WOLF CREEK
NUCLEAR OPERATING CORPORATION

Clay C. Warren
Vice President Operations Support

APR 9 2001

CO 01-0019

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Stop: P1-137
Washington, D. C. 20555

Subject: Docket No. 50-482: Changes to Wolf Creek Generating Station (WCGS) Radiological Emergency Response Plan, Implementing Procedures, and Associated Forms

Gentlemen:

In accordance with 10 CFR 50, Appendix E, enclosed are revisions to Wolf Creek Generating Station (WCGS) Radiological Emergency Response Plan (RERP), implementing procedures, and associated forms. The attachment provides a summary of changes to the RERP, implementing procedures, and associated forms. The RERP revision reflects those changes which ensure that the Plan contains the information necessary to satisfy the program content requirements of 10 CFR 50, Appendix E, and 10 CFR 50.54(q). The following is a list of the specific enclosures.

RERP
Effective March 13, 2001
AP 06-002, Revision 3

Procedures
Effective March 22, 2001
EPP 06-001, Revision 3
EPP 06-012, Revision 4

Forms
Effective March 22, 2001
EPF 06-004-01, Revision 5
EPF 06-011-03, Revision 0

If you have any questions concerning this submittal, please contact me at (620) 364-4048, or Mr. Tony Harris at (620) 364-4038.

Very truly yours,

Clay C. Warren

Clay C. Warren

CCW/rlr

Enclosures
Attachment

cc: J. N. Donohew (NRC), w/e
G. M. Good (NRC), w/e
W. D. Johnson (NRC), w/o
E. W. Merschoff (NRC), w/e (2)
Senior Resident Inspector, w/o

A045

Change Summary

AP 06-002, "Radiological Emergency Response Plan (RERP)," Revision 3
Step 3.2.2, removed reference to Unresolved Safety Question Determination (USQD).

EPP 06-001, "Control Room Operations," Revision 3
Step 7.2.3.1, changed from "Gaitronics" to "Plant All Page system" to ensure everyone on site is notified.
Step 7.2.4.6, deleted note prior to step; changed from "announced to personnel on-site" to "read over the Plant All Page system" to ensure everyone on site is notified.
Step 7.2.12, added step to ensure the ENS Communicator position is established. Renumbered remaining two steps.
Step 7.3, added note prior to step to state the preferred system to be used to make announcements.

EPP 06-012, "Dose Assessment," Revision 4
Step 3.2.1, added description of the listed Industry Technical Information Program (ITIP).
Step 6.1, changed from "Rev 2.1" to "Rev 3.0.1" which is being issued.
Step 7.1.1, added directions on selecting the appropriate tab for dose assessment.
Step 7.1.1.6, deleted step listing "Containment Release" since it is no longer a useful model.
Step 7.1.2.1 deleted substeps b, d, & e due to the change in available selections in the new program; renumbered remaining substeps.
Step 7.1.2.2, updated directions for using the Dose Projection screens.
Step 7.1.2.5, deleted step since Nuclear Plant Information System (NPIS) information is not available, and renumbered remaining steps.
Step 7.1.3.1.d, added new substep to list "Long Range Calculation" which was added to program.
Step 7.1.4, deleted all substeps and added new substep 1 to state that off-site dose calculation will be displayed.
Step 7.1.5, added step that Long Range Calculations will be displayed on Model Screen.
Step 7.2.1, updated description for starting the program.
Step 7.2.2, changed methodology for selecting the Release Model.
Step 7.2.6, deleted reference to step 7.2.12; changed reference from 7.2.12 to 7.2.11.
Step 7.2.12, deleted step and all substeps since the Containment (CTMT) release model is no longer used.

EPF 06-004-01, "Public Information Organization Activation Checklist," Revision 5
Changed all the 316 area codes to 620.

EPF 06-011-03, "Airborne Radioactivity Calculations," Revision 0
Changed "Particulate" to "Iodine" in the lower right hand side of the form. The second formula at the bottom of the form is for Iodine.

CORRECTED COPY 04/09/2001

WOLF CREEK
NUCLEAR OPERATING CORPORATION

AP 06-002

RADIOLOGICAL EMERGENCY RESPONSE PLAN (RERP)

Responsible Manager

Manager Resource Protection

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

DC12 03/13/2001

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1.0 PURPOSE

1.1 The purpose of the Wolf Creek Generating Station (WCGS) Radiological Emergency Response Plan (RERP) is to classify emergencies, assign responsibilities for actions, and to establish the lines of authority and communications to protect the public and plant personnel in the event of an emergency.

2.0 SCOPE

2.1 The RERP has been developed in accordance with 10CFR Part 50, Paragraph 50.47 and Appendix E, Regulatory Guide 1.101 and generally follows the guidelines of NUREG 0696 and 0654. The RERP is sensitive to a broad spectrum of emergency conditions which have been postulated for a commercial pressurized water reactor. Although the probability of an accident is low, the RERP is maintained to assure the safety and well-being of plant personnel and members of the public in the vicinity of WCGS.

2.2 The RERP interfaces with several related documents such as the Administrative Procedures (APs) and Emergency Plan Procedures (EPPs). Detailed instructions necessary to support the RERP are included in these procedures and are available for training, drill, and actual emergency use. The RERP references the WCGS Fire and Security Plans, Vendor contingency plans as well as those of medical support facilities and the Institute of Nuclear Power Operations (INPO). This document has been designed to coordinate with the State Emergency Operations Plan and the Coffey County Contingency Plan for Incidents Involving Commercial Nuclear Power, which govern the activities of these support groups in response to events at WCGS.

2.3 The RERP is based on a graduated, escalating level of emergency response which is activated as conditions at the plant warrant. This approach provides the flexibility necessary to ensure adequate emergency response to a spectrum of possible events. The RERP is designed to control emergency response activities ranging from initial event detection, classification of the event, notification of off-site authorities and providing protective action recommendations to the county and state.

2.4 The RERP reflects three chief phases of activation. First the response is dominated solely by the site staff, next the onsite and off-site public information facilities are jointly activated, and finally the recovery efforts are performed by site, public information facilities, vendor, and other critical support groups.

2.5 The WCGS normal operating organization and its functional responsibilities are described in the WCGS Technical Specifications, Administrative Procedures, Human Resources company organization charts and the WCGS Updated Safety Analysis Report (USAR). No further discussion of the normal operating organization is contained within the RERP.

2.6 The WCGS design bases accidents and various plant systems are listed and described in the WCGS Technical Specifications and USAR. No further discussion of these accidents or systems is contained within the RERP.

2.7 The owners of WCGS do not respond to the site during emergency events for augmentation. The Wolf Creek Nuclear Operating Corporation organization functions from the site during normal everyday operations.

3.0 REFERENCES AND COMMITMENTS

3.1 References

3.1.1 Coffey County Contingency Plan for Incidents Involving Commercial Nuclear Power (County Plan)

3.1.2 State of Kansas, Appendix 12, Nuclear Facilities Incidents Response Plan to Annex N, Nuclear Emergencies of the State Emergency Operations Plan (State Plan)

3.1.3 Updated Safety Analysis Report (USAR)

3.1.4 NUREG 0654, Criteria For Preparation And Evaluation Of Radiological Emergency Response Plans And Preparedness In Support Of Nuclear Power Plants

3.1.5 NUREG 0696, Functional Criteria For Emergency Response Facilities

3.1.6 NUREG 0737, Clarification Of TMI Action Plan Requirements

3.1.7 Title 10, Code Of Federal Regulations, Part 50

3.1.8 Regulatory Guideline 1.101

3.1.9 Regulatory Guide 1.145

3.2 Commitments

3.2.1 RCMS #93-325, Emergency Action Levels Converted To NUMARC EALs

3.2.2 APF 06-002-01, EMERGENCY ACTION LEVELS, required to have a 50.54(q) review performed for each revision.

4.0 DEFINITIONS

4.1 Administrative Procedures (APs)

4.1.1 Procedures which provide programmatic responsibilities and are typically used to solve problems, assemble documentation, process information, and present results of administrative functions.

4.1.2 Administrative procedures control activities affecting quality or nuclear safety.

4.2 As Low As Reasonably Achievable (ALARA)

4.2.1 Making every reasonable effort to maintain exposures to radiation as far below dose limits as is practical, consistent with the purpose for which the licensed activity is undertaken, taking into account the state of technology, the economics of improvements in relation to benefits to the public health safety, and other societal and socioeconomic considerations.

