

DATE: 03/06/00
TIME: 08:14:06

AMEREN/UE
DOCUMENT CONTROL SYSTEM
DOCUMENT TRANSMITTAL

PAGE: 53
ARDC8801

TRANSMITTAL NUMBER: 436164
TO CONTROL NUMBER: 338U
TITLE: OTHER
DEPT: NUCLEAR REGULATORY COMM.
LOCATION: USNRC - WASH DC
TRANSMITTAL DATE: 20000306

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SUPERSEDED DOCUMENTS (IF APPLICABLE) TO: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

TRAN	DOC			RET		ALT	ALT				
CODE	TYPE	DOCUMENT	NUMBER	REV	REV	MED	COPY	MED	COPY	AFFECTED	DOCUMENT
R	PROC	EIP-ZZ-A0001		003	002	C	1				
R	PROC	EIP-ZZ-00212		017	016	C	1				
D	PROC	00-0024			016	C	1			EIP-ZZ-00212	
R	PROC	EIP-ZZ-00226		004	003	C	1				
R	PROC	EIP-ZZ-00231		008	007	C	1				
R	PROC	EIP-ZZ-00240		024	023	C	1				
D	PROC	99-0371			023	C	1			EIP-ZZ-00240	
D	PROC	00-0047			023	C	1			EIP-ZZ-00240	
D	PROC	00-0087			023	C	1			EIP-ZZ-00240	

ACKNOWLEDGED BY:

DATE:

A045

CALLAWAY PLANT
EMERGENCY PLAN IMPLEMENTING PROCEDURE
EIP-ZZ-A0001
EMERGENCY RESPONSE ORGANIZATION

RESPONSIBLE DEPARTMENT Emergency Preparedness

PROCEDURE OWNER S. J. Crawford

WRITTEN BY S. J. Crawford

PREPARED BY S. J. Crawford

APPROVED BY *R. J. [Signature]*

DATE ISSUED 3-6-00

This procedure contains the following:

Pages	<u>1</u>	through	<u>5</u>
Attachments	<u>1</u>	through	<u>1</u>
Tables	<u> </u>	through	<u> </u>
Figures	<u> </u>	through	<u> </u>
Appendices	<u> </u>	through	<u> </u>
Checkoff Lists	<u> </u>	through	<u> </u>

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

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

ITS Commitments 003 Non-T/S Commitments

**ORIGINAL
for the NRC**

TABLE OF CONTENTS

<u>Section</u>		<u>Page Number</u>
1	PURPOSE AND SCOPE	1
2	DEFINITIONS	1
3	PROCEDURE	2
4	REFERENCES	4
5	RECORDS	5
Attachment 1	Emergency Response Organization Maintenance Form, CA-#2448	2 Pages

EMERGENCY RESPONSE ORGANIZATION

1 PURPOSE AND SCOPE

1.1 PURPOSE/SCOPE

This procedure defines administrative and maintenance expectations of the Emergency Response Organization.

2 DEFINITIONS

- 2.1 “As Needed” Personnel – Emergency Response Personnel identified as “as needed” on Table 5 of the **RERP**. Notified to respond by manual callout conducted by their respective coordinator.
- 2.2 Emergency Response Personnel – Pre-designated personnel, in addition to Rapid Responders, who staff the Emergency Response Facilities to make them capable of fulfilling all intended emergency functions. Emergency Response Personnel may be duty or non-duty responders.
- 2.3 Duty Responders – Emergency Response Personnel designated for rotating on-call coverage scheduled around the clock to ensure response during off-normal working hours.
- 2.4 Emergency Response Organization - An organization that has been established to provide technical and logistical direction in the event of a radiological emergency declaration at the Callaway Plant. This organization is structured to provide Plant control and coordination of on-site response, coordination of off-site response and dissemination of information to the public.
- 2.5 Emergency Response Organization Staffing Levels – The desired staffing level for the Emergency Response Organization is to maintain six (6) individuals qualified in each emergency response position identified in the Radiological Emergency Response Plan. The minimum staffing level is three (3) qualified individuals per position.

- 2.6 Emergency Telephone Directory – A document published and distributed quarterly, containing the telephone numbers of the Plant’s Emergency Response Facilities (ERFs), off-site emergency telephone numbers, and phone numbers of individuals by position of the Emergency Response Organization.
- 2.7 Mobilization – The process of staffing the Emergency Response Facilities with the Emergency Response Organization. This includes announcements over Plant Gai-tronics System and activation of the Cellular Paging System.
- 2.8 Non-Duty Responders – Designated Emergency Response Personnel that are not on a duty schedule but are expected to respond to emergency pages at all times if fit-for-duty and within the response goal times.
- 2.9 Rapid Responders – Pre-designated Duty Responders assigned to staff the Technical Support Center and the Emergency Operations Facility sufficiently to relieve Control Room personnel of emergency functions not directly related to operation of the Plant. Rapid Responders are designated on a rotating basis to be available for mobilization via the Cellular Paging System. When designated on duty, personnel remain fit for duty and within their designated response time of the Plant.

3 PROCEDURE

3.1 EMERGENCY RESPONSE ORGANIZATION (ERO)

Mobilized at the ALERT or higher emergency classification or when deemed necessary by the Shift Supervisor. The ERO augments the on-shift operating organization and consists of the Rapid Responders and Designated Emergency Response Personnel.

3.1.1 Responsibilities of Emergency Response Organization (ERO) members:

3.1.1.1 Maintaining qualifications and requalifications as per **EIP-ZZ-A0066**, RERP Training Program.

3.1.1.2 Informing Emergency Preparedness Department as per **APA-ZZ-00902**, Employee Personnel Changes, Termination, and/or Access Withdrawal, of terminating employment at the Callaway Plant or circumstances that would no longer allow participation as an ERO member.

3.1.1.3 Participating in required tests, drills, and exercises.

NOTE: When paged by the Plant for an Emergency, instructions are displayed on the pager. Any Group Pages that do not display Emergency Response Organization instructions should be disregarded. (SOS 98-2824)

3.1.1.3.1 A **TEST** requires a phone call to the emergency Audix.

3.1.1.3.2 A **DRILL** requires a call to the emergency Audix plus actual response to your designated Emergency Response Facility.

3.1.1.3.3 An **EMERGENCY** requires the same response as a **DRILL**.

3.1.2 Responsibilities of Duty Responders:

3.1.2.1 Wear or maintain assigned pager within hearing range at all times.

3.1.2.2 Maintain the duty cellular phone (if assigned) available for use at all times.

3.1.2.3 Remain “fit for duty” as specified in Callaway Plant Policies and Procedures.

3.1.2.4 Maintain ability to respond to the respective Emergency Response Facility within their response time goal, as specified in the RERP.

3.1.2.5 Respond to paging instructions safely and immediately.

3.1.2.6 Ensure duty exchange and turnover is verbal in all cases.

3.1.2.7 Emergency Preparedness should be notified of trades involving one week or greater so the duty schedule can be updated.

3.1.2.8 Rapid Responders responding to the EOF should be in possession of a key to the EOF to allow quick access.

3.1.3 Responsibilities of Non-Duty Responders:

NOTE: Non-Duty Responders are considered emergency responders at all times. Exceptions are when the responder is not fit for duty, sick, on vacation, or out of the response area.

3.1.3.1 The responder is expected to maintain assigned pager within hearing range at all times.

3.1.3.2 Follow the instructions displayed on the pager in a safe and immediate manner.

3.2 MAINTAINING THE EMERGENCY RESPONSE ORGANIZATION

3.2.1 Emergency Preparedness (EP)

3.2.1.1 Is responsible for the overall maintenance of the Emergency Response Organization.

3.2.1.2 Publishes and distributes the Emergency Telephone Directory per the Surveillance program.

3.2.1.3 Ensures minimum staffing levels of the Emergency Response Organization is maintained by using Emergency Response Organization Maintenance Form, Attachment 1.

3.3 MAINTENANCE OF THE EMERGENCY RESPONSE ORGANIZATION DURING REFUEL OUTAGE PERIODS

3.3.1 Approximately sixty days prior to a refuel outage, Emergency Preparedness and Outage Scheduling reviews the outage organization.

3.3.2 Emergency Response Organization Positions are identified with outage positions or qualified personnel to ensure round the clock coverage for the Emergency Response Organization during refuel outages.

4 REFERENCES

4.1 10CFR26, Fitness for Duty

4.2 10CFR50.47, Emergency Plans

4.3 10CFR50 Appendix E, Emergency Planning and Preparedness for Production and Utilization

4.4 Callaway Plant Radiological Emergency Response Plan (RERP)

- 4.5 NRC Reg Guide 1.101, Emergency Planning and Preparedness for Nuclear Power Reactors
- 4.6 NUREG 0654/FEMA-REP-01, Revision 1, November 1980
- 4.7 **APA-ZZ-00902**, Employee Personnel Changes, Termination, and/or Access Withdrawal
- 4.8 **EIP-ZZ-A0066**, RERP Training Program

5 RECORDS

5.1 Q. A. Records

None

5.2 Commercial Records

- 5.2.1 Emergency Response Organization Maintenance Form, CA-#2448 (File Number K250.0010)

EMERGENCY RESPONSE ORGANIZATION MAINTENANCE FORM

NAME	SOCIAL SECURITY NUMBER
EMERGENCY RESPONSE POSITION	ERO CODE

ADDITION

____ 1. Does the individual have a color vision impairment? Yes No
INITIAL

NOTE: If color vision impairment is identified by the individual, Fitness for Duty Nurses will evaluate to determine if the impairment would prevent the individual from performing Emergency Response Organization duties. (SOS 97-0904)

____ 2. ERO Code added to Personnel Database.
INITIAL

____ 3. Qualified for Emergency Position per **EIP-ZZ-A0066**.
INITIAL

____ 4. Emergency Response Organization Listing updated on the EP Intranet Page.
INITIAL

____ 5. Pager assigned. Number _____
INITIAL

____ 6. Schedule a drill observation (preferred) or walk-through of the Emergency Response Facility with a qualified individual, Training Department, or Emergency Preparedness Department. (SOS 98-3843)
INITIAL

I have read and understand the expectations pertaining to my ERO position.

Signature, ERO Member

DELETION

____ 1. ERO Code removed from Personnel Database.
INITIAL

____ 2. Emergency Response Organization Listing updated on the EP Intranet Page.
INITIAL

____ 3. Pager and/or cellular telephone returned.
INITIAL

EMERGENCY RESPONSE ORGANIZATION

EXPECTATIONS

General

ALL Emergency Response Organization (ERO) personnel are responsible for:

- Attending scheduled RERP training to maintain qualifications in accordance with **EIP-ZZ-A0066**.
- Participating in RERP Tests, Drills, and Exercises, as either a player or controller.
- Notifying the Emergency Preparedness department if their ERO pager or cellular phone (if assigned) is lost or needs repair.
- Notifying the Emergency Preparedness department if ERO responsibilities can no longer be filled.
- Contract personnel **MUST** meet the requirements of a separate agreement.

Duty Section Personnel

ALL Rapid Responders, and individuals assigned other ERO positions with assigned Duty Sections, are expected to meet the below requirements when **ON DUTY**:

- Wear and maintain their assigned pagers at all times.
- Carry and maintain the duty cellular phone (if assigned) at all times.
- Be in possession of a key to the EOF for quick access (EOF Rapid Responders only).
- Remain "fit for duty" as specified in Callaway Plant Policies and Procedures.
- Maintain the ability to respond to their respective Emergency Response Facility within the response time goal, as specified in the RERP.
- Respond to paging instructions safely and immediately.
- When assuming or being relieved of Duty, turnover **WILL** be verbal in **ALL** cases.
- When trading duty for periods of one week or greater, contact the Emergency Preparedness department so that the Duty Schedule can be updated on the LAN.

Non-Duty Section Personnel

All personnel assigned to Non-Duty Section ERO positions are expected to meet the below requirements at all times (exceptions to these expectations are when individuals are not fit for duty, sick, on vacation, or out of the response area):

- Wear and maintain their assigned pagers at all times.
- Respond to paging instructions safely and immediately.

CALLAWAY PLANT
EMERGENCY PLAN IMPLEMENTING PROCEDURE
EIP-ZZ-00212
PROTECTIVE ACTION RECOMMENDATIONS

RESPONSIBLE DEPARTMENT Emergency Preparedness

PROCEDURE OWNER Paul J. Sudnak

WRITTEN BY Paul J. Sudnak

PREPARED BY Paul J. Sudnak

APPROVED BY *R Offelt*

DATE ISSUED 3-6-00

This procedure contains the following:

Pages	<u>1</u>	through	<u>6</u>
Attachments	<u>1</u>	through	<u>3</u>
Tables	<u> </u>	through	<u> </u>
Figures	<u> </u>	through	<u> </u>
Appendices	<u> </u>	through	<u> </u>
Checkoff Lists	<u> </u>	through	<u> </u>

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

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

ITS Commitments Non-T/S Commitments 017

ORIGINAL
for the NRC

TABLE OF CONTENTS

<u>Section</u>		<u>Page Number</u>
1	PURPOSE AND SCOPE	1
2	DEFINITIONS	1
3	RESPONSIBILITIES	2
4	INITIATING CONDITIONS	3
5	PROCEDURE	4
6	FINAL CONDITIONS	6
7	REFERENCES	6
8	RECORDS	6
Attachment 1 - PAR Flowchart		1 Page
Attachment 2 - Plume Arrival Time		1 Page
Attachment 3 - Evacuation Times and Population Densities		1 Page

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.

<p><u>NOTE:</u> 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.</p>

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.

<p><u>NOTE:</u> Protective Action Recommendations should only be upgraded, never downgraded to a lesser Protective Action Recommendation.</p>
--

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. **SOS 99-0240**

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 should be recommended for sectors that cannot be evacuated prior to plume arrival.

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.

