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U. S. Nuclear Regulatory Commission
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Subject: Docket No. 50-482: Changes to Wolf Creek Generating Station
(WCGS) Radiological Emergency Response Plan Implementing
Procedures and Form

Gentlemen:

In accordance with 10 CFR 50, Appendix E, enclosed are revisions to Wolf Creek Generating Station (WCGS) Radiological Emergency Response Plan implementing procedures and a form. The attachment provides a summary and justification of changes to the implementing procedures and the form. The following is a list of the specific enclosures.

PROCEDURES

Effective August 1, 2001 (*Corrected*)

- EPP 06-001, Revision 3
- EPP 06-012, Revision 4

FORM

Effective August 21, 2001

- EPF 06-004-01, revision 6

Effective August 21, 2001

- EPP 06-002, Revision 6
- EPP 06-003, Revision 4
- EPP 06-011, Revision 2

If you have any questions concerning this submittal, please contact me at (620) 364-4112, or Mr. Tony Harris at (620) 364-4038.

Very truly yours,

Britt T. McKinney

BTM/rlr

Enclosures
Attachment

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A045

CHANGE SUMMARY

PROCEDURES

EPP 06-001, CONTROL ROOM OPERATIONS, Revision 3 (Corrected copy)

Step 7.3.3.1, corrected Plant Page System number to 7920.

EPP 06-002, TECHNICAL SUPPORT CENTER OPERATIONS, Revision 6

CHANGES

Step 3.1.4, added new step to reference level III PIR 2000-3534 on the emergency diesel. Added reference number to steps C.1.2.1 & C.1.7.

Step 4.6 and substeps, added to define habitability. Renumbered the rest of the steps in the section.

Step 7.1.5, deleted step. Automatic restriction of eating and drinking may not be necessary for every event. Facility technicians monitor the TSC for habitability, and when it is no longer habitable, the facility will be vacated, making the signs unnecessary.

Step 7.6.3, deleted "and appropriate habitability sign has been posted" as signs are no longer necessary.

Steps 7.12.7, 7.12.8, 7.12.9, & 7.12.10, moved to section 7.7 as new steps 7.7.7, 7.7.8, & 7.7.9.

Step 7.12.1, deleted step since step 7.6.11 is similar and is being performed by the Radiological Coordinator. Renumbered and rearranged the remaining steps.

Steps C.1.2 & C.1.7, added note prior to step as follows: "Frequency requirements apply only during steady-state conditions with the diesel under a constant load."

Steps C.1.2.1 & C.1.7 bullets, changed from "Oil Pressure 50 psig to 70 psig" to Oil Pressure GREATER THAN 50 psig" and from "Speed 1790 to 1810 rpm" to "Frequency 58.8 Hz to 61.2 Hz".

JUSTIFICATION

Revised set points for the TSC diesel generator. The previous set points were too restrictive, and an Engineering evaluation justified changing the set points to the same criteria as the plant emergency diesels. PIR 2000-3534 was added to the reference section of procedure.

Added a definition of "habitability" to describe both degraded and habitable conditions.

Moved tasks from the Team Director position to other positions which deal with radiological concerns. These positions will provide better coverage for the teams and the emergency facility.

EPP 06-003, EMERGENCY OPERATIONS FACILITY OPERATIONS, Revision 4

CHANGES

Step 3.1.6, added new step to reference level III PIR 2000-3534 on the emergency diesel. Added reference number to steps B.1 & B.6.

Step 4.8, added new step 4.8 and substeps to define habitability. Renumbered the rest of the steps in the section.

Step 7.1.5, deleted step because automatically restricting eating and drinking may not be necessary for every event.

Step 7.6.3, deleted "and the appropriate habitability sign has been posted" as the signs are no longer necessary.

Attachment B, note prior to Step B.1 & B.6, added note "Frequency requirements apply only during steady-state conditions with the diesel under a constant load." This provides information about expectations when the diesel is operating.

Step B.1.1 & B.6, changed from "Oil Pressure 50 psig to 70 psig" to "Oil Pressure GREATER THAN 50 psig" and from "Speed 1790 to 1810 rpm" to "Frequency 58.8 Hz to 61.2 Hz " which provides better operating parameters.

Steps C.1.1 & C.3.2, deleted "breaker 21 for the Laboratory Hood Exhaust Fan and" since the fan is no longer in service.

JUSTIFICATION

Revised set points for the EOF diesel generator. The previous set points were too restrictive, and an Engineering evaluation determined the set points should be changed to the same criteria as the plant emergency diesels. PIR 2000-3534 was added to the reference section of the procedure.

Added a definition of habitability to describe both degraded and habitable conditions.

Removed the breaker which controls the environmental laboratory fan. This fan has been removed from the facility and the lines have been blanked off. This equipment had been installed originally to comply with a commitment to the NRC to isolate all outside air into the facility when in the HEPA filtration mode to prevent contamination and airborne radioactivity from being introduced into the facility during an event. The area is no longer a laboratory, but is now subdivided into cubicles. The original commitment to prevent outside contaminants or radioactivity from coming into the area is no longer an issue for a laboratory setting. However, the original intent of the commitment is still met by having the lines blanked off and the fan access also closed off.

EPP 06-011, EMERGENCY TEAM FORMATION AND CONTROL, Revision 2

CHANGES

Corrected step numbers which were not sequenced properly throughout the procedure. Corrected step numbers are 4.10, 4.11, 4.12, 6.7-6.13, 7.2.4-7.2.7, 11.3-11.5.

Step 3.2.4, added new commitment for PASS elimination in the procedure commitment section and added commitment identifier to step (B.5).

Step 7.3.12, changed "issuance" to "issue."

Step 7.3.13, changed from "EPP 06-011-04, SAMPLE INVENTORY LOG" to "EPF 06-011-06, SAMPLE CONTROL & CHAIN OF CUSTODY" and changed "at" to "to" and deleted "Environmental Lab."

Steps 7.3.20 and 7.3.21, merged into one step to read, "Perform a survey of the emergency vehicle in a low background area as directed by the Team Director." Added substeps 1. Inform the Team Director of vehicle contamination of greater than or equal to 100 cpm above background; 2. If directed to decontaminate the vehicle, proceed to the Coffey County Shop, located at 1510 South 6th, Burlington, Kansas; and 3. Notify the Team Director when the vehicle decontamination has been completed. Deleted the words "equal or." Added new note prior to step which reads, "Consideration will be given to continued use of contaminated vehicles in contaminated areas unless contamination levels pose a radiological risk to team members."

Step 7.3.21.3, changed from "EPP 06-011-04, SAMPLE INVENTORY LOG" to "EPF 06-011-06, SAMPLE CONTROL & CHAIN OF CUSTODY".

Step 11.4, changed from "EPP 06-011-04, SAMPLE INVENTORY LOG" to "EPF 06-011-06, SAMPLE CONTROL & CHAIN OF CUSTODY".

Step B.3.2, first note prior to, deleted first note which read, "If the vehicle does not have an installed DC connector, the Air sampler may be connected directly to the vehicle battery using the clips provided in the E-Plan kit."

Step B.5.4, changed "inlet" to "outlet."

JUSTIFICATION

A commitment to the NRC resulting from the Post Accident Sampling System (PASS) removal was added to this procedure to ensure that WCNO maintained the ability to sample from normal sampling points as well as alternate points after the removal of PASS. Several step numbers were corrected because they are not in the proper sequence. Word changed from "issuance" to "issue," which is the proper use of the word for the step. Changed reference to a form which was superseded by a new form which is the same format as used by the State for collecting samples. Merged two steps dealing with vehicle decon into one step which allows the Team Director the ability to determine when and if a vehicle needs to be deconned,

thus eliminating the requirement to decon vehicles that will be used to monitor off-site areas continuously. Deleted a note in Attachment B concerning hooking up an air sampler to an emergency vehicle due to all vehicles now having the DC connector installed. Changed location from which a filter cartridge count rate is measured which is in agreement with the State due to the effect excess Beta response might have on the reading.

EPP 06-012, DOSE ASSESSMENT, Revision 4 (Corrected Copy)

Step 6.1, corrected the revision number of the Dose Assessment Program.

FORM

EPF 06-004-01, "PUBLIC INFORMATION ORGANIZATION ACTIVATION CHECKLIST," Revision 6

CHANGES

Changed KCPL (Pri) number from "816-556-2897" to "816-556-2653" and (Alt) from "816-556-2653" to "816-556-2365."

Moved "Rumor Control" to new section with the words "Rumor Control will notify PIO/PIM when activated" and listed phone number where Rumor Control can be contacted upon activation.

JUSTIFICATION

Changed the primary and alternate phone numbers to be used to contact Kansas City Power and Light (KCPL) during an emergency because KCPL changed personnel who will perform these duties. Moved the Rumor Control group out of the contacts to be made before continuing, as this group does not need to be ready before the Information Center can continue performing public notification of the event in progress. Rumor Control still needs to be available, but not as soon as the other groups listed to be contacted.

CORRECTED COPY 08/01/2001



EPP 06-001

CONTROL ROOM OPERATIONS

Responsible Manager

Manager Resource Protection

Revision Number	3
Use Category	Reference
Administrative Controls Procedure	No
Infrequently Performed Procedure	No
Program Number	06

DC2 03/22/01

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1.0 PURPOSE

- 1.1 This procedure provides direction for on-shift personnel respond from the Control Room upon the declaration of an emergency classification.

2.0 SCOPE

- 2.1 This procedure is applicable to all Control Room and on-shift personnel upon declaration of an emergency classification.

3.0 REFERENCES AND COMMITMENTS

3.1 References

- 3.1.1 Code of Federal Regulations 10CFR20, Standards for Protection Against Radiation.
- 3.1.2 AP 06-002, RADIOLOGICAL EMERGENCY RESPONSE PLAN (RERP)

3.2 Commitments

- 3.2.1 RCMS 95-083, Failure Of The Control Room Staff To Use Site-Wide Announcements And Facility Briefings To Inform Plant Staff Of Major Developments And The Status Of Emergency Response Activities.
- 3.2.2 RCMS 91-140, Guidance To Appropriate Personnel For Access Control, Habitability, And Dosimetry Control.

4.0 DEFINITIONS

4.1 Emergency Classification

- 4.1.1 A system used to define the severity of emergencies into one of four categories based upon Emergency Action Levels. Classifications listed in order of increasing severity are as follows:
1. Notification of Unusual Event (NUE)
 2. Alert
 3. Site Area Emergency (SAE)
 4. General Emergency

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4.2 Records

- 4.2.1 Documents such as calculation worksheets, computer printouts, forms, logs, memos, checklists, or any paper used to record data or information during an emergency, drill or exercise which may be used for event reconstruction.

5.0 RESPONSIBILITIES

5.1 Shift Manager

- 5.1.1 Initial response and classification of an event which is diagnosed during their assigned shift.
- 5.1.2 For the direction and response of on shift Operations, Maintenance, Chemistry, and Health Physics personnel who report to the Control Room.

5.2 Off-site Communicator

- 5.2.1 Perform immediate and follow-up notifications of off-site agencies.

5.3 Emergency Notification System (ENS) Communicator

- 5.3.1 Make and maintain contact with the NRC Operations Center using the ENS telephone.

5.4 Chemistry Technician

- 5.4.1 Perform dose assessment during a declared emergency.

5.5 Health Physics Technician (HP)

- 5.5.1 Provide radiological data to the Shift Manager.
- 5.5.2 Monitor Control Room habitability.

5.6 Operations Communicator

- 5.6.1 Provide information on plant status from the Control Room to the TSC as it happens.

5.7 Shift Engineer

- 5.7.1 Initiate the Emergency Response Data System (ERDS) within 60 minutes of an Alert or higher classification.

6.0 PRECAUTIONS/LIMITATIONS

- 6.1 The Emergency Response Data System (ERDS) must be activated within 60 minutes of a declaration of an Alert or higher emergency.

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7.0 PROCEDURE

7.1 Control Room Functions

- 7.1.1 Control Room personnel monitor plant operations and respond to any abnormal situation or event which could require an emergency classification to be declared.
- 7.1.2 Emergency Action Levels (EALs) are used to determine if and which emergency classification to declare.
- 7.1.3 The Shift Manager assumes the duties of the Site Emergency Manager upon the declaration of an Emergency Classification. While performing the duties of the Site Emergency Manager, the Shift Manager may not delegate the following responsibilities:
 - o Emergency Classification
 - o Authorization of Notification of Off-site Authorities
 - o Protective Action Recommendations
 - o Authorization of Emergency Exposure in excess of 10CFR20 Limits
- 7.1.4 Once a classification is made, on shift personnel perform the following:
 1. Control Room personnel take appropriate technical actions to mitigate the event.
 2. Nuclear Station Operators (NSOs) notify the Control Room of their location and perform as directed by the Control Room.
 3. Chemistry and one Health Physics Technicians report to the Control Room and perform as directed by the Shift Manager.
 4. Assigned personnel perform notifications to off-site agencies and establish ENS communications.
 5. Control Room habitability is monitored, dose assessment is implemented, and contamination control is established for the Control Room.
 6. On-shift Maintenance personnel notify the Control Room of their location and perform as directed by the Shift Manager.

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7. Personnel sent out from the Control Room to perform designated functions, except on-shift NSOs, report to the Control Room until the TSC assumes control of Emergency Response Teams.

7.1.5 Plant announcements are made for items such as all emergency classifications, changes in major equipment status, known hazards in the plant, and when terminating an emergency.

1. The following written announcements are available:

- o EPF 06-001-01, NOTIFICATION OF UNUSUAL EVENT
EMERGENCY ANNOUNCEMENT
- o EPF 06-001-02, ALERT EMERGENCY ANNOUNCEMENT
- o EPF 06-001-03, SITE AREA EMERGENCY ANNOUNCEMENT
- o EPF 06-001-04, GENERAL EMERGENCY ANNOUNCEMENT
- o EPF 06-001-05, RECOVERY/TERMINATION ANNOUNCEMENT

7.1.6 Work being performed in the plant should be evaluated and personnel performing work critical to the emergency may be exempted from evacuating. Those personnel will be included in Control Room accountability.

7.1.7 Personnel should maintain a log of events during the emergency for later event reconstruction.

7.1.8 Control Room positions and steps covering each position are listed below.

- o Step 7.2, Shift Manager
- o Step 7.3, Off-site Communicator
- o Step 7.4, ENS Communicator
- o Step 7.5, Chemistry Technician
- o Step 7.6, Health Physics Technician
- o Step 7.7, Operations Communicator
- o Step 7.8, Shift Engineer

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7.2 Shift Manager

- 7.2.1 IF a Security Emergency has been declared, THEN classify the event and perform State and County notifications in accordance with EPP 06-007, EMERGENCY NOTIFICATIONS.
1. **DO NOT** implement call-out and/or activation of the Emergency Facilities until the Security Emergency has been terminated.
- 7.2.2 WHEN a classification has been determined, THEN immediately direct the Off-site Communicator to perform their assigned emergency response duties.
- 7.2.3 IF an NUE has been declared, THEN perform the following:
1. Obtain EPF 06-001-01, NOTIFICATION OF UNUSUAL EVENT EMERGENCY ANNOUNCEMENT, and ensure the announcement is read over the Plant All Page system.
 2. Complete EPF 06-007-01, WOLF CREEK GENERATING STATION EMERGENCY NOTIFICATION, and give the original to an Off-site Communicator.
- 7.2.4 IF an Alert or higher emergency has been declared, THEN perform the following:
1. Obtain and complete the appropriate announcement form for the declared emergency.
 - o EPF 06-001-02, ALERT EMERGENCY ANNOUNCEMENT
 - o EPF 06-001-03, SITE AREA EMERGENCY ANNOUNCEMENT
 - o EPF 06-001-04, GENERAL EMERGENCY ANNOUNCEMENT
 2. List the reason(s) for the emergency classification on the form.

NOTE

Secondary Access Facility is normally closed between 1800 and 0600. Security will open SAF upon request from Shift Manager.

3. IF personnel are ordered to evacuate, THEN use the following to determine which exit personnel should use to evacuate and check the appropriate box on the form:

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- a. IF no radiological release is in progress or wind direction is not of concern, THEN exit the PAB and assemble at an assembly area.
 - b. IF a radiological release is actual or imminent and wind direction is from 180-269°, THEN exit only through Main Security and assemble in the Charles Curtis Development Center.
 - c. IF a radiological release is actual or imminent and wind direction is from 270-360°, THEN exit only through Secondary Access Facility and assemble in the William Allen White Outage Processing Center.
 - d. IF dose projections indicate TEDE greater than or equal to 1 REM OR Thyroid greater than or equal to 5 REM, THEN evacuate and assemble at Emporia State University Physical Education Building.
4. IF radiological release is actual or imminent, THEN check the box for stopping eating, drinking, smoking, and chewing.
 5. IF unique hazards exist or areas should be avoided, THEN check the box and list the concerns on the form.
 6. Ensure Site Evacuation Alarm is sounded and the completed announcement form is read over the Plant All Page system.
 7. Complete EPF 06-007-01, WOLF CREEK GENERATING STATION EMERGENCY NOTIFICATION, and give the original to an Off-site Communicator.
- 7.2.5 IF Off-site Support is needed, THEN refer to Section II of the RETD, OFFSITE SUPPORT, for Off-site Support phone numbers.
 - 7.2.6 Monitor plant status and reclassify the emergency as necessary in accordance with EPP 06-005, EMERGENCY CLASSIFICATION.
 - 7.2.7 Ensure personnel accountability has been completed.
 - 7.2.8 IF a radiological release is in progress, THEN ensure the Unit Vent Monitor is in ACCIDENT MODE in accordance with SYS SP-121, OPERATION OF THE G. A. MONITOR SYSTEM.

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7.2.9	Initiate dose assessment and habitability verification by informing the Chemistry Technician and HP Technician of release status, path, duration and provide a brief plant status.
7.2.10	<p><u>IF</u> radiological conditions warrant, <u>THEN</u> direct the following onsite protective actions <u>as</u> necessary:</p> <ul style="list-style-type: none"> o Authorize emergency exposures in accordance with EPP 06-013, EXPOSURE CONTROL AND PERSONNEL PROTECTION o Decontamination of onsite personnel in accordance with RPP 02-310, PERSONNEL DECONTAMINATION o Issuance of KI in accordance with EPP 06-013, EXPOSURE CONTROL AND PERSONNEL PROTECTION o Notify HP of teams and their job duties being dispatched to the field to ensure proper instructions are provided for the teams.
7.2.11	Make required Protective Action Recommendations in accordance with EPP 06-006, PROTECTIVE ACTION RECOMMENDATION.
7.2.12	Ensure the ENS Communicator position is established within one hour of the declaration of an emergency.
7.2.13	<u>WHEN</u> the responsibility and authority for the emergency has been transferred to Site Emergency Manager, <u>THEN</u> resume normal duties and keep the TSC informed of plant status.
7.2.14	Ensure Control Room personnel are notified of the transfer of duties to an Emergency Manager.

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NOTES

- o The steps in this section may be performed in any order to ensure tasks are completed in the required time.
- o The Plant All Page system is the preferred method for plant announcements. Other public announcement systems should be used if the Plant All Page system is not available.

7.3 Off-site Communicator

- 7.3.1 WHEN an emergency is declared OR as directed, THEN initiate staffing of the Emergency Response Organization (ERO) by activating the E-Plan pagers or Automatic Dialing System (ADS) in accordance with EPP 06-015, EMERGENCY RESPONSE ORGANIZATION CALLOUT.
- 7.3.2 Perform Emergency Notifications in accordance with EPP 06-007, EMERGENCY NOTIFICATIONS.
1. WHEN the State and County notifications are complete, THEN provide a copy of the notification form to the ENS Communicator.
- 7.3.3 At an Alert or higher emergency, unless directed otherwise by the Shift Manager, sound the Site Evacuation Alarm.
1. Read the appropriate emergency classification announcement as distinctly as possible over the Plant All Page system. **[Commitment Step 3.2.1]**
 - o Plant Page System number is 7920. At tone dial *11 for all buildings.
 2. Ensure the gaitronics is merged after Site Evacuation Alarm has timed out.
- 7.3.4 Provide Security with the emergency classification announcement and the ACAD badge numbers for anyone retained by the Shift Manager who are not in the control room for accountability. **[Commitment Step 3.2.1]**
- 7.3.5 WHEN the TSC is activated and has assumed notification responsibilities, THEN disconnect the verification phone in the Control Room.
- 7.3.6 Perform duties as assigned by the Shift Manager.