4.3 Alert

4.3.1 Events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant. Any releases are expected to be limited to small fractions of the Environmental Protection Agency (EPA) Protective Action Guideline (PAG) exposure levels.

4.4 Assessment Actions

4.4.1 Those actions taken during or after an accident to obtain and process information that is necessary to make decisions to implement specific emergency measures.

4.5 Coffey County Emergency Operations Center (County EOC)

4.5.1 The base of operations for the Coffey County Emergency Response Organization.

4.6 Consultant/Vendor

4.6.1 The Nuclear Steam System Supplier (NSSS), Architect/Engineer, and other organizations who have available multidiscipline teams ready to support emergency response and Recovery Operations.

4.7 Control Room

4.7.1 The location at the WCGS from which the reactor and its auxiliary systems are normally controlled.

4.8 Drill

4.8.1 A supervised activity used to develop and maintain skills. On the spot correction of erroneous performance is permitted.

4.9 Emergency Action Levels (EALs)

4.9.1 Radiological dose rates; specific contamination levels of airborne, waterborne or surface-deposited concentrations of radioactive materials; or specific instrument indications that may be used as thresholds for designating a particular class of emergency.

4.10 Emergency Alert System (EAS)

4.10.1 A coordinated network of broadcasters (e.g. Radio, Television, Cable) that allows the President to address the nation, Governors to address their State and public safety officials to address local citizens with emergency information.

4.11 Emergency Classification

4.11.1 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 Notification of Unusual Event (NUE), Alert, Site Area (SAE) and General Emergency (GE).

4.12 Emergency Operations Facility (EOF)

4.12.1 This facility serves as a base of operations for all emergency plant support activities, site environmental surveillance, communications with supporting agencies, and the WCGS Emergency Organization.

4.13 Emergency Plan Procedures (EPPs)

4.13.1 Specific procedures providing step-by-step actions to implement the WCGS Radiological Emergency Response and Recovery Plans, and to provide guidance to improve or terminate an emergency situation.

4.14 Evacuation Registration Centers

4.14.1. Facilities designated for receiving personnel evacuating the Emergency Planning Zone (EPZ) for accountability, contamination monitoring and decontamination.

4.15 Exclusion Area

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

4.16 Executive Management

4.16.1 Those members of WCGS management at the vice president level and above.

4.17 Exercise

4.17.1 An event that simulates a radiological emergency condition, incorporates the integrated capability of the basic elements existing within the Radiological Emergency Response Plan (RERP). These events are normally evaluated by FEMA / NRC.

4.18 General Emergency (GE)

4.18.1 Events are in process or have occurred which involve actual or imminent substantial core degradation with potential for loss of containment integrity. Releases can reasonably be expected to exceed EPA Protective Action Guideline exposure levels off-site for more than the immediate site area.

4.19 Immediate Notification

4.19.1 Notification made to State of Kansas and Coffey County authorities within 15 minutes of a declared emergency at WGCS.

4.20 Information Clearinghouse (IC)

4.20.1 The facility where news statement and news conference materials for the media are prepared.

4.21 Kansas State Emergency Operations Center (State EOC)

4.21.1 The command-and-control center for the state.

4.22 Licensed Operators

4.22.1 WCGS Reactor Operators and Senior Reactor Operators who are licensed under 10CFR55 and who stand watches on shift and report to the Shift Manager.

4.23 Media Center (MC)

4.23.1 Facility utilized as a focal point for giving information to the media through news conferences.

4.24 Notification of Unusual Event

4.24.1 Events in process, or have occurred, which indicate a potential degradation of the level of safety of the plant. No releases of radioactive material requiring off-site response or monitoring are expected unless further degradation of safety systems occurs.

4.25 Off-site

4.25.1 Any area outside the Exclusion Area of WCGS.

4.26 Onsite

4.26.1 Any area inside the Exclusion Area of WCGS.

4.27 Operations Support Center (OSC)

4.27.1 A staging area for emergency teams to support the emergency response effort.

4.28 Protective Actions

4.28.1 Those emergency measures taken before or after a release of radioactive material has occurred for the purpose of preventing or minimizing radiological exposures to personnel.

4.29 Protective Action Guides (PAGs)

4.29.1 Guides promulgated by the Environmental Protection Agency (EPA) which set dose limits for the evacuation of the public during an accident condition at a nuclear power plant.

4.30 Radiologically Controlled Area (RCA)

4.30.1 An area to which access is controlled by WCGS for purposes of protection of individuals from exposure to radiation or radioactive materials.

4.31 Recovery

4.31.1 Post-emergency efforts initiated to restore WCGS to full operation or place the plant in a safe shutdown condition until full operation can be resumed.

4.32 Site Area Emergency (SAE)

4.32.1 Events are in process or have occurred which involve actual or likely major failures of plant functions needed for protection of the public. Any releases are not expected to result in exposure levels which exceed EPA Protective Action Guideline exposure levels except near the site boundary.

4.33 Technical Support Center (TSC)

4.33.1 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 reactor command-and-control functions.

5.0 RESPONSIBILITIES

5.1 Site Emergency Manager

5.1.1 Assumes command and control of the emergency and directs onsite response to stabilize plant conditions.

5.2 Off-site Emergency Manager

5.2.1 Assumes command and control of the emergency and interfaces with off-site agencies.

5.3 Superintendent Emergency Planning

5.3.1 Ensures the Emergency Planning Program is implemented and maintained as required to protect the health and safety of the public.

5.3.2 Ensures changes to the overall Emergency Planning Program meets the standards of 10CFR50.47(b) and the requirements of 10CFR50, Appendix E.

5.4 Nuclear Safety Review Committee (NSRC)

5.4.1 Ensures a review of the WCGS Emergency Preparedness Program will be performed at least once every twelve months in accordance with 10CFR 50.54(t).

5.5 President and Chief Executive Officer

5.5.1 Maintains overall authority and responsibility for the WCGS Emergency Preparedness Program.

5.6 Public Information Officer (PIO)

5.6.1 The PIO has the authority and responsibility for the WCGS Public Information Organization and all plant information disseminated to the media.

5.7 Shift Manager (SM)

5.7.1 The Senior Reactor Operator designated by WCGS management with immediate onsite authority and responsibility for the safe and proper operation of the plant. This position is staffed at all times. The Shift Manager is responsible for the initial evaluation of any abnormal or emergency situation and for directing the appropriate response. He assumes responsibilities of the Emergency Manager until relieved.

6.0 PROCEDURE

6.1 Site Description

6.1.1 WCGS is a Pressurized Water Reactor (PWR) nuclear generating station operated by Wolf Creek Nuclear Operating Corporation (WCNOC).

6.1.2 WCGS is located near the center of Coffey County, Kansas (KS), about 3.5 miles northeast of Burlington, the county seat, 90 miles southwest of Kansas City, MO and 55 miles south of the state capital Topeka, KS.

6.1.3 The immediate site environs are sparsely populated. Burlington and New Strawn are the major population centers. John Redmond Reservoir (JRR) and Coffey County Lake (CCL) are the major recreational facilities. Most of the seasonal or daily shifts in population are associated with recreational areas around JRR and CCL. Approximately 70% of the annual visitors to the John Redmond Reservoir and Coffey County Lake come to the area during the summer months.

6.1.4 Coffey County totally encompasses the 10-mile Plume Exposure Emergency Planning Zone (EPZ) which forms a major consideration in the RERP.

6.1.5 The total population of the effective 10-mile EPZ is shown in ATTACHMENT B, SUBZONE EVACUATION TIMES. With the exception of Burlington and the other population centers listed in ATTACHMENT A, EFFECTIVE 10-MILE POPULATION CENTERS, the population density of the effective 10-mile EPZ is approximately 4.4 persons per square mile. Other than the WCGS, there are no large industries in the area.

6.1.6 Principal geographical features within the effective 10-mile EPZ are the Neosho River, JRR, and CCL. The land around WCGS is flat with scattered low hills. Dense vegetation in the form of large trees exists on the banks of the river and in recreational areas. There are no topographical features within the effective 10-mile EPZ that significantly influence the design of the Alert and Notification System.

1. Sparsely populated farm land comprises the majority of the effective 10-mile EPZ.

2. The site also demonstrates favorable topography, demography, and meteorology, which have been factored into many analyses that support the emergency planning effort.

