



Omaha Public Power District
444 South 16th Street Mall
Omaha, Nebraska 68102-2247

September 13, 2000
LIC-00-0083

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Station P1-137
Washington, DC 20555

Reference Docket No. 50-285

Subject: Transmittal of changes to Fort Calhoun Radiological Emergency Response Plan (RERP), Emergency Plan Implementing Procedures (EPIP), and Emergency Planning Forms (EPF) manuals.

In accordance with 10 CFR 50 Appendix A Part V and 10 CFR 50.4(b)(5)(iii), please find RERP, EPIP, and EPF change packages enclosed for the Document Control Center (holder of Copy 165), and the NRC Emergency Response Coordinator (holder of Copies 154 and 155).

The document update instructions and summary of changes are included on the Confirmation of Transmittal (Form EP-1) forms attached to each controlled copy change package. Please return the Confirmation of Transmittal forms by October 24, 2000.

The revised documents included in the enclosed package are:

RERP Index Page 1 issued 08/24/00
RERP-Section B R25 issued 08/24/00
RERP-Section E R23 issued 08/24/00
RERP-Section F R15 issued 08/24/00
RERP-Section H R29 issued 08/24/00

EP Forms Index Page 1 of 2 issued 08/24/00
FC-EPF-9 R12 issued 08/24/00
FC-EPF-10 R14 issued 08/24/00
FC-EPF-11 R10 issued 08/24/00

EPIP Index Pages 1 & 2 issued 08/24/00
EPIP-OSC-1 R33 issued 08/24/00
EPIP-OSC-2 R36 issued 08/24/00
EPIP-OSC-15 R21 issued 08/24/00

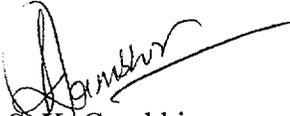
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U. S. Nuclear Regulatory Commission
September 13, 2000
LIC-00-0083
Page 2

EPIP-OSC-21 R9 issued 08/24/00
EPIP-TSC-1 R21 issued 08/24/00
EPIP-EOF-1 R12 issued 08/24/00
EPIP-RR-17A R17 issued 08/24/00
EPIP-RR-22 R20 issued 08/24/00
EPIP-RR-25 R19 issued 08/24/00
EPIP-RR-87 R7 issued 08/24/00

If you have any questions regarding the enclosed changes, please contact me at (402) 533-6647.

Sincerely,



S. K. Gambhir
Division Manager
Nuclear Operations

SKG/ash

Enclosures

c: T. H. Andrews, Emergency Response Coordinator (2 sets)
L. R. Wharton, NRC Project Manager (w/o enclosures)
W. C. Walker, NRC Senior Resident Inspector (w/o enclosures)
Winston & Strawn (w/o enclosures)

OMAHA PUBLIC POWER DISTRICT

Confirmation of Transmittal for
Emergency Planning Documents/Information

Radiological Emergency
Response Plan (RERP)

Emergency Plan
Implementing Procedures
(EPIP)

Emergency Planning
Forms (EPF)

Emergency Planning Department Manual
(EPDM)

Other Emergency Planning Document(s)/
Information

Transmitted to:

Name: Document Control Desk Copy No: 165
Tom Andrews Copy No: 154
Tom Andrews Copy No: 155

Date: _____

The following document(s) / information is forwarded for your manual:

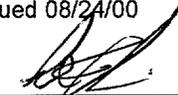
REMOVE SECTION

RERP Index Page 1 issued 06/29/00
RERP-Section B R24 issued 02/29/00
RERP-Section E R22 issued 10/20/98
RERP-Section F R14 issued 09/09/99
RERP-Section H R28 issued 02/29/00
EP Forms Index Page 1 of 2 issued 05/04/00
FC-EPF-9 R11 issued 08/05/99
FC-EPF-10 R13 issued 05/04/00
FC-EPF-11 R9 issued 08/05/99
EPIP Index Page 1 issued 05/04/00 & 2 issued 05/16/00
EPIP-OSC-1 R32 issued 07/29/99
EPIP-OSC-2 R35 issued 03/31/00
EPIP-OSC-15 R20 issued 03/31/00
EPIP-OSC-21 R8 issued 09/30/97
EPIP-TSC-1 R20 issued 10/08/99
EPIP-EOF-1 R11b issued 09/23/99
EPIP-RR-17A R16a issued 02/24/00
EPIP-RR-22 R19a issued 02/29/00
EPIP-RR-25 R18 issued 02/29/00
EPIP-RR-87 R6 issued 09/30/98

INSERT SECTION

RERP Index Page 1 issued 08/24/00
RERP-Section B R25 issued 08/24/00
RERP-Section E R23 issued 08/24/00
RERP-Section F R15 issued 08/24/00
RERP-Section H R29 issued 08/24/00
EP Forms Index Page 1 of 2 issued 08/24/00
FC-EPF-9 R12 issued 08/24/00
FC-EPF-10 R14 issued 08/24/00
FC-EPF-11 R10 issued 08/24/00
EPIP Index Pages 1 & 2 issued 08/24/00
EPIP-OSC-1 R33 issued 08/24/00
EPIP-OSC-2 R36 issued 08/24/00
EPIP-OSC-15 R21 issued 08/24/00
EPIP-OSC-21 R9 issued 08/24/00
EPIP-TSC-1 R21 issued 08/24/00
EPIP-EOF-1 R12 issued 08/24/00
EPIP-RR-17A R17 issued 08/24/00
EPIP-RR-22 R20 issued 08/24/00
EPIP-RR-25 R19 issued 08/24/00
EPIP-RR-87 R7 issued 08/24/00

Summary of Changes: Please see attachment.



Supervisor - Emergency Planning

I hereby acknowledge receipt of the above documents/information and have included them in my assigned manuals.

Signature: _____

Date: _____

Please sign above and return by 10/24/00 to:

Karma Boone
Fort Calhoun Station, FC-2-1
Omaha Public Power District
444 South 16th Street Mall
Omaha, NE 68102-2247

NOTE: If the document(s)/information contained in this transmittal is no longer requested or needed by the recipient, or has been transferred to another individuals, please fill out the information below.

Document(s)/Information No Longer Requested/Needed

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Name: _____ Mailing Address: _____

Summary of Changes

Changes made to RERP Section B:

1. To create new off-site communicator positions in the EOF and TSC, to improve off-site notifications to off-site agencies and to enhance the ability of the Emergency Response Coordinators to assist the Emergency Director in the EOF and the Site Director in the TSC.
2. To create new CHP Communicators in the TSC and EOF to improve the flow of Dose Assessment and Protective Action Recommendation information between OPPD and the States.
3. To create an EOF IT Specialist Position to assist ERO personnel with computer hardware and software problems.
4. To take credit for the OSC RP Coordinator and the OSC Dosimetry Technician in meeting RP Technician requirements in Table B-1.
5. To identify the positions responsible for the major tasks in Table B-1 for on-shift and for the 1-hour augmentation goal requirements.
6. To revise minimum staffing requirements in the TSC, OSC, and EOF due to improved information flow between C&C positions made possible by the installation of the new MOP Network, addition of new communicator positions, and revised Table B-1 responsibilities.
7. To identify which ERO positions on Figure B-2 are Shift Staff, Minimum Staffing, Augmenting Staff, and Support Staff.
8. To delete the use of the term "Operational" when activating the TSC, OSC, and EOF. The facilities are activated when minimum staffing positions are filled and certain setup requirements are completed. A check is made at one-hour to determine if all augmenting positions are filled.
9. To require the EOF to be activated at the ALERT instead of SAE in order to support the current practice of the ED assuming C&C directly from the Control Room.

Summary of changes made to EIPs and EPF Forms affected by the RERP Section - B revision.

1. EPIP-RR-17A, "TSC Administrative Logistics Coordinator Actions" were revised to:
 - Direct the duties of the TSC COP Communicator, which are to perform required off-site notifications on the COP Phone and to maintain the Radiological Status Board.
 - Changed the name of the TSC EP Specialist to TSC Emergency Response Coordinator (TSC ERC). The duties of the new TSC ERC position are to assist other TSC positions as required. The TSC ERC will not have communicator or status board duties.

Summary of Changes (Continued)

EPIP-OSC-1: The first note in Step 5 was revised to delete instructions for reporting an action level for an emergency classification that was exceeded, but has been abated or otherwise been resolved prior to declaration. This note now refers the user to EPIP-OSC-2 for notification directions. Another note was added to Step 5 that incorporates NEI guidance on the 15 minutes to classify an event. The wording in Steps 5.4.1 and 5.4.2 was changed to clarify the intent of the requirements.

EPIP-OSC-2: Attachments 6.1, 6.2 and 6.3 were reformatted and the option for evacuating personnel through the North Security Access Point was deleted.

EPIP-OSC-15: A reference was added for the EP Activation Instruction Booklet. Attachments 6.1, 6.2 and 6.3 were reformatted. Attachments 6.4 - 6.11 were deleted and instructions were added to refer the user directly to the EP Activation Instruction Booklet.

EPIP-RR-25: Was revised to update the procedure format and the reference to EPIP-OSC-20 was changed to FC-EPF-6.

EPIP-RR-87: Attachment 6.1 was reformatted and the references were updated.

**RADIOLOGICAL EMERGENCY RESPONSE PLAN INDEX
RERP**

<u>PROCEDURE NUMBER</u>	<u>TITLE</u>	<u>REVISION/DATE</u>
RERP	Definitions and Abbreviations	R15 06-29-00
RERP-SECTION A	Assignment of Organizational Responsibility (Organizational Control)	R11 02-27-97b
RERP-SECTION B	Organizational Control of Emergencies	R25 08-24-00
RERP-SECTION C	Emergency Response Support and Resources	R9 09-30-98
RERP-SECTION D	Emergency Classification System	R9 04-29-97a
RERP-SECTION E	Notification Methods and Procedures	R23 08-24-00
RERP-SECTION F	Emergency Communications	R15 08-24-00
RERP-SECTION G	Public Education and Information	R10 03-11-97a
RERP-SECTION H	Emergency Facilities and Equipment	R29 08-24-00
RERP-SECTION I	Accident Assessment	R11 09-02-99
RERP-SECTION J	Protective Response	R16 01-06-00
RERP-SECTION K	Radiological Exposure Control	R9 02-03-00
RERP-SECTION L	Medical and Public Health Support	R11 01-27-00
RERP-SECTION M	Recovery and ReEntry Planning and Post Accident Operations	R14 03-11-97a
RERP-SECTION N	Exercises and Drills	R12 10-28-99
RERP-SECTION O	Radiological Emergency Response Training	R13 09-23-97a
RERP-SECTION P	Responsibility for the Planning Effort: Development, Periodic Review and Distribution	R10 10-23-97

Fort Calhoun Station
Unit No. 1

Distribution Authorized

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RERP-SECTION B

RADIOLOGICAL EMERGENCY RESPONSE PLAN

Title: ORGANIZATIONAL CONTROL OF EMERGENCIES

FC-68 Number: DCR 12261

Reason for Change: Change requirements to activate the EOF at ALERT. Change facility positions to meet the requirements of Table B-1. Add descriptions for on shift minimum and augmented staffing positions deleting term operational. Update Figures B-1, B-2 and Table B-1.

Requestor: M. Reller

Preparer: M. Reller

ORGANIZATIONAL CONTROL OF EMERGENCIES

1. ONGOING COMMITMENT DOCUMENTS

- AR11390, LIC-065R

2. ERO STAFF ON SHIFT

- 2.1 The staffing of the normal operating organization for each shift is shown in Table B-1. This staffing consists of, as a minimum, a Shift Manager (Senior Reactor Operator); a Control Room Supervisor (Senior Reactor Operator); two Reactor Operators; two Equipment Operators; a Control Room Communicator; a Chemistry Technician; a Radiation Protection Technician; and a Shift Technical Advisor. Additionally, there are several shift Security personnel assigned.

All or part of these shift personnel may comprise the initial ERO, and are responsible for taking immediate protective measures in any emergency and implementing this Radiological Emergency Response Plan when necessary.

3. ACTIVATION OF THE ERO

- 3.1 At a Notification of Unusual Event (NOUE), the Shift Manager may elect to not activate the ERO. In this instance, a notification to certain management personnel is performed and other personnel may be notified to assist as necessary.

If the Shift Manager elects to activate the ERO, the notification process will call out the entire ERO (with the exception of the MRC).

- 3.2 It is OPPD's goal that the ERO personnel can staff their emergency positions within one hour following declaration of an Alert or higher classification. In the event of adverse weather and/or other conditions that may limit or slow response, either manmade or natural, it is understood that staffing time may exceed this goal.

4. FACILITY ACTIVATION AND OPERATION

- 4.1 There are some functional group activities that may be performed within an Emergency Response Facility prior to actually activating the facility. To be beneficial to the Command and Control facility, these activities, such as dose assessment and field team functions, are dependent upon the establishment of proper communications between the facilities.

- 4.2 OPPD Emergency Response Facilities are considered activated when minimum staffing and basic setup requirements have been attained to allow the facility to provide minimum support to the operating staff and other facilities.

It is OPPD's goal that the OSC, EOF and TSC be activated within one hour following an Alert classification. The MRC will be activated following a Site Area or General Emergency classification, and can be activated at an earlier classification based on the decisions of the Corporate Communications Division.

- 4.3 Minimum staffing for activation of the OSC is as follows: 1) an OSC Director; 2) a Radiation Protection Technician or Radiation Protection Coordinator; and, 3) one other person to form a team.
- 4.4 Minimum staffing for activation of the TSC is as follows: 1) a Site Director; 2) a TSC COP Communicator; 3) a TSC Protective Measures Coordinator; and, 4) a Reactor Safety Coordinator.
- 4.5 Minimum staffing for activation of the EOF is as follows: 1) an Emergency Director; 2) an EOF COP Communicator; 3) an EOF Protective Measures Manager or EOF Dose Assessment Coordinator and 4) an EOF Dose Assessment Specialist.
- 4.6 OPPD Emergency Response Facilities are considered augmented when all minimum and augmenting staffing positions are filled.
- 4.7 The support staff, which assists the minimum and augmenting staff, is shown on Figure B-2. The support staff is intended to supplement and enhance operation of their respective facilities.
- 4.8 If a toxic chemical/hazardous material or other significant event occurs that threatens the habitability of the station, an option exists to have all or part of the TSC and OSC staffs report to the EOF to provide assistance as necessary.
- 4.9 Some ERO personnel may elect to maintain an assistant position. This is acceptable when additional coordination of activities is required or to aid in the turnover process. The primary assignee must maintain overall responsibility of the position, and ensure that 24 hour staffing of the position can be implemented.

5. ERO RESPONSIBILITIES

- 5.1 OPPD has issued a resolution which authorizes the ERO to provide an immediate and decisive response to mitigate the consequences of any nuclear emergency and for the protection of the health and safety of the public. Resolution No. 4731, as approved by the Board of Directors on January 15, 1998, is Appendix D of the RERP.

- 5.2 The ERO is intended to provide a pre-qualified organization capable of fulfilling the actions described above. The ERO is not confined to utilize only those personnel that are currently listed as qualified. Other OPPD personnel may be assigned and utilized to perform necessary functions at the discretion of the Command and Control positions. Assignment of any non-ERO qualified individual(s) should include adequate instruction to ensure the individual(s) is capable of performing the necessary functions and is knowledgeable of any potential hazards associated with responding to the designated facility.

6. COMMAND AND CONTROL RESPONSIBILITIES

- 6.1 The position performing the duties of the Emergency Director is referred to as the "Command and Control Position."
- 6.2 The Command and Control position has the following responsibilities that cannot be delegated to other personnel. The position may assign other personnel to assist in conducting the actions necessary, but the responsibility of their completion rests with the position, until relieved by another Command and Control position or qualified individual, or the emergency is terminated:
- 6.2.1 Overall command and control of the ERO.
 - 6.2.2 Ensuring that the proper classification of the emergency has been made in accordance with the established EAL/Classification scheme and is periodically reviewed to determine if the classification should be upgraded, downgraded or terminated.
 - 6.2.3 Ensuring that all required notifications are made to appropriate state, local and federal officials.
 - 6.2.4 Ensuring that appropriate Protective Action Recommendations (PARs) are provided to offsite officials.
 - 6.2.5 Authorizing OPPD emergency worker exposure extensions beyond the Federal Radiation Protection Guidance.
 - 6.2.6 Authorizing issuance of Potassium Iodide for OPPD emergency workers.
- 6.3 The Command and Control position also has the following responsibilities that can be delegated to other personnel, as necessary:
- 6.3.1 Requests for assistance from federal agencies.
 - 6.3.2 Authorizing any emergency information to be released to the media or the general public.

- 6.3.3 Coordinating the transfer of the emergency information from the ERO to other OPPD and non-OPPD organizations called upon to assist.
- 6.3.4 Ensuring a timely and complete turnover of information to any qualified relief.
- 6.3.5 Declaring the termination of an emergency and transfer into a Recovery Operations Organization, when appropriate.
- 6.3.6 Providing information to the authorized representatives of the states of Nebraska and Iowa, and associated local governments.
- 6.3.7 Ensuring that the plant is in compliance with Technical Specifications and other licensee conditions, and if deviations are necessary to protect the public health and safety, they are approved, as a minimum, by a Senior Reactor Operator, prior to taking the action.

7. COMMAND AND CONTROL POSITIONS

- 7.1 The positions that have Emergency Director authority are: 1) the Shift Manager, 2) the Control Room Coordinator, 3) the Site Director and 4) the EOF Emergency Director.
- 7.2 The Shift Manager ERO duties are to: 1) perform as Emergency Director until properly relieved by a qualified position; 2) direct medical and fire response efforts; and, 3) coordinate in-plant operations response with the TSC and OSC. After being relieved by another Command and Control position, the Shift Manager will provide assistance and direction to the Control Room staff as necessary.
- 7.3 The Control Room Coordinator position is intended to provide a prompt transition of Command and Control functions from the Shift Manager within the Control Room complex. This position may assume Command and Control at any emergency classification, and is not dependent on the reporting or activation of any other portion of the ERO.

The Control Room Coordinator duties are to promptly relieve the Shift Manager and perform as Emergency Director until properly relieved by a qualified position. Additional duties of the Control Room Coordinator are to: 1) ensure a qualified Control Room Operations Liaison establishes communications with the TSC, OSC and EOF to provide operational information; 2) coordinate in-plant operations response with the TSC and OSC; and, 3) assist the Shift Manager and on-shift operators with plant operations.

- 7.4 The Site Director position is intended to assume Command and Control functions from the Control Room if the EOF is not available or cannot assume Command and Control. This position may assume Command and Control at any emergency classification. The Site Director may assume Command and Control in the Control Room proper at any time. If the Site Director elects to assume Command and Control within the TSC, the TSC must meet activation requirements.

The Site Director duties are to promptly relieve the Control Room Command and Control position and perform as Emergency Director until properly relieved by a qualified position, if the EOF is not available or cannot assume Command and Control. Additional duties of the Site Director are to: 1) manage the onsite activities of the ERO; and, 2) keep the Emergency Director informed of those onsite activities as necessary.

- 7.5 The EOF Emergency Director position is intended to assume all Command and Control functions from the plant site. This position may assume Command and Control at any emergency classification, but the EOF must meet activation requirements prior to the transfer of Command and Control duties.

The Emergency Director duties are to promptly relieve the onsite Command and Control position and perform as Emergency Director until properly relieved by a qualified position or termination of the emergency response phase.

8. CONTROL ROOM POSITIONS

The following positions are on-shift staff, and augmenting positions for the Control Room. Additional Control Room support staffing is identified on Figure B-2.

8.1 Control Room on-shift staff positions are:

- 8.1.1 Shift Managers duties are described in Sections 3, 6 and 7.2.
- 8.1.2 Control Room Supervisor duties include assessment of plant conditions, ensuring requirements of the AOPs and EOPs are met and supervision of on-shift operations staff.
- 8.1.3 Reactor Operators (2) duties include implementation of the AOPs and EOPs under the direction of the Control Room Supervisor.
- 8.1.4 Control Room Communicator duties include notifications as directed by the Control Room Command and Control position. These notifications include the following: 1) required notifications to the states and counties; 2) required notifications to the NRC; and 3) notifications to the Emergency Response Organization.

- 8.1.5 Equipment Operators (2) duties include making repairs and corrective actions on plant equipment until augmented plant maintenance staff arrives.
 - 8.1.6 Shift Technical Advisor duties include providing technical support for plant systems, engineering, and providing input on repair and corrective actions.
 - 8.1.7 Shift Chemistry Technician duties include chemistry and radiochemistry analysis, radiological accident assessment and support and offsite dose assessment.
 - 8.1.8 Shift Radiation Protection Technician duties include conducting radiological accident assessment and support, offsite dose assessment and onsite in-plant surveys.
- 8.2 Control Room (CR) augmenting positions are:
- 8.2.1 Coordinator duties are described in Section 6 and 7.3.
 - 8.2.2 Operations Liaison duties include transmitting plant status/Control Room information, etc. to the TSC, EOF and OSC Operations Liaison positions.
 - 8.2.3 ENS Communicator duties include maintaining an ENS link with the NRC.
 - 8.2.4 Equipment Operator duties include providing operations support to repair teams.

9. TECHNICAL SUPPORT CENTER POSITIONS

The following are minimum staffing and augmenting positions for the Technical Support Center (TSC). Additional TSC support staffing is identified on Figure B-2.

- 9.1 Minimum staffing positions for the TSC are:
- 9.1.1 Site Director duties are described in Steps 6 and 7.4.
 - 9.1.2 Reactor Safety Coordinator duties include: 1) directing the activities of the engineering staff in the TSC; 2) directing the analysis of plant problems and providing recommendations for plant modifications to mitigate the effects of the accident; 3) directing core damage assessment calculations; and, 4) directing the evaluation of possible radiological release paths to the environment.

9.1.3 Protective Measures Coordinator duties include: 1) coordinating the dispatch of field teams from the site and performing field team direction until the EOF assumes this duty; 2) monitoring and coordinating on site dose assessment operations performed, and keep the Site Director informed of dose projections and field sample results; 3) evaluating site radiological conditions, and necessary personnel protective measures; 4) evaluating and making recommendations for plant evacuation and evacuation routes; and, 5) preparing and submitting state update information, including Protective Action Recommendations, to the Site Director for approval and transmittal to state and federal officials if TSC has Command and Control.

9.1.4 COP Communicator duties include performing notifications as directed by the Command and Control position. These notifications include the following: 1) required notifications to states and counties; 2) required notifications to the NRC; and, 3) notifications to the Emergency Response Organization. This position also assists in maintaining status boards within the TSC.

9.2 Augmenting positions for the TSC are:

9.2.1 Field Teams (2 Technicians and 2 drivers) duties include providing off-site radiological surveys in the areas potentially affected by a radiological release.

9.2.2 I&C Electrical Systems Engineer duties include providing engineering analysis and troubleshooting in that field of expertise.

9.2.3 Operations Liaison duties include: 1) obtaining plant status/Control Room information from the Control Room Operations Liaison and transmitting this information to the TSC staff as needed; and 2) assisting the Site Director in formulating appropriate protective action recommendations when necessary.
[AR 11390]

9.2.4 Primary Systems Engineer duties include providing engineering analysis and troubleshooting in that field of expertise.

10. OPERATIONS SUPPORT CENTER POSITIONS

The following are minimum staffing and augmenting positions for the Operations Support Center (OSC). Additional OSC support staffing is identified on Figure B-2.

10.1 Minimum staffing positions for the OSC are:

- 10.1.1 OSC Director duties include: 1) coordinating the development of plans for required maintenance activities; 2) keeping the Site Director informed of OSC activities; and, 3) coordinating emergency team response as requested by the TSC/Control Room to perform search and rescue, damage assessment, damage control, repair and modification, and in-plant radiological monitoring.
- 10.1.2 Radiation Protection Technician duties include coordination of on-site radiation protection activities.
- 10.1.3 One other person to form a team.

10.2 Augmenting positions for the OSC are:

- 10.2.1 Chemistry Technician duties include evaluating and performing all chemistry activities on-site. Act as Chemistry Coordinator until relieved.
- 10.2.2 Dosimetry Technician duties include issuing Dosimetry and performing dose extensions as needed.
- 10.2.3 Electrical Maintenance Technicians (2 positions) duties include providing repairs and corrective actions for plant electrical equipment as directed.
- 10.2.4 I&C Technician duties include providing repairs and corrective actions to plant instruments as directed.
- 10.2.5 Machinist or Steam Fitter Mechanic duties include providing repairs and corrective actions to plant mechanical equipment as directed.
- 10.2.6 Operations Liaison duties include obtaining plant status/Control Room information from the Control Room Operations Liaison and transmitting this information to the OSC staff as needed. **[AR 11390]**
- 10.2.7 Radiation Protection Technicians (5 positions) duties include providing radiological surveys and job coverage to repair and corrective action teams as directed.

- 10.2.8 The Radiation Protection Coordinator duties include: 1) forming and preparing emergency response teams as directed by the OSC Director; 2) coordinating all radiation protection activities onsite; 3) keeping the OSC Director and TSC Protective Measures Coordinator informed of the status of all radiation protection activities onsite; and, 4) fulfilling the minimum staffing position of Radiation Protection Technician, if required.

11. EMERGENCY OPERATIONS FACILITY POSITIONS

The following positions are minimum staffing and augmented positions for the Emergency Operations Facility (EOF). Additional EOF support staffing is identified on Figure B-2.

11.1 Minimum staffing positions for the EOF are:

11.1.1 Emergency Director duties are described in Section 6 and 7.5.

11.1.2 COP Communicator duties include performing notifications as directed by the Command and Control position. These notifications include the following: 1) required notifications to states and counties; 2) required notifications to the NRC; and, 3) notifications to the Emergency Response Organization. This position also assists in maintaining status boards within the EOF.

NOTE: Only one of the positions described in Step 11.1.3 or Step 11.1.4 is required for minimum staffing.

11.1.3 Protective Measures Manager duties include: 1) monitoring dose assessment operations performed, and keeping the Emergency Director informed of projections and field survey results; 2) evaluating site radiological conditions and necessary personnel protective measures; 3) preparing and submitting state update information, including Protective Action Recommendations, to the Emergency Director, state and federal officials; and, 4) coordinating technical briefings for the offsite agencies as requested.

11.1.4 Dose Assessment Coordinator duties include: 1) directing offsite dose assessments and the associated Protective Action Recommendations (PARs); 2) coordinating OPPD field teams; 3) comparing dose projections against field team results; and, 4) comparing dose projections and field team results with state and federal agency results.

11.1.5 Dose Assessment Specialist duties include performing offsite dose assessments and submitting the results to the Emergency Director for approval and transmittal to state and federal officials.

11.2 Augmenting positions for the EOF are:

- 11.2.1 Administrative Logistics Manager duties include: 1) coordinating administrative personnel support to the EOF; 2) coordinating scheduling and callout of ERO personnel for 24 hour coverage; 3) activating the Alert Notification System as requested; and, 4) coordinating OPPD resources for the establishment of emergency logistics for the ERO, such as food, beverages, medical and administrative supplies, transportation, special equipment, etc.
- 11.2.2 Field Team Specialist duties include coordinating the activities of the OPPD and state Field Teams to achieve the most efficient use of teams for plume tracking.
- 11.2.3 Information Specialist duties include: 1) preparing information for use in periodic press releases; and, 2) at an Alert or higher emergency classification, submitting all press releases to the Emergency Director (or designee) for approval prior to forwarding the release to the MRC.
- 11.2.4 Operations Liaison duties include: 1) obtaining plant status/Control Room information from the Control Room Operations Liaison and transmitting this information to the EOF and NRC staff as needed; and, 2) assisting the Emergency Director in the review of classifications and formulating appropriate protective action recommendations when necessary.
[AR 11390]

12. MEDIA RELEASE CENTER POSITIONS

- 12.1 The Media Release Center Manager duties include: 1) coordinating with government authorities and to provide periodic briefings and news releases to news media personnel; 2) providing rumor control services; and, 3) keeping OPPD personnel, including senior management, informed of the status of the emergency and emergency response effort. OPPD's Corporate Crisis Communication Plan lists other MRC positions.

13. EMERGENCY RESPONSE ORGANIZATION INTERFACE WITH ONSITE AND OFFSITE ORGANIZATIONS

Figure B-2 illustrates the interface between the EOF and other onsite support centers. Figure B-3 illustrates the interface of the EOF with federal, state, and local support agencies.

The EOF interfaces with each of the onsite support centers on a continuous basis. Even though the EOF serves as the primary interface with the various offsite support agencies, the TSC interfaces with various contractors and vendors to gather needed design data, consultation, and evaluation concerning the plant's status.

14. EMERGENCY RESPONSE ORGANIZATION NOTIFICATION

Emergency Response Organization notification occurs as shown in Sections E and M of the RERP. The Shift Manager is responsible for initiation of the notification process after an emergency condition has been classified.

15. SERVICES PROVIDED BY LOCAL AGENCIES

The Nebraska State Patrol and the Washington County Sheriff's Department have agreed to provide the primary law enforcement support to the Fort Calhoun Station Security Department.

The Blair Volunteer Fire Department has agreed to provide the primary fire support services for the Fort Calhoun Station. The Fort Calhoun Volunteer Fire Department has agreed to provide backup fire response.

OPPD vehicles may transport non-injured potentially contaminated personnel. The Blair Volunteer Fire Department has agreed to provide primary rescue and transportation support, for injured and/or contaminated personnel. The Fort Calhoun Volunteer Fire and Rescue, Missouri Valley Fire and Rescue and the Council Bluffs Ambulance and Fire Departments have agreed to provide backup services.

The Blair Hospital has agreed to provide medical support for work related injuries. Nebraska Health Services University Hospital in Omaha, maintains a regional Radiation Health Center which provides services for the treatment of radiologically contaminated injuries and radiation exposure evaluation.

The majority of the organizations listed in this section maintain a Letter of Agreement with OPPD. These letters are on file in the Emergency Planning Department at the Fort Calhoun Station.

FORT CALHOUN STATION
RADIOLOGICAL EMERGENCY RESPONSE PLAN

Table B-1 - OPPD Emergency Response Organization (ERO) Functions and Shift Staff Augmentation Plan

NUREG 0654			Omaha Public Power District	
Major Functional Area	Major Tasks	Position Title or Expertise	On Shift Minimum Number/Title	Goals for 1 hour Augmentation Minimum Number/Title
Plant Operations and Assessment of Operational Aspects		Shift Manager (SRO) Shift Foreman (SRO) Control Room Operators Auxiliary Operators	1 Shift Manager (SRO) 1 Control Room Supervisor(SRO) 2 Reactor Operators (RO) 2 Equipment Operators	
Emergency Command and Control (Emergency Coordinator)*		Shift Technical Advisor, Shift Manager or designated Facility Manager	1** Shift Manager	1 CR Coordinator OR 1 Site Director OR 1 Emergency Director
Notification/ Communication	Notify License, State local and Federal personnel and maintain communication		1 Control Room Communicator	1 CR ENS Communicator 1 Communicator in TSC 1 Communicator in EOF
Radiological Accident Assessment and Support of Operational Accident Assessment	Emergency Operations Facility (EOF) Director Offsite Dose Assessment	Senior Manager Senior Health Physics (HP) Expertise Offsite Surveys Onsite (Out-of-plant) In-Plant surveys Chemistry/ Radiochemistry	 1 R.P. Technician 1 Chemistry Technican	1 Emergency Director 1 Prot. Meas. Coord 2 Field Team Technicians 2 Field Team Drivers 2 R.P. Technicians 2 R.P. Technicians 1 Chemistry Technician
Plant System Engineering, Repair and Corrective Actions	Technical Support Repair and Corrective Actions	Shift Technical Advisor Core/Thermal hydraulics Electrical Mechanical Mechanical Maintenance Rad Waste Operator Electrical Maintenance Instrument and Control (I&C) Technician	1 Shift Technical Advisor 1** Equipment Operator 1** Equipment Operator	1 Reactor Safety Coord 1 Electrical and I&C Engineer 1 Primary Systems Engineer 1 Machinist OR Steam Fitter Mechanic 1 Equipment Operator 2 Electrical Maintenance Technicians 1 I&C Technician
Corrective Actions (Plant)	Radiation Protection: a. Access Control b. HP Coverage for repair, corrective actions, search and rescue, first aid and firefighting c. Personnel monitoring d. Dosimetry	HP Technicians	2** R.P. Technicians	2 R.P. Technicians 1 R.P. Coordinator 1 Dosimetry Technician
Firefighting			Fire Brigade per Technical Specifications	Blair Fire Department
Rescue Operations and First Aid			2** Equipment Operators	Blair Rescue Squad
Site Access Control and Personnel Accountability	Security, Firefighting, communications, personnel accountability	Security Personnel	All per Security Plan	

* Emergency Command and Control responsibility is transferred in accordance with Section B of this plan.
** May be provided by Shift personnel assigned other functions.

Figure B-1 - Normal Fort Calhoun Station Management Organization

The Fort Calhoun Organization is described in Chapter 12 of the USAR.