<p><u>NOTE:</u> Offsite authorities may decide to continue previously implemented offsite protective actions until more information becomes available.</p>
--

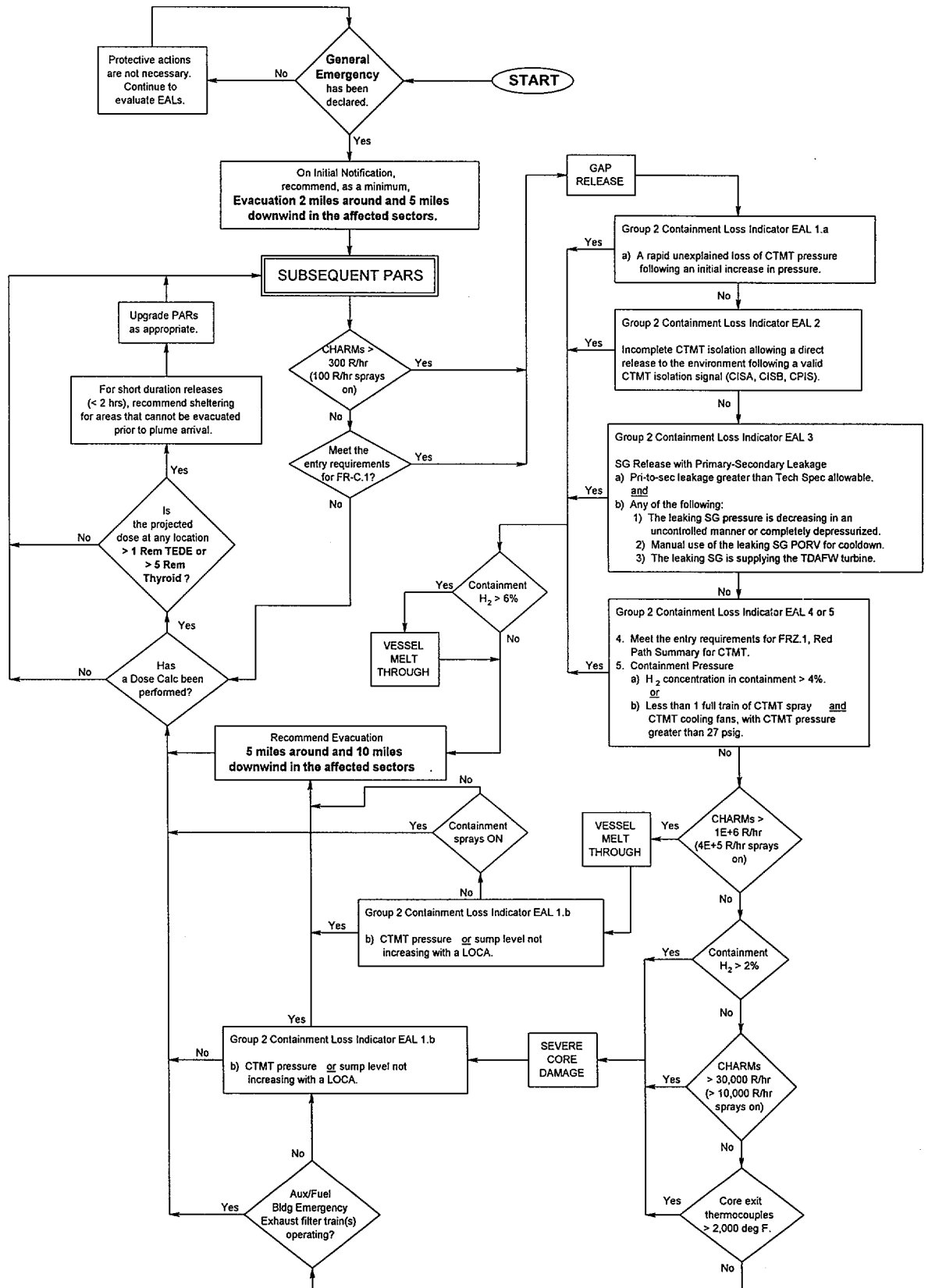
7 REFERENCES

- 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 **EIP-ZZ-00101**, Classification of Emergencies
- 7.4 **EIP-ZZ-00102**, Emergency Implementing Actions
- 7.5 **EIP-ZZ-00201**, Notifications
- 7.6 **EIP-ZZ-01211**, Management Action Guides For Nuclear Emergencies (MAGNEM)

8 RECORDS

None

PAR FLOWCHART



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.

CALLAWAY PLANT
EMERGENCY PREPAREDNESS

EIP-ZZ-00226

FIRE RESPONSE PROCEDURE FOR CALLAWAY PLANT

RESPONSIBLE DEPARTMENT PROTECTIVE SERVICES

PROCEDURE OWNER K. J. BRUCKERHOFF

WRITTEN BY K. J. BRUCKERHOFF

PREPARED BY K. J. BRUCKERHOFF

APPROVED BY *[Signature]*

DATE ISSUED 3-6-00

This procedure contains the following:

Pages	<u>1</u>	through	<u>8</u>
Attachments	<u>1</u>	through	<u>3</u>
Tables	<u> </u>	through	<u> </u>
Figures	<u> </u>	through	<u> </u>
Appendices	<u> </u>	through	<u> </u>
Checkoff Lists	<u> </u>	through	<u> </u>

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

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

ITS Commitments Non-T/S Commitments 4

**ORIGINAL
for the NRC**

TABLE OF CONTENTS

<u>Section</u>		<u>Page Number</u>
1	PURPOSE AND SCOPE	1
2	PROCEDURE	2
2.1	PERSONNEL ACTIONS UPON DISCOVERY OF A FIRE	2
2.2	ACTIVATING THE FIRE BRIGADE	3
2.3	FIRE BRIGADE (FSAR 9.5.1.9 FSAR 9.5.1.12, FSAR 9.5.1.13)	3
2.4	SUPPORT PERSONNEL	4
3	INFREQUENT ACTION	7
3.1	SUPPORTING OFF-SITE FIRE DEPARTMENTS	7
3.2	CALLOUT OF ADDITIONAL FIRE BRIGADE MEMBERS	8
4	RECORDS	8
5	REFERENCES	8
Attachment 1	Shift Supervisor/Fire Brigade Leader Flowchart For Fire Response	7 Pages
Attachment 2	Actions of Plant Personnel Upon Discovery of A Fire	1 Page
Attachment 3	Fire Brigade Incident SOS	1 Page

FIRE RESPONSE PROCEDURE FOR CALLAWAY PLANT

1 PURPOSE AND SCOPE

1.1 PURPOSE

This procedure establishes the proper actions and duties of all plant personnel upon discovery of a fire and the methods for handling a fire at the Callaway Plant.

1.2 SCOPE

1.2.1 Establishes the responsibilities and actions of plant personnel when confronted with a fire at the Callaway Plant.

1.2.2 Establishes the process for obtaining support from off-site fire departments and off-duty Fire Brigade members.

2 PROCEDURE

This section describes the actions to be taken by plant personnel, Fire Brigade members, and Fire Brigade support personnel in the event of a fire at the Callaway Plant.

2.1 PERSONNEL ACTIONS UPON DISCOVERY OF A FIRE

CAUTION: The presence of a fire should be reported to the Control Room prior to taking any action to extinguish the fire. Attempts by untrained individuals to extinguish any fire should be limited to the safe use of fire extinguishers.

NOTE: The SS/OS should initiate Attachment 1 immediately upon report of a fire.

2.1.1 Reporting (FSAR 9.5.1.9)

Upon discovery of a fire by plant personnel, the following actions **SHALL** be taken (See Attachment 2):

2.1.1.1 Upon contacting Control Room, personnel calmly report the following:

- The exact location of the fire, including building, elevation and room number or name if known.
- State the nature and size of fire.
- State your name.
- Report any injuries associated with the fire.

2.1.1.2 After supplying the Control Room with the above information, the employee should answer any questions the Control Room may have and wait until the Control Room breaks contact or hangs up.

2.2 ACTIVATING THE FIRE BRIGADE

2.2.1 Control Room personnel **SHALL** implement actions in Attachment 1. (**FSAR 9.5.1.9**)

<p><u>NOTE:</u> If the fire is immediately extinguished, callout of the Fire Brigade may not be necessary. However, the flow charts in Attachment 1 should be reviewed for applicability.</p>

2.3 FIRE BRIGADE
(**FSAR 9.5.1.9 FSAR 9.5.1.12, FSAR 9.5.1.13**)

2.3.1 FIRE BRIGADE LEADER

The Fire Brigade Leader, upon hearing the plant fire or emergency alarm and announcement of the emergency location **SHALL** perform the actions as listed in Attachment 1 of this procedure.

2.3.2 Assistant Fire Brigade Leader

2.3.2.1 The Assistant Fire Brigade Leader, upon hearing the fire or emergency alarm and announcement of the emergency location **SHALL** perform actions as listed in Attachment 1 of this procedure.

2.3.2.2 Assume the role of Incident Commander if the Fire Brigade Leader fails to arrive or is incapacitated.

2.3.2.3 Implement the Fire Brigade Leaders tactical directions.

2.3.3 Remaining Fire Brigade Members

2.3.3.1 The remaining Fire Brigade members upon hearing the fire or emergency alarm and announcement of the emergency location **SHALL** perform actions as listed in Attachment 1 of this procedure.

2.3.4 Unassigned Fire Brigade Personnel

2.3.4.1 After hearing the plant fire or emergency alarm and dispatch of the Fire Brigade, Operations Department personnel not assigned to the Fire Brigade should proceed to the Control Room or as directed by the Control Room Supervisor.

2.3.4.2 Other Fire Brigade personnel who are on duty and not involved in emergency duties should listen to follow-up plant announcements and respond, if additional support is requested.

2.4 SUPPORT PERSONNEL

2.4.1 Health Physics (HP)

2.4.1.1 When a fire is reported with the potential for radiological contamination, a HP Technician should perform actions as instructed in **HTP-ZZ-05006**, Fire Involving Radioactive Material or entry into the RCA

2.4.1.2 Personnel should perform duties and advise the Fire Brigade Leader on radiological hazards associated with the fire and fire fighting efforts.

2.4.1.3 Personnel should coordinate with on-duty Health Physics supervision to ensure that sufficient quantities of SCBA bottles are available.

2.4.2 Mert Leader

2.4.2.1 The MERT Leader should respond to Fire Brigade evolutions upon receipt of the plant announcement to standby and assist the Fire Brigade Leader with any medical problems.

2.4.3 Security Force (FSAR 9.5.1.9)

2.4.3.1 Upon hearing the plant fire alarm, a Shift Security Supervisor or Shift Security Assistant Supervisor should, if possible, report to the fire scene to assist the Fire Brigade Leader.

2.4.3.2 Personnel from the Security Force **SHALL** aid Fire Brigade members in gaining access to the fire location, if requested.

2.4.3.3 Personnel from the Security Force should provide transportation of Fire Brigade and support personnel to the fire scene, as needed.

- 2.4.3.4 If requested by the Fire Brigade Leader, available Security personnel should bring additional fire fighting equipment (such as hose, nozzles, spare air bottles, etc.) to the Command Post.
- 2.4.3.5 Personnel from the Security Force should establish and control a staging area for off-site fire department vehicles and personnel. The initial responding personnel should be met at staging areas identified on **8600-X-88100** .
- 2.4.3.6 Personnel should notify the Incident Commander when requested off-site fire department personnel have arrived on-site.
- 2.4.3.7 Security personnel should escort the senior off-site fire department officer to the Command Post.
- 2.4.3.8 Security personnel should escort the other off-site fire department personnel as directed by the Incident Commander.
- 2.4.3.9 Security Force personnel **MUST** advise the Incident Commander that a fire or explosion of suspicious or unknown origin within the isolation zone, protected or vital area is reportable.
- 2.4.4 Chemistry Technicians
- 2.4.4.1 When a fire or emergency is reported with the potential for involvement with confined spaces, or hazardous atmosphere and as requested by the Incident Command through the Control Room, the Chemistry Technician should report to the Command Post and check in with the Incident Commander.
- 2.4.4.2 Personnel should perform those duties, such as atmospheric hazard sampling as requested by the Incident Commander and provide technical support regarding the chemical incident.
- 2.4.5 Safety Supervisor
- 2.4.5.1 When a fire or emergency is reported and, as available, the Safety Supervisor should report to the Command Post and check in with the Incident Commander.
- 2.4.5.2 The Safety Supervisor should perform an over-site inspection of the emergency scene and confer with the Incident Commander on effective safety practices and/or concerns.

- 2.4.5.3 The Safety Supervisor should assist the Incident Commander in establishing effective safety practices and/or mitigating safety problems as the emergency conditions warrant.
- 2.4.6 Site Nurse
 - 2.4.6.1 When a fire is reported and, as available, the Site Nurse should report to the Command Post and check in with the Incident Commander.
 - 2.4.6.2 The Site Nurse should stand by to assist with medical problems or Fire Brigade rehabilitation.
- 2.4.7 Engineering Duty Supervisor/Technical Assessment Coordinator
 - 2.4.7.1 Provide engineering resources as needed to address fire and recovery from the event.
- 2.4.8 Fire Protection Engineer
 - 2.4.8.1 When a fire is reported and, as available, the plant Fire Protection Engineer, or his backup, should report to the Command Post and check in with the Incident Commander.
 - 2.4.8.2 The plant Fire Protection Engineer, or his backup, should stand by to assist the Incident Commander with fire protection system concerns or problems.
- 2.4.9 Others
 - 2.4.9.1 When a fire is reported and as requested by the Incident Commander through the Control Room, other support personnel should proceed to the Command Post and check in with the Incident Commander.
 - 2.4.9.2 They should perform those duties as requested by the Incident Commander.

2.4.10 Off-Site Fire Department Personnel

2.4.10.1 To request off-site fire department assistance, perform the following:

2.4.10.1.1 Call the Callaway County EOC in accordance with **OOA-QF-00001** and request fire fighting support for a fire at Callaway Plant. EOC personnel will notify the appropriate departments.

2.4.10.1.2 Equipment and personnel should be staged at the site established on **8600-X-88100** or as directed by Security. Security should direct all arriving off-site assistance to the staging area.

2.4.10.1.3 The senior off-site fire department officer should proceed to the Command Post and check in with the Incident Commander.

2.4.10.1.4 Off-site fire fighters are required to use their own department's SCBA equipment. Replacement SCBA bottles, if needed, will be provided by the plant, provided they are compatible.

3 INFREQUENT ACTION

3.1 SUPPORTING OFF-SITE FIRE DEPARTMENTS

3.1.1 Water can be supplied to off-site fire departments if they are responding to an actual fire emergency.

3.1.2 The Control Room **MUST** be notified by Security personnel that water will be taken in support of a local fire emergency.

3.1.3 Water should be obtained from the hydrant (S-KC1-0005C) across from the Training Center.

NOTE:

The Control Room has the authority to deny access to the plant fire water system for reasons such as the system being out of service or the system being in service in response to an in-plant emergency.

3.1.4 The Control Room should be notified when there is no need for further water from the plant fire water system.

3.2 CALLOUT OF ADDITIONAL FIRE BRIGADE MEMBERS

- 3.2.1 Additional Fire Brigade members will be called out using the Emergency Telephone Directory.