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7.4 ENS Communicator

- 7.4.1 Obtain and complete EPF 06-001-06, ENS COMMUNICATOR'S WORKSHEET, to use for communicating with the NRC.
- 7.4.2 Establish and maintain continuous communications with the NRC via the Emergency Notification System (ENS) FTS 2000 telephone. IF the NRC determines that continuous communications or contact with all facilities is not necessary, THEN communications may be terminated as directed by the NRC.
 1. Use of the ENS phone is in accordance with EPP 06-007, EMERGENCY NOTIFICATIONS.
- 7.4.3 Provide the following additional information to the NRC:
 1. Any further degradation in the level of safety of the plant or other worsening plant conditions
 2. The results of ensuing evaluations or assessments of plant conditions
 3. The effectiveness of response or protective measures taken
 4. Any information related to plant behavior that is not understood by the NRC

7.5 Chemistry Technician

- 7.5.1 Notify the Shift Manager of your presence in the Control Room.
- 7.5.2 IF CHARMS GT RE 59 and/or GT RE 60 change substantially while performing a dose assessment, THEN inform the Shift Manager.
- 7.5.3 IF CHARMS GT RE59 and/or GT RE60 read equal to or greater than $2.8E+4$ R/HR, THEN notify the Shift Manager.
- 7.5.4 IF while performing a dose assessment it is obvious the 1 Rem TEDE or 5 Rem Thyroid value will be exceeded, THEN inform the Shift Manager.
- 7.5.5 WHEN dose assessment is completed, THEN brief the Shift Manager on the following:
 1. Assumptions used
 2. Results

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	3. Specify if TEDE doses equal or exceed the 1 Rem value
	4. Specify if Thyroid doses equal or exceed the 5 Rem value
7.5.6.	<u>IF</u> a Follow-up Notification is required, <u>THEN</u> confirm correct dose projection numbers have been entered on the form.
7.5.7	<u>WHEN</u> the EOF is activated, <u>THEN</u> provide dose assessment data generated in the Control Room to the EOF Radiological Coordinator.
7.6	<u>Health Physics Technician</u>
7.6.1	Notify the Shift Manager of your presence in the Control Room.
7.6.2	Keep the Shift Manager informed of the habitability status of the Control Room. [Commitment Step 3.2.2]
7.6.3	Make radiological protective action recommendations for teams sent out by Shift Manager.
7.6.4	Keep the Shift Manager informed of other radiological items such as team reports or increasing radiation readings from plant area. [Commitment Step 3.2.2]
7.6.5	Ensure an access control point is established for entrance and exit of the Control Room. [Commitment Step 3.2.2]
7.6.6	Assist Control Room personnel with obtaining the appropriate dosimetry. [Commitment Step 3.2.2]
7.6.7	<u>IF</u> directed by the Shift Manager, <u>THEN</u> report to Access Control.
7.7	<u>Operations Communicator</u>
7.7.1	Set up communications system.
7.7.2	<u>WHEN</u> the TSC and EOF activate, <u>THEN</u> initiate a conference phone call with the Operations Recorders by performing the following:
	1. Call the TSC Operations Recorder at ext. 5387
	2. Flash the switch-hook, listen for tone
	3. Call the EOF Operations Recorder at ext. 5704
	4. Flash the switch-hook, ensure all parties on line

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	5. Repeat steps 2 through 4 for additional parties, up to a total of six
7.7.3	Determine and report the locations and activities of teams dispatched from the Control Room to the TSC Operations Recorder.
7.7.4	<u>IF</u> the NPIS computer is inoperable, <u>THEN</u> provide required information to the Operations Recorders for the Operations Status Board.
	1. Refer to EPF 06-002-02, OPERATIONS STATUS, for data needed to be obtained. Form is in the EPP Forms book.
7.7.5	Report plant conditions and operational manipulations to the Operations Recorders.

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7.8 Shift Engineer

NOTE

Emergency Response Data System (ERDS) must be activated within 60 minutes of an Alert or higher classification.

- 7.8.1 Ensure ERDS is initiated within 60 minutes of an Alert or higher classification.

NOTE

The NPIS screen used to initiate ERDS will be unavailable for use during the event.

1. From an authorized NPIS terminal initiate ERDS by performing one of the following:
 - o Select the E-Plan Menu, then touch the ERDS block on the screen.

OR

- o Type the Turn-On code "ERDS" and press the "Return/Enter" key

2. Follow the prompts until the ERDS is activated.

- 7.8.2 Resume duties as directed by the Shift Manager.

8.0 INITIAL ACTIONS

- 8.1 None

9.0 SUBSEQUENT ACTIONS

- 9.1 None

10.0 RECORDS

- 10.1 Records generated by this procedure during an actual emergency are considered lifetime QA records and shall be forwarded to Emergency Planning at the termination of the emergency.
- 10.2 Records generated by this procedure during a drill or exercise are considered non-QA records and shall be forwarded to Emergency Planning at the termination of the drill or exercise.

11.0 FORMS

- 11.1 EPF 06-001-01, NOTIFICATION OF UNUSUAL EVENT EMERGENCY ANNOUNCEMENT

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- 11.2 EPP 06-001-02, ALERT EMERGENCY ANNOUNCEMENT
- 11.3 EPP 06-001-03, SITE AREA EMERGENCY ANNOUNCEMENT
- 11.4 EPP 06-001-04, GENERAL EMERGENCY ANNOUNCEMENT
- 11.5 EPP 06-001-05, RECOVERY/TERMINATION ANNOUNCEMENT
- 11.6 EPP 06-001-06, ENS COMMUNICATOR'S WORKSHEET

- END -



EPP 06-002

TECHNICAL SUPPORT CENTER OPERATIONS

Responsible Manager

MANAGER RESOURCE PROTECTION

Revision Number	6
Use Category	Reference
Administrative Controls Procedure	No
Infrequently Performed Procedure	No
Program Number	06

DC2 08/21/2001

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1.0 PURPOSE TABLE OF CONTENTS

SECTION This procedure provides guidelines for the activation of the PAGE
 Technical Support Center (TSC), and the responsibilities and
 guidance for Emergency Response Organization (ERO) personnel
 assigned to the TSC.

2.0 SCOPE

2.1 This procedure is implemented following the declaration of an
 Alert or higher emergency classification. The Shift Manager may
 request the Site Emergency Manager to activate the TSC during a
 Notification of Unusual Event.

2.2 This procedure provides direction for positions assigned to the
 Operations Support Center (OSC) also. Since the OSC is housed
 in the TSC, for the purpose of this procedure the OSC is part of
 the TSC.

3.0 REFERENCES AND COMMITMENTS

3.1 References

- 3.1.1 Code of Federal Regulations 10 CFR 20
- 3.1.2 RADIOLOGICAL EMERGENCY TELEPHONE DIRECTORY (RETD)
- 3.1.3 RADIOLOGICAL EMERGENCY RESPONSE PLAN (RERP)
- 3.1.4 PIR 2000-3534, TSC Diesel Generator failed to satisfy
 the requirements of STN KAT-001.

3.2 Commitments

- 3.2.1 Deleted
- 3.2.2 RCMS 91-142, Failure to Establish and Maintain
 Habitability in the Emergency Response Facilities
- 3.2.3 RCMS 92-188, Timely Notification of an Emergency and
 Timely Activation of the TSC and OSC
- 3.2.4 RCMS 97-067, Maintain Priority Board Information Up-To-
 Date
- 3.2.5 RCMS 97-066, DED To Inform Personnel Of Information
 Needed To Escalate Classification

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4.0 <u>DEFINITIONS</u>		TABLE OF CONTENTS	
<u>SECTION</u>	<u>Callout</u>	<u>TITLE</u>	<u>PAGE</u>
	4.1.1	The methodology which is implemented to provide proper staffing of the ERO.	
4.2		<u>Emergency Action Levels (EALs)</u>	
	4.2.1	Specific parameters or conditions that may be used as thresholds for declaring a particular emergency classification.	
4.3		<u>Emergency Classification</u>	
	4.3.1	A system used to define the severity of emergencies into one of four categories based upon projected or confirmed emergency action levels. Classifications listed in order of increasing severity are as follows:	
		o Notification of Unusual Event	
		o Alert	
		o Site Area Emergency	
		o General Emergency	
4.4		<u>Emergency Conditions</u>	
	4.4.1	Situations occurring which cause or may threaten to cause radiological hazards affecting the health and safety of employees or the public, or which may result in damage to property.	
4.5		<u>Facility Activation</u>	
	4.5.1	A facility is considered activated when the designated positions are present, the Emergency Manager determines the facility is ready to activate, and declares the facility activated.	
4.6		<u>Habitability</u>	
	4.6.1	Habitable - Radiological / environmental conditions within the facility are not challenged. There are no stay time restrictions for environmental or radiological circumstances.	
	4.6.2	Degraded - Conditions within the facility do not meet normal facility conditions. This could be due to radiological, environmental, or equipment conditions which may cause some type of hardship for personnel working in the facility.	

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4.7 Operations Support Center (OSC) TABLE OF CONTENTS

SECTION 4.7.1 A staging area located in the TSC for emergency teams to support the emergency response effort. PAGE

4.8 Records

4.8.1 Documents such as calculation worksheets, computer printouts, forms, logs, memos, checklists, or any paper used to record data or information during an emergency, drill or exercise which may be used for event reconstruction.

4.9 Technical Support Center (TSC)

4.9.1 The TSC serves as a center outside of the Control Room that acts in support of the command-and-control function and houses the OSC organization. Plant status and diagnostic information are available at this location for use by technical and management personnel in support of control room command-and-control functions.

5.0 RESPONSIBILITIES

5.1 Site Emergency Manager

- 5.1.1 Coordinate and direct on-site emergency response.
- 5.1.2 Classify/terminate the emergency in accordance with the Emergency Action Levels (EALs).
- 5.1.3 Approve radiation exposure greater than the limits of 10CFR20 for on-site ERO personnel.
- 5.1.4 Establish priorities for accident mitigation and emergency repair.
- 5.1.5 Declare the TSC activated and establish priorities for TSC personnel.
- 5.1.6 Approve Emergency Notifications and Protective Action Recommendations until the EOF is activated.

5.2 TSC Operations Coordinator

- 5.2.1 Coordinate overall emergency response activities with the Control Room staff.

5.3 TSC Administrative Coordinator

- 5.3.1 Provide support for TSC personnel as needed and direction for the TSC Administrative Assistants.

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5.4 TSC Radiological Coordinator TABLE OF CONTENTS

<u>SECTION</u>	<u>TITLE</u>	<u>PAGE</u>
5.4.1	Provide direction for radiological conditions associated with activities controlled by the TSC.	
5.5	<u>TSC Facility Technician</u>	
5.5.1	Perform radiological duties in the TSC as directed.	
5.6	<u>Maintenance Coordinator</u>	
5.6.1	Determine the need for and appoint members to Emergency Response Teams.	
5.7	<u>Engineering Coordinator</u>	
5.7.1	Directs the assessment and evaluation tasks of the Engineering Team.	
6.0	<u>PRECAUTIONS/LIMITATIONS</u>	
6.1	The assigned Site Emergency Manager will assume command-and-control functions and will be the top line manager responsible for the emergency until the EOF is activated. TSC activation will be performed as soon as practical and within the times as stated in the following: [Commitment Step 3.2.3]	
6.1.1	During off-normal working hours, it is the goal to activate the TSC within 75 minutes of a declaration of an Alert or higher classification.	
6.1.2	During normal working hours, it is the goal to activate the TSC within 30 minutes of a declaration of an Alert or higher classification.	
6.2	Personnel entering the TSC may be required to perform a whole body frisk at a designated frisking station.	
6.3	Teams dispatched from on-site locations may not require an HP Technician as part of the team. However, approval must be obtained from the TSC Radiological Coordinator prior to leaving for the initial and each additional destination.	
6.4	Facility evacuation should be considered if there is an actual or projected dose greater than or equal to 5 REM TEDE, unless the Site Emergency Manager authorizes exposures up to 25 REM.	
6.5	Personnel in the TSC may be directed to relocate to another suitable location in the event emergency conditions preclude activation or warrant evacuation of the TSC.	
6.6	Emergency Response Data System (ERDS) must be activated within 60 minutes of a declaration of an Alert or higher emergency.	

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7.0 PROCEDURE

7.1 Facility Activation

7.1.1 Upon notification of an Alert or higher emergency or at the discretion of the Shift Manager during an NUE, assigned ERO team members report to and establish TSC operations as follows:

1. Insert ACAD badge into TSC card reader for accountability.
2. Obtain the position name tag for the assigned position from the TSC or OSC Staffing Board.
3. Print name and ACAD badge number on the Staffing Board where the position badge was located.
4. Proceed to assigned work station and commence with position functions as directed by this procedure.

7.1.2 Personnel should log/record significant emergency response information.

7.1.3 The TSC may be activated when the following positions are present and the Site Emergency Manager determines the facility is ready to activate:

- o Site Emergency Manager
- o TSC Operations Coordinator
- o TSC Administrative Coordinator
- o TSC Radiological Coordinator
- o Maintenance Coordinator

7.1.4 WHEN TSC equipment problems or failures are identified, THEN these problems or failures should be reported to the TSC Administrative Coordinator.

7.1.6 IF the TSC personnel are required to relocate, THEN refer to ATTACHMENT B, OSC RELOCATION SUPPLIES/EQUIPMENT, for a list of supplies to be considered for transport to the relocation area.

7.2 Facility Deactivation

7.2.1 The Site Emergency Manager should inform personnel in the TSC to deactivate.

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- 7.2.2 Each TSC position holder should transmit logs and any other documentation generated during the emergency to the TSC Administrative Coordinator.
- 7.2.3 The TSC Administrative Coordinator should transmit all documentation collected to Emergency Planning.
- 7.2.4 Each TSC position holder should evaluate the condition of equipment and supplies.
- 7.2.5 Each TSC position holder should return equipment and supplies to pre-activation status.
- 7.2.6 Each TSC position holder should report any deficiencies in facility equipment or supplies to the TSC Administrative Coordinator.
- 7.2.7 The TSC Administrative Coordinator should notify Emergency Planning of any damaged or missing facility equipment.

7.3 Site Emergency Manager

- 7.3.1 Obtain a turnover briefing from the Shift Manager. EPF 06-002-01, EMERGENCY MANAGERS TURNOVER SHEET, may be used as an aid for this turnover.
- 7.3.2 Ensure the following positions have been filled and are ready for TSC activation: **[Commitment Step 3.2.3]**
 - o TSC Operations Coordinator
 - o TSC Administrative Coordinator
 - o TSC Radiological Coordinator
 - o Maintenance Coordinator

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CAUTIONS

The following responsibilities are those of the Emergency Managers and may NOT be delegated. These responsibilities may be divided between the Site and Off-site Emergency Managers:

- o Emergency Classification
- o Protective action recommendations
- o Authorization for notification of off-site authorities
- o Authorization of Emergency Exposures on-site in excess of 10CFR20 Limits

- 7.3.3 Assume command-and-control of site emergency response activities from the Shift Manager.
 1. IF the EOF is not activated, THEN assume the Notification and Protective Action Recommendations duties until the EOF is activated.
 2. Inform the staff in the TSC you have assumed command-and-control and that the TSC is declared activated.
 3. Direct the TSC Administrative Coordinator to make a plant announcement that the TSC is activated and the name of the Site Emergency Manager.
- 7.3.4 Conduct initial and periodic briefings for the TSC staff focusing upon the highest priority items and key parameters which are likely to lead to an escalated emergency classification. [Commitment Step 3.2.5]
- 7.3.5 Assess plant conditions and evaluate the need to reclassify the emergency in accordance with EPP 06-005, EMERGENCY CLASSIFICATION.
 1. Direct the Control Room to make appropriate plant announcements for changing classifications.
 2. Direct the Control Room to initiate callout as necessary for the declared emergency.
- 7.3.6 Coordinate with the TSC Radiological Coordinator on the need to authorize exposure limits in excess of 10CFR20 limits, with NRC concurrence if practical, and the need to recommend ingestion of potassium iodide (KI).
- 7.3.7 Evaluate and authorize radiation exposure levels for site personnel.

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1. Approve exposures exceeding 2 REM (TEDE).
 2. Approve exposures in excess of 10 CFR 20 limits.
- 7.3.8 Ensure the Shift Manager is updated with status changes and decisions as they happen.
- 7.3.9 Coordinate shift relief for Control Room and TSC personnel with the EOF.
- 7.3.10 IF downgrading or terminating an emergency, THEN perform in accordance with EPP 06-008, RECOVERY OPERATIONS.

7.4 TSC Operations Coordinator

- 7.4.1 Ensure the normal power supply to the TSC is available. IF unavailable, THEN ensure the Diesel Generator is started in accordance with ATTACHMENT C, TSC DIESEL OPERATIONS.
- 7.4.2 Ensure the facility clock is synchronized with the Control Room clock.
- 7.4.3 Post the appropriate Emergency Classification sign.
- 7.4.4 Inform the Site Emergency Manager of readiness for TSC activation.
- 7.4.5 Coordinate overall emergency response activities with the Control Room staff.
- 7.4.6 Ensure HEPA Filtration and the Iodine Monitor are placed in service in accordance with ATTACHMENT A, HEPA FILTRATION AND IODINE MONITORING STARTUP, when an Alert or higher emergency has been declared.

NOTE

Emergency Response Data System (ERDS) must be activated within 60 minutes of the declaration of an Alert or higher emergency.

- 7.4.7 Ensure the Emergency Response Data System (ERDS) has been activated.
1. Instructions for initiating ERDS activation are contained in ATTACHMENT D, EMERGENCY RESPONSE DATA SYSTEM (ERDS) OPERATIONS.
- 7.4.8 Monitor plant conditions for changes which could affect the emergency classification and notify the Site Emergency Manager of the conditions.

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7.4.9 Evaluate actual or potential radiological releases based on plant conditions. Discuss evaluation with the Site Emergency Manager and TSC Radiological Coordinator.

7.5 TSC Administrative Coordinator

- 7.5.1 Ensure the Control Room is contacted for status of notifications.
- 7.5.2 Notify the Site Emergency Manager of readiness for TSC activation.
- 7.5.3 Ensure TSC accountability is being performed and maintained.
- 7.5.4 Ensure the State and County are notified that the TSC is activated and that the Site Emergency Manager has assumed command-and-control of the emergency.
- 7.5.5 Ensure Immediate and Follow-up Notifications are performed in accordance with EPP 06-007, EMERGENCY NOTIFICATIONS.
- 7.5.6 Ensure initial TSC staffing is adequate. IF staffing is not adequate, THEN call out additional personnel.
 - o For off-hours activation use the ADS report OR the NRECs report to evaluate staffing.
- 7.5.7 Make arrangements for shift relief and meals.
- 7.5.8 Ensure the TSC Administrative Assistants are briefed on Site Emergency Manager's updates and emergency status.
- 7.5.9 Ensure the Security Shift Lieutenant is briefed on plant and radiological conditions that may impact Security operations.
- 7.5.10 IF a Site Area or General Emergency has been declared, THEN determine from the Security Shift Lieutenant the status of an Exclusion Area Boundary evacuation.

7.6 TSC Radiological Coordinator

- 7.6.1 Obtain current radiological status and Protective Action Recommendations made.
- 7.6.2 Ensure the TSC Facility Technician and one other person to make a team are available. [Commitment Step 3.2.3]
- 7.6.3 Ensure facility habitability has been established.

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7.6.4	Notify the Site Emergency Manager of readiness for facility activation.
7.6.5	Ensure dosimetry devices are placed in the facility or issued to personnel as appropriate in accordance with EPP 06-013, EXPOSURE CONTROL AND PERSONNEL PROTECTION.
7.6.6	Ensure the Site Emergency Manager is briefed on radiological status for the development of Protective Action Recommendations.
7.6.7	Initiate surveys in accordance with EPP 06-011, EMERGENCY TEAM FORMATION AND CONTROL.
7.6.8	<u>IF</u> access is denied through the main entrance of the TSC, <u>THEN</u> advise the TSC Administrative Assistant to ensure the airlock door is closed and to move to the rear entrance of the TSC to maintain accountability.
7.6.9	Provide the Site Emergency Manager with an evaluation of the conditions potentially requiring personnel exposure in excess of 10 CFR 20 limits. <ul style="list-style-type: none"> o <u>IF</u> time permits, <u>THEN</u> initiate EPF 06-013-01, EMERGENCY EXPOSURE AUTHORIZATION.
7.6.10	For actual or projected doses perform the following: <ol style="list-style-type: none"> 1. <u>IF</u> an actual or projected dose in the facility is 5 REM TEDE, <u>THEN</u> inform the Site Emergency Manager of the need to evacuate the facility. [Commitment Step 3.2.2] 2. <u>IF</u> projected thyroid dose is greater than or equal to 25 REM, <u>THEN</u> recommend the ingestion of KI in accordance with EPP 06-013, EXPOSURE CONTROL AND PERSONNEL PROTECTION.
7.6.11	Ensure Emergency Response Teams are informed of changing plant conditions, emergency classifications and protective action recommendations which may affect the team's ability to complete assigned activities.
7.6.12	Complete the following information on EPF 06-011-01, PLANT TEAM BRIEFING CHECKLIST, and transfer the form to the TSC Team Director. <ul style="list-style-type: none"> o Plant Status o Radiological Conditions
7.6.13	<u>IF</u> off-site medical assistance is needed, <u>THEN</u> ensure Health Physics support requirements are met.

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7.6.14 Assist in personnel evacuation by performing the following:

1. Dispatch an HP Technician to the Security Building to establish radiological control and conduct personnel monitoring, if required.
2. Inform Security Shift Lieutenant of appropriate radiological plant data and direction of the plume for dissemination to evacuating personnel.

7.7 TSC Facility Technician

7.7.1 Establish and maintain facility habitability.

1. IF readings greater than 100 cpm above background on the general area frisker or greater than background on the General Atomics iodine monitor are noted, THEN an air sample will be taken in accordance with RPP 02-210, RADIATION SURVEY METHODS.
2. IF the General Atomics iodine monitor at the TSC is inoperable during HEPA filter operation, THEN initiate portable iodine sampling at least hourly in accordance with RPP 02-210, RADIATION SURVEY METHODS.
3. Ensure all AIR LOCK DOORS are closed. [**Commitment Step 3.2.2**]
4. Position a frisker in the facility for habitability monitoring. IF the frisker alarms, THEN take an air sample of the TSC.
 - o Lead bricks are available for shielding.
5. Record the Iodine Monitor cpm reading in the Facility Technician log.
6. Record the Area Radiation Monitor mR/hr reading in the Facility Technician log.
 - o IF the area radiation monitor exceeds 20 mR/hr, THEN notify the TSC Radiological Coordinator.
7. IF a release is in progress OR as directed, THEN place a frisker at the facility entrance for personnel monitoring.