3. The Neosho River is oriented northwest-southeast and extends to within 3 miles southwest of the plant.

4. The main dam of the John Redmond Reservoir is 3.5 miles west of the plant. This water conservation pool is approximately 4 miles in diameter with a surface area of 15 square miles.

5. The Coffey County Lake is approximately 7 miles long with a normal surface area of 8 square miles.

6.1.7 Approximately 99% of the 10-mile EPZ is located within Coffey County and 1% within Anderson County. The EPZ has been defined by developing sub-zones based upon natural and political subdivisions. These have been described for evacuation zones approximating 2, 5 and 10-mile radial rings. This distribution allows ready identification of areas to be evacuated and facilitates public recognition of subzones in which they work or reside. FIGURE 1, EFFECTIVE 10 MILE EPZ, SUBZONES AND EVACUATION ROUTES, presents the 2, 5 and 10-mile radial zones and subzones which provides the basis for the design of an alert and notification system.

6.1.8 The meteorological conditions within the effective 10-mile EPZ are characterized by a distinctly continental climate with warm humid summers and highly variable winter weather. Maritime tropical air originating over the Gulf of Mexico is the dominant air mass from June through August. This air mass is quite humid resulting in considerable thunderstorm activity. From November through February, continental polar air dominates the climate.

6.2 Emergency Classifications

6.2.1 10 CFR Part 50, Appendix E, Section IV.C, requires a classification scheme of four specific levels of emergencies. NUMARC/NESP 007 is identified within REGULATORY GUIDE 1.101 and is considered by the NRC as an acceptable alternative method to that described in Appendix 1 to NUREG 0654. [Commitment Step 3.2.1]

6.2.2 An emergency class is a qualitative estimate of the status of the plant. Inputs to the emergency classification system include the status of plant systems and the levels of radiation in plant areas and effluents. However, an emergency class does not give a qualitative or quantitative estimate of the subsequent status of the plant or radioactive release.

6.2.3 The emergency classes are used by off-site authorities to determine the level of preplanned actions to be taken by their emergency organizations. Protective actions taken on behalf of members of the public are the legal responsibility of state and local government.

1. The functional interfaces between WCGS and other emergency organizations are shown in FIGURE 6, EMERGENCY ORGANIZATIONS INTERFACES.

6.2.4 The classification system used at WCGS is an approach that ranges from primarily event-based for Unusual Event to primarily symptom or barrier-based for General Emergencies. This is to better assure that timely recognition and notification occurs, that events occurring during refueling and cold shutdown are appropriately covered, and that multiple events can be effectively treated.

6.2.5 The Emergency Action Levels (EAL) are contained in APF 06-002-01, EMERGENCY ACTION LEVELS. The EAL have been developed and agreed upon by WCGS, the State of Kansas and Coffey County and approved by the NRC. [Commitment Step 3.2.1]

1. The EAL are reviewed annually by the State and County.

6.2.6 Each emergency classification causes certain actions to happen such as notifications, activation and evacuation.

1. An NUE requires plant personnel, the County and State to be notified. No evacuation or activation required.

2. An Alert requires plant personnel, the County and State to be notified. The ERO is called out and the emergency facilities are activated. Accountability may be performed if necessary.

3. A Site Area Emergency requires plant personnel, the County and State to be notified. The ERO is called out and the emergency facilities are activated. The protected area is evacuated of non-responding personnel for accountability. JRR and CCL are evacuated. Accountability for site personnel is performed.

4. A General Emergency requires plant personnel, the County and State to be notified. The ERO is called out and the emergency facilities are activated. The site is evacuated of non-responding personnel. JRR and CCL are evacuated. Accountability for site personnel is performed.

6.3 Emergency Measures

6.3.1 Protective actions to minimize personnel exposure are taken when an incident has occurred, or may occur, which could result in a fission product barrier challenge or breach. In addition, protective actions are taken for personnel onsite for situations such as fires or flooding, where personnel safety is threatened.

6.3.2 Emergency measures consist of assessment, corrective, and protective actions. The Shift Manager and Senior Reactor Operators assume immediate responsibility for accident assessment and mitigation. The RERP and detailed emergency actions are based on the assumption that, in an emergency, licensed operators take appropriate measures to maintain or return the facility to a safe condition, in accordance with operating license conditions and the technical specifications.

1. Callout of the ERO to augment the on-shift staff and to activate the Emergency Facilities is performed at an Alert or higher classification or whenever augmentation is deemed necessary.

6.3.3 Immediate and Follow-up notifications made to State and County authorities provide information for their use in making prompt decisions for notifying the public and ordering off-site protective actions.

1. Immediate notifications are made for each emergency classification.

2. Immediate notifications are made to the Coffey County Sheriff dispatcher and the Kansas Division of Emergency Management State Duty Officer within 15 minutes.

3. The notification form contains information agreed upon by WCGS, the State and County for each of the Immediate and Follow-up notifications. The following is a list of information that may be on the form:

   o Name of facility

   o Date and time of classification

- o Classification
- o Release status, type of material and estimated duration
- o Affected subzones, if any
- o Message authentication of phone call
- o Recommended Protective Actions
- o Meteorological conditions
- o Dose rates at site boundary
- o Event Prognosis, worsening or termination

6.3.4 Actions to protect the general public, and criteria for their implementation, are described in the State Plan. Protective action recommendations are made to the County and State authorities.

1. ATTACHMENT E, EPA/KANSAS PROTECTIVE ACTION GUIDES, illustrates the EPA/Kansas PAGs for members of the public in the vicinity of WCGS and contains information typical of what may be used for the PAR guidelines. The Attachment provides guidelines and action levels to be used to develop protective action recommendations. Actions taken off-site are the responsibility of County and State officials.

2. Evacuation is the normally anticipated off-site protective action. Sheltering may be the preferred protective action when it will provide protection equal to or greater than evacuation. ATTACHMENT B, SUBZONE EVACUATION, contains evacuation times for the general and transient public.

3. An Alert and Notification System, made up of a number of sirens, is one means of alerting the public. Tone Alert radios are also used for notifications.

6.3.5 Contact point for information concerning the County Plan, protective measures, and special needs of the handicapped is the County Emergency Preparedness Office.

6.3.6 Additional resources available for accident assessment include the Post Accident Sampling System, accident monitoring, and in-plant iodine instrumentation under accident conditions. Detailed discussions of these resources and their capabilities are found in the USAR.

6.3.7 The Emergency Dose Calculation Program (EDCP) is a computerized method to provide dose estimates using actual or estimated meteorological data (wind speed, wind direction, degree of cloud cover, day or night determination) and radiological effluent data (actual measurements, estimated values based upon USAR source terms, or field measurements). EDCP is designed to: [Reference Step 3.1.9]

1. Use radiological and meteorological information to provide an estimate of off-site exposure.

2. Be capable of estimating release rates and off-site exposures from off-site field team data.

3. Be capable of estimating release rates and off-site exposures for an unmonitored, pressure driven containment release using the Containment High Area Radiation Monitor readings and changes in containment pressure.

4. Off-site dose predictions when combined with actual release duration information and meteorological data during an event, provide sufficient data to estimate the cumulative population dose resulting from the event. The actual off-site population dose is confirmed by off-site monitoring, sampling and analysis.

6.3.8 Radiological monitoring teams have a goal of 60 minutes from the declaration of Alert or greater emergency to be ready for deployment to confirm effluent readings and verify plume emission and locations.

6.3.9 FIGURE 7, WCGS EMERGENCY RESPONSE FACILITIES, provides a view of the off-site area, showing the location of the EOF. FIGURE 8, DIRECT RADIATION PATHWAY SAMPLING LOCATIONS, shows the fixed air sampling and TLD locations. FIGURE 9, WATERBORNE PATHWAY SAMPLING LOCATIONS, shows locations for collecting water samples.

6.3.10 At a Site Area Emergency, General Emergency, or when accountability is required, all personnel not responding to an Emergency Response Facility report to an assembly area for accountability and additional information. ERO personnel report to their assigned emergency facility. Security reports the results of accountability to the TSC.

6.3.11 If the Exclusion Area is evacuated, then Security shall direct an inspection of the lake and land area within the Exclusion Area but outside of the Protected Area to ensure that all personnel not responding to an Emergency Response Facility are evacuated from the Exclusion Area.