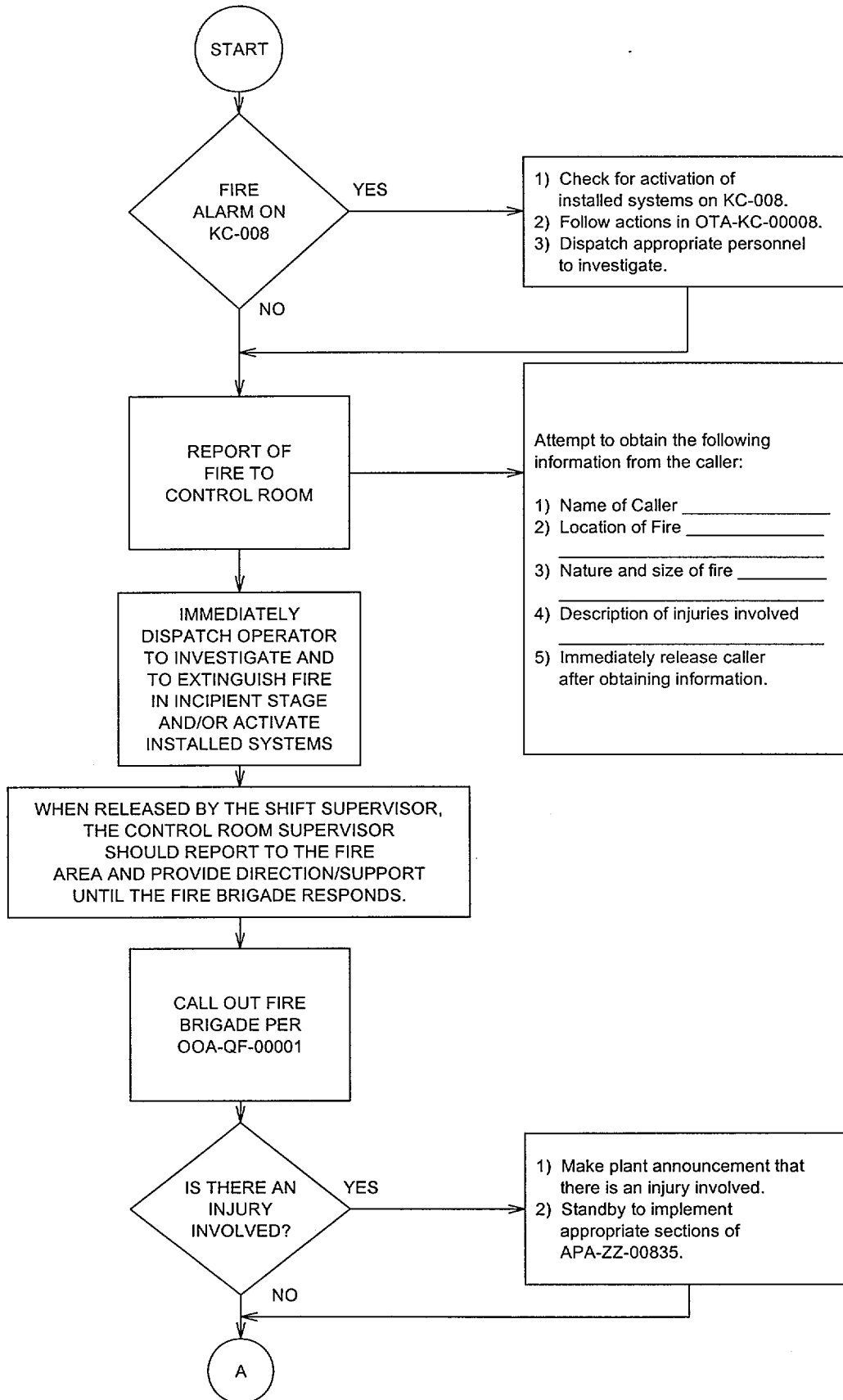
4 RECORDS

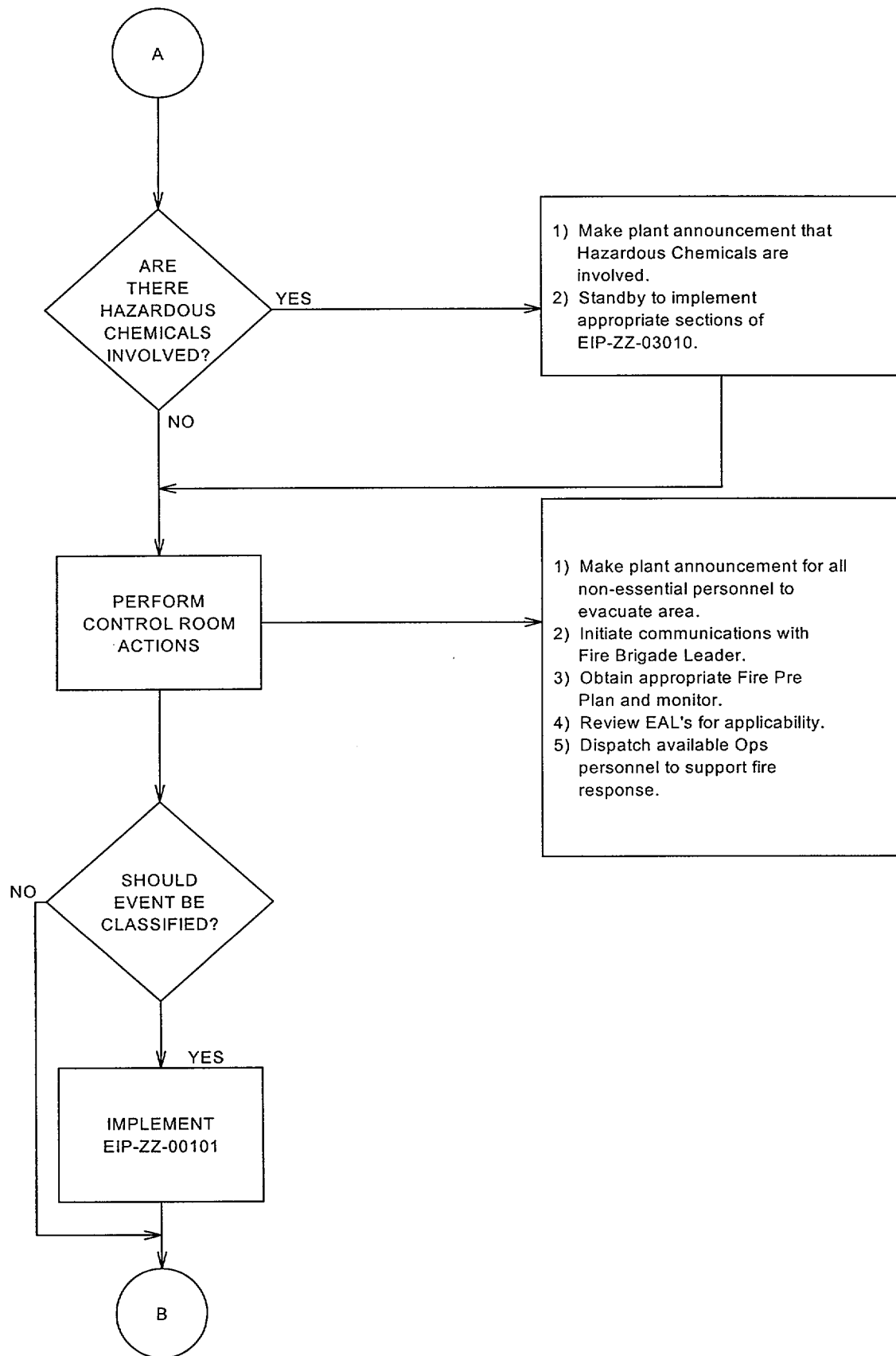
- 4.1 The closed SOS occurrence and supporting documentation, (File No. Z170.0007)

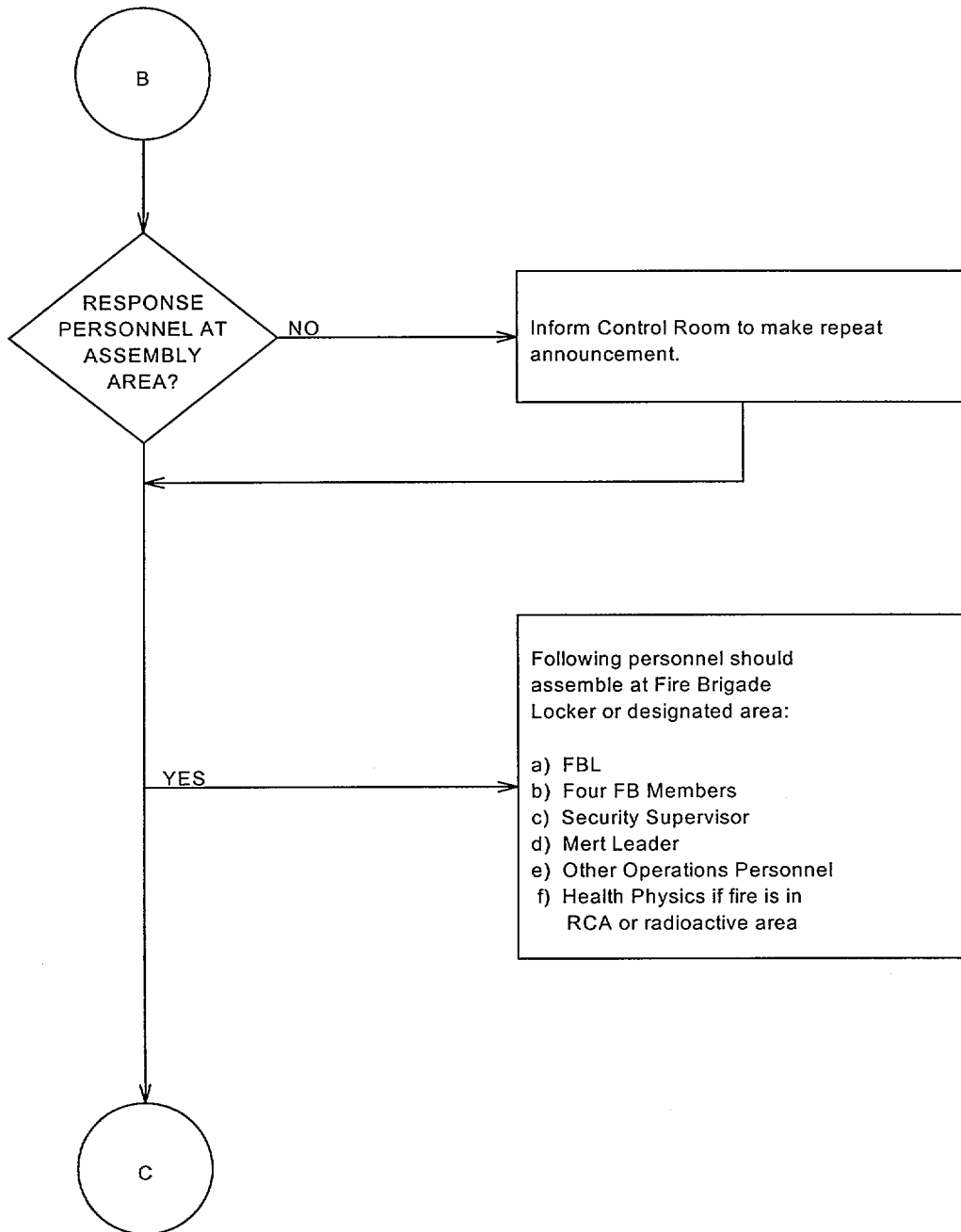
5 REFERENCES

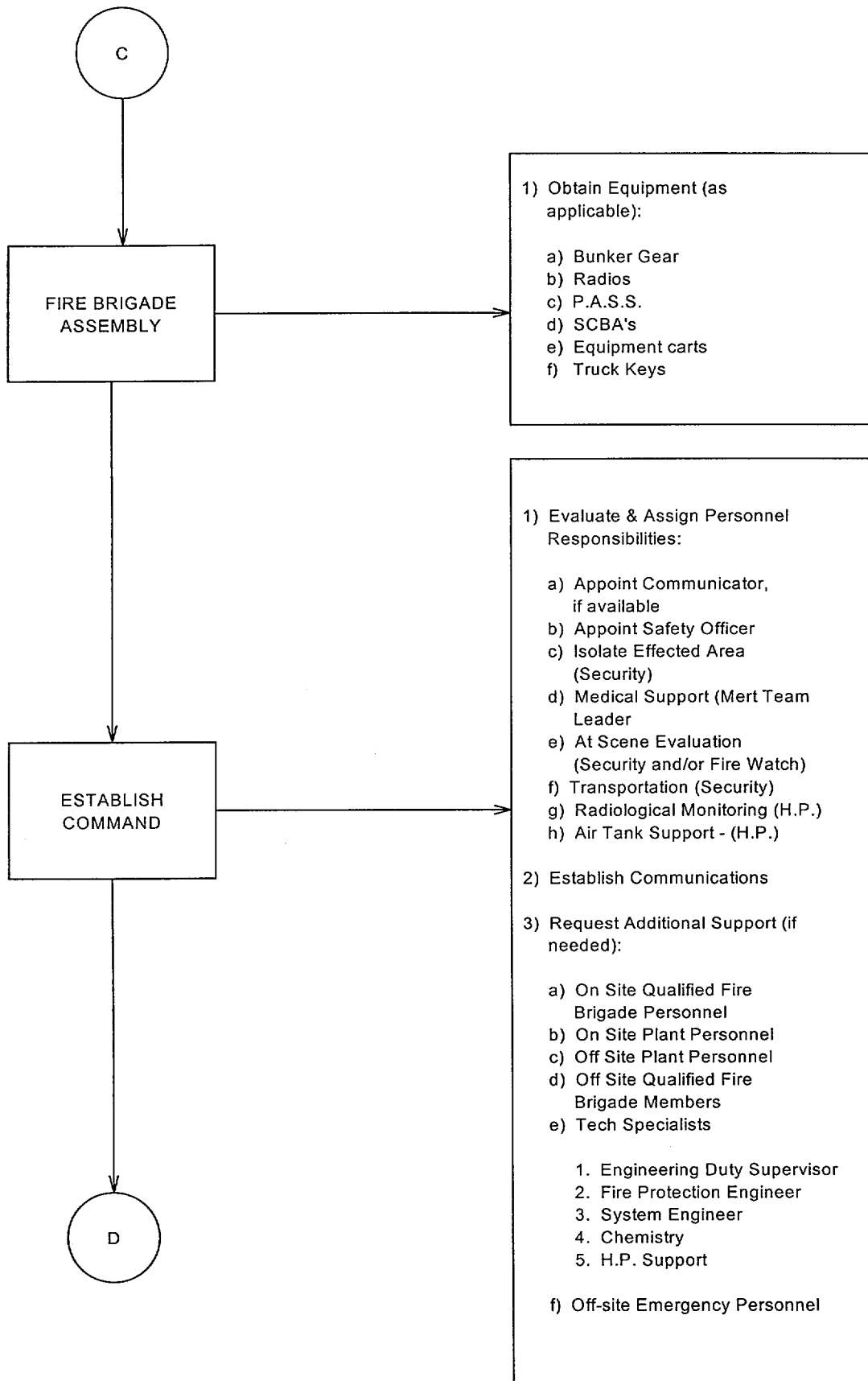
- 5.1 **HTP-ZZ-05006** , Fire Involving Radioactive Materials or Entry Into the RCA
- 5.2 **OOA-QF-00001** , Emergency Communications
- 5.3 Callaway Plant **FSAR 9.5.1** , Site Addendum, Section 9.5.1, Appendix 9.5-A, and Appendix 9.5-B.
- 5.4 **APA-ZZ-00835** , Reporting and of Accidents, Injuries, and illnesses.