7.7.2 Inform the TSC Radiological Coordinator of all facility habitability surveys.

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7.7.3 Check the Ventilation Iodine Monitor hourly for proper operation.

- o IF inoperable, THEN initiate portable iodine sampling at least hourly.

7.7.4 Identify and label inoperable equipment.

7.7.5 Ensure 10 sets of 0-500 mR and 0-5 R dosimeters are functional and ready for use.

7.7.6 Determine dose margin and respirator qualifications of personnel assigned to Emergency Response Teams.

7.7.7 Ensure the logging in and analysis of all incoming radiological samples.

7.7.8 Review and document dosimetry results of emergency response activities in accordance with EPP 06-013, EXPOSURE CONTROL AND PERSONNEL PROTECTION.

7.7.9 Discuss the decontamination of on-site personnel with the TSC Radiological Coordinator.

1. Perform decontamination in accordance with RPP 02-310, PERSONNEL DECONTAMINATION.
2. Collect all RPP forms associated with the decontamination activity.

7.8 Maintenance Coordinator

7.8.1 Verify personnel are present and ready to perform Emergency Response Team tasks. **[Commitment Step 3.2.3]**

7.8.2 Provide the Site Emergency Manager with an assessment of pre-emergency maintenance activities.

7.8.3 Coordinate with the Site Emergency Manager to determine what information to list on the Priority Board and maintain the board up-to-date. **[Commitment Step 3.2.4]**

7.8.4 Obtain the status of and evaluate teams dispatched by the Control Room from the TSC Operations Recorder.

7.8.5 Direct the Maintenance Planners to develop a repair plan for equipment repair.

7.8.6 Determine the scope of Emergency Response Team activities to be performed.

7.8.7 Initiate EPF 06-011-01, PLANT TEAM BRIEFING CHECKLIST, and coordinate with Maintenance Assistant on field team assignment.

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7.8.8 Advise the Site Emergency Manager of Emergency Response Team status.

7.9 Engineering Coordinator

7.9.1 Coordinate and direct the efforts of the Engineering Team to technically assess plant status and the severity of the emergency conditions.

7.9.2 Direct accident assessment and mitigation activities to be performed in accordance with EPP 06-016, ACCIDENT ASSESSMENT AND MITIGATION.

7.9.3 Advise the TSC Operations Coordinator on technical matters relating to fuel integrity, plant systems, equipment, and instrumentation.

7.9.4 Support maintenance items assigned to Emergency Response Teams.

7.10 TSC Operations Recorder

7.10.1 Ensure NPIS is operable by verifying time and date in the upper right-hand corner are updating.

NOTES

- o The Operations Status Board has a goal of being updated at 15 minute intervals.

7.10.2 Maintain the Operations Status Board current by using NPIS Turn-On-Codes SB1 and SB2 OR with data obtained from the Operations Communicator on EPF 06-002-02, OPERATIONS STATUS.

1. Maintain a hard-copy of the NPIS printouts or completed EPF 06-002-02, OPERATIONS STATUS.

7.10.3 Monitor plant status for adverse trends and inform the TSC Operations Coordinator of changes in plant status which could affect the emergency classification.

7.10.4 Track procedure progress, list the procedure being performed by the Control Room.

7.10.5 WHEN transitions are made to the next procedure, THEN notify the TSC Operations Coordinator.

7.10.6 Communicate information, concerning emergency teams dispatched from the Control Room, directly to the TSC Maintenance Coordinator.

7.11 TSC Administrative Assistant

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- 7.11.1 Ensure the operability of phones and radios to be used for County and State notifications. Conduct an initial radio check with Coffey County and the State of Kansas.
- 7.11.2 Ensure the verification phone is plugged in and operable.
- 7.11.3 Maintain TSC accountability by performing the following:
 1. Maintain EPF 06-010-01, ACCOUNTABILITY LOG, OR ensure personnel entering or leaving the TSC use the card reader for tracking all persons not assigned to an Emergency Response Team.
 2. Ensure personnel entering and exiting the TSC close the airlock door. [Commitment Step 3.2.2]
 3. WHEN informed that access is being denied to the main entrance of the TSC, THEN ensure the airlock door is closed and relocate to the designated entrance to maintain accountability.
- 7.11.4 Provide assistance to the Site Emergency Manager by performing the following:
 1. Maintain a log book
 2. Maintain the TSC Sequence of Events and Protective Action Recommendation Board
 3. Answer the phone as needed
 4. Complete EPF 06-002-03, SEQUENCE OF EVENTS
- 7.11.5 Provide faxing and copying support by performing the following:
 1. Provide copies of EPF 06-007-01, WOLF CREEK GENERATING STATION EMERGENCY NOTIFICATION, to the TSC Emergency Notification System (ENS) Communicator and Onsite Public Information Coordinator.
 2. Provide copies of Radiological and Operations Status Boards information to the Onsite Public Information Coordinator.
 3. Ensure copies of all EPF 06-007-01, WOLF CREEK GENERATING STATION EMERGENCY NOTIFICATION, and EPF 06-002-03, SEQUENCE OF EVENTS, are provided to the EOF.

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7.11.6 Provide Off-site communications by performing the following:

1. Contact the Control Room Off-site Communicator to verify the status of notifications.
2. Verify that all information has been completed on Notification forms prior to transmitting.
3. Perform Emergency Notifications in accordance with EPP 06-007, EMERGENCY NOTIFICATIONS.
4. Conduct calls for off-site support as directed by the TSC Administrative Coordinator.
 - a. Unless the call for off-site support is to obtain assistance for a life threatening situation, do not interrupt the Immediate Notifications. Such calls shall be made coincidentally with Immediate Notifications.
 - b. Calls for immediate off-site support take precedence over Follow-up Notifications.

7.12 TSC Team Director

7.12.1 Assume control of all teams dispatched from the Control Room except on-shift Nuclear Station Operators.

1. On-shift Nuclear Station Operators remain under Control Room control and are not assigned a team identifier.

7.12.2 Assign each Emergency Response Team with a team identifier.

7.12.3 Inform the TSC Team Communicator of the formation of Emergency Response Teams.

7.12.4 Evaluate the need for Health Physics support for all dispatched teams.

1. Health Physics Technicians will provide the necessary radiological guidance for the task which the team will perform.
2. Health Physics Technicians should provide status updates to the Radiological Coordinator during the time the team is in the field.

7.12.5 Coordinate with the Maintenance Assistant to complete a brief for Emergency Response Teams.

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1. Consider areas to evacuate to, stay times, and possible hazards the team may encounter while performing their task.

7.13 TSC Team Communicators

- 7.13.1 Ensure that the radio is turned on and selected to the correct channel.
- 7.13.2 Establish and maintain communications with site Emergency Response Teams.
- 7.13.3 Verify team identification and membership when Emergency Response Teams establish radio communications.
- 7.13.4 Inform the teams of changes to plant status and emergency classifications.
- 7.13.5 Ensure all pertinent directions to the teams from the TSC Team Director are logged.

7.14 TSC Emergency Notification System (ENS) Communicator

- 7.14.1 Inform the TSC Operations Coordinator that ENS communications are ready to be established.
- 7.14.2 Establish and maintain continuous communications with the NRC via the ENS Emergency Telecommunications System (ETS) telephone. IF the NRC determines that continuous communications or contact with all facilities is not necessary, THEN communications may be terminated as directed by the NRC.

1. Use of the ETS phone is in accordance with EPP 06-007, EMERGENCY NOTIFICATIONS.

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7.14.3 Provide the following information to the NRC:

- o Any further degradation in the level of safety of the plant or other worsening plant conditions
- o The results of ensuing evaluations or assessments of plant conditions
- o The effectiveness of response or protective measures taken
- o Any information related to plant behavior that is not understood

7.15 Engineering Team

- 7.15.1 The Engineering Team should monitor NPIS primary plant display for adverse trends.
- 7.15.2 The Engineering Team should assist with troubleshooting and restoration of equipment.
- 7.15.3 The Engineering Team should monitor on-site and off-site electric distribution and sources.
- 7.15.4 The Engineering Team should assess plant status and the severity of the emergency conditions in accordance with EPP 06-016, ACCIDENT ASSESSMENT AND MITIGATION.
- 7.15.5 Nuclear Engineer should assess the degree of fuel damage in accordance with EPP 06-017, CORE DAMAGE ASSESSMENT METHODOLOGY.

7.16 Emergency Response Team

- 7.16.1 Sign your name and position on the Task Board.
- 7.16.2 Obtain Protective clothing and stage in bag for readiness.
- 7.16.3 Obtain most recent dose update and respirator qualifications.
- 7.16.4 Perform operability checks on equipment and instruments before leaving the TSC.
- 7.16.5 WHEN Chemistry Technicians perform chemical sampling, THEN provide analysis results to the TSC Radiological Coordinator.
- 7.16.6 Immediately report major anomalies encountered in the plant to the TSC Team Communicator.

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7.16.7 Upon return to the TSC, report any anomalies to the TSC Team Director.

7.16.8 Track Emergency Response Team exposure in accordance with EPP 06-013, EXPOSURE CONTROL AND PERSONNEL PROTECTION.

7.16.9 Team formation and control is in accordance with EPP 06-011, EMERGENCY RESPONSE TEAM FORMATION AND CONTROL.

7.17 Maintenance Assistant

7.17.1 Assign personnel to Emergency Response Teams for equipment repair, surveys, or search and rescue.

7.17.2 Coordinate with the TSC Team Director and brief Emergency Response Teams on team objectives.

1. Complete EPF 06-011-01, PLANT TEAM BRIEFING CHECKLIST.

7.17.3 IF the team has a search and rescue mission, THEN include the following information in the briefing:

- o Number and last known location(s) of missing individual(s)
- o Possible physical condition of missing individual(s)

7.17.4 Brief the Maintenance Coordinator on the status of Emergency Response Teams.

7.17.5 Consider the necessity of conducting additional briefings of teams dispatched to additional locations once the team has left the TSC.

7.17.6 Debrief Emergency Response Teams in accordance with EPP 06-011, EMERGENCY TEAM FORMATION AND CONTROL.

7.18 Maintenance Planner

7.18.1 Assist in the briefing of Emergency Response Teams and provide maintenance support as appropriate to the Maintenance Coordinator.

7.18.2 Develop repair plans for equipment repairs as directed.

7.19 Warehouse Support

7.19.1 Locate and secure parts and equipment from the warehouse as directed.

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7.20 Security Coordinator

- 7.20.1 Ensure the safety of Security personnel is maintained by coordinating Security activities with activities of the TSC.
- 7.20.2 Provide coordination of activities including, but not limited to the following:
 - o Emergency vehicle arrival
 - o Search and rescue outside the PAB
 - o Access to vital areas
 - o EMT support
 - o Activities concerning Security

8.0 INITIAL ACTIONS

8.1 None

9.0 SUBSEQUENT ACTIONS

9.1 None

10.0 RECORDS

- 10.1 Records generated by this procedure during an actual emergency are considered lifetime QA records and shall be forwarded to Emergency Planning at the termination of the emergency.
- 10.2 Records generated by this procedure during drills or exercises are considered non-QA records and shall be forwarded to Emergency Planning at the termination of the drill or exercise.

11.0 FORMS

- 11.1 EPF 06-002-01, EMERGENCY MANAGER TURNOVER SHEET
- 11.2 EPF 06-002-02, OPERATIONS STATUS
- 11.3 EPF 06-002-03, SEQUENCE OF EVENTS

- END -

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ATTACHMENT A
(Page 1 of 2)
HEPA FILTRATION AND IODINE MONITORING OPERATIONS

NOTES

- o The HEPA filtration startup panels are located in the northwest corner of the TSC Equipment Room.
- o The air handling heater switch is located on top of the HEPA unit directly in front of the Iodine Monitoring Control Panel.

A.1 HEPA FILTRATION STARTUP INSTRUCTIONS

- A.1.1 On Panel PB-1, Toggle the FILTER/NORMAL switch to FILTER.
1. Verify dampers D-1 and D-2 closed status lights indicate CLOSED.
 2. Verify damper D-3 open status light indicates OPEN.
 3. IF dampers D-1 and D-2 fail to close or D-3 fails to open, THEN use manual damper controls located in the ductwork to position the dampers. Damper D-1 is located in Janitor Supply Room. Dampers D-2 and D-3 are located in the TSC Equipment Room in the overhead above the Iodine Monitor.
- A.1.2 On Disconnect Box next to Panel PB-1, turn HEPA filtration FAN SWITCH to HAND position to start fan.
- A.1.3 Turn air handling heater to ON.

A.2 IODINE MONITORING STARTUP INSTRUCTIONS

- A.2.1 Ensure "PWR ON" indicator is lit.
- A.2.2 Close Purge valve.
- A.2.3 Verify inlet valve is throttled open.
- A.2.4 Press and hold START button.
1. Verify green "ON" light comes on.
 2. IF vacuum is not between 3" and 10" Hg on the vacuum gauge, THEN adjust the inlet valve to obtain between 3" to 10" Hg on the vacuum gauge.

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ATTACHMENT A

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HEPA FILTRATION AND IODINE MONITORING OPERATIONS

3. WHEN vacuum is between 3" to 10" Hg on the gauge,
THEN release the "START" button.

A.2.5 Verify LIMIT light is extinguished.

A.2.6 Verify air flow is between 1.8 and 2.2 cfm.

A.3 HEPA FILTRATION SHUTDOWN INSTRUCTIONS

A.3.1 Turn air handling heater to OFF.

A.3.2 On Disconnect Box next to Panel PB-1, turn HEPA filtration FAN SWITCH to OFF position to secure fan.

A.3.3 On Panel PB-1, Toggle the FILTER/NORMAL switch to NORMAL.

1. Verify dampers D-1 and D-2 status lights indicate OPEN.
2. Verify damper D-3 status light indicates CLOSED.
3. IF damper D-1 fails to open, THEN ensure exhaust fan EXF-1 located in Janitor Supply Room is running.
4. IF damper D-2 fails to open or damper D-3 fails to close, THEN use manual damper controls located in the ductwork to position the dampers. Dampers D-2 and D-3 are located in the TSC Equipment Room in the overhead above the Iodine Monitor.

A.4 IODINE MONITORING SHUTDOWN INSTRUCTIONS

A.4.1 Secure the monitor by pushing and releasing the STOP button.

- END -

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ATTACHMENT B
(Page 1 of 1)
OSC RELOCATION SUPPLIES AND EQUIPMENT

- B.1 Air Samplers, Friskers, and Survey Meters for Portable Survey Instruments
- B.2 TLDs, SRD (PICs), Issue Logs, and Dosimeter Chargers for Personnel Dosimetry
- B.3 Emergency Procedures/Forms
- B.4 Protective Clothing and Tape
- B.5 Decontamination Kit
- B.6 First Aid and Medical Response Kits
- B.7 Communication Equipment
- B.8 Step Off Pads, Radiation Signal Ropes and Signs for Radiation Control Area Supplies
- B.9 SCBA and Full Face (spare cartridges) Respiratory Protection
- B.10 Zeolite Cartridges, Smears, and A/S Filters for Health Physics Survey Supplies
- B.11 KI Tablets
- B.12 Office Supplies, Flashlights, and Batteries

- END -

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ATTACHMENT C
(Page 1 of 3)
TSC DIESEL OPERATIONS

C.1 IF the normal power supply to the TSC is not available, THEN ensure the TSC diesel generator is started as follows:

C.1.1 Ensure EMERG GENERATOR INTAKE DAMPER D6 is OPEN OR that the damper actuator arm is loosened allow the damper to fall open.

NOTES

- o To prevent permanent cranking motor damage, do not crank the diesel for more than thirty seconds continuously. If the diesel does not start within the first thirty seconds, wait one to two minutes before re-cranking.
- o Frequency requirements apply only during steady-state conditions with the diesel under a constant load.

C.1.2 At the Diesel Control Panel, start the diesel generator by placing the MANUAL START toggle switch to the PERMISSIVE START position.

1. Verify the following parameters: (Reference 3.1.4)

- o Oil Pressure GREATER THAN 50 psig
- o Voltage 450 to 500 volts (all phases)
- o Frequency 58.8 Hz to 61.2 Hz

C.1.3 At the Main Distribution Panel, place breakers for circuits 1 through 14 OFF.

C.1.4 At the MANUAL TRANSFER SWITCH, place the MAIN breaker to OFF.

C.1.5 At the MANUAL TRANSFER SWITCH, place the D/GEN breaker to ON.

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ATTACHMENT C
(Page 2 of 3)
TSC DIESEL OPERATIONS

NOTES

- o Allow several seconds for generator load to stabilize before placing the next breaker to the ON position.
- o Machine voltage may be adjusted as necessary by use of rheostat adjacent to the diesel generator field breaker located on the D/G.
- o Diesel generator coolant temperature should be greater than or equal to 120 F prior to loading the diesel generator.

C.1.6 At the Main Distribution Panel, place breakers 1 through 14 to ON.

NOTE

Frequency requirements apply only during steady-state conditions with the diesel under a constant load.

.1.7 WHEN the diesel is operating under load, THEN the following parameters should be maintained.
(Reference 3.1.4)

C.1.7 Pressure GREATER THAN 50 psig
Voltage 450 to 500 volts (all phases)
Frequency 58.8 Hz to 61.2 Hz

C When Diesel Generator is no longer needed, THEN shutdown generator as follows:

- C.2.1 At the Main Distribution Panel, place breakers for circuits 1 through 14 OFF.
- C.2.2 At the MANUAL TRANSFER SWITCH, place the D/GEN breaker to OFF.
- C.2.3 At the MANUAL TRANSFER SWITCH, place the MAIN breaker to ON.
- C.2.4 At the Main Distribution Panel, place breakers for circuits 1 through 14 to ON.

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ATTACHMENT C
(Page 3 of 3)
TSC DIESEL OPERATIONS

NOTE

The Diesel should be allowed to run unloaded for 3 to 5 minutes to cool down.

- C.2.5 At the Diesel Control Panel, stop the diesel by placing the MANUAL START toggle switch to OFF.
- C.2.6 Ensure the EMERG. GENERATOR INTAKE DAMPER D6 is closed.
- C.2.7 Notify the Control Room to perform STN KAT-001, TECHNICAL SUPPORT CENTER DIESEL GENERATOR OPERATION, to ensure the diesel is ready for operation.

- END -

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ATTACHMENT D
(Page 1 of 1)
EMERGENCY RESPONSE DATA SYSTEM (ERDS) OPERATIONS

D.1 ERDS Activation

D.1.1 In the TSC computer room, perform one of the following using the NPIS Computer:

- o Select the E-Plan Menu, then touch the ERDS block on the screen

OR

- o Type the Turn-On code "ERDS" and press the "Return/Enter" key

D.1.2 Follow the prompts until the ERDS is activated.

D.1.3 Notify the TSC Operations Coordinator that ERDS is activated.

D.2 ERDS Deactivation

D.2.1 IF directed by the NRC to deactivate ERDS, THEN press "F3" key and follow the prompts.