Figure B-2 - Fort Calhoun Station Emergency Response Organization

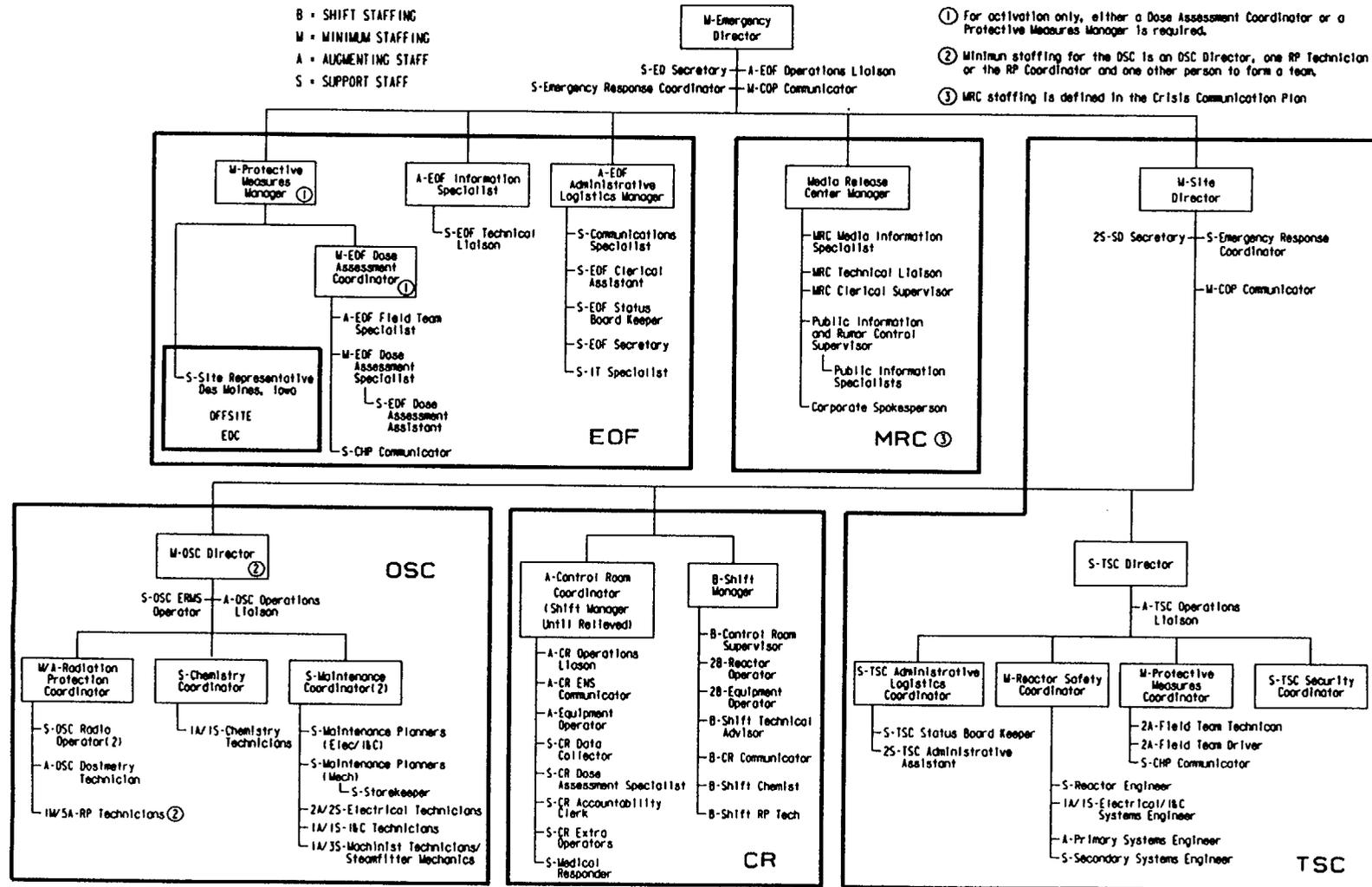
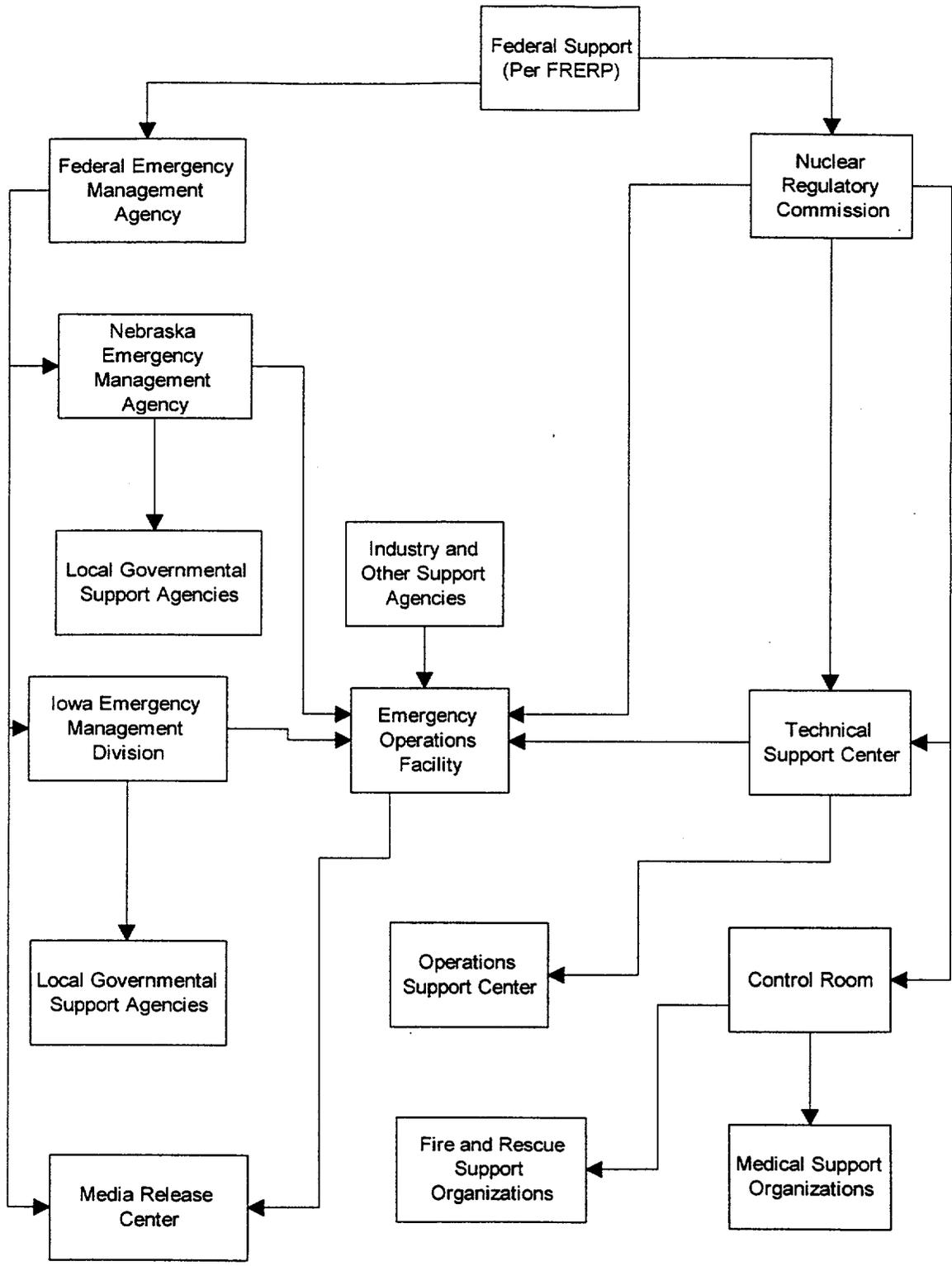


Figure B-3 - Organization Interrelationships"



Fort Calhoun Station
Unit No. 1

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RERP-SECTION E

RADIOLOGICAL EMERGENCY RESPONSE PLAN

Title: NOTIFICATION METHODS AND PROCEDURES

FC-68 Number: DCR 11804

Reason for Change: Change method for initiating primary EAS message. Change Attachment E-1 to be identical to states EAS messages. Add directions to use states EAS messages for secondary messages. Delete Attachments E-2, E-3 and E-4.

Requestor: M. Reller

Preparer: M. Reller

NOTIFICATION METHODS AND PROCEDURES

1. INTRODUCTION

This section discusses the methods and procedures Fort Calhoun Station uses to notify state and local response organizations, the Nuclear Regulatory Commission and members of the OPPD Emergency Response Organization. The typical contents of initial and follow-up messages to response organizations and to the public are also addressed. The means of providing early notification and clear instructions to the public within the plume exposure pathway Emergency Planning Zone is described in this section.

2. NOTIFICATIONS

The decision to make notifications is based on the emergency action levels and corresponding emergency classifications described in Section D of this Plan. As discussed in that section, they are consistent with NUREG-0654, Rev. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," Appendix 1, with modifications to certain EALs to address Fort Calhoun station specific equipment and parameters, and deviations from NUREG-0654, Rev. 1, Appendix 1, as allowed by U.S. Nuclear Regulatory Commission, Office of Nuclear Reactor Regulation, Division of Radiation Safety and Safeguards, Emergency Preparedness Branch Position Paper No. 1 (EPPOS-1), "Acceptable Deviations from Appendix 1 to NUREG-0654, Based Upon the Regulatory Analysis of NUMARC/NESP-007," "Methodology for Development of Emergency Action Levels" (Issued 06/01/95). The EALs are reviewed annually by the States of Nebraska and Iowa.

OPPD is capable of notifying and activating its Emergency Response Organization 24 hours per day. It is also able to make notifications to the states, Nuclear Regulatory Commission and, if required, local counties on a 24 hour per day basis. The applicable state plans detail the provisions for 24 hour per day notification and activation of their response organizations.

The Command and Control position is responsible for ensuring appropriate notifications are initiated when an emergency is classified. Fort Calhoun Station personnel in the protected area are notified via the Emergency or Fire Alarm and a public address system message. Personnel outside the protected area are notified by public address systems installed in the Administrative and Training buildings. Site Security personnel may assist in the notification of all other personnel on OPPD property. The OPPD Emergency Response Organization is activated as appropriate for the emergency classification level. This is accomplished by an automated call-out system which also activates emergency pagers, building announcement systems, and other functions. Maintenance of telephone numbers is discussed in Section P of this Plan.

2 NOTIFICATIONS (continued)

Initial notification of the states of Nebraska and Iowa is made within 15 minutes after declaration of an emergency classification. The states, in turn, notify other governmental response agencies as appropriate for the emergency classification. Notification is also made to Washington, Harrison, and Pottawattamie counties within 15 minutes.

The primary means of notification to the states and counties is via the Conference Operations Network (COP) which is a dedicated telephone system. The COP and backup communications systems are discussed in Section F of this plan. Provisions have been made for verification of notification messages when communications are via means other than the COP.

Notification to the NRC is the next contact made. This notification occurs immediately after state and local notifications, not to exceed one hour after the declaration of the emergency classification. The primary means for this notification is the Federal Telecommunications System, Emergency Notification System lines (FTS-ENS). The FTS-ENS system is maintained by the NRC, however, it is routinely tested by OPPD. If the FTS-ENS is not available, notifications are made using the normal commercial telephone system.

3. EMERGENCY MESSAGES

3.1 INITIAL EMERGENCY MESSAGE

The Omaha Public Power District and the states of Nebraska and Iowa have established the contents of the initial emergency messages to be sent from Fort Calhoun Station in the event an emergency is declared. These messages contain such information as the class of emergency, whether a release is taking place, potentially affected population and areas, and whether protective measures may be necessary. This information is transmitted by dedicated telephone system, normal telephone systems or by facsimile. Forms are used to record the information for verbal or hard copy transmission to ensure each organization receives identical information.

3.2 FOLLOW-UP EMERGENCY MESSAGES

The follow-up emergency messages to the states incorporate the majority of the elements of Criteria E.4 of NUREG 0654, Rev. 1, as determined necessary by the states. These messages are transmitted to the states by telephone, dose assessment computer or facsimile. Update messages are sent to the states and counties at least every 60 minutes.

It is the goal of Fort Calhoun to attempt to provide dose assessment updates at 15 minute intervals during a Radiological Release. During a Site Area Emergency or General Emergency, the Conference Health Physics (CHP) Network, a dedicated telephone system, can be used to maintain communications as needed. This ensures rapid transmittal of dose assessment information and protective action recommendations to the states.

Emergency information to the county Emergency Operations Centers (Washington, Harrison and Pottawattamie Counties) is given verbally using the Conference Operation (COP) Network. These messages discuss general operational progress of the plant.

The NRC will be kept informed as significant events occur which warrant the upgrading or downgrading of the emergency classification. These communications with the NRC will be via the NRC's FTS-ENS (Emergency Notification System). Dose Assessment personnel will keep the NRC informed of dose assessment information using the NRC's FTS-HPN (Health Physics Network).

At an Alert or higher emergency classification, OPPD has the capability to transmit key plant parameter information directly to the NRC via a modem over the FTS circuits. This system is entitled the Emergency Response Data System (ERDS) and will be initiated within one hour of declaring an Alert or higher. Initiation of this system can be accomplished in either the Control Room or the Technical Support Center.

Requests for assistance from local support agencies, and others, are made using normal telephone systems.

4. ALERT NOTIFICATION SYSTEM

A system called the Alert Notification System (ANS) has been designed to provide warning to the public within 15 minutes of the decision by offsite authorities to activate the system. The system includes a series of sirens which provide essentially 100 percent coverage of the population within 10 miles of Fort Calhoun Station.

The states Emergency Response Plans provide guidance as to when the system should be activated. The counties will then perform the actual activation.

Each county has control of only the sirens located within its borders. The exception is one siren which is located in Douglas County, but activated by Washington County. All sirens within a county are sounded simultaneously, and cannot be activated individually.

The sirens are activated by radio signal. The county agencies and the activation locations for the sirens are as follows:

- 4.1 Washington County Emergency Communications Center located in the Law Enforcement Building, Blair, Nebraska.
- 4.2 Harrison County Emergency Communications Center located in the Sheriff's Office, Logan, Iowa.
- 4.3 Pottawattamie County Emergency Communications Center located in the County Court House, Council Bluffs, Iowa.

These locations are continuously staffed, providing the capability to activate the siren system 24-hours per day.

The Omaha Public Power District has made provisions to sound the sirens when requested to do so by government officials, should a county be unable to activate its sirens. This process can be accomplished from the Emergency Operations Facility or the E.O.-Communications division offices.

It is not intended that county or city governments use the ANS for weather alerts or fire signals as frequent use of the system for other purposes would tend to reduce the effectiveness of the sirens if they are needed for a nuclear power plant incident.

In the event that one or more sirens activates during non-emergency conditions, provisions have been made to inform the public that no emergency exists, and initiate repairs to the errant siren(s).

System operability is tested periodically in accordance with the Emergency Planning Tests Manual.

5. EMERGENCY ALERT SYSTEM

Members of the public have been instructed (via the Emergency Planning Booklet discussed in Section G of this Plan) to tune to their Emergency Alert System (EAS) station for emergency instructions when the sirens are activated.

Radio station KFAB - AM (1110 KHz) is the local primary I (LP1) control station for Fort Calhoun Station emergency response. It has the capability to broadcast emergency instructions 24-hours per day. Most other television and radio broadcast stations have the capability of carrying EAS messages during their normal hours of broadcasting.

For the initial message the states will contact the National Weather Service (NWS) and request that EAS be activated. They then read a prepared message, Attachment E-1, which the NWS will record for broadcast. The NWS will then send out the signal to activate the EAS. KFAB has agreed to pick up this signal and broadcast the message. Follow up messages will be sent directly to KFAB for broadcast. Provisions have been made for Omaha Public Power District personnel to call the NWS to initiate the Primary EAS message or call KFAB to request broadcast of follow-up messages.

Prepared sequentially numbered follow-up messages are maintained by the states of Iowa and Nebraska, with KFAB holding a copy of those messages. If requested OPPD personnel, at the request of one of the states or counties, may contact KFAB and request by state name and number a EAS message to broadcast.

While follow-up messages are the responsibility of the states, Omaha Public Power District has the capability to make similar information releases to the media. This is described in Section G of this plan.

Attachment E-1

EAS Message

Primary Message for the States of Iowa and Nebraska

Read the following message to the National Weather Service.

This is an emergency announcement for everyone currently located in Harrison and Pottawattamie Counties in Iowa and Washington and Douglas Counties in Nebraska.

The Omaha Public Power District has announced that an event has occurred at the Fort Calhoun Station, located on the Missouri River approximately four miles south of Blair, Nebraska.

Remain calm; do not use the phone unless you have a personal emergency. Please leave phone lines open for emergency response authorities. As a protective measure dairy animals within the entire Emergency Planning Zone should be sheltered and put on stored feed and water.

State, local and utility personnel are responding.

Please stay tuned to this station for additional emergency information.

Fort Calhoun Station
Unit No. 1

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RERP - SECTION F

RADIOLOGICAL EMERGENCY RESPONSE PLAN

Title: EMERGENCY COMMUNICATIONS

FC-68 Number: DCR 12263

Reason for Change: Change the name of the alternate communications position in the TSC and EOF.

Requestor: M. Reller

Preparer: M. Reller

EMERGENCY COMMUNICATIONS

1. INTRODUCTION

This section describes the available communications for use among the principal response organizations and between the Omaha Public Power District emergency response facilities. Provisions for 24-hour per day notification to and activation of the state and local emergency response organizations are discussed in Section E of this plan. Also discussed in Section E are the provisions for activating Omaha Public Power District emergency response personnel. Provisions for periodic testing of the emergency communications system are described in Section N of this plan.

2. COMMUNICATIONS SYSTEMS

A number of varied communications systems are available for communications between emergency response facilities. These systems are described in this section and are summarized in Figure F-1.

In the conduct of drills and exercises, OPPD may make use of its training simulator to provide a broad range of Control Room like amenities, without impacting the operating FCS Control Room. The communications equipment in the FCS Control Room is, for the most part, duplicated in the simulator.

Each emergency response facility and the personnel responsible for 24 hour communications in each facility is listed below:

EMERGENCY FACILITY	PRIMARY/ALTERNATE COMMUNICATIONS RESPONSIBILITY
Control Room Fort Calhoun Station	Shift Manager (Control Room Coordinator)/Control Room Communicator
TSC, Fort Calhoun Station	Site Director/TSC COP Communicator
EOF, North Omaha Station	Emergency Director/EOF COP Communicator
EOC, State of Nebraska	Operations Officer/Communications and Warning Officer
Forward Command Post, State of Nebraska	Nebraska Emergency Management Agency Director/Asst Nebraska Emergency Management Agency Director
EOC, Washington Cnty (Nebraska)	Washington County Communications Center/County Emergency Management Director

EMERGENCY FACILITY	PRIMARY/ALTERNATE COMMUNICATIONS RESPONSIBILITY
EOC, State of Iowa	Director, Iowa Emergency Management Division/National Guard Adjutant General
Forward Command Post State of Iowa	Harrison County Sheriff's Department/State Liaison Officer
EOC, Harrison County (Iowa)	Communications Director/Harrison County Sheriff's Department
EOC, Pottawattamie County (Iowa)	Communications Director/County Emergency Management Director

2.1 Fort Calhoun Station Alarm System

2.1.1 Emergency and Fire Alarms

These alarms are sounded from the Control Room when an emergency requiring ERO activation or fire is declared. Their function is to alert personnel within the Protected Area to an emergency condition.

2.2 Fort Calhoun Station Paging Systems

2.2.1 The Protected Area paging system (Gaitronics) provides a means of intra-plant communications. Stations on this system provide access to the plant paging system and to intercom lines. These stations and speakers are placed throughout the plant including the Control Room, the Technical Support Center and the Operations Support Center.

2.2.2 The Administrative and Training buildings at the Fort Calhoun Station also have public address announcing capabilities. Access to the public address system in either or both locations can be accomplished via the site's telephone system. This system can be used to notify personnel of a plant emergency, and is tied directly into the site's Interactive Notification System (INS).

2.3 Local Private Automatic Branch Exchanges (PABX)

2.3.1 Omaha Public Power District PABXs

Company telephone systems link Omaha Public Power District facilities with those located in Omaha, Nebraska. These systems provide intracompany telephone communications and access to the public telephone network.

The Emergency Operations Facility has installed lines designated for emergency use. These lines are dedicated to specific emergency response positions. Telephone sets for all lines are available in the Emergency Operations Facility.

Trunk lines between the company PABX systems in Omaha and the Fort Calhoun Station PABX systems provide the primary means of communication with the plant. Additional lines can be provided by the local telephone company, as requested.

This system also provides a redundant means of providing emergency notifications to the states and counties, and is the primary backup to the Conference Operations Network (COP).

2.3.2 Fort Calhoun Station PABXs

These dedicated telephone systems provide communications within Fort Calhoun Station locations.

The Technical Support Center has designated extensions for use during an emergency. They include extensions designated for use by NRC personnel. Additional lines can be diverted from other office areas as required.

Dedicated lines from this system are extended to the Emergency Operations Facility. This system is also connected to the company telephone system in Omaha to provide intracompany telephone communications which are not affected by the public telephone network.

Redundant routing of access to the public telephone network is provided via links to the public system in Blair, Nebraska as well as Omaha.

2.4 Conference Operations (COP) Network

This system provides dedicated conference capabilities between the Fort Calhoun Station Control Room, Technical Support Center, Emergency Operations Facility and the Nebraska and Iowa Emergency Operations Centers and the following county locations: Washington (Nebr), Pottawattamie and Harrison (in Iowa).

The Control Room, Technical Support Center and the Emergency Operations Facility are each equipped with a special control station. These control stations are connected directly to equipment which allow group call and individual call capability to the states, counties and other OPPD Emergency Response Facilities.

A voice recorder is installed on this network in the Emergency Operations Facility. Recording capabilities also exist at the Nebraska State Patrol on their voice logging recorder. These provide taped records of communications on this network.

This system is the primary system for making emergency notifications to the state and local government agencies. It is also used to provide follow-up reports and general information to state and county authorities. This system is shown in Figure F-2.

2.5 Conference Health Physics (CHP) Network

This network provides a dedicated means for communicating radiological information between the Technical Support Center, Emergency Operations Facility, Nebraska and Iowa Emergency Operations Centers and the Nebraska and Iowa Radiological Emergency Response Team Coordinators. The system is shown on Figure F-3.

This system provides the capability for conference conversations between the Technical Support Center or Emergency Operations Facility and any one or all of the agencies on the system. A voice recorder in the Technical Support Center and/or Emergency Operations Facility provides a record of conversations on this system.

2.6 Computerized Dose Assessment System (EAGLE)

Terminals for the EAGLE system are located in the Control Room (including the simulator), the Technical Support Center and the Emergency Operations Facility.

2.7 Facsimile (FAX) Capability

Facsimile machines provide the capability to link the Control Room, Technical Support Center, Operations Support Center, Emergency Operations Facility, Media Release Center, other OPPD Headquarters facilities, the Nebraska and Iowa Emergency Operations Centers and the Nebraska and Iowa Forward Command Posts. Capability also exists to access any FAX machine via commercial telephone networks.

The facsimile machines can be used to transmit health physics, operational and dose assessment information from Omaha Public Power District emergency response facilities to state emergency response facilities. They can also be used to disseminate emergency status information to OPPD management. Some of these extensions have voice capabilities and serve as a backup means of voice communications for those locations.

2.8 800 MHz Radio System

A 800 MHz radio communications system links Fort Calhoun Station onsite emergency response facilities, Emergency Operations Facility, plant portable radios, and mobile radios used by radiological monitoring teams. The multi-subfleet/channel system is illustrated by Figures F-4, F-5, F-6, F-7 and F-8.

Figure F-4 illustrates the subfleets available for the Fort Calhoun Station. Figure F-5 illustrates the dedicated subfleet for the Emergency Response Organization. Figure F-6 illustrates the shared subfleet which the ERO can utilize during emergencies. Figure F-7 provides the details for the "Talk-Around" capability which can be utilized when the 800 MHz trunking system is out of service. Figure F-8 summarizes the subfleets assigned to the Fort Calhoun Station.

2.9 NRC Emergency Notification System (FTS-ENS)

This NRC Operations Center is contacted via this telephone network. The FTS-ENS is a portion of the Federal Telecommunications System (FTS) and is located in the Control Room, Technical Support Center and Emergency Operations Facility. It provides plant operations information to the NRC Operations Center, in Rockville, Maryland.

2.10 NRC Health Physics Network (FTS-HPN)

The FTS-HPN is a portion of the Federal Telecommunications System (FTS) and is located in the Technical Support Center and Emergency Operations Facility. The network is used to exchange radiological and dose assessment information between NRC facilities and OPPD.

2.11 Writeboard System

Equipment consisting of a writing board, monitors, modems, and computer hardware provides one way transmission of written data from the Technical Support Center to the Operations Support Center and Emergency Operations Facility.

2.12 State of Nebraska Emergency Management Radio System

The Emergency Operations Facility is equipped with various radio equipment for use by Nebraska Emergency Management personnel. This equipment may be used either alone or in conjunction with the State of Nebraska Emergency Management Mobile Van.

2.13 State of Iowa Emergency Management Radio System

The Emergency Operations Facility can support radio equipment for use by Iowa State Emergency Management personnel. This equipment may be used either alone or in conjunction with the State of Iowa Emergency Management Mobile Van.

2.14 Management Operations (MOP) Network

This system (similar to the COP and Ops Liaison Network) provides dedicated conference capability between the Control Room Coordinator, TSC Site Director, OSC Director, EOF Emergency Director and the MRC Manager. The purpose of the system is to provide information flow between the directors of all the emergency facilities.

The system allows conferencing without dialing, each set is capable of conferences and individual call capability.

2.15 Media Release Center Hot Line

A dedicated telephone circuit is provided between the Emergency Operations Facility and Media Release Center. The telephone sets are equipped with a blank dial plate. Lifting either handset causes a connecting ring at the other set.

This system provides a means for uninterrupted private communications for coordination of information releases to the public.

2.16 NAWAS

NAWAS equipment in the Control Room provides a redundant means of providing emergency notifications to the States of Nebraska and Iowa. It also provides the Control Room personnel with weather information.

2.17 Emergency Response Message System (ERMS)

A network of computer terminals is used to link the Technical Support Center, Operations Support Center and Emergency Operations Facility. It provides rapid dissemination of plant status information between facilities and ensures consistency of information at all facilities. The MRC is also equipped with a monitor which provides read-only capability.

2.18 Telephone Service Pedestal for State Mobile Communication Vehicles

A telephone service pedestal is located outside of the Emergency Operations Facility near the designated parking area for the mobile communication vehicles. This pedestal is fed by a 12-pair cable from the Emergency Operations Facility and allows quick connection of various telephone facilities to the mobile vehicles. Several telephone lines and dedicated communication facilities are prewired and operational. Spare pairs are available to add additional telephone facilities quickly as the need arises.

2.19 Telephone Junction Box for NRC Mobile Vehicle

A telephone junction box is located on the outside wall of the Emergency Operations Facility near the designated parking area. This junction box is fed by a 12 pair cable and is equipped with four standard modular telephone jacks. These jacks are prewired to a distribution frame and allow quick connection of telephone lines to support the NRC as required. Additional jacks can be added up to the 12 pair capacity of the feeder cable.

2.20 Blair Industrial Co-Op, Emergency Notification System

This system provides a centralized communication network where emergency information can be communicated between member industries located in close proximity to Fort Calhoun Station. The system features a conference alerting option, which calls all phones on the system.

The members of the Co-Op are responsible for developing their own emergency procedures that comply with federal, state and local requirements. The system is intended to be used when an event may impact member industries, or if the event is significant enough to warrant news media notifications.

2.21 Operations Liaison Network

This system provides dedicated conference capabilities between the Fort Calhoun Station Control Room/Simulator, TSC, OSC, EOF and MRC. The purpose of the system is to provide operational information from the Control Room to the other facilities for the purpose of developing response plans, determining emergency classifications and implementing assistance to the Control Room.

The system allows conferencing without dialing, and thus permits rapid access to the conference by the Operations Liaisons. Each station is equipped with group call and individual call capability.

2.22 Emergency Response Data System (ERDS)

This system provides selected ERFCS data to the NRCs Operations Center in Rockville Maryland for the purpose of evaluating plant conditions. Certain data points from the ERFCS are included in the ERDS data library, and when activated, these data points are transmitted via modem to the Operations Center. The system is manually activated from any ERFCS computer terminal, and is required to be activated at an ALERT or higher classification.

2.23 Interactive Notification System (INS)

This system provides rapid notification to Emergency Response Organization personnel in the event of an emergency where the ERO is activated. The system is also used to perform the Management Notification function, and can be adapted to perform other notification functions as determined necessary by the Fort Calhoun Station. A backup ERO notification process is available in the event of failure of the INS.

The system is activated using the PABX system, normally from the Control Room. The system contains logic that 1) initiates a call-out to ERO members at home or work locations, depending on the time of day and day of the week, 2) Activates pagers of those ERO positions that wear pagers and 3) initiates an announcement of the emergency condition through the Training Center and Administration Building public address system.

3. COMMUNICATIONS WITH MEDICAL SUPPORT FACILITIES

Fort Calhoun Station emergency response organization personnel can communicate with medical support facilities, Washington County Emergency Communications Center or the University of Nebraska Medical Center, via the site telephone systems described earlier in this section.

Non-OPPD radio systems provide communications between medical support facilities and mobile rescue units as well as inter-unit communications. These radio systems have the capability to use the common medical emergency frequency which ensures coordinated communications.

Figure F-1 - Summary of Communications Systems

Control Room	Control Room Simulator (Training)	Technical Support Center	Operations Support Center	Emergency Support Center	Media Release Center	FCS Security	OPPD Headquarters	OPPD Field Monitoring Teams	Nebraska EOC	Nebraska EOC	Washington FCP (North Omaha EOC)	Iowa EOC	Iowa FCP (Harrison County EOC)	Pottawatomie County EOC	NRC - Region IV	NRC - Resident Inspectors	
●	●	●	●	●	●	●											● FCS Plant Paging (Gai-Tronics)
			●	●	●												OPPD PABX's
●	●	●	●	●	●	●											● FCS PABX's
●	●					●		●	●	●	●	●	●	●	●	●	● Commercial Telephone Systems
●	●	●		●				●	●	●	●	●	●				● COP Network (Notifications)
		●		●				●	●	●							● CHP Network (HP Information)
●	●	●		●										●	●	●	● FTS-ENS Phones (NRC)
		●		●										●	●		● FTS-HPN Phones (NRC)
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	● Available FAX Machines
●	●	●	●	●	●	●	●										● OPPD 800 MHz Radio System
			●	●													MRC Hotline
●								●		●							NAWAS
		●	●	●	●												ERMS
●	●	●	●	●	●												MOP Network
●	●	●		●				●	●		●	●					EAGLE Terminals
●	●	●		●	●			●	●		●	●					EAGLE Printer / FAX Outlets
		●	●	●													Writeboard Screens
			●					●	●	●							State of Nebraska Radio
			●						●	●	●	●					State of Iowa Radio
				●				●	●	●	●	●	●				Law Enforcement Radios
●	●	●	●	●	●												Operations Liaison Network
●	●	●	●	●													ERDS
●	●	●	●	●													INS