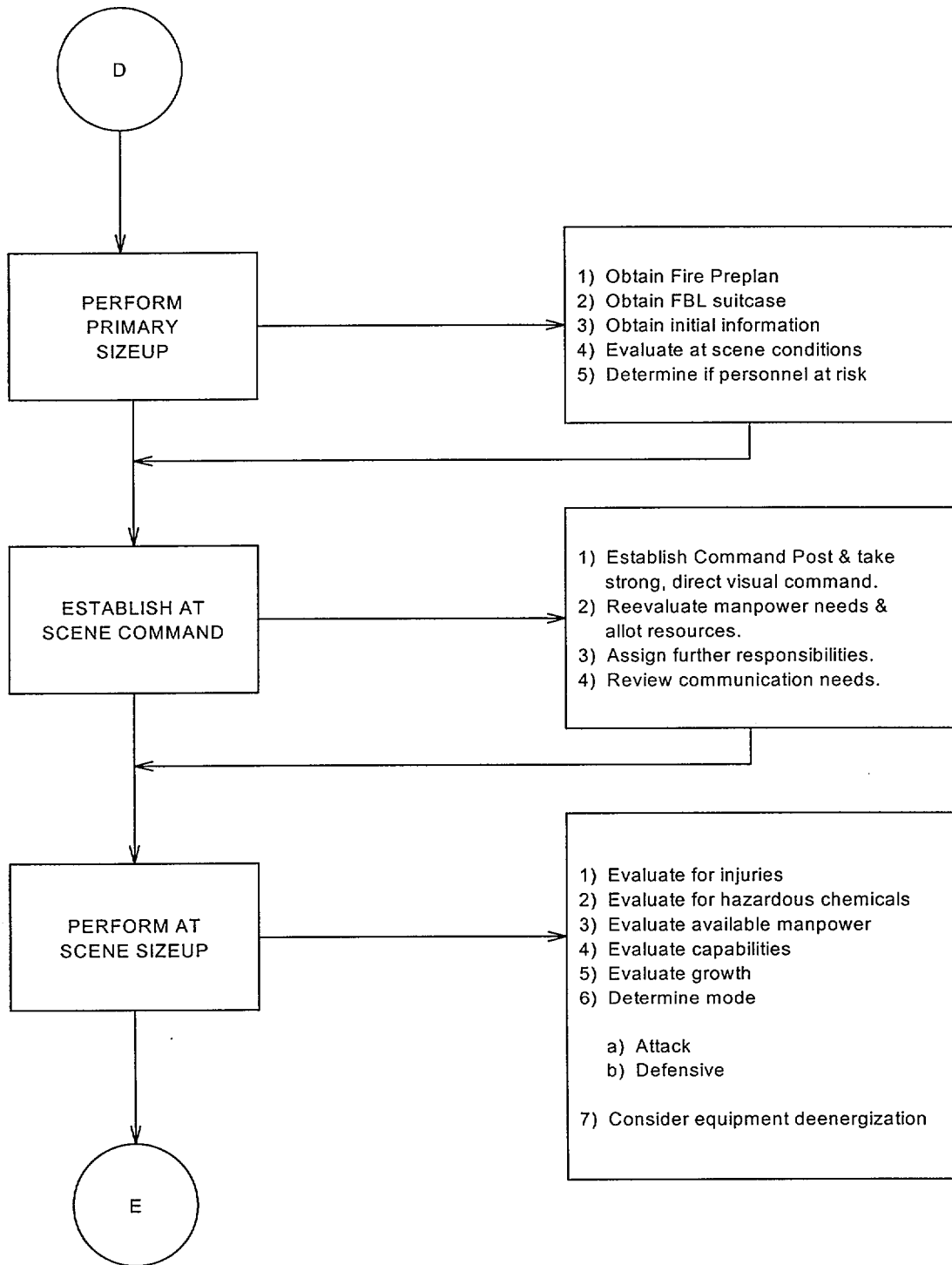
SHIFT SUPERVISOR/FIRE BRIGADE LEADER FLOWCHART FOR FIRE RESPONSE

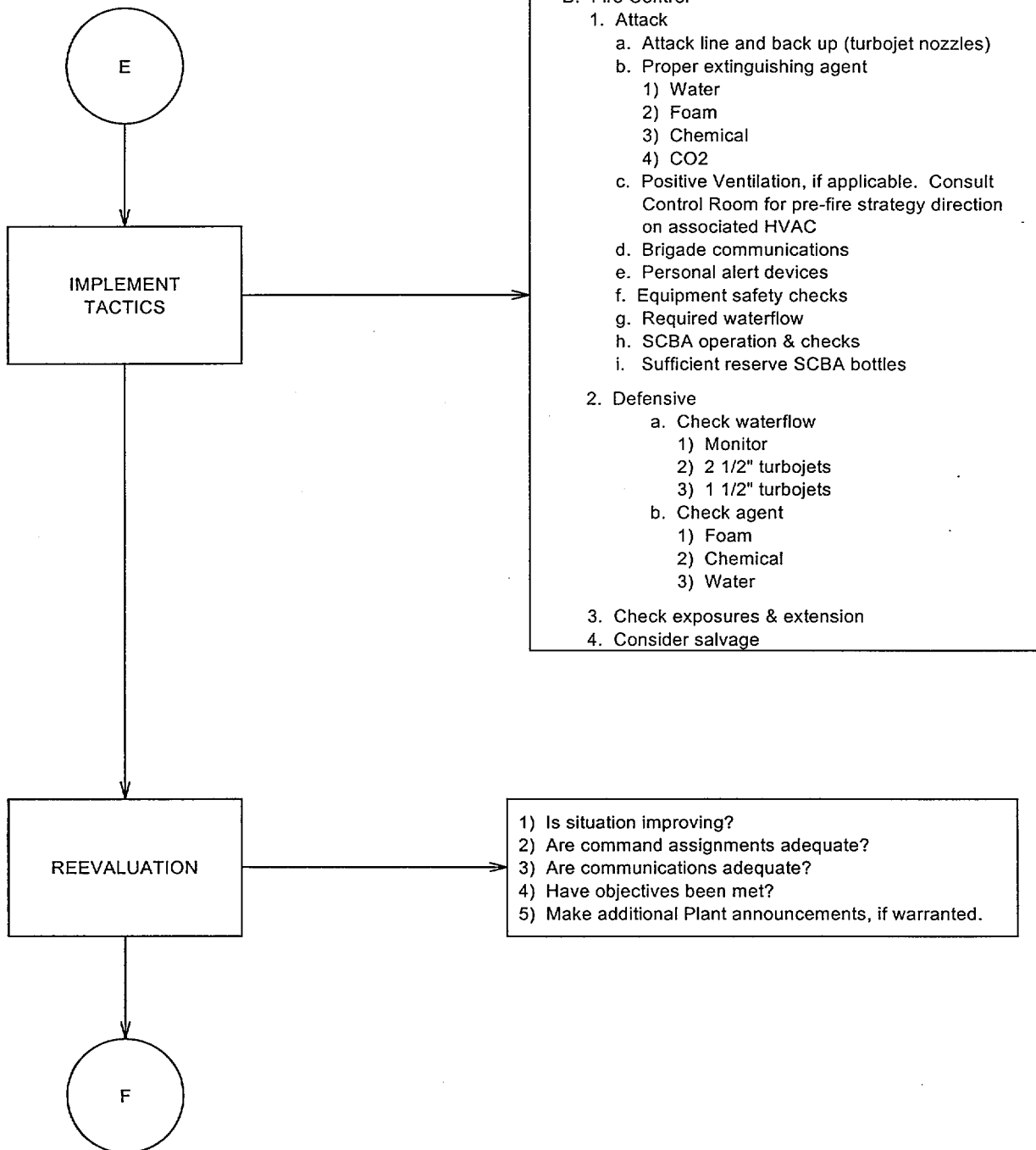


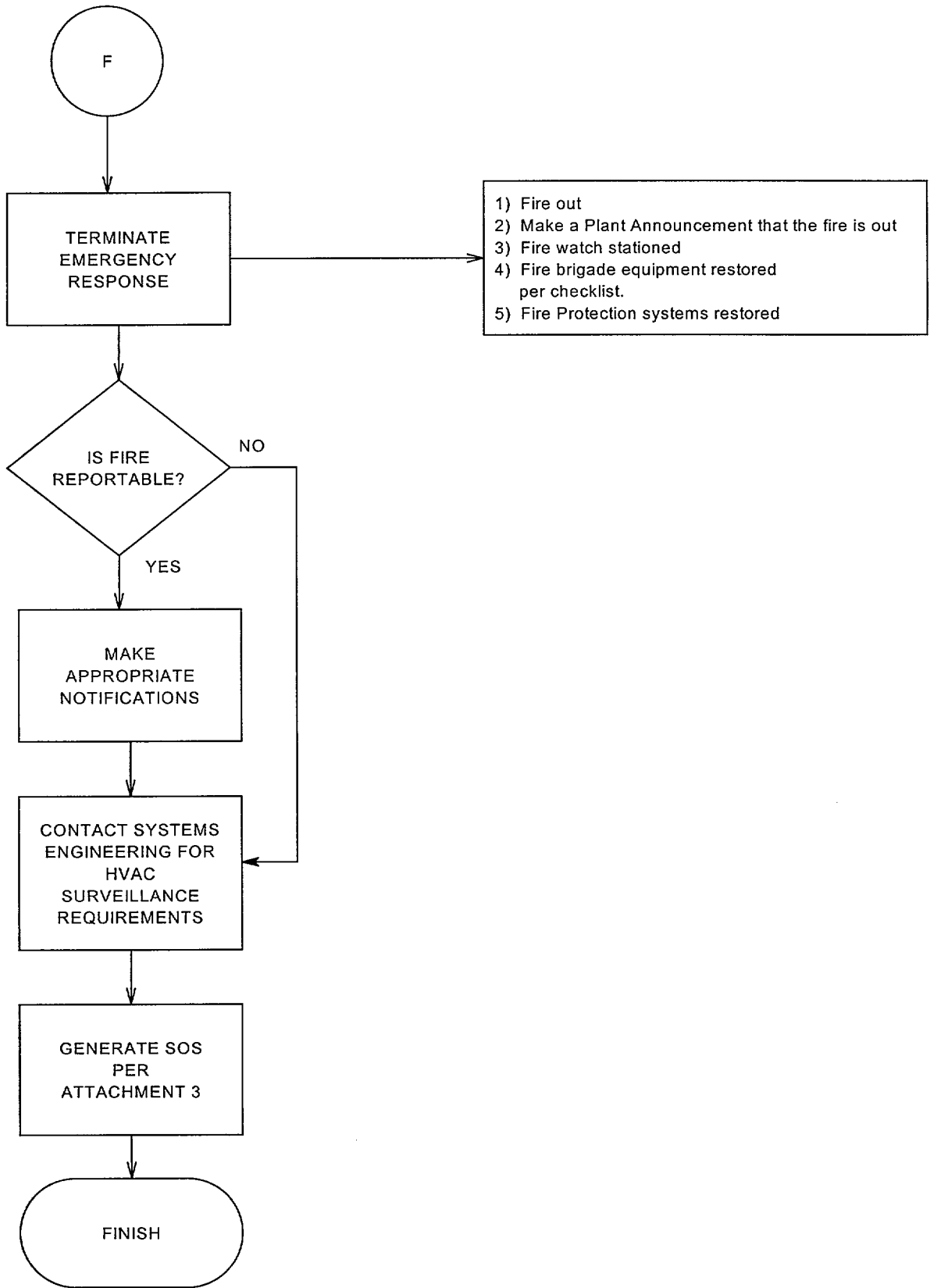












CALLAWAY PLANT

ACTIONS OF PLANT PERSONNEL UPON DISCOVERY OF A FIRE

I. Report fires to the Control Room by quickest method possible.

Phone: From any phone on site . . . 9-911

PA: Line 1. Do not push page button. State, "Control Room Supervisor, this is an emergency, pick up line 2". Switch to line 2 and make the report.

Radio: By two-way radio, if available. (Use Plant Channel 1.)

How to Report:

1. Be CALM
2. Give EXACT LOCATION and ELEVATION of Fire
3. State NATURE and SIZE of Fire
4. State Your Name
5. Report any INJURIES associated with the Fire
6. RECEIVE location to meet Fire Brigade Leader from Control Room
7. WAIT to Find Out if There Are Any Questions and Until Contact Is Broken

NOTE Assess the fire and decide whether to attempt to extinguish it, based on your fire fighting knowledge and capabilities. Do not at anytime place yourself in DANGER. If fighting the fire is impractical, proceed from the immediate area, stand by, and report to the responding Fire Brigade Leader.

II. UTILIZE FIRE EQUIPMENT AVAILABLE (IF PRACTICAL)

NOTE Fire equipment should not be used for purposes other than to extinguish fires, unless being used to conduct training or perform surveillances, which specifically require the use of Fire Brigade Equipment.

USE OF EXTINGUISHER - Use closest available extinguishers. Report use of extinguishers to the Fire Protection Engineer and the Control Room.

USE OF HOSE STATIONS - Do not use hose stations unless Fire Brigade qualified, except in the case that life safety is threatened.

FIRE BRIGADE INCIDENT SOS

At a minimum, the following information should be included in the SOS generated for the Fire Brigade Incident. Other information as required by procedure applicable to the generation of a SOS should also be included.

1. Date and time of incident.
2. Shift crew members responding.
3. A list of all plant personnel, including Fire Brigade members, involved in the event with position titles or duties assigned.
4. Location of event.
5. How was Control Room notified?
6. Any injuries involved?
7. Description of incident and sequence of events.
8. How event was mitigated.
9. Installed systems that activated and how (manually or automatically).
10. Fire suppression equipment used during event.
11. Off-site emergency services responding and type of assistance they provided.
12. Root cause of the event, if known.
13. Damage incurred to facilities and/or equipment.
14. Was System Engineering contacted for an evaluation of HVAC surveillance requirements following a fire or other event?
15. Any additional information.
16. Attach, as applicable, any of the following:
 - A) Log sheets
 - B) KC008 alarm printout
 - C) Copy of injury report (Form 70)
 - D) ERT minutes
 - E) List of post-event surveillances
17. Use the word "Fire" as key word entry.

CALLAWAY PLANT
EMERGENCY PLAN IMPLEMENTING PROCEDURE

EIP-ZZ-00231

RESPONSE TO SEVERE THUNDERSTORM/HIGH WINDS/TORNADO WATCHES
AND WARNINGS

RESPONSIBLE DEPARTMENT Emergency Preparedness

PROCEDURE OWNER A. H. Daume

WRITTEN BY A. H. Daume

PREPARED BY A. H. Daume

APPROVED BY *[Signature]*

DATE ISSUED 3-6-00

This procedure contains the following:

Pages	<u>1</u>	through	<u>8</u>
Attachments	<u>1</u>	through	<u>4</u>
Tables	<u> </u>	through	<u> </u>
Figures	<u> </u>	through	<u> </u>
Appendices	<u> </u>	through	<u> </u>
Checkoff Lists	<u> </u>	through	<u> </u>

This procedure has 0 checkoff list(s) maintained in the mainframe

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

Number:
ITS Commitments N/A Non-T/S Commitments 05

**ORIGINAL
for the NRC**

TABLE OF CONTENTS

<u>Section</u>		<u>Page Number</u>
1	PURPOSE AND SCOPE	1
1.1	PURPOSE	1
1.2	SCOPE	1
2	DEFINITIONS	1
3	RESPONSIBILITIES	2
4	PROCEDURE	3
4.1	MISSILE SHIELD REMOVAL	3
4.2	SEVERE THUNDERSTORM WATCH	4
4.3	HIGH WINDS	5
4.4	TORNADO WATCH	6
4.5	TORNADO WARNING	6
4.6	TORNADO WARNING FOR CALLAWAY PLANT	7
4.7	ACTIONS SUBSEQUENT TO TORNADO STRIKING CALLAWAY PLANT BUILDINGS	7
5	FINAL CONDITIONS	7
6	REFERENCES	8
7	RECORDS	8
	Attachment 1 - Announcements for Severe Thunderstorm/High Winds/Tornado's	1 Page
	Attachment 2 - TORNADOS	1 Page
	Attachment 3 – Severe Thunderstorm/High Winds/Tornadoes Door Closure List	1 Page
	Attachment 4 – Missile shield requirements	1 Page

RESPONSE TO SEVERE THUNDERSTORM/HIGH WINDS/TORNADO WATCHES AND
WARNINGS

1 PURPOSE AND SCOPE

1.1 PURPOSE

This procedure establishes the method for responding to severe thunderstorm watches, high winds, tornado watches, or tornado warnings.

1.2 SCOPE

1.2.1 Establishes the means of notifying plant workers of severe thunderstorms, high winds, tornado watches, or tornado warnings.

1.2.2 Establishes the response of plant workers during severe thunderstorms, high winds, tornado watches, or tornado warnings.

2 DEFINITIONS

2.1 APPROACHING (severe levels) - A thunderstorm which contains winds of 40 to 57 mph, or hail 1/2 inch or larger but less than 3/4 inch in diameter.