- END -

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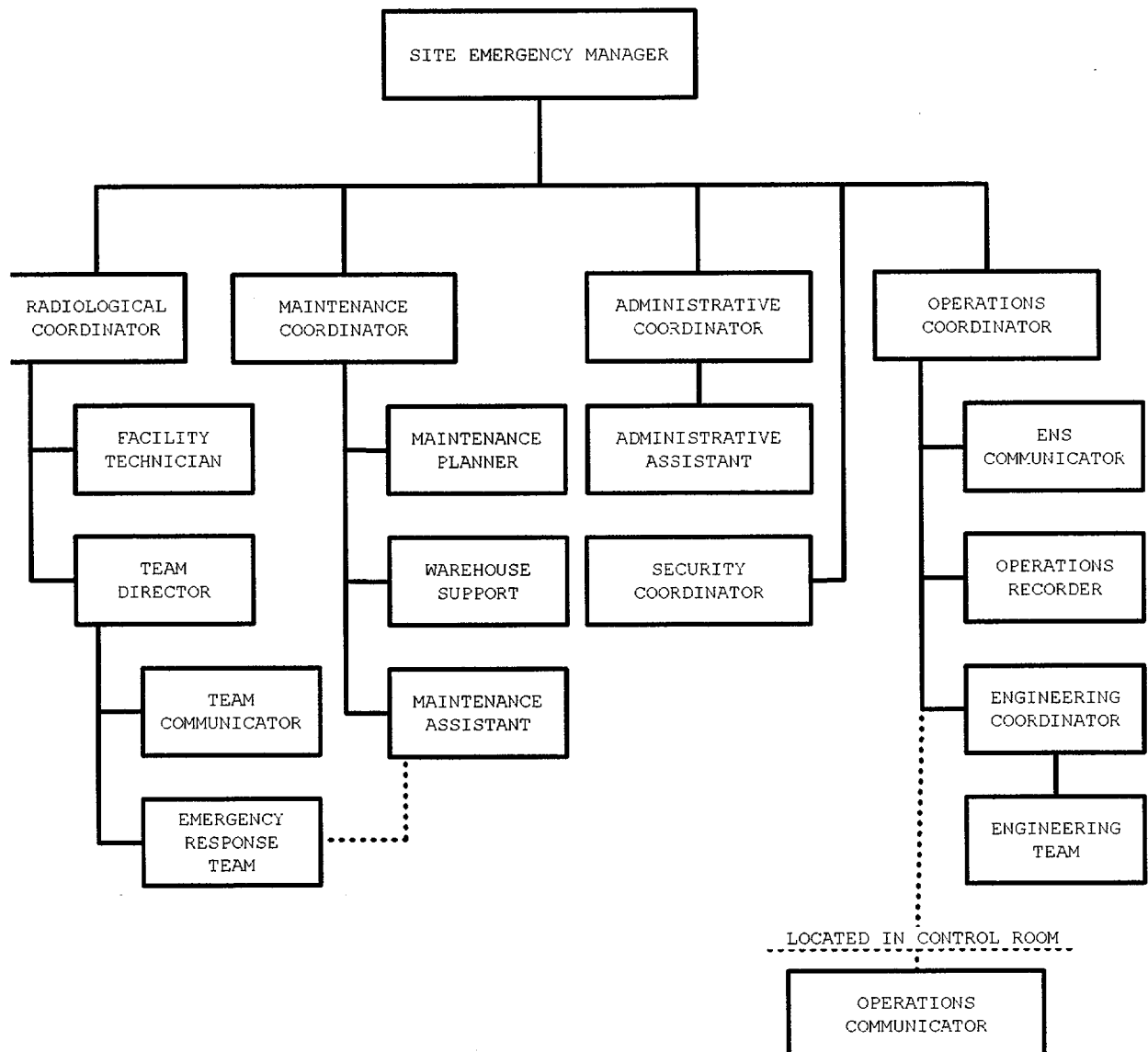
ATTACHMENT E
(Page 1 of 1)
POSITIONS REQUIRED FOR AUGMENTATION

E.1 Augmentation

- E.1.1 The following 25 positions are required to be filled within 60 minutes of the determination that augmentation is needed:
- 1 Radiological Coordinator
 - 1 Chemistry Technician
 - 1 Nuclear Engineer
 - 1 Electrical Engineer
 - 1 Mechanical Engineer
 - 1 I&C Technician
 - 2 Mechanical Maintenance
 - 2 Electrical Maintenance
 - 3 Communicators (Any combination from Administrative Assistant, ENS, or HPN positions to make three)
 - 4 Off-site Health Physics Technicians
 - 8 On-site Health Physics Technicians
- E.1.2 The following 5 positions are required to be filled within 90 minutes of the determination that augmentation is needed:
- 1 Off-site Emergency Manager
 - 1 Operations Coordinator
 - 1 Radiological Coordinator
 - 1 Administrative Coordinator
 - 1 Facility Technician

- END -

FIGURE 1
TSC ORGANIZATION





EPP 06-003

EMERGENCY OPERATIONS FACILITY OPERATIONS

Responsible Manager

Manager Resource Protection

Revision Number	4
Use Category	Reference
Administrative Controls Procedure	No
Infrequently Performed Procedure	No
Program Number	06

DC2 08/21/01

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1.0 PURPOSE

- 1.1 This procedure describes responsibilities and provides guidance for Emergency Response Organization (ERO) personnel, located in the Emergency Operations Facility (EOF), for the activation of the EOF following the declaration of an Alert, Site Area Emergency, General Emergency.

2.0 SCOPE

- 2.1 This procedure provides direction for ERO positions required to activate and staff the EOF and the Alternate EOF.

3.0 REFERENCES AND COMMITMENTS

3.1 References

- 3.1.1 Code of Federal Regulations 10CFR20
- 3.1.2 Code of Federal Regulations 10CFR50
- 3.1.3 Kansas State Emergency Operations Plan, Appendix 12 to Annex N.
- 3.1.4 Letter CO 94-0024, Request for Alternate Emergency Operations Center Information, Docket No. 50-482
- 3.1.5 PIR TE 91-0676, QA Surveillance TE: 53359 S-1892, Radiological Status Board not Updated to Show Which Protective Action Recommendations were Completed.
- 3.1.6 PIR 2000-3534, TSC Diesel Generator failed to satisfy the requirements of STN KAT-001.

3.2 Commitments

- 3.2.1 ITIP 01963, NRC Information Notice 92-32, Problems Identified With Emergency Ventilation Systems For Near Site (Within 10 Miles) Emergency Operations Facilities And Technical Support Centers.
- 3.2.2 Deleted
- 3.2.3 PIR TE 91-0715, Failure to Establish and Maintain Habitability in the Emergency Response Facilities.
- 3.2.4 RCMS Number 91-142, Letter WM 91-0145, Closure of air lock door, NRC Inspection Report 91-19.
- 3.2.5 RCMS Number 92-188, Letter WM 92-0179, Restructure assignment of responsibilities on activation checklists, NRC Inspection Report Weakness 9214-01

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4.0 DEFINITIONS

4.1 Alternate Emergency Operations Facility

- 4.1.1 The alternate EOF is located in Emporia, Kansas at the KPL District Office, 210 E. 2nd Street. The alternate EOF is where management of the overall Wolf Creek Generating Station (WCGS) emergency response will be conducted if the primary EOF has been evacuated.

4.2 Callout

- 4.2.1 The methodology which is implemented to provide proper staffing of the ERO.

4.3 Emergency Action Levels (EALs)

- 4.3.1 Specific parameters or conditions that may be used as thresholds for declaring a particular emergency classification.

4.4 Emergency Classification

- 4.4.1 A system used to define the severity of emergencies into one of four categories based upon projected or confirmed emergency action levels. Classifications listed in order of increasing severity are as follows:
- o Notification of Unusual Event
 - o Alert
 - o Site Area Emergency
 - o General Emergency

4.5 Emergency Conditions

- 4.5.1 Situations occurring which cause or may threaten to cause radiological hazards affecting the health and safety of employees or the public, or which may result in damage to property.

4.6 Emergency Operations Facility (EOF)

- 4.6.1 The organization represented by FIGURE 1, EOF ORGANIZATION. The EOF is the near-site emergency response facility from which the management of the overall Wolf Creek Generating Station (WCGS) emergency response is conducted. The EOF is located 2.8 miles northwest of WCGS.

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4.7 Facility Activation

- 4.7.1 A facility is considered activated when the designated positions are ready to assume the responsibilities assigned to that position and the facility is declared activated.

4.8 Habitability

- 4.8.1 Habitable - Radiological / environmental conditions within the facility are not challenged. There are no stay time restrictions for environmental or radiological circumstances.
- 4.8.2 Degraded - Conditions within the facility do not meet normal facility conditions. This could be due to radiological, environmental, or equipment conditions which may cause some type of hardship for personnel working in the facility.

4.9 Operations Support Center (OSC)

- 4.9.1 A staging area located in the TSC for emergency teams to support the emergency response effort.

4.10 Records

- 4.10.1 Documents such as calculation worksheets, computer printouts, forms, logs, memos, checklists, or any paper used to record data or information during an emergency, drill or exercise which may be used for event reconstruction.

5.0 RESPONSIBILITIES

5.1 Off-site Emergency Manager

- 5.1.1 Coordinate and direct off-site emergency response.
- 5.1.2 Approve radiation exposure greater than the limits of 10CFR20 for off-site ERO personnel.
- 5.1.3 Direct off-site protective actions.
- 5.1.4 Declare the EOF activated and establish priorities for EOF personnel.
- 5.1.5 Approve Protective Action Recommendations.
- 5.1.6 Approve emergency notifications
- 5.1.7 Has authority to supplement or reduce staff.

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5.2 EOF Administrative Coordinator

5.2.1 Provide administrative support for the facility.

5.3 EOF Facility Technician

5.3.1 Establish and monitor facility habitability.

5.4 EOF Radiological Coordinator

5.4.1 Provide direction for radiological conditions associated with activities controlled by the EOF.

5.5 EOF Operations Coordinator

5.5.1 Monitors on site emergency response activities.

6.0 PRECAUTIONS/LIMITATIONS

6.1 Facility evacuation should be considered if there is an actual or projected dose of 5 REM TEDE, unless the Emergency Manager authorizes exposures up to 25 REM.

6.2 It is the goal to activate the EOF within 90 minutes of a declaration of an Alert or higher emergency. The assigned Emergency Manager will assume command-and-control functions and will be the top line manager responsible for the emergency.

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7.0 PROCEDURE

CAUTION

IF radiological conditions threaten the EOF operation based on actual or projected doses or other hazardous conditions, THEN ensure the EOF is evacuated and the Alternate EOF is staffed and activated.

7.1 EOF Activation

- 7.1.1 Upon notification of a Alert, or a more severe classification, EOF personnel proceed to and establish operations at the Emergency Operations Facility as follows:
1. Obtain the position name tag for the assigned position from the Staffing Board.
 2. Print name and ACAD badge number on the Staffing Board where the position badge was located.
 3. Proceed to assigned work station and commence with position functions as directed by this procedure.
- 7.1.2 Personnel should log/record significant emergency response information.
- 7.1.3 WHEN the following personnel are present and ready to assume their duties and the facility has been declared activated THEN the EOF is considered activated:
- o Off-site Emergency Manager
 - o EOF Operations Coordinator
 - o EOF Radiological Coordinator
 - o EOF Administrative Coordinator
 - o EOF Facility Technician
- 7.1.4 WHEN equipment problems or failures are identified THEN personnel should report to the EOF Administrative Coordinator.

7.2 EOF Deactivation

- 7.2.1 The Off-site Emergency Manager should inform personnel in the EOF to deactivate.

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- 7.2.2 EOF personnel should forward logs and all other documentation generated during the emergency to the EOF Administrative Coordinator.
- 7.2.3 The EOF Administrative Coordinator should transmit all documentation collected to Emergency Planning.
- 7.2.4 Each EOF position holder should return equipment and supplies to pre-activation status.
- 7.2.5 Each EOF position holder should report any deficiencies in equipment or supplies to the EOF Administrative Coordinator.
- 7.2.6 The EOF Administrative Coordinator should notify Emergency Planning of any damaged or missing equipment.

7.3 Off-site Emergency Manager

- 7.3.1 Obtain a turnover briefing from the Site Emergency Manager. EPF 06-002-01, EMERGENCY MANAGER TURNOVER SHEET, may be used as an aid for this turnover.
- 7.3.2 Ensure the following positions have been filled and are ready for EOF activation:
 - o EOF Administrative Coordinator
 - o EOF Operations Coordinator
 - o EOF Radiological Coordinator
 - o Facility Technician

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CAUTION

The following responsibilities are those of the Emergency Managers and may NOT be delegated. These responsibilities may be divided between the Site and Off-site Emergency Managers:

- o Emergency Classification
- o Protective action recommendations
- o Authorization for notification of off-site authorities
- o Authorization of Emergency Exposures on-site in excess of 10CFR20 Limits

- 7.3.3 Assume command-and-control of off-site emergency response activities from the Site Emergency Manager.
 1. Inform the staff in the EOF you have assumed command-and-control and that the EOF is declared activated.
 2. Direct the EOF Administrative Coordinator to make a plant announcement that the EOF is activated and the name of the Off-site Emergency Manager.
- 7.3.4 Ensure that communications are established and maintained with the State of Kansas and Coffey County Emergency Operations Centers (EOCs).
- 7.3.5 Evaluate plant/radiological status for changes in Emergency Classification per EPP 06-005, EMERGENCY CLASSIFICATION.
- 7.3.6 Based on plant/radiological evaluation, issue Protective Action Recommendations per EPP 06-006, PROTECTIVE ACTION RECOMMENDATION.
- 7.3.7 Ensure notifications are made in accordance with EPF 06-007-01, WOLF CREEK GENERATING STATION EMERGENCY NOTIFICATION.
- 7.3.8 Ensure the EOF, Security, Control Room, TSC, and Wolf Creek Public Information Organization staffs are informed of classification or Protective Action Recommendations changes.
 1. Ensure ADS, pagers, and announcements are initiated when required.

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NOTE

Protective Action Recommendations must be consistent with the dose information.

- 7.3.9 Coordinate with the EOF Radiological Coordinator on the need to authorize exposure limits in excess of 10CFR20 limits (with NRC concurrence if practical) and the need to recommend ingestion of potassium iodide (KI).
- 7.3.10 Brief EOF personnel on emergency status.
- 7.3.11 Interface with the Off-site Public Information Coordinator to provide technical input for news statements.
- 7.3.12 Coordinate with the EOF Administrative Coordinator the need to procure materials, equipment, personnel to support emergency actions.
- 7.3.13 Brief the WCGS Executive Management on plant conditions and any action being carried out to control the emergency.
- 7.3.14 IF necessary, THEN request Federal Assistance through State officials.
- 7.3.15 IF downgrading or terminating an emergency, THEN perform in accordance with EPP 06-008, RECOVERY OPERATIONS.
- 7.4 EOF Operations Coordinator
 - 7.4.1 Ensure the normal power supply to the EOF is available. IF unavailable, THEN ensure that the Diesel Generator is started in accordance with Attachment B, EOF DIESEL OPERATIONS.
 - 7.4.2 Ensure the HEPA Filtration and the Iodine Monitor are placed in service in accordance with Attachment C, HEPA FILTRATION AND IODINE MONITORING OPERATION.
 - 7.4.3 Ensure the facility clocks are synchronized to the Control Room clock.
 - 7.4.4 Post the appropriate Emergency Classification sign.
 - 7.4.5 Obtain plant status from the TSC Operations Coordinator and brief the Off-site Emergency Manager.
 - a. Advise the Off-site Emergency Manager on technical data and trend analysis relating to fuel integrity, plant systems, equipment and instrumentation.

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- 7.4.6 Inform the Off-site Emergency Manager of readiness for EOF activation.
- 7.4.7 Monitor plant conditions for changes which could affect the emergency classification and notify the Off-site Emergency Manager of the conditions.
- 7.4.8 Evaluate actual or potential radiological releases based on plant conditions. Discuss evaluation with the Off-site Emergency Manager and EOF Radiological Coordinator.

7.5 EOF Administrative Coordinator

- 7.5.1 Contact TSC Administrative Coordinator for the status of notifications.
- 7.5.2 Inform the Off-site Emergency Manager of readiness for EOF activation.
- 7.5.3 Ensure the State and County are notified that the EOF is activated and has taken over command-and-control of the emergency.
- 7.5.4 Ensure EOF Administrative Assistants perform notifications in accordance with EPP 06-007, EMERGENCY NOTIFICATIONS.
- 7.5.5 Ensure initial EOF staffing is adequate. IF staffing is not adequate, THEN call out additional personnel.
 - o For off-hours activation use the ADS report OR the NRECs report to evaluate staffing.
- 7.5.6 Make arrangements for shift relief and meals.
- 7.5.7 Provide support to the EOF staff as required, including:
 - o Clerical and administrative support personnel
 - o Warehouse support, procurement and expediting personnel
 - o Additional communications support and equipment repair services
 - o Personnel, support contractors, etc.

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7.6 EOF Radiological Coordinator

- 7.6.1 Obtain current radiological status and Protective Action Recommendations.
- 7.6.2 Ensure the Facility Technician is available.
[Commitment Step 3.2.3]
- 7.6.3 Ensure facility habitability has been established.
- 7.6.4 Notify the Off-site Emergency Manager of readiness for facility activation.
- 7.6.5 Ensure dosimetry devices are placed in the facility or issued to personnel as appropriate in accordance with EPP 06-013, EXPOSURE CONTROL AND PERSONNEL PROTECTION.
- 7.6.6 Ensure the Emergency Manager is briefed on radiological status for the development of Protective Action Recommendations.
- 7.6.7 Provide the Off-site Emergency Manager with an evaluation of the conditions potentially requiring personnel exposure in excess of 10CFR20 limits.
 - o IF time permits, THEN initiate EPF 06-013-01, EMERGENCY EXPOSURE AUTHORIZATION.
- 7.6.8 For actual or projected doses perform the following:
 - 1. IF an actual or projected dose in the facility is greater than or equal to 5 REM TEDE, THEN inform the Off-site Emergency Manager of the need to evacuate the facility.
 - 2. IF projected thyroid dose is greater than or equal to 25 REM, THEN recommend the ingestion of KI in accordance with EPP 06-013, EXPOSURE CONTROL AND PERSONNEL PROTECTION.
- 7.6.9 Review and evaluate radiological and meteorological data to assess the consequences of any release of radioactive materials including:
 - o chemical and radiochemical analysis results
 - o off-site monitoring results
 - o dose projection data
- 7.6.10 Verify that radiological status information is being provided to dose assessment personnel and that the information is accurate and updated.

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7.6.11 Coordinate matters associated with off-site radiological assessment activities with representatives of County, State and Federal Agencies.

1. Brief personnel on incoming data
2. Ensure there are consistent dose calculations between the State and WCNO
3. Confer with State on directing the placement of Joint Radiological Monitoring Teams (Field Teams)

7.7 EOF Facility Technician

7.7.1 Establish and maintain facility habitability.

1. Ensure all AIR LOCK DOORS are closed. [Commitment Step 3.2.4]
2. Position a frisker in the facility for habitability monitoring. IF the frisker alarms, THEN take an air sample of the EOF.
 - o Lead bricks are available for shielding.
 - o IF general area frisker readings are greater than 100 cpm above background, or readings on the General Atomics iodine monitor are greater than background, THEN an air sample will be taken in accordance with RPP 02-210, RADIATION SURVEY METHODS.
3. Record the Iodine Monitor cpm reading in the Facility Technician log.
 - o IF the General Atomics iodine monitor is inoperable during HEPA filter operation, THEN initiate portable iodine sampling at least hourly in accordance with RPP 02-210, RADIATION SURVEY METHODS.
4. Record the Area Radiation Monitor mR/hr reading in the Facility Technician log.
 - o IF the area radiation monitor exceeds 20 mR/hr, THEN notify the Radiological Coordinator.
5. IF a release is in progress OR as directed, THEN place a frisker at the facility entrance for personnel monitoring.

7.7.2 Inform the Off-site Emergency Manager of readiness for facility activation.

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- 7.7.3 Inform the EOF Radiological Coordinator of all facility habitability surveys.
- 7.7.4 Check the Ventilation Iodine Monitor hourly for proper operation.
 - o IF inoperable, THEN initiate portable iodine sampling at least hourly.
- 7.7.5 Identify and label inoperable equipment.
- 7.7.6 Ensure that the Environmental Garage Area is designated and posted as a radiological controlled area in accordance with RPP 02-215, POSTING OF RADIOLOGICAL CONTROLLED AREAS.

7.8 Dose Assessment Coordinator

- 7.8.1 Ensure dose assessment equipment is in place and functional (i.e., Computer, etc.)
- 7.8.2 Review the current Protective Action Recommendations and inform the EOF Radiological Coordinator of any changes based on radiological or meteorological conditions.
- 7.8.3 Consult with the EOF Operations Coordinator to obtain information regarding actual or potential release paths, sources, and duration.
- 7.8.4 Implement the requirements of EPP 06-012, DOSE ASSESSMENT, comparing TEDE and thyroid estimates with values in EPP 06-006, PROTECTIVE ACTION RECOMMENDATIONS.
- 7.8.5 Compare inputs and results with the State dose assessment staff.
- 7.8.6 Inform the EOF Radiological Coordinator of calculated results.
- 7.8.7 Assist in the formulation of Protective Action Recommendations.
- 7.8.8 Review, evaluate and trend off-site radiological monitoring data and off-site dose projections, then brief the EOF Radiological Coordinator.

7.9 Dose Assessment Technician

- 7.9.1 Ensure Dose Assessment Program is operable.
- 7.9.2 Determines:

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- o meteorological conditions
- o System status
- o Radiological Monitoring System and Meteorological data for changes or indications of a release.
- o Possible radioactive release pathways.
- o An estimate of off-site dose

7.9.3 Inform Dose Assessment Coordinator of results.

7.10 EOF Operations Recorder

7.10.1 Ensure NPIS is operable by verifying time and date in the upper right-hand corner are updating.

NOTES

- o There is a goal of updating the Operations Status Board at 15 minute intervals.

7.10.2 Maintain the Operations Status Board current by using NPIS Turn-On-Codes SB1 and SB2 OR with data obtained from the Operations Communicator on EPF 06-002-02, OPERATIONS STATUS BOARD.

1. Maintain a hard-copy of the NPIS printouts or completed EPF 06-002-02, OPERATIONS STATUS BOARD.

7.10.3 Monitor plant status for adverse trends and inform the EOF Operations Coordinator of changes in plant status which could affect the emergency classification.

7.10.4 Track procedure progress, list the procedure being performed by the Control Room.

7.10.5 Notify the EOF Operations Coordinator when transitions are made to the next procedure.

7.11 EOF Administrative Assistant

7.11.1 Ensure the operability of phones and radios. Conduct an initial radio check with Coffey County and the State of Kansas.

