Imminent Release of Gaseous Radioactivity Exceeds 1000 mrem TEDE or 5000 mrem CDE Thyroid for the Actual or Projected Duration of the Release. MODES: At All Times
Closeout: ODCM Effluent Control Limit action statements complied with.	**Closeout:** ODCM Effluent Control Limit action statements complied with.	**Recovery:** Refer to Section 4.2	**Recovery:** Refer to Section 4.2

EVENT CLOSEOUT/RECOVERY CRITERIA

Group 1 ABNORMAL RADIATION EVENTS
Onsite Events

UNUSUAL EVENT	ALERT	ALERT
E. An Unexpected Increase in Plant Radiation. MODES: At All Times	F. Major Damage to Irradiated Fuel or Loss of Water Level That Has or Will Result in the Uncovering of Irradiated Fuel Outside the Reactor Vessel. MODES: At All Times	G. Release of Rad Material, or an Increase in Rad Level that Either Impedes Safe Operations or the Ability to Establish or Maintain Cold Shutdown.
Closeout: Cause determined and radiation levels are controlled. Actions are in progress to reduce radiation levels.	**Closeout:** Fuel in a safe condition, no increasing radiation levels and water level restored.	**Closeout:** Cause determined and radiation levels are controlled. Actions are in progress to reduce radiation levels.

EVENT CLOSEOUT/RECOVERY CRITERIA

Group 2 FISSION PRODUCT BARRIERS

A. UNUSUAL EVENT	B. ALERT	C. SITE EMERGENCY	D. SITE EMERGENCY	E.GENERAL EMERGENCY
Any CONTAINMENT BARRIER Indicator	Any RCS BARRIER Indicator or Any FUEL CLAD BARRIER Indicator	Any RCS BARRIER Indicator Indicator and Any FUEL CLAD BARRIER	A CTMT BARRIER Loss Indicator and Any RCS or FUEL CLAD BARRIER Indicator	A Loss Indicator from any two barriers and Any Indicator from the third
MODES: 1-4	MODES: 1-4	MODES: 1-4	MODES: 1-4	MODES: 1-4
Closeout: Restore the Containment barrier	Closeout: Restore the RCS or FUEL CLAD BARRIER	Recovery: Refer to Section 4.2	Recovery: Refer to Section 4.2	Recovery: Refer to Section 4.2

EVENT CLOSEOUT/RECOVERY CRITERIA

Group 3 HAZARDS AFFECTING PLANT SAFETY
Security Events

UNUSUAL EVENT	ALERT	SITE EMERGENCY	GENERAL EMERGENCY
A. Confirmed Security Event Which Indicates a Potential Degradation in the Level of Safety of the Plant. MODES: At All Times	B. Security Event in the Plant Protected Area.	C. Security Event in a Safe Shutdown Area. MODES: At All Times	D. Security Event Resulting in a Loss of the Ability to Reach and Maintain Cold Shutdown. MODES: At All Times
Closeout: Event terminated.	**Closeout:** Event terminated.	**Recovery:** Refer to Section 4.2	**Recovery:** Refer to Section 4.2

EVENT CLOSEOUT/RECOVERY CRITERIA

Group 3 HAZARDS AFFECTING PLANT SAFETY

Fires

UNUSUAL EVENT	ALERT
E. Fire Within Protected Area Boundary Not Extinguished Within 15 Minutes of Verification. MODES: At All Times	F. Fire Affecting the Operability of Plant Safety Systems Required to Establish or Maintain Safe Shutdown. MODES: At All Times
Closeout: Fire extinguished.	**Closeout:** Fire extinguished and systems operable or Tech Spec actions complied with.

Natural Events

UNUSUAL EVENT	ALERT
G. Natural and Destructive Phenomena Affecting the Protected Area. MODES: At All Times	H. Natural and Destructive Phenomena Affecting a Safe Shutdown Area. MODES: At All Times
Closeout: Natural or destructive event terminated or controlled.	**Closeout:** Natural or destructive event terminated or controlled.

EVENT CLOSEOUT/RECOVERY CRITERIA

Group 3 HAZARDS AFFECTING PLANT SAFETY

Toxic Gas

UNUSUAL EVENT	ALERT
I. Release of Toxic or Flammable Gases Deemed Detrimental to Safe Operation of the Plant. MODES: At All Times	J. Release of Toxic or Flammable Gases Within a Facility Structure Which Jeopardizes Operation of Systems Required to Establish or Maintain Cold Shutdown. MODES: At All Times
Closeout: HAZARDOUS ATMOSPHERE eliminated.	**Closeout:** HAZARDOUS ATMOSPHERE eliminated.