2.2 FUNNEL CLOUD - A condensation funnel extending from the base of a towering Cumulus or Cumulonimbus cloud (Cb), associated with a rotating column of air that is not in contact with the ground (and hence different from a tornado).

2.3 HIGH WINDS - Winds in excess of 40 mph (18 m/s) sustained, or 58 mph (26 m/s) gusting.

2.4 National Oceanic and Atmospheric Administration (NOAA) - An organization of the U.S. Commerce Department. NOAA's National Weather Service keeps a round-the-clock vigil on atmospheric conditions and issues watches and warnings for severe atmospheric conditions. A weather radio which can receive NOAA weather announcements is located in the Control Room, in the Shift Supervisor's office, and is activated when local severe weather conditions exist.

- 2.5 SEVERE THUNDERSTORM - A thunderstorm which produces tornadoes, hail 0.75 inches or more in diameter, or winds of 58 mph or more. Structural wind damage may imply the occurrence of a severe thunderstorm. See approaching (severe).
- 2.6 THUNDERSTORM – Rain clouds producing lightning.
- 2.7 TORNADO WATCH - Identifies an area where conditions are favorable for a tornado formation.
- 2.8 TORNADO WARNING - A tornado warning means that a tornado has been sighted or indicated by weather radar.
- 2.9 TORNADO - A violently rotating column of air in contact with the ground and extending from the base of a thunderstorm. A condensation funnel does not need to reach to the ground for a tornado to be present; a debris cloud beneath a thunderstorm is all that is needed to confirm the presence of a tornado, even in the total absence of a condensation funnel.
- 2.10 WARNING - Issued by NWS local offices indicating that a particular weather hazard is either imminent or has been reported. A warning indicates the need to take action to protect life and property. The type of hazard is reflected in the type of warning (e.g., tornado warning, blizzard warning).
- 2.11 WATCH - A National Weather Service (NWS) product indicating that a particular hazard is possible, i.e., that conditions are more favorable than usual for its occurrence. A watch is a recommendation for planning, preparation, and increased awareness (i.e., to be alert for changing weather, listen for further information, and think about what to do if the danger materializes).

3 RESPONSIBILITIES

- 3.1 SHIFT SUPERVISOR
- 3.1.1 Ensures Attachment 1, Announcements for High Winds/Tornado's, is completed during severe thunderstorm watches, high winds, tornado watches, or tornado warnings.
- 3.1.2 Ensures precautionary actions (Section 4.1) are taken to the extent possible.

3.1.3 Ensures proper weather monitoring when opening missile shields for operable safety related equipment.

3.2 DEPARTMENT HEADS AND SUPERVISORY PERSONNEL

3.2.1 Department heads and plant supervisory personnel are responsible for ensuring that personnel performing work at locations outside the range of plant announcements are notified of severe thunderstorm watches, high winds, tornado watches, or tornado warnings, if possible.

3.3 ADMINISTRATION DEPARTMENT

Administration ensures that updated copies of Attachment 2, Tornado's, are posted and remain visible on plant bulletin boards.

3.4 PLANT EMPLOYEES

3.4.1 Plant employees are responsible for following the protective action recommendations made over the plant Gai-tronics.

3.4.2 Plant employees have the responsibility to become familiar with the location of designated shelters, or actions to be taken should these shelters not be readily accessible. Locations and actions are listed in Attachment 2, Tornado's.

4 PROCEDURE

4.1 MISSILE SHIELD REMOVAL RFR 019618B

4.1.1 An initial assessment of current and future (48 hours) weather conditions should be conducted prior to missile shield removal. See Attachment 4 for the list of shields and monitoring distance.

4.1.2 If thunderstorms are in or predicted within the monitoring area moving in the direction of the plant, work should be delayed.

4.1.2.1 If work is urgent and it is desired to proceed, a Tornado translational speed of 70 mph should be considered per Reg. Guide 1.76.

- 4.1.3 Contact Security, at the Key Issue Station, to perform weather monitoring. Security contacts Surface Systems, Inc. (SSI) of St. Louis, Missouri. SSI is under contract with Ameren Corporation to provide weather monitoring and forecasting. SSI phone numbers are, 800-994-7947 or 314-872-0560.
- 4.1.3.1 Security calls SSI hourly for updates of weather conditions and if conditions change within the hour SSI contacts Security.
- 4.1.4 Prior to opening a missile shield verify sufficient resources are available to close the shield.
- 4.1.5 An informational EOSL should be initiated for the shield to be removed.
- 4.1.6 Refer to Attachment 4 for monitoring requirements and additional information.
- 4.1.7 Sea-Land Containers on the D/G Building Roof.
- 4.1.7.1 The Activity Coordinator responsible for placing a Sea-Land Container on the D/G Roof must notify the Control Room and then Security to initiate weather monitoring for thunderstorms within a 70 mile radius of the plant. The crane, rigging, and all appropriate labor must be maintained readily available whenever the container is placed upon the D/G Roof, to assure the container can be promptly placed back on the ground. **RFR 020026A**
- 4.2 SEVERE THUNDERSTORM WATCH
- 4.2.1 Notify plant personnel of a severe thunderstorm watch by using Attachment 1, Announcements for High Winds/Tornado's, Step A.
- 4.2.2 Doors listed on Attachment 3, High Winds/Tornado Door Closure List, should be closed if possible. Any door that is unattended and cannot be readily closed should be evaluated by the SS/OS to determine if the door may be left open.

<p><u>NOTE:</u> Access through a door is not intended to be restricted by this procedure. Access is a personal judgement depending on conditions.</p>

- 4.2.2.1 Have Security (CAS/SAS) verify that all monitored doors listed on Attachment 3, Section A, are closed or capable of being closed by personnel at the door.
- 4.2.2.2 Have watch station equipment operators verify that all doors listed on Attachment 3, Section B, are closed or capable of being closed by personnel at the door.
- 4.2.3 Inspect the switchyard and other outside areas for loose equipment that should be moved or tied down. **COMN 41813**
- 4.2.4 Frequent tours should be made to assess any imminent problems.
- 4.2.5 Direct Maintenance to ensure that both turbine building cranes' tornado parking locks are engaged if not in use or before the storm reaches the plant.
- 4.2.6 Ensure that missile covers are installed on the emergency diesel engine fuel oil storage tanks.
- 4.2.7 Ensure in Modes 1, 2 & 3 that missile shields are in place (bolting not required for missile protection) on the MSIV rooms at the plant south end of the 2065' level of the Turbine Building.
- 4.2.8 Ensure the Reactor Building Equipment Hatch Missile Shield is in place in Modes 1, 2, 3, 4 or Mode 6 with the fuel unprotected (head off and upper internals removed). Installation of the shield bolt/pin is not required for wind loads. **COMN 43386**
- 4.2.9 Close or check closed the Reactor Building Equipment Hatch with at least 4 bolts installed. This should be completed prior to a storm reaching the plant.
- 4.2.10 Shutdown the plant if safe operation is in jeopardy or significant damage is imminent.
- 4.3 **HIGH WINDS**
- 4.3.1 When meteorological (met) data indicates that winds in the area are in excess of 40 mph (18.0 m/s) for a 15 minute period, or 58 mph (26 m/s) instantaneous, the Shift Supervisor ensures the following steps are implemented:
- 4.3.2 Implement Section 4.1 as conditions allow.

- 4.3.3 Notify plant personnel of high winds by using Attachment 1, Announcements for High Winds/Tornado's, Step A.
- 4.4 TORNADO WATCH
- 4.4.1 When a tornado watch for Callaway County is broadcast over the NOAA weather radio, the Shift Supervisor ensures that plant personnel are notified of the tornado watch by using Attachment 1, Step B.
- 4.4.2 Implement Section 4.1 as conditions allow.
- 4.4.3 The outside operator and outside security patrols should be informed to alert the Control Room for changes in weather conditions to include:
- Funnel clouds.
 - Dust or debris at the surface below a cloud base.
 - Large hail (3/4 inch or greater in diameter).
 - Loud roaring noise associated with the storm.
- 4.5 TORNADO WARNING
- 4.5.1 When a tornado warning for Callaway County is broadcast over the NOAA weather radio, the Shift Supervisor should ensure that plant personnel are notified of the tornado warning by using Attachment 1, Step C.
- 4.5.2 All normal outside activities should be suspended until the tornado warning for Callaway County is no longer in effect.
- 4.5.3 Implement Section 4.1 as conditions allow.
- 4.5.4 Stop the performance of any surveillance procedure that might make any Engineered Safety Feature inoperable. **COMN 41813**
- 4.5.5 Verify both emergency diesel generators are aligned for automatic start per **OTN-NE-00001** , Standby Diesel Generation System. **COMN 41813**
- 4.5.6 Stop all activities associated with fuel handling and processing of radioactive materials as soon as practical but before the storm reaches the plant.

4.6 TORNADO WARNING FOR CALLAWAY PLANT

<p><u>NOTE:</u> Storm front moving toward the plant or actual sighting of a tornado by plant personnel.</p>

4.6.1 When a tornado warning has been issued for Callaway County and the storm front is moving in the direction of the Callaway Plant or, if weather conditions around the site indicate the PRESENCE of a TORNADO:

4.6.2 Sound the plant emergency alarm.

4.6.3 Notify plant personnel of the tornado warning by using Attachment 1, Step D.

4.6.4 Close the Control Room missile door 36042, Control Rm. Foyer to Comm. Corridor.

4.7 ACTIONS SUBSEQUENT TO TORNADO STRIKING CALLAWAY PLANT BUILDINGS

4.7.1 Refer to **EIP-ZZ-00101** , Classification of Emergencies, to determine the appropriate emergency classification.

4.7.2 Accountability should be declared using **EIP-ZZ-00230** , Accountability, to determine missing personnel. Accountability should only be declared when weather conditions become favorable.

4.7.3 Expedite the restoration of important plant systems and components to service. **COMN 41813**

5 FINAL CONDITIONS

5.1 Watches or warnings are no longer in effect for Callaway County and high wind conditions for the area no longer exist.

5.2 Announce over the Gai-tronics that severe storm warnings, high winds, tornado watches, or tornado warnings are no longer in effect, using Attachment 1, Step E.

6 REFERENCES

- 6.1 U.S. Department of Commerce (USDC), National Oceanic and Atmospheric Administration (NOAA), National Weather Service (NWS), NOAA/PA 82001 "Tornado Safety - Surviving Nature's Most Violent Storms", January, 1982
- 6.2 USDC-NOAA-NWS, NOAA/PA 76015 "NOAA Weather Radio", Revision April, 1985
- 6.3 USDC-NOAA-NWS, NOAA/PA 81011, "Spotter's Guide for Identifying and Reporting Local Storms" Revision April, 1982
- 6.4 USDC-NOAA-NWS, Technical Memorandum NWS SR-145, A Comprehensive Glossary Of Weather Terms For Storm Spotters
- 6.5 **EIP-ZZ-00101**, Classification of Emergencies
- 6.6 **EIP-ZZ-00230**, Accountability
- 6.7 **OTN-NE-00001**, Standby Diesel Generation System
- 6.8 FSAR, Section 3.3
- 6.9 National Weather Service Operations Manual Chapter C.42
- 6.10 NUMARC 87-00
- 6.11 RFR 19618B
- 6.12 RFR 20026A

7 RECORDS

None

ANNOUNCEMENTS FOR SEVERE THUNDERSTORM/HIGH WINDS/TORNADOS**A. SEVERE THUNDERSTORM WATCH/HIGH WINDS** GAI-TRONICS ANNOUNCEMENT

"Attention all personnel. Attention all personnel. Conditions are favorable for the occurrence of (circle one) severe thunderstorms / high winds in the area. Be prepared to act quickly in the event conditions worsen."

(REPEAT ANNOUNCEMENT)

B. TORNADO WATCH GAI-TRONICS ANNOUNCEMENT

"Attention all personnel. Attention all personnel. A tornado watch has been issued for Callaway County. Review the Tornado posting on bulletin boards and be prepared to act quickly in the event that conditions worsen."

(REPEAT ANNOUNCEMENT)

 Contact the outside operator and security to alert the Control Room of indication of tornado's around the site.**C. TORNADO WARNING IN CALLAWAY COUNTY** GAI-TRONICS ANNOUNCEMENT

"Attention all personnel. Attention all personnel. A tornado warning has been issued for Callaway County. All outside activities should be suspended until further notice. All personnel should be prepared to take cover should the need arise."

(REPEAT ANNOUNCEMENT)

 RADIO ANNOUNCEMENT

(Repeat Gai-tronics announcement)

D. TORNADO WARNING FOR CALLAWAY PLANT - Storm front moving toward the plant or actual sighting of a tornado by plant personnel. SOUND THE PLANT EMERGENCY ALARM GAI-TRONICS ANNOUNCEMENT

"Attention all personnel. Attention all personnel. A tornado warning is in effect for the Callaway Plant. Go directly to a designated tornado shelter area and seek cover."

(REPEAT ANNOUNCEMENT)

 RADIO ANNOUNCEMENT

(Repeat Gai-tronics announcement.)

E. ALL CLEAR GAI-TRONICS ANNOUNCEMENT

"Attention all personnel. Attention all personnel. The (circle one) severe thunderstorm watch / high winds warning / tornado watch / tornado warning is no longer in effect. Continue normal work functions."

(REPEAT ANNOUNCEMENT).

 RADIO ANNOUNCEMENT

(Repeat Gai-tronics announcement.)

TORNADOS!!

**When an announcement is made over the Gai-tronics seek shelter:
Go to the closest area designated below and take immediate cover. Stay away from windows, go to an inside room, and get under a desk or table if you cannot reach your designated shelter area prior to arrival of dangerous weather.**

SERVICE BUILDING	First and second floor personnel: West corridor, Maintenance Office Area, Restrooms & Locker Rooms Room 105, (Reprographics behind the QA vault wall). Third floor personnel: East corridor, NRC office, Telephone rooms.
TRAINING CENTER	Lunch Room, Restrooms, Classrooms 120 and 122
TECHNICAL SUPPORT CENTER	All areas other than near outside doorways
STOREROOM No. 1	QA Non-Conforming Storage Temperature and Humidity Control Room (Note: Building has a metal roof, stay low, and cover head.)
STORES No. 2.	Restrooms in office complex.
ANNEX	Go to ESW Pumphouse
HP CALIBRATION FACILITY	Go to ESW Pumphouse
POWER BLOCK	Auxiliary, Rad Waste, Diesel, and Control Buildings
EMERGENCY OPERATIONS FACILITY	All areas except near outside doorways
CENTRAL PROCESSING FACILITY	Inner hallways, Bathrooms, Mechanical Equip. Room (Note: Building has a metal roof, stay low, and cover head.)
SECURITY OFFICES	Go to the TSC
MAF	Go to MAF basement
OUTAGE MAINTENANCE FACILITY	First floor Restrooms and hallway, tool room
CALLAWAY MULTI-PURPOSE BUILDING	First floor interior hallways, bathrooms, and vault.
ALL OTHER AREAS	Go to nearest shelter area, if one can be reached quickly (30-60 seconds). Otherwise take immediate cover in a concrete structure, below ground level area, a corner, or underneath a heavy object such as a desk or table.
IF CAUGHT OUTSIDE AS A LAST RESORT	Take shelter in the nearest ditch or ground depression. Always cover your head -- Remember, most tornado fatalities are from injuries to the head.