6.3.12 WCGS procedures contain decontamination instructions and guidelines. Methods for determining if the individual is a potential inhalation or ingestion contamination case are also provided. The Radiological Coordinator or appropriate Health Physics supervisory personnel will review the records generated by decontamination procedures.

1. Decontamination can be performed in the access control area of the Control Building, in the HVAC room of the TSC, and in the laboratory area in the EOF.

2. Other decontamination areas are setup as designated by the Health Physics personnel on the ERO.

6.3.13 Respiratory protective devices and protective clothing are stored at several locations onsite and at the EOF. The use of protective clothing and respiratory protection equipment is governed by normal WCGS procedures.

6.3.14 A supply of potassium iodide (KI) is maintained at the Control Room, TSC and the EOF to be used in the event that an individual may be exposed to radioiodine.

6.3.15 There are suggested levels of exposure to be accepted in emergencies. Immediate reentry may be necessary to save a life, account for missing personnel, or secure vital equipment. The Emergency Managers are ultimately responsible for exposure control and can permit the receiving of up to 5 REM per person for work activities, 10 REM for saving valuable equipment and 25 REM for lifesaving after consulting with the NRC, if feasible. Exposure which might exceed 25 REM, for lifesaving activities, must be approved by an Emergency Manager. Although EPA and NRC do not provide specific guidance for the upper bounds for lifesaving exposure, WCGS has chosen to use the following criteria:

1. Emergency Managers shall not knowingly permit an individual's exposure to exceed 25 REM, unless it is for lifesaving activities or protection of large populations. Emergency Managers shall not knowingly permit an individual to enter a high dose area if the projected Total Effective Dose Equivalent (TEDE) is expected to exceed 75 REM.

   - o Those individuals designated to exceed 25 REM must be volunteers and be fully aware of the risks involved.

2. Emergency Managers should obtain the advice and concurrence of the Radiological Coordinators in approving additional exposure.

6.3.16 Under emergency conditions, normal exposure controls are maintained. This is ensured by the on-shift Health Physics Technician (HP) in the Control Room, the Team Directors in the TSC and EOF.

6.3.17 The Radiological Coordinator has responsibility for maintaining exposure control for site activities, including establishment of access control at alternate locations. Strict exposure control of individuals passing through the access point is maintained on a 24-hour-per-day basis.

6.3.18 In order to enhance the exposure control process and to provide dosimetry for an expanded number of people, dosimetry vendors are available to expedite shipment of extra dosimetry devices to supplement existing onsite supplies of dosimetry equipment and to supply personnel to assist in onsite appraisal of exposures.

6.3.19 When activated, the Emergency Response Team covers emergency sampling, surveying, analysis, and hazard evaluation.

6.3.20 The Post Accident Sampling System (PASS) accomplishes automatic, remote-controlled reactor coolant system and containment atmosphere sampling while minimizing personnel exposure.

6.3.21 Personnel, instruments, and equipment are to be monitored at the access control point. Personnel and equipment decontamination is controlled in accordance with WCGS procedures.

6.3.22 WCGS maintains control over the Exclusion Area as necessary, restoring affected onsite areas to acceptable conditions for access.

1. Reentry into affected areas is a controlled evolution. Surveys are performed, environmental samples are obtained and analyzed, and areas posted or decontaminated.

6.3.23 Contamination limits for food supplies and drinking water are based upon the State of Kansas Protective Action Guides, as presented in ATTACHMENT E, EPA/KANSAS PROTECTIVE ACTION GUIDES.

6.4 Emergency Facilities

6.4.1 Control Room Facilities

1. The Control Room is designed to be habitable under emergency conditions. The Control Room contains controls, instruments, and communications equipment necessary for operation of the plant under both normal and emergency conditions. The ventilation system, shielding, and structures are designed and built to permit continuous occupancy during a postulated design basis accident.

2. Equipment available in the Control Room gives early warning and continuous evaluation of potential emergency situations. Portable radiation survey instruments are readily available within the Control Room.

3. Access to the Control Room is controlled by the Shift Manager.

6.4.2 Technical Support Center Facilities

1. The TSC is a brisk 2 minutes and 15 seconds walk from the Control Room inside the Protected Area. This is sufficiently close to permit face-to-face interaction between personnel in the Control Room and the TSC, should telephone communications become inoperable.

2. The TSC is activated in the event of an Alert or higher emergency. The TSC may be activated during an NUE at the discretion of the Shift Manager.

3. The TSC is designed to the seismic criteria of the Uniform Building Code. It is designed to withstand 100-year-recurrence winds and is located above the probable maximum flood level.

   a. The manually activated single-train, non-seismic Category I TSC ventilation system utilizes high-efficiency particulate air and charcoal filters. The radioiodine monitoring equipment in the TSC provides a designed minimum detectable level of 1.0E-07 uCi/cc radioiodine. A radiation monitor (including the monitor for radioiodines) alarms to alert TSC personnel if radiation levels may affect the habitability of the TSC.

   b. Portable radiation monitoring equipment, is provided in the TSC for backup radiation monitoring capability.

   c. Equipment for Emergency Response Teams is available in the TSC. This equipment includes protective clothing, dosimetry, survey meters and respirators.

   d. A diesel generator is available to provide backup power to the TSC. Until the diesel is loaded, batteries are available for Nuclear Plant Instrument System (NPIS).

   e. The TSC is sized to accommodate a minimum of 25 persons and has the same radiological habitability as the Control Room under accident conditions.

4. Personnel in the TSC have access to the following materials:

   o WCGS USAR, Environmental Report, and Technical Specifications

   o Plant operating and emergency procedures

- o WCGS, State, and Coffey County emergency response plans
- o System drawings, schematics, and diagrams

6.4.3 Operations Support Center

1. The OSC is housed in the TSC and is activated whenever the TSC is activated.

2. The OSC serves as an assembly area for plant personnel immediately serving in emergency repair or Health Physics support capacity during an event. The OSC functions include the coordination, formation and dispatch of Emergency Response Teams.

3. The basement of the Security Building has been identified as an alternate location for the OSC function. It contains telephones and a Gai-Tronic call box, which will allow direct communications with the other emergency centers. Portable radios are available to key personnel to further provide communications with other emergency centers.

6.4.4 Emergency Operations Facility (EOF)

1. The EOF is located approximately 2.8 miles north northwest of WCGS, in the Dwight D. Eisenhower Learning Center, and is activated at an Alert or higher emergency. Following facility activation, overall emergency response is managed from the EOF.

   a. This facility serves as a center for evaluation and coordination of environmental activities related to the emergency including radiological assessment and the evaluation of potential or actual radioactive releases from the plant.

2. The EOF design life is equivalent to that of the plant and engineered such that a protection factor of greater than 5 is provided to attenuate 0.7 MeV gamma radiation.

   a. The EOF is provided with a manually activated, single-train, non-seismic Category I ventilation system which incorporates a HEPA filter system and fixed radiation monitors, including an alarming monitor for radioiodines (with a minimum detectable level of 1.0E-07 uCi/cc).

   b. A diesel generator is available to provide backup power to the EOF. Until the diesel is loaded, batteries are available for NPIS equipment use upon loss of AC power.

c. The EOF is sized to accommodate at least 35 persons.

3. Accommodations and telephones are provided for a limited number of County, State and Federal personnel. Facilities are provided for staging field survey efforts from the EOF.

4. The EOF serves as the base of operations for evacuation assessments and for communications with federal, state, and local response organizations. Radio and telephone links are available to the TSC, and Control Room.

5. Personnel in the EOF have access to the following materials:

   - o WCGS USAR, Environmental Report, and Technical Specifications
   - o Plant operating and emergency procedures
   - o WCGS, State, and Coffey County emergency response plans
   - o System drawings, schematics, and diagrams

6. Arrangements have been made to use the Kansas Power and Light (KPL) Customer Business Office located at 210 E. 2nd, Emporia, KS as the backup EOF. This facility is located approximately 28 air miles west of the plant. Telephones available at this location ensure the provision for continuity in decision-making functions and for communications supporting dose projections.