Control Room Evacuation Events

ALERT	SITE EMERGENCY
K. Control Room Evacuation Has Been Initiated. MODES: At All Times	L. Control Room Evacuation Has Been Initiated and Plant Control Cannot Be Established. MODES: At All Times
Closeout: Control re-established in Control Room or plant is stable and shutdown with control at the Aux Shutdown panel.	**Recovery:** Refer to Section 4.2

EVENT CLOSEOUT/RECOVERY CRITERIA

Group 4 SYSTEM MALFUNCTIONS
Annunciator Events

UNUSUAL EVENT	ALERT	SITE EMERGENCY
A. Unplanned Loss of Most or All Alarms (Annunciators) for Greater Than 15 Minutes. MODES: 1-4	B. Unplanned Loss of Most or All Annunciators With Either a Transient In Progress, or the Plant Computer is Unavailable. MODES: 1-4	C. Inability to Monitor a Significant Transient in Progress. MODES: 1-4
Closeout: Alarms restored and compensated for.	**Closeout:** Alarms are restored and compensated for and The plant computer is restored or the transient is stabilized.	**Closeout:** Alarms are restored and compensated for and The plant computer is restored and The transient is stabilized.

EVENT CLOSEOUT/RECOVERY CRITERIA

Group 4 SYSTEM MALFUNCTIONS

Electrical Events (Operating)					Electrical Events (Shutdown)		
UNUSUAL EVENT	**ALERT**	**SITE EMERGENCY**	**SITE EMERGENCY**	**GENERAL EMERGENCY**	**UNUSUAL EVENT**	**UNUSUAL EVENT**	**ALERT**
D. Loss of All Offsite Power to Essential Busses for Greater Than 15 Minutes. MODES: 1-4	E. Only One AC Source to Essential Busses for >15 Minutes Such That Any Additional Single Failure Would Result in Station Blackout. MODES:1-4	F. Loss of All Offsite Power and Loss of All Onsite AC Power to Essential Busses. MODES: 1-4	G. Loss of All Vital DC Power MODES: 1-4	H. Prolonged Loss of All Offsite Power and Prolonged Loss of All Onsite AC Power. MODES: 1-4	I. Loss of Required DC Power During Cold Shutdown or Refueling Mode for Greater Than 15 Minutes. MODES: 5, 6	J. Loss of All offsite power to essential buses for greater than 15 minutes. MODES: 5, 6	K. Loss of All Offsite Power and Loss of All Onsite AC Power to Essential Busses During Cold Shutdown or Refueling. MODES: 5, 6
Closeout: When power is restored.	**Closeout:** When power is restored	**Recovery** Refer to Section 4	**Closeout:** When power is restored.	**Recovery** Refer to Section 4.2	**Closeout:** When power is restored.	**Closeout:** When power is restored.	**Closeout:** When power is restored.

EVENT CLOSEOUT/RECOVERY CRITERIA

Group 4 SYSTEM MALFUNCTIONS

Shutdown Capability

UNUSUAL EVENT	ALERT	SITE EMERGENCY	SITE EMERGENCY
L. Inability to Perform a Required Shutdown Within Technical Specification Limits. MODES: 1-4	M. Inability to Maintain Plant in Cold Shutdown. MODES: 5, 6	N. Loss of Water Level That Has or Will Uncover Fuel in the Reactor Vessel. MODES: 5, 6	O. Complete Loss of Function Needed to Achieve or Maintain Hot Shutdown. MODES: 1-4
Closeout: When the Tech. Spec. action statement is completed or exited.	**Closeout:** RHR, CCW and ESW restored and less than 200° on any valid incore thermocouple or Wide Range Hot Leg Indicator.	**Recovery:** Refer to Section 4.2	**Recovery:** Refer to Section 4.2

EVENT CLOSEOUT/RECOVERY CRITERIA

Group 4 SYSTEM MALFUNCTIONS

Communication Events	RCS/Fuel Events		Reactor Protection System		
UNUSUAL EVENT	**UNUSUAL EVENT**	**UNUSUAL EVENT**	**ALERT**	**SITE EMERGENCY**	**GENERAL EMERGENCY**
P. Unplanned Loss of All Onsite or Offsite Communication Capabilities MODES: 1-6	Q. Fuel Clad Degradation MODES: 1-6	R. RCS Leakage MODES: 1-4	S. Failure of Reactor Protection System Instrumentation to Complete or Initiate an Automatic Reactor Trip Once a Reactor Protection System Setpoint Has Been Exceeded and Manual Trip Was Successful. MODES: 1, 2	T. Failure of Reactor Protection System Instrumentation to Complete or Initiate an Automatic Reactor Trip Once a Reactor Protection System Setpoint Has Been Exceeded and Manual Trip Was **NOT** Successful. MODES: 1, 2	U. Failure of the Reactor Protection System to Complete an Automatic Trip and Manual Trip Was **NOT** Successful and There Is Indication of an Extreme Challenge to the Ability to Cool the Core. MODES: 1, 2
Closeout: When capability restored.	**Closeout:** When plant is in Hot Standby with Tave <500°F.	**Closeout:** When plant is in Cold Shutdown or leak isolated.	**Closeout:** When ES-0.1 completed.	**Recovery:** Refer to Section 4.2	**Recovery:** Refer to Section 4.2