7.11.2 Ensure the verification phone is plugged in and operable.

7.11.3 Maintain EOF accountability by performing the following: **[Commitment Step 3.2.3]**

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	<ol style="list-style-type: none"> 1. Lock all outside doors to the building except the door on the southwest side of the building (the one next to the garage door). 2. Ensure airlock doors to the simulator are closed. 3. Maintain EPF 06-010-01, ACCOUNTABILITY LOG, for all persons entering and exiting the EOF who are not assigned to an Emergency Response Team.
7.11.4	<p>Provide assistance to the Off-site Emergency Manager by performing the following:</p> <ol style="list-style-type: none"> 1. Maintain the EOF Sequence of Events and Protective Action Recommendation Board 2. Answer the phone as needed 3. Provide log keeping assistance for the Manager as directed.
7.11.5	<p>Provide faxing and copying support by performing the following:</p> <ol style="list-style-type: none"> 1. Provide copies of EPF 06-007-01, WOLF CREEK GENERATING STATION EMERGENCY NOTIFICATION, to the EOF HPN Communicator and Off-site Public Information Coordinator. 2. Provide copies of Radiological and Operations Status Boards information to the Off-site Public Information Coordinator. 3. Ensure copies of all EPF 06-007-01, WOLF CREEK GENERATING STATION EMERGENCY NOTIFICATION, and EPF 06-002-03, SEQUENCE OF EVENTS, are provided to the TSC.
7.11.6	<p>Provide Off-site communications by performing the following:</p> <ol style="list-style-type: none"> 1. Contact the TSC Off-site Communicator to verify the status of notifications. 2. Verify that all information has been completed on Notification forms prior to transmitting. 3. Perform Emergency Notifications in accordance with EPP 06-007, EMERGENCY NOTIFICATIONS. 4. Conduct calls for off-site support as directed by the EOF Administrative Coordinator.

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- a. Unless the call for off-site support is to obtain assistance for a life threatening situation, do not interrupt the Immediate Notifications. Such calls shall be made coincidentally with Immediate Notifications.
- b. Calls for immediate off-site support take precedence over Follow-up Notifications.

7.12 EOF Team Director

- 7.12.1 Establish and control field teams in accordance with EPP 06-011, EMERGENCY TEAM FORMATION AND CONTROL.
- 7.12.2 Obtain and monitor radiological data that may affect the Field Team's ability to complete assigned activities.
 1. IF a vehicle needs decontamination, THEN inform the Radiological Coordinator:
 - o Make arrangements with the Coffey County Radiological Officer (see RETD Section I-E) for decontamination at the County Shop.
 - o Direct the Team to proceed to the Coffey County Shop, located at 1510 South 6th, Burlington, Kansas, for decontamination.
- 7.12.3 Assign each Emergency Response Team with a team identifier.
- 7.12.4 Ensure the logging in and analysis of all incoming radiological samples.
- 7.12.5 Review and document dosimetry results of emergency response activities in accordance with EPP 06-013, EXPOSURE CONTROL AND PERSONNEL PROTECTION.

7.13 EOF Team Communicator

- 7.13.1 Ensure that the radio is turned on and selected to the correct channel.
- 7.13.2 Notify the EOF Team Director when the Teams are ready to depart.
- 7.13.3 One communicator should establish and maintain communications with the off-site radiological monitoring teams.
 1. Verify team identification and membership when Field Teams establish radio communications.

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2. Record survey data taken by Field Teams.

- 7.13.4 One communicator should maintain the field team status boards, plot the locations of the teams, affix the appropriate stability class isopleth to the map and provide any needed assistance in maintaining the Radiological Status Board.
- 7.13.5 Communicate directions from the Team Director, maintaining a record of all transmissions.
- 7.13.6 Inform the teams of changes to plant status and emergency classifications.
- 7.13.7 Record team data in accordance with EPP 06-011, EMERGENCY TEAM FORMATION AND CONTROL.
- 7.13.8 Submit data to EOF Team Director for review and calculation verification.

7.14 Health Physics Network Communicator

- 7.14.1 Inform the EOF Radiological Coordinator that HPN communications is ready to be established.
- 7.14.2 WHEN requested by the NRC, THEN establish and maintain continuous communications with the NRC via the Emergency Telecommunications System (ETS).
 - 1. Directions for using the ETS are in EPP 06-007, EMERGENCY NOTIFICATIONS.
- 7.14.3 Furnish radiological data as requested which may include:
 - o dose projections off-site
 - o subzones affected
 - o Protective Action Recommendations
- 7.14.4 Inform EOF Radiological Coordinator of NRC's areas of concern.

7.15 Survey Team Technician

- 7.15.1 Establish and maintain communications with the EOF Team Communicator.
- 7.15.2 Perform monitoring duties in accordance with EPP 06-011, EMERGENCY TEAM FORMATION AND CONTROL

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7.16 Representative at County

NOTES

- o It is acceptable to initially report to the TSC/EOF to gather information.
- o Do not make any commitments to the County without the approval of an Emergency Manager.

7.16.1. At the emergency classification of Alert or higher emergency, report to the County EOC in the basement of the County Courthouse, at 6th and Neosho in Burlington.

7.16.2 Respond to requests from personnel in the County EOC, which may include:

- o Clarification of plant, technical and radiological data
- o Verification of plant, technical, meteorological and radiological data
- o Justification for Protective Action Recommendations
- o General inquiries

7.16.3 Keep the Off-site Emergency Manager apprised of the status of the implementation of Protective Action Recommendations.

8.0 INITIAL ACTIONS

8.1 None

9.0 SUBSEQUENT ACTIONS

9.1 None

10.0 RECORDS

10.1 Records generated by this procedure during an actual emergency are considered lifetime QA records and shall be forwarded to Emergency Planning at the termination of the emergency.

10.2 Records generated by this procedure during drills or exercises are considered non-QA records and shall be forwarded to Emergency Planning at the termination of the drill or exercise.

11.0 FORMS

11.1 EPF 06-003-01, RADIOLOGICAL STATUS

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ATTACHMENT A
(Page 1 of 3)
ALTERNATE EOF OPERATIONS

A.1 EOF Evacuation

- A.1.1 Off-site Emergency Manager determines when the EOF must be evacuated, based on actual or projected plant, radiological, or other conditions.
- A.1.2 The Off-site Emergency Manager determines
 - 1. Staff needed for the Alternate EOF and the staff to transfer to the TSC
 - 2. Excess staff to be released
 - 3. Supplies or equipment to be relocated to the Alternate EOF
 - 4. Preferred routing
- A.1.3 Off-site Emergency Manager directs all responsibilities of the EOF staff to revert back to the control of the TSC staff until the Off-site Emergency Manager declares the Alternate EOF activated.
 - o Dose projections and field team control transfers to, and remains with, the TSC after Alternate EOF activation.

NOTE

Phone service may take up to 24 hrs. to be fully functional. Phones existing in KPL office may be used/shared with the KPL business until Wolf Creek lines are operational.

- A.1.4 The EOF Administrative Coordinator should initiate activation of phone service for the Alternate EOF.
 - o Call Southwestern Bell at 800-734-7630 to request immediate activation of phone lines.
- A.1.5 The EOF Administrative Coordinator should dispatch an EOF person to open the Alternate EOF OR Call KPL at 800-794-4780 to request that the Duty Supervisor unlock the Emporia office.
 - o A key for the Alternate EOF is in the E-Plan Cabinet in the EOF Kit Room.

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ATTACHMENT A
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ALTERNATE EOF OPERATIONS

NOTE

All evacuation routes will be determined based on the current conditions.

- A.1.6 The EOF Radiological Coordinator should determine preferred routing for those traveling to:
 - o TSC
 - o Alternate EOF
 - o Home or Host County Shelter
- A.1.7 The EOF Radiological Coordinator should discuss with State dose assessment personnel equipment needed for relocation to the Alternate EOF and inform EOF Administrative Coordinator.
- A.1.8 The EOF Radiological Coordinator shall verify that it is radiologically prudent to proceed to the TSC.
- A.1.9 The EOF Team Director should ensure extra sampling supplies from the EOF cabinets are delivered to the Forward Staging Area.
- A.1.10 Environmental samples will be taken to the State Forward Staging Area when the EOF is deactivated.
- A.1.11 The HPN Communicator shall inform the NRC of the deactivation of the EOF and request instructions for re-establishing communications after re-locating to the TSC.
 - o At the direction of the TSC Radiological Coordinator re-establish HPN contact with the NRC.
- A.1.12 The EOF Administrative Assistant shall fax copies of Sequence of Events boards to the TSC/OSC.
- A.1.13 The EOF Administrative Assistant shall reconcile accountability as personnel leave the facility.
- A.1.14 The Wolf Creek Representative to the County remains at the County Emergency Operations Center (CEOC) and reports to the Site Emergency Manager after EOF deactivation.

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ATTACHMENT A

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ALTERNATE EOF OPERATIONS

A.2 Alternate EOF Activation

- A.2.1 Alternate EOF positions may be staffed through a callout of staff for the next shift.
- A.2.2 EOF staffing will be directed by the EOF Administrative Coordinator who may alter assignments as needed.
- A.2.3 Personnel and equipment arriving at the Alternate EOF from within the 10-mile EPZ are surveyed for radiological contamination and decontaminated prior to full access to the Alternate EOF as directed by the EOF Radiological Coordinator.
- A.2.4 The Off-site Emergency Manager declares the Alternate EOF activated when the following positions are present and a level of readiness has been achieved which allows for the assumption of Alternate EOF responsibilities.
 - o EOF Administrative Coordinator
 - o EOF Facility Technician
 - o EOF Operations Coordinator
 - o EOF Radiological Coordinator

NOTE

The numbering system for the Alternate EOF will be a continuation of the sequential number last used in the EOF.

- A.2.5 The EOF Administrative Assistant should have the TSC Administrative Assistants fax all completed Immediate and Follow-up Notification Forms, copies of the TSC Sequence of Events board and any News Statements.

- END -

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ATTACHMENT B
(Page 1 of 2)
EOF DIESEL OPERATION

NOTES

- o To prevent permanent cranking motor damage, do not crank the diesel for more than thirty seconds continuously. If the diesel does not start within the first thirty seconds, wait one to two minutes before re-cranking.
- o Frequency requirements apply only during steady-state conditions with the diesel under a constant load.

B.1 At the Remote Diesel Control Panel, start the diesel generator by placing the MANUAL START toggle switch to the PERMISSIVE START position. IF the diesel does not start within 30 seconds, THEN return the toggle switch to the OFF position for one to two minutes before re-cranking.

B.1.1 Verify the following parameters: (Reference Step 3.1.6)

- o Oil Pressure GREATER THAN 50 psig
- o Voltage 450 to 500 volts (all phases)
- o Frequency 58.8 Hz to 61.2 Hz

B.2 At the EOF Side Main Distribution Panel, place breakers for circuits 1 through 13 OFF.

NOTES

- o The diesel should be allowed to run unloaded for 3 to 5 minutes for warm-up.
- o Allow several seconds for generator load to stabilize before placing the next breaker to the ON position.

B.3 At the MANUAL TRANSFER SWITCH, place the NORMAL SUPPLY breaker to OFF.

B.4 At the MANUAL TRANSFER SWITCH, place the DIESEL GENERATOR breaker to ON.

B.5 At the EOF Side Main Distribution Panel, place breakers for circuits 1 through 13 to ON.

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ATTACHMENT B
(Page 2 of 2)
EOF DIESEL OPERATION

NOTE

Frequency requirements apply only during steady-state conditions with the diesel under a constant load.

- B.6 WHEN the diesel is operating under load, THEN monitor the following parameters to ensure they are within acceptable range: (Reference Step 3.1.6)
- o Oil Pressure GREATER THAN 50 psig
 - o Voltage 450 to 500 volts (all phases)
 - o Frequency 58.8 Hz to 61.2 Hz
- B.7 IF the EOF Diesel Generator is no longer needed, THEN ensure shutdown the diesel generator as follows:
- B.7.1 At the EOF Side Main Distribution Panel, place breakers for circuits 1 through 13 OFF.
 - B.7.2 At the MANUAL TRANSFER SWITCH, place the DIESEL GENERATOR breaker to OFF.
 - B.7.3 At the MANUAL TRANSFER SWITCH, place the NORMAL SUPPLY breaker to ON.
 - B.7.4 At the EOF Side Main Distribution Panel, place breakers for circuits 1 through 13 to ON.

NOTE

The diesel should be allowed to run unloaded for 3 to 5 minutes for cooldown.

- B.7.5 At the Remote Diesel Control Panel, stop the diesel generator by placing the MANUAL START toggle switch to OFF.
- B.7.6 Notify the Control Room to perform STN KAF-001, EOF DIESEL GENERATOR OPERATIONS, to ensure the diesel is ready for operation.

- END -

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ATTACHMENT C
(Page 1 of 3)
HEPA FILTRATION AND IODINE MONITORING OPERATION

C.1 HEPA FILTRATION STARTUP INSTRUCTIONS

- C.1.1 At Power Distribution Panel P-1, located at the north end of the hall going to the Learning Center, turn breaker 22 for the Lunch Room Exhaust Fan to "OFF".
[Commitment 3.2.1]
- C.1.2 At Power Distribution Panel P-2, located on the south wall of the Mechanical Equipment Room, turn breaker 30 for the Toilet Exhaust Fan to "OFF".
[Commitment 3.2.1]
- C.1.3 At the HEPA Filtration Fan Control Box, located on the east wall of the Mechanical Equipment Room, start the fan by pulling the button out.

C.2 IODINE MONITOR STARTUP INSTRUCTIONS

NOTE

The iodine monitor startup panels are located on the iodine monitor skid in the Mechanical Equipment Room in the EOF.

- C.2.1 Ensure "PWR ON" indicator is lit.
- C.2.2 CLOSE Purge Valve.
- C.2.3 Verify inlet valve is throttled OPEN.
- C.2.4 Press and hold the "START" Button.
 - 1. Verify green "ON" light comes on.
 - 2. IF vacuum is not between 3" and 10" Hg on the vacuum gauge, THEN adjust the inlet valve to obtain between 3" to 10" Hg on the vacuum gauge.
 - 3. WHEN vacuum is between 3" to 10" Hg on the gauge, THEN release the "START" button.
- C.2.5 Verify the "LIMIT" light is extinguished.
- C.2.6 IF the unit fails to start, THEN reset and try to restart the unit.

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ATTACHMENT C

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HEPA FILTRATION AND IODINE MONITORING OPERATION

- C.2.7 Verify top of barrel indicates air flow is between 1.8 and 2.2 cfm.

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ATTACHMENT C
(Page 3 of 3)
HEPA FILTRATION AND IODINE MONITORING OPERATION

C.3 HEPA FILTRATION SHUTDOWN INSTRUCTIONS

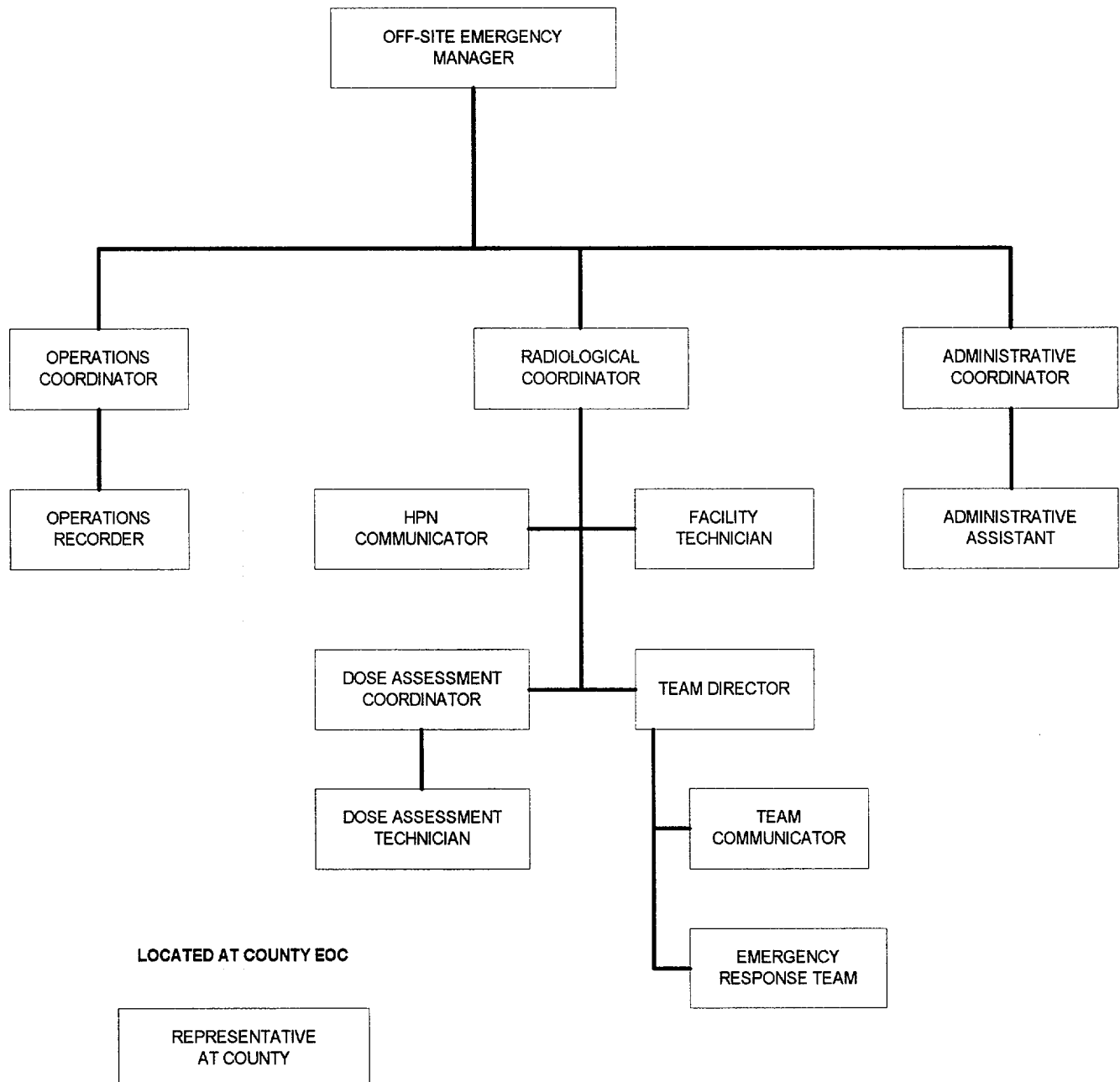
- C.3.1 At the HEPA Filtration Fan Control Box, located on the east wall of the Mechanical Equipment Room, secure the fan by pushing the button in.
- C.3.2 At Power Distribution Panel P-1, located at the north end of the hall going to the Learning Center, turn breaker 22 for the Lunch Room Exhaust Fan to "ON".
[Commitment 3.2.1]
- C.3.3 At Power Distribution Panel P-2, located on the south wall of the Mechanical Equipment Room, turn breaker 30 for the Toilet Exhaust Fan to "ON". [Commitment 3.2.1]

C.4 IODINE MONITOR SHUTDOWN INSTRUCTIONS

- C.4.1 Secure the iodine monitor by pressing and releasing the "STOP" button.

- END -

FIGURE 1
EMERGENCY OPERATIONS FACILITY



- END -



EPP 06-011

EMERGENCY TEAM FORMATION AND CONTROL

Responsible Manager

Manager Resource Protection

Revision Number	2
Use Category	Reference
Administrative Controls Procedure	No
Infrequently Performed Procedure	No
Program Number	06

DC2 08/21/01

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1.0 PURPOSE

- 1.1 This procedure provides guidance to form and dispatch teams required for repair and damage control, search and rescue, and assessing off-site radiological conditions in the event of emergency conditions at WCGS.

2.0 SCOPE

- 2.1 This procedure is implemented upon recognizing the need for formation of teams required for repair and damage control, search and rescue, or assessing off-site radiological conditions.

3.0 REFERENCES AND COMMITMENTS

3.1 References

- 3.1.1 AP 27-009, MEDICAL RESPONSE
- 3.1.2 Code of Federal Regulations, 10CFR20
- 3.1.3 EPP 06-013, EXPOSURE CONTROL AND PERSONNEL PROTECTION
- 3.1.4 EPP 06-009, DRILL AND EXERCISE REQUIREMENTS
- 3.1.5 AI 13G-007, BLOODBORNE PATHOGEN POLICY
- 3.1.6 AP 06-002, RADIOLOGICAL EMERGENCY RESPONSE PLAN (RERP)
- 3.1.7 RPP 02-305, PERSONNEL SURVEYS / DECONTAMINATION

3.2 Commitments

- 3.2.1 RCMS 93-077, IR 9119-04, Poor Coordination and Control of Monitoring Teams
- 3.2.2 ITIP 90045 (SOER 83-02, Recommendation R11)
- 3.2.3 RCMS 85-407, IR 8540-03, Dispatch Minimum of Four Off-site Monitoring Teams.
- 3.2.4 RCMS 00-036, Capability To Monitor Radioactive Iodines Released To The Environment Has Been Established.

4.0 DEFINITIONS

4.1 Dosimeter

- 4.1.1 A device worn by an individual to measure the whole body gamma radiation. These devices are direct reading and are available in several ranges.

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1. Low Range - dosimeters which have a maximum reading of up to 2000 milliroentgen.
2. Mid Range - dosimeters which have a maximum reading of up to 20 roentgen.
3. High Range - dosimeters which have a maximum reading greater than 20 roentgen.

4.2 Emergency Response Facility

- 4.2.1 Technical Support Center and Emergency Operations Facility, where instructions to teams may originate.

4.3 Field Teams

- 4.3.1 Field Teams are radiological teams designated to perform assessment of the off-site consequences of a radiological release. These teams shall consist of at least two members.