6.4.5 Public Information Facilities

1. At an NUE or Alert the Information Clearinghouse (IC) is established in the Dwight D. Eisenhower Learning Center. The Phone Team and Media Center (MC) are activated when needed. The IC, Media Center and Phone Team are kept in close proximity to each other to facilitate coordination of information in the form of news statements, news conferences or telephone conversations.

   a. If a radioactive release requires that the Public Information Organization be relocated, they will be moved to the Kansas State Defense Building, 2800 Topeka Ave., in Topeka, KS.

b. Dedicated telephone lines allow contact between the IC, TSC, and the EOF. The IC contains status boards, appropriate office supplies, computer(s), printer(s), faxing and photocopy capabilities, and outside telephone lines.

2. The Wolf Creek PIO, the State PIO and Coffey County PIO communicate with the IC to obtain technical information. The PIOs prepare news statements at the IC and coordinate their efforts.

3. The MC accommodates news conferences. The MC and Media Room is established in the Dwight D. Eisenhower Learning Center. The MC is activated by the Public Information Manager when needed during an NUE or Alert, and will be activated for a Site Area or General Emergency.

   a. If radioactive releases require that the MC be re-located, the MC will be moved to the Nickell Memorial Armory, 2722 S. Topeka Ave., Topeka, KS. The Topeka facility will accommodate several hundred media representatives in an auditorium and adjoining Media Room.

   b. The Media Room is a facility setup to provide the media with a work area, audio/visual material, outside telephone lines and public information status boards.

4. The Kansas City Power and Light (KCPL) General Office (GO) is where the Media Monitoring Team performs rumor control functions for WCGS, the State and Coffey County. The KCPL GO contains equipment and supplies, and has fax and telephone communications with the IC. All approved news statements and information are transmitted to the KCPL GO after the IC is activated.

   a. The Media Monitoring Team reports to the Rumor Control Coordinator. This team notifies the Rumor Control Coordinator of any rumors or misinformation heard or observed from their monitoring of the media.

6.4.6 Onsite Medical Facility

1. A medical facility located in the Clyde Cessna building, is staffed with a full time Physicians Assistant. This facility is equipped to provide basic medical response capabilities.

2. First aid kits are located throughout the site. Emergency supplies and equipment are also available to ensure that assistance can be provided to contaminated personnel.

3. Shift personnel, trained in first aid, are available onsite 24 hours per day. Priority should be given to treating those with the most urgent medical needs.

4. In the case of contamination, efforts are made to decontaminate injured personnel onsite, as soon as practicable. However, first aid or removal of the individual from a hazardous environment, takes precedence over decontamination efforts. If decontamination is not possible, the victim is covered in such a manner as to avoid any spread of contamination until medical aid can be obtained or hospitalization accomplished.

5. Personnel leaving the RCA are monitored for contamination. All personnel are monitored for contamination before leaving the site.

   a. Personnel may be monitored by portal monitors or friskers when entering or leaving WCGS facilities.

   b. Personnel found to be contaminated must undergo decontamination under the direction of health physics personnel using health physics supplies and equipment available during routine activities. Release limits for personnel decontamination are found in the Radiation Protection Manual.

6.4.7 State and County Facilities

1. Coffey County Emergency Operations Center (County EOC) is located in the Coffey County Courthouse, Burlington, KS. The County EOC is a command center for county agencies and a mustering area for personnel who arrive in the WCGS area in response to an emergency. The County EOC is activated at the Alert level with the additional support staff activated upon declaration of an SAE or GE. Other centers are established as the emergency needs dictate.

2. Kansas State Emergency Operations Center (State EOC), located in the State Defense Building, 2800 South Topeka Avenue, Topeka, KS, is the command-and-control center for the State.

3. The State Forward Staging Area is located about 11 miles north of WCGS in the roadside park at the intersection of Old Highway 50 and U.S. 75. When it becomes necessary for the State to dispatch emergency personnel to the plume exposure pathway emergency planning zone (EPZ), the State activates the State Forward Staging Area to serve as a secondary base of operations for state personnel and a local contact point with Coffey County.

6.4.8 Evacuation Registration Centers

1. People in the EPZ evacuating to Emporia on I-35, should exit I-35 at Merchant Street and go to the Emporia State University Physical Education building at 18th and Merchant.

2. People in the EPZ evacuating to Garnett should use 12th Rd, 16th Rd, Hwy. 31 or Hwy. 57 East to go to the Anderson County Jr/Sr High School.

6.5 Control Room Organization

6.5.1 The Shift Manager is responsible for the initial evaluation and classification of any abnormal situation and for directing the appropriate response, including initial activation of a callout.

1. Control Room personnel are on shift 24 hours a day. The shift complement is shown in Figure 2, MINIMUM SHIFT COMPLEMENT.

6.5.2 Upon declaration of an emergency, the Shift Manager assumes the duties of Emergency Manager. The Shift Manager normally goes to and remains in the Control Room unless it is necessary for him to leave the Control Room in order to perform specific assessment, corrective, or protective actions. The Shift Manager performs the following actions:

- o Initiate appropriate technical measures to mitigate the event
- o Determine if releases have occurred, make the necessary assessment of the off-site concentration of radioactivity resulting from a release, and evacuate non-essential personnel if necessary
- o Direct the activities of the Control Room Emergency Notification System (ENS) and Off-site Communicators
- o Ensure immediate and follow-up notifications are made which provide sufficient information on emergency classification, plant status, off-site dose projections or measurements, and issue recommendations for off-site protective actions to authorities responsible for off-site emergency measures
- o Ensure NRC Resident Inspector is notified as soon as possible after the State and County are notified
- o Ensure notifications to the NRC are made as soon as possible within 60 minutes of classification of an emergency in accordance with 10CFR50.72(a)(3)
- o Ensure other notifications are made in accordance with EPPs
- o Activate onsite emergency teams if required
- o Notify plant personnel of the change in plant status

6.5.3 Off-site Communicator

1. The Off-site Communicator reports to the Shift Manager, performs initial notifications, and initiates the Automatic Dialing System (ADS) to callout the ERO.

   a. Non-Responding Emergency Communicators (NREC) assist in the manual callout of personnel to staff the ERO if the ADS is not functioning.

6.5.4 Emergency Notification System (ENS) Communicator

1. The ENS Communicator reports to the Shift Manager and maintains communications with the NRC.

6.5.5 Chemistry Technician

1. The Chemistry Technician reports to the Shift Manager and performs dose assessment until relieved by Dose Assessment personnel in the EOF.

6.5.6 Health Physics Technician

1. The Health Physics Technician reports to the Shift Manager and performs radiation monitoring for personnel sent from and in the Control Room.

6.5.7 Control Room Supervisor

1. Reports to the Shift Manager and provides direction to Reactor Operators and Nuclear Station Operators for the safe operation of the unit.

6.5.8 Reactor Operators

1. The Reactor Operators report to the Control Room Supervisor and perform plant monitoring and reactor manipulations as needed from the Control Room.

6.5.9 Nuclear Station Operators

1. Nuclear Station Operators report to the Control Room Supervisor and perform local plant monitoring and manipulations as directed.

6.5.10 Shift Technical Advisor

1. The Shift Technical Advisor reports to the Shift Manager and performs STA requirements as assigned by the NRC.

6.5.11 Initial emergency response to the major functional areas is within the capabilities of the minimum operations shift complement.

6.5.12 On-shift staff augmentation is available, when deemed necessary, in accordance with ATTACHMENT D, WCGS MINIMUM STAFFING FOR EMERGENCIES.

6.6 Technical Support Center (TSC) Organization

6.6.1 TSC activation will be performed as soon as practical and within the times as stated in the following:

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.

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.

6.6.2 The TSC is considered activated when the following positions are present, the Site Emergency Manager determines the facility is ready to activate, and declares the facility activated:

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

6.6.3 The TSC organization is shown in FIGURE 3, TSC/OSC ORGANIZATION.

6.6.4 Additional personnel to support repair efforts and recovery functions will be added as necessary. Personnel reporting from off-site may initially report to the Dwight D. Eisenhower Learning Center, and then proceed to the TSC as plant/site conditions allow.

6.6.5 Site Emergency Manager

1. The assigned Site Emergency Manager will assume command-and-control functions and will be the top line manager responsible for the emergency. An assigned Site Emergency Manager is available 24 hours a day. The assigned Site Emergency Manager may assume command-and-control functions from the Shift Manager during an NUE if so requested by the Shift Manager.

2. The Shift Manager will transfer the Site Emergency Manager duties to the assigned Site Emergency Manager in accordance with EPPs. The Shift Manager resumes Control Room duties and reports to the Site Emergency Manager.