**NEVER REMAIN IN TRAILERS OR VEHICLES
DO NOT REMOVE THIS NOTICE FROM THE BULLETIN BOARD.**

SEVERE THUNDERSTORM/HIGH WINDS/TORNADOS DOOR CLOSURE LIST**Section A (Monitored Doors)**

Door #	Building	Level	Type	Description
11021	Auxiliary	1974'	Pressure	Aux. Bldg. to Radwaste Tunnel
11022	Auxiliary	1974'	Pressure	Aux. Bldg. to Radioactive Tunnel
11194	Auxiliary	2000'	Pressure	Aux. Bldg. to Fuel Bldg.
11195	Auxiliary	2000'	Pressure	Aux. Bldg. Outside Door
11273	Auxiliary	2043'4"	Pressure	Aux. Bldg. to MSIV Room
13011	Auxiliary	2000'	Missile	Aux. Bldg. to Outside Door
13012	Auxiliary	2000'	Pressure	Aux. Bldg. to Outside Door
13291	Auxiliary	2000'	Pressure	Turb. Bldg. to AFWP Rms.
13331	Auxiliary	2000'	Missile	Aux. Bldg. to Laundry/Decon Facility
14032	Auxiliary	2026'	Missile	Aux. Bldg. to Comm. Corridor
14081	Auxiliary	2026'	Pressure	Aux. Bldg. to Fuel Bldg.
15041	Auxiliary	2047'6"	Missile	Aux. Bldg. to RAM Storage Bldg.
15071	Auxiliary	2047'6"	Pressure	Aux. Bldg. to Fuel Bldg.
21011	Auxiliary	1974'	Pressure	Aux. Bldg. to Tendon Access Gallery
31011	Control	1974'	Pressure	Control Bldg. to Comm. Corridor
32013	Control	2000'	Pressure	Control Bldg. Outside Door
33012	Control	2000'	Missile	Control Bldg. to Comm. Corridor
33044	Auxiliary	2000'	Missile	Aux. Bldg. to Comm. Corridor
34021	Control	2016'	Missile	Control Bldg. to Comm. Corridor
35021	Control	2032'	Missile	Control Bldg. to Comm. Corridor
38011	Control	2073'6"	Missile	Control Bldg. to Comm. Corridor
41011	Auxiliary	1974"	Pressure	Aux. Bldg. to Turb. Bldg. Stairs
41015	Auxiliary	2026'	Missile	Aux. Bldg. to Turb. Bldg. Stairs
41017	Auxiliary	2047'6"	Missile	Aux. Bldg. to Turb. Bldg. Stairs
52011	Diesel Gen.	2000'	Missile	DG Bldg. Outside Door
52031	Diesel Gen.	2000'	Missile	DG Bldg. Outside Door
61011	Fuel Bldg.	2000'		South Emergency Exit
61021	Fuel Bldg.	2000'		East Emergency Door
61022	Fuel Bldg.	2000'		Roll-Up Door
U1041	ESW	2000'	Pressure	ESW Pumphouse Outside Door
U1051	ESW	2000'	Pressure	ESW Pumphouse Outside Door
U3011	UHS	2000'	Missile	UHS Cooling Tower Outside Door
U3041	UHS	2000'	Missile	UHS Cooling Tower Outside Door
U3061	UHS	2000'	Missile	UHS Cooling Tower Outside Door

Section B (Visually Verified Doors)

Building	Level	Door #	Type	Description
Control	1984'	32201	Pressure	Control Bldg. (HP) to Comm. Corridor
Control	1984'	32282	Pressure	Control Bldg. to Hot Lab
RAM Storage	2047	85011	Pressure	Walk-Out Door to Diesel Gen. Roof
RAM Storage	2047'	85012		Equipment Door to Diesel Gen. Roof
Turbine	2000'	ALL		All Roll-Up and Walk Through Doors
Reactor	2000'		Pressure	Personnel Emergency Hatch

MISSILE SHIELD REQUIREMENTS

MISSILE SHIELD	EST. CLOSURE TIME	WEATHER MONITORING DISTANCE	APPLICABLE MODES	Notes
Rx Building Equipment Hatch MSDSM52	2 hrs	140 mi.	6*	Shield CANNOT be removed in Modes 1, 2, 3, & 4. Bolting <u>not</u> required for closure.
Area 5 (Located in Turb. Bldg.) MSAREA501, 502, 503, 504	1.5 hrs	105 mi.	1, 2, 3	Shields may be opened in Modes 4, 5, & 6. Bolting <u>not</u> required for closure. FPIP required.
D/G Fuel Oil Tanks MSDGA or MSDGB	1 hr	70 mi.	ALL#	Applicable when D/G is operable. Bolting required for closure.
ESW Pumphouse Roof MSESWA or MSES WB	1 hr	70 mi.	1, 2, 3, 4	Shields may be opened in Modes 5, & 6. Bolting required for closure.
ESW Manhole covers MSMH01N or MSMH01S	1 hr	70 mi.	1, 2, 3, 4	Shields may be opened in Modes 5, & 6. Bolting required for closure.
RHR Heat Exchangers MSRHRA or MSRHRB	1 hr	70 mi.	ALL	Applicable when the related RHR train is operable. FPIP Required.

*With Rx Vessel upper internals package removed and fuel assemblies in the Reactor Building.

NOT required for removal of small steel hatch on top of large missile shield.

CLOSURE RESOURCES NEEDED

Rx Building Equipment Hatch	HP Tech., Pedestal Crane Operator, platform rigging, cutting torch, hand tools, Mechanics/Ironworkers, rigging, and shield winches, etc.
Area 5 (Located in Turb. Bldg.)	JLG & rigging if trolley beam is in place, hand tools, cutting torch, chain hoist, "come-a-long", Mechanics/Ironworkers, etc.
D/G Fuel Oil Tanks	>20 ton crane, crane operator, hand tools, rigging, Mechanics. Bolting required for closure.
ESW Pumphouse Roof	>20 ton crane, crane operator, hand tools, rigging, Mechanics. Bolting required for closure.
ESW Manhole covers	>3 ton crane, crane operator, hand tools, rigging, Mechanics. Bolting required for closure.
RHR Heat Exchangers	>12 ton crane, crane operator, hand tools, rigging, Mechanics.

CALLAWAY PLANT
EMERGENCY PLAN IMPLEMENTING PROCEDURE
EIP-ZZ-00240
TECHNICAL SUPPORT CENTER OPERATIONS

RESPONSIBLE DEPARTMENT EMERGENCY PERPAREDNESS

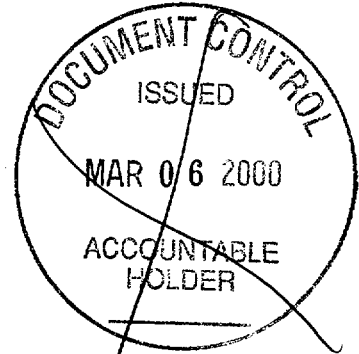
PROCEDURE OWNER P. J. Sudnak

WRITTEN BY A. H. Daume

PREPARED BY A. H. Daume

APPROVED BY *[Signature]*

DATE ISSUED 3-6-00



This procedure contains the following:

Pages	<u>1</u>	through	<u>7</u>
Attachments	<u>1</u>	through	<u>8</u>
Tables	<u> </u>	through	<u> </u>
Figures	<u> </u>	through	<u> </u>
Appendices	<u> </u>	through	<u> </u>
Checkoff Lists	<u> </u>	through	<u> </u>

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

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

ITS Commitments N/A Non-T/S Commitments 22

**ORIGINAL
for the NRC**

TABLE OF CONTENTS

<u>Section</u>		<u>Page Number</u>
1	PURPOSE AND SCOPE	1
2	RESPONSIBILITIES	1
3	PROCEDURE	4
3.1	TSC STARTUP	4
3.2	TSC OPERATION	4
3.3	TSC EVACUATION	4
3.4	EVENT CLOSEOUT	5
3.5	TSC SHUTDOWN	5
4	REFERENCES	6
5	RECORDS	7
Attachment 1	Emergency Coordinator Checklist	2 Pages
Attachment 2	Technical Assessment Coordinator (TAC) Checklist	4 Pages
Attachment 3	Operations Support Coordinator (OSC) Checklist.....	2 Pages
Attachment 4	Administrative (Admin.) Coordinator Checklist.....	3 Pages
Attachment 5	Health Physics (HP) Coordinator Checklist.....	7 Pages
Attachment 6	TSC (ENS) Communicator Checklist	1 Page
Attachment 7	Chemistry Coordinator Checklist	3 Pages
Attachment 8	Security Coordinator (SC) Checklist.....	2 Pages

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 PMC and 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 PHISICS COORDINATOR (HPC)
 - 2.5.1 The HPC reports to the emergency coordinator. 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 signing in on appropriate sign-in boards as they enter the TSC during a radiological emergency or drill. (**SOS 97-1061**)

<p><u>NOTE:</u> The portal monitor should be response checked as soon as possible by the Health Physics group</p>

2.11.3 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 (**SOS 97-1061**).

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)

3 PROCEDURE

3.1 TSC STARTUP

3.1.1 Each TSC staff member that arrives at the TSC is responsible for signing in with name and badge number, assisting in the facility startup and completing 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 Upon arrival at the TSC, each TSC coordinator is responsible for starting their Checklist.

3.2.3 If the TSC is without power they should start the TSC diesel per **OOA-UB-EPG70** if it is within their capability.

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 $\mu\text{Ci/ml}$.

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 CR.
- 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 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

<p><u>NOTE:</u> 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 the EP Department.</p>

- 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)

EMERGENCY COORDINATOR CHECKLIST

Date _____ Time: _____

<u>INITIATION</u>	
<input type="checkbox"/> 1.	<input type="checkbox"/> Card in on the accountability card reader. <input type="checkbox"/> Sign in on Facility Sign-in board. <input type="checkbox"/> Obtain the EC package. <input type="checkbox"/> Clip on Emergency Coordinator badge.
<input type="checkbox"/> 2.	Initiate Log Sheet.
<input type="checkbox"/> 3.	Receive briefing by: <ul style="list-style-type: none"> <input type="checkbox"/> Technical Assessment Coordinator. (EAL Monitoring). <input type="checkbox"/> Shift Supervisor and relieve him as Emergency Coordinator.
<input type="checkbox"/> 4.	Announce assumption of duties to TSC staff.
<input type="checkbox"/> 5.	Review plant/group status with TSC Coordinators: <ul style="list-style-type: none"> <input type="checkbox"/> Administrative. <input type="checkbox"/> TSC (ENS) Communicator. <input type="checkbox"/> Health Physics. <input type="checkbox"/> Operations Support/Support Area. <input type="checkbox"/> Technical Assessment. <input type="checkbox"/> Chemistry. <input type="checkbox"/> Security.
<input type="checkbox"/> 6.	Ensure the following responsibilities have been transferred from Control Room. <ul style="list-style-type: none"> <input type="checkbox"/> <u>EAL MONITORING.</u> <input type="checkbox"/> <u>ENS COMMUNICATION.</u> <input type="checkbox"/> <u>PAR MONITORING</u> (if the RM position in the EOF is not manned). <input type="checkbox"/> <u>SAMG Implementation</u> (if applicable).
<input type="checkbox"/> 7.	Make a site-wide announcement that, "The TSC has accepted emergency responsibilities from the Control Room."
<input type="checkbox"/> 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."
<input type="checkbox"/> 9.	After assessing manpower needs instruct all excess personnel to return home and remain near their phones. They should remain fit for duty and will be contacted concerning shift relief and turnover.

<u>OPERATIONS</u>	
<i>(*) Steps are items that MUST be frequently reviewed</i>	
<input type="checkbox"/> *1.	Periodically update TSC personnel including priorities, habitability status and Site radiological conditions. Note: Priorities should be listed on the Priority Status Board
<input type="checkbox"/> *2.	Continue activities per EIP-ZZ-00102, Emergency Implementing Actions.
<input type="checkbox"/> *3.	Perform periodic briefs with the below individuals concerning on-site activities: <ul style="list-style-type: none"> <input type="checkbox"/> TSC Coordinators. <input type="checkbox"/> RM. <input type="checkbox"/> SS. <input type="checkbox"/> On site NRC personnel.

EMERGENCY COORDINATOR CHECKLIST

<u>TURNOVER</u>	
<input type="checkbox"/> 1.	Incoming Emergency Coordinator briefed on TSC status and log reviewed.
<input type="checkbox"/> 2.	Recovery Manager and Shift Supervisor informed.
<input type="checkbox"/> 3.	Turnover announced to TSC staff.
<input type="checkbox"/> 4.	Turnover complete _____ Time.
<input type="checkbox"/> 5.	Turnover logged.
<input type="checkbox"/> 6.	Initiate a new checklist CA# 259.

<u>RECOVERY</u>	
<input type="checkbox"/> 1.	Declare Recovery per EIP-ZZ-00260, Event Closeout/Recovery (if applicable). <ul style="list-style-type: none"> <input type="checkbox"/> Recovery Manager contacted. <input type="checkbox"/> Shift Supervisor contacted. <input type="checkbox"/> Recovery organization established. <input type="checkbox"/> Make site wide announcement.

<u>TERMINATION and SHUTDOWN</u>	
<input type="checkbox"/> 1.	Shutdown TSC (if required). <ul style="list-style-type: none"> <input type="checkbox"/> Coordinators directed to shutdown TSC _____ Time. <input type="checkbox"/> Make site wide announcement.

Emergency Coordinator Signature

TECHNICAL ASSESSMENT COORDINATOR (TAC) CHECKLIST

<u>OPERATIONS</u>	
<input type="checkbox"/> *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 (SOS 97-1061).
<input type="checkbox"/> *2.	If personnel are dispatched to another facility a follow up call should be initiated in 15-20 minutes to ensure they arrive safely. SOS 99-1904.
<input type="checkbox"/> *3.	To obtain Plant Status Boards printout for update of boards, Cancel , enter FF ; select the TSC printer, then F1 . To use the color printer depress Ctrl & PF20 simultaneously.
<input type="checkbox"/> *4.	Toggle between PSB1 and PSB2 using the Blue TOUCH areas. To obtain area radiation monitors type ARM or PCD – Return .
<input type="checkbox"/> *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.)
<input type="checkbox"/> *6.	Plant Computer turn on codes <ul style="list-style-type: none"> <input type="checkbox"/> ARM Area Radiation Monitors <input type="checkbox"/> PCD Dose Assessment general overview including MET data, Rad data and flow status. <input type="checkbox"/> PCDU Dose Assessment for the Unit Vent, Containment and Aux Building releases. <input type="checkbox"/> PCDRS Dose Assessment for Radwaste and Steam releases.
<input type="checkbox"/> *7.	Upon entry into the Recirculation Phase of RHR perform the following: <ul style="list-style-type: none"> <input type="checkbox"/> Direct the Chemistry Coordinator to obtain 12 hour RWST samples per CSP-ZZ-07540. <input type="checkbox"/> Inform HPC of probable increase in Auxiliary Building. <input type="checkbox"/> Inform HPC of possible valve leakage back to RWST which could change dose and release rates.

<u>TURNOVER</u>	
<input type="checkbox"/> 1.	Incoming Technical Assessment Coordinator briefed on TSC status and review log.
<input type="checkbox"/> 2.	Emergency Coordinator informed.
<input type="checkbox"/> 3.	Turnover announced to Technical Assessment staff.
<input type="checkbox"/> 5.	Turnover complete _____ Time.
<input type="checkbox"/> 6.	Turnover logged.
<input type="checkbox"/> 7.	Initiate a new checklist CA# 261.