Figure F-2 - Conference Operations Network

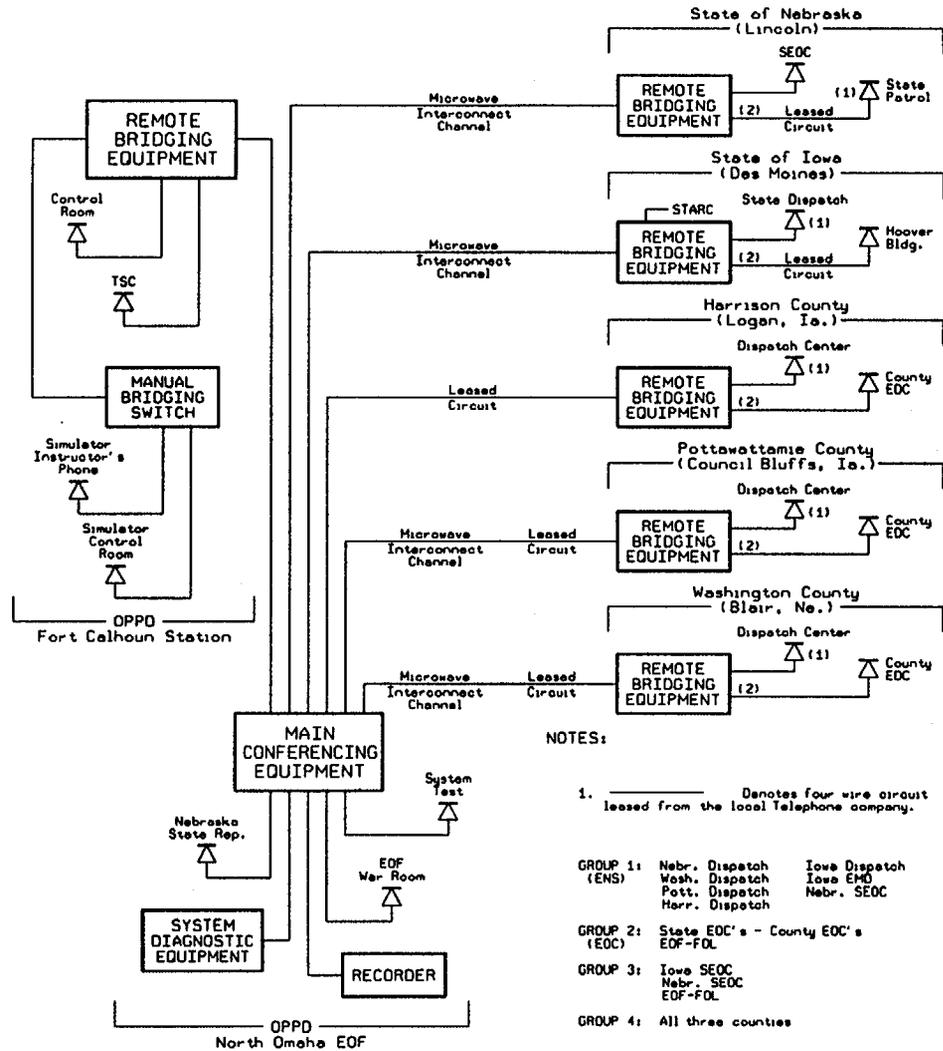


Figure F-3 - Conference Health Physics Network

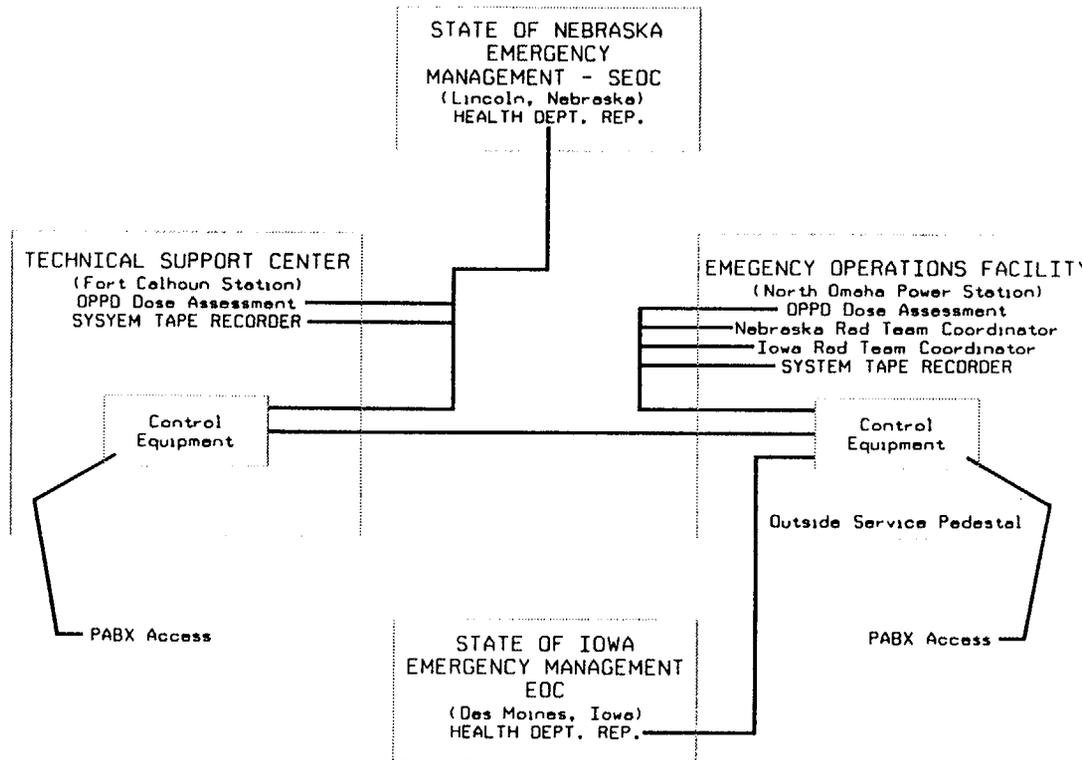


Figure F-4 - OPPD/Fort Calhoun Station 800 MHz Radio System

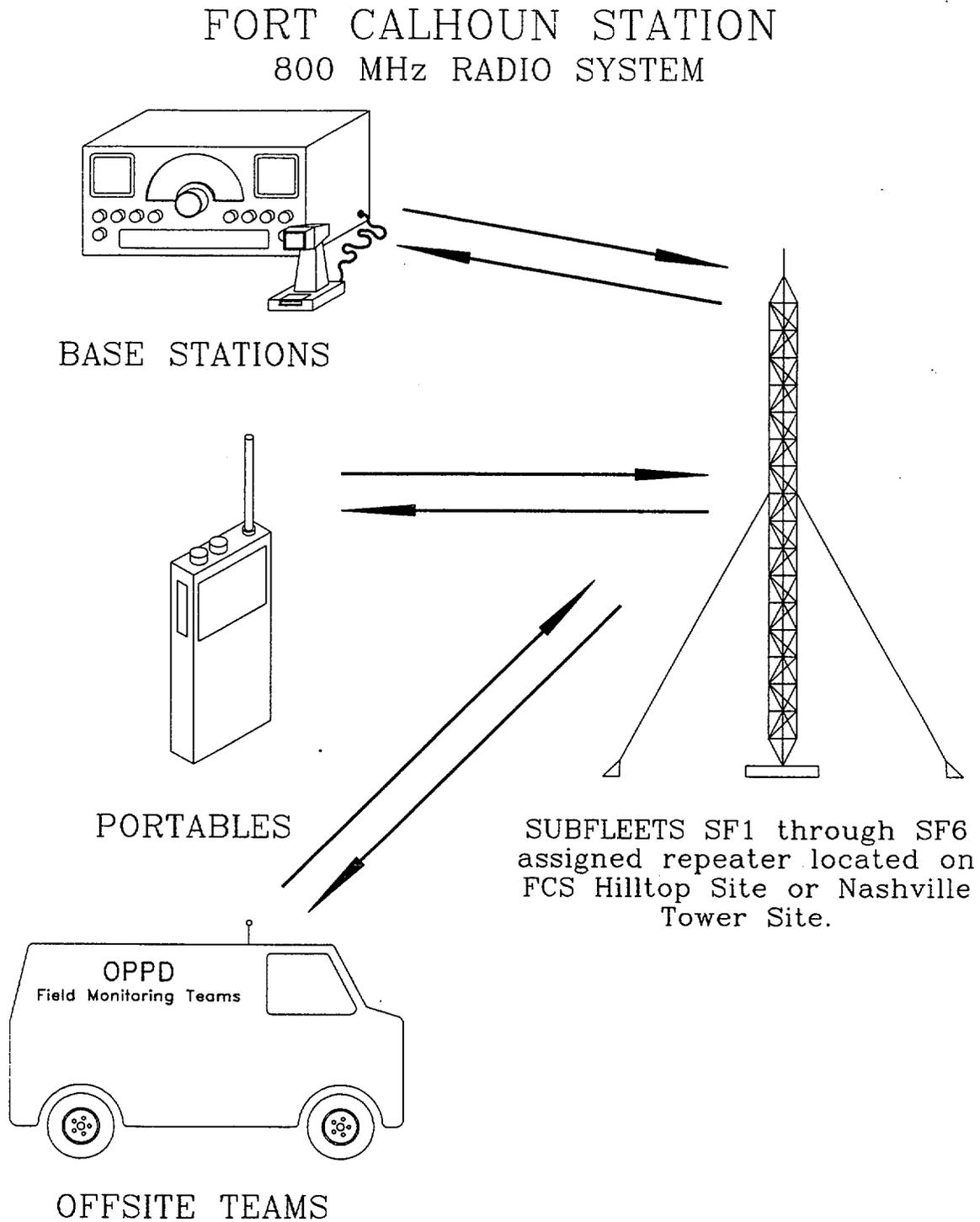


Figure F-5 - Fort Calhoun Station Subfleet - SF4

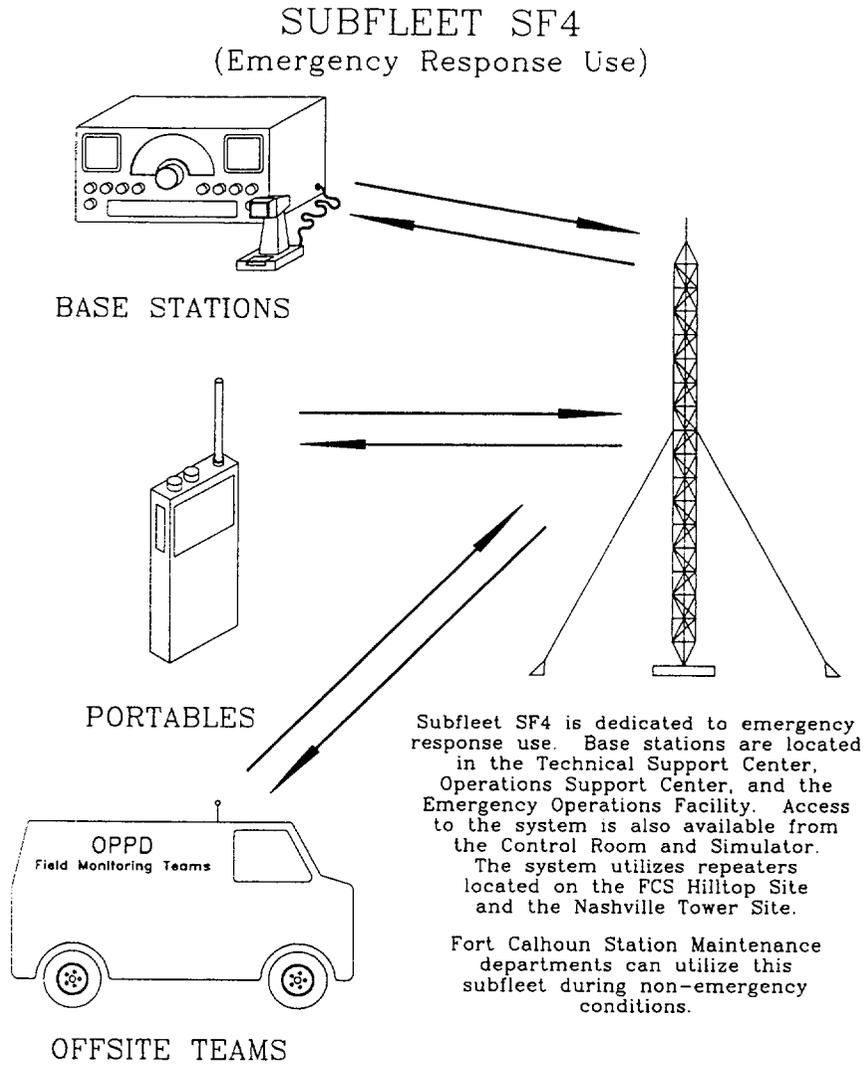


Figure F-6 - Fort Calhoun Station Subfleet - SF5

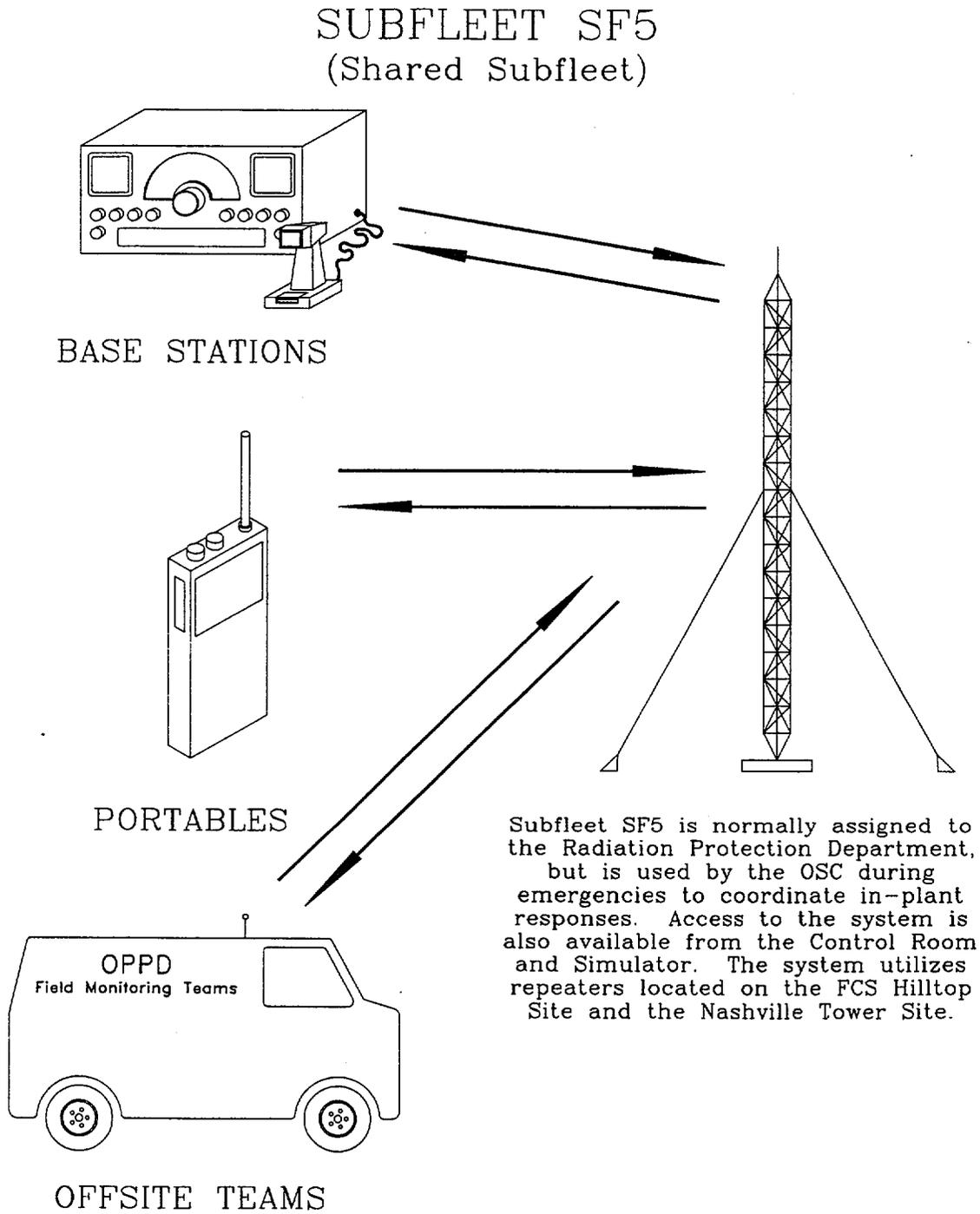
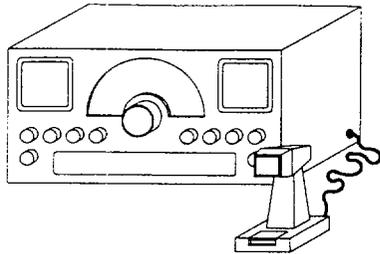


Figure F-7 - Fort Calhoun Station Talk-Around Channel (TA)

TALK-AROUND CHANNEL (TA)



The TA Channel provides an alternate (or backup) means of radio communications. The TA Channel provides radio transmissions without the benefit of a repeater, therefore, the effective range of coverage is greatly reduced. This option is only good for two closely located units to communicate together. It does not utilize the 800 MHz trunking system.

BASE STATIONS

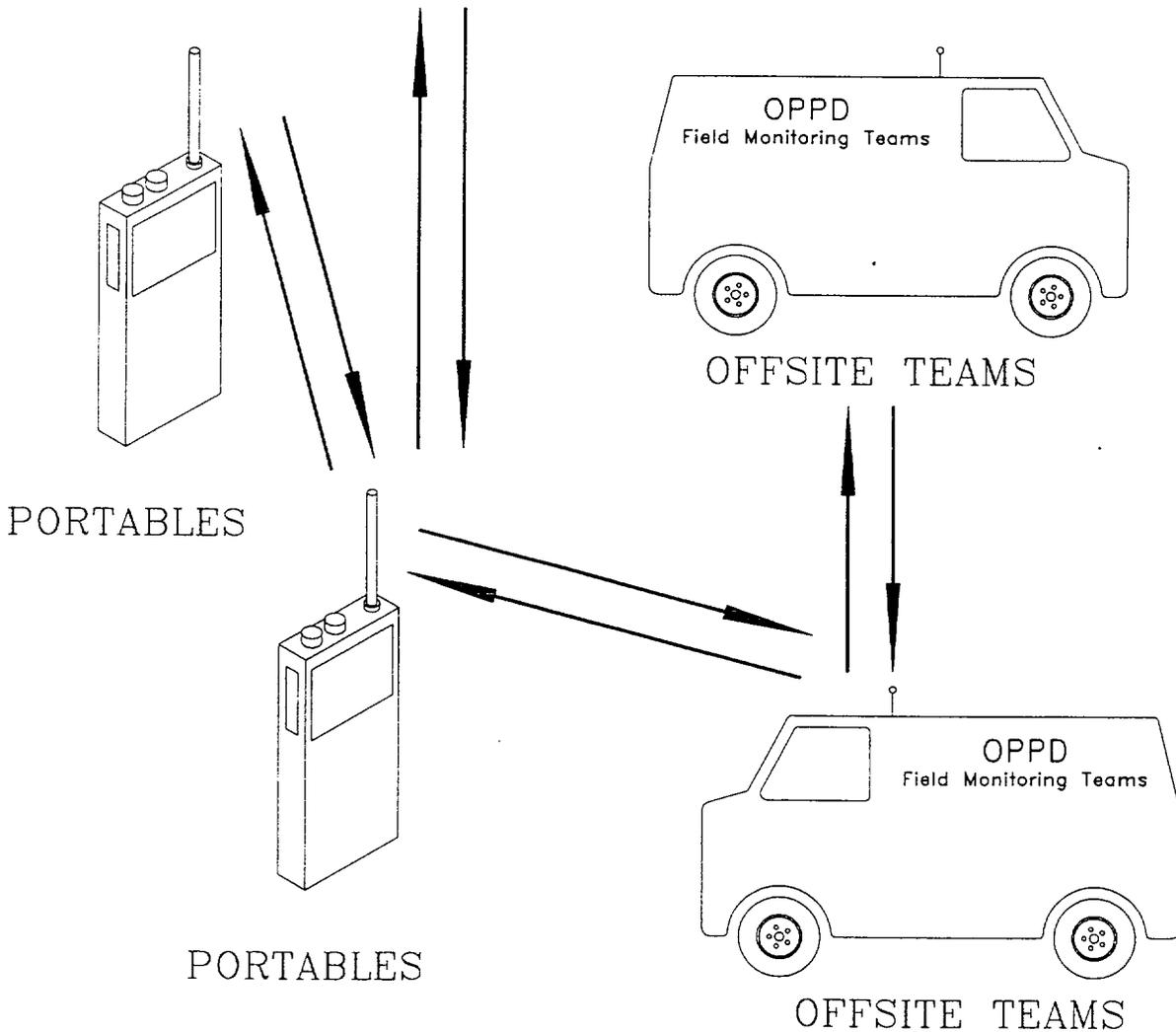


Figure F-8 - Summary of 800 MHz Radio Uses

SUBFLEET	TAG	NORMAL USE	EMERGENCY USE	NOTE (1)	NOTE (2)
Subfleet 1	SF1	Security - Primary	Security - Primary	1	A
Subfleet 2	SF2	Security - Secondary	Security - Secondary	1	B
Subfleet 3	SF3	Operations	Operations	1	C
Subfleet 4	SF4	Emergency Planning/ Maintenance	Field Team Control	1	D
Subfleet 5	SF5	Radiation Protection/ Chemistry	In-Plant Team Control	1	E
Subfleet 6	SF6	Maintenance	In-Plant Team Control	1	F
Talk Around	TA	Portable to Portable	Back-up Communications	3	A

NOTE (1): Position of Toggle Switch on Radio

NOTE (2): Position of Rotary Switch on Radio

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Fort Calhoun Station
Unit No. 1

RERP-SECTION H

RADIOLOGICAL EMERGENCY RESPONSE PLAN

Title: EMERGENCY FACILITIES AND EQUIPMENT

FC-68 Number: DCR 12262

Reason for Change: Delete references to surrogate tour system removed from service. Change Figures H-2, H-3 and H-4 to reflect equipment change and new ERO position.

Requestor: M. Reller

Preparer: M. Reller

EMERGENCY FACILITIES AND EQUIPMENT

NOTE: This section lists the Emergency Response Facilities (ERF) available for activation in the event of an emergency at the Fort Calhoun Nuclear Station. General equipment and staffing of emergency facilities are also included in this section. Communications equipment is covered in Section F. Assessment equipment is covered in Section I.

1. Technical Support Center (TSC)

1.1 Facility Function and Description

The TSC's primary function is the collection, analysis, and distribution of technical data required to support plant operations personnel during an emergency. This operational support is provided from a separate and distinct center, thus reducing personnel congestion in the Control Room. The TSC performs EOF functions and responsibilities until that facility can be fully activated.

The TSC building is located on the north side of the Auxiliary Building. (See Figure H-1). The north wall of the auxiliary building is shared as the south wall of the TSC. To the east of the building is the maintenance shop. To the north and west of the TSC is the Chemistry/Radiation Protection Building. The TSC building was designed to meet the criteria of NUREG 0696 and is less than a two minute walk from the Control Room.

The TSC is composed of a protected area and an equipment area. It is comprised of heavy concrete mat construction with 1-1/2 foot thick reinforced concrete walls and ceiling. This part of the structure is kept at positive pressure and the building air can be filtered through a pre-filter, HEPA filter and charcoal filter. Flood barriers in various locations of the plant protect the TSC from flooding and are designed for a 100 year recurrence frequency.

An "L" shaped equipment area is located to the east and south of the TSC protected area. The equipment area has concrete footings and common steel construction with concrete block walls. Items included in the equipment area are the batteries and UPS power distribution systems, HVAC and HEPA filters.

1.2 Equipment and Supplies

The TSC is typically equipped with the following items:

1.2.1 System Drawings

1.2.2 Vendor Manuals

- 1.2.3 An official copy of the Fort Calhoun Station Operating Manual. (This includes the Operating Procedures and Instructions, Emergency Operation Procedures, the Radiological Emergency Response Plan and Emergency Plan Implementing Procedures.
- 1.2.4 Updated Safety Analysis Report (USAR)
- 1.2.5 Technical Specifications
- 1.2.6 Direct and Airborne Radiation Monitoring Equipment which is permanently installed:
 - A. Area Monitor (RM-093):

The area monitor in the TSC is a GM detector (or equivalent) that detects gamma radiation.
 - B. Particulate, Iodine and Noble Gas (PING) Monitor:

The sampler and detector subsystem contains a combined particulate, iodine and noble gas sampler in one compact, lead-shielded assembly. Three read-outs contain all alarm functions of alert, high and failure, along with check source actuation controls. The PING is piped directly to the TSC ventilation system to monitor TSC supply air at all times.
- 1.2.7 Emergency Response Facilities Computer System/Safety Parameter Display System (ERFCS/SPDS)
- 1.2.8 Personal Computer(s) with printers and modems.
- 1.2.9 Emergency Response Message System (ERMS).
- 1.2.10 Sign-in Board with identification tags.
- 1.2.11 Emergency logs.
- 1.2.12 Status boards.
- 1.2.13 Electronic Writing Board with output displays in the OSC and EOF.

1.3 Staffing

The TSC affords ample space and equipment to support the Emergency Response Organization (ERO) as stated in Section B and additional TSC personnel as defined in the Fort Calhoun ERO Roster. In addition, space has been allocated for NRC representatives.

2. Emergency Operations Facility (EOF)

2.1 Facility Functions and Description

The function of the Emergency Operations Facility is to serve as the support facility for the licensee's overall management of emergency response activities (including coordination with Federal, State and local officials), the central collection and coordination point for all off-site radiological and environmental samples and assessments in order to make public protective action recommendations (PARs).

The Emergency Operations Facility is located 17 miles from the Fort Calhoun Station at the North Omaha Power Station. This site was chosen to ensure continuous habitability and is the only Emergency Operations Facility in the district. The building is capable of providing working space for a minimum of 35 persons consistent with the requirements of NUREG-0696, Revision 1. Space for data systems equipment, communications and storage activities is also available.

2.2 Equipment and Supplies

The EOF is typically equipped with the following emergency response items:

- 2.2.1 Emergency Status Boards
- 2.2.2 10-Mile EPZ Maps
- 2.2.3 Emergency Monitor Kits
- 2.2.4 Assignment Board with identification tags
- 2.2.5 Portable Calculator(s)
- 2.2.6 Emergency Telephone Books
- 2.2.7 Emergency Logs
- 2.2.8 Personal Computers and Printers
- 2.2.9 Technical Specifications

- 2.2.10 System Drawings
- 2.2.11 Complete latest revision of the Fort Calhoun Station Operating Manual. (This includes the Operating Procedures and Instructions, Emergency Operating Procedures, the Radiological Emergency Response Plan and Emergency Plan Implementing Procedures).
- 2.2.12 Emergency Response Facilities Computer System/Safety Parameter Display System (ERFCS/SPDS)
- 2.2.13 Emergency Response Message System (ERMS)

2.3 Staffing

The EOF affords ample space and equipment to support the Emergency Response Organization as stated in Section B. In addition, space has been allocated for NRC Representatives.

3. Operations Support Center (OSC)

3.1 Facility Function and Description

The Operations Support Center (OSC) is an onsite area, separate from the Control Room (CR) and the Technical Support Center (TSC) where support personnel assemble and prepare to perform investigative or corrective actions as deemed necessary by the CR or TSC.

The OSC communicates with the CR and the TSC and is located east of the TSC on the second floor of the Maintenance Shop Building.

3.2 Equipment and Supplies

Equipment lockers are provided in the OSC for storage of instruments, SCBAs, supplies and reference documents.

3.3 Staffing

OSC management is comprised of an OSC Director and three Coordinators representing the Radiation Protection, Chemistry and Maintenance disciplines. Technicians comprise the balance of the OSC personnel (See Section B of this plan for a comprehensive organization definition).

4. Control Room

4.1 Facility Description and Function

The Control Room functions as the onsite location from which the nuclear power plant is operated. It is large enough to contain all the instrumentation, controls and displays for the nuclear systems, reactor coolant systems, steam systems, electrical systems, safety and accident monitoring systems. The Control Room plays a vital role in the Emergency Response Organization by providing the initial response actions needed to react to any emergency situation. The Control Room personnel will respond to all emergency situations in an attempt to mitigate the emergency and minimize the impact on the surrounding environment, health and safety of the public as well as plant personnel and equipment.

4.2 Equipment and Supplies

The Fort Calhoun Station Control Room is typically supplied with the following emergency supplies:

- 4.2.1 Emergency Locker (Computer Room)
- 4.2.2 Operating and Emergency Procedures and Manuals
- 4.2.3 Radiological Monitoring Equipment
- 4.2.4 Technical Specifications
- 4.2.5 System Drawings

4.3 Staffing

In addition to normal CR personnel, additional positions are called out in the event of an emergency situation as stated in Section B.

5. Emergency Kits

- 5.1 The emergency kits and equipment are inventoried in accordance with Fort Calhoun Station's Surveillance Tests and Emergency Planning Tests (EPTs). Extra quantities of equipment, spare parts and supplies are located at the Fort Calhoun Station Warehouse to support extended emergencies.

5.2 Radiological Emergency Kits

These kits include protective equipment, radiological monitoring equipment and emergency supplies. Kits are located in the Control Room, Technical Support Center, Operations Support Center and the Emergency Operations Facility.

The Radiation Protection Department establishes the method and frequency for instrument calibration. Individual instruments are calibrated using approved calibration procedures. Repair/replacement of equipment is coordinated through the Emergency Planning Department.

5.3 Dosimetry Kits

These kits include dosimetry, dosimeter chargers and appropriate paperwork. Kits are located in the Control Room, Technical Support Center, Operations Support Center and Emergency Operations Facility.

5.4 Medical Kits

5.4.1 First Aid Equipment and Supply Kits

First aid equipment and supplies are located in the First Aid Room. Trauma and primary response kits are available throughout the plant. These kits are inspected and maintained by the Industrial Safety Coordinator.

5.4.2 Contaminated/Injured Person Kit

These kits are located in the Operations Support Center and near the RP Count Room. These kits are maintained by the Emergency Planning Department.

5.5 Decontamination Area

Decontamination equipment and supplies are located in the Main Warehouse and the Radiation Protection work area.

5.6 Field Monitoring Kits

Kits containing protective equipment, radiological monitoring equipment and emergency supplies for Field Monitoring Teams are located in the Offsite Monitor Vehicles or in the Fort Calhoun Station Security Building. Communications equipment is permanently installed in the vehicles.

NOTE: Two designated emergency vehicles remain ready and available onsite at all times, except when driven by authorized personnel as required for emergencies, Emergency Planning Tests, training or maintenance. Use of the emergency vehicles will be authorized by the Manager - Emergency Planning, or designee. In the event one vehicle needs offsite servicing, every effort should be made to have it returned the same day. A sign is posted in each vehicle stating:

"Site Use Only
In an emergency, return to
Fort Calhoun Station"

5.7 Other OPPD Resources

OPPD has other facilities and resources that may be useful in support of an emergency at Fort Calhoun Station. Examples are:

- 5.7.1 Fort Calhoun Station Simulator could be used to model plant transients or serve as an alternate location for support and technical personnel. The simulator has the following communications equipment: Conference Operation Network (COP), Operations Liaison Network, FTS-ENS Phone, Gai-tronics, remote radio base station, regular phone systems, computer terminal for EAGLE, and FAX machine.
- 5.7.2 The FCS Training Center, the FCS Administration Building, and Energy Plaza make available resources such as: briefing rooms, classrooms, technical libraries, a chemistry laboratory, a radiation protection laboratory, communications, computers, food storage and preparation facilities, alternate water supply, and shop areas.

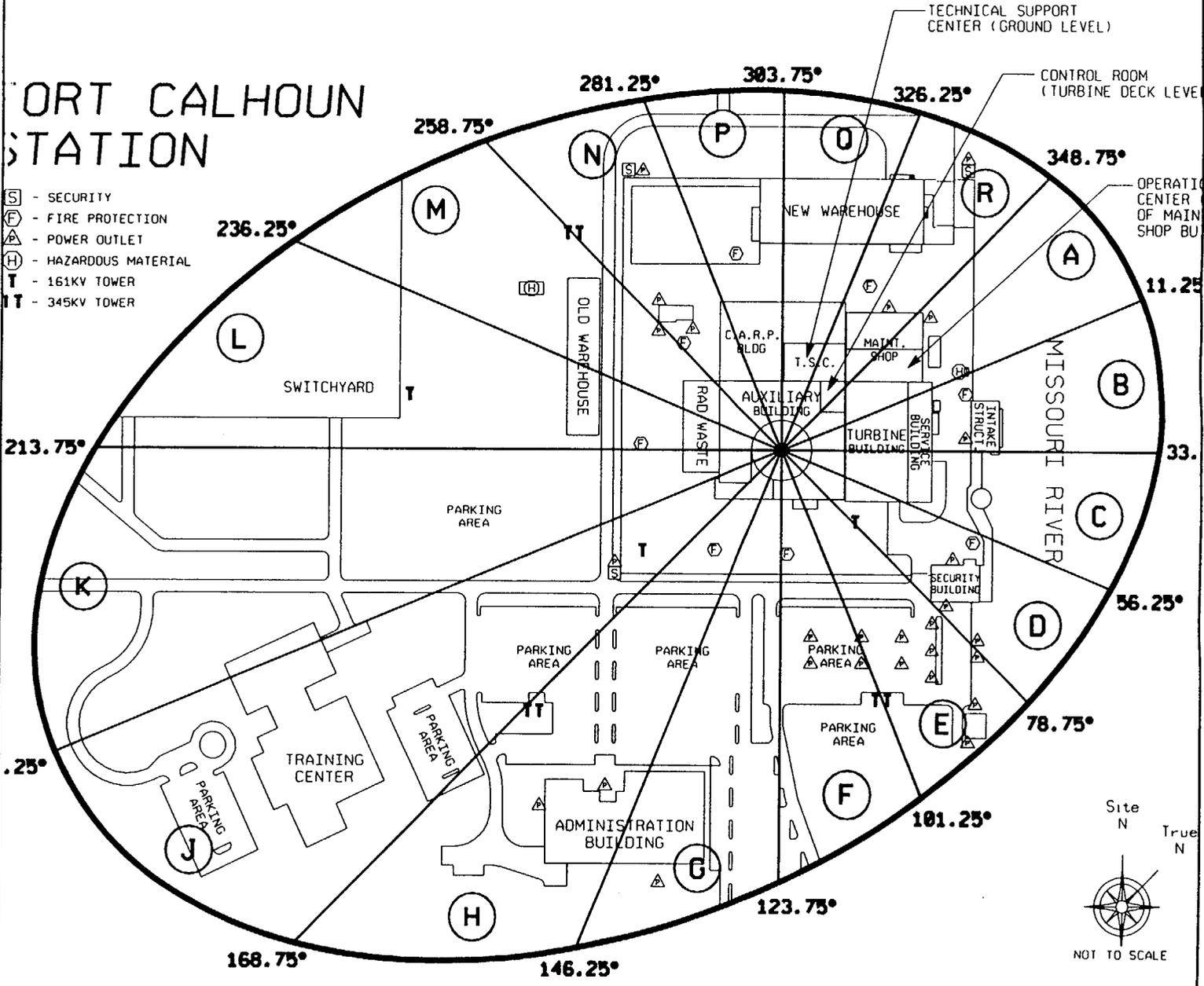
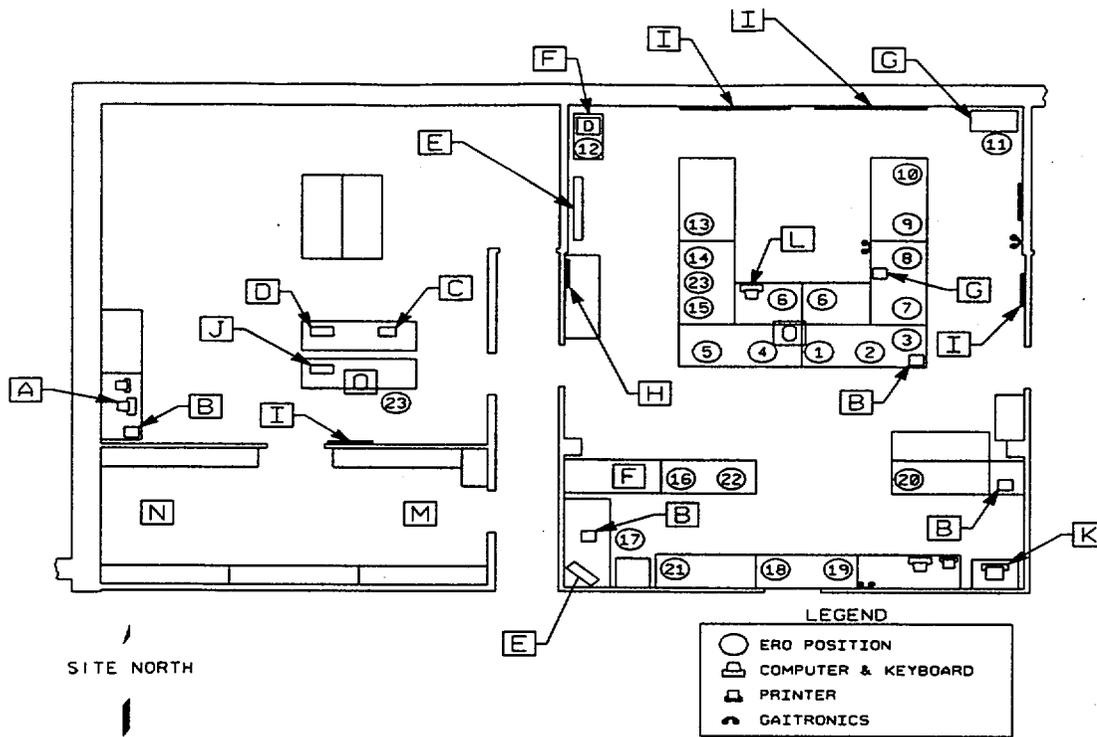


FIGURE H-1 ONSITE EMERGENCY RESPONSE FACILITIES

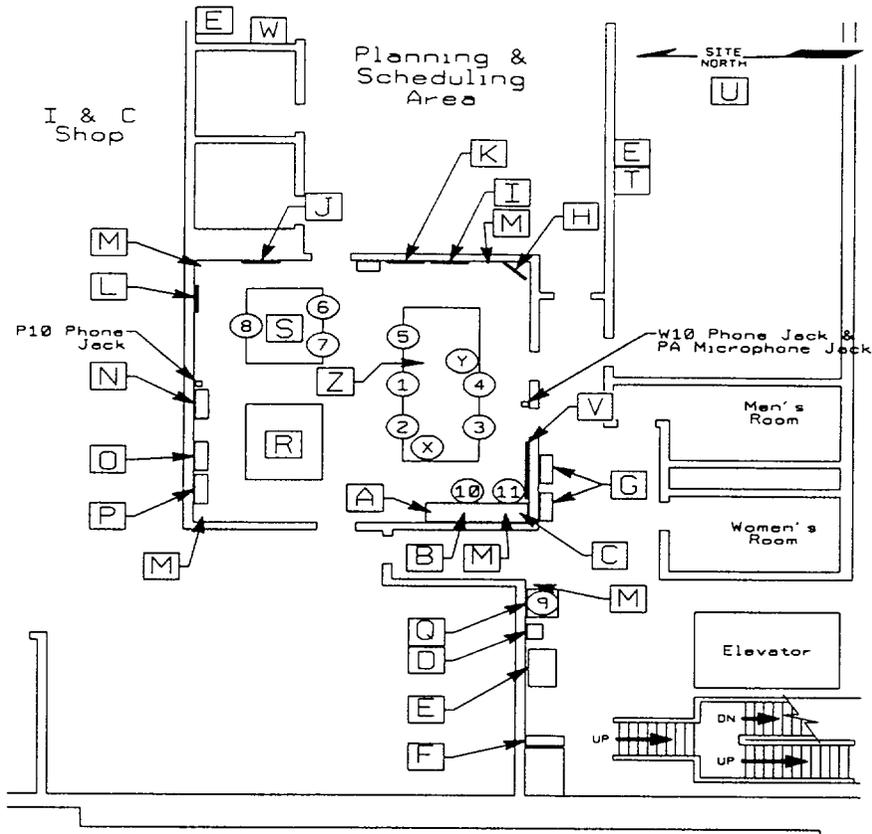
FIGURE H-2 TYPICAL TECHNICAL SUPPORT CENTER LAYOUT



- | | | |
|------------------------|------------------|----------------|
| A. EAGLE Terminals | F. COP Phone | K. ERF Printer |
| B. ERF Terminals | G. ENS Phone | L. ERMS |
| C. CHP Phone/Recorder | H. EPZ Maps | M. Library |
| D. FAX Machine | I. Status Boards | N. P.I.D. |
| E. Writeboard/Monitors | J. Base Radio | O. MOP Phone |

- | | |
|------------------------------------|--|
| 1. SITE DIRECTOR | 13. TSC ADMIN LOGISTICS COORD. |
| 2. TSC DIRECTOR | 14. NRC SITE PROT. MEAS. COORD. |
| 3. TSC OPS LIAISON | 15. PROTECTIVE MEAS. COORD. |
| 4. NRC RESIDENT INSPECTOR | 16. ELEC/I&C ENG. |
| 5. NRC SITE TEAM LEADER | 17. PRIMARY SYS. ENG. |
| 6. SITE DR. SECRETARY | 18. NRC RX SYS. SPEC. |
| 7. RX SAFETY COORD. | 19. NRC CORE DAMAGE ASSESSOR |
| 8. NRC RX SAFETY COORD. | 20. REACTOR ENG. |
| 9. TSC SECURITY COORD. | 21. SECONDARY SYS. ENG. |
| 10. NRC SAFEGUARDS/SECURITY COORD. | 22. TSC EMERGENCY RESPONSE COORDINATOR |
| 11. TSC STATUS BOARD KEEPER | 23. CHP COMMUNICATOR |
| 12. COP COMMUNICATOR | |

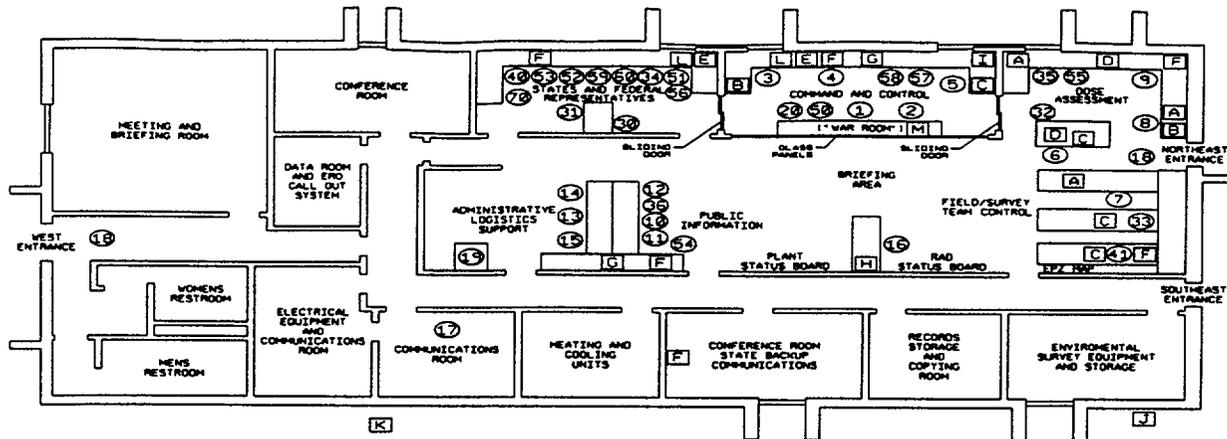
FIGURE H-3 TYPICAL OPERATIONS SUPPORT CENTER LAYOUT



- | | | |
|--------------------------|--|--|
| A. ERF Computer | J. EGG Map | S. Conference Area |
| B. ERMS | K. Procedure Rack | T. Fax Machine |
| C. OSC Base Radio | L. Sign-In Board | U. Procedures (Official Copy) |
| D. Dosimetry Issue Kit | M. Gaitronics | V. Team Status Board |
| E. Copy Machine | N. Radios/Protective Clothing | W. ERMS Network Printer |
| F. Respirators/Air Tanks | O. Kits, Phones, Admin. Supplies | X. OSC OPS Liaison Network Phone |
| G. SCBA's | P. RP Instruments, Sample Monitoring Kit | Y. Conference Health Physics Network Phone |
| H. Writeboard Monitor | Q. HIS-20 System | Z. MOP Phone |
| I. Plant Maps | R. Briefing Area | |

- | | |
|----------------------------|-----------------------------|
| 1. OSC DIRECTOR | 7. OSC STOREKEEPER |
| 2. OSC OPS LIAISON | 8. OSC TECHNICIANS |
| 3. OSC CHEMISTRY COORD. | 9. OSC ACCT/DOSIMETRY CLERK |
| 4. OSC RP COORD. | 10. OSC ERMS OPERATOR |
| 5. OSC MAINTENANCE COORD. | 11. OSC RADIO OPERATOR |
| 6. OSC MAINTENANCE PLANNER | |