3. The Site Emergency Manager directs the onsite emergency effort, implements the applicable EPPs and, as appropriate, performs the following:

- Assess and verify the situation and assure that appropriate mitigating efforts are being taken
- Review initial event classification and reclassify as appropriate
- Determine the necessity for evacuation of personnel onsite
- If a release has occurred, make the necessary assessment of the off-site concentration of radioactivity resulting from a release
- Ensure immediate and follow-up notifications are made which provide sufficient information on emergency classification, plant status, off-site dose projections or measurements, and issue recommendations for off-site protective actions to authorities responsible for off-site emergency measures

4. 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:

   - Classification of the emergency
   - Protective action recommendations
   - Authorization for notification of off-site authorities
   - Authorization of emergency exposure in excess of 10CFR20 limits

6.6.6 TSC Operations Coordinator

1. The TSC Operations Coordinator reports to the Site Emergency Manager and is responsible for the following:

   - Supervise reactor plant operations, the Engineering Coordinator, and ENS Communicator
   - Keep the Site Emergency Manager advised of plant conditions and operational manipulations

2. The TSC Operations Coordinator may supervise other positions as directed by WCGS procedures.

6.6.7 Engineering Coordinator

1. The Engineering Coordinator reports to the TSC Operations Coordinator and directs the activities of the Engineering Team to technically assess plant status and the severity of emergency conditions.

6.6.8 Engineering Team

1. The Engineering Team reports to the Engineering Coordinator. The Team evaluates current and historical plant parameters, assesses the severity of the emergency conditions and magnitude of fuel damage, and recommends corrective or preventive actions.

6.6.9 TSC Emergency Notification System (ENS) Communicator

1. The TSC ENS Communicator reports to the TSC Operations Coordinator and maintains communications with the NRC.

6.6.10 TSC Radiological Coordinator

1. The TSC Radiological Coordinator reports to the Site Emergency Manager and is responsible for preventing or minimizing direct exposure to, or ingestion/inhalation of, radioactive materials during a radiological emergency. Responsibilities are as follows:

   - o Monitoring Dose rates and dose projections
   - o Monitoring Radiological survey teams' results
   - o Assists the On-site Emergency Manager in the formulation of recommended protective actions
   - o Monitoring Personnel radiation exposures to ensure they are maintained in accordance with 10CFR 20 limits unless otherwise authorized by the Emergency Manager

2. The TSC Radiological Coordinator will transfer off-site duties to the EOF when the EOF is activated.

6.6.11 TSC Administrative Coordinator

1. The TSC Administrative Coordinator reports to and assists the Site Emergency Manager to ensure that emergency notifications are performed. The TSC Administrative Coordinator is responsible for logistical support in the areas of TSC personnel, Control Room, procurement and warehouse support, communications support and equipment repair services.

2. After EOF activation, the TSC Administrative Coordinator directs requests for logistical support beyond onsite staff capabilities to the EOF Administrative Coordinator.

6.6.12 TSC Team Director

1. The TSC Team Director reports to the TSC Radiological Coordinator and provides advise on radiological safety matters concerning Emergency Response Team activities.

6.6.13 Maintenance Coordinator

1. The Maintenance Coordinator reports to the Site Emergency Manager and directs the Maintenance Assistant in the coordination of emergency team activities, including PASS team. The Maintenance Coordinator also directs the formation of teams to be assigned to search and rescue.

6.6.14 Operations Communicator

1. Provides data, progress and plant conditions from the Control Room via the Operations Recorders.

6.6.15 Additional Personnel

1. The following are examples of positions that are not needed for activation and operation of the TSC but supplement those personnel which are essential to an emergency response:

   - Operations Recorder maintains the Operations Status Board current.
   - Team Communicator reports to the Team Director and is responsible for communicating with Onsite Teams.
   - Onsite Survey Team Technicians perform tasks as assigned by the Maintenance Assistant.

- Administrative Assistants perform facility accountability, assist the Emergency Manager, faxing and copying, log keeping, and Off-site notifications and communications as directed.

- Security Coordinator maintains a line of communications between the TSC and Security to cover security concerns.

6.7 Operations Support Center (OSC) Organization

6.7.1 Maintenance Assistant

1. The Maintenance Assistant reports to the Maintenance Coordinator and coordinates emergency repair and damage control activities, coordinates deployment of onsite teams, and coordinates the activities of the Maintenance Engineers.

6.7.2 Emergency Response Team (ERT)

1. The ERT personnel may be selected from Health Physics Technicians (Tech), Chemistry Tech, and Instrumentation and Control, Mechanical, or Electrical maintenance. The ERT reports to the Maintenance Assistant and is responsible for repairs, surveys, sampling, analysis, and search and rescue.

6.7.3 Additional Personnel

1. The following are examples of positions that are not needed for activation and operation of the OSC but supplement those personnel which are essential to an emergency response.

   - Chemistry Technicians perform emergency chemical sampling and provide post-accident sample analysis.

   - Maintenance Planners develop repair plans for use by the emergency repair and damage control teams.

   - Warehouse Support Personnel assist in locating and securing parts and equipment from the warehouse.

6.8 Emergency Operations Facility (EOF) Organization

6.8.1 EOF activation will be performed as soon as practical and within a goal of 90 minutes of a declaration of an Alert or higher Emergency.

1. The EOF is considered activated when the following positions are present, the Off-site Emergency Manager determines facility readiness, and declares the facility activated:

   - o Off-site Emergency Manager
   - o EOF Operations Coordinator
   - o EOF Administrative Coordinator
   - o EOF Radiological Coordinator
   - o EOF Facility Technician

2. The complete EOF organization is shown in FIGURE 4, EOF ORGANIZATION.

6.8.2 Off-site Emergency Manager

1. The Off-site Emergency Manager will assume the command-and-control functions and direct the emergency from EOF. An assigned Off-site Emergency Manager is available 24 hours a day.

2. The Off-site Emergency Manager is the official WCGS interface with government authorities. The Manager may discuss events in progress with the County and State personnel present in the EOF when making decisions concerning the emergency. Responsibilities include the following:

   a. Supports and provides resources or performs tasks as requested by the Site Emergency Manager

   b. Directs all WCGS personnel in the EOF

   c. Obtains personnel and coordinates the efforts of the following:

      - o Emergency response personnel who perform off-site radiological surveys, plus any other personnel deemed useful for the emergency response effort
      - o Outside contractors and vendors, such as consultants, laboratories under contract, the Nuclear Steam Supply System (NSSS) vendor, the Architect/Engineer, and regional utilities
      - o Additional technical resources may be called in during the emergency for further support or shift assignment onsite.

d. Coordinates with the Administrative Coordinator in the logistics effort to supply the plant with the necessary personnel and equipment

e. Briefs WCGS Executive Management on matters related to the emergency

f. Coordinates with the Onsite and Off-site Public Information Coordinators (PICs) in providing technical input for news statements

g. Ensure immediate and follow-up notifications are made which provide sufficient information on emergency classification, plant status, off-site dose projections or measurements, and issue protective actions recommendations to off-site authorities responsible for off-site emergency measures

h. Requests federal assistance through state officials per the State Plan

3. 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 exposure in excess of 10CFR 20

6.8.3 EOF Radiological Coordinator

1. The EOF Radiological Coordinator reports to the Off-site Emergency Manager and is responsible for radiological monitoring and dose assessment activities off-site. Responsibilities are as follows:

- o Directs and coordinates activities of the Dose Assessment Coordinator and staff
- o Assists the Off-site Emergency Manager in the formulation of recommended protective actions
- o Provides the PIC with an assessment of radiological conditions

- Requests through the EOF Administrative Coordinator additional radiation monitoring equipment, instrumentation and Health Physics support personnel as necessary

- Interfaces with State and County emergency response personnel who are assigned to the EOF regarding matters related to off-site radiological assessment

6.8.4 EOF Team Director

1. The EOF Team Director assumes responsibility for authorizing and supervising Off-site Monitoring Teams. The EOF Team Director directs Emergency Response Teams and advises the EOF Radiological Coordinator on radiological conditions encountered by the Teams.

   a. Off-site Monitoring Team authorization should be made promptly upon activation of the EOF.

   b. Monitoring teams are specially trained in field sampling techniques. Each team will be equipped with equipment capable of detecting and measuring radioiodine concentrations in the air at levels as low as 10^{-7} uCi/cc.

   c. County and State personnel may become part of the Emergency Response Teams and assist with off-site monitoring.