4.4 Joint Radiological Monitoring Teams

- 4.4.1 Joint Radiological Monitoring Teams are Field Teams comprised of at least two people with one from WCNOG and one from Kansas Department of Health and Environment or Coffey County. In this procedure, Joint Radiological Monitoring Teams are referred to as Field Teams.
- 4.4.2 Activities requiring specific authorization, such as exposure extensions, are provided by each team members respective emergency management.

4.5 Plant Team

- 4.5.1 Teams normally consisting of at least two personnel which are dispatched from the TSC to perform designated duties.

4.6 Plume Edges

- 4.6.1 The plume edges are defined as those downwind locations which have a dose rate of 1mR/hr.

4.7 Pre-Designated Monitoring Points (PMP)

- 4.7.1 General off-site monitoring locations used for consistency in off-site monitoring as a point of reference.

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4.8 Onsite

4.8.1 For purposes of this procedure onsite is that area within and adjacent to the Protected Area Boundary.

4.9 Off-site

4.9.1 The area outside the Protected Area Boundary.

4.10 Records

4.10.1 Documents such as calculation worksheets, computer printouts, forms, logs, memos, checklists, or any paper used to record data or information during an emergency, drill or exercise which may be used for event reconstruction.

4.11 Search and Rescue

4.11.1 The efforts to locate unaccounted personnel, extracting those individuals to a safe area, or providing first aid or calling for medical assistance, as necessary.

4.12 Team Communicator

4.12.1 Designated person in an emergency facility who maintains communications with Emergency Response Teams. The Team Communicator for the plant teams is the TSC Communicator and for the field teams is the EOF Team Communicator.

4.13 Wind Shift

4.13.1 A wind shift has occurred if the wind direction has changed by greater than 22.5 degrees.

5.0 RESPONSIBILITIES

5.1 Teams

5.1.1 To Maintain exposures As Low As Reasonably Achievable (ALARA).

5.1.2 Ensure that the required operability checks have been performed on equipment which they use.

5.1.3 Obtain appropriate respiratory equipment and dosimetry.

5.1.4 Obtain samples as directed.

5.1.5 Attend a briefing regarding the emergency conditions and monitoring objectives.

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NOTE

Radios are not to be used near the posted areas within the plant. Gaitronics or telephones are to be used in these areas.

5.2 Team Director

- 5.2.1 Advise team members of radiological conditions that may impact emergency response activities.
- 5.2.2 Ensure adequate samples are obtained for dose assessment.

5.3 Radiological Coordinator

- 5.3.1 Recommends the ingestion of radio-protective Potassium Iodide (KI) tablets, in accordance with EPP 06-013, EXPOSURE CONTROL AND PERSONNEL PROTECTION.

6.0 PRECAUTIONS/LIMITATIONS

- 6.1 Each Emergency Response Team should be composed of at least two individuals.
 - 6.1.1 HP Technicians may be dispatched to complete teams that originate from the Control Room.
 - 6.1.2 IF there has been a radiological release, THEN at least one individual should be qualified as a Health Physics (HP) Technician.
 - 6.1.3 The Radiological Coordinator may approve dispatch of teams without HP Technicians.
 - 6.1.4 The TSC Radiological Coordinator may dispatch a single HP Technician to the Control Room or to locations outside the Power Block to perform surveys.
 - 6.1.5 The Radiological Coordinator may authorize individuals to be dispatched.
- 6.2 A dose rate or count rate monitoring instrument shall be on at all times to detect unexpected or excessive exposure from the plume.
- 6.3 When entering areas of unknown radiological hazards, the Radiological Coordinator designates appropriate protective measures for team members.
- 6.4 As time permits, Radiation Work Permits should be completed for plant radiological emergency response activities.

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- 6.5 Team personnel should use protective clothing/respiratory equipment to minimize skin contamination and internal exposure.
- 6.6 Team personnel shall not exceed 10CFR20 exposure limits without approval.
- 6.7 WHEN team members approach gamma radiation fields, THEN team members should perform the following:
- o 1000 mR/hr, contact the Team Director
 - o 5000 mR/hr, immediately exit the radiation field and contact the Team Director
- 6.8 WHEN accumulated dose on a pocket ion chamber reaches 500 mR or 1000 mR, THEN team members should perform the following:
- o 500 mR, contact the Team Director
 - o 1000 mR, immediately exit the plume and contact the Team Director
- 6.9 Prior to the deployment of teams, ensure team members are briefed on emergency conditions and team objectives.
- o IF a team is dispatched for multiple successive assignments, THEN consideration should be given for the necessity of subsequent briefings.
- 6.10 Personnel assigned for search and rescue follow AP 27-009, MEDICAL RESPONSE, and AI 13G-007, BLOODBORNE PATHOGEN POLICY, upon locating unaccounted for personnel who are injured.
- 6.11 IF medical assistance is anticipated, THEN request a Physician's Assistant (PA) or Emergency Medical Technician (EMT) to accompany the Search and Rescue Team.
- 6.12 Individuals performing onsite radiological survey activities exercise ALARA concepts, in accordance with EPP 06-013, EXPOSURE CONTROL AND PERSONNEL PROTECTION. **[Commitment Step 3.2.1]**
- 6.13 A minimum of four Field Teams shall be organized as soon as practicable, whenever a radiological release is imminent or in progress. **[Commitment Step 3.2.3]**

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7.0 PROCEDURE

7.1 Team Preparation for Dispatch

7.1.1 Ensure an individual is assigned as Team Leader.

NOTE

If the State and County Joint Radiological Monitoring Team members join the Team in the field, ensure that they also receive a briefing.

7.1.2 Ensure Teams are briefed per EPF 06-011-02, FIELD TEAM BRIEF.

NOTE

Plant Teams are normally identified by number, Field Teams are normally identified by color.

7.1.3 Ensure Teams are issued a Team identifier.

7.1.4 Ensure all required tools, instruments and equipment required for team objectives are obtained.

7.1.5 Teams check and don all required anti-contamination clothing, dosimetry, and respiratory equipment.

NOTE

Kit content inventory is not required if the seal is intact.

7.1.6 Teams select an Emergency Kit and perform an inventory check against the inventory list provided in the kit.

NOTES

- o If inoperable instruments are discovered, backup instrumentation and batteries are available in the Emergency Cabinets.
- o Air samplers must be tested prior to Field Team vehicles leaving the EOF
- o Assemble and seal air sample head prior to Field Team vehicles entering the plume.

7.1.7 Teams perform the required operability checks on the equipment contained within the Emergency Kit.

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- 7.1.8 IF repairs in the field are required, THEN review EPF 06-011-01, PLANT TEAM BRIEF, as needed to complete the repair task.

CAUTION

Radios are not to be used near the posted areas within the plant. Gaitronics or telephones are to be used in these areas.

NOTE

Teams use the plant radio system as the primary means of communication. IF there is a loss of radio communication, THEN contact the TSC Field Team Communicator via the Gaitronics or telephone systems.

- 7.1.9 Teams check communications equipment for operability.
- o Establish and maintain radio communications with the applicable Team Communicator.
 - o Relay team membership and identification to the Team Communicator.
 - o IF available, THEN Check the cellular phone for operability
- 7.1.10 Obtain a hand held radio.
- 7.1.11 Field Teams obtain respiratory equipment and dosimetry devices from Emergency Cabinets
- o Record the initial readings of dosimetry for each team member on EPF 06-013-02, EMERGENCY EXPOSURE TRACKING LOG.
 - o IF dispatched from the EOF, THEN team members should take two extra respirators, per vehicle, for potential use.
- 7.1.12 Field Teams may obtain the keys for a radiological emergency response vehicle from the key box located outside the EOF kit room.
- 7.1.13 Field Teams ensure that the vehicle is:
- o fueled
 - o properly equipped
 - o IF equipped with an AC inverter THEN ensure that it is operable

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7.1.14 WHEN applicable parts of EPF 06-011-01, PLANT TEAM BRIEF, or EPF 06-011-02, FIELD TEAM BRIEF, are completed, THEN confirm departure with the Team Director.

7.2 Teams Dispatch

- 7.2.1 As directed, proceed to assigned locations.
- 7.2.2 Periodically observe dose rate monitoring instrumentation while en-route to assigned locations.
- 7.2.3 Upon arrival at the designated location notify the Team Communicator.
- 7.2.4 Inform the Team Communicator of work in progress and status of equipment and radiological conditions.
- 7.2.5 Inform the Team Communicator of the name, location, and condition of missing individuals found.
 - a. Medical assistance should be administered in accordance with AP 27-009, MEDICAL RESPONSE and AI 13G-007, BLOODBORNE PATHOGEN POLICY.
 - b. Escort/assist in the removal of individuals as directed.
- 7.2.6 Report completion of assigned task(s) or expiration of stay time and request further instructions.
- 7.2.7 Upon return to the TSC, the Team Leader completes EPF 06-011-05, TEAM DEBRIEF, and assures completion of EPF 06-013-02, EMERGENCY EXPOSURE TRACKING LOG.

7.3 Field Teams

- 7.3.1 Ensure the coordination and integration of County and State personnel into the Field Teams.
- 7.3.2 Assign Team members the following dosimetry, at a minimum:
 - o Low range PIC
 - o Mid-range PIC
 - o A thermoluminescent dosimeter (TLD)
- 7.3.3 Complete EPF 06-013-02, EMERGENCY EXPOSURE TRACKING LOG
- 7.3.4 Assign the Team a vehicle.

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- 7.3.5 Establish off-site locations to be monitored, routes to be used by the Monitoring Teams, and any requirements for the use of protective clothing and respiratory protective equipment.
- 7.3.6 Direct the teams to identify the radioactive plume boundaries and other pertinent characteristics of the plume.
 - o Refer to Guidelines For Field Team Control in Attachment A.
- 7.3.7 Review incoming field data, EPF 06-011-03, AIRBORNE RADIOACTIVITY CALCULATIONS, and verify calculations.
- 7.3.8 Ensure the Dose Assessment Coordinator receives the field data.
- 7.3.9 Advise the Radiological Coordinator regarding the radiological conditions encountered and the field team monitoring data collected by the Field Teams.
- 7.3.10 Direct the updating of status boards through the EOF Team Communicator.
- 7.3.11 Ensure team members do not exceed 10 CFR 20 exposure limits.

NOTE

If the emergency DID NOT involve a release of radioactive materials, implementation of the following steps is NOT required.

- 7.3.12 Consider the need to issue potassium iodide (KI) in accordance with EPP 06-013, EXPOSURE CONTROL AND PERSONNEL PROTECTION.
- 7.3.13 Ensure that incoming samples to the EOF are logged in accordance with EPP 06-011-06, SAMPLE CONTROL & CHAIN OF CUSTODY.

NOTE

Survey Teams should move to a low background area during periods when radiological monitoring activities are not being conducted or when data is recorded.

- 7.3.14 Field Teams maintain an estimate of the time spent in the plume.

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NOTES

- o Contact with the plume is indicated by beta measurements. Conversely, the absence of beta radiation indicates exposure to "sky shine radiation," gamma radiation from plume overhead.
- o To improve the flow through ventilation of the vehicle and to increase mixing with outside air it is recommended that a window be partially or fully opened, however it is not required.

7.3.15 Inform the Team Communicator of arrival at the sampling location.

NOTE

It may be necessary to collect field samples and then move to a low background area in order to estimate sample activities in the field, after informing the Team Communicator.

7.3.16 Perform data collection and sampling in accordance with ATTACHMENT B, ENVIRONMENTAL SAMPLE TECHNIQUES

7.3.17 Record sampling locations, times, measurements, and sample data on EPP 06-011-03, AIRBORNE RADIOACTIVITY CALCULATIONS.

7.3.18 Place all field samples in separate labeled sample containers with the following applicable information:

- o date and time
- o location
- o individual/field team
- o type and description of sample
- o air monitor sample time (start & stop)
- o air monitor sample flow
- o radiation reading at contact

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NOTE

Teams shall move to an area away from direct plume exposure during periods when radiological monitoring activities are not being conducted.

- 7.3.19 IF sampling was performed, THEN inform the applicable Team Communicator that sampling is completed and request further instructions.

NOTES

- o At a minimum survey the grill area, windshield, wheel wells, rear glass area, air filter, seats, floor boards, and interior door handles.
- o Consideration will be given to continued use of contaminated vehicles in contaminated areas unless contamination levels pose a radiological risk to team members.

- 7.3.20 Perform a survey of the emergency vehicle in a low background area as directed by the Team Director.
1. Inform the Team Director of vehicle contamination of greater than or equal to 100 cpm above background.
 2. If directed to decontaminate the vehicle, proceed to the Coffee County Shop, located at 1510 South 6th, Burlington, Kansas.
 3. Notify the Team Director when the vehicle decontamination has been completed.
- 7.3.21 Upon completion of all off-site radiological monitoring activities, the following are performed:
1. Submit all samples and corresponding data sheets.
 2. Samples that have activity greater than 2 mR/hr at one meter should be placed in a shielded or restricted area to reduce personnel exposures and radiation fields in the laboratory.
 3. Complete EPP 06-011-06, SAMPLE CONTROL & CHAIN OF CUSTODY, for off-site samples.
 - o The original copy of the log should remain with the samples throughout the transfer process

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- o A copy of completed inventory logs should be routed to the Team Director

4. Enter final dosimetry readings for each team member on EPF 06-013-02, EMERGENCY EXPOSURE TRACKING LOG.

8.0 INITIAL ACTIONS

- 8.1 None.

9.0 SUBSEQUENT ACTIONS

- 9.1 None.

10.0 RECORDS

- 10.1 Records generated by this procedure during an actual emergency are considered lifetime QA records and shall be forwarded to Emergency Planning at the termination of the emergency.
- 10.2 Records generated by this procedure during a drill or exercise are considered non-QA records and shall be forwarded to Emergency Planning at the termination of the drill or exercise.

11.0 FORMS

- 11.1 EPF 06-011-01, PLANT TEAM BRIEF
- 11.2 EPF 06-011-02, FIELD TEAM BRIEF
- 11.3 EPF 06-011-03, AIRBORNE RADIOACTIVITY CALCULATIONS
- 11.4 EPF 06-011-06, SAMPLE CONTROL & CHAIN OF CUSTODY
- 11.5 EPF 06-011-05, TEAM DEBRIEF

- END -

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ATTACHMENT A
(Page 1 of 3)
GUIDELINES FOR FIELD TEAM CONTROL

CAUTION

Teams should not enter any portion of the plume where the gamma dose rates exceed 5000 mR/hr.

NOTES

- o Timely collection of initial centerline data is of utmost importance.
- o Remember natural barriers such as John Redmond Reservoir and the Neosho River south of Burlington will prevent traversal of a plume in those locations.

- A.1 Determine initial monitoring locations, and routes to those locations, based on projected plume location and ALARA considerations.
- A.2 Teams should be deployed as soon as possible with appropriate equipment, supplies, and protective clothing.
 - A.2.1 At all times, each vehicle shall contain at least a dose rate meter, a radio, and a person trained in their use.
 - A.2.2 Two teams should be sent out consisting of one Wolf Creek HP and one County technician on each team.
 - A.2.3 The remaining two HP and County technicians will assist in the activation of the EOF.
 - A.2.4 WHEN State Joint Radiological Monitoring Team members arrive, THEN these technicians will be added to the teams.
 - a. The State vehicle is dispatched to the field as a Joint Radiological Monitoring Team vehicle.

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ATTACHMENT A
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GUIDELINES FOR FIELD TEAM CONTROL

NOTE

IF a shuttle vehicle is used to get additional team members to the field, THEN that vehicle needs to have a radio and a radiological meter.

- b. IF teams are already in the field when the State arrives, THEN the State vehicle may be used to deliver the remaining Joint Radiological Monitoring Team members to any vehicles in the field.
- A.3 Assemble all equipment and prepare to take all samples and readings prior to entering the plume.
- A.4 The Federal dose limit of 5 REM, is in effect for all team members and exposures greater than 5 REM must be pre-approved.
- A.5 Prior to plume entry determine types of samples (e.g. direct reading, air, water) to be taken by Field Teams.
- A.6 Direct teams to verify plume centerline and plume boundaries.

NOTE

Approximately 3 centerline samples should be obtained during an approximate 6 hour release, for a given wind direction. However, for a dose assessment, one centerline value may be sufficient.

- A.6.1 Centerline sample(s) are obtained only if team personnel would not exceed their dose limits. IF team personnel would exceed their dose limits, THEN that activity should not be performed at that location until it is safe to do so.
- A.6.2 IF the team has identified the centerline, THEN have them note distance from centerline to edge of plume.
- A.6.3 IF a downwind subzone has been evacuated, THEN the primary objective is to monitor the plume edges to ensure the affected area does not increase in size. After that is done a more detailed analysis of the plume can be undertaken.
- A.7 Direct teams to low background areas for sample counting or when not performing monitoring functions. One team may be used solely as a counting station.

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ATTACHMENT A
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GUIDELINES FOR FIELD TEAM CONTROL

- A.8 Keep teams informed of plant status and meteorological conditions.
- A.9 As data is received from Field Teams coordinate with the State RAM to determine locations for additional monitoring / sampling.
- A.10 Prior to dispatch, shift relief personnel shall receive a briefing, be properly equipped and dressed, then directed to an appropriate low dose location to relieve personnel going off shift.

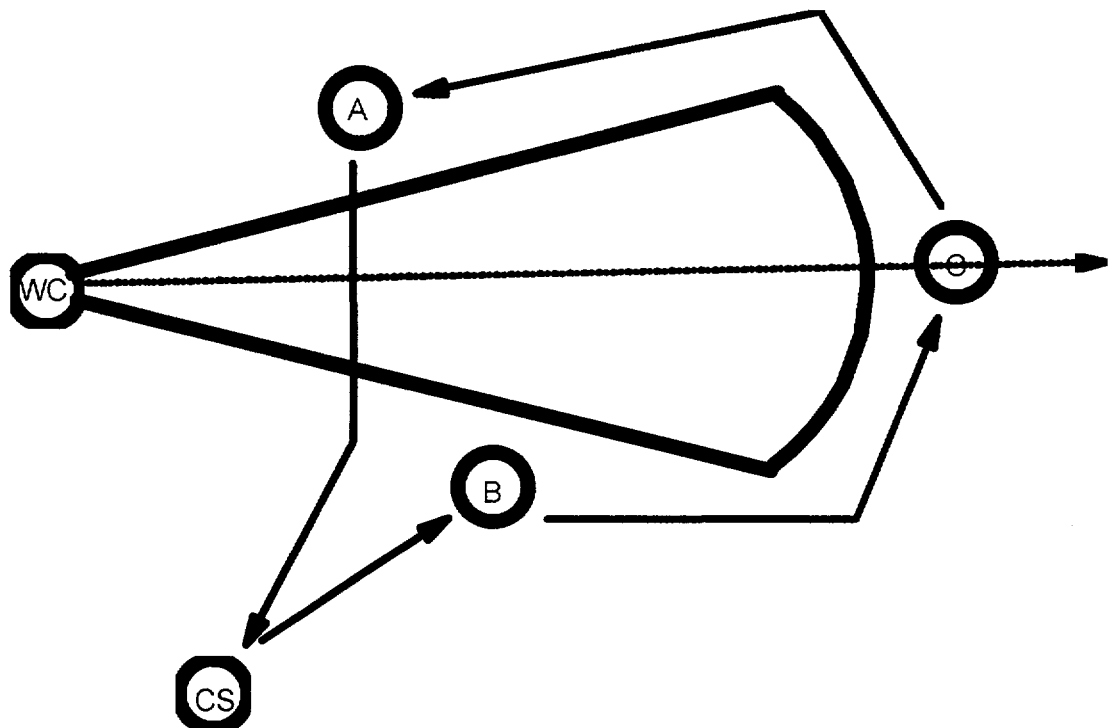
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ATTACHMENT B
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ENVIRONMENTAL SAMPLING TECHNIQUES

B.1 Plume Monitoring

- B.1.1 Field teams should be self-directed in the "bumping" of the plume edge. That is, the teams should be on the move checking for the plume edge and its progression downwind.
- B.1.2 The following rotation pattern is recommended for field team plume monitoring:



1. Team A monitors the far plume edge until directed to traverse the plume. They then deliver centerline samples to the Counting Station. Team A then replaces Team B.
2. Team B monitors the near plume boundary until Team A delivers centerline samples to the counting station. Team B then rotates to the plume front edge to replace Team C.
3. Team C monitors the plume front edge until Team A delivers centerline samples to the counting station. Team C then rotates to the plume far edge to replace Team A.

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ATTACHMENT B
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ENVIRONMENTAL SAMPLING TECHNIQUES

4. The Counting Station maintains a "Clean" sample counting environment for the analysis of the centerline samples.

B.1.3 Team control with less than four teams should proceed as follows:

1. Two teams may be positioned just off the anticipated centerline at different distances from the plant. Once the near-plant team gets a reading, the teams should cross the centerline, determining centerline information, then take up plume edge determination positions.
2. When a third team becomes available, they should be used to monitor the leading edge of the plume.
3. Once a fourth team is available the rotation described in step B.1.2 should be used.

B.2 Exposure Rate Measurement

B.2.1 Observe count/exposure rate instrumentation, when directed to conduct plume traverse/tracking as follows:

1. Hold the detector of the monitoring instrumentation inside the vehicle and above the lap.
 - o Measure the exposure rate with the beta shield open for a beta/gamma reading.
 - o Measure the exposure rate with the beta shield closed for a gamma reading.