FIGURE H-4 TYPICAL EMERGENCY OPERATIONS FACILITY LAYOUT



- | | | |
|--------------------|------------------------------|------------------------------------|
| A. EAGLE Terminals | F. Fax Machines | K. Nebr. "CRUSH" Elect/Tele Hookup |
| B. ERF Terminals | G. Writeboards | L. COP Phones |
| C. CHP Phones | H. ERF Printer | M. Mop Phone |
| D. HPN Phones | I. Siren Terminal | |
| E. ENS Phones | J. NRC Van Elect/Tele Hookup | |
-
- | | |
|---|--|
| 1. EMERGENCY DIRECTOR | 30. NE. GOVERNOR'S AUTHORIZED REPRESENTATIVE |
| 2. EMERGENCY DIRECTOR SECRETARY/ERMS | 31. NE. GAR ADVISOR |
| 3. EOF OPERATIONS LIAISON | 32. NE. MANAGER |
| 4. EOF COP COMMUNICATOR | 33. NE. RAD. TEAM COORDINATOR |
| 5. PROTECTIVE MEASURES MANAGER | 34. NE. RECORDER |
| 6. EOF DOSE ASSESSMENT COORDINATOR | 35. NE. DOSE CALCULATIONS |
| 7. EOF FIELD TEAM SPECIALIST | 36. NE. PUBLIC INFORMATION OFFICER |
| 8. EOF DOSE ASSESSMENT SPECIALIST | |
| 9. EOF DOSE ASSESSMENT ASSISTANT | 40. IA. REPRESENTATIVE |
| 10. EOF INFORMATION SPECIALIST | 41. IA. RAD. TEAM COORDINATOR |
| 11. EOF TECHNICAL LIAISON | |
| 12. DES MOINES SITE REPRESENTATIVE | 50. NRC SITE TEAM LEADER/DSO/MCL |
| 13. EOF ADMINISTRATIVE LOGISTICS MANAGER | 51. NRC EMERGENCY RESPONSE COORDINATOR |
| 14. EOF SECRETARY | 52. NRC STATUS SUMMARY COORDINATOR |
| 15. EOF CLERICAL ASSISTANT | 53. NRC GOVERNMENTAL LIAISON COORDINATOR |
| 16. EOF STATUS BOARD KEEPER | 54. NRC PUBLIC INFORMATION REPRESENTATIVE |
| 17. EOF COMMUNICATIONS SPECIALIST | 55. NRC DOSE ASSESSMENT REPRESENTATIVE |
| 18. EOF SECURITY PERSONNEL | 56. NRC REACTOR SAFETY COORDINATOR/RSCL |
| 19. EOF INFORMATION TECHNOLOGY SPECIALIST | 57. NRC PROTECTIVE MEASURES TEAM LEADER |
| 20. EOF EMERGENCY RESPONSE COORDINATOR | 58. NRC PROTECTIVE MEASURES COORDINATOR/PMCL |
| | 59. NRC STATUS SUMMARY COMMUNICATOR |
| | 60. NRC EMERGENCY RESPONSE ASSISTANT |
| | 70. FEMA REPRESENTATIVE |

**EMERGENCY PLAN FORMS INDEX
FC-EPF**

<u>PROCEDURE NUMBER</u>	<u>TITLE</u>	<u>REVISION/DATE</u>
FC-EPF-1	Alert Notification System Accidental Activation Report Form	R5 08-13-96b
FC-EPF-2	Offsite Monitoring Log	R2 08-10-95
FC-EPF-3	Administration of Potassium Iodide Tablets	R0 11-01-90
FC-EPF-4 NCR	Radiological Emergency Team Briefing Checklist	R2 12-13-94
FC-EPF-5	Emergency Worker Extension	R3 03-26-98
FC-EPF-6	Estimated Exposure Worksheet	R3 09-12-97
FC-EPF-7	Estimated Exposure Log	R2 04-01-98
FC-EPF-8	Sample Worksheet	R5 08-10-95a
FC-EPF-9	OSC 24-Hour Staffing Schedule	R12 08-24-00
FC-EPF-10	CR/TSC 24-Hour Staffing Schedule	R14 08-24-00
FC-EPF-11	EOF 24-Hour Staffing Schedule	R10 08-24-00
FC-EPF-12	MRC 24 Hour Staffing Schedule	R2 08-05-99
FC-EPF-13	Emergency Response Organization Log Sheet	R0 01-17-91
FC-EPF-14	Emergency Response Organization Assignment Form	R8 02-02-99
FC-EPF-15	Drill Exercise Comment Form	R3 07-11-97a
FC-EPF-17	Pager Response Follow Up Questionnaire	R3 11-06-99
FC-EPF-19	Process and Area Monitor Locations	R6 09-01-94
FC-EPF-20	Site Boundary/Owner Control Area	R1 07-29-97

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OSC 24-HOUR STAFFING SCHEDULE			
DATE.		TIME.	
OSC POSITION		SHIFT 1 _____ Name	SHIFT 2 _____ Name
MIN*	OSC DIRECTOR		
MIN*	RP TECHNICIAN (1 of 8 RP)		
MIN*	RP COORDINATOR (2 of 8 RP)		
AUG	RP TECHNICIAN (3 of 8 RP)		
AUG	RP TECHNICIAN (4 of 8 RP)		
AUG	RP TECHNICIAN (5 of 8 RP)		
AUG	RP TECHNICIAN (6 of 8 RP)		
AUG	RP TECHNICIAN (7 of 8 RP)		
AUG	ACCOUNTABILITY/DOSIMETRY TECHNICIAN (8 of 8 RP)		
AUG	CHEMISTRY TECHNICIAN (1 of 2)		
AUG	ELECTRICAL MAINTENANCE TECHNICIAN (1 of 4)		
AUG	ELECTRICAL MAINTENANCE TECHNICIAN (2 of 4)		
AUG	I&C TECHNICIAN (1 of 2)		
AUG	MECHANICAL MAINTENANCE (MM/SFM) (1 of 4)		
AUG	OPERATIONS LIAISON		
SPT	CHEMISTRY COORDINATOR		
SPT	CHEMISTRY TECHNICIAN (2 of 2)		
SPT	ERMS OPERATOR		
SPT	I&C TECHNICIAN (2 of 2)		
SPT	MAINTENANCE COORDINATOR (1 of 2)		
SPT	MAINTENANCE COORDINATOR (2 of 2)		
SPT	MAINTENANCE PLANNER (ELEC/I&C)		
SPT	MAINTENANCE PLANNER (MECH)		
SPT	MECHANICAL MAINTENANCE (MM/SFM) (2 of 4)		
SPT	MECHANICAL MAINTENANCE (MM/SFM) (3 of 4)		
SPT	MECHANICAL MAINTENANCE (MM/SFM) (4 of 4)		
SPT	RADIO OPERATOR (1 of 2)		
SPT	RADIO OPERATOR (2 of 2)		
SPT	STORE KEEPER		
SPT	ELECTRICAL MAINTENANCE TECHNICIAN (3 of 4)		
SPT	ELECTRICAL MAINTENANCE TECHNICIAN (4 of 4)		

* Minimum staffing requires OSC Director, RP Coordinator or RP Technician, and one additional person to form a team

NOTE: The expectation is to have a 24-hour schedule developed within 1 hour AFTER the center is AUGMENTED for the 1st shift and within 6 hours for the 2nd shift

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CR/TSC 24-HOUR STAFFING SCHEDULE			
CR POSITION		Shift 1 _____ Name	Shift 2 _____ Name
AUG	CR COORDINATOR		
AUG	ENS COMMUNICATOR		
AUG	CR OPS LIAISON		
AUG	EQUIPMENT OPERATOR		
SPT	MEDICAL RESPONDER		
SPT	CR DATA COLLECTOR		
SPT	CR DOSE ASSESSMENT SPECIALIST		
SPT	CR ACCOUNTABILITY CLERK		
SPT	CR EXTRA OPERATOR		

NOTE: The expectation is to have a 24-hour schedule developed within 1 hour AFTER the center is AUGMENTED for the 1st shift and within 6 hours for the 2nd shift

CR/TSC 24-HOUR STAFFING SCHEDULE			
TSC POSITION		Shift 1 _____ Name	Shift 2 _____ Name
MIN	SITE DIRECTOR		
MIN	TSC COP COMMUNICATOR		
MIN	TSC PROTECTIVE MEASURES COORDINATOR		
MIN	TSC REACTOR SAFETY COORDINATOR		
AUG	TSC ELEC/I&C SYSTEMS ENGINEER (1 of 2)		
AUG	TSC PRIMARY SYSTEMS ENGINEER		
AUG	FIELD TEAM TECHNICIAN RED		
AUG	FIELD TEAM DRIVER RED		
AUG	FIELD TEAM TECHNICIAN BLUE		
AUG	FIELD TEAM DRIVER BLUE		
AUG	TSC OPS LIAISON		
SPT	ADMIN LOGISTICS COORDINATOR		
SPT	TSC ELEC/I&C SYSTEM ENGINEER (2 of 2)		
SPT	TSC DIRECTOR		
SPT	REACTOR ENGINEER		
SPT	TSC SECONDARY SYSTEMS ENGINEER		
SPT	SECURITY COORDINATOR		
SPT	TSC CHP COMMUNICATOR		
SPT	EMERGENCY RESPONSE COORDINATOR		
SPT	ADMIN ASSISTANT (1 of 2)		
SPT	ADMIN ASSISTANT (2 of 2)		
SPT	SITE DIRECTOR SECRETARY (1 of 2)		
SPT	SITE DIRECTOR SECRETARY (2 of 2)		
SPT	TSC STATUS BOARD KEEPER		

NOTE: The expectation is to have a 24-hour schedule developed within 1 hour AFTER the center is AUGMENTED for the 1st shift and within 6 hours for the 2nd shift

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EOF 24-HOUR STAFFING SCHEDULE			
EOF POSITION		Shift 1 _____ Name	Shift 2 _____ Name
MIN	EMERGENCY DIRECTOR		
MIN	EOF COP COMMUNICATOR		
MIN*	EOF PROTECTIVE MEASURES MANAGER		
MIN	EOF DOSE ASSESSMENT SPECIALIST		
MIN*	EOF DOSE ASSESSMENT COORDINATOR		
AUG	EOF ADMIN LOGISTICS MANAGER		
AUG	EOF INFORMATION SPECIALIST		
AUG	EOF OPS LIAISON		
AUG	FIELD TEAM SPECIALIST		
SPT	EOF TECHNICAL LIAISON		
SPT	EOF CLERICAL ASSISTANT		
SPT	EMERGENCY DIRECTOR SECRETARY		
SPT	DES MOINES SITE REPRESENTATIVE		
SPT	IT SPECIALIST		
SPT	EOF CHP COMMUNICATOR		
SPT	COMMUNICATIONS SPECIALIST		
SPT	EMERGENCY RESPONSE COORDINATOR		
SPT	EOF SECRETARY		
SPT	EOF DOSE ASSESSMENT ASSISTANT		
SPT	EOF STATUS BOARD KEEPER		

NOTE: The expectation is to have a 24-hour schedule developed within 1 hour AFTER the center is AUGMENTED for the 1st shift and within 6 hours for the 2nd shift

* Minimum staffing requires one of either position

EMERGENCY PLAN IMPLEMENTING PROCEDURE INDEX

<u>PROCEDURE NUMBER</u>	<u>TITLE</u>	<u>REVISION/DATE</u>
EPIP-OSC-1	Emergency Classification	R33 08-24-00
EPIP-OSC-2	Command and Control Position Actions/Notifications	R36 08-24-00
EPIP-OSC-9	Emergency Team Briefings	R7 12-09-99
EPIP-OSC-15	Communicator Actions	R21 08-24-00
EPIP-OSC-20	Site Population Exposure Estimates	R6 11-10-95
EPIP-OSC-21	Activation of the Operations Support Center	R9 08-24-00
EPIP-TSC-1	Activation of the Technical Support Center	R21 08-24-00
EPIP-TSC-2	Catastrophic Flooding Preparations	(R0 03-22-95) DELETED 05-09- 95 REINSTATED R2 02-06-96
EPIP-TSC-8	Core Damage Assessment	R13 01-19-00
EPIP-EOF-1	Activation of the Emergency Operations Facility	R12 08-24-00
EPIP-EOF-3	Offsite Monitoring	R16 10-26-99
EPIP-EOF-6	Dose Assessment	R28 02-29-00a
EPIP-EOF-7	Protective Action Guidelines	R12 09-01-94
EPIP-EOF-10	Warehouse Personnel Decontamination Station Operation	R10 01-13-00
EPIP-EOF-11	Dosimetry Records, Exposure Extensions and Habitability	R18 09-18-97b
EPIP-EOF-19	Recovery Actions	R7 09-30-98
EPIP-EOF-21	Potassium Iodide Issuance	R3 09-18-97
EPIP-EOF-23	Emergency Response Message System	R5 10-12-99

EMERGENCY PLAN IMPLEMENTING PROCEDURE INDEX

<u>PROCEDURE NUMBER</u>	<u>TITLE</u>	<u>REVISION/DATE</u>
EPIP-EOF-24	EOF Backup Alert Notification System Activation	R3 09-09-99
EPIP-RR-11	Technical Support Center Director Actions	R14 02-29-00
EPIP-RR-13	Reactor Safety Coordinator Actions	R14 12-09-99
EPIP-RR-17	TSC Security Coordinator Actions	R13 11-30-99
EPIP-RR-17A	TSC Administrative Logistics Coordinator Actions	R17 08-24-00
EPIP-RR-19A	Operations Liaison Actions	R5 10-07-99
EPIP-RR-21	Operations Support Center Director Actions	R12 09-23-99
EPIP-RR-21A	Maintenance Coordinator Actions	R4 11-30-99
EPIP-RR-22	Protective Measures Coordinator/Manager Actions	R20 08-24-00
EPIP-RR-22A	Chemistry Coordinator Actions	R5 02-29-00
EPIP-RR-25	TSC/EOF Dose Assessment Coordinator Actions	R19 08-24-00
EPIP-RR-28	OSC Accountability and Dosimetry Technician Actions	R7 09-01-94a
EPIP-RR-29	EOF Administrative Logistics Manager Actions	R17 10-07-98
EPIP-RR-63	EOF Dose Assessment Assistant Actions	R7 05-30-96
EPIP-RR-66	Communication Specialist Actions	R8 08-31-99
EPIP-RR-72	Field Team Specialist Actions	R12 02-29-00
EPIP-RR-87	Radiation Protection Coordinator Actions	R7 08-24-00

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Fort Calhoun Station
Unit No. 1

EPIP-OSC-1

EMERGENCY PLAN IMPLEMENTING PROCEDURE

Title: EMERGENCY CLASSIFICATION

FC-68 Number: DCR 11818

Reason for Change: Reword Note in Step 5, to remove instructions and refer user to OSC-2. Add note to Step 5 referencing the NEI-02 and 15 minutes to classify an event. Change wording in requirements of Step 5.4.1 and 5.4.2 to clarify intent.

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Preparer: M. Reller

EMERGENCY CLASSIFICATION

NON-SAFETY RELATED

1. PURPOSE

- 1.1 This procedure establishes criteria for classification of abnormal events into one of the four standard emergency classifications. These classifications are consistent with guidance found in NUREG-0654/FEMA REP-1, Rev.1 and the NRC Branch Position Letter entitled, "Acceptable Deviations from Appendix 1 to NUREG-0654 Based upon the Regulatory Analysis of NUMARC/NESP-007, "Methodology for Development of Emergency Action Levels"."

2. REFERENCES/COMMITMENT DOCUMENTS

- 2.1 Radiological Emergency Response Plan
- 2.2 Emergency Plan Implementing Procedures
- 2.3 NUREG-0654/FEMA-REP-1, Rev. 1
- 2.4 10CFR50
- 2.5 Acceptable Deviations from Appendix 1 to NUREG-0654 Based upon the Regulatory Analysis of NUMARC/NESP-007, Methodology for Development of Emergency Action Levels
- 2.6 NEI 99-02, Regulatory Assessment Performance Indicator Guideline
- 2.7 NUMARC/NESP-007, Methodology for Development of Emergency Action Levels
- 2.8 Engineering Analysis No. EA-FC-92-035, Evaluation of Emergency Action Levels: Failed Fuel
- 2.9 Methodology for Development of Emergency Action Levels NUMARC/NESP-007, Revision 2, Questions and Answers, June 1993
- 2.10 Commitment Documents
- AR 7987, LIC-88-0165

3. DEFINITIONS

- 3.1 **CONTAINMENT CLOSURE** - The action to secure containment and its associated structures, systems, and components as a **FUNCTIONAL** barrier to fission product release under existing plant conditions.
- 3.2 **EMERGENCY ACTION LEVEL (EAL)** - Alarms, instrument readings or visual sightings that have exceeded predetermined limits which would categorize the situation into an initiating condition of one of the four emergency classifications.
- 3.3 **EMERGENCY CLASSIFICATION** - One of the following classifications:
- 3.3.1 **NOTIFICATION OF UNUSUAL EVENT (NOUE)** - Unusual events are in progress or have occurred which indicate a potential degradation of the level of safety of the plant. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs.
- Purpose: (1) to assure that the first step in any response, determined to be necessary in the judgement of a command and control position, has been carried out, (2) bring the operating staff to a state of readiness and (3) provide systematic handling of unusual events information and decision making.
- 3.3.2 **ALERT** - Events are in progress or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant. Any releases are expected to be limited to small fractions of the EPA Protective Action Guideline exposure levels.
- Purpose: (1) to assure that emergency personnel are readily available to respond if the situation becomes more serious or to perform confirmatory radiation monitoring if required and (2) provide offsite authorities current status information.
- 3.3.3 **SITE AREA EMERGENCY** - Events are in progress or have occurred which involve actual or likely major failures of the plant functions needed for protection of the public. Any releases are not expected to exceed EPA Emergency Action Guideline exposure levels except near the site boundary.
- Purpose: (1) to assure that response centers are manned, (2) assure that monitoring teams are dispatched, (3) assure that offsite personnel required for evacuation of near-site areas are at duty stations if situation becomes more serious, (4) provide consultation with offsite authorities and (5) provide updates for the public through offsite authorities.

3.3.4 GENERAL EMERGENCY - Events are in progress or have occurred which involve actual or imminent substantial core degradation or melting with the potential for loss of containment integrity. Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels offsite.

Purpose: (1) to initiate predetermined protective actions for the public, (2) provide continuous assessments of information from licensee and offsite organization measurements, (3) initiate additional measures as indicated by actual or potential releases, (4) provide consultation with offsite authorities and (5) provide updates for the public through offsite authorities.

- 3.4 EMERGENCY COMMAND AND CONTROL - Overall direction of licensee response which must include the non-delegable responsibilities for the decision to notify and recommend protective actions to the state and counties and other authorities responsible for offsite emergency measures. The direction of licensee operations to mitigate accident consequences remains with a qualified Command and Control position.
- 3.5 ENGINEERED SAFETY FEATURES (ESF) - The basic features of engineered safety systems, intended to mitigate the consequences of design-basis accidents and beyond-design-basis LOCA.
- 3.6 EXCLUSION AREA - The area surrounding the nuclear power plant in which the reactor licensee has the authority to determine all activities including exclusion or removal of personnel and property from that area. The term is synonymous with "onsite".
- 3.7 FAILED FISSION PRODUCT BARRIER - The fission product barrier is incapable of sufficiently retaining radioactive materials to protect the public.
- 3.8 FISSION PRODUCT BARRIER - The fuel cladding, reactor coolant system boundary, or the containment building.
- 3.9 INTACT - The fission product barrier retains the ability to protect the public from a harmful release of radioactive materials.
- 3.10 MODES OF OPERATION - One of the following classified plant conditions:
- 3.10.1 POWER OPERATION CONDITION (MODE 1) - The reactor is in the power operation condition when it is critical and the neutron flux power range instrumentation indicates greater than 2% of rated power.

- 3.10.2 HOT STANDBY CONDITION (MODE 2) - The reactor is considered to be in a hot standby condition if the average temperature of the reactor coolant (T_{ave}) is greater than 515°F, the reactor is critical, and neutron flux power range instrumentation indicates less than 2% of rated power.
- 3.10.3 HOT SHUTDOWN CONDITION (MODE 3) - The reactor is in a hot shutdown condition if the average temperature of the reactor coolant (T_{ave}) is greater than 515°F and the reactor is subcritical by at least the amount defined in Technical Specification paragraph 2.10.2.
- 3.10.4 COLD SHUTDOWN CONDITION (MODE 4) - The reactor coolant temperature (T_{cold}) is less than 210°F and the reactor coolant is at shutdown boron concentration.
- 3.10.5 REFUELING SHUTDOWN CONDITION (MODE 5) - The reactor coolant is at a refueling boron concentration and reactor coolant temperature (T_{cold}) is less than 210°F.

3.11 OFFSITE - Those areas not within the exclusion area boundary.

3.12 ONSITE - The area surrounding the nuclear power plant in which the reactor licensee has the authority to determine all activities including exclusion or removal of personnel and property from that area. The term is synonymous with "Exclusion Area Boundary".

3.13 VERIFICATION CRITERIA - The plant or site condition by which the decision may be based for classifying the emergency.

4. PREREQUISITES

- 4.1 There are no specific prerequisites for this procedure. Any abnormal or off normal event is cause for referring to this Emergency Plan Implementing Procedure.

5. PROCEDURE

NOTE: The highest emergency classification for which an Emergency Action Level is currently met should be declared. If an action level for an emergency classification was exceeded but has since abated or otherwise been resolved prior to declaration, refer to EPIP-OSC-2, Section 5 for notification guidance.

NOTE: Unless specific criteria is identified in the "Applicable Modes" section of an EAL, the plant shall always be assumed to be in the higher Operating Mode (numerically lower) during transitions between modes for the purposes of Emergency Classification (i.e., if T_{cold} is 246°F, the plant is considered to be in Operating Mode 3 if no temperatures are specified).

NOTE: The Emergency Action Levels described in this procedure are not intended to be used during approved maintenance and/or testing situations where abnormal temperature, pressure, equipment status, etc., is expected.

NOTE: Emergency classifications are to be made consistent with the goal of 15 minutes once plant parameters reach or exceed the Verification Criteria in an EAL. The 15 minute goal is a reasonable period of time for assessing and classifying an emergency once indicators are available to the Control Room and other personnel that Verification Criteria has been exceeded. The 15 minute goal should not be interpreted as providing a grace period in which a licensee may attempt to restore plant conditions and avoid classifying the emergency.

- 5.1 Validate the indications/reports of the off-normal event or reported sighting.
- 5.2 Ensure the immediate actions (use of Emergency and Abnormal Operating Procedures) are being taken for the safe and proper operation of the plant.
- 5.3 Compare the abnormal conditions with the EAL's listed on Attachment 6.2. Choose the appropriate EAL.
- 5.4 Turn to the selected EAL page in Attachment 6.1 and verify the EAL against the verification criteria and applicable modes.
 - 5.4.1 If verification criteria is met; **Declare the Emergency Classification Indicated.**
 - 5.4.2 If verification criteria is not met; repeat Steps 5.3 and 5.4 and evaluate other related EAL's as necessary.
- 5.5 Monitor response activities and plant conditions and adjust classifications as necessary.

6. ATTACHMENTS

- 6.1 Emergency Action Level Verification Criteria
- 6.2 Emergency Action Levels (EAL's)
- 6.3 Three Fission Product Barrier Criteria

Attachment 6.1

EAL 1.1

EAL 1.1

**RCS RADIOACTIVITY
EXCEEDS TECHNICAL SPECIFICATION LIMITS**

VERIFICATION CRITERIA:

1: Any of the following conditions exist:

- **RCS Dose Equivalent Iodine-131 exceeds 1.0 $\mu\text{Ci/gm}$ for more than 100 hours during one continuous time interval.**
- **RCS Dose Equivalent Iodine-131 exceeds 60 $\mu\text{Ci/gm}$.**
- **The radioactivity of the reactor coolant exceeds 100 over E-bar $\mu\text{Ci/gm}$.**

APPLICABLE MODES:

1-5

EMERGENCY CLASSIFICATION:

NOTIFICATION OF UNUSUAL EVENT

Attachment 6.1

EAL 1.2

EAL 1.2

**UNIDENTIFIED RCS LEAKAGE >10 GPM
OR PRIMARY TO SECONDARY LEAKAGE > 10 GPM
OR TOTAL RCS LEAKAGE > 25 GPM**

VERIFICATION CRITERIA:

1. Any of the following conditions:

- Unidentified RCS leakage is greater than 10 gpm.
- Primary to Secondary leakage is greater than 10 gpm.
- Total RCS leakage is greater than 25 gpm.

APPLICABLE MODES:

T_{cold} greater than 210 °F

EMERGENCY CLASSIFICATION:

NOTIFICATION OF UNUSUAL EVENT

Attachment 6.1

EAL 1.3

RCS DOSE EQUIVALENT IODINE-131 > 180 μ Ci/gm

EAL 1.3

VERIFICATION CRITERIA:

1. **RCS Dose Equivalent Iodine-131 sample is greater than 180 μ Ci/gm.**

APPLICABLE MODES:

1-5

EMERGENCY CLASSIFICATION:

ALERT

Attachment 6.1

EAL 1.4

EAL 1.4

RCS LEAKAGE > 40 GPM

VERIFICATION CRITERIA:

1. **RCS leakage is greater than 40 gpm.**

APPLICABLE MODES:

1-5 (with fuel in the Reactor Vessel)

EMERGENCY CLASSIFICATION:

ALERT

Attachment 6.1

EAL 1.5

EAL 1.5

AUTOMATIC OR A MANUAL REACTOR TRIP WAS NOT SUCCESSFUL

VERIFICATION CRITERIA:

NOTE: Reactivity Control is indicated by a negative startup rate and lowering reactor power.

1. An automatic reactor trip did **NOT** occur upon reaching a Reactor Protective System set point:

- High Power
- High Startup Rate
- Low Flow
- Low SG Level
- Low SG Pressure
- ASGT
- High Pressurizer Pressure
- TM/LP
- Loss of Load
- Containment Pressure
- APD

OR

NOTE: One or all of the following actions is considered a manual reactor trip:

- A. Manual TRIP on CB-4
- B. Manual TRIP on AI-31
- C. Both DSS Manual Trip Switches on AI-66A/B were placed in TRIP

2. A manual reactor trip **did not** establish Reactivity Control.

APPLICABLE MODES:

1-3

EMERGENCY CLASSIFICATION:

ALERT

Attachment 6.1

EAL 1.6

EAL 1.6

CONTAINMENT PRESSURE APPROACHING 60 PSIG

VERIFICATION CRITERIA:

1. Containment pressure is greater than 60 psig.

OR

2. Containment pressure is rising at a rate that will cause pressure to exceed 60 psig before corrective action can halt or reverse the pressure increase.

APPLICABLE MODES:

T_{cold} greater than 210 °F

EMERGENCY CLASSIFICATION:

ALERT

Attachment 6.1

EAL 1.7

CONTAINMENT HYDROGEN CONCENTRATION > 3.0%

EAL 1.7

VERIFICATION CRITERIA:

- 1. Containment air hydrogen concentration is greater than 3.0%.**

APPLICABLE MODES:

T_{cold} greater than 210 °F

EMERGENCY CLASSIFICATION:

ALERT

Attachment 6.1

EAL 1.8

EAL 1.8

**CONTAINMENT PRESSURE > 5 PSIG
WITH HIGH RADIATION**

VERIFICATION CRITERIA:

1. Containment air pressure is greater than 5 psig.

AND

2. Any valid containment area radiation monitor indicates 1,000 times the normal values as listed in the TDB Fig. IV.8.

APPLICABLE MODES:

1-5 (with fuel in the Reactor Vessel)

EMERGENCY CLASSIFICATION:

ALERT

Attachment 6.1

EAL 1.9

EAL 1.9

**FAILURE/CHALLENGE TO
ONE (1) FISSION PRODUCT BARRIER**

VERIFICATION CRITERIA:

1. **This event is not covered by any other EAL.**

AND

2. **There is a failure or challenge to any one of the three fission product barriers (refer to Attachment 6.3):**
- **Fuel Cladding**
 - **Reactor Coolant System**
 - **Containment**

APPLICABLE MODES:

Fuel Cladding	Modes 1-5
Reactor Coolant System	Modes 1-5 (with fuel in the Reactor Vessel)
Containment	T_{cold} greater than 210°F

EMERGENCY CLASSIFICATION:

ALERT

Attachment 6.1

EAL 1.10

EAL 1.10

**LOSS OF SHUTDOWN COOLING
OR LOSS OF SHUTDOWN MARGIN**

VERIFICATION CRITERIA:

1. Any of the following:

- **Shutdown cooling capability has been lost and the time to restore shutdown cooling is greater than the time remaining to boil (AOP-19).**
- **RCS temperature is being maintained by "once-through-cooling" per AOP-19.**
- **Required shutdown margin cannot be maintained.**

APPLICABLE MODES:

3, 4, or 5 (if on shutdown cooling)

EMERGENCY CLASSIFICATION:

ALERT

Attachment 6.1

EAL 1.11

EAL 1.11

**RCS LEAKAGE > 40 GPM AND RCS PRESSURE
CONTINUES TO LOWER AFTER HPSI INJECTION BEGINS**

VERIFICATION CRITERIA:

1. RCS leakage is greater than 40 gpm.

AND

NOTE: Shift Supervisor judgement is required in determining HPSI pump injection effectiveness in controlling RCS pressure, post LOCA.

2. RCS pressure, post LOCA, continues to lower following available HPSI pump injection into the RCS.

APPLICABLE MODES:

1-5 (with fuel in the Reactor Vessel)

EMERGENCY CLASSIFICATION:

SITE AREA EMERGENCY

Attachment 6.1

EAL 1.12

EAL 1.12

**DOSE EQUIVALENT IODINE-131 >180 μ Ci/gm
WITH INADEQUATE CORE COOLING**

VERIFICATION CRITERIA:

1. RCS Dose Equivalent Iodine-131 is greater than 180 μ Ci/gm.

AND

2. Core cooling is inadequate as indicated by any of the following:

- Any valid CET temperature greater than 1,000°F.
- RVLMS indicates 0.0%.
- Adequate safety injection flow can NOT be maintained per EOP, Attachment 3.

APPLICABLE MODES:

1-5

EMERGENCY CLASSIFICATION:

SITE AREA EMERGENCY

Attachment 6.1

EAL 1.13

EAL 1.13

**FAILURE/CHALLENGE TO
TWO (2) FISSION PRODUCT BARRIERS**

VERIFICATION CRITERIA:

1. **This event is not covered by any other EAL.**

AND

2. **The event is a failure or challenge to ANY two (2) fission product barriers (refer to Attachment 6.3).**
- **Fuel Cladding**
 - **Reactor Coolant System**
 - **Containment**

APPLICABLE MODES:

Fuel Cladding Modes 1-5
Reactor Coolant System Modes 1-5 (with fuel in the Reactor Vessel)
Containment T_{cold} greater than 210°F

EMERGENCY CLASSIFICATION:

SITE AREA EMERGENCY

Attachment 6.1

EAL 1.14

EAL 1.14

**BOTH AUTOMATIC AND MANUAL REACTOR TRIPS
WERE NOT SUCCESSFUL**

VERIFICATION CRITERIA:

NOTE: Reactivity Control is indicated by a negative startup rate and lowering reactor power.

1. An automatic reactor trip did NOT occur upon reaching a Reactor Protective System set point:

- High Power
- High Startup Rate
- Low Flow
- Low SG Level
- Low SG Pressure
- ASGT
- High Pressurizer Pressure
- TM/LP
- Loss of Load
- Containment Pressure
- APD

AND

NOTE: One or all of the following actions is considered a manual reactor trip:

- A. Manual TRIP on CB-4
- B. Manual TRIP on AI-31
- C. Both DSS Manual Trip Switches on AI-66A/B were placed in TRIP

2. A manual reactor trip did not establish Reactivity Control.

APPLICABLE MODES:

1-3

EMERGENCY CLASSIFICATION:

SITE AREA EMERGENCY

Attachment 6.1

EAL 1.15

EAL 1.15

**LOSS OF ANY FUNCTION NEEDED
FOR PLANT HOT SHUTDOWN**

VERIFICATION CRITERIA:

1. Any of the following conditions exist:

- **Loss of both steam generators as a heat sink.**
- **Inability to achieve and maintain required shutdown margin.**
- **Inability to achieve and maintain subcooled natural circulation if forced circulation is not available.**
- **Inability to maintain reactor coolant system liquid volume.**

APPLICABLE MODES:

**1-3
4 or 5 (if NOT on shutdown cooling)**

EMERGENCY CLASSIFICATION:

SITE AREA EMERGENCY

Attachment 6.1

EAL 1.16

EAL 1.16

**IMMINENT CORE UNCOVERY
WITH CONTAINMENT FAILURE OR CHALLENGE**

VERIFICATION CRITERIA:

1. **Actual or imminent core uncovery as indicated by ANY of the following:**
 - **Any valid CET temperature greater than 1,000°F.**
 - **RVLMS indicates 0.0% (core uncovery).**
 - **Adequate safety injection flow cannot be maintained per EOP, Attachment 3.**

AND

2. **Containment failure or challenge exists as indicated per Attachment 6.3.**

APPLICABLE MODES:

1-3

EMERGENCY CLASSIFICATION:

CAUTION

Protective Action Recommendations Required per EPIP-EOF-7.

GENERAL EMERGENCY

Attachment 6.1

EAL 1.17

EAL 1.17

**FAILURE/CHALLENGE TO
THREE (3) FISSION PRODUCT BARRIERS**

VERIFICATION CRITERIA:

1. The event is a failure or challenge to ALL three (3) fission product barriers (refer to Attachment 6.3).

- Fuel Cladding
- Reactor Coolant System
- Containment

APPLICABLE MODES:

Fuel Cladding Modes 1-5
Reactor Coolant System Modes 1-5 (with fuel in the Reactor Vessel)
Containment T_{cold} greater than 210°F

EMERGENCY CLASSIFICATION:

CAUTION

Protective Action Recommendations Required per EPIP-EOF-7.

GENERAL EMERGENCY

Attachment 6.1

EAL 1.18

EAL 1.18

**AUTOMATIC AND MANUAL REACTOR TRIPS AND
EMERGENCY BORATION WERE NOT SUCCESSFUL
AND CORE COOLING IS INADEQUATE**

VERIFICATION CRITERIA:

1. An automatic reactor trip, manual reactor trip and emergency boration did **NOT** establish reactivity control per EOP-20, Safety Function Status Check.

AND

2. Core cooling is inadequate as indicated by ANY of the following:
- Any valid CET temperature greater than 1,000°F.
 - RVLMS indicates 0.0%.
 - Adequate safety injection flow can not be maintained per EOP, Attachment 3.
 - Loss of ALL feedwater addition capability.

APPLICABLE MODES:

1-3

EMERGENCY CLASSIFICATION:

CAUTION

Protective Action Recommendations Required per EPIP-EOF-7.

GENERAL EMERGENCY

Attachment 6.1

EAL 2.1

EAL 2.1

**UNCONTROLLED STEAM GENERATOR
HEAT EXTRACTION**

VERIFICATION CRITERIA:

1. Any of the following conditions exist:

- **Uncontrolled heat extraction in progress per EOP-05/EOP-20.**
- **Any valid actuation of SGIS (other than CPHS caused by a LOCA).**
- **Failure of ANY steam generator relief valve to close.**

APPLICABLE MODES:

1-3

EMERGENCY CLASSIFICATION:

NOTIFICATION OF UNUSUAL EVENT

Attachment 6.1

EAL 2.2

**RM-057 (CONDENSER OFF GAS)
> HIGH ALARM**

EAL 2.2

VERIFICATION CRITERIA:

1. **Condenser Off Gas Process Monitor is reading greater than the HIGH ALARM set point.**

APPLICABLE MODES:

T_{cold} greater than 210 °F

EMERGENCY CLASSIFICATION:

NOTIFICATION OF UNUSUAL EVENT

Attachment 6.1

EAL 2.3

EAL 2.3

PRIMARY TO SECONDARY LEAKAGE >10 GPM

VERIFICATION CRITERIA:

- 1. Primary to Secondary leakage is greater than 10 gpm.**

APPLICABLE MODES:

T_{cold} greater than 210 °F

EMERGENCY CLASSIFICATION:

NOTIFICATION OF UNUSUAL EVENT

Attachment 6.1

EAL 2.4

EAL 2.4

**PRIMARY TO SECONDARY LEAKAGE >10 GPM
WITH AN ONGOING RELEASE**

VERIFICATION CRITERIA:

1. Primary to Secondary Leakage is greater than 10 gpm.

AND

2. Any one of the following conditions exist:

- RM-057, Condenser Off-Gas Process Monitor is greater than TEN (10) times the HIGH ALARM set point.
 - Uncontrolled heat extraction in progress outside of containment per EOP-05/EOP-20 on the Steam Generator WITH the Primary to Secondary leakage.
 - Frequent opening of, pro-longed opening of OR a stuck open Main Steam Safety Valve on the affected Steam Generator.
 - An ongoing release is in progress from the affected steam generator via HCV-1040.
 - A release in progress from the affected Steam Generator due to an inability to isolate FW-10 from the affected Steam Generator per the EOPs and AOPs.
-

APPLICABLE MODES:

1-5 (with fuel in the Reactor Vessel)

EMERGENCY CLASSIFICATION:

ALERT

Attachment 6.1

EAL 2.5

PRIMARY TO SECONDARY LEAKAGE > 40 GPM

EAL 2.5

VERIFICATION CRITERIA:

1. **Primary to Secondary leakage is greater than 40 gpm.**

APPLICABLE MODES:

1-5 (with fuel in the Reactor Vessel)

EMERGENCY CLASSIFICATION:

ALERT

Attachment 6.1

EAL 2.6

EAL 2.6

LOSS OF ALL FEEDWATER

VERIFICATION CRITERIA:

CAUTION

IF "once-through-cooling" is required, THEN proceed to EAL 2.8.