6.8.5 EOF Facility Technician

1. Reports to the EOF within a goal of 60 minutes of declaration of an Alert or higher classification to ensure the EOF is prepared and functional.

6.8.6 Dose Assessment Coordinator

1. Reports to the EOF Radiological Coordinator and is responsible for directing/assisting with dose projection and protective action recommendation activities.

2. Ensures the Radiological Status Board is maintained current.

6.8.7 Emergency Dose Calculation Program (EDCP Operator)

1. Reports to and is responsible for providing completed off-site dose projections to the Dose Assessment Coordinator.

6.8.8 HPN Communicator

1. The HPN Communicator reports to the EOF Radiological Coordinator and maintains communications with the NRC via the Health Physics Network (HPN) telephone.

6.8.9 EOF Operations Coordinator

1. Reports to and briefs the Emergency Manager on plant conditions and mitigative strategies.

6.8.10 EOF Administrative Coordinator

1. The Administrative Coordinator is responsible for coordinating, directing, and responding to requests from the ERO for administrative and logistical support. The techniques and procedures used during this effort are adapted from normal WCGS procurement practices. The Administrative Coordinator also ensures notifications to off-site authorities are made.

6.8.11 Representative At County

1. The Representative at the County is located in the County Emergency Operations Center in Burlington, KS, and reports to the Off-site Emergency Manager. The Representative responds to requests from County personnel for clarification or verification of data received from the TSC or EOF.

6.8.12 Additional Personnel

1. The following are examples of positions that are not needed for activation and operation of the EOF but supplement those personnel which are essential to an emergency response.

   - o Team Communicators communicate with Off-site Monitoring Teams.
   - o Operations Recorders maintain the Operations Status Board current.
   - o Administrative Assistants perform facility accountability, assist the Emergency Manager, faxing and copying, log keeping, and Off-site notifications and communications as directed.

6.9 Public Information Organization

6.9.1 Wolf Creek Public Information Officer (WC PIO)

1. The WC PIO is the public voice for plant information. The WC PIO is responsible for ensuring the timely issuance of accurate information to the public and media during an emergency at WCGS. Public interaction may be as a formal news conference or a telephone call.

   a. The WC PIO coordinates with the County and State for information to be released to the public.

2. The WC PIO position is activated at an NUE or higher emergency to coordinate the development and release of news statements.

3. The WC PIO has overall responsibility for the Public Information Organization.

6.9.2 Wolf Creek Public Information Manager

1. The Wolf Creek Public Information Manager position is activated at an NUE or higher emergency. The Wolf Creek Public Information Manager works closely with the WC PIO, the Onsite PIC, the Off-site PIC, and the Technical Support staff to ensure that information provided the public is timely and accurate.

2. The Wolf Creek Public Information Manager has responsibility for ensuring the Public Information Organization is activated and functions as directed in EPPs.

3. During a declared emergency the Public Information Manager determines and coordinates the activation of Rumor Control, Information Clearinghouse, Media Center and the Phone Team. The Public Information Manager operates from the appropriate Information Clearinghouse.

4. The complete Public Information organization is shown in FIGURE 5, PUBLIC INFORMATION ORGANIZATION.

6.9.3 Onsite Public Information Coordinator (PIC)

1. The PIC gathers and transmits technical information to the Wolf Creek Public Information Officer for use in news statements following the declaration of any emergency classification.

6.9.4 Off-site Public Information Coordinator (PIC)

1. During a SAE or GE, the PIC is responsible for gathering all information related to the health and safety of the public. The PIC transmits this information to the WC PIO at the Information Clearinghouse. The PIC operates from the EOF.

6.9.5 Media Center Manager (MC Manager)

1. The MC Manager is located at the Media Center and reports to the WC PIO. Responsibilities include set-up of the Media Center, leadership for the Media Registrar and Media Liaison and management of the media news conferences. The Media Center Manager maintains contact with the Information Clearinghouse to provide news conference schedules.

6.9.6 Media Liaison

1. Media Liaison is located in the Media Center and reports to the MC Manager. Responsibilities include managing the media crowd at the Media Center and assisting the media with registration and facility orientation, providing general Wolf Creek background information or approved emergency-related information, arranging individual interviews, and announcing and coordinating scheduled news conferences.

6.9.7 News Writer

1. The News Writer reports to and provides support for the WC PIO. The News Writer provides support to the PIO including: answering telephones, writing and distributing news statements, updating the status log, maintaining the media status board and faxing news statements. The News Writer maintains a chronological log of the events and news statements.

6.9.8 Phone Team Manager

1. The Phone Team Manager reports to the WC PIO and coordinates the rumor control activities of the Phone Team.

6.9.9 Rumor Control Coordinator

1. The Rumor Control Coordinator is located in the KCPL General Office and reports to the WC PIO. Rumor Control monitors news statements or news conferences to identify misinformation being released to the public.

6.9.10 Technical Support

1. The Technical Support staff discusses technical details of the news statement with EOF staff to ensure accuracy, provides technical interpretation for the WC PIO, the Public Information Officer for Coffey County and the State of Kansas. Technical Support gathers information from the Emergency Facilities to communicate plant, health and safety issues to the public.

6.9.11 Additional Personnel

1. The following are examples of additional personnel used to fill ERO positions such as clerical, log keeping, or status board posting. Staffing of these positions does not affect the activation of the facility.

   - Media Center Registrar monitors access to the Media Center, records news conference attendance, provides media packets, provides directions for telephone use and work space information to the media representatives.

   - Audio/Visual Support records on video and audio tape the proceedings of news conferences presented in the Media Center.

   - Information Messenger performs clerical and administrative duties at the direction of the Public Information Manager.

   - The Phone Team may make initial media notifications at PIO discretion, addresses media and public questions to the extent possible and reports rumors or misinformation to the Phone Team Manager.

   - The Media Monitoring Team notifies the Rumor Control Coordinator of any rumors or misinformation heard or observed from their monitoring of the media.

6.10 Local Off-site Organizations

6.10.1 The Coffey County Contingency Plan for Incidents Involving Commercial Nuclear Power describes the authorities, responsibilities, and agreements to which various county agencies are a party in their response to emergencies at WCGS. Information is provided therein about the various agencies' interrelationships and support roles provided to WCGS.

- The County Plan contains the formulas for calculating evacuation times for each subzone.

6.10.2 Coffey County Commissioners

1. The Coffey County Board of Commissioners maintains the executive authority and responsibility for planning and coordinating the county response. They have delegated responsibilities and tasks to the local support agencies and have established operating procedures.

2. After declaring a State of Local Disaster Emergency, the Chairman of the Coffey County Commissioners is responsible for making the decision to activate the alert and notification system. Emergency authority, as stated in County Plan, is given in an established line of succession.

3. If a State of Emergency has not been declared, after receipt of notification and in accordance with the County Plan, the Chairman decides which protective actions would be appropriate.

   - When a protective action is decided upon, the County may notify the State to activate EAS or they may activate EAS.

6.10.3 Coffey County Sheriff's Office

1. The Coffey County Sheriff's Office provides local notification, access control, and law enforcement support in accordance with the Coffey County Plan.

2. If time does not permit, or if he is unable to contact the Chairman or other members of the County Emergency Response Organization, the County Sheriff has the authority to make protective action decisions based upon recommendations by WCGS.

3. The County Dispatcher may contact the Kansas Division of Emergency Management to activate EAS or they may activate EAS.

4. Specific services provided by the Coffey County Sheriff's Office include:

   - o Perform notifications as defined within the County Plan and associated implementing procedures
   - o Provide a 24 hour per day manning of communications links between the County and WCGS, and between the County and State
   - o Implement off-site protective actions as necessary and as specified in the County Plan implementing procedures
   - o Initiate warning and initial notification of the population
   - o Direct the evacuation of specific subzones of the EPZ upon the decision to evacuate
   - o Provide traffic control and roadblocks per implementing procedures
   - o Obtain additional assistance as necessary to secure the evacuated areas
   - o Control access to the County EOC

6.10.4 Coffey County Fire District #1 (CCFD)

1. Contractual arrangements have been made with the Board of Trustees of Fire District No. 1, Coffey County, KS, for the provision of fire fighting support. Services contracted are summarized in the Letter of Agreement and maintained in an Emergency Planning file.