<u>RECOVERY</u>	
<input type="checkbox"/> 1.	Assess the following: <ul style="list-style-type: none"> <input type="checkbox"/> a. Plant equipment status <input type="checkbox"/> b. Accident assessment <input type="checkbox"/> c. Control of radiological releases <input type="checkbox"/> d. Ability to resume normal operations
<input type="checkbox"/> 2.	Continue Technical Assessment activities until directed otherwise by the Emergency Coordinator or RM.

<u>TERMINATION and SHUTDOWN</u>	
<input type="checkbox"/> 1.	When directed by the Emergency Coordinator, inform Tech Assessment staff of deactivation
<input type="checkbox"/> 2.	Ensure equipment and supplies are deactivated and/or stored.
<input type="checkbox"/> 3.	Ensure documents are collected and given to the Admin Coordinator.
<input type="checkbox"/> 4.	Restore PC UPS power supply to LINE.

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: _____

<u>INITIATION</u>	
1.	<input type="checkbox"/> Card in on the accountability card reader. <input type="checkbox"/> Sign in on Facility Sign-in board. <input type="checkbox"/> Obtain the OSC package. <input type="checkbox"/> Clip on the Operations Support Coordinator badge.
2.	Ensure the TSC has power. <input type="checkbox"/> Normal power <input type="checkbox"/> 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.

<u>OPERATIONS</u>	
<i>(* Steps are items that MUST be frequently reviewed</i>	
*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 (SOS 97-1061).
*3.	If personnel are dispatched to another facility a follow up call should be initiated in 15-20 minutes to ensure they arrive safely. SOS 99-1904 .
*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.	Monitor TSC operating equipment periodically: <input type="checkbox"/> TSC Emergency Diesel. <input type="checkbox"/> TSC Emergency Ventilation Filter System. (NOTE: Be aware of rapidly changing radiation levels during periods of releases.)

OPERATIONS SUPPORT COORDINATOR (OSC) CHECKLIST

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

RECOVERY	
<input type="checkbox"/> 1.	Assess the following: <ul style="list-style-type: none"> <input type="checkbox"/> Plant equipment status <input type="checkbox"/> Emergency team status. All Emergency Team work needs to be completed, turned over to Recovery or normal maintenance. <input type="checkbox"/> Ability to resume normal operations
<input type="checkbox"/> 2.	Continue Operations Support activities until directed otherwise by the Emergency Coordinator or RM.

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

Operations Support Coordinator Signature

ADMINISTRATIVE (ADMIN) COORDINATOR CHECKLIST

Date _____ Time: _____

<u>INITIATION</u>	
<input type="checkbox"/> 1.	<input type="checkbox"/> Card in on the accountability card reader. <input type="checkbox"/> Sign in on Facility Sign-in board. <input type="checkbox"/> Obtain the Admin Coordinators package. <input type="checkbox"/> Clip on the Admin Coordinators badge.
<input type="checkbox"/> 2.	Inform Emergency Coordinator and Technical Assessment Coordinator of your presence.
<input type="checkbox"/> 3.	Initiate Log Sheet.

<u>OPERATIONS</u>															
(*) Steps or items that must be frequently reviewed															
<input type="checkbox"/> 1	Equipment availability and operation. Check on: <ul style="list-style-type: none"> <input type="checkbox"/> Personal Computers (PC) <input type="checkbox"/> Telephones <input type="checkbox"/> Copier <input type="checkbox"/> Fax <input type="checkbox"/> Reader/Printer <input type="checkbox"/> Print Plotter 														
<input type="checkbox"/> 2.	Status TSC Coordinators and keep the EC informed periodically until all positions are filled. <ul style="list-style-type: none"> <input type="checkbox"/> Technical Assessment Coordinator <input type="checkbox"/> Health Physics Coordinator <input type="checkbox"/> Operations Support Coordinator <input type="checkbox"/> TSC (ENS) Communicator <input type="checkbox"/> Chemistry Coordinator <input type="checkbox"/> Security Coordinator 														
<input type="checkbox"/> *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 <ul style="list-style-type: none"> <input type="checkbox"/> Call 64777 to obtain Audix <input type="checkbox"/> Enter 68400 and the # sign. <input type="checkbox"/> Enter the password which is only the # sign. <input type="checkbox"/> Follow the instructions to listen to the new messages and complete attachment 2. 														
<input type="checkbox"/> 4.	Personnel Assessment Admin. Support Personnel (call in as necessary). <table style="width: 100%; border: none;"> <tr> <td style="width: 80%;"><input type="checkbox"/> _____</td> <td>(name) <u>One NIS Support person should be considered.</u></td> </tr> <tr> <td><input type="checkbox"/> _____</td> <td>(name) <u>One person to callout/canvass additional support</u></td> </tr> <tr> <td><input type="checkbox"/> _____</td> <td>(name)</td> </tr> <tr> <td><input type="checkbox"/> _____</td> <td>(name)</td> </tr> </table> Clerical Support Personnel (call in as necessary) <table style="width: 100%; border: none;"> <tr> <td style="width: 80%;"><input type="checkbox"/> _____</td> <td>(name)</td> </tr> <tr> <td><input type="checkbox"/> _____</td> <td>(name)</td> </tr> <tr> <td><input type="checkbox"/> _____</td> <td>(name)</td> </tr> </table>	<input type="checkbox"/> _____	(name) <u>One NIS Support person should be considered.</u>	<input type="checkbox"/> _____	(name) <u>One person to callout/canvass additional support</u>	<input type="checkbox"/> _____	(name)	<input type="checkbox"/> _____	(name)	<input type="checkbox"/> _____	(name)	<input type="checkbox"/> _____	(name)	<input type="checkbox"/> _____	(name)
<input type="checkbox"/> _____	(name) <u>One NIS Support person should be considered.</u>														
<input type="checkbox"/> _____	(name) <u>One person to callout/canvass additional support</u>														
<input type="checkbox"/> _____	(name)														
<input type="checkbox"/> _____	(name)														
<input type="checkbox"/> _____	(name)														
<input type="checkbox"/> _____	(name)														
<input type="checkbox"/> _____	(name)														
<input type="checkbox"/> *5.	Monitor the Declaration Status Board ensure it is current with the Emergency Classification announcements.														
<input type="checkbox"/> *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 (SOS 97-1061).														

ADMINISTRATIVE (ADMIN) COORDINATOR CHECKLIST

<input type="checkbox"/> *7.	If personnel are dispatched to another facility a follow up call should be initiated in 15-20 minutes to ensure they arrive safely. SOS 99-1904.
<input type="checkbox"/> *8.	<p>Ensure the availability of the following administrative services:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Typing, Word Processing <input type="checkbox"/> Copying, Reproduction <input type="checkbox"/> Fax <input type="checkbox"/> Document control <input type="checkbox"/> Drawings <input type="checkbox"/> Message and mail Delivery <input type="checkbox"/> Telephone Repair and Installation <input type="checkbox"/> Radio Repair (UE Telecom.) <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____
<input type="checkbox"/> *9.	<p>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.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Meals ordered and scheduled for the entire organization; personnel informed of meal times and locations. <input type="checkbox"/> Sleeping space arranged for emergency personnel: personnel informed as to location. <input type="checkbox"/> Shift schedule prepared for emergency personnel: appropriate personnel notified. (Use the sign in board and Emergency Telephone Directory to make up roster.) <input type="checkbox"/> Janitorial/waste disposal services arrangements made.
<input type="checkbox"/> *10.	<p>Requests for additional vendor support personnel are to be coordinated with the Logistics Support Coordinator in the EOF.</p> <p>Obtain the following information from the Logistics Support Coordinator:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Name(s) of personnel <input type="checkbox"/> Social Security Number <input type="checkbox"/> Work space requirements <input type="checkbox"/> Estimated time of arrival <p>Contact:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Supervisor Admin, Access Control and arrange for plant access as required. <input type="checkbox"/> Plant helper group to set up desk etc. as required
<input type="checkbox"/> *11.	<p>Coordinate requests for additional equipment with the Logistics Support Coordinator in the EOF.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Obtain the information from the requesting organization and supply it to the Logistics Support Coordinator: <input type="checkbox"/> Explicit equipment requirements in writing <input type="checkbox"/> Amount needed <input type="checkbox"/> Delivery location <input type="checkbox"/> Person on site to contact
<input type="checkbox"/> *12.	<p>Contact the Logistical Support Coordinator in the EOF and coordinate to provide Administrative Support to the entire organization.</p>
<input type="checkbox"/> *13.	<p>In the event of an accident or illness perform the following: <i>(Note: DO NOT release the individual's name.)</i> Call the control room and obtain the following.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Nature of injury or illness <input type="checkbox"/> Contaminated? <input type="checkbox"/> Transported offsite to doctor, hospital etc. <input type="checkbox"/> If the incident may attract media attention call the JPIC Administrator or Coordinator and supply them with the information.

ADMINISTRATIVE (ADMIN) COORDINATOR CHECKLIST

<u>TURNOVER</u>	
<input type="checkbox"/> 1.	Brief the incoming Admin. Coordinator of the status of administrative activities and review log.
<input type="checkbox"/> 2.	Notify the Admin. and clerical staff of the turnover.
<input type="checkbox"/> 3.	Notify the Emergency Coordinator turnover complete.
<input type="checkbox"/> 4.	Turnover complete _____ Time.
<input type="checkbox"/> 5.	Turnover logged.
<input type="checkbox"/> 6.	Initiate a new Checklist CA# 263.

<u>RECOVERY</u>	
<input type="checkbox"/> 1.	Continue Administrative activities until directed otherwise by the Emergency Coordinator or RM.

<u>TERMINATION and SHUTDOWN</u>	
<input type="checkbox"/> 1.	Upon direction of the Emergency Coordinator, begin terminating operation as follows <ul style="list-style-type: none"> <input type="checkbox"/> Responsibilities transferred to the Control Room. <input type="checkbox"/> All functional equipment/supplies have been restored to startup conditions. <input type="checkbox"/> Records collected, and forwarded to Emergency Preparedness Department. <input type="checkbox"/> Staff relieved of TSC duties.
<input type="checkbox"/> 2.	Control Room informed of TSC shutdown.
<input type="checkbox"/> 3.	TSC shut down Time _____.

Administrative Coordinator Signature

HEALTH PHYSICS (HP) COORDINATOR CHECKLIST

Date _____ Time: _____

INITIATION		
<input type="checkbox"/> 1.		<input type="checkbox"/> Card in on the accountability card reader. <input type="checkbox"/> Sign in on Facility Sign-in board. <input type="checkbox"/> Obtain the Health Physics Coordinators package. <input type="checkbox"/> Clip on the Health Physics Coordinators badge.
<input type="checkbox"/> 2.		Inform Emergency Coordinator and Admin. Coordinator of your presence.
<input type="checkbox"/> 3.		Initiate Log Sheet.
<input type="checkbox"/> 4.		Shift the HPC Plant Computer power supply to the UPS position.
<input type="checkbox"/> 5.		Personnel Assessment On Shift: <input type="checkbox"/> _____ (name) HP Ops Shift Technician . 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. <input type="checkbox"/> _____ (name) HP Tech Support Technician . Obtain Plant, radiological release, meteorological, and Protective Action Recommendation status from the HPTS Tech performing dose assessment.
<input type="checkbox"/> 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. _____ 2. _____	<input type="checkbox"/> Assign 2 R/C Support Personnel to FMTs. Request Drivers from the OSC. Brief the teams and drivers in accordance with EIP-ZZ-00211 . (HP Tech Support preferred).
	3. _____ 4. _____	<input type="checkbox"/> 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. (RW Preferred).
	5. _____	<input type="checkbox"/> Assign R/C Support Personnel to maintain Habitability of TSC per Initiation Step 8 and Operation Step 9 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). (HP Ops. preferred).
	6. _____	<input type="checkbox"/> Assign R/C Support Personnel to monitor Plant Computer Screens, maintain Facility Log, and answer phones / radio. Initiate FF Logs and update Status Boards approx. every 15 minutes. Wind speed and wind direction should be closely monitored along with In Plant radiological conditions. (HP Ops. preferred).
	7. _____ 8. _____ 9. _____ 10. _____	<input type="checkbox"/> 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 and prepare equipment and supplies. All prepared radiological briefings should be reviewed with HPC prior to conducting brief of Emergency Team. (HP Ops. preferred).
	11. _____	<input type="checkbox"/> Assign R/C Support Personnel to perform Onsite survey of plume if a release is suspected or in progress to quantify release. RO2 open / closed readings should be used. (HP Ops. preferred).

HEALTH PHYSICS (HP) COORDINATOR CHECKLIST

12.		<input type="checkbox"/> Assign Chemistry Support Personnel to the Chemistry Coordinator (if needed).
13.		<input type="checkbox"/> Assign R/C Support Personnel to communicate with the NRC via the HPN line (if requested from NRC). (HP Ops. preferred).
14.		<input type="checkbox"/> Assign R/C Support Personnel to monitor habitability of MAF, Field Office, HPAC, and Control Room as needed. (HP Ops. preferred).
<input type="checkbox"/> 7.	Contact Dose Assessment Coordinator (DAC) at EOF (ext. 64999): <input type="checkbox"/> Inform DAC of FMT, Dose Assessment Staff, and FMT Communicator deployment status.	
<input type="checkbox"/> 8.	Establish Radiological Habitability Controls in the TSC: <input type="checkbox"/> Close front door to vestibule and back hallway door from support area. <input type="checkbox"/> Portal Monitor energized and response checked. Incoming traffic directed through portal monitor. <input type="checkbox"/> Set up a frisking station using a model 177 Rate Meter, as needed, to backup the portal monitor. <input type="checkbox"/> AMS 3 energized and source checked. <input type="checkbox"/> Control Dosimetry placed at HPC Desk.	
<input type="checkbox"/> 9.	HP Group ready for responsibilities at _____ Time. (Also make log entry).	
<input type="checkbox"/> 10.	Discuss any additional manpower support or supplies required with the Admin. Coordinator.	
<input type="checkbox"/> 11.	Notify Emergency Coordinator that HP is ready for operation and habitability in the TSC is established.	

OPERATIONS

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

<input type="checkbox"/> *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.	
<input type="checkbox"/> *2.	If personnel are dispatched to another facility a follow up call should be initiated in 15-20 minutes to ensure they arrive safely. SOS 99-1904.	
<input type="checkbox"/> *3.	Review needed protective actions for On Site personnel: <input type="checkbox"/> Ensure dosimetry issued to Security personnel and Security Coordinator briefed on radiological conditions, wind speed and direction. <input type="checkbox"/> Coordinate Assembly and Evacuation actions per EIP-ZZ-00230 with the Security Coordinator. (Assembly and Evacuation are required at a SITE and GENERAL EMERGENCY) <input type="checkbox"/> Determine which Care and Reception Center is preferred based on plume direction (if needed). <input type="checkbox"/> Determine need for R/C Support Personnel to monitor Assembly and Evacuation. <input type="checkbox"/> Evaluate restricting access to areas due to release or potential release based on wind direction. <input type="checkbox"/> Evaluate need for Respiratory Protection per HTP-ZZ-01201 . <input type="checkbox"/> Evaluate Potassium Iodide (KI) distribution to Emergency Teams, Ops Department and Security personnel per HDP-ZZ-01300 .	
<input type="checkbox"/> 4.	Obtain Respirator Issue Log and Daily Dose Report from HPAC if LAN and Mainframe Computer are unavailable in the TSC.	
<input type="checkbox"/> *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.	
<input type="checkbox"/> *6.	Personnel requiring decontamination should be sent to HPACA. If needed, the back entrance of the TSC can be staged to receive contaminated personnel.	