1. Loss of **ALL** feedwater addition capabilities (AOP-28/EOP-6/EOP-20).

APPLICABLE MODES:

**1-3
4 or 5 (if NOT on shutdown cooling)**

EMERGENCY CLASSIFICATION:

ALERT

Attachment 6.1

EAL 2.7

EAL 2.7

**PRIMARY TO SECONDARY LEAKAGE > 40 GPM
WITH AN ONGOING RELEASE**

VERIFICATION CRITERIA:

1. Primary to Secondary Leakage is greater than 40 gpm.

AND

2. Any one of the following conditions exist:

- **RM-057, Condenser Off-Gas Process Monitor is greater than TEN (10) times the HIGH ALARM set point.**
 - **Uncontrolled heat extraction in progress outside of containment per EOP-05/EOP-20 on the Steam Generator WITH the Primary to Secondary leakage.**
 - **Frequent opening of, pro-longed opening of OR a stuck open Main Steam Safety Valve on the affected Steam Generator.**
 - **An ongoing release is in progress from the affected steam generator via HCV-1040.**
 - **A release in progress from the affected Steam Generator due to an inability to isolate FW-10 from the affected Steam Generator per the EOPs and AOPs.**
-

APPLICABLE MODES:

1-5 (with fuel in the Reactor Vessel)

EMERGENCY CLASSIFICATION:

SITE AREA EMERGENCY

Attachment 6.1

EAL 2.8

EAL 2.8

**LOSS OF ALL FEEDWATER AND
"ONCE THROUGH COOLING" REQUIRED**

VERIFICATION CRITERIA:

1. Loss of all feedwater addition capabilities.

AND

2. "Once-through-cooling" is required per AOP-28/EOP-6/EOP-20.

APPLICABLE MODES:

**1-3
4 or 5 (if NOT on shutdown cooling)**

EMERGENCY CLASSIFICATION:

SITE AREA EMERGENCY

Attachment 6.1

EAL 2.9

EAL 2.9

**PRIMARY TO SECONDARY LEAKAGE > 40 GPM
WITH AN ONGOING RELEASE AND
DOSE EQUIVALENT IODINE-131 >180 μ Ci/gm**

VERIFICATION CRITERIA:

1. Primary to Secondary leakage is greater than 40 gpm.

AND

2. Any one of the following conditions exist:

- RM-057, Condenser Off-Gas Process Monitor is greater than TEN (10) times the HIGH ALARM set point.
- Uncontrolled heat extraction in progress outside of containment per EOP-05/EOP-20 on the Steam Generator WITH the Primary to Secondary leakage.
- Frequent opening of, pro-longed opening of OR a stuck open Main Steam Safety Valve on the affected Steam Generator.
- An ongoing release is in progress from the affected steam generator via HCV-1040.
- A release in progress from the affected Steam Generator due to an inability to isolate FW-10 from the affected Steam Generator per the EOPs and AOPs.

AND

3. Dose Equivalent Iodine-131 is greater than 180 μ Ci/gm.

APPLICABLE MODES:

1-5 (with fuel in the Reactor Vessel)

EMERGENCY CLASSIFICATION:

CAUTION

Protective Action Recommendations Required per EPIP-EOF-7.

GENERAL EMERGENCY

Attachment 6.1

EAL 2.10

EAL 2.10

**LOSS OF ALL FEEDWATER WITH FUEL CLADDING
AND CONTAINMENT FAILURE OR CHALLENGE**

VERIFICATION CRITERIA:

1. Loss of all feedwater addition capabilities.

AND

2. "Once-through-cooling" is required per AOP-28/EOP-6/EOP-20.

AND

3. Fuel cladding failure or challenge exists per Attachment 6.3.

AND

4. Containment failure or challenge exists per Attachment 6.3.

APPLICABLE MODES:

**Fuel Cladding Modes 1-5
Reactor Coolant System Modes 1-5 (with fuel in the Reactor Vessel)
Containment T_{cold} greater than 210°F**

EMERGENCY CLASSIFICATION:

CAUTION

Protective Action Recommendations Required per EPIP-EOF-7.

GENERAL EMERGENCY

Attachment 6.1

EAL 3.1

CONTROL ROOM EVACUATION

EAL 3.1

VERIFICATION CRITERIA:

- 1. Control Room evacuation has occurred.**

APPLICABLE MODES:

1-5

EMERGENCY CLASSIFICATION:

ALERT

Attachment 6.1

EAL 3.2

EAL 3.2

**CONTROL ROOM EVACUATION
WITHOUT ESTABLISHING CONTROL OF SHUTDOWN
SYSTEMS WITHIN 15 MINUTES**

VERIFICATION CRITERIA:

1. Control Room evacuation has occurred.

AND

2. Alternate Shutdown capability **IS NOT** established at AI-179, Auxiliary Feedwater Panel, and AI-185, Alternate Shutdown Panel within fifteen (15) minutes of the decision to evacuate the Control Room.

APPLICABLE MODES:

1-5

EMERGENCY CLASSIFICATION:

SITE AREA EMERGENCY

Attachment 6.1

EAL 4.1

LOSS OF OFFSITE POWER (345 KV AND 161 KV)

EAL 4.1

VERIFICATION CRITERIA:

1. Offsite power (345 KV and 161 KV) is not available to energize buses 1A3 and 1A4.

APPLICABLE MODES:

1-5

EMERGENCY CLASSIFICATION:

NOTIFICATION OF UNUSUAL EVENT

Attachment 6.1

EAL 4.2

EAL 4.2

**BOTH DIESEL GENERATORS
NOT OPERABLE**

VERIFICATION CRITERIA:

1. **BOTH diesel generators ARE NOT operable per Technical Specifications.**

APPLICABLE MODES:

**1-3
(RCS > 300°F)**

EMERGENCY CLASSIFICATION:

NOTIFICATION OF UNUSUAL EVENT

Attachment 6.1

EAL 4.3

EAL 4.3

**BUSSES 1A3 AND 1A4
ARE DEENERGIZED (\leq 15 MINUTES)**

VERIFICATION CRITERIA:

NOTE: Time should be allowed for automatic safety system actuation. Example: In the event of a loss of offsite power, allow time for the Diesel Generators automatically to start, come up to speed and load on busses 1A3 and 1A4 (10-20 seconds).

- 1. Busses 1A3 and 1A4 are deenergized for 15 minutes or less.**

APPLICABLE MODES:

1-5

EMERGENCY CLASSIFICATION:

ALERT

Attachment 6.1

EAL 4.4

EAL 4.4

LOSS OF BOTH 125 VDC BUSES (\leq 15 MINUTES)

VERIFICATION CRITERIA:

1. Loss of **BOTH** 125 VDC busses 1 **AND** 2 for 15 minutes or less.

APPLICABLE MODES:

1-5

EMERGENCY CLASSIFICATION:

ALERT

Attachment 6.1

EAL 4.5

EAL 4.5

**BUSSES 1A3 AND 1A4
ARE DEENERGIZED > 15 MINUTES**

VERIFICATION CRITERIA:

1. Busses 1A3 and 1A4 are deenergized for greater than 15 minutes.

APPLICABLE MODES:

1-5

EMERGENCY CLASSIFICATION:

SITE AREA EMERGENCY

Attachment 6.1

EAL 4.6

LOSS OF BOTH 125 VDC BUSES FOR > 15 MINUTES

EAL 4.6

VERIFICATION CRITERIA:

1. Loss of **BOTH** 125 VDC busses 1 **AND** 2 for greater than 15 minutes.

APPLICABLE MODES:

1-5

EMERGENCY CLASSIFICATION:

SITE AREA EMERGENCY

Attachment 6.1

EAL 5.1

EAL 5.1

LOSS OF ALL STATE AND COUNTY NOTIFICATION SYSTEMS

VERIFICATION CRITERIA:

NOTE: For the purposes of this EAL, the Conference Operations Network (COP) should be considered lost when any one of the following agencies cannot be contacted via the COP system due to system failure:

- State of Nebraska
- State of Iowa
- Washington County
- Harrison County
- Pottawattamie County

1. Loss of the Conference Operations Network (COP).

AND

2. Complete loss of the plant telephone system (Huntel and microwave).

AND

3. Loss of the NAWAS System.

APPLICABLE MODES:

1-5

EMERGENCY CLASSIFICATION:

NOTIFICATION OF UNUSUAL EVENT

Attachment 6.1

EAL 5.2

EAL 5.2

**UNPLANNED LOSS OF APPROXIMATELY 75%
OF ALL ANNUNCIATORS ASSOCIATED WITH
SAFETY SYSTEMS FOR > 15 MINUTES**

VERIFICATION CRITERIA:

1. Any unplanned loss of approximately 75% or more of all annunciators associated with safety systems listed in Attachment 1 to ARP-1 (Annunciator Response Procedure) has occurred for greater than 15 minutes.

AND

2. At least one channel of Quality Safety Parameter Display System (QSPDS) is available.

AND

3. In the opinion of the Shift Supervisor, the loss of the annunciators requires increased surveillance to safely operate the plant.

APPLICABLE MODES:

1-4

EMERGENCY CLASSIFICATION:

NOTIFICATION OF UNUSUAL EVENT

Attachment 6.1

EAL 5.3

EAL 5.3

UNPLANNED LOSS OF APPROXIMATELY 75% OF ALL ANNUNCIATORS ASSOCIATED WITH SAFETY SYSTEMS FOR > 15 MINUTES WITH EITHER; (1) QSPDS IS NOT AVAILABLE, OR; (2) SIGNIFICANT TRANSIENT IN PROGRESS

VERIFICATION CRITERIA:

1. Any unplanned loss of approximately 75% or more of all annunciators associated with safety systems listed in Attachment 1 to ARP-1 (Annunciator Response Procedure) has occurred for greater than 15 minutes.

AND

2. Either of the following conditions exist:

- Both channels of the Quality Safety Parameter Display System (QSPDS) are NOT available.
- A significant transient is in progress (i.e., Reactor trip, SIAS or thermal power change of greater than 10 percent).

AND

3. In the opinion of the Shift Supervisor, the loss of the annunciators requires increased surveillance to safely operate the plant.
-

APPLICABLE MODES:

1-4

EMERGENCY CLASSIFICATION:

ALERT

Attachment 6.1

EAL 5.4

EAL 5.4

**INABILITY TO MONITOR A SIGNIFICANT
TRANSIENT IN PROGRESS**

VERIFICATION CRITERIA:

1. Any planned or unplanned loss of approximately 75% or more of all annunciators associated with safety systems listed in Attachment 1 to ARP-1 (Annunciator Response Procedure) has occurred for greater than 15 minutes.

AND

2. Both channels of the Quality Safety Parameter Display System (QSPDS) are NOT available.

AND

3. A significant plant transient is in progress (i.e., reactor trip, SIAS or thermal power change of greater than 10 percent).

APPLICABLE MODES:

1-4

EMERGENCY CLASSIFICATION:

SITE AREA EMERGENCY

Attachment 6.1

EAL 6.1

FIRE OR EXPLOSION INSIDE THE PROTECTED AREA

EAL 6.1

VERIFICATION CRITERIA:

1. Any of the following:

- **Fire within the protected area fence which is not extinguished within 10 minutes after initiating fire fighting efforts.**
- **Explosion within the protected area resulting in visible damage to permanent structures or equipment.**

APPLICABLE MODES:

1-5

EMERGENCY CLASSIFICATION:

NOTIFICATION OF UNUSUAL EVENT

Attachment 6.1

EAL 6.2

INOPERABLE FIRE SUPPRESSION WATER SYSTEM

EAL 6.2

VERIFICATION CRITERIA:

NOTE: The fire suppression water system shall not be considered inoperable during system testing, Jockey Pump maintenance or training (not to exceed 7 consecutive days).

- 1. The Fire Suppression Water System is inoperable per SO-G-103, "Fire Protection Operability Criteria and Surveillance Requirements."**

AND

- 2. The plant is not brought to the required Mode of Operation within the allowable time as required by the Action Statement in SO-G-103, "Fire Protection Operability Criteria and Surveillance Requirements."**

APPLICABLE MODES:

1-5

EMERGENCY CLASSIFICATION:

NOTIFICATION OF UNUSUAL EVENT

Attachment 6.1

EAL 6.3

EAL 6.3

FIRE OR EXPLOSION AFFECTING ONE TRAIN OF ESF

VERIFICATION CRITERIA:

1. Fire or explosion causing potential or actual loss of a single train of **ANY** Engineered Safety Function.

AND

2. Any of the following:

- Affected system parameter indications (indicators, annunciators, etc.) show degraded performance.
- Plant personnel report visible damage (scorching, deformation, etc.) to safety system structures or equipment.

APPLICABLE MODES:

1-5

EMERGENCY CLASSIFICATION:

ALERT

Attachment 6.1

EAL 6.4

EAL 6.4

FIRE OR EXPLOSION AFFECTING BOTH TRAINS OF ESF

VERIFICATION CRITERIA:

1. A fire or explosion causing actual or potential loss of **BOTH** trains of **ANY** Engineered Safety Function.

AND

2. Any of the following:
 - Affected system parameter indications (indicators, annunciators, etc.) show degraded performance to both trains.
 - Plant personnel report visible damage (scorching, deformation, etc.) to safety system structures or equipment on both trains.

APPLICABLE MODES:

1-5

EMERGENCY CLASSIFICATION:

SITE AREA EMERGENCY

Attachment 6.1

EAL 7.1

EAL 7.1

IRRADIATED FUEL ACCIDENT

VERIFICATION CRITERIA:

1. **An irradiated fuel assembly is dropped or otherwise observed to be damaged in the Spent Fuel Pool, Fuel Transfer Canal, Refueling Cavity, or Reactor Vessel (with the Reactor Vessel Head removed).**

AND

2. **One or more of the following occur as a result of the damage to the irradiated fuel assembly:**
 - **Rising radiation levels as indicated by portable radiation monitors or instruments near the damaged irradiated fuel assembly.**
 - **RM-073 Area Radiation Monitor (Containment above Transfer Canal) High Alarm**
 - **RM-085 or RM-087 Area Radiation Monitor (Auxiliary Building Spent Fuel Pool Area) High Alarm**
 - **RM-050 High Alarm**
 - **RM-051 High Alarm**
 - **RM-062 High Alarm**
 - **RM-052 High Alarm**

APPLICABLE MODES:

1-5

EMERGENCY CLASSIFICATION:

ALERT

Attachment 6.1

EAL 7.2

MAJOR IRRADIATED FUEL ACCIDENT

EAL 7.2

VERIFICATION CRITERIA:

1. **Major damage (large object damages fuel or water loss below fuel level) to an irradiated fuel assembly in the Spent Fuel Pool, Fuel Transfer Canal, Refueling Cavity, or Reactor Vessel (with the Reactor Vessel Head removed).**

AND

2. **Any area radiation monitor indicating greater than 1,000 TIMES normal as listed in the TDB Figure IV.8 as a result of the damage to the irradiated fuel assembly.**

APPLICABLE MODES:

1-5

EMERGENCY CLASSIFICATION:

SITE AREA EMERGENCY

Attachment 6.1

EAL 8.1

EAL 8.1

**GASEOUS EFFLUENT PROCESS MONITORS
> HIGH ALARM SET POINT**

VERIFICATION CRITERIA:

1. Any one of the following Gaseous Process Monitors reading greater than the High Alarm Set point as listed in TDB Figure IV.7:
 - RM-052 (on the stack)
 - RM-062
 - RM-057
 - RM-043

APPLICABLE MODES:

1-5

EMERGENCY CLASSIFICATION:

NOTIFICATION OF UNUSUAL EVENT

Attachment 6.1

EAL 8.2

EAL 8.2

LIQUID PROCESS MONITORS > HIGH ALARM SET POINT

VERIFICATION CRITERIA:

1. Any one of the following:

- **RM-054A, Steam Generator Blowdown Monitor reading greater than the High Alarm Setpoint as listed in TDB Figure IV.7 and blowdown flow is not isolated.**
- **RM-054B, Steam Generator Blowdown Monitor reading greater than the High Alarm Setpoint as listed in TDB Figure IV.7 and blowdown flow is not isolated.**
- **RM-055, Overboard Discharge Header Monitor reading greater than the High Alarm Setpoint as listed in TDB Figure IV.7 and the overboard discharge flow is not isolated.**

APPLICABLE MODES:

1-5

EMERGENCY CLASSIFICATION:

NOTIFICATION OF UNUSUAL EVENT

Attachment 6.1

EAL 8.3

EAL 8.3

**GASEOUS EFFLUENT PROCESS MONITORS INDICATE
> TEN (10) TIMES HIGH ALARM SET POINT**

VERIFICATION CRITERIA:

1. Any one of the following Gaseous Process Monitors reading **greater than TEN (10) times the High Alarm set point as listed in TDB Figure IV.7:**
 - RM-052 (on the stack)
 - RM-062
 - RM-057
 - RM-043

APPLICABLE MODES:

1-5

EMERGENCY CLASSIFICATION:

ALERT

Attachment 6.1

EAL 8.4

EAL 8.4

**LIQUID EFFLUENT PROCESS MONITORS
> TEN (10) TIMES HIGH ALARM SET POINT**

VERIFICATION CRITERIA:

1. Any one of the following:

- **RM-054A, Steam Generator Blowdown Monitor reading greater than TEN (10) times the High Alarm Setpoint as listed in TDB Figure IV.7 and the blowdown flow is not isolated.**
- **RM-054B, Steam Generator Blowdown Monitor reading greater than TEN (10) times the High Alarm Setpoint as listed in TDB Figure IV.7 and the blowdown flow is not isolated.**
- **RM-055, Overboard Discharge Header Monitor reading greater than TEN (10) times the High Alarm Setpoint as listed in TDB Figure IV.7 and the overboard discharge flow is not isolated.**

APPLICABLE MODES:

1-5

EMERGENCY CLASSIFICATION:

ALERT

Attachment 6.1

EAL 8.5

EAL 8.5

**GENERAL AREA RADIATION READINGS INCREASE BY
A FACTOR OF 1,000 TIMES BACKGROUND**

VERIFICATION CRITERIA:

NOTE: The following Verification Criteria does not apply to temporary increases in radiation levels due to planned maintenance and outage events (e.g., movement of fuel, incore detectors, radwaste container, depleted resin, etc).

- 1. General area radiation levels are greater than 1,000 times the normal background radiation levels in the facility as indicated by either:**
 - **Area radiation monitors (per TDB Figure IV.8)**
 - **Field surveys**

APPLICABLE MODES:

1-5

EMERGENCY CLASSIFICATION:

ALERT

Attachment 6.1

EAL 8.6

EAL 8.6

**DOSE ASSESSMENTS CANNOT BE PERFORMED
AND EFFLUENT MONITORS EXCEED DEFAULT VALUES
FOR SITE AREA EMERGENCY**

VERIFICATION CRITERIA:

1. **Dose assessments cannot be performed per EPIP-EOF-6.**

AND

2. **Any one of the following effluent monitors: RM-052, RM-062, RM-063, RM-057, RM-064 and RM-043 exceeds the default values for Site Area Emergency as listed in TDB Figure IV.7, Table 2.**

APPLICABLE MODES:

1-5

EMERGENCY CLASSIFICATION:

SITE AREA EMERGENCY

Attachment 6.1

EAL 8.7

EAL 8.7

**DOSE ASSESSMENT OR FIELD SURVEYS
INDICATE THAT DOSE RATES OR DOSES FOR SITE AREA EMERGENCY
ARE EXCEEDED AT SITE BOUNDARY**

VERIFICATION CRITERIA:

1. Any of the following:

- Field survey results at or beyond the Site Boundary indicate a dose rate of 100 mRem/hr or greater.
- Analysis of field survey results indicate a thyroid dose commitment of 500 mRem Committed Dose Equivalent (CDE) in one hour.

OR

2. Dose assessment calculations at or beyond the Site Boundary indicate any of the following:

- 100 mRem/hr or greater Total Effective Dose Equivalent (TEDE)
- 500 mRem/hr or greater thyroid Committed Dose Equivalent (CDE)

APPLICABLE MODES:

1-5

EMERGENCY CLASSIFICATION:

SITE AREA EMERGENCY

Attachment 6.1

EAL 8.8

EAL 8.8

HIGH CONTAINMENT RADIATION > 6,500 R/hr

VERIFICATION CRITERIA:

- 1. Containment radiation levels greater than 6,500 R/hr.**

APPLICABLE MODES:

1-5

EMERGENCY CLASSIFICATION:

SITE AREA EMERGENCY

Attachment 6.1

EAL 8.9

EAL 8.9

**DOSE ASSESSMENTS OR FIELD SURVEYS INDICATE
THAT DOSE RATES OR DOSES FOR GENERAL EMERGENCY ARE
EXCEEDED AT SITE BOUNDARY**

VERIFICATION CRITERIA:

1. Any of the following:

- Field survey results at or beyond the Site Boundary indicate 1.0 Rem/hr or greater.
- Analysis of field survey results indicate a thyroid dose commitment of 5 Rem or greater Committed Dose Equivalent (CDE) in one hour.

OR

2. Dose assessment calculations indicate one of the following EPA Protective Action Guidelines are exceeded at or beyond the Site Boundary:

- 1.0 Rem or greater Total Effective Dose Equivalent (TEDE)
 - 5.0 Rem or greater to the thyroid (Committed Dose Equivalent - CDE)
-

APPLICABLE MODES:

1-5

EMERGENCY CLASSIFICATION:

CAUTION

Protective Action Recommendations Required per EPIP-EOF-7.

GENERAL EMERGENCY

Attachment 6.1

EAL 8.10

EAL 8.10

HIGH CONTAINMENT RADIATION > 20,000 R/hr

VERIFICATION CRITERIA:

1. **Containment radiation levels greater than 20,000 R/hr.**

APPLICABLE MODES:

1-5

CLASSIFICATION:

CAUTION

Protective Action Recommendations Required per EPIP-EOF-7.

GENERAL EMERGENCY

Attachment 6.1

EAL 9.1

EAL 9.1

**CIVIL DISTURBANCE ON OWNER CONTROLLED
PROPERTY REQUIRING OFFSITE LAW ENFORCEMENT
OR RESULTING IN MEDIA COVERAGE**

VERIFICATION CRITERIA:

1. **A civil disturbance is taking place on Fort Calhoun Station's Owner Controlled Property requiring offsite law enforcement response or resulting in media coverage.**

AND

2. **In the judgement of the Command and Control position the situation warrants increased awareness by plant staff or government authorities.**

APPLICABLE MODES:

1-5

CLASSIFICATION:

NOTE: Shift Security Supervisor should be consulted for security events.

NOTIFICATION OF UNUSUAL EVENT

Attachment 6.1

EAL 9.2

EAL 9.2

**CONFIRMED HOSTAGE SITUATION OCCURRING
IN THE PROTECTED AREA, BUT OUTSIDE OF THE VITAL AREAS**

VERIFICATION CRITERIA:

- 1. A confirmed hostage situation is occurring in the Protected Area, but outside of the Vital Areas.**

APPLICABLE MODES:

1-5

CLASSIFICATION:

NOTE: Shift Security Supervisor should be consulted for security events.

ALERT

Attachment 6.1

EAL 9.3

EAL 9.3

**CONFIRMED BOMB/SABOTAGE DEVICE DETECTED
IN THE PROTECTED AREA, BUT OUTSIDE THE VITAL AREAS**

VERIFICATION CRITERIA:

- 1. A confirmed bomb/sabotage device has been detected (found) in the Protected Area, but outside of the Vital Areas.**

APPLICABLE MODES:

1-5

CLASSIFICATION:

NOTE: Shift Security Supervisor should be consulted for security events.

ALERT

Attachment 6.1

EAL 9.4

EAL 9.4

CONFIRMED PROTECTED AREA INTRUSION

VERIFICATION CRITERIA:

1. A confirmed Protected Area intrusion is occurring, but Vital Areas are not affected.

APPLICABLE MODES:

1-5

CLASSIFICATION:

NOTE: Shift Security Supervisor should be consulted for security events.

ALERT

Attachment 6.1

EAL 9.5

**CONFIRMED ARMED ATTACK INSIDE
THE PROTECTED AREA**

EAL 9.5

VERIFICATION CRITERIA:

- 1. A confirmed armed attack is occurring inside the Protected Area.**

APPLICABLE MODES:

1-5

CLASSIFICATION:

NOTE: Shift Security Supervisor should be consulted for security events.

ALERT

Attachment 6.1

EAL 9.6

EAL 9.6

CONFIRMED HOSTAGE SITUATION IN A VITAL AREA

VERIFICATION CRITERIA:

1. A confirmed hostage situation is occurring in a Vital Area.

APPLICABLE MODES:

1-5

CLASSIFICATION:

NOTE: Shift Security Supervisor should be consulted for security events.

SITE AREA EMERGENCY

Attachment 6.1

EAL 9.7

EAL 9.7

CONFIRMED BOMB/SABOTAGE DEVICE DETECTED IN A VITAL AREA

VERIFICATION CRITERIA:

- 1. A confirmed bomb/sabotage device has been detected in a Vital Area.**

APPLICABLE MODES:

1-5

CLASSIFICATION:

NOTE: Shift Security Supervisor should be consulted for security events.

SITE AREA EMERGENCY

Attachment 6.1

EAL 9.8

EAL 9.8

CONFIRMED VITAL AREA INTRUSION

VERIFICATION CRITERIA:

- 1. A confirmed Vital Area intrusion is occurring.**

APPLICABLE MODES:

1-5

CLASSIFICATION:

NOTE: Shift Security Supervisor should be consulted for security events.

SITE AREA EMERGENCY

Attachment 6.1

EAL 9.9

EAL 9.9

CONFIRMED ARMED ATTACK OCCURS INSIDE A VITAL AREA

VERIFICATION CRITERIA:

1. A confirmed armed attack occurs inside a Vital Area.

APPLICABLE MODES:

1-5

CLASSIFICATION:

NOTE: Shift Security Supervisor should be consulted for security events.

SITE AREA EMERGENCY

Attachment 6.1

EAL 9.10

EAL 9.10

**CONFIRMED ARMED ATTACK RESULTS IN A PHYSICAL
LOSS OF CONTROL TO THE CONTROL ROOM,
OR TO AI-179 (AUXILIARY FEEDWATER PANEL)
OR TO AI-185 (ALTERNATE SHUTDOWN PANEL)**

VERIFICATION CRITERIA:

1. **A confirmed armed attack results in a physical loss of control to any of the following:**
 - **Control Room**
 - **AI -179 (AUXILIARY FEEDWATER PANEL)**
 - **AI -185 (ALTERNATE SHUTDOWN PANEL)**
-

APPLICABLE MODES:

1-5

CLASSIFICATION:

NOTE: Shift Security Supervisor should be consulted for security events.

CAUTION

Protective Action Recommendations Required per EPIP-EOF-7.

GENERAL EMERGENCY

Attachment 6.1

EAL 10.1

TORNADO OR EARTHQUAKE ONSITE

EAL 10.1

VERIFICATION CRITERIA:

1. Any of the Following:

- Tornado has struck onsite (owner controlled property).
- Earthquake is felt in-plant or the "STRONG MOTION SEISMIC EVENT IN PROGRESS" alarm (valid) is actuated.

APPLICABLE MODES:

1-5

CLASSIFICATION:

NOTIFICATION OF UNUSUAL EVENT

Attachment 6.1

EAL 10.2

EAL 10.2

**LOW RIVER LEVEL
(\leq 978 FEET; BUT $>$ 976 FEET, 9 INCHES)**

VERIFICATION CRITERIA:

1. River level is less than or equal to 978 feet, but greater than 976 feet, 9 inches.

APPLICABLE MODES:

1-5

CLASSIFICATION:

NOTIFICATION OF UNUSUAL EVENT

Attachment 6.1

EAL 10.3

EAL 10.3

**HIGH RIVER LEVEL
($> 1,004$ FEET BUT $\leq 1,009$ FEET)**

VERIFICATION CRITERIA:

1. River level is greater than 1,004 feet; but is less than or equal to 1,009 feet.

APPLICABLE MODES:

1-5

CLASSIFICATION:

NOTIFICATION OF UNUSUAL EVENT

Attachment 6.1

EAL 10.4

EAL 10.4

**TORNADO OR EARTHQUAKE
CAUSING DAMAGE TO VITAL AREAS**

VERIFICATION CRITERIA:

1. Any of the following:

- Tornado causes damage to any plant Vital Area.
- Earthquake causes damage to any plant Vital Area.

APPLICABLE MODES:

1-5

CLASSIFICATION:

ALERT

Attachment 6.1

EAL 10.5

EAL 10.5

**LOW RIVER LEVEL
(\leq 976 FEET, 9 INCHES; BUT $>$ 973 FEET, 9 INCHES)**

VERIFICATION CRITERIA:

1. River level less than or equal to 976 feet, 9 inches but greater than 973 feet, 9 inches.

APPLICABLE MODES:

1-5

CLASSIFICATION:

ALERT

Attachment 6.1

EAL 10.6

EAL 10.6

**HIGH RIVER LEVEL
($> 1,009$ FEET; BUT $\leq 1,014$ FEET)**

VERIFICATION CRITERIA:

1. River level is greater than 1,009 feet; but is less than or equal to 1,014 feet.

APPLICABLE MODES:

1-5

CLASSIFICATION:

ALERT

Attachment 6.1

EAL 10.7

EAL 10.7

**LOW RIVER LEVEL
(\leq 973 FEET, 9 INCHES)**

VERIFICATION CRITERIA:

- 1. River level is less than or equal to 973 feet, 9 inches.**

APPLICABLE MODES:

1-5

CLASSIFICATION:

SITE AREA EMERGENCY

Attachment 6.1

EAL 10.8

EAL 10.8

**HIGH RIVER LEVEL
(>1,014 FEET)**

VERIFICATION CRITERIA:

1. River level is greater than 1,014 feet.

APPLICABLE MODES:

1-5

CLASSIFICATION:

SITE AREA EMERGENCY

Attachment 6.1

EAL 11.1

EAL 11.1

**AIRCRAFT CRASH or TRAIN DERAILMENT,
TOXIC or FLAMMABLE GAS AFFECTING
THE OWNER CONTROLLED PROPERTY**

VERIFICATION CRITERIA:

1. One or more of the following situations has occurred:
 - Aircraft crash occurs onsite (owner controlled property)
 - Train crash or derailment occurs onsite (owner controlled property)
 - Any uncontrolled toxic or flammable gas release posing a fire, explosion or significant health hazard that has the potential of restricting the operating staff from fulfilling their duties required for safe operation/shutdown of the plant.

AND

2. In the judgement of the Command and Control position; the situation represents a potential degradation of the level of safety of the plant or a significant danger to onsite personnel.

APPLICABLE MODES:

1-5

CLASSIFICATION:

NOTIFICATION OF UNUSUAL EVENT

Attachment 6.1

EAL 11.2

EAL 11.2

**INABILITY TO REACH REQUIRED OPERATING MODE OR
POWER REDUCTION WITHIN TIME LIMITS
PER TECHNICAL SPECIFICATIONS**

VERIFICATION CRITERIA:

CAUTION

IF Reactor Coolant Activity exceeds Technical Specification limits, THEN go to EAL 1.1.

CAUTION

IF both Diesel Generators are not operable, THEN go to EAL 4.2.

1. The plant is not brought to the required Mode of Operation within the allowable time as required by a Technical Specification Limiting Condition for Operation Action Statement.

OR

2. Power is not reduced to the required level within the allowable time as required by a Technical Specification Limiting Condition for Operation Action Statement.

APPLICABLE MODES:

1-5

CLASSIFICATION:

NOTIFICATION OF UNUSUAL EVENT

Attachment 6.1

EAL 11.3
(AR 7987)

EAL 11.3
(AR 7987)

LOSS OR DEGRADATION OF INSTRUMENT AIR SYSTEM

VERIFICATION CRITERIA:

1. Instrument air system pressure less than 50 psig.

OR

2. Indication of significant amounts of water in the instrument air system that has caused or would have the potential to cause failure of any safety system.

APPLICABLE MODES:

1-2

CLASSIFICATION:

NOTIFICATION OF UNUSUAL EVENT

Attachment 6.1

EAL 11.4

EAL 11.4

**PLANT CONDITIONS WARRANT INCREASED
AWARENESS BY PLANT STAFF OR GOVERNMENT AUTHORITIES**

VERIFICATION CRITERIA:

NOTE: Notification of Unusual Event is defined as: "Unusual events are in progress or have occurred which indicate a potential degradation of the level of safety of the plant. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs."

Purpose: 1. To assure that the first step in any response, determined to be necessary in the judgement of a command and control position, has been carried out.
2. To bring the operating staff to a state of readiness.
3. Provide systematic handling of unusual events information and decision making.

1. Any plant condition exists that warrants increased awareness on the part of a plant operating staff or state authorities.

OR

2. An event is in progress or has occurred which indicates a potential degradation of the level of safety of the plant.

APPLICABLE MODES:

1-5

CLASSIFICATION:

NOTIFICATION OF UNUSUAL EVENT

Attachment 6.1

EAL 11.5

EAL 11.5

**AIRCRAFT CRASH, MISSILES, TURBINE FAILURE,
TOXIC or FLAMMABLE GAS AFFECTING THE PROTECTED AREA**

VERIFICATION CRITERIA:

1. Any of the following situations has occurred:

- **Aircraft crash occurs in the Protected Area with no known damage to a vital area.**
- **A missile impact in the Protected Area from whatever source.**
- **Turbine failure causing a turbine casing penetration resulting in personnel injury or affecting the operation of a safety system.**
- **Any uncontrolled toxic or flammable gas release posing a fire, explosion or significant health hazard that has restricted the operating staff from fulfilling their duties as required for safe operation/shutdown of the plant.**

APPLICABLE MODES:

1-5

CLASSIFICATION:

ALERT

Attachment 6.1

EAL 11.6

EAL 11.6

**PLANT CONDITIONS INVOLVE ACTUAL
OR POTENTIAL SUBSTANTIAL DEGRADATION OF THE
LEVEL OF SAFETY OF THE PLANT**

VERIFICATION CRITERIA:

NOTE: Alert is defined as: "Events are in progress or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant. Any releases are expected to be limited to small fractions of the EPA Protective Action Guideline exposure levels."

- Purpose: 1. To assure that emergency personnel are readily available to respond if the situation becomes more serious or to perform confirmatory radiation monitoring if required.
2. Provide offsite authorities current status information.

1. **Events are in progress or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant.**

APPLICABLE MODES:

1-5

CLASSIFICATION:

ALERT

Attachment 6.1

EAL 11.7

EAL 11.7

**PLANT CONDITIONS WARRANT ACTIVATION
OF ALL EMERGENCY FACILITIES**

VERIFICATION CRITERIA:

NOTE: Site Area Emergency is defined as: "Events are in progress or have occurred which involve actual or likely major failures of the plant functions needed for protection of the public. Any releases are not expected to exceed EPA Emergency Action Guideline exposure levels except near the site boundary."

- Purpose:
1. To assure that response centers are manned.
 2. To assure that monitoring teams are dispatched.
 3. To assure that offsite personnel required for evacuation of near-site areas are at duty stations if situation becomes more serious.
 4. To provide consultation with offsite authorities.
 5. To provide updates for the public through offsite authorities.

1. **Any plant condition exists that warrants activation of emergency facilities and monitoring teams or a precautionary notification to the public near the site.**

OR

2. **Events are in progress or have occurred which involve actual or likely major failures of plant functions needed for protection of the public.**
-

APPLICABLE MODES:

1-5

CLASSIFICATION:

SITE AREA EMERGENCY

Attachment 6.1

EAL 11.8

EAL 11.8

ANY CORE MELT SITUATION

VERIFICATION CRITERIA:

NOTE: General Emergency is defined as: "Events are in progress or have occurred which involve actual or imminent substantial core degradation or melting with the potential for loss of containment integrity. Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels offsite."