2. The WCGS Fire Brigade Leader is also responsible for directing all fire fighting activities onsite. Once onsite, Fire District members and equipment shall be escorted by Security.

6.10.5 Off-site Medical Treatment

1. Coffey County Hospital and Newman Memorial Hospital each have developed emergency procedures to provide guidance in the rendering of medical treatment to contaminated patients.

2. Coffey County Hospital, located in Burlington, KS, approximately 9 road miles from the WCGS site, has agreed to provide aid to injured/contaminated personnel.

3. Newman Memorial Hospital serves as a backup to Coffey County Hospital and is located in Emporia, KS, approximately 40 miles from WCGS.

4. Contaminated injured personnel transported from WCGS to off-site medical facilities are attended by personnel qualified in radiological practices. Once the patient(s) has been stabilized, WCGS personnel survey patient(s), attending personnel, vehicles, and equipment to ensure they have been decontaminated in accordance with WCGS, County, or State procedures.

6.10.6 Coffey County Emergency Medical Service (EMS)

1. Coffey County EMS provides medical assistance and transports victims to medical facilities for personnel requiring treatment for injuries, exposure to radiation, and contamination. WCGS notifies the Ambulance Service by telephone or though the Coffey County Sheriff's Office.

2. If conditions warrant, any vehicle at WCGS may be used to transport affected personnel.

6.10.7 Radiological Emergency Assistance Center/Training Site (REAC/TS)

1. REAC/TS maintains a 24 hour Hospital Disaster Network. Consultation is available for medical emergencies involving radiologically contaminated patients.

6.11 State Organizations

6.11.1 The Governor, by law, is the Chief Executive Officer of the State of Kansas and is responsible for the safety and well-being of all citizens within the State. The State Plan describes the responsibilities of local, federal, state, and volunteer agencies during nuclear emergencies. Upon declaration of a State of Disaster Emergency the State has primary responsibility for responding to an off-site nuclear emergency. Activation of the State EOC, located in the lower level of the State Defense Building, Topeka, KS, is the responsibility of the Governor or authorized representatives, depending on the nature of the emergency. The Kansas Division of Emergency Management, Technological Hazards Section, provides overall coordination as the responding state agency during a Fixed Nuclear Facilities Incident.

6.11.2 Appendix 12 to Annex N of the Kansas State Emergency Operations Plan describes in detail, the authorities, responsibilities, and agreements to which various state agencies of their response to emergencies at WCGS. Reference to this document is made for detailed information on each agency's interrelation and support role provided to WCGS.

1. Upon declaration of an SAE or GE representatives of Kansas Department Emergency Management (KDEM) and Kansas Department of Health and Environment (KDHE) go to the EOF. They act as the interface between WCGS, the County, and the State.

6.11.3 Kansas Division of Emergency Management (KDEM)

1. The KDEM provides the following assistance:

   a. Evaluates information presented by WCGS to decide off-site protective actions

   b. Coordinates nuclear incident response planning, training, and notification. Activities include:

      - Notification of KDHE
      - Notification of Key federal and state agencies
      - Notification of the Governor's Office
      - Provides radiological monitoring coordination

- Requests federal assistance and coordinates federal and state support on behalf of affected areas
- Provides 24 hour per day point of contact to receive notification
- Activates the State EOC
- Activates the Kansas Emergency Alert System

6.11.4 Kansas Department of Health and Environment (KDHE)

1. The KDHE provides assistance as described below:
   - Acts as the lead state agency for operational radiological emergency response
   - Conducts radiological monitoring in affected areas
   - Provides radiological advice to hospitals
   - Develops and establishes State PAGs
   - Provides information and guidance to the public about protective actions, via the KDEM
   - Assesses off-site contamination of the environment
   - Provides technical guidance and coordination in recovery activities
   - Supports the development and conduct of radiological response training
   - Reviews, evaluates, and maintains dosimetry records for non-licensee emergency workers and other affected individuals

6.11.5 Kansas Highway Patrol (KHP)

1. The KHP provides communications and notification support including backup notification means for the following:
   - Coffey County Sheriff's Office
   - KDEM, Technological Hazards Section
   - The Governor's Office

2. The KHP augments local law enforcement in securing the area and establishing evacuation routes and providing traffic control.

3. The KHP provides self-support radiological monitoring.

4. The KHP maintains emergency communications systems 24 hours per day.

6.11.6 Kansas National Guard

1. The Kansas National Guard may be directed by the Governor to provide assistance as needed such as the following:

- o Evacuation of communities
- o Area security
- o Media Center Security

6.11.7 Kansas Department of Transportation (KDOT)

1. KDOT provides assistance as follows:

- o Provides emergency traffic barriers and signs
- o Supplements emergency traffic control
- o Supplies construction equipment
- o Provides communications support

6.12 Federal Organizations

6.12.1 Should an emergency situation or accident occur at WCGS, notification and reports must be made to various federal agencies and organizations, and requests for assistance may also be made.

6.12.2 Federal Emergency Management Agency (FEMA)

1. FEMA is the lead agency supporting implementation of the state and local emergency plans. Region VII FEMA response time is estimated to be four hours.

6.12.3 Department of Energy (DOE)

1. The DOE Radiological Assistance Program provides monitoring assistance and radiological consultation to the KDHE. The DOE provides assistance under the Federal Radiological Emergency Response Plan (FRERP) and responds to authorized requests for assistance by the KDHE. It is expected that initial responders, to assist with off-site radiological monitoring, will arrive within 8 hours. Full Federal response (FRMAC) is expected within 48 hours.

6.12.4 Nuclear Regulatory Commission (NRC)

1. The NRC provides advice to other federal, state, and local agencies on the radiological health consequences of various emergency protective actions. The NRC requires notification and reports as indicated in ATTACHMENT H, REPORTING OF INCIDENTS PER 10CFR20 and as specified in the WCGS Technical Specifications. NRC Region IV response time is estimated to be 12 hours.

6.12.5 Licensee resources available to support the federal response include the following:

- Space and equipment in the TSC and EOF provided for key federal personnel
- Telecommunications equipment at these centers is available to federal personnel for use
- Parking space adjacent to the EOF provides an area for the location of federal response vehicles, with power and sanitary services available at the EOF
- Open fields south of the parking lot at the EOF provide access for helicopters
- Coffey County Airport is available for air traffic

6.13 Additional Support Agencies

6.13.1 Vendor and Architect/Engineers (A/E)

1. NSSS supplier, Westinghouse, is the chief vendor who may be involved with emergency response for WCGS. Westinghouse has emergency response plans which are activated upon notice and is expected to provide the following services:

   - Personnel with expertise in various areas

- o Technical analysis
- o Operational analysis
- o Accident/transient analysis
- o Recommendations

6.13.2 Regional Utility Support

1. WCGS shares the SNUPPS power-block design with the Union Electric Callaway Plant. Because of this design concept and similarity with the WCGS layout, assistance from Union Electric is possible. A specific mutual aid agreement between WCGS and Union Electric Company has been established. While this assistance may be available within a short period of time, it shows greatest promise in the case of a prolonged emergency where extended, around the clock coverage is required. The Site Emergency Manager may authorize the temporary use of this resource, should staff augmentation be necessary. Union Electric Company is a signatory of the INPO FIXED FACILITY EMERGENCY RESPONSE VOLUNTARY ASSISTANCE AGREEMENT.

6.13.3 Institute of Nuclear Power Operations (INPO)

1. WCGS has signed the INPO FIXED FACILITY EMERGENCY RESPONSE VOLUNTARY ASSISTANCE AGREEMENT. This agreement is by and among electric utilities which have responsibility for the construction and operation of commercial U.S. nuclear power plants. Assistance may be requested from any of the signatory companies in the form of technical and administrative aid or personnel, facility, or equipment resources. Requested assistance is rendered according to the agreement.

6.13.4 American Nuclear Insurers (ANI)

1. ANI is notified at emergency classifications of Alert or higher. ANI is available to provide insurance services as necessary.

6.14 Plant Monitoring

6.14.1 Nuclear Plant Information System (NPIS)

1. The integration and display of selected and critical data is performed by NPIS which is a non-safety, non-Class 1E system. Isolation is provided to ensure that NPIS does not degrade the performance of safety system equipment or displays.

2. NPIS provides data storage and recall capability.

3. Certain parameters are also transmitted to the NRC Operations Center via the