HEALTH PHYSICS (HP) COORDINATOR CHECKLIST

<input type="checkbox"/> *7.	Verify sufficient inventory of the following (additional quantities are available from HPAC or Cal Facility): <ul style="list-style-type: none"> <input type="checkbox"/> Electronic Dosimeters (ED) <input type="checkbox"/> Portable Instruments <input type="checkbox"/> Respirators <input type="checkbox"/> Protective Clothing (PC) <input type="checkbox"/> Consumables (rope, postings, bags, etc.)
<input type="checkbox"/> *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 .
<input type="checkbox"/> *9.	Monitor Plant conditions and emergency activities to ensure personnel dose is maintained ALARA. <ul style="list-style-type: none"> <input type="checkbox"/> Monitor and trend Plant Area Radiation monitors, including Control Room and HPACA. <input type="checkbox"/> Radiation levels are expected to increase when Safety Injection recirculation is lined up to Containment. <input type="checkbox"/> Monitor the RWST radiation levels and tank vent effluent when in the recirculation mode. <input type="checkbox"/> Notify the EC and make announcements to the TSC as Radiological Conditions change. <input type="checkbox"/> Establish radiological postings in the Plant as time and resources allow (MUST be performed prior to Re-entry).
<input type="checkbox"/> *10.	Monitor facility habitability radiological conditions and recommended appropriate protective actions: <ul style="list-style-type: none"> <input type="checkbox"/> Direct dose rate ≥ 600 mrem/hr, inform the EC, and commence monitoring cumulative dose. <input type="checkbox"/> Cumulative dose of $\geq 4,400$ mrem, recommend evacuation of the facility. <input type="checkbox"/> Direct dose rate of $\geq 5,000$ mrem/hr, recommend evacuation. <input type="checkbox"/> Iodine concentrations of $\geq 2.4E^{-6}$ $\mu\text{Ci/ml}$, inform the EC, and commence air sampling to ensure total intake does not exceed 25 rem CDE. <input type="checkbox"/> Iodine concentrations of $\geq 1.9E^{-5}$ $\mu\text{Ci/ml}$, recommend evacuation.
<input type="checkbox"/> *11.	Periodically update the Emergency Coordinator on radiological conditions in the Plant and the status of TSC habitability.
<input type="checkbox"/> *12.	If additional HP support or supplies are needed, coordinate requests through the Admin. Coordinator or Stores person.

TURNOVER

<input type="checkbox"/> 1.	Brief the oncoming HP Coordinator on radiological information, and any protective actions, both recommended and implemented.
<input type="checkbox"/> 2.	Brief the oncoming HP Coordinator on the status of deployed Emergency Teams.
<input type="checkbox"/> 3.	Review HPC Checklist and Log
<input type="checkbox"/> 4.	Contact Dose Assessment Coordinator in EOF <ul style="list-style-type: none"> <input type="checkbox"/> Arrange for FMT turnover. <input type="checkbox"/> Obtain weather forecast. <input type="checkbox"/> Inform DAC of oncoming relief.
<input type="checkbox"/> 5.	Notify the Emergency Coordinator of the Turnover
<input type="checkbox"/> 6.	Turnover complete _____ Time.
<input type="checkbox"/> 7.	Turnover logged.
<input type="checkbox"/> 8.	Initiate a new Checklist CA# 264.

HEALTH PHYSICS (HP) COORDINATOR CHECKLIST

<u>RECOVERY</u>	
<input type="checkbox"/> 1.	Discuss: <ul style="list-style-type: none"> <input type="checkbox"/> Maintaining of personnel exposure ALARA and preventing spread of contamination. <input type="checkbox"/> Survey and Posting Status. <input type="checkbox"/> Need to implement EIP-ZZ-00225, Reentry <input type="checkbox"/> Decontamination activities. <input type="checkbox"/> Need for additional assistance, supplies, or equipment. <input type="checkbox"/> Long term monitoring.
<input type="checkbox"/> 2.	Continue HP operations until directed otherwise by the Emergency Coordinator or RM.

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

<u>INITIATION</u>	
<input type="checkbox"/> 1.	<input type="checkbox"/> Card in on the accountability card reader. <input type="checkbox"/> Sign in on Facility Sign-in board. <input type="checkbox"/> Obtain the ENS Communicators package. <input type="checkbox"/> Clip on the Communicators badge.
<input type="checkbox"/> 2.	Ensure the TSC has power. <input type="checkbox"/> Normal power, (i.e. lights on, power available to computers, etc.). <input type="checkbox"/> No Power. Start the TSC diesel per OOA-UB-EPG70 call for Equipment Operator if available
<input type="checkbox"/> 3.	Shift the PC power supplies to the UPS position.
<input type="checkbox"/> 4.	Emergency Coordinator and Admin Coordinator informed of your presence.
<input type="checkbox"/> 5.	Initiate Log sheet.
<input type="checkbox"/> 6.	Activate Plant Status Boards on the Plant Computer (Cancel, type PSB, Return).
<input type="checkbox"/> 7.	Check dial tone on the ENS line.
<input type="checkbox"/> 8.	Contact Control Room Communicator.
<input type="checkbox"/> 9.	Get a brief as to the status of ENS Communications.
<input type="checkbox"/> 10.	Accept responsibility of ENS Communications per EIP-ZZ-00201, CA-#234, as directed by the NRC.
<input type="checkbox"/> 11.	Discuss any additional support or supplies required with the Admin Coordinator.

<u>OPERATIONS</u>	
<i>(*) Steps are items that must be frequently reviewed.</i>	
<input type="checkbox"/> 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.
<input type="checkbox"/> *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.)
<input type="checkbox"/> *3	Log information requested and relayed to the NRC as deemed appropriate.
<input type="checkbox"/> *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 (SOS 97-1061).
<input type="checkbox"/> *5	If personnel are dispatched to another facility a follow up call should be initiated in 15-20 minutes to ensure they arrive safely. SOS 99-1904.

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

<u>RECOVERY</u>	
<input type="checkbox"/> 1.	Continue providing the NRC with requested information.

<u>TERMINATION and SHUTDOWN</u>	
<input type="checkbox"/> 1.	When directed, assist with the TSC deactivation.
<input type="checkbox"/> 2.	Ensure area is put into order and logs collected and give to the Admin Coordinator.
<input type="checkbox"/> 3.	Restore PC UPS power supply to LINE.

CHEMISTRY COORDINATOR CHECKLIST

Date _____ Time: _____

<u>INITIATION</u>	
<input type="checkbox"/> 1.	<input type="checkbox"/> Card in on the accountability card reader. <input type="checkbox"/> Sign in on Facility Sign-in board. <input type="checkbox"/> Obtain the Chemistry Coordinators package. <input type="checkbox"/> Clip on the Chemistry Coordinators badge.
<input type="checkbox"/> 2.	Inform Emergency Coordinator and Admin. Coordinator of arrival.
<input type="checkbox"/> 3.	Initiate Log sheet.
<input type="checkbox"/> 4.	Contact on shift Chemistry Tech and ensure <ul style="list-style-type: none"> <input type="checkbox"/> RERP vehicle is operational and in the parking lot. <input type="checkbox"/> Complete page 3, RERP Chemistry Data, with the most recent samples <input type="checkbox"/> Have PASS system lined up per CTP-ZZ-08010. <i>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. (SOS 98-3260)</i>
<input type="checkbox"/> 5.	Personnel Assessment Rad./Chem. Chemistry technicians (2 required) <ul style="list-style-type: none"> <input type="checkbox"/> _____ (name), Hot Lab & _____ (responsibilities) <input type="checkbox"/> _____ (name), PASS & _____ (responsibilities) <input type="checkbox"/> _____ (name), _____ (responsibilities) Rad./Chem. Technicians available. (Chemistry) _____ (number).
<input type="checkbox"/> 6.	Assign an available Chemistry Supervisor to the Hot Lab as needed.
<input type="checkbox"/> 7.	Discuss plant chemistry status with Emergency Coordinator and Tech Assessment Coordinator.
<input type="checkbox"/> 8.	Chemistry is ready _____ Time. (Make log entry).
<input type="checkbox"/> 9.	Emergency Coordinator and Admin. Coordinator informed.
<input type="checkbox"/> 10.	Discuss any additional support or supplies required with the Admin Coordinator.

<u>OPERATIONS</u>	
(*) Steps are items that must be frequently reviewed.	
<input type="checkbox"/> * 1.	Have RERP Chemistry Data Forms (page 3) ready to record RCS data as it becomes available: <ul style="list-style-type: none"> <input type="checkbox"/> Record RCS data on the RERP Chemistry Data form (CA#267). <input type="checkbox"/> Have the Admin Clerk make 3 copies. Give a copy of the RERP Chemistry Data form to the: <ul style="list-style-type: none"> <input type="checkbox"/> Tech Assessment Coordinator. <input type="checkbox"/> HP Coordinator. <input type="checkbox"/> Reactor Engineer. <input type="checkbox"/> Make successive updates to the latest RERP Chemistry Data form and distribute.
<input type="checkbox"/> *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 (SOS 97-1061).
<input type="checkbox"/> *3.	If personnel are dispatched to another facility a follow up call should be initiated in 15-20 minutes to ensure they arrive safely. SOS 99-1904.

CHEMISTRY COORDINATOR CHECKLIST

<input type="checkbox"/> * 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.
<input type="checkbox"/> *5.	Evaluate Secondary Chemistry conditions.
<input type="checkbox"/> *6.	Monitor PASS data and provide recommendations as necessary. <ul style="list-style-type: none"> <input type="checkbox"/> If power is lost to PASS, see CTP-ZZ-08010 . <input type="checkbox"/> Initiation of SIS isolates cooling to PASS and the SJ Sink, Contact Operations to restore cooling, see CTP-ZZ-08010.
<input type="checkbox"/> *7.	On a SI actuation, SJ sample cooling water will be lost. <ul style="list-style-type: none"> <input type="checkbox"/> Request the Tech to secure high temp samples. <input type="checkbox"/> Request Ops to open EGHV69A & B and EGHV70A & B to restore cooling flow as soon as practical. <p>CVCS letdown samples will remain representative as long as letdown flow is available.</p>
<input type="checkbox"/> * 8.	Identify additional support (e.g. personnel, off-site analysis) and coordinate requests through the Admin Coordinator.

TURNOVER

<input type="checkbox"/> 1.	<input type="checkbox"/> Brief the incoming Chemistry Coordinator of Chemistry activities and review log.
<input type="checkbox"/> 2.	<input type="checkbox"/> Notify the Tech. Assessment Coordinator of the Turnover
<input type="checkbox"/> 3.	Turnover complete _____ Time.
<input type="checkbox"/> 4.	Turnover logged.
<input type="checkbox"/> 5.	Initiate new checklist

RECOVERY

<input type="checkbox"/> 1.	Continue Chemistry activities until directed otherwise by the Emergency Coordinator or RM.
-----------------------------	--

TERMINATION and SHUTDOWN

<input type="checkbox"/> 1.	Upon direction assist with TSC deactivation.
<input type="checkbox"/> 2.	Ensure Chemistry equipment is deactivated and/or stored.
<input type="checkbox"/> 3.	Ensure documents are collected and given to the Admin Coordinator.

 Chemistry Coordinator Signature

RERP CHEMISTRY DATA

MOST RECENT 100/E Bar Limit: _____ $\mu\text{Ci/g}$ ____ / ____ / ____ date.

DATE _____

RCS SAMPLES													SECONDARY SAMPLES						
TIME	BORON (ppm)	DEI ($\mu\text{Ci/g}$)	I-131 ($\mu\text{Ci/g}$)	I-133 ($\mu\text{Ci/g}$)	I-135 ($\mu\text{Ci/g}$)	Cs-134 ($\mu\text{Ci/g}$)	Cs-137 ($\mu\text{Ci/g}$)	Te-132 ($\mu\text{Ci/g}$)	Ba-140 ($\mu\text{Ci/g}$)	Kr-87 ($\mu\text{Ci/g}$)	Xe-133 ($\mu\text{Ci/g}$)	Total Activity ($\mu\text{Ci/g}$)	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: _____

<u>INITIATION</u>	
<input type="checkbox"/> 1.	<input type="checkbox"/> Card in on the accountability card reader. <input type="checkbox"/> Sign in on Facility Sign-in board. <input type="checkbox"/> Obtain the Security Coordinators package. <input type="checkbox"/> Clip on the Security Coordinators badge.
<input type="checkbox"/> 2.	Inform Emergency Coordinator and Admin. Coordinator of arrival.
<input type="checkbox"/> 3.	Initiated Log sheet.
<input type="checkbox"/> 4.	Personnel Assessment (Call in extra personnel as required). <input type="checkbox"/> Contact the Shift Security Supervisor and obtain number and names of security personnel available for assignment.
<input type="checkbox"/> 5.	Station security officers at the Emergency Response Facilities entrances to log personnel entrance and egress.
<input type="checkbox"/> 6.	Discuss any additional support or supplies required with the Admin Coordinator.

<u>OPERATIONS</u>	
<i>(* Steps are items that must be frequently reviewed.</i>	
<input type="checkbox"/> *1.	Conduct normal and emergency security activities in accordance with the Security Plan. If the plan cannot be followed, obtain authorization from the Shift Supervisor to deviate (refer to OTO-SK-00001 Attachment 1), in accordance with 10CFR50.54(x)(y) to deviate.
<input type="checkbox"/> *2.	Assist the EC in Evacuation and Accountability per EIP-ZZ-00230 as requested by EC.
<input type="checkbox"/> *3.	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 (SOS 97-1061).
<input type="checkbox"/> *4.	If personnel are dispatched to another facility a follow up call should be initiated in 15-20 minutes to ensure they arrive safely. SOS 99-1904 .
<input type="checkbox"/> *5.	Contact the HP Coordinator to determine the affected areas in the case of a release.
<input type="checkbox"/> *6.	Ensure that the Security Force has the appropriate dosimetry. Check with the HPC.
<input type="checkbox"/> *7.	Coordinate plant access control.
<input type="checkbox"/> *8.	Contact local law enforcement to coordinate traffic control (i.e. for evacuation routes).
<input type="checkbox"/> *9.	Coordinate personnel evacuation and accountability. (NOTE: Accountability is required within 30 minutes of declaring accountability.)
<input type="checkbox"/> *10.	Coordinate any off-site law enforcement agency involvement.

SECURITY COORDINATOR (SC) CHECKLIST

<u>TURNOVER</u>	
<input type="checkbox"/> 1.	Brief the incoming Security Coordinator of Security activities and review log.
<input type="checkbox"/> 2.	Notify the Emergency Coordinator of the turnover
<input type="checkbox"/> 3.	Turnover complete _____ Time.
<input type="checkbox"/> 4.	Turnover logged.
<input type="checkbox"/> 5.	Initiate new checklist

<u>RECOVERY</u>	
<input type="checkbox"/> 1.	Continue Security activities until directed otherwise by the Emergency Coordinator.

<u>TERMINATION and SHUTDOWN</u>	
<input type="checkbox"/> 1.	Upon direction assist with TSC deactivation.
<input type="checkbox"/> 2.	Ensure security equipment is deactivated and/or stored.
<input type="checkbox"/> 3.	Ensure documents are collected and given to the Admin Coordinator.

Security Coordinator Signature