EVENT CLOSEOUT/RECOVERY ANNOUNCEMENT

-- Sound the Plant Emergency Alarm --

ATTENTION ALL PERSONNEL! ATTENTION ALL PERSONNEL!

(Repeat All Announcements)

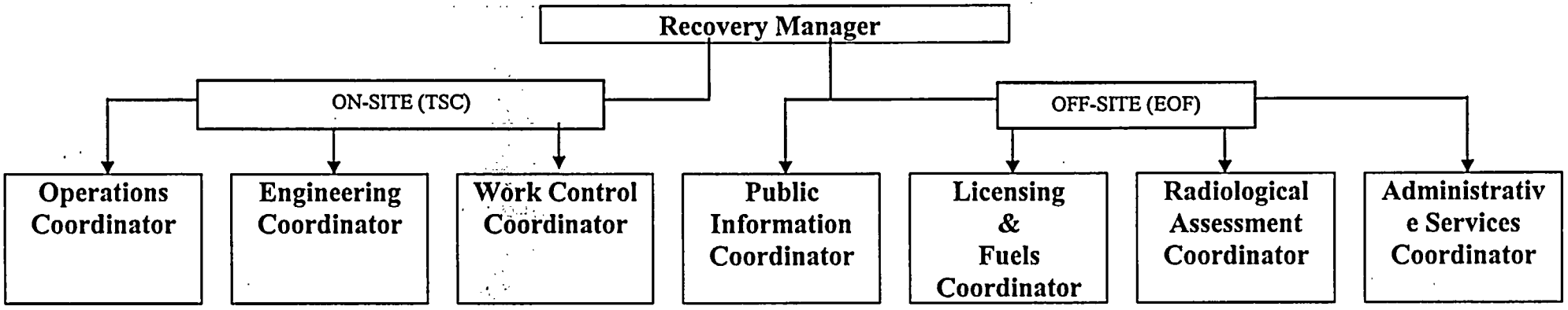
☐ CLOSEOUT OF EVENT

CLOSEOUT OF EVENT HAS BEEN DECLARED. ALL EMERGENCY RESPONSE PERSONNEL BEGIN DEACTIVATION OF EMERGENCY FACILITIES. ALL OTHER PERSONNEL RESUME NORMAL DUTIES.

☐ PLANT RECOVERY

PLANT RECOVERY HAS BEEN DECLARED. ALL EMERGENCY RESPONSE PERSONNEL REMAIN AT YOUR STATIONS AND AWAIT FURTHER INSTRUCTIONS.

RECOVERY ORGANIZATION



Operations Coordinator- responsible for day-to-day plant operations and coordinates recovery operations within the plant to ensure that modifications and repairs performed in a safe and competent manner. Requirements for reentry into affected and evacuated areas of the plant during recovery would be established by the operations coordinator and evaluated and approved by the recovery manager. **COMN 42489**

Engineering Coordinator- Responsible for providing and coordinating technical support to operations and recovery activities. This support includes core physics, thermal hydraulics, design activities, procedure development, and also ensuring that specifications for procurement of materials and equipment are met. **COMN 42490**

Work Control Coordinator- Responsible for normal and outage planning and scheduling activities to support recovery. **COMN 42491**

Public Information Coordinator- Appointed by corporate communications to assist the recovery manager and the recovery effort. The position need not be physically located at the plant site. **COMN 42492**

Licensing & Fuels Coordinator- Responsible for providing licensing and technical support to the recovery effort in areas of reactor systems and fuel related concerns. The licensing and fuels coordinator would also be the liaison between Ameren UE and the NSSS supplier, A/E, and other contractors. **COMN 42493**

Radiological Assessment Coordinator- Responsible for coordinating activities involving plant personnel or equipment, assisting the state department of health in estimating and assessing population exposure calculations, coordinating off-site sampling total population exposure calculations, and coordinating off-site sampling and analysis. **COMN 42494**

Administrative Services Coordinator- Responsible for ensuring that administrative, logistical, and personnel support is available to support recovery operations. **COMN 42495**