B.2.2 If using an RO-2, or an equivalent meter, QUANTIFY the beta dose rate by subtracting the gamma reading from the beta/gamma reading and multiplying this result by a beta correction of four.

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ATTACHMENT B
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ENVIRONMENTAL SAMPLING TECHNIQUES

NOTE

Because of its greater sensitivity as a detector of beta/gamma radiation relative to a dose rate instrument, the count rate instrument will provide the first indication of radiation from a plume.

B.2.3 Upon observing a count rate or exposure rate above normal background, notify the applicable Team Communicator of your location.

B.2.4 Conduct further plume traverse/tracking only as directed. IF directed to begin traverse/tracking the plume, THEN identify and transmit the location of the maximum readings noted and plume boundaries.

B.3 Air Sample Collection

B.3.1 Assemble a particulate filter (coarse side out) and a silver zeolite cartridge (flow arrow pointed at sampler) in the sampling head and install the head on the sampler.

NOTES

- o The vehicle must remain running while sampling is performed within the plume.

B.3.2 Place the sampler so that a representative sample may be collected. Plug the sampler into the vehicle power supply outlet and start the sampler, noting the actual flow rate and starting time.

NOTE

Shorter sample times may be utilized to minimize exposure from excessive dose rates.

- a. Air sample flow rate should be set at 2.0 cfm for 10 minutes. Flow rates above 2.0 cfm reduce absorption of gases in the cartridge.

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ATTACHMENT B
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ENVIRONMENTAL SAMPLING TECHNIQUES

- b. Allow the sampler to run for the requested time (normally a 20 ft³ sample is obtained). Note the final flow rate, stop the sampler, and record stop time on EPF 06-011-03, AIRBORNE RADIOACTIVITY CALCULATIONS.
- c. After exiting the plume, remove the particulate filter and silver zeolite cartridge from the sampler head, bag and label, and if requested determine their gross activities.

B.4 Determination of Gross Particulate Activity

- B.4.1 Measure a background count rate using a count rate instrument with an HP-210 probe, or equivalent.
- B.4.2 Place the filter in a planchette in the sample holder, inlet side facing up.
- B.4.3 Measure the particulate filter count rate by placing an HP-210 probe or equivalent in the sample holder.
- B.4.4 Bag and label the particulate filter and discard the used planchette in a plastic bag.
- B.4.5 Calculate gross particulate activity in accordance with EPF 06-011-03, AIRBORNE RADIOACTIVITY CALCULATIONS.

B.5 Determination of Gross Iodine Activity [Commitment Step 3.2.4]

- B.5.1 Determine a background count rate using a count rate instrument with an HP-210 probe, or equivalent.

NOTE

Samples collected onsite should be purged within the confines of a ventilation hood prior to counting.

- B.5.2 Before measurement, aspirate the cartridge by drawing non-plume air through the cartridge for 3-seconds.
- B.5.3 Bag and label the silver zeolite cartridge.
- B.5.4 Measure the silver zeolite cartridge count rate by placing an HP-210 probe, or equivalent directly at contact to the outlet side of the cartridge.

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ATTACHMENT B
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ENVIRONMENTAL SAMPLING TECHNIQUES

B.5.5 Calculate gross iodine activity in accordance with EPF 06-011-03, AIRBORNE RADIOACTIVITY CALCULATIONS.

B.6 Direct Scan Ground Deposition Survey

NOTE

Ground measurements should be made in an undisturbed, open area away from vehicles, buildings, roads, evacuated areas, or piled gravel or soil. Care should be exercised to prevent puncture of the mylar window or contamination of the probe.

- B.6.1 Determine the background count rate using a count rate instrument with an HP-210 probe or equivalent approximately three feet above ground level, outside of the effected area.
- B.6.2 Determine a gross count rate approximately two inches above ground level.
- B.6.3 Determine the net count rate (ncpm) by subtracting the background count rate (Bkgd cpm) from the gross count rate (Gross cpm).
- B.6.4 Record results on the sample label. IF sample was not collected at this location THEN record gamma results in the log.

B.7 Smear Ground Deposition Survey

NOTE

The area to be swiped should be a flat, smooth surface (e.g., a car hood other than that of the team vehicle), using care not to shake off the collected material.

- B.7.1 Swipe a 100cm² area using a smear pad.
- B.7.2 Measure the background count rate using a count rate instrument with an HP-210 probe or equivalent.
- B.7.3 Place the smear in a planchette in the sample holder.
- B.7.4 Measure the gross count rate by placing an HP-210 probe or equivalent in the sample holder.
- B.7.5 Bag and label the smear pad.

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ATTACHMENT B
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ENVIRONMENTAL SAMPLING TECHNIQUES

B.7.6 Determine the net smearable contamination (sample cpm) by subtracting the background count rate from the gross count rate.

B.7.7 Calculate the smearable contamination in uCi/m² as follows:

$$\text{uCi/m}^2 = \frac{(\text{ncpm})}{2.2 \times 10^3}$$

where:

2.2x10³ includes detector efficiency, area correction and dpm conversion

B.7.8 Record the results in terms of uCi/m² on the sample label.

B.8 Soil Sample Collection

NOTE

Soil samples should be obtained in areas free of any vegetation.

B.8.1 Wearing gloves, remove approximately the top ½ inch of soil from a 200 cm² area (approximately 5" x 6").

B.8.2 Bag and label the soil sample.

B.9 Vegetation Sample Collection

B.9.1 Wearing gloves, cut vegetation growth down to approximately 1 inch from ground level in a 1 m² area.

B.9.2 Bag and label the vegetation sample.

B.10 Snow Sample Collection [Commitment Step 3.2.2]

NOTE

Snow samples should be collected in areas free from vegetation, buildings, etc.

B.10.1 Wearing gloves, collect the top layer of snow, not to exceed three inches, in a 1 m² area.

B.10.2 Bag and label the snow sample in a double plastic bag.

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ENVIRONMENTAL SAMPLING TECHNIQUES

B.10.3 Transfer all of the snow sample, once it has melted, to a labeled sample bottle(s).

B.11 Liquid Sample Collection

NOTE

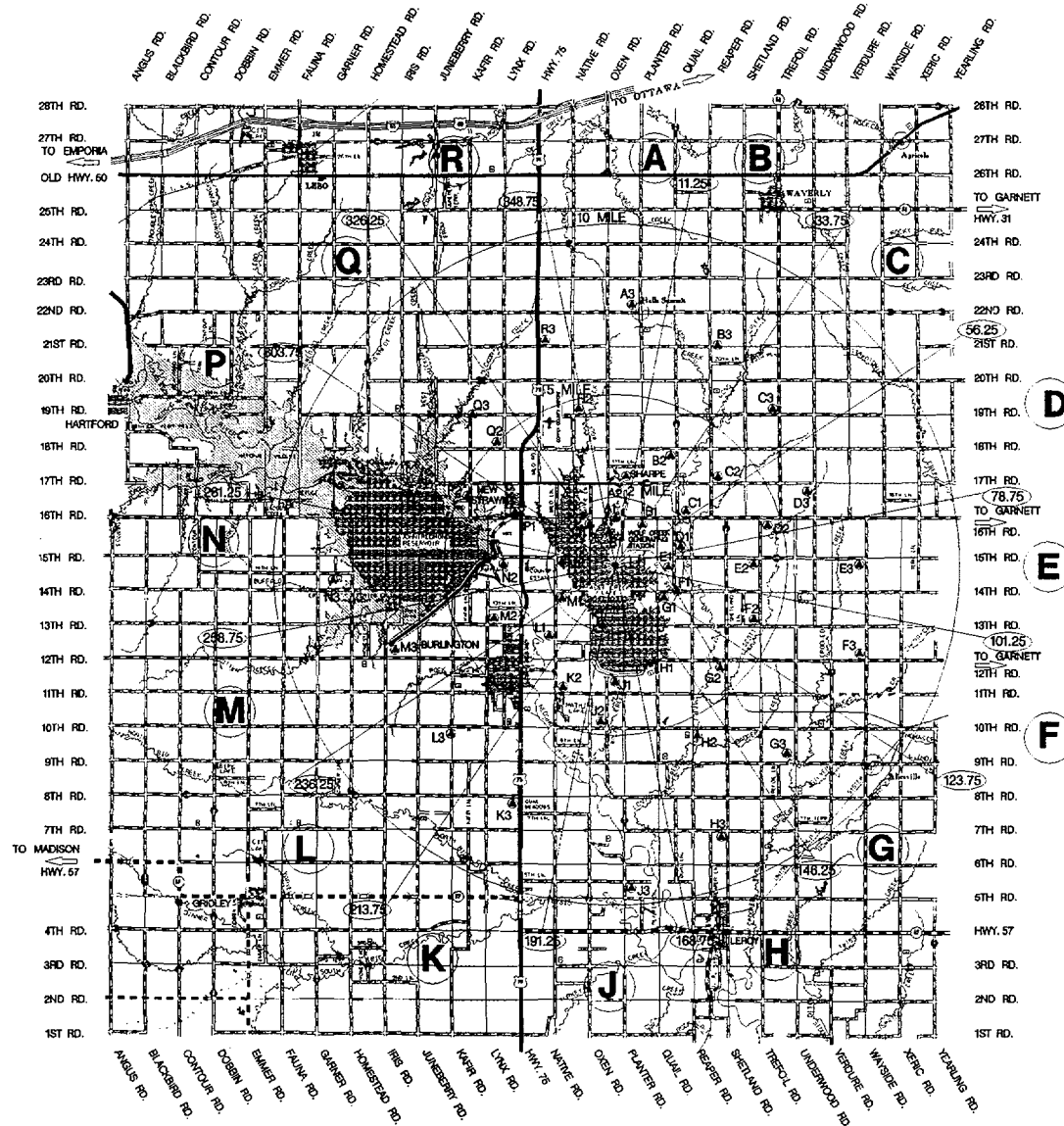
Sources of water to be sampled should normally be undisturbed, stagnant bodies, such as ponds or cattle troughs.

B.11.1 Wearing gloves, immerse a one liter bottle in water source until full. Avoid getting potentially contaminated water on the skin.

B.11.2 Place the liquid sample bottle in a plastic bag and label.

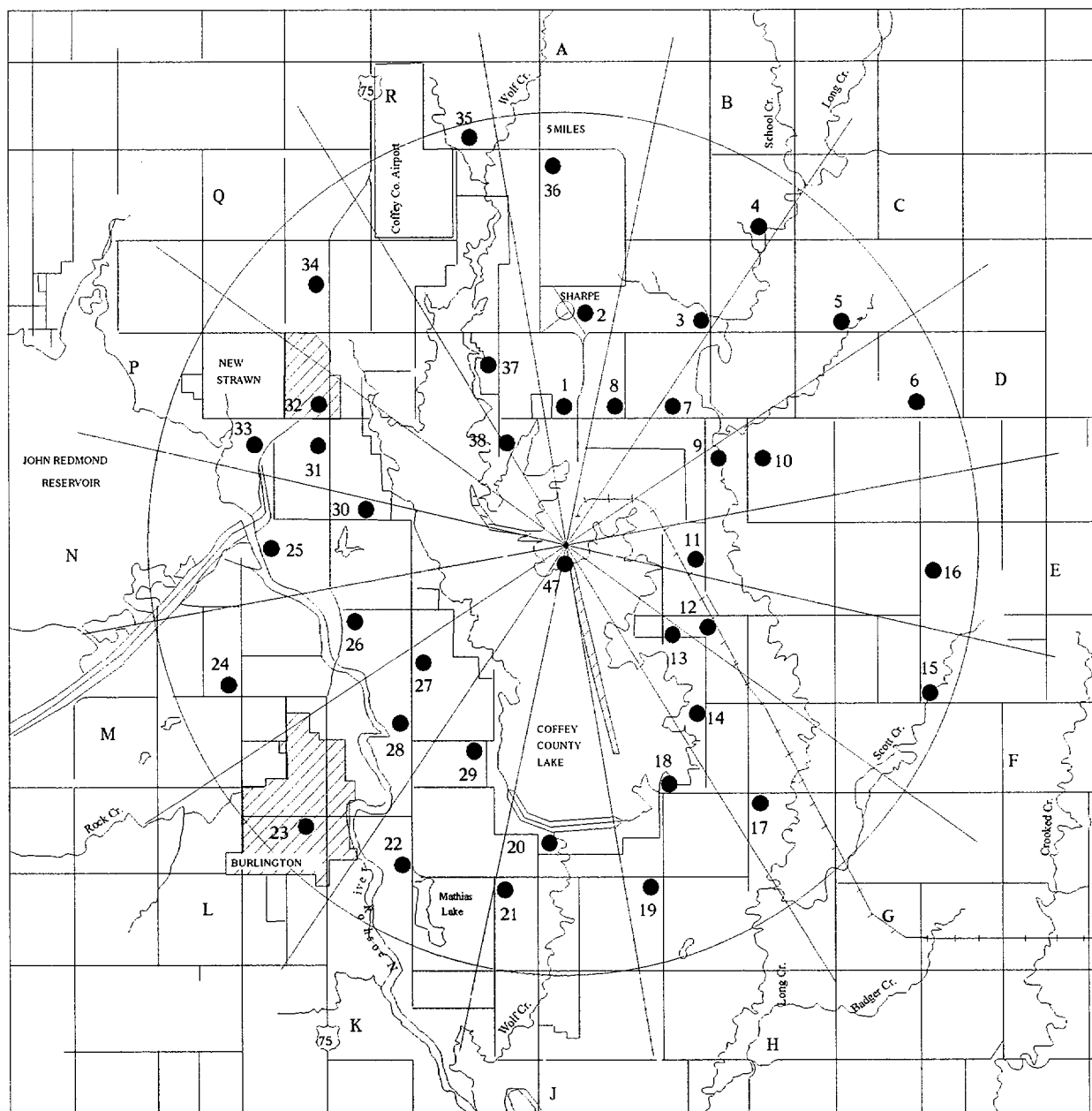
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FIGURE 1
PRE-DESIGNATED MONITORING POINTS



- END -

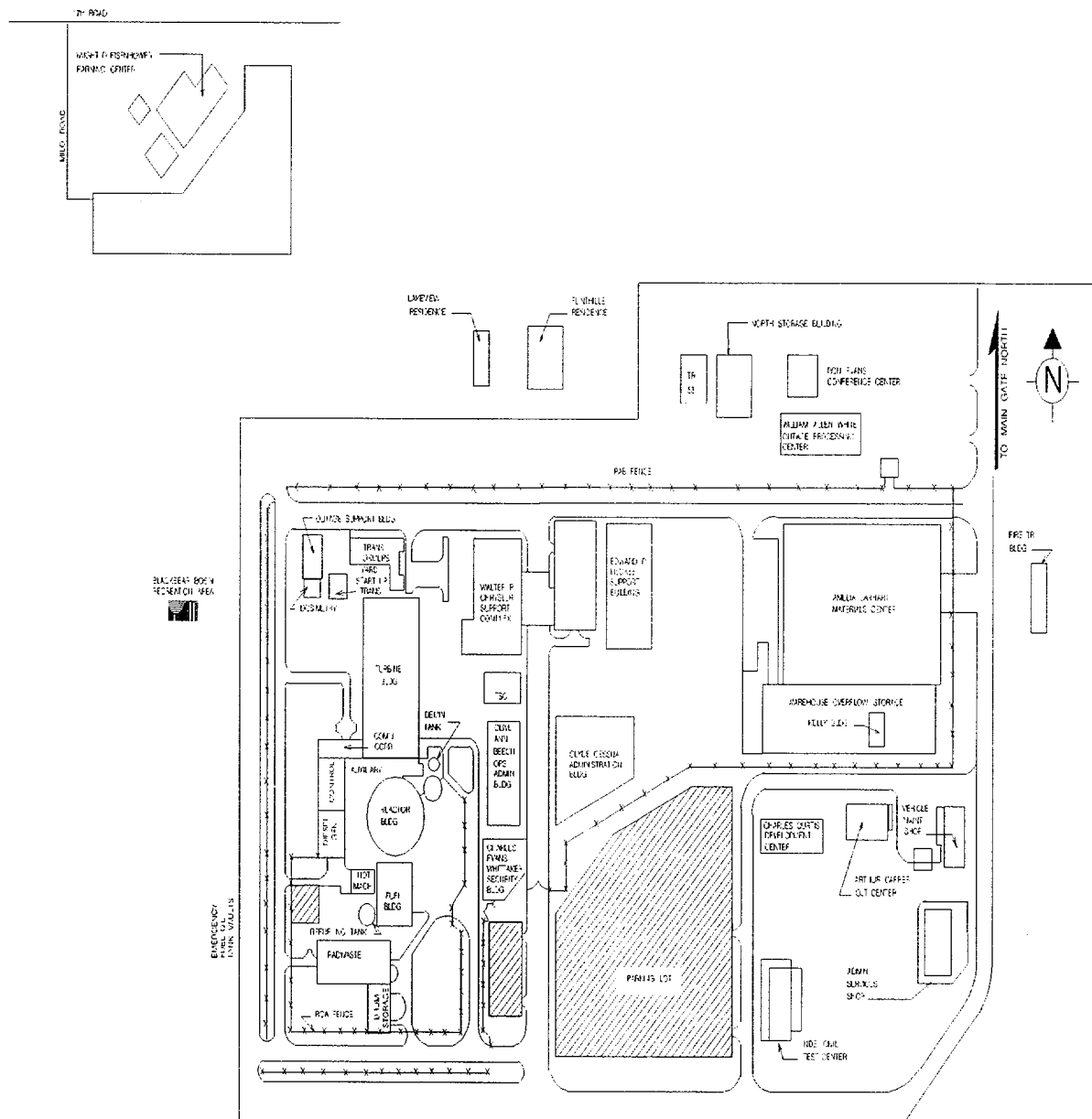
FIGURE 2
ATMOSPHERIC SAMPLING



DIRECT RADIATION PATHWAY SAMPLING LOCATIONS

● = TLD LOCATIONS

- END -

FIGURE 3
SITE MAP

- END -

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EPP 06-012

DOSE ASSESSMENT

Responsible Manager

Manager Resource Protection

Revision Number	4
Use Category	Reference
Administrative Controls Procedure	No
Infrequently Performed Procedure	No
Program Number	06

DC2 03/22/01

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1.0 PURPOSE

- 1.1 This procedure provides guidance for determining release rates and for estimating off-site dose to the Whole Body and Thyroid.

2.0 SCOPE

- 2.1 The estimated release rate, total release values, off-site dose rates, and integrated doses to the Whole Body and Thyroid, are used in conjunction with EPP 06-006, PROTECTIVE ACTION RECOMMENDATIONS, as one basis for determining off-site protective actions to be recommended to State and County Officials.

3.0 REFERENCES AND COMMITMENTS

3.1 References

- 3.1.1 CHS AX-G01, SAMPLING OF UNIT AND RADWASTE VENTS FOR RADIOACTIVE GAS AND TRITIUM
- 3.1.2 EPP 06-006, PROTECTIVE ACTION RECOMMENDATIONS
- 3.1.3 EPP 06-009, DRILLS AND EXERCISE REQUIREMENTS
- 3.1.4 EPP 06-011, EMERGENCY TEAM FORMATION AND CONTROL
- 3.1.5 EPP 06-013, EXPOSURE CONTROL AND PERSONNEL PROTECTION
- 3.1.6 Radiological Emergency Response Plan (RERP)
- 3.1.7 Regulatory Guide 1.109, Calculation Of Annual Doses To Man From Routine Release Of Reactor Effluents For The Purpose Of Evaluating Compliance With 10CFR50, Appendix I, (Rev. 1, October, 1977)
- 3.1.8 Regulatory Guide 1.111, Methods For Estimating Atmospheric Transport And Dispersion Of Gaseous Effluents In Routine Releases From Light Water Cooled Reactors, (Rev. 1, July 1977)
- 3.1.9 Regulatory Guide 1.145, Atmospheric Dispersion Models For Potential Accident Consequence Assessments At Nuclear Power Plants, (August, 1979)
- 3.1.10 Regulatory Guide 1.23, Meteorological Programs In Support Of Nuclear Power Plants, (September, 1980)
- 3.1.11 Regulatory Guide 1.4, Assumptions Used For Evaluating The Potential Radiological Consequences Of A Loss Of Coolant Accident For Pressurized Water Reactors, (Rev. 2, June 1974)

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3.2 Commitments

- 3.2.1 ITIP 00101 (SOER 83-02, Recommendation R12), Ensure Estimates Of Dose Can Be Made For Two-Phase Or Liquid Releases Though S/G Safety And Relief Valves.

4.0 DEFINITIONS

4.1 Emergency Planning Zone (EPZ)

- 4.1.1 The area around WCGS in which emergency preparedness planning is conducted. The plume exposure EPZ has a radius of approximately 10 miles. The ingestion exposure pathway EPZ has a radius of about 50 miles.

4.2 Exclusion Area

- 4.2.1 That area within a 1200-meter radius surrounding WCGS in which WCNOG has the authority to determine all activities including exclusion or removal of persons and property from the area.

4.3 Integrated Dose

- 4.3.1 The amount of ionizing radiation that has been received during a given period of time by a population or group.

4.4 Pasquill Atmospheric Stability Classifications

- 4.4.1 Are measures of the stability or instability of an air mass based upon the vertical temperature differential between two points.