- Purpose:
1. To initiate predetermined protective actions for the public.
 2. To provide continuous assessments of information from licensee and offsite organization measurements.
 3. To initiate additional measures as indicated by actual or potential releases.
 4. To provide consultation with offsite authorities.
 5. To provide updates for the public through offsite authorities.

1. **Any other plant condition exists, from whatever source, that makes a release of large amounts of radioactivity in a short time period possible. Any core melt situation.**

OR

2. **Events are in progress or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity.**
-

APPLICABLE MODES:

1-5

EMERGENCY CLASSIFICATION:

CAUTION

Protective Action Recommendations Required per EPIP-EOF-7.

GENERAL EMERGENCY

FORT CALHOUN STATION
EMERGENCY PLANT IMPLEMENTING PROCEDURE

Attachment 6.2 - Emergency Action Levels (EALs)

KEY PARAMETER	FISSION PRODUCT BARRIERS	SECONDARY COOLANT SYSTEM	ENGINEERED SAFEGUARDS	STATION POWER	PHONES/ANNUNCIATORS
<p>NOTIFICATION OF UNUSUAL EVENT</p> <p>Unusual events are in progress or have occurred which indicate a potential degradation of the level of safety of the plant. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs. (AR 7987)</p>	<p>1.1 RCS Radioactivity Exceeds Technical Specification Limits.</p> <p>1.2 Unidentified RCS Leakage > 10 gpm or Primary to Secondary Leakage > 10 gpm or Total RCS Leakage > 25 gpm.</p>	<p>2.1 Uncontrolled Steam Generator Heat Extraction.</p> <p>2.2 RM-057 (Condenser Off-Gas) > High Alarm.</p> <p>2.3 Primary to Secondary Leakage > 10 gpm.</p>		<p>4.1 Loss of Offsite Power (345 KV and 161 KV).</p> <p>4.2 Both Diesel Generators Not Operable.</p>	<p>5.1 Loss Of All State and County Notification Systems.</p> <p>5.2 Unplanned Loss of Approximately 75% of All Annunciators Associated with Safety Systems For > 15 Minutes.</p>
<p>ALERT</p> <p>Events are in progress or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant. Any releases are expected to be limited to small fractions of the EPA Protective Action Guideline exposure levels. (AR 7987)</p>	<p>1.3 RCS Dose Equivalent Iodine-131 >180 µCi/gm.</p> <p>1.4 RCS Leakage >40 gpm.</p> <p>1.5 Automatic OR a Manual Reactor Trip Was <u>NOT</u> Successful.</p> <p>1.6 Containment Pressure Approaching 60 psig.</p> <p>1.7 Containment Hydrogen Concentration > 3.0%.</p> <p>1.8 Containment Pressure >5 psig With High Radiation.</p> <p>1.9 Failure/Challenge to ONE (1) Fission Product Barrier.</p> <p>1.10 Loss of Shutdown Cooling or Loss of Shutdown Margin.</p>	<p>2.4 Primary to Secondary Leakage > 10 gpm with an Ongoing Release.</p> <p>2.5 Primary to Secondary Leakage > 40 gpm.</p> <p>2.6 Loss of All Feedwater.</p>	<p>3.1 Control Room Evacuation.</p>	<p>4.3 Busses 1A3 and 1A4 are Deenergized (≤ 15 Minutes).</p> <p>4.4 Loss of Both 125 VDC Busses (≤ 15 Minutes).</p>	<p>5.3 Unplanned Loss of Approximately 75% of All Annunciators Associated with Safety Systems For > 15 Minutes with either; (1) QSPDS is Not Available, or; (2) Significant Transient in Progress.</p>
<p>SITE AREA EMERGENCY</p> <p>Events are in progress or have occurred which involve actual or likely major failures of the plant functions needed for protection of the public. Any releases are not expected to exceed EPA Emergency Action Guideline exposure levels except near the site boundary. (AR 7987)</p>	<p>1.11 RCS Leakage >40 gpm and RCS Pressure Continues to Lower After HPSI Injection Begins.</p> <p>1.12 Dose Equivalent Iodine-131 >180 µCi/gm with Inadequate Core Cooling.</p> <p>1.13 Failure/Challenge to TWO (2) Fission Product Barriers.</p> <p>1.14 Both Automatic AND Manual Reactor Trips Were <u>NOT</u> Successful.</p> <p>1.15 Loss of Any Function Needed for Plant Hot Shutdown.</p>	<p>2.7 Primary to Secondary Leakage > 40 gpm with an Ongoing Release.</p> <p>2.8 Loss of All Feedwater and "Once Through Cooling" Required.</p>	<p>3.2 Control Room Evacuation Without Establishing Control of Shutdown Systems Within 15 Minutes.</p>	<p>4.5 Busses 1A3 and 1A4 are Deenergized > 15 Minutes.</p> <p>4.6 Loss of Both 125 VDC Busses For >15 Minutes.</p>	<p>5.4 Inability to Monitor a Significant Transient in Progress.</p>
<p>GENERAL EMERGENCY</p> <p>Events are in progress or have occurred which involve actual or imminent substantial core degradation or melting with the potential for loss of containment integrity. Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels offsite. (AR 7987)</p>	<p>1.16 Imminent Core Uncovery with Containment Failure or Challenge.</p> <p>1.17 Failure/Challenge to THREE (3) Fission Product Barriers.</p> <p>1.18 Automatic and Manual Reactor Trips AND Emergency Boration Were NOT Successful AND Core Cooling is Inadequate.</p>	<p>2.9 Primary to Secondary Leakage > 40 gpm with an Ongoing Release and Dose Equivalent Iodine-131 > 180 µCi/gm.</p> <p>2.10 Loss of All Feedwater with Fuel Cladding and Containment Failure or Challenge.</p>			

FORT CALHOUN STATION
EMERGENCY PLANT IMPLEMENTING PROCEDURE

Attachment 6.2 - Emergency Action Levels (EALs)

KEY PARAMETER	FIRE / EXPLOSION	FUEL HANDLING	RADIOLOGICAL EFFLUENTS	SECURITY EVENTS	NATURAL PHENOMENA	OTHER HAZARDS
<p>NOTIFICATION OF UNUSUAL EVENT</p> <p>Unusual events are in progress or have occurred which indicate a potential degradation of the level of safety of the plant. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs. (AR 7987)</p>	<p>6.1 Fire or Explosion Inside the Protected Area.</p> <p>6.2 Inoperable Fire Suppression Water System.</p>		<p>8.1 Gaseous Effluent Process Monitors > High Alarm Set Point.</p> <p>8.2 Liquid Process Monitors > High Alarm Set Point.</p>	<p>9.1 Civil Disturbance on Owner Controlled Property Requiring Offsite Law Enforcement or Resulting in Media Coverage.</p>	<p>10.1 Tornado or Earthquake Onsite.</p> <p>10.2 Low River Level (\leq 978 Feet; but > 976 Feet, 9 inches).</p> <p>10.3 High River Level (> 1004 Feet but \leq 1009 Feet).</p>	<p>11.1 Aircraft Crash or Train Derailment, Toxic or Flammable Gas Affecting the Owner Controlled Property.</p> <p>11.2 Inability to Reach Required Operating Mode or Power Reduction within Time Limits per Technical Specifications.</p> <p>11.3 Loss or Degradation of Instrument Air System.</p> <p>11.4 Plant Conditions Warrant Increased Awareness by Plant Staff or Government Authorities.</p>
<p>ALERT</p> <p>Events are in progress or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant. Any releases are expected to be limited to small fractions of the EPA Protective Action Guideline exposure levels. (AR 7987)</p>	<p>6.3 Fire or Explosion Affecting One Train of ESF</p>	<p>7.1 Irradiated Fuel Accident.</p>	<p>8.3 Gaseous Effluent Process Monitors Indicate > TEN (10) Times High Alarm Set Point.</p> <p>8.4 Liquid Effluent Process Monitors > TEN (10) Times High Alarm Set Point.</p> <p>8.5 General Area Radiation Readings Increase by a Factor of 1,000 Times Background.</p>	<p>9.2 Confirmed Hostage Situation Occurring in the Protected Area, but Outside of the Vital Areas.</p> <p>9.3 Confirmed Bomb/Sabotage Device Detected in the Protected Area, but Outside the Vital Areas.</p> <p>9.4 Confirmed Protected Area Intrusion.</p> <p>9.5 Confirmed Armed Attack Inside the Protected Area.</p>	<p>10.4 Tornado or Earthquake Causing Damage to Vital Areas.</p> <p>10.5 Low River Level (\leq 976 Feet, 9 inches; but > 973 Feet, 9 inches).</p> <p>10.6 High River Level (> 1009 Feet but \leq 1014 Feet).</p>	<p>11.5 Aircraft Crash, Missiles, Turbine Failure, Toxic or Flammable Gas Affecting the Protected Area.</p> <p>11.6 Plant Conditions Involve Actual or Potential Substantial Degradation of the Level of Safety of the Plant.</p>
<p>SITE AREA EMERGENCY</p> <p>Events are in progress or have occurred which involve actual or likely major failures of the plant functions needed for protection of the public. Any releases are not expected to exceed EPA Emergency Action Guideline exposure levels except near the site boundary. (AR 7987)</p>	<p>6.4 Fire or Explosion Affecting Both Trains of ESF</p>	<p>7.2 Major Irradiated Fuel Accident.</p>	<p>8.6 Dose Assessments Cannot be Performed and Effluent Monitors Exceed Default Values For Site Area Emergency.</p> <p>8.7 Dose Assessments or Field Surveys Indicate that Dose Rates or Doses for Site Area Emergency are Exceeded at Site Boundary.</p> <p>8.8 High Containment Radiation > 6,500 R/hr.</p>	<p>9.6 Confirmed Hostage Situation in a Vital Area.</p> <p>9.7 Confirmed Bomb/Sabotage Device Detected in a Vital Area.</p> <p>9.8 Confirmed Vital Area Intrusion.</p> <p>9.9 Confirmed Armed Attack Occurs Inside a Vital Area.</p>	<p>10.7 Low River Level (\leq 973 Feet, 9 inches).</p> <p>10.8 High River Level (>1014 Feet).</p>	<p>11.7 Plant Conditions Warrant Activation of All Emergency Facilities.</p>
<p>GENERAL EMERGENCY</p> <p>Events are in progress or have occurred which involve actual or imminent substantial core degradation or melting with the potential for loss of containment integrity. Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels offsite. (AR 7987)</p>			<p>8.9 Dose Assessments or Field Surveys Indicate that Dose Rates or Doses for General Emergency are Exceeded at Site Boundary.</p> <p>8.10 High Containment Radiation > 20,000 R/hr.</p>	<p>9.10 Confirmed Armed Attack Results in a Physical Loss of Control to the Control Room, or to AI-179 (Auxiliary Feedwater Panel) or to AI-185 (Alternate Shutdown Panel).</p>		<p>11.8 Any Core Melt Situation.</p>

Attachment 6.3 - Three Fission Product Barrier Criteria		
FUEL CLADDING	REACTOR COOLANT SYSTEM	CONTAINMENT
Applicable Modes: 1-5	Applicable Modes: 1-5 (with fuel in the Reactor Vessel)	Applicable Modes: T_{cold} greater than 210 °F
F1 RCS Dose Equivalent I-131 sample is >180 µCi/gm.	R1 Reactor Coolant System leakage >40 gpm.	C1 Any failure of the Containment, its penetrations, isolation valves, connections and piping extensions up to the outer isolation valve AND a release pathway exists to the environment.
F2 Containment Area Monitor(s) reading >6,500 R/hr. NOTE 1	R2 Containment Area Monitor(s) reading >40 R/hr.	C2 Containment hydrogen concentration >3%.
F3 Any valid CET temperature >1,000°F. NOTE 1	R3 Reactor Coolant System pressure >2,750 psia.	C3 Containment pressure >60 psig.
F4 Representative CET temperatures >950°F and rising. NOTE 1	R4 Containment pressure >5 psig AND any valid containment Area Radiation Monitor indication of 1000 times the normal values listed in TDB Figure IV.8.	C4 Containment Integrity, as defined by Technical Specifications, is not present during an unplanned transient AND the potential exists for a loss of the Fuel Cladding or the Reactor Coolant System Barriers.
F5 Failure of the Reactor Protective System to trip the reactor upon reaching a Limiting Safety System Set point.	R5 "Once-through-Cooling" as required per AOP-19/AOP-28/EOP-6/EOP-20.	C5 Any condition in the opinion of the Command and Control position that indicates a challenge or loss of the Containment Fission Product Barrier.
F6 RVLMS indicates 0.0% level with fuel in the Reactor Vessel. NOTE 1	R6 Any condition in the opinion of the Command and Control position that indicates a challenge or loss of the Reactor Coolant System Fission Product Barrier.	
F7 Any condition in the opinion of the Command and Control position that indicates a challenge or loss of the Fuel Clad Fission Product Barrier. NOTE 1		

NOTE 1: The Severe Accident Management Guidelines should be entered when these parameters are met or exceeded.

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Fort Calhoun Station
Unit No. 1

EPIP-OSC-15

EMERGENCY PLAN IMPLEMENTING PROCEDURE

Title: COMMUNICATOR ACTIONS

FC-68 Number: DCR 12176

Reason for Change: Add reference to EP Activation Instruction Booklet. Revise Attachments 6.1, 6.2 and 6.3. Delete Attachments 6.4 - 6.11, and refer user directly to the EP Activated Instruction Booklet.

Requestor: Mark Reller

Preparer: Mark Reller

COMMUNICATOR ACTIONS

NON-SAFETY RELATED

1. PURPOSE

- 1.1 This procedure provides guidance to designated Communicators in the Control Room, TSC and EOF for making required notifications.

2. REFERENCES/COMMITMENT DOCUMENTS

- 2.1 SO-R-1, Reportability Determinations
- 2.2 FC-1188, Emergency Notification Form
- 2.3 Emergency Planning Activation Instructions Booklet
- 2.4 Emergency Telephone Book
- 2.5 EPIP-OSC-2, Command and Control Position Actions/Notifications
- 2.6 Ongoing Commitment Documents
 - AR 13301, IER 92-20

3. DEFINITIONS

- 3.1 ANS - "Alert Notification System". The system of sirens within OPPD's designated EPZ, used to provide public warning of a plant emergency event.
- 3.2 BLAIR INDUSTRIAL PARK CO-OP - Emergency Notification System. An organization of industries including the Fort Calhoun Station that have banded together to form a warning system to notify member industries and the Washington County Dispatch Center of a potential or actual release of toxic chemicals and/or hazardous material from its facility.
- 3.3 CODE SYSTEM - A system devised by members of the Blair Industrial Park Co-Op to classify events that have occurred at the initiating facility's site. These codes are:
 - 3.3.1 CODE BLUE - A minor emergency or problem such as a fire, explosion, gas or liquid release, unusual noise or odor, abnormal or extended flaring activity or other internal event has occurred which may be visible or detectable by off-site people, but which presents **NO OFF-SITE THREAT** and requires no protective actions. The situation is under control.

- 3.3.2 CODE GREEN - An emergency such as a fire, explosion, gas or liquid release or other event has occurred which effects plant operations and/or has the potential to escalate to a more serious emergency. **THE SITUATION IS NOT UNDER CONTROL BUT POSES NO IMMEDIATE OFF-SITE THREAT.** The Washington County EOC may activate.
- 3.3.3 CODE YELLOW - A serious accident such as a fire, explosion, gas or liquid release or other event has occurred or is imminent which seriously affects plant operations and/or poses a threat to residents or industries in the immediate vicinity of the affected industry. **THE SITUATION IS NOT UNDER CONTROL AND ON-SITE PROTECTIVE ACTIONS WILL BE NECESSARY.** The Washington County EOC would activate.
- 3.3.4 CODE RED - A severe emergency such as fire, explosion, gas or liquid release or other event has occurred or is imminent which seriously affects plant operations and/or off-site areas well beyond site boundaries. **THE SITUATION IS NOT UNDER CONTROL AND PROTECTIVE ACTIONS FOR NEIGHBORING INDUSTRIES AND RESIDENTS ARE NECESSARY.** The Washington County EOC would fully activate at a safe location.
- 3.4 COMMAND AND CONTROL POSITION - The Shift Manager, Control Room Coordinator, Site Director, or Emergency Director currently charged with the authorities and responsibilities for directing the emergency response.
- 3.5 COMMERCIAL LINE - OPPD installed phone system, for interplant and normal outside phone communication.
- 3.6 COMMUNICATOR - The Communicator position associated with the Command and Control position in charge. For the Shift Manager and Control Room Coordinator, it is the Control Room Communicator. For the Site Director, it is the TSC COP Communicator. For the Emergency Director, it is the EOF COP Communicator
- 3.7 COP - "Conference Operations Network". The phone system installed to provide rapid state and county notifications.
- 3.8 EAGLE - OPPD computerized dose assessment system - "Emergency Assessment of Gaseous and Liquid Effluents".
- 3.9 EAS - "Emergency Alert System". The radio system providing announcements to the general public in the event of a nuclear or other public emergency.
- 3.10 ENS/FTS phone - NRC notification system phones, ENS - "Emergency Notification System", FTS - "Federal Telecommunications System".

3.11 ERDS - "Emergency Response Data System". The system that provides ERF data to the NRC Operations Center.

3.12 ERO - "Emergency Response Organization".

4. PREREQUISITES

None

5. PROCEDURE

5.1 Upon activation of your position, use the applicable checklist listed to complete required actions:

Attachment 6.1 - Control Room Notifications Checklist

Attachment 6.2 - TSC Notifications Checklist

Attachment 6.3 - EOF Notifications Checklist

5.2 Review the procedure and checklist, and accomplish the applicable steps upon initial activation and when required thereafter.

5.3 Maintain a log of notifications/other contacts made.

5.4 At the completion of the shift or at event termination, initial the steps which are completed.

5.5 Provide a detailed briefing to your shift relief of any actions taken and the current emergency and notification status.

5.6 Retain all documentation (logs, notes, etc.) generated or used during the emergency. At the termination, deliver all documentation to the Administrative Logistics Coordinator in the TSC and/or the Administrative Logistics Manager in the EOF.

5.7 IF the ERO was not activated, THEN contact the Emergency Planning Contact Person to pickup all documentation associated with the event.

6. ATTACHMENTS

6.1 Control Room Notifications Checklist

6.2 TSC Notifications Checklist

6.3 EOF Notifications Checklist

Attachment 6.1 - Control Room Notifications Checklist

Maintain a log of all key activities

✓ INITIALS

1. Obtain from the Shift Manager the "Emergency Planning Activation Instruction Booklet".
 - 1.1 Break the plastic seal on the lock box on the gear locker. _____
 - 1.2 Using the key in the lock box unlock the CR Emergency Gear locker. _____
 - 1.3 Don a position identification badge from the locker. _____
 - 1.4 Maintain a log of emergency activities. _____
 2. Using the Emergency Planning Activation Instruction Booklet perform notifications as requested by the Shift Manager or Command and Control Position. _____
- NOTE:** In the event that the ERFCS is not available in the TSC or EOF, you may be called to obtain necessary information.
3. Have Control Room Data Collector collect requested data using:
 - FC-194 _____
 - FC-197 _____
 - FC-1336 _____
 - 3.1 Provide data to the TSC or EOF. _____
 4. IF forced evacuation of the Control Room is necessary, and the TSC is not activated, THEN:
 - 4.1 Follow the appropriate steps in the AOP's. _____
 - 4.2 Break the plastic seal on the TSC key box. _____
 - 4.3 Open the TSC Emergency Gear Locker using the key from the key box. _____

Attachment 6.1 (continued)

✓ INITIALS

4.4 From the Emergency Gear Locker obtain:

- The key for Room 115
- The TSC COP Communicators kit
- Site Director's kit

4.5 Perform your duties as directed from the COP work station in the TSC.

Attachment 6.2 - TSC Notifications Checklist

Maintain a log of all key activities

✓ INITIALS

1. Upon arrival:

1.1 Sign in on Accountability Roster.

1.2 Put on position identification badge.

2. Obtain the Emergency Planning Activation Instruction Booklet from the Site Director.

2.1 Perform the actions and notification in this book as directed by the Command and Control Position.

NOTE: The Protective Measures Coordinator is your contact to obtain status board information.

3. Maintain the Radiological Status Board using data from Emergency Notification Forms (FC-1188). **[AR 13301]**

Attachment 6.3 - EOF Notifications Checklist

Maintain a log of all key activities

	<input checked="" type="checkbox"/>	<u>INITIALS</u>
1. Upon arrival:		
1.1 Sign in on Accountability Roster.	<input type="checkbox"/>	
1.2 Put on position identification badge.	<input type="checkbox"/>	
2. Obtain the Emergency Planning Activation Instruction Booklet from the Emergency Director.	<input type="checkbox"/>	
2.1 Perform the actions and notifications in this book as directed by the Command and Control Position.	<input type="checkbox"/>	
3. Maintain the PAR Status Board.	<input type="checkbox"/>	

Fort Calhoun Station
Unit No. 1

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EPIP-TSC-1

EMERGENCY PLAN IMPLEMENTING PROCEDURE

Title: ACTIVATION OF THE TECHNICAL SUPPORT CENTER

FC-68 Number: DCR 12266

Reason for Change: Delete Attachment 6.2 and references to operational. Add definition for augmented and instructions for insuring augmentation. Revise format and other editorial changes.

Requestor: Mark Reller

Preparer: Mark Reller

ACTIVATION OF THE TECHNICAL SUPPORT CENTER

NON-SAFETY RELATED

1. PURPOSE

- 1.1 This procedure provides a checklist to provide guidance for activation and deactivation of the Technical Support Center (TSC).

2. REFERENCES/COMMITMENT DOCUMENTS

None

3. DEFINITIONS

- 3.1 Activated - minimum staffing and basic setup requirements have been attained to allow the TSC to provide limited support to the Control Room.
- 3.2 Augmented - A facility is augmented when all augmenting and minimum staffing positions are filled.

4. PREREQUISITES

None

5. PROCEDURE

NOTE: The Site Director or TSC Director is responsible for completion of this procedure. They may assign this task to other members of the TSC staff.

- 5.1 Upon reporting to the TSC, activate the TSC using Attachment 6.1.
- 5.2 Upon event termination, deactivate the TSC per Attachment 6.2.

6. ATTACHMENTS

- 6.1 Checklist for Activation of the TSC.
- 6.2 Checklist for Deactivation of the TSC.
- 6.3 Activation/Deactivation of the TSC Air and Area Radiation Monitors.
- 6.4 Activation /Deactivation of the TSC HEPA Ventilation System.

Attachment 6.1 - Checklist For Activation of the TSC

NOTE: It is the goal of Omaha Public Power District (OPPD) to activate the TSC within one hour following declaration of an Alert or higher classification. In the event of adverse weather and/or other conditions that may limit or slow response, either manmade or natural, it is understood that staffing time may exceed this goal.

(✓) INIT/TIME

1. Verify the following minimum staffing positions are available.

- Site Director
- Protective Measures Coordinator
- TSC COP Communicator
- Reactor Safety Coordinator

_____ / _____

2. Ensure that the volume buttons on both Gai-tronics are turned up.

_____ / _____

3. Using the Gai-Tronics, announce the following message:

3.1 "Attention all personnel....Attention all personnel....This is (Insert name and position). All personnel deposit their accountability badges in the proper accountability box near their facility.

3.2 Repeat the message above.

_____ / _____

4. Open all TSC room doors.

_____ / _____

5. Post "NO EATING/DRINKING/SMOKING OR CHEWING" signs in the TSC Room 115 and near the entrance door.

_____ / _____

6. In Room 118, unlock the aperture card file using the key from the key box, and turn on the aperture card reader/printer.

_____ / _____

7. Sycronize TSC clocks with ERF Computer.

_____ / _____

8. When Steps 1 through 7 are complete, make the following announcement on the TSC PA system:

This is (insert name and position) the TSC is activated. Command and Control for the emergency is in the name of facility at this time. No eating, drinking or chewing is allowed in the TSC until further notice.

_____ / _____

Attachment 6.1 (continued)

	(✓)	<u>INIT/TIME</u>
9. Notify the Control Room, OSC and EOF that the TSC is activated.		/
10. Verify radiological habitability per EPIP-EOF-11.		/
11. Contact the Control Room to determine if there is any threat of toxic gas in the vicinity of the station.		
11.1 If yes, complete Step 2 of Attachment 6.4.		
11.2 If no, continue.		/
12. Initiate operation of the TSC Air Monitor and Area Radiation Monitor per Attachment 6.3.		/
13. Initiate operation of the TSC HEPA Ventilation filters per Attachment 6.4.		/
14. Within one hour of the initial emergency declaration, verify the following augmenting staff are present:		
• Field Teams (2 Technicians, 2 Drivers)	—	
• I&C/Electrical Systems Engineer	—	
• Operations Liaison	—	
• Primary System Engineer	—	
15. After one hour determine TSC positions are filled.	—	
15.1 If any positions are not filled, based on the nature of the emergency determine if that position is required.	—	
15.2 Request assistance from the TSC staff in contacting additional staff.	—	/

Attachment 6.2 - Checklist for Deactivation of the TSC

Upon termination of emergency activities, the following actions should be completed to restore the TSC:

	<u>INIT/TIME</u>
● Place emergency kits in the Emergency Gear Locker.	_____ / _____
● Properly restore all computer systems to their standby mode.	_____ / _____
● Turn off the writeboard system.	_____ / _____
● Deactivate the TSC Air Monitor and Area Radiation Monitor per Attachment 6.3.	_____ / _____
● Deactivate the TSC HEPA Ventilation Filter per Attachment 6.4.	_____ / _____
● Remove all posted signs within the TSC.	_____ / _____
● Turn in all logs, paperwork, procedures, etc. to the Administrative Logistics Coordinator.	_____ / _____
● Turn off the aperture card reader/printer, and relock the aperture card file.	_____ / _____
● Restock all Emergency Kits	_____ / _____
● Relock all room doors.	_____ / _____

Attachment 6.3 - Activation/Deactivation of the TSC Air and Area Radiation Monitors

	(✓)	<u>INIT/TIME</u>
1. To activate the Air and Area Radiation Monitors, perform the following:		
1.1 Enter Room 109 (the ERF computer system room).	—	
1.2 Plug in and turn on the Area Radiation Monitor as necessary.	—	
1.3 Plug in and turn on the PING Monitor as necessary.	—	
1.4 Allow the PING to stabilize for several minutes, clearing the initial alarms as necessary.	—	
1.5 Check both units on a routine basis during the emergency to ensure habitability is being maintained.	—	
1.6 If either monitor alarms at any time during startup or operation, perform the following:		
1.6.1 Reset the alarm by pressing the reset/acknowledge button.	—	
1.6.2 If alarm resounds, read the affected meter and call a Radiation Protection Technician for further instructions.	—	— / —
2. To deactivate the Air and Area Radiation Monitors, perform the following:		
2.1 Obtain permission from the Radiological Operations Coordinator to secure this equipment.	—	
2.2 If permission is granted, unplug both units.	—	
2.3 If permission is not granted, leave equipment operating and inform the Control Room.	—	— / —

Attachment 6.4 - Activation/Deactivation of the TSC
HEPA Ventilation System

(✓)

INIT/TIME

1. To activate the HEPA Ventilation system, perform the following:
 - 1.1 Contact the Control Room to determine if they are available to activate the system.
 - 1.1.1 If yes, request an Operator to start the system. Go to Step 2. _____
 - 1.1.2 If no, continue. _____ / _____
 - 1.2 Enter Room 109 (the ERF computer system room). _____ / _____
 - 1.3 On panel AI-200A, located to the right of the alarm panel, perform or verify the following steps:
 - 1.3.1 Ensure the Air Handler, VA-107, is on, as indicated by a red light above the "start" pushbutton. _____
 - 1.3.2 Ensure the Condensing Unit, VA-106, is in either "AUTO" or "MANUAL". _____
 - 1.3.3 Move the toggle switch (upper middle section of the panel) up to the "ON" position. _____ / _____
2. If there is a Toxic Gas threat at the station, perform the following:

CAUTION

The following actions will stop all ventilation flow into the TSC area, including the computer room. The ERF computer can overheat within approximately one hour after losing ventilation flow.

- 2.1 Place the Air Handler, VA-107, in "OFF". _____
- 2.2 Place the Condensing Unit, VA-106, in "OFF" _____
- 2.3 Notify the Control Room that you have secured all ventilation flow to the TSC and remind them that the ERF computer system may overheat. _____

Attachment 6.4 (continued)

(✓)

INIT/TIME

- 2.4 Determine if activities should continue in the TSC. If so, continue with Attachment 6.2. If not, evacuate personnel as necessary.
3. To deactivate the HEPA Ventilation System, contact the Control Room and request that they restore the system to the proper operating condition.

_____ / _____

_____ / _____

Fort Calhoun Station
Unit No. 1

Distribution Authorized

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EPIP-EOF-1

EMERGENCY PLAN IMPLEMENTING PROCEDURE

Title: ACTIVATION OF THE EMERGENCY OPERATIONS FACILITY

FC-68 Number: DCR 12265

Reason for Change: Delete Attachment 6.2 and reference to operational. Add a definition for augmented and instructions for augmentation. Revise format and other editorial changes.

Requestor: Mark Reller

Preparer: Mark Reller

ACTIVATION OF THE EMERGENCY OPERATIONS FACILITY

NON-SAFETY RELATED

1. PURPOSE

- 1.1 This procedure provides a checklist to complete for activation and deactivation of the Emergency Operations Facility (EOF).

2. REFERENCES/COMMITMENT DOCUMENTS

None

3. DEFINITIONS

- 3.1 Activated - minimum staffing and basic setup requirements have been attained to allow the EOF to provide limited support to the Control Room and/or the TSC.
- 3.2 Augmented - A facility is augmented when all augmenting and minimum staffing positions are filled.

4. PREREQUISITES

None

5. PROCEDURE

NOTE: The Emergency Director is responsible for completion of this procedure. The Emergency Director may assign this task to other members of the EOF staff.

- 5.1 Upon reporting to the EOF, activate the EOF using Attachment 6.1.
- 5.2 Upon event termination, deactivate the EOF per Attachment 6.2.

6. ATTACHMENTS

- 6.1 Checklist for Activation of The EOF.
- 6.2 Checklist for Deactivation of The EOF.

Attachment 6.1 - Checklist for Activation of the EOF

NOTE: It is the goal of Omaha Public Power District (OPPD) to activate the EOF within one hour following declaration of an Alert or higher emergency classification. In the event of adverse weather and/or other conditions that may limit or slow response, either manmade or natural, it is understood that staffing time may exceed this goal.

- | | (✓) | <u>INIT/TIME</u> |
|--|-----|------------------|
| 1. Verify the following minimum staffing positions are available: | | |
| • Emergency Director | — | |
| • Protective Measures Manager or EOF Dose Assessment Coordinator | — | |
| • EOF Dose Assessment Specialist | — | |
| • EOF COP Communicator | — | / |
| 2. Verify that at least one telephone link can be established between the EOF and the site. | | / |
| 3. Ensure Clocks are synchronized to the ERF Computer | | / |
| 4. Have Staff members prepare a 24 hour schedule for their position. | | / |
| 5. When Steps 1 and 2 are complete, make the following announcement on the EOF PA system: | | |
| "This is <u> (Insert name and position) </u> . The EOF is now activated. Command and Control of the emergency is currently at <u> (State Facility) </u> ." | — | |
| 6. Notify the Control Room, OSC and TSC that the EOF is activated. | — | / |
| 7. Within one hour of the initial emergency declaration, verify the following augmenting staff are present: | | |
| • Administrative Logistics Manager | — | |
| • Field Team Specialist | — | |
| • Information Specialist | — | |
| • Operations Liaison | — | / |

Attachment 6.1 (continued)

	<u>(✓)</u>	<u>INIT/TIME</u>
8. After one hour determine EOF positions that are filled.	—	
8.1 If any positions are not filled, based on the nature of the emergency determine if that position is required.	—	
8.2 Request assistance from the EOF staff in contacting additional staff, as needed.	—	— / —

Attachment 6.2 - Checklist for Deactivation of the EOF

Upon termination of the emergency activities, the following actions should be completed to restore the EOF:

- | | (✓) | <u>INIT/TIME</u> |
|--|-----|------------------|
| 1. Have all Staff Members restock their emergency kits and place them in their designated locations. | — | |
| 2. Properly restore all computer systems to their standby mode. | — | |
| 3. Turn in all logs, paperwork, procedures, etc. to the Administrative Logistics Manager. | — | — / — |

Fort Calhoun Station
Unit No. 1

EPIP-RR-17A

Distribution Authorized

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EMERGENCY PLAN IMPLEMENTING PROCEDURE

Title: TSC ADMINISTRATIVE LOGISTICS COORDINATOR ACTIONS

FC-68 Number: DCR 12305

Reason for Change: Revise Attachment 6.1. Change EP Specialist to COP Communicator.

Requestor: Mark Reller

Preparer: Mark Reller

TSC ADMINISTRATIVE LOGISTICS COORDINATOR ACTIONS

1. PURPOSE

- 1.1 This procedure provides guidance to the TSC Administrative Logistics Coordinator in performing actions outlined in the Emergency Plan Implementing Procedures (EIPs).

2. REFERENCES/COMMITMENT DOCUMENTS

2.1 Commitment Documents

- AR 13301, IER 92-20

3. DEFINITIONS

None

4. PREREQUISITES

None

5. PROCEDURE

- 5.1 Review the procedure and checklist, Attachment 6.1 and accomplish the applicable steps both upon initial activation and periodically, as required, thereafter.
- 5.2 At the completion of the shift or at event termination, check the steps which are completed.
- 5.3 Retain all documentation (logs, calculation sheets, notes, etc) generated or used during the emergency.
- 5.4 At event termination, collect all documentation from the TSC, OSC and CR.
- 5.4.1 Assemble all documentation for legal records and event analysis. Request the Emergency Planning Department to place in safe storage.

6. ATTACHMENTS

- 6.1 TSC Administrative Logistics Coordinator Checklist
- 6.2 Procurement or Addition of Diesel Fuel for Emergency Diesel Generators

Maintain a log of all key activities

✓ INIT/TIME

1. Upon arrival:

- Sign in on the Accountability Roster
- Obtain worker packet
- Put on the Personnel Identification badge
- Assist in activation of TSC per EPIP-TSC-1

_____ / _____

2. Direct:

2.1 Site Director's Secretary to:

- Maintain a log for the Site Director
- Gather information for input to the ERMS.

2.2 Other Site Directors Secretary to operate the ERMS.

2.3 The COP Communicator to:

- Perform required notifications on the COP Network
- Maintain the Radiological Status Board [AR 13301]

2.4 The Status Board Keeper to obtain data from the ERFCS or Control Room to maintain the Status Board.

2.5 The Emergency Response Coordinator to assist other TSC positions.

2.6 Direct one Administrative Assistant to maintain the TSC Accountability Roster.

2.7 Direct the other Administrative Assistant to:

- Perform copying duties in the TSC
- Distribution duties in the TSC
- Operate the fax machine

_____ / _____

Attachment 6.1
(continued)

	✓	<u>INIT/TIME</u>
3. Secure access/egress to the TSC from the back (west) entrance using the following signs:		
<ul style="list-style-type: none"> ● TSC IS ACTIVATED NO EXIT ● TSC IS ACTIVATED AUTHORIZED PERSONNEL ONLY ● WHEN TSC IS ACTIVATED DO NOT ENTER. USE EAST ENTRANCE 	_____ _____ _____	_____ _____ _____ / _____
4. Establish 24 hour staffing:		
4.1 Determine 24 hour Staffing for:		
<ul style="list-style-type: none"> ● TSC (assist the Site Director using FC-EPF10) ● Control Room (use FC-EPF-10) ● OSC (request that OSC Director prepare using FC-EPF-9 and fax to you) 	_____ _____ _____	
4.2 When you have all the staffing schedules:		
<ul style="list-style-type: none"> ● Verify that all positions are filled ● Verify that second shift positions are filled ● Post shift schedules in the TSC ● Fax shift schedules to the CR and OSC for posting 	_____ _____ _____ _____	
4.3 Notify personnel on the second shift to inform them of their work schedule (use other personnel to assist in this task as needed)		
	_____	_____ / _____
5. Periodically review the following steps and perform them as required:		
5.1 Prepare copies of the following and distribute them throughout the TSC and transmit to the OSC, as required.		
<ul style="list-style-type: none"> ● Data sheets ● Messages 	_____ _____	
5.2 Assist the Site and TSC Director, as needed.	_____	

Attachment 6.1
(continued)

✓ INIT/TIME

5.3 Contact the EOF Administrative Logistics Manager's when:

- Evacuation of plant personnel to the North Omaha is ordered
- Any person is injured, contaminated and requires off-site medical response

5.4 Coordinate logistics support, including:

- Transportation
- Food
- Lodging
- Special equipment
- Supplies

NOTE: Step 6 may be performed by the EOF Administrative Logistics Manager.

6. Determine from the Control Room Coordinator the status of the emergency diesel generators.

6.1 If either or both are operating and it appears that they will continue to operate:

- Refer to the Emergency Phone Book, Off-Site Support Agencies section, for the phone number of the diesel fuel supplier.
- Arrange for fuel deliveries to the site.

6.2 If diesel fuel can not be delivered to the site within 20 hours of the start of the diesels:

- Request that the TSC or Site Director request an emergency work order to install the hardware for diesel fuel transfer described in Attachment 6.2.

Attachment 6.1
(continued)

- | | ✓ | <u>INIT/TIME</u> |
|---|---|------------------|
| 7. As required, provide a detailed briefing to your relief covering: | | |
| • Emergency conditions | — | |
| • Actions taken (current status) | — | / |
| 8. At emergency termination: | | |
| • Collect documentation and logs from all onsite facilities | — | |
| • Ensure that the TSC is placed back into a state of readiness | — | |
| • Review this checklist and ensure that special orders or supplies that were ordered are canceled | — | |
| • Ensure personnel on the shift roster are informed of status of emergency and whether or not to report for their shift | — | / |

Attachment 6.2 - Procurement or Addition of Diesel Fuel for Emergency Diesel Generators

INITIALS

1. DIESEL FUEL TRANSFER FROM FO-10 TO FO-1 (Auxiliary Boiler Fuel Storage Tank to Diesel Generator Fuel Oil Storage Tank)

NOTE: At full rated power, each diesel generator consumes approximately 3 gallons per minute. FO-37 delivers approximately 6 gallons per minute. If only one diesel is in service, or if the diesels are running at less than rated load, the level in FO-1 will steadily increase when adding fuel oil to FO-1 from FO-10.

There are several possible methods to transfer diesel fuel from FO-10 to FO-1. This method allows using installed equipment that will require a minimum amount of "temporary" changes to accomplish the fuel transfer:

- 1.1 Connect a 1 inch hose from FO-201 "Auxiliary Feedwater Pump FW-54 Fuel Oil Transfer Pump FO-37 Discharge Drain Valve" to the 3 inch fill connection on FO-1. This will require approximately 400 feet of hose. The 1 inch hose may be run inside the 3 inch fill connection and duct taped in place. All mechanical joints should be stabilized with lock wires and taped to prevent leakage. Sleeves or blocks should be used around hoses that are run through doors to prevent damage to the hose. (Hose fittings and a hand pump are available in the warehouse stored under Stock Code Number 30869-2(fuel)).

- 1.2 The normal Auxiliary Feedwater Pump fuel oil system lineup in OI-AFW-1 can be used, but HC-FO-37 must be placed in the "Hand" position, or it will automatically shut off when the Fuel Oil Day Tank FO-38 is full. Also, FO-196 must be closed or fuel will recirculate through FO-38 back to FO-10 if that is the path of least resistance. FO-38 should be checked and refilled periodically; it contains an 8 hour supply of fuel oil when full.

- 1.3 Continue to monitor LI-2107 and shut off the transfer pump when FO-1 level is approximately 17,500 gallons.

- 1.4 Upon completion of the fuel transfer evolution, drain and store hose properly to prevent possible fuel jelling in the hose.

Distribution Authorized

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Fort Calhoun Station
Unit No. 1

EPIP-RR-22

EMERGENCY PLAN IMPLEMENTING PROCEDURE

Title: PROTECTIVE MEASURES COORDINATOR / MANAGER ACTIONS

FC-68 Number: DCR 12267

Reason for Change: Revise format for Attachment 6.1 and 6.2. Change EP Specialist and Emergency Response Coordinator to COP Communicator. Change reference to EPIP-OSC-20 to FC-EPP-6.

Requestor: M. Reller

Preparer: M. Reller

PROTECTIVE MEASURES COORDINATOR / MANAGER ACTIONS

NON-SAFETY RELATED

1. PURPOSE

- 1.1 This procedure provides guidance to the Protective Measures Coordinator and the Protective Measures Manager for performing actions in response to an emergency at Fort Calhoun Station.

2. REFERENCES/COMMITMENT DOCUMENTS

- 2.1 EPIP-EOF-6, Dose Assessment
- 2.2 EPIP-EOF-7, Protective Action Guidelines
- 2.3 EPIP-EOF-21, Potassium Iodide Issuance
- 2.4 EPIP-EOF-11, Dosimetry Records, Exposure Extensions and Habitability
- 2.5 EPIP-TSC-1, Activation of the Technical Support Center
- 2.6 FC-EPF-6, Estimated Exposure Worksheet
- 2.7 CR 199500262
- 2.8 Commitment (Other than Ongoing)
- AR 13302, IER-92-20, Closed
 - AR 11809, LIC-91-189R, Closed
 - AR 13301, IER-92-20, Closed

3. DEFINITIONS

None

4. PREREQUISITES

None

5. PROCEDURE

NOTE: When needed, complete dose assessments and updates to the states at least every 60 minutes. It is the goal of the Fort Calhoun Station to attempt to provide assessments and updates at 15 minute intervals. (AR 13302)

- 5.1 The Protective Measures Coordinator will use Attachment 6.1 as an aid to completing required actions.
- 5.2 The Protective Measures Manager will use Attachment 6.2 as an aid to completing required actions.
- 5.3 Review the procedure and appropriate checklists, and accomplish the applicable steps both upon initial activation and periodically, as required, thereafter.
- 5.4 Retain all documentation (logs, calculation sheets, notes, etc.) generated or used during the emergency. At the termination, deliver all documentation to the Administrative Logistics Manager in the EOF, or the TSC Administrative Logistics Coordinator in the TSC.

6. ATTACHMENTS

- 6.1 Protective Measures Coordinator Checklist
- 6.2 Protective Measures Manager Checklist

Maintain a log of all key activities

✓

INIT/TIME

NOTE: Actions taken may be performed out of sequence based on judgement of the user.

1. Upon arrival:

1.1 Sign in on Accountability Roster

—

1.2 Obtain worker packet

—

1.3 Put on Personnel Identification badge

—

1.4 Assist in activation of the TSC per EPIP-TSC-1

—

— / —

2. Interface with:

2.1 Control Room Dose Assessment Specialist to determine Status of dose assessment.

—

2.2 OSC Radiation Protection Coordinator:

- to determine plant radiological conditions
- to coordinate response efforts

—

—

2.3 Field Teams to brief and assign duties.

—

— / —

3. Report to the Site Director/TSC Director the status of:

3.1 In-plant response

—

3.2 Dose Assessment

—

3.3 Field Team response

—

3.4 Plant radiological conditions

—

— / —

Attachment 6.1
(continued)

✓ INIT/TIME

4. Assess any planned or imminent releases for potential impact to the public.

NOTE: CHP Communicator may perform this task.

- 4.1 Prior to starting any release notify (use the CHP or commercial phone line):

- Nebraska Emergency Management Agency
- Nebraska Department of Health R&L
- Iowa Emergency Management Division
- Iowa Department of Public Health

_____ / _____

5. If a release is in progress or suspected and the release path is not immediately known: **[AR 11809]**

- 5.1 Request an that assessment team (i.e., Operations, Engineering, dose assessment personnel) be assigned by the Site Director or TSC Director.

- 5.2 Coordinate with the team to ensure they:

- Verify that a release is actually in progress
- Determine the source and release path of any release
- Report team findings to the appropriate position

_____ / _____

Attachment 6.1
(continued)

✓ INIT/TIME

NOTE: Although it is the Command and Control Position's duty to ensure that the Emergency Notification Forms (FC-1188) are accurate, approved and issued per the requirements of EPIP-OSC-2, your position should assist in ensuring that these requirements are met.

6. If Command and Control is in the TSC update the states and counties as follows:

NOTE: If dose assessment is being performed in another facility and Command and Control is in the TSC, have the dose assessments faxed to the TSC for approval.

6.1 Dose assessment is being performed:

- Review the current assessment results _____
- Assign PARs for the assessment per EPIP-EOF-7 _____
- Review the classification level and prognosis on the assessment _____
- If correct, sign the assessment as reviewer and forward to Site Director for approval _____
- Ensure that the dose assessment is faxed to the states, EOF and Control Room _____
- As requested, if a classification and/or a PAR change is required assist in initiating Emergency Notification Form (FC-1188) _____ / _____

6.2 If dose assessment is not being performed:

- As requested, assist the Command and Control Position in completing an Emergency Notification Form (FC-1188). _____
- As requested, forward the approved Emergency Notification Form to the COP Communicator for state/county updates. _____ / _____

Attachment 6.1
(continued)

✓ INIT/TIME

7. Ensure the COP Communicator properly updates the Radiological Status Board. (AR 13301)

_____ / _____

NOTE: You or a designee may be required to assist the CHP Communicator.

8. Ensure that the CHP Communicator is providing radiological information to:

8.1 The states using the Conference Health Physics (CHP) Network or commercial line as a backup.

8.2 The NRC using the Health Physics Network (HPN) or commercial line as a backup.

_____ / _____

9. If required, coordinate the protective measures process for in-plant teams and Field Teams use:

- EPIP-EOF-21, Potassium Iodide Issuance
- EPIP-EOF-11, Dosimetry Issuance, Extensions and Habitability
- FC-EPF-6, Estimated Exposure Worksheet

_____ / _____

10. Provide periodic updates on radiological conditions to the Site and TSC Directors and TSC staff.

_____ / _____

11. As required, provide a detailed briefing to your relief covering:

- Emergency conditions
- Actions taken (current status)

_____ / _____

Maintain a log of all key activities

✓

INIT/TIME

NOTE: Actions taken may be performed out of sequence based on judgement of the user.

1. Upon arrival:

1.1 Sign in on Security Roster

—

1.2 Put on Personnel Identification badge

—

_____ / _____

2. Interface with:

2.1 The EOF Dose Assessment Coordinator or the TSC Protective Measures Coordinator to determine:

- Status of dose assessment
- Status of and actions taken by Field Teams

—

—

2.2 The TSC Protective Measures Coordinator to determine:

- Onsite radiological conditions
- In-plant teams actions

—

—

_____ / _____

3. Report your findings from Step 2 to the Emergency Director.

_____ / _____

NOTE: The MRC Technical Liaison need not report to the EOF if MRC is being activated and may be briefed by telephone.

4. Brief the Site Representative and MRC Technical Liaison on the following:

- The event
- Status of the plant
- Radiological concerns
- PAR's given to the states

—

—

—

—

4.1 Instruct the Site Representative to obtain his worker package.

—

4.2 If conditions warrant, dispatch the Site Representative to the Iowa State EOC.

—

Attachment 6.2
(continued)

✓ INIT/TIME
____ _____ / _____

4.3 If the MRC is being activated, dispatch the MRC Technical Liaison.

5. Assess any planned or imminent releases for potential impact to the public.

NOTE: If representatives of the following agencies are in the EOF you or a designee may talk to them directly.

NOTE: CHP Communicator may perform this task.

5.1 Prior to starting any release notify (use the CHP or commercial phone line):

- Nebraska Emergency Management Agency
- Nebraska Department of Health R&L
- Iowa Emergency Management Division
- Iowa Department of Public Health

____ _____ / _____

6. Upon concurrence of Emergency Director and the Dose Assessment staff initiate actions to transfer dose assessment to the EOF.

_____ / _____

Attachment 6.2
(continued)

✓

INIT/TIME

NOTE: Although it is the Command and Control Position's duty to ensure that the Emergency Notification Forms (FC-1188) are accurate, approved and issued per the requirements of EPIP-OSC-2, your position should assist in ensuring that these requirements are met.

7. If Command and Control is in the EOF update the states and counties as follows:

NOTE: If dose assessment is being performed in another facility and Command and Control is in the EOF, have the dose assessments faxed to the EOF for approval.

7.1 If dose assessment is being performed:

- Review the current assessment results _____
- Assign PARs for the assessment per EPIP-EOF-7 _____
- Review the classification level and prognosis on the assessment _____
- If correct, sign the assessment as reviewer and forward to Command and Control position for approval _____
- Ensure that the dose assessment is faxed to the states, TSC and Control Room _____
- As requested, if a classification and/or a PAR change is required assist in initiating Emergency Notification Form (FC-1188) _____

7.2 If dose assessment is not being performed:

- As requested, assist the Command and Control Position in completing an Emergency Notification Form (FC-1188). _____
- As requested, forward the approved Emergency Notification Form to the COP Communicator for state/county updates. _____ / _____

Attachment 6.2
(continued)

✓ INIT/TIME

8. Ensure the COP Communicator properly updates the PAR Status Board. [AR 13301]

_____ / _____

NOTE: You or a designee may be required to assist the CHP Communicator.

9. Ensure that the CHP Communicator is providing radiological information to:

9.1 The states using the Conference Health Physics (CHP) Network or commercial line as a backup.

9.2 The NRC using the Health Physics Network (HPN) or commercial line as a backup.

_____ / _____

10. If required, coordinate guidance for the protective measures process use:

- EPIP-EOF-21, Potassium Iodide Issuance
- EPIP-EOF-11, Dosimetry Issuance, Extensions and Habitability
- FC-EPF-6, Estimated Exposure Worksheet

_____ / _____

11. Provide periodic updates on radiological conditions to:

- Emergency Director
- EOF Staff
- State Representatives (at the EOF)

_____ / _____

12. If the states request, call in OPPD environmental personnel.

_____ / _____

13. If the plant is evacuated, coordinate the arrival of evacuees with the EOF Administrative Logistics Manager.

13.1 If required, evaluate the evacuated site population exposure using FC-EPF-6.

_____ / _____

Attachment 6.2
(continued)

✓ INIT/TIME

14. As required, provide detailed briefing to your relief covering:

- Emergency conditions
- Actions taken (current status)

— /
— _____

Fort Calhoun Station
Unit No. 1

EPIP-RR-25

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EMERGENCY PLAN IMPLEMENTING PROCEDURE

Title: EOF DOSE ASSESSMENT COORDINATOR ACTIONS

FC-68 Number: DCR 12264

Reason for Change: Revise format. Revise Attachment 6.1. Change reference to EPIP-OSC-20 to FC-EPF-6.

Requestor: M. Reller

Preparer: M. Reller

EOF DOSE ASSESSMENT COORDINATOR ACTIONS

NON SAFETY RELATED

1. PURPOSE

- 1.1 This procedure provides guidance to the EOF Dose Assessment Coordinator for performing actions in response to an emergency at Fort Calhoun Station.

2. REFERENCES/COMMITMENT DOCUMENTS

- 2.1 EPIP-EOF-6, Dose Assessment
- 2.2 EPIP-EOF-7, Protective Action Guidelines
- 2.3 EPIP-EOF-21, Potassium Iodide Issuance
- 2.4 EPIP-EOF-11, Dosimetry Records, Exposure Extensions and Habitability
- 2.5 FC-EPF-6, Estimated Exposure Worksheet
- 2.6 Commitment Documents
- AR 13302, IER-92-20

3. DEFINITIONS

None

4. PREREQUISITES

None

5. PROCEDURE

- 5.1 The EOF Dose Assessment Coordinator will use Attachment 6.1 as an aid to completing required actions.

NOTE: When needed, perform dose assessments and updates to the states at least every 60 minutes. It is the goal of the Fort Calhoun Station to attempt to provide assessments and updates at 15 minute intervals. (AR 13302)

- 5.2 Use Attachment 6.2 as guidance in comparing Field Team data to dose assessment data.

- 5.3 Review the procedure and appropriate checklists, and accomplish the applicable steps both upon initial activation and periodically, as required, thereafter.
- 5.4 Retain all documentation (logs, calculation sheets, notes, etc.) generated or used during the emergency. At the termination, deliver all documentation to the Administrative Logistics Manager in the EOF.

6. ATTACHMENTS

- 6.1 EOF Dose Assessment Coordinator Checklist
- 6.2 Comparison of Field Team Data to Dose Assessment Data

Maintain a log of all key activities

	✓	<u>INIT/TIME</u>
1. Upon arrival:		
1.1 Sign in on Security Roster	—	
1.2 Put on Personnel Identification badge	—	/
NOTE: If dose assessment is being performed at the EOF, proceed to Step 5. Otherwise continue with Step 2.		
2. Instruct EOF Dose Assessment Specialist to:		
2.1 Determine on-site dose assessment status.	—	
2.2 Ensure that the EOF has a hard copy of all dose assessments.	—	
2.3 Ensure that at least one EOF EAGLE machine is functional.	—	
2.4 Stand by for transfer of dose assessment to the EOF.	—	/
3. Review the dose assessments to ensure proper response has been taken.		/
4. If required, direct transfer of dose assessment from the plant to the EOF:		
4.1 Determine when the transfer of Command and Control will take place (ask the Protective Measures Manager or Emergency Director).	—	
4.2 If possible coordinate the dose assessment transfer with the transfer of Command and Control.	—	
4.3 Inform EOF Dose Assessment Specialist of time of transfer of Command and Control.	—	
4.4 Ensure coordination of dose assessment transfer between on-site Dose Assessment Specialist and EOF Dose Assessment Specialist.	—	

Attachment 6.1
(continued)

✓ INIT/TIME
_____/

4.5 Upon transfer ensure EOF Dose Assessment Specialist properly understands and assume his duties.

NOTE: If Field Team direction is not yet at the EOF, check with the TSC Protective Measures Manager to determine their status.

5. Determine status of Field Teams from the EOF Field Team Specialist.

_____/

6. Keep the Protective Measure Manager abreast of the status of dose assessment and the Field teams.

_____/

7. As data becomes available perform dose assessment and Field Team comparisons. Use attachment 6.2.

_____/

8. Contact the National Weather Service to obtain a 24 hour forecast.

8.1 Determine the potential impact on dose assessment.

8.2 Determine the potential impact to the Field Teams.

_____/

9. As required, provide Radiological information to:

9.1 The states/counties using the Conference Health Physics (CHP) Network or commercial line as a backup.

9.2 The NRC using the Health Physics Network (HPN) or commercial line as a backup.

_____/

10. If required, coordinate protective measures for Field Teams use:

- EPIP-EOF-21, Potassium Iodide Issuance
- EPIP-EOF-11, Dosimetry Issuance, Extensions and Habitability
- FC-EPP-6, Estimated Exposure Worksheet

_____/

11. As required, provide a detailed briefing to your relief covering:

- Emergency conditions
- Actions taken (current status)

_____/

Attachment 6.2 - Comparison of Field Team Data to Dose Assessment Data

NOTE: This procedure should be used once Field Team results are available to determine if projected dose data compares to actual field measurements. This will allow plant supervision to adjust Protective Action Recommendations and Emergency Action Levels if necessary.

1. Obtain FC-EPF-27 Form(s).
2. Collect and record the following data:
 - 2.1 Date and time
 - 2.2 Field Team location
 - 2.3 Approximate Field Team distance from site
 - 2.4 Waist level dose rate (Rem/hr) reported from the Field Team
 - 2.5 Iodine concentration ($\mu\text{Ci/cc}$) reported from the Field Team
 - 2.6 Request the Dose Assessment Specialist to perform the following:
 - 2.6.1 For the current plume segment, proceed to the EAGLE Output Menu
 - 2.6.2 Enter "4" for Field Team Data
 - 2.6.3 Select the proper sector for the Field Team location
 - 2.6.4 Press <PRINT SCREEN> to print the Field Team data
 - 2.7 Locate the Emergency Monitor location that coincides with the Field Team location from 2.2) above.
 - 2.8 Record the projected Field Team Dose Rate and Iodine 131 concentration on the FC-EPF-27.
 - 2.9 Report results to the Protective Measures Coordinator/Manager.

Fort Calhoun Station
Unit No. 1

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EPIP-RR-87

EMERGENCY PLAN IMPLEMENTING PROCEDURE

Title: RADIATION PROTECTION COORDINATOR ACTIONS

FC-68 Number: DCR 11278

Reason for Change: Reformat Attachment 6.1 to enhance use. Updated references.

Requestor: Mark Reller

Preparer: Mark Reller

RADIATION PROTECTION COORDINATOR ACTIONS

NON-SAFETY RELATED

1. PURPOSE

- 1.1 The purpose of this procedure is to provide guidance to the Operations Support Center's Radiation Protection Coordinator.

2. REFERENCES/COMMITMENT DOCUMENTS

- 2.1 RP-602, Personnel Dosimetry Issue and Changeout
- 2.2 RP-214, Access Control Radiologically Controlled Area
- 2.3 EPIP-EOF-11, Dosimetry Records, Exposure Extensions and Habitability
- 2.4 EPIP-OSC-9, Emergency Team Briefings
- 2.5 EPIP-EOF-21, Potassium Iodide Issuance
- 2.6 EPIP-EOF-10, Warehouse Personnel Decontamination Station Operation
- 2.7 EPIP-OSC-21, Activation of the Operations Support Center
- 2.8 FC-EPF-6, Estimated Exposure Worksheet
- 2.9 FC-EPF-7, Estimated Exposure Log
- 2.10 Radiological Health and Engineering, Dose Assessment Model: Site Population Dose - Memorandum FC-RP-028-94
- 2.11 Radiological Analysis 95-006, Halogen DCF Based on Field Air Sample

3. DEFINITIONS

None

4. PREREQUISITES

None

5. PROCEDURE

- 5.1 Use Attachment 6.1, Radiation Protection Coordinator's Checklist, as an aid to completing required actions.
- 5.2 Review the procedure and checklist, and accomplish the applicable steps both upon initial activation and periodically, as required, thereafter.
- 5.3 At the completion of the shift or at event termination, check/initial the steps which are completed.
- 5.4 Retain all documentation (logs, calculation sheets, notes, etc.) generated or used during the emergency. At the termination, deliver all Radiation Protection group documentation to the TSC Administrative Logistics Coordinator position in the TSC.

6. ATTACHMENTS

- 6.1 Radiation Protection Coordinator's Checklist

Maintain a log of all key activities

	✓	<u>INIT/TIME</u>
1. Upon Arrival:		
1.1 Sign in on Accountability Roster	—	
1.2 Obtain worker packet	—	
1.3 Put on Personnel Identification badge	—	
1.4 Assist, in activation of OSC per EPIP-OSC-21	—	
1.5 Update the Personnel Status board with names of available RP personnel	—	— / —
2. Periodically review the following steps and perform as required:		
2.1 Ensure that access control is established in the OSC (EPIP-RR-28)	—	
2.2 Ensure that Dosimetry is ready to be issued in OSC (EPIP-EOF-11, RP-602)	—	
2.3 Ensure that RWP's are ready (RP-214)	—	— / —

NOTE: When dispatching personnel from the OSC, ensure that they are equipped with a Radio and are tracked using the Team Status Board.

NOTE: The Maintenance and Chemistry Coordinators are available to assist in team briefings.

NOTE: For critical Operations response, dispatch RP Technicians to meet responder(s) at a predetermined location, selected by the Shift Manager and OSC Director.

- 3. Assist the OSC Director in forming needed emergency teams _____
 - 3.1 If conditions warrant, assign an RP Technician to each team dispatched, from all facilities. _____
 - 3.2 Use available resources to ensure that all work is done in an As Low As Reasonably Achievable (ALARA) Manner. _____
 - 3.3 Initiate and coordinate emergency worker exposure limits (EPIP-EOF-11) _____
 - 3.4 Brief each team as time permits. (EPIP-OSC-9) _____ / _____

- 4. If there is a known or imminent radiological release, ensure:
 - 4.1 The ERFCS is used to monitor plant radiological conditions. _____
 - 4.2 The OSC Radiological wall maps are updated. _____ / _____

NOTE: If possible analyze radiological samples in the RP Count Room. If the Count Room is unavailable consider other locations using portable equipment. The Chemistry Count Room is shielded.

5. If there is or a radiological release is imminent, ensure habitability surveys are performed in all occupied areas, including but not limited to:

- Control Room (Shift RP Tech)
- TSC
- OSC
- Security Building
- Administration Building
- Warehouse
- Training Center

_____ / _____

6. Evaluate the habitability surveys for each facility, determine: (EPIP-EOF-11)

- Which facilities should be evacuated
- Which facilities need control points established
- Frequency of follow-up habitability surveys
- Assign an RP Technician to perform surveys

_____ / _____

7. Report habitability status to the OSC Director:

7.1 Request that an announcement be made in each occupied facility regarding each facilities status.

7.2 Ensure that occupants are aware of the status of eating, drinking, smoking or chewing privileges.

_____ / _____

8. Using habitability survey data and/or dose assessments, assign a RP Technician to perform TEDE calculations for personnel in all occupied areas. Consider the following areas: (FC-EPP-6)

- Control Room
- TSC
- OSC
- Security Building
- Administration Building
- Warehouse
- Training Center

_____ / _____

Attachment 6.1 - Radiation Protection Coordinator's Checklist

9. As authorized issue Potassium Iodide (KI) per EPIP-EOF-21.

_____ / _____

NOTE: Equipment needed to perform Step 10, is stored at the EOF.

10. As needed assign RP Technicians to the EOF for monitor/decontamination operations.

_____ / _____

11. In the event of contaminated or contaminated injured personnel, assign an RP Technician to perform:

- Monitoring for contamination
- Decontamination at the Warehouse (EPIP-EOF-10) or other appropriate location
- Whole Body Counting
- Rescue Squad escort and monitoring

_____ / _____

12. Coordinate radwaste and radiation instrument control.

_____ / _____

13. Prepare a 24 hour staffing schedule, ensuring sufficient staffing for:

- RP Technician(s) to cover onsite monitoring
- RP Technician(s) for occupied facility habitability surveys
- RP Technician(s) for emergency team coverage
- RP Technician(s) for count room duties
- OSC Accountability and Dosimetry Technician
- OSC Radio Operator
- OSC Radiation Protection Coordinator

13.1 Provide copy of schedule to the TSC Administrative Logistics Coordinator.

_____ / _____

14. Provide a detailed briefing to your shift relief of any action taken and the current emergency status.

_____ / _____

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Fort Calhoun Station
Unit No. 1

EPIP-OSC-21

EMERGENCY PLAN IMPLEMENTING PROCEDURE

Title: ACTIVATION OF THE OPERATIONS SUPPORT CENTER

FC-68 Number: DCR 12268

Reason for Change: Delete Attachment 6.2 and reference to operational. Add a definition for augmented and instructions for ensuring augmentation. Revise format to fit changes and other editorial changes.

Requestor: M. Reller

Preparer: M. Reller

ACTIVATION OF THE OPERATIONS SUPPORT CENTER

NON-SAFETY RELATED

1. PURPOSE

- 1.1 This procedure provides instruction for the Operations Support Center (OSC) Director and other OSC personnel for activation and deactivation of the OSC. It also provides guidance for relocating the OSC to its alternate location should the need arise.

2. REFERENCES/COMMITMENT DOCUMENTS

- 2.1 EPIP-RR-21, Operations Support Center Director Actions
- 2.2 EPIP-EOF-11, Dosimetry Records, Exposure Extensions, and Habitability

3. DEFINITIONS

- 3.1 Activated - minimum staffing and basic setup requirements have been attained to allow the OSC to provide support to the Control Room.
- 3.2 Augmented - A facility is augmented when all augmenting and minimum staffing positions are filled.

4. PREREQUISITES

None

5. PROCEDURE

- 5.1 Upon reporting to the OSC, activate the OSC using Attachment 6.1.
- 5.2 Should the need arise to relocate the OSC, use Attachments 6.5 and 6.6.
- 5.3 Upon event termination, restore the equipment in the OSC per Attachment 6.4.

6. ATTACHMENTS

- 6.1 Checklist for Activation of the OSC
- 6.2 Typical Floor Plan for the Operations Support Center
- 6.3 Typical Accountability Boundaries for the Operations Support Center
- 6.4 Checklist for Deactivation of the OSC

- 6.5 Guidelines for Setup of the Operations Support Center in an Alternate Location
- 6.6 Typical Location of Alternate Operations Support Center

Attachment 6.1 - Checklist for Activation of the OSC

NOTE: It is the goal of Omaha Public Power District (OPPD) to activate the OSC within one hour following declaration of an Alert or higher classification. In the event of adverse weather and/or other conditions that may limit or slow response, either manmade or natural, it is understood that staffing time may exceed this goal.

	(✓)	<u>INIT/TIME</u>
1. Verify the following minimum staffing positions are available:		
• OSC Director	—	
• Radiation Protection Technician or Radiation Protection Coordinator	—	
• One other person to form a team	—	/
2. Set up accountability boundaries per Attachment 6.3.		/
3. Connect phone harness P10:		
• Storekeeper (ext)	—	
• Maintenance Planner (ext)	—	
• Maintenance Technicians (ext)	—	
• Extra OSC phone (ext)	—	/
4. Connect phone harness W10:		
• OSC Director (ext)	—	
• Radiation Protection Coordinator (ext)	—	
• Chemistry Coordinator (ext)	—	
• Maintenance Coordinator (ext)	—	
• ERMS Operator (used only if ERMS is inoperable, ext)	—	
• OSC OPS Liaison Network Phone	—	
• Conference Health Physics (CHP) Network Phone	—	
• Management Operations Phone (MOP) Network	—	/
5. Connect PA microphone.		/
6. Turn on power switch for writeboard monitor.		/
7. Adjust volume controls on Gaitronics units so announcements can be heard in the OSC.		/
8. Prepare team tracking board for use.		/

Attachment 6.1 (continued)

9. Post "NO EATING/DRINKING/SMOKING OR CHEWING" signs from the RP Coordinator's Kit in the following locations:

- I&C Shop Area
- OSC - Conference Room Area
- Access Control Area

_____ / _____

10. Synchronize OSC clocks with ERFCS.

_____ / _____

11. When Steps 1 through 10 are complete perform the following:

11.1 Make the following announcement on the OSC PA system:

"This is (ININSERT NAME) . I have assumed the duties of OSC Director. **The OSC is now activated.** Ensure your accountability card has been dropped in the accountability box. Eating, drinking, smoking or chewing is **NOT** allowed."

11.2 Inform the Site Director the OSC is activated, ready to provide minimal support to the Control Room and who is filling the OSC Director position.

_____ / _____

12. Verify habitability per EPIP-EOF-11.

_____ / _____

13. Set up a portable air monitoring system (AMS).

_____ / _____

14. Set up a portable area monitor with the alarm set at about 15 mr/hr.

_____ / _____

15. Within one hour of initial emergency declaration, verify the following augmenting staff are present:

- Chemistry Technician
- Dosimetry Technician
- Electrical Maintenance Technicians (2)
- I&C Technician
- Maintenance Coordinator
- Mechanical Maintenance or Steam Fitter Mechanic
- Operations Liaison
- Radiation Protection Technicians (6 of which one may be minimum staffing)
- Radiation Protection Coordinator (if not counted for minimum staffing)

_____ / _____

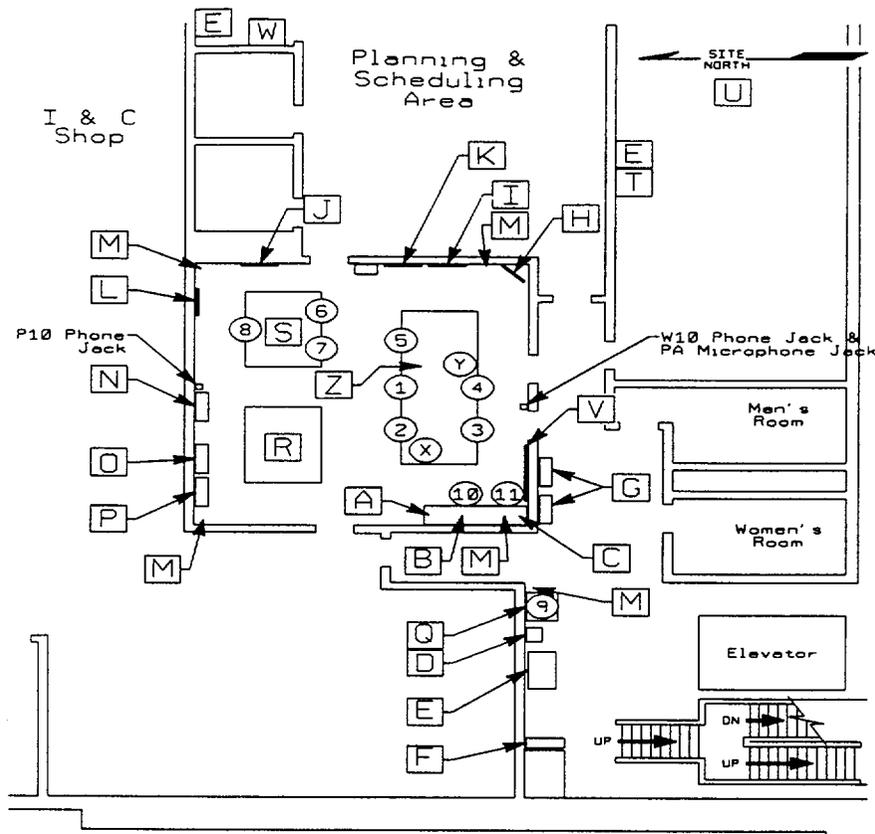
Attachment 6.1 (continued)

16. After one hour determine if any OSC positions are not filled. _____

16.1 If a position is not filled, based on the nature of the emergency determine if that position is required. _____

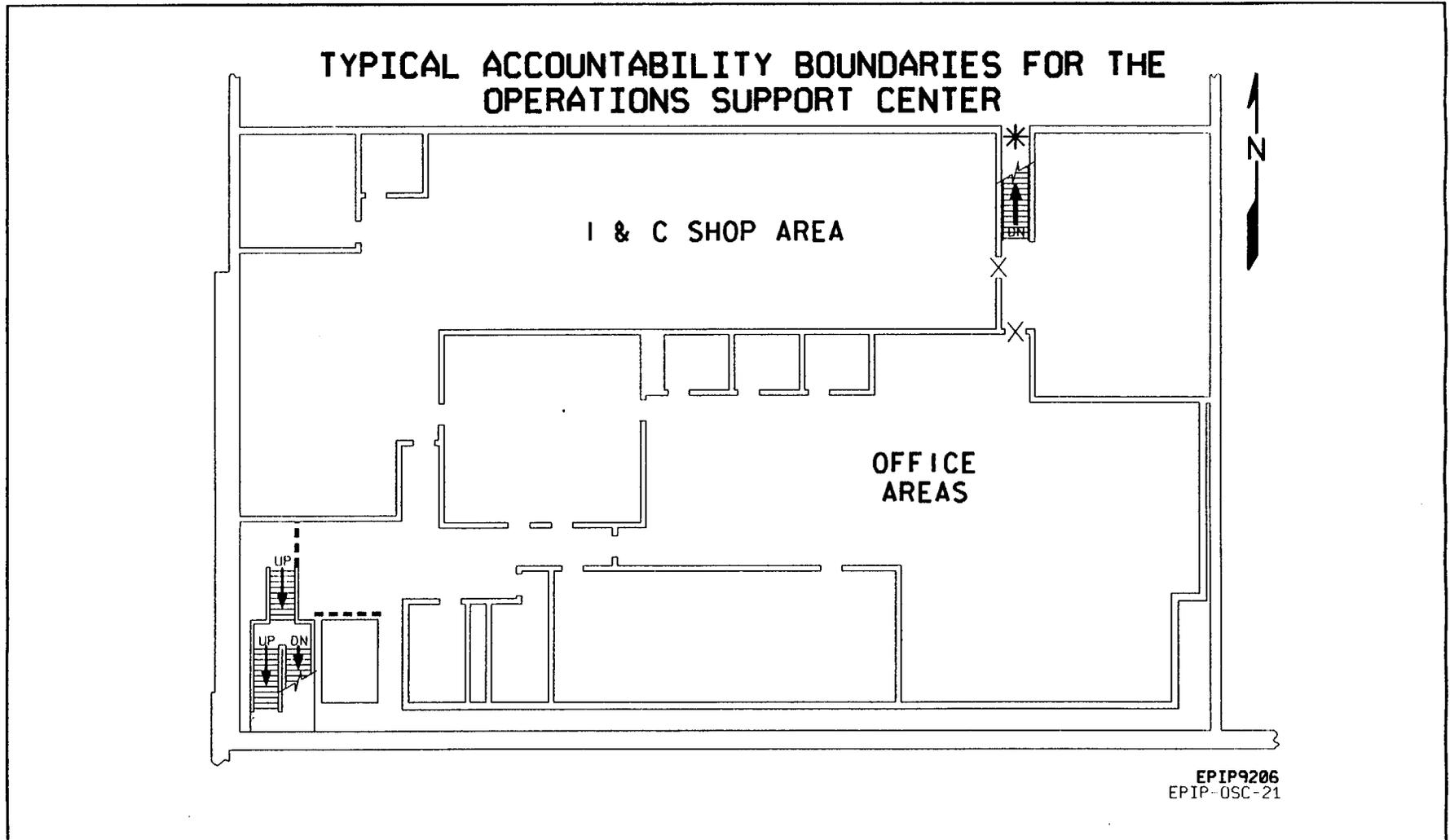
16.2 Request assistance from the TSC in contacting additional staff, as needed. _____ /

Attachment 6.2 - Typical Floor Plan For The Operations Support Center



- | | | |
|--------------------------|--|--|
| A. ERF Computer | J. EGG Map | S. Conference Area |
| B. ERMS | K. Procedure Rack | T. Fax Machine |
| C. OSC Base Radio | L. Sign-In Board | U. Procedures (Official Copy) |
| D. Dosimetry Issue Kit | M. Gaitronics | V. Team Status Board |
| E. Copy Machine | N. Radios/Protective Clothing | W. ERMS Network Printer |
| F. Respirators/Air Tanks | O. Kits, Phones, Admin. Supplies | X. OSC OPS Liaison Network Phone |
| G. SCBA's | P. RP Instruments, Sample Monitoring Kit | Y. Conference Health Physics Network Phone |
| H. Writeboard Monitor | Q. HIS-20 System | Z. MOP Phone |
| I. Plant Maps | R. Briefing Area | |
-
- | | |
|----------------------------|-----------------------------|
| 1. OSC DIRECTOR | 7. OSC STOREKEEPER |
| 2. OSC OPS LIAISON | 8. OSC TECHNICIANS |
| 3. OSC CHEMISTRY COORD. | 9. OSC ACCT/DOSIMETRY CLERK |
| 4. OSC RP COORD. | 10. OSC ERMS OPERATOR |
| 5. OSC MAINTENANCE COORD. | 11. OSC RADIO OPERATOR |
| 6. OSC MAINTENANCE PLANNER | |

Attachment 6.3 - Typical Accountability Boundaries for the Operations Support Center



NOTE: OSC Boundaries are determined by the OSC Director.

---Accountability Boundary

X NO Exit - Use Southwest Staircase

* DO NOT ENTER - Use Southwest Staircase

Attachment 6.4 - Checklist for Deactivation of OSC

Upon termination of emergency activities the following actions should be completed to restore the OSC.

	<u>INIT/TIME</u>
1. Disconnect phone harnesses and store phones in the appropriate emergency gear locker.	<u> / </u>
2. Disconnect the PA microphone and store in the appropriate emergency gear locker.	<u> / </u>
3. Place emergency kits in the appropriate emergency gear locker.	<u> / </u>
4. Turn off all portable radios and place in their chargers.	<u> / </u>
5. Turn off RP instruments, return to the appropriate emergency gear locker and notify RP of any equipment that may have malfunctioned during use.	<u> / </u>
6. Place the portable air monitor in the cage next to the copy machine and lock the cage.	<u> / </u>
7. Return respirators and air bottles to the appropriate location and notify RP of equipment requiring recharging.	<u> / </u>
8. Turn off the writeboard monitor.	<u> / </u>
9. Turn in all logs, paperwork, procedures, etc. to the Administrative Logistics Coordinator in the TSC.	<u> / </u>
10. Secure status boards for normal use.	<u> / </u>
11. Remove accountability boundary signs from ropes and doors and place in the dosimetry issue kit cabinet.	<u> / </u>
12. Place the EATING/DRINKING/SMOKING OR CHEWING signs in the RP Coordinator's kit.	<u> / </u>

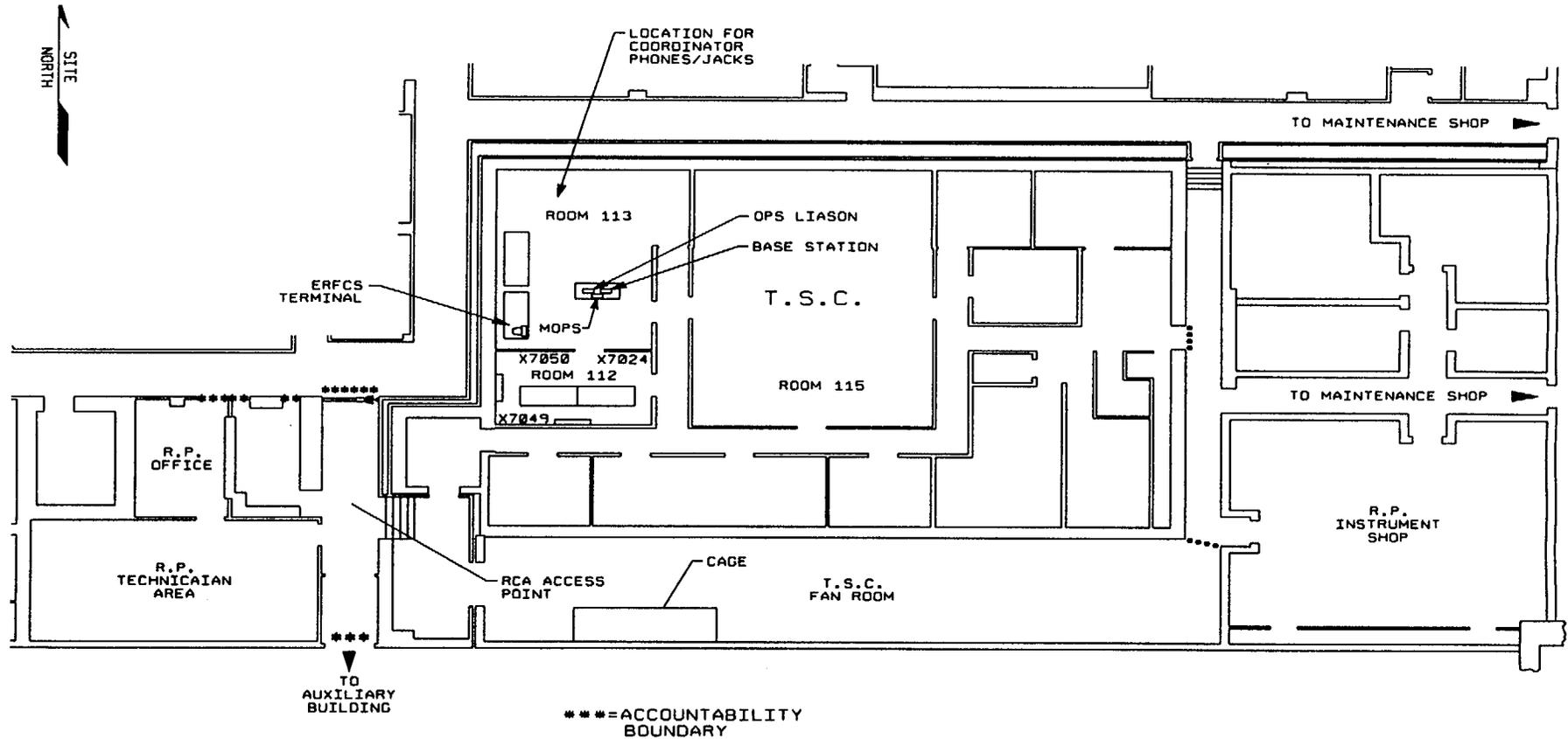
Attachment 6.5 (continued)

Page 2 of 2

3. Post a sign on the OSC door(s) indicating that the OSC is being relocated. _____ /
4. Move to the alternate OSC location as follows:
- 4.1 Direct the Radiation Protection Coordinator to verify habitability in the TSC Fan Room. _____
- 4.2 Make the following announcement over the OSC Paging System AND the Gai-tronics:
- "May I have your attention please, **this is the OSC Director**. The OSC is being relocated to the TSC due to _____. All Chemistry, RP, and Maintenance Technicians move to the TSC Fan Room, all other personnel move to the TSC Room 112. All personnel should take their own logs and procedures with them." _____
- 4.3 Prepare Team Tracking and Status Boards for use. _____
- 4.4 Direct the OSC Radio Operator to perform radio checks with all dispatched teams. _____
- 4.5 Direct the Operations Liaison to conference in on the Operation Liaison Circuit. _____
- 4.6 Telephone assignments in the TSC are as follows:
- OSC Director - _____, Room 112
 - OSC Operations Liaison - Ops Liaison Circuit, Room 113
 - Maintenance Coordinator - _____, Room 112
 - Radiation Protection Coordinator - _____, Room 112
- 4.7 Report to the Site Director that the OSC has been relocated. _____ /
5. IF conditions allow, THEN move the OSC to its normal location using Attachments 6.1 and 6.2, while maintaining the OSC operational/activated. _____ /

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Attachment 6.6 - Typical Location of Alternate Operations Support Center



Fort Calhoun Station
Unit No. 1

EPIP-OSC-2

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EMERGENCY PLAN IMPLEMENTING PROCEDURE

Title: COMMAND AND CONTROL POSITION ACTIONS/NOTIFICATIONS

FC-68 Number: DCR 12154

Reason for Change: Revise format of Attachments 6.1, 6.2 and 6.3. Delete option for evacuation via different Security Access points.

Requestor: Mark Reller

Preparer: Mark Reller

COMMAND AND CONTROL POSITION ACTIONS/NOTIFICATIONS

NON-SAFETY RELATED

1. PURPOSE

- 1.1 This procedure provides guidance to the Command and Control position for implementing the Emergency Plan, making required notifications, transferring Command and Control, performing classification upgrades/downgrades and event terminations.

2. REFERENCES/COMMITMENT DOCUMENTS

- 2.1 SO-R-1, "Reportability Determination"
- 2.2 10 CFR 50.72, "Immediate Notification Requirements for Operating Nuclear Power Reactors"
- 2.3 EPIP-OSC-1, "Emergency Classification"
- 2.4 EPIP-OSC-15, "Communicator Actions"
- 2.5 EPIP-EOF-6, "Dose Assessment"
- 2.6 EPIP-EOF-7, "Protective Action Guidelines"
- 2.7 EPIP-EOF-11, "Dosimetry Records, Exposure Extensions, and Habitability"
- 2.8 EPIP-EOF-21, "Potassium Iodide Issuance"
- 2.9 EPIP-EOF-19, "Recovery Actions"
- 2.10 EPIP-TSC-1, "Activation of the Technical Support Center"
- 2.11 EPIP-EOF-1, "Activation of the Emergency Operations Facility"
- 2.12 OI-ERFCS-1, "Emergency Response Facility Computer System"
- 2.13 FC-1188, "Emergency Notification Form"
- 2.14 FC-EPF-38, "Blair Industrial Park Co-Op, Event Notification Form"
- 2.15 Emergency Telephone Book

2.16 Commitments (other than Ongoing)

- AR 10026, NRC-89-0232
- AR 12110, IER 91-23
- AR 07071, LIC-88-0726

3. DEFINITIONS

3.1 ANS - "Alert Notification System" The system of sirens maintained in OPPD's designated EPZ (Emergency Planning Zone).

3.2 BLAIR INDUSTRIAL PARK CO-OP: EMERGENCY NOTIFICATION SYSTEM - An organization of industries including Fort Calhoun Station that have banded together to form a warning system to notify member industries and the Washington County Dispatch Center of a potential or actual release of toxic chemicals and/or hazardous material from its facility.

3.3 CODE SYSTEM - A system devised by members of the Blair Industrial Park Co-Op to classify events that have occurred at the initiating facilities site. These codes are:

- **CODE BLUE:** A minor emergency or problem such as a fire, explosion, gas or liquid release, unusual noise or odor, abnormal or extended flaring activity or other internal event has occurred which may be visible or detectable by off-site people, but which presents NO OFFSITE THREAT and requires no protective actions. The situation is under control.
- **CODE GREEN:** An emergency such as a fire, explosion, gas or liquid release or other event has occurred which affects plant operations and/or has the potential to escalate to a more serious emergency. THE SITUATION IS NOT UNDER CONTROL BUT POSES NO IMMEDIATE OFFSITE THREAT. The Washington County EOC may activate.
- **CODE YELLOW:** A serious accident such as a fire, explosion, gas or liquid or other event has occurred or is imminent which seriously affects plant operations and/or poses a threat to residents or industries in the immediate vicinity of the affected industry. THE SITUATION IS NOT UNDER CONTROL AND ONSITE PROTECTIVE ACTIONS WILL BE NECESSARY. The Washington County EOC would activate.
- **CODE RED:** A severe emergency such as fire, explosion, gas or liquid release or other event has occurred or is imminent which seriously affects plant operations and/or offsite areas well beyond site boundaries. THE SITUATION IS NOT UNDER CONTROL AND PROTECTIVE ACTIONS FOR NEIGHBORING INDUSTRIES AND RESIDENTS ARE NECESSARY. The Washington County EOC would fully activate at a safe location.

- 3.4 COMMAND AND CONTROL POSITION - The Shift Manager, Control Room Coordinator, Site Director or Emergency Director currently charged with the authorities and responsibilities for directing the emergency response.
 - 3.5 EALs - "Emergency Action Levels"
 - 3.6 EAS - "Emergency Alert System". A mass-media system providing information and instructions to the general public in the event of a nuclear or other public emergency.
 - 3.7 EOF - "Emergency Operations Facility".
 - 3.8 ERDS - "Emergency Response Data System". The system that transmits selected plant parameter data to the NRC Operations Center.
 - 3.9 ERF - "Emergency Response Facility". The Control Room, TSC, OSC and EOF maintained for emergency response.
 - 3.10 ERO - "Emergency Response Organization".
 - 3.11 FTS-ENS phones - NRC notification system phones, , FTS- "Federal Telecommunications System", ENS- "Emergency Notification System".
 - 3.12 GE - "General Emergency".
 - 3.13 KFAB - Designated Local Primary One (LP1) Emergency Alert Station located in Omaha, NE.
 - 3.14 NOUE - "Notification of Unusual Event".
 - 3.15 NRC - "Nuclear Regulatory Commission".
 - 3.16 OSC - "Operations Support Center".
 - 3.17 PARs - "Protective Action Recommendations".
 - 3.18 SAE - "Site Area Emergency".
 - 3.19 TSC - "Technical Support Center".
4. PREREQUISITES
- 4.1 An emergency has been declared or is to be reported per EPIP-OSC-1, Emergency Classification.

5. PROCEDURE

NOTE: Once an event has been declared, notifications must be made within the time requirements of the applicable attachment.

- 5.1 IF no Emergency has been declared and conditions for a classification level occurred but no longer exist (per EPIP-OSC-1), THEN the event must be **reported** as follows:
- 5.1.1 Notify both states using the commercial line. Call Iowa at (24 hour #) and Nebraska at (normal hours) or (after hours).
 - 5.1.2 Request that each state have the appropriate duty officer contact the Control Room at for a report on the event.
 - 5.1.3 Notify the NRC using the FTS-ENS phone (commercial line is a backup) per SO-R-1.
 - 5.1.4 **DO NOT** complete an Attachment 6.1, but log information in the Control Room Log as necessary.
- 5.2 IF while in a declared emergency, conditions for a higher emergency classification were exceeded but have since been abated or otherwise been resolved prior to declaration, THEN the event must be **reported** as follows:
- 5.2.1 Perform the notifications described in Attachments 6.1, 6.2 or 6.3 for the states, counties and the NRC for the current classification.
 - 5.2.2 Inform the states, counties and the NRC that a higher classification existed, but was not declared, what conditions existed that caused the emergency classification, and inform them of the time that the higher classification existed.
- 5.3 Record any additional documentation in FC-EPF-13, Emergency Response Organization Log Sheet, or the Control Room Log.
- 5.4 **IN THE CONTROL ROOM:** Perform notifications using Attachment 6.1.
- 5.5 **IN THE TSC OR EOF:** Perform notifications using Attachment 6.2 (TSC) or 6.3 (EOF).

PROPRIETARY INFORMATION HAS BEEN
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- 5.6 IF an upgrade or downgrade of the emergency classification occurs prior to completion of the checklist, THEN perform the following:
 - 5.6.1 Complete state/county notifications for the former classification.
 - 5.6.2 Begin another Notification Attachment for the new classification.
- 5.7 Complete Attachment 6.7 when performing reliefs.
- 5.8 Retain all documentation (logs, calculation sheets, notes, etc.) generated or used during the emergency.
- 5.9 At the termination, deliver all documentation to the CR Communicator, or Admin Logistics position for your facility.

6. ATTACHMENTS

- 6.1 Notification Checklist for the Control Room
- 6.2 Notification Checklist for the TSC
- 6.3 Notification Checklist for the EOF
- 6.4 ERO Activation Announcement
- 6.5 Classification Announcement
- 6.6 Emergency Termination Guidelines
- 6.7 Relief Checklist
- 6.8 Command and Control Position Responsibilities
- 6.9 Classifying and Reporting events to the Blair Industrial Park Co-Op

Attachment 6.1

Page 2 of 5

✓ TIME

NOTE: If the emergency classification changes prior to completion of this checklist, ensure the state and county notifications are initiated as a minimum before beginning another checklist.

4. Within 15 minutes of the emergency declaration you must:

4.1 Verify all Emergency Notification Form data is correct. _____

4.2 Complete required sections of the Emergency Notification Form (FC-1188) _____

4.3 Ensure the Communicator notifies the states and counties using the completed Emergency Notification Form. _____

5. Has the ERO been activated? **[AR 10026]**

Yes 5.1 Make a plant announcement for the current classification (if not done in Step 2) using Attachment 6.5. _____

5.2 Have Communicator make an announcement to Training Center and Administration Building (if not done in Step 2). _____

No Go to Step 6.

6. Is a Site Evacuation to North Omaha necessary? **[AR 10026]**

Yes 6.1 Perform a plant announcement per Attachment 6.5. _____

6.2 Have Communicator make an announcement to Training Center and Administration Building, using Evacuation Route checked. _____

No Go to Step 7.

7. Was a plant/site evacuation directed? **[AR 10026]**

Yes 7.1 Have on shift crew place accountability badges in box. _____

7.2 Assign a person to log personnel in/out of the Control Room until relieved by the Accountability Clerk. _____

No Go to Step 8.

✓ TIME

NOTE: NRC contact should be maintained from at least one facility. The FTS-ENS at the EOF can be patched in with the Control Room/TSC line if a request is made to the NRC.

8. Immediately (not later than one hour from declaration) after notification of the states and counties contact the NRC using the FTS-ENS phone (commercial phone is the backup)

8.1 First report to the NRC, use NRC Form 361 (SO-R-1). _____

8.2 Has NRC previously been notified? _____

Yes Then as a minimum report the classification, time and reason. _____

No Go back to Step 8.1. _____

8.3 Is classification an Alert or higher? _____

Yes Direct the STA to activate the ERDS system using OI-ERFCS-1. _____

No Go to Step 9. _____

9. Review Attachment 6.9 to determine if notification to the Blair Industrial Park Co-op is necessary. _____

10. Ensure the communicator updates the states and counties using an approved Emergency Notification Form (FC-1188) _____

- At least hourly (from the time of the last notification) and on an hourly basis until event termination _____
- Within 15 minutes of a PAR change _____

11. Have the states requested that we activate the ANS (sirens)? _____

Yes 11.1 Contact the Emergency Director and request activation. _____

No Go to Step 12. _____

Attachment 6.1

✓ TIME

12. Has the state or county requested that Fort Calhoun Station activate the Emergency Alert System (EAS)?

Yes 12.1 Get the applicable EAS Message number from the state and county.

12.2 For the Primary message direct the Communicator to contact the National Weather Service using the Emergency Activations Booklet.

12.3 For all follow-up messages have the Communicator contact KFAB and give them the selected EAS message number for the requesting state.

No Go to Step 13.

13. Review conditions for upgrade, downgrade or event termination criteria.

14. Is emergency termination possible?

Yes 14.1 Review Attachment 6.6 for termination guidelines.

14.2 Complete and approve the termination Emergency Notification Form (FC-1188).

14.3 Verify all data on the Emergency Notification Form is accurate.

14.4 Direct the Communicator to notify the states and counties using the Emergency Notification Form.

NOTE: If a Sub Area 1 evacuation was ordered Blair Industrial Park Co-Op facilities may not be staffed.

14.5 Was the Blair Industrial Park Co-Op notified?

Yes Reactivate the system and inform Co-Op members of the event termination.

No Go to Step 14.6.

Attachment 6.1

Page 5 of 5

✓ TIME

14.6 Notify the NRC using the FTS-ENS phone (commercial line is backup).

—

14.7 Announce Emergency termination using:

- Plant Gai-Tronics
- Facility PA system
- MOP network for all other Emergency Response Facilities

—

—

—

No Review this list and repeat applicable steps as required.

—

✓ TIME

3. Has plant/site accountability been established?

Yes Go to Step 4.

No 3.1 Ensure CR/OSC/TSC Accountability Clerks are logging personnel in/out (if OSC/TSC are activated).

3.2 Ensure that the TSC Security Coordinator initiates the accountability procedure, if the TSC is activated.

3.3 Ensure the accountability completion time is documented in the Control Room Log.

NOTE: NRC contact should be maintained from at least one facility. The FTS-ENS at the EOF can be patched in with the Control Room/TSC line if a request is made to the NRC.

4. Immediately (not later than one hour from declaration) after notification of the states and counties contact the NRC using the FTS-ENS phone (commercial phone is the backup)

4.1 As a minimum, report new classification time and reason.

4.2 Is new classification Alert or higher?

Yes Ensure the Control Room activated the ERDS using OI-ERFCS-1.

No Go to Step 5.

5. Review Attachment 6.9 to determine if notification to the Blair Industrial Park Co-Op is necessary.

6. Ensure the COP Communicator updates the states and counties using an approved Emergency Notification Form (FC-1188)

- At least hourly (from the time of the last notification) and on an hourly basis thereafter
- Within 15 minutes of a PAR change

✓ TIME

7. Have the states requested that we activate the ANS (sirens)?

Yes 7.1 Contact the EOF Emergency Director and request ANS activation.

No Go to Step 8.

8. Has a state or county requested that Fort Calhoun Station activate the Emergency Alert System (EAS)?

Yes 8.1 Get the applicable EAS Message number from the state and county.

8.2 For the preliminary message direct the COP Communicator to contact the National Weather Service using the Emergency Activations Booklet.

8.3 For all follow-up messages have the COP Communicator contact KFAB and give them the selected EAS message number for the requesting state.

No Go to Step 9.

9. Are the Diesel Generators loaded?

Yes 9.1 Direct TSC Director to arrange for fuel deliveries within the first 10 hours of continuous operation. **[AR 12110]**

No Go to Step 10.

10. Direct TSC Administrative Logistics Manager to establish 24 hour staffing for all onsite ERO positions.

11. Periodically review conditions for event upgrade, downgrade or termination criteria.

Attachment 6.2

Page 4 of 4

✓ TIME

12. Is emergency termination possible?

Yes 12.1 Review Attachment 6.6 for termination guidelines. _____

12.2 Complete and approve the termination Emergency Notification Form (FC-1188). _____

12.3 Verify that all Emergency Notification Form data is correct. _____

12.4 Direct the COP Communicator to notify the states and counties using the Emergency Notification Form. _____

NOTE: If a Sub Area 1 evacuation was ordered, Blair Industrial Park Co-Op facilities may not be staffed.

12.5 Was the Blair Industrial Park Co-Op notified?

Yes Reactivate the system and inform Co-Op members of the event termination. _____

No Go to Step 12.6.

12.6 Notify the NRC using the FTS-ENS phone (commercial line is backup). _____

12.7 Announce Emergency termination using:

- Plant Gai-Tronics _____
- Facility PA system _____
- MOP network for all other Emergency Response Facilities _____

No Review this list and repeat applicable steps as required. _____

Attachment 6.3

✓ TIME

3. Has plant/site accountability been established? (AR 10026)

Yes Go to Step 4.

No 3.1 Direct Site Director to initiate personnel accountability.

NOTE: NRC contact should be maintained from at least one facility. The FTS-ENS at the EOF can be patched in with the Control Room/TSC line if a request is made to the NRC.

4. Immediately (not later than one hour from declaration) after notification of the states and counties contact the NRC using the FTS-ENS phone (commercial phone is the backup)

4.1 As a minimum, report new classification time and reason.

4.2 Is new classification Alert or higher?

Yes Ensure the Control Room activated the ERDS using OI-ERFCS-1.

No Go to Step 5.

5. Review Attachment 6.9 to determine if notification to the Blair Industrial Park Co-Op is necessary.

6. Ensure the COP Communicator updates the states and counties using an approved Emergency Notification Form (FC-1188)

- At least hourly (from the time of the last notification) and on an hourly basis thereafter until event termination
- Within 15 minutes of a PAR change

7. Ensure that the staffs of each facility are given timely updates on any significant change in plant or release status, even if the emergency classification remains unchanged.

✓ TIME

8. Have the states requested that we activate the ANS (sirens)?

Yes 8.1 Direct the Administrative Logistics Manager to activate the ANS activation.

No Go to Step 9.

9. Has a state or county requested that Fort Calhoun Station activate the Emergency Alert System (EAS)?

Yes 9.1 Get the applicable EAS Message number from the state or county.

9.2 For the preliminary message direct the COP Communicator to contact the National Weather Service using the Emergency Activations Booklet.

9.3 For all follow-up messages have the COP Communicator contact KFAB and give them the selected EAS message number for the requesting state.

No Go to Step 10.

10. Are the Diesel Generators loaded?

Yes 10.1 Direct Site Director to arrange for fuel deliveries within the first 10 hours of continuous operation. **[CID 910836]**

No Go to Step 11.

11. Direct EOF Administrative Logistics Manager to establish 24 hour staffing for the EOF and MRC.

12. Periodically review conditions for event upgrade, downgrade or termination criteria.

Attachment 6.3

✓ TIME

13. Is emergency termination possible?

Yes 13.1 Review Attachment 6.6 for termination guidelines.

13.2 Verify that Emergency Notification Form (FC-1188) data is correct.

13.3 Complete and approve the termination Emergency Notification Form.

13.4 Direct the COP Communicator to notify the states and counties using the Emergency Notification Form.

NOTE: If a Sub Area 1 evacuation was ordered, Blair Industrial Park Co-Op facilities may not be staffed.

13.5 Was the Blair Industrial Park Co-Op notified?

Yes Reactivate the system and inform Co-Op members of the event termination.

No Go to Step 13.6.

13.6 Notify the NRC using the FTS-ENS phone (commercial line is backup).

13.7 Direct the Site Director to announce the emergency termination using:

- Plant Gai-Tronics
- Facility PA system
- MOP network for all other Emergency Response Facilities

No Review this list and repeat applicable steps as required.

Attachment 6.4 - ERO Activation Announcement

- (✓)
1. Notify Security if a plant/site evacuation is planned. _____
 2. Select from the options below, the information to be announced. _____
 3. Sound the Emergency Alarm for approximately 30 seconds. _____
 4. Read the selected announcement over the Gai-Tronics. _____
 5. Again sound the Emergency Alarm for approximately 30 seconds. _____
 6. Again read the selected announcement over the Gai-Tronics. _____

“Attention all personnel...Attention all personnel...A(n) (Classification) has been declared, due to ... (state reason)... All Emergency Response Organization personnel report to their assigned facility immediately...Personnel in the Radiation Controlled Area proceed to the RCA Access Point...No eating, drinking, smoking or chewing is allowed anywhere in THE OWNER CONTROLLED AREA until further notice...All other personnel:

Optional: NOUE _____ **Continue with normal duties**

Optional: NOUE _____ **Evacuate to the Admin Building using the South**
Required: ALERT **Security Access Point**
Site Area

Optional: ALERT _____ **Evacuate to the North Omaha Power Station using the:**
Site Area

Required: General

_____ **PRIMARY Route.** (No release, or release with wind direction $\geq 57^\circ$ and $< 304^\circ$)

_____ **ALTERNATE Route.** (wind direction from $\geq 304^\circ$ or $< 57^\circ$ with known release)

Attachment 6.5 - Classification Announcement

- 1. Notify Security if a plant/site evacuation is planned.

NOTE: The Site Director and the Emergency Director should select the information to be announced and direct the Control Room to sound the Emergency Alarm and make the Gai-tronics announcements.

- 2. Select, from the options below, the information to be announced.
- 3. Sound the Emergency Alarm for approximately 30 seconds.
- 4. Read the selected announcement over the Gai-Tronics.
- 5. Sound the Emergency Alarm for approximately 30 seconds (second time).
- 6. Read the selected announcement over the Gai-Tronics (second time).
- 7. At the EOF, verify that the above steps have been completed using the Operations Liaison Circuit or other communication.

ANNOUNCEMENT

“Attention all personnel...Attention all personnel...A(n) (Classification) has been declared, due to...(state reason)...No eating, drinking, smoking or chewing is allowed anywhere in THE OWNER CONTROLLED AREA until further notice”... (Continue only if a plant/site evacuation is required)

“All Non-Emergency Response personnel must:

Optional: NOUE _____ **Evacuate to the Administration Building using the South Security Access Point**
Required: ALERT Site Area

Optional: ALERT _____ **Evacuate to the North Omaha Power Station using the:**
Required: General Site Area

_____ **PRIMARY Route.** (No release, or release with wind direction $\geq 57^\circ$ and $< 304^\circ$)

_____ **ALTERNATE Route.** (wind direction from $\geq 304^\circ$ or $< 57^\circ$ with known release)

Attachment 6.6 - Emergency Termination Guidelines

NOTE: Prior to recommending establishment of recovery operations (if necessary) and termination of the Emergency Response Organization, the following conditions should be considered.

1. A Recovery Operations Manager has been designated per EPIP-EOF-19 if extensive recovery actions are needed to return the plant or environs to a pre-accident status.
2. Radiation Protection personnel are/have been monitoring access to any radiologically controlled areas of the plant necessary for recovery operations.

COMMENTS:

3. Off-site conditions allow access of personnel and needed support resources to the plant.

COMMENTS:

4. Plant status with respect to Technical Specifications has been evaluated by the Command and Control position **OR** Technical Support personnel if ERO was activated.

COMMENTS:

5. Emergency termination recommendations have been discussed with the NRC Operations Center.

COMMENTS:

- 6. The states of Nebraska and Iowa and the counties have been notified of the pending termination.

COMMENTS:

- 7. The transition from Emergency to Recovery phase has been discussed with the designated Recovery Operations Manager and an initial recovery operations meeting has been scheduled, if needed.

COMMENTS:

Additional Discussions/Comments:

Attachment 6.7 - Relief Checklist [AR 07071]

NOTE: Prior to assuming Command and Control of an emergency, all of the following steps must be completed.

- (✓)
1. Review/Discuss cause of the emergency condition. _____
 2. Review/Discuss current status of the emergency condition and classification level. _____
 3. Review/Discuss current plant status. _____
 4. Review/Discuss each step of current Notification Attachment, including any county/state/NRC notifications made and determine any steps **NOT** yet performed. _____
 5. Review and discuss when next FC-1188 should be sent to state/counties. _____
 6. Determine activation status of the ERO and ERF facilities:

Control Room:	<input type="checkbox"/>	ERO Positions Activated	
TSC:	<input type="checkbox"/>	Activated	<input type="checkbox"/> In Progress
OSC:	<input type="checkbox"/>	Activated	<input type="checkbox"/> In Progress
EOF:	<input type="checkbox"/>	Activated	<input type="checkbox"/> In Progress <input type="checkbox"/> N/A
MRC:	<input type="checkbox"/>	Activated	<input type="checkbox"/> In Progress <input type="checkbox"/> N/A

 7. Determine current status of dose assessment, habitability checks, radiological surveys and other tasks being performed by the Emergency Response Organization. _____
 8. Determine if position being relieved is ready to complete the transfer of Command and Control. _____
 9. WHEN both positions are ready, THEN perform the transfer of Command and Control. _____
 10. Announce your name, and who has Command and Control to personnel in the following facilities, if staffed:

Control Room, TSC, OSC, EOF and MRC. _____

FORT CALHOUN STATION
EMERGENCY PLAN IMPLEMENTING PROCEDURE

Attachment 6.7

11. Sign your name, title and the relief time in the "Relief" space of the Notification Attachment, as applicable.
12. Log relief information in the Command and Control position log.

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Attachment 6.8 - Command and Control Position Responsibilities

The following responsibilities CAN NOT BE DELEGATED by the Command and Control position. The responsibility of their completion rests with the Command and Control position until relieved by another qualified individual or the emergency is terminated. The Command and Control position may assign other personnel to assist in conducting the actions necessary.

1. Overall **COMMAND AND CONTROL** of the Emergency Response Organization.
2. Ensuring the proper **CLASSIFICATION AND DECLARATION** of the emergency situation is made in accordance with EPIP-OSC-1 and is periodically reviewed to determine if the classification should be upgraded, downgraded or terminated.
3. Ensuring all required **NOTIFICATIONS** are made to appropriate state, local and federal officials.
4. Ensuring any appropriate **PROTECTIVE ACTION RECOMMENDATIONS (PARs)** are provided to offsite officials.
5. Authorizing OPPD emergency worker exposure extensions beyond the Federal Radiation Protection Guidance.
6. Authorizing issuance of Potassium Iodide for OPPD emergency workers.

The Command and Control position also has the following responsibilities which may be delegated to other personnel, as necessary.

7. Request for assistance from federal agencies.
8. Authorizing any emergency information to be released to the media or the general public.
9. Coordinating the transfer of emergency information from the Emergency Response Organization (ERO) to other OPPD and outside organizations called upon to assist.
10. Ensuring a timely and complete turnover of information to any qualified relief.
11. Providing information to authorized representatives of the states of Nebraska, and Iowa, and associated local governments.
12. Ensuring plant operations are in compliance with Technical Specifications. If deviations are necessary to protect the public health and safety, they must be approved, as a minimum, by a senior licensed operator, prior to taking the action.

Attachment 6.9 - Classifying and Reporting Events to the Blair Industrial Park Co-Op
Page 1 of 3

NOTE: The purpose of this attachment is to keep members of the Blair Industrial Park Co-Op aware of significant events that have occurred at the Fort Calhoun Station. It is intended that the system be used for notification of emergency situations which have or are anticipated to have visibility or impact beyond the Fort Calhoun station property lines. These situations may include, but are not limited to:

- Any gas or chemical leaks of significant magnitude
- Any radiation leaks of significant magnitude
- Any "news worthy" information (such as major fires, explosions, large medical response, etc.) which could result in news media interviewing neighboring industries
- Any plant evolutions resulting in large noises or having a visual impact which can be heard or seen by the public

1. INITIAL ASSESSMENT

NOTE: FC-EPF-38 is designed to aid you in gathering data prior to contacting members of the Co-Op. Existing FC-1188 and/or SO-R-1 can be used to provide the necessary information.

- 1.1 If notified of an onsite toxic chemical/hazardous material or radiological release, complete Sections 3, 5, 6 and 7 of FC-EPF-38. If all the information is not known, leave that section blank. DO NOT GIVE UNVERIFIED INFORMATION.

NOTE: Assistance in classification may be obtained from the Shift Chemist.

2. EVENT CLASSIFICATION

- 2.1 If this is a radiological event, report the event as classified (NOUE, ALERT, SITE AREA or GENERAL EMERGENCY) in Section 2 of FC-EPF-38.

NOTE: If the involved chemical is not listed, or further information on chemicals is desired refer to SO-G-106, "Hazardous Material Chemical Assessment and Emergency Response Guidelines", the Material Safety Data Sheet, if available, or The North American Emergency Response Guidebook.

NOTE: If the involved chemical is not listed below, refer to the North American Emergency Response Guidebook for guidelines.

2.2 If the involved chemical is one of the following, consider it a SMALL HAZARD:

- Acetylene
- Amerzine
- Chemtreat
- Ethanolamine
- Diesel Fuel
- Hydrazine
- Hydrogen

2.3 Use the guide below to classify the event class. The four codes are further defined in the definitions section of this procedure:

CODE	HAZARD POTENTIAL	CONDITIONS
Blue	Small or large	Situation under control - NO offsite threat
Green	Small or large	Situation NOT under control - No immediate offsite threat
Yellow	Large	Situation NOT under control - Onsite protective actions will be needed
Red	Large	Situation NOT under control - Protective actions for neighboring industries and residents needed

NOTE: All members of the Co-Op are staffed 24 hours per day except Kelly Ryan and Agro. MACC may not have staff onsite on some weekends and/or holidays.

NOTE: Alternate emergency numbers and routine day to day contact numbers for all Co-Op members and other vital agencies may be found in the Emergency Phone Book under the Blair Industrial Co-Op tab.

NOTE: All Notifications to the Blair Industrial Park Co-Op should be made through the Control Room if possible.

3. NOTIFICATIONS

- 3.1 Obtain the instructions marked "Blair Industrial Park Co-Op Notification" from the Emergency Planning Activation Instructions Booklet.
- 3.2 Direct the Communicator to perform the Blair Industrial Park Co-Op Notifications.
- 3.3 If event is on-going, update the Blair Industrial Park Co-Op members as conditions warrant.