4.5 Projected Dose

- 4.5.1 The amount of ionizing radiation that is likely to be received by a population or group if no protective action measures are implemented.

4.6 Projected Integrated Dose

- 4.6.1 The summation of the Integrated Dose (previous) and the Projected Dose (future).

4.7 Protective Actions

- 4.7.1 Those emergency measures taken to minimize or prevent radiological exposures to personnel.

4.8 Release Rate

- 4.8.1 The quantity of radioactive material released to the environment expressed in curies per second (Ci/sec).

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4.9 Source Term

4.9.1 The calculated quantity of radioactive material available for or being released to the environment.

4.10 X/Q

4.10.1 A factor based on meteorological dispersion characteristics which relates atmospheric radionuclide release rates to offsite air concentrations.

4.11 Nuclear Plant Instrument System (NPIS)

4.11.1 A plant monitoring tool designed to view critical systems and components during normal and accident conditions.

4.12 Dose Assessment Program

4.12.1 A computer program developed at Wolf Creek designed to use site-specific source terms in the performance of Dose Assessment during an accident condition.

5.0 RESPONSIBILITIES

5.1 Shift Manager

5.1.1 Prior to activation of the Emergency Operations Facility (EOF), assures the Shift Chemist implements this procedure.

5.2 Radiological Coordinator

5.2.1 IF vent monitor(s) are inoperable, THEN consider dispatching Plant Team(s) to collect appropriate samples.

5.3 Shift Chemist

5.3.1 At the declaration of an ALERT or higher emergency classification reports to the Control Room to perform emergency dose calculations in accordance with this procedure.

5.4 Dose Assessment Coordinator

5.4.2 Recommends that Offsite Monitoring Teams be dispatched to determine offsite dose rates in accordance with EPP 06-011, EMERGENCY TEAM FORMATION AND CONTROL.

5.4.3 Informs the appropriate TSC or EOF management of the dose rate and projected integrated TEDE and Thyroid doses.

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5.5 Dose Assessment Technician

5.5.1 Performs emergency dose calculations in accordance with this procedure.

6.0 PRECAUTIONS/LIMITATIONS

6.1 To confirm that the correct version of the Dose Assessment Program is in use, open the Dose Assessment Program, then click on 'Help' and 'Help About'. The correct version currently in use is Rev. 3.1.0. If the correct version is not loaded on your computer, it should be removed from your hard drive.

6.2 Offsite dose projection calculations should be performed at least once per hour during the first eight hours after the accident unless it is determined that releases of airborne radioactivity from the plant have been terminated.

6.3 Offsite dose projection calculations should be updated if any of the following conditions occur:

6.3.1 Release rate increases by more than 25 percent.

NOTE

Use 15 minute MET data averages for minor wind direction changes.

6.3.2 Wind direction changes by more than 22.5°.

6.3.3 Atmospheric stability classification changes.

6.3.4 Wind speed changes by more than 50 percent.

6.3.5 Prior to any planned releases.

6.4 IF a radiological release is already in progress before a dose assessment calculation is performed, THEN be sure to look at historical release data / trend on the NPIS to determine the maximum release rate, monitor readings, and meteorological conditions.

6.4.1 IF this is not done THEN an under estimation of an emergency dose projection can occur.

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7.0 PROCEDURE

7.1 Program Description

NOTES

- o Tab and Shift Tab key manipulations may be used to move through a Model Screen.
- o Commonly practiced window manipulations may also be used to move through the program.

7.1.1 The following models may be selected by selecting the appropriate tab in the upper right hand corner of the program window.

1. Release Rate Model
2. Design Basis Accident (DBA)
3. SG Tube Rupture
4. Radiation Monitoring System
5. Field Team Data

7.1.2 Information

1. Selection of the INFORMATION heading on the tool bar allows access to the following screens:
 - a. Dose Projection Report/Dose by Subzone
 - b. Source Term
2. The Dose Projection Report/Dose by Subzone and Model Screen are two separate program windows and can both be visible at the same time, subject to limitations of screen resolution, and size.
 - a. The Model Screen includes:
 - 1) MET data section
 - 2) Release data section
 - 3) Performed/Verified signature section
 - 4) Release start time
 - 5) Calculation result section:

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- a) Particulate, Noble Gas and Iodine release rates.
 - b) Projected Centerline Dose Segment - the results of the data entered above but not summed.
 - 6) PAR section which is based on the Projected Dose Segment as well as the summed doses.
 - a) Only evacuation recommended subzones are listed.
 - b. Dose Projection Report/Dose by Subzone Screen includes:
 - 1) Dose Rate to the Whole Body and Thyroid for Exclusion Area Boundary (EAB), 2, 5, and 10 miles in Roentgen per hour (R/hr).
 - 2) Plume arrival time in minutes for EAB, 2, 5, and 10 miles based on wind speed.
 - 3) Estimated hours until evacuation necessary for EAB, 1 R TEDE or 5R thyroid.
 - 4) A list of both TEDE and Thyroid Dose for each subzone.
- 3. The source term option allows manipulation of DCF information.
 - a. The source term enables the user to alter the distribution from the USAR Gap and default activities.
 - 1) Selection of the Activity heading on the source term screen tool bar allows the user to zero all activities for manual entry or to return to USAR Gap activities.
 - 2) Selection of the File heading on the source term screen tool bar allows for data file manipulation.

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NOTE

If the containment spray is selected, the program will inquire whether the spray has been on for 30 minutes or more. If the spray has been on for 30 minutes or more, the filtration factor will be utilized; if not, the filtration factor will not be applied.

b. Two additional nuclide distribution factors are available on the source term screen, HEPA filters and Containment Spray.

- 1) A "Y" entry in the HEPA Filter Box reduces the Iodine Activity 90%. That is, 10% of the Iodine activity is released to the public.
- 2) A "Y" entry in the Containment Spray Box reduces the Iodine Activity available for release by 75%. That is, 25% of the Iodine activity is released to the public.
- 3) If both HEPA Filter and Containment Spray are answered "Yes", the Iodine Activity used in the offsite dose projections is reduced to 2.5% of its original activity level.
- 4) Prior to performing real time calculations, the user must remember to check the source term screen values to ensure projection source term values are appropriate.

4. PARs selection from the Information Menu Bar provides information for review of Protective Action Recommendations.

NOTE

The notification form can only be printed if THE DOSE ASSESSMENT PROGRAM is running from the LAN.

6. The File Menu bar provides options to print the Notification form and calculation worksheet.

7.1.3 Data

1. Selection of Data from the Menu Bar allows selection of the following actions:
 - a. Sort Dose by Subzone

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b. Sum Dose

c. Perform Calculations

d. Long Range Calculations

2. The Sort Dose by Subzone and Sum Dose actions are self-explanatory.

7.1.4 Calculations

1. The offsite doses will be calculated using the data displayed on the Model Screen.

7.1.5 Long Range Calculations

1. The offsite doses, and farthest evacuation distance will be calculated using the data displayed on the Model Screen.

7.2 Program Use

7.2.1 The Dose Assessment Program will normally be operated from an Icon on the desktop. The program is also available at I:\Shared\EDCP\EDCP.EXE.

7.2.2 Select a Release Model from the tabs in the upper right hand corner of the program screen.

7.2.3 Dose calculations may now be performed. Menu items necessary for operation of the program are selected from the Menu Bar.

NOTE

On a total loss of offsite power, certain radiation monitors are still available. See ATTACHMENT B for more information.

7.2.4 Obtain the following information:

1. Plant Status
2. MET data
3. Process Monitor data
4. Effluent Flow rate data

-OR-

5. If no data is available perform a DESIGN BASIS RCS LOCA using:

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- a. DBA Release Rate
- b. Unfiltered Release Pathway
- c. Stability Class D for daytime or Stability Class F for night time

-OR-

- d. If the accident is deemed to be outside of Design Basis and is rapidly escalating, recommend to the Emergency Manager to use EPP 06-006, PROTECTIVE ACTION RECOMMENDATIONS.

7.2.5 Dose Assessment Program MET Information

- 1. Wind speed can be input as mph, kph, or mps by double-clicking within the box surrounding the input description until the appropriate description is displayed.
- 2. Projected release duration and time since reactor trip can both be input as hrs., mins., or days by double-clicking within the box surrounding the input description until the appropriate description is displayed.
- 3. A Stability Class-Wind Speed/Weather Conditions Help Screen is available by double-clicking within the stability class input field.
 - a. The user may generate a stability class by selecting the appropriate weather condition and inputting the proper wind speed.
 - b. The generated stability class is returned to the Model Screen by selecting FILE EXIT.

7.2.6 Dose Assessment Program Model Operations

- 1. Steps 7.2.7 through 7.2.11 contain information regarding data entry specific to each model

7.2.7 Option One, Release Rate Model

- 1. This model allows the user to input Gaseous and Iodine release rates in Ci/sec.
- 2. The following instructions may be useful in operating the Release Rate Model:
 - a. Gaseous Release Rate may be changed to Total Release Rate by double-clicking within the box surrounding the Gaseous Release Rate.

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- 1) Likewise, the display can be changed to Gaseous Release Rate from Total Release Rate by double-clicking within the box surrounding the total release rate.
- b. Iodine Release Rate may be changed to a ratio by double-clicking within the box surrounding the Iodine Release Rate.
 - 1) IF the ratio is known, THEN the value can be entered.
 - 2) If the ratio is unknown, a Help Screen may be displayed by double-clicking within the input field for the iodine ratio.
 - 3) Once the user selects the appropriate ratio from the list, FILE EXIT is used to return to the Model Page of the report.
 - 4) The display may be changed back to Iodine Release Rate by double-clicking within the box surrounding Iodine/Noble Gas Ratio.
- c. IF a leak rate (gal/min) and activity ($\mu\text{Ci/cc}$) is known or can be estimated, THEN the following calculation could be used to determine a release rate:

$$\left(\frac{\mu\text{Ci}}{\text{cc}}\right)\left(\frac{\text{gal}}{\text{min}}\right)\left(\frac{\text{min}}{60\text{s}}\right)\left(\frac{3.785\text{L}}{\text{gal}}\right)\left(\frac{1000\text{cc}}{\text{L}}\right)\left(\frac{\text{Ci}}{1\text{E}6\mu\text{Ci}}\right) = \frac{\text{Ci}}{\text{s}}$$

7.2.8 Option Two, Design Basis Accident (DBA) Model

1. This model allows the user to perform dose calculations based on USAR release rate data for various design accidents.
2. If this option is selected, the user may select from a list of nine DBAs:
 - a. Loss of Coolant
 - b. Main Steam Line Break
 - c. Loss of Offsite AC
 - d. Locked RCP Rotor
 - e. Waste Gas Decay Tank Rupture
 - f. CVCS Break

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- g. SG Tube Rupture
- h. Fuel Handling Accident
- i. Control Rod Ejection

NOTE

Use field team data whenever available to provide the most accurate dose estimations.

7.2.9 Option Three, Steam Generator Tube Rupture

1. The SG Tube Rupture Model allows the user to perform dose calculations based on a steam generator tube rupture utilizing steam flow and shine monitor readings.
2. The following instructions may be helpful when performing SG Tube Rupture calculations:
 - a. Steam generator monitor readings may be input in mR/hr for either a steaming steam generator or a full steam generator.
 - 1) The input description is changed by double-clicking within the box surrounding the input description.
 - 2) Steam generator flow may be input in lbm/hr, thousands of lbm/hr, gph or as a pressure entered by the user.
 - a) Gallons per hour (gph) should be selected if the steam generator is full of water. This option represents a two-phase or liquid release from the steam generator. [Commitment Step 3.2.1]
 - b) The input description is changed by double-clicking within the box surrounding the input description.
 - 3) A Steam Generator PORV/Auxiliary Feed Exhaust Help Screen is available by double-clicking either the steam generator monitoring readings or steam generator flow input field.
 - a) Once the Help Screen is completed, the user can return the averaged flow and monitor readings to the Main Screen by selecting FILE EXIT.

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7.2.10 Option Four, Radiation Monitoring System (RMS)

1. The RMS Model allows the user to input data from the unit and/or radwaste vent monitor as well as the vent flow rates to perform offsite dose calculations.
2. The following instructions may be helpful when performing RMS calculations:
 - a. Gaseous Activity - May be changed to Total Activity by double-clicking within the box surrounding Gaseous Activity.
 - 1) Likewise, if Total Activity is displayed it may be toggled back to Gaseous Activity by using the same technique.
 - b. Iodine Activity - May be changed to a ratio if necessary by entering the ratio value followed by double-clicking within the box surrounding the Iodine Activity. This is a toggle type of function and may be returned to an activity using the same technique.
 - 1) If the ratio is unknown, the value may be entered.
 - 2) If the ratio is unknown, once the display has been changed to a ratio input, double-clicking on the associated data field will access a Help Screen.
 - 3) Once the user selects the appropriate DBA ratio, FILE EXIT may be used to return the value to the Model Screen.
 - c. Vent Flow -- may be entered.
 - 1) A Help Screen is available by double-clicking the Vent Flow data box.
 - 2) Enter the fan status for each fan by entering the status and then pressing Enter.
 - 3) Select Vent Totals from the tool bar and total the flows required.
 - 4) Select FILE EXIT from the tool bar to forward the value to the Model Screen.

7.2.11 Option Five, Field Team Data Model

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1. This model allows the user to input field team dose rates, iodine concentration, particulate concentration and distance information to back calculate the plant release rate and then ultimately the down field doses.
2. The following instructions may be helpful when performing the Field Team dose calculations:

NOTE

The Particulate/Iodine ratio used throughout the Dose Assessment Program is 0.112. If the Particulate/Iodine ratio is selected, unless an entry is made, the value of 0.0 will be used. This option only pertains to the field team model.

- a. Field Team Iodine Concentration may be changed to Iodine/Noble Gas Ratio by double-clicking in the box surrounding Field Team Iodine Concentration. This is a toggle-type function and may be changed back to concentration input using the same technique. By selecting Iodine/Noble Gas Ratio the particulate field will change to Particulate/Iodine Ratio.
 - 1) If the ratio is known, the value may be entered.
 - 2) If the ratio is unknown, once the display has been changed to a ratio input, double-clicking on the associated data field will access a Help Screen.
 - 3) Once the user selects the appropriate ratio, FILE EXIT may be used to return the value to the Model Screen.
- b. Field Team Distance may be toggled between units of miles and kilometers by double-clicking in the box surrounding the Field Team Distance.

7.3 Printer Use

- 7.3.1 Selection of FILE and PRINT from the tool bar will allow the user to print to a Network printer.

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NOTE

There may be error messages received when printing the notification form. In most cases these are due to the PC configuration and not the Dose Assessment Program program. If the program does not abort, then you should get printed output.

7.3.2 The notification form will only print if the PC is connected to the LAN and the user is logged into a server.

8.0 INITIAL ACTIONS

8.1 None.

9.0 SUBSEQUENT ACTIONS

9.1 None.

10.0 RECORDS

10.1 Printouts associated with this procedure are considered records.

10.2 Records generated by this procedure during an actual emergency are considered lifetime QA records and shall be forwarded to Emergency Planning at the termination of the emergency.

10.3 Records generated by this procedure during a drill or exercise are considered non-QA records and shall be forwarded to Emergency Planning at the termination of the drill or exercise.

11.0 FORMS

11.1 None

- END -

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ATTACHMENT A
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NPIS SCREEN DISPLAYS

Group Menu - Touch Screen for E-Plan Menu
E-Plan Menu - Touch Screen for one of the following

- | | |
|---|--|
| <p>I STATUS BOARD</p> <ol style="list-style-type: none"> 1. RCS 2. Steam Generators <ol style="list-style-type: none"> a) Levels b) Pressures 3. ECCS 4. Containment <ol style="list-style-type: none"> a) Pressure b) Temperature c) H₂ concentration d) CHARM R/hr <p>Press F3 Key</p> <ol style="list-style-type: none"> 5. Critical Parameters 6. To exit press Group Key | <p>II AREA RAD</p> <ol style="list-style-type: none"> 1. Radiological Status <ol style="list-style-type: none"> a.) <u>MET</u> Data b) Radmonitors μCi/cc <p>Press F2 Key</p> <ol style="list-style-type: none"> 2. Area Radmonitors mR/hr
 and CHARM R/hr 3. To exit press F6 Key |
| <p>III MET TOWER DATA</p> <ol style="list-style-type: none"> 1. Stability Class 2. Wind Speed 3. Wind Direction 4. Vert Temp Difference °F <p>NOTE: To change to °C type
 GD MET and press</p> <p>Enter Key</p> <ol style="list-style-type: none"> 5. To exit press Group Key | <p>IV GROUP DISPLAY</p> <ol style="list-style-type: none"> 1. SGCHEM 1 2. SGCHEM 2 3. SGCHEM 3 4. PORVMSIV, etc. <p>NOTE: a) To trend press F4
 Key</p> <p>b) For the New Group
 Display press F5 Key</p> <ol style="list-style-type: none"> 5. To exit press Group Key |

NOTE: Screen Display Color Code

RED - Alarm
YELLOW - Alert
GREEN - Normal
BLUE - Invalid Reading

-END-

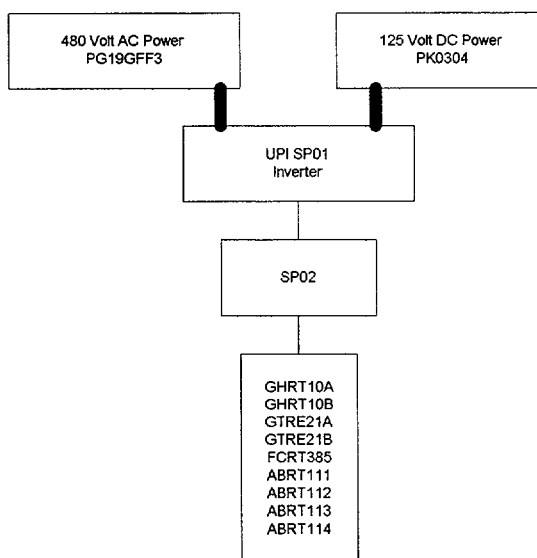
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ATTACHMENT B
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RADIATION MONITOR INFORMATION

On a total loss of off-site power the following radiation monitors remain operable:

GHRT 10A Radwaste Building Vent - Part & Iodine
 GHRT 10B Radwaste Building Cent - WRGM
 GTRE 21A Unit Vent - Part & Iodine
 GTRE 21B Unit Vent - WRGM
 FCRT 385 Aux. Feedwater Turbine Discharge Monitor
 ABRT 111 Steam Line "D" PORV Discharge Monitor
 ABRT 112 Steam Line "C" PORV Discharge Monitor
 ABRT 113 Steam Line "B" PORV Discharge Monitor
 ABRT 114 Steam Line "A" PORV Discharge Monitor

1. These monitors have as their normal AC power SP02 which is supplied by AC power supply PG19GFF3 (480 Volt AC). This feeds or goes from PG19GFF3 to SP01 Inverter [an UPI] to SP02 to monitors.



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RADIATION MONITOR INFORMATION

2. The SP01 Inverter is also fed by a 125 volt DC power PK0304 [plant batteries]. In the event of a loss of offsite power occurs (PG19GFF3) then the inverter (UPI) SP01 still feeds the monitors via SP02.
3. If after a total loss of offsite power, the plant would regain one of the NB buses, then the radiation monitors that are fed from that bus would also be available if flow was restored to the monitor.

NOTE

The Chemistry Technicians may have to remind the Control Room to restore flow to these monitors.

4. If the RM-11 is not available the flow to these monitors will have to be done from their RM-23's. (The RM-11 is not powered by NB bus).

- END -

PUBLIC INFORMATION ORGANIZATION ACTIVATION CHECKLISTCheck When
CompletedAll steps required--Within each level**Information Clearinghouse Activation**

	WC PIO position staffed.
	WC Public Information Manager position staffed.
	(1) WC Technical Support position staffed.
	News Writer position staffed.
	IC telephones available with dial tone.
	Fax, copier, computer or alternative capability operational.
	Onsite PIC contacted for status update.
	Clocks synchronized with Control Room.

Information Clearinghouse Activation Date: ____ / ____ / ____ Time: ____
Notify before continuing

	Site Emergency Manager 620-364-8831-5341
	Onsite PIC 620-364-4152 or ext. 5396
	Off-site Emergency Manager 620-364-8831-5342 if available
	KGE/Western Resources (Pri) 785-575-1927, (Alt) 620-261-6209
	KEPCO (Pri) 785-271-4842, (Alt) 785-271-4802, (Alt) 785-271-4840
	KCPL (Pri) 816-556-2653, (Alt) 816-556-2365
	State PIO, 785-274-1192

Rumor Control will notify PIO/PIM when activated

	Rumor Control (KCPL), 816-556-2269
--	------------------------------------

Phone Team Activation

	Phone Team Manager position staffed
	Phone Team telephones available with dial tone
	3 of 4 phone team members staffed
	Repeat notifications from IC Activation Level

Phone Team Activation Date: ____ / ____ / ____ Time: ____
Media Center Activation

	Media Center Manager or Media Liaison position staffed
	1 of 2 Media Registrar staffed
	Media Registration setup
	Media Room setup
	Media Center operational
	Security posted
	Repeat notifications from IC Activation Level

Media Center Activation Date: ____ / ____ / ____ Time: ____

Public Information Manager_____
Date_____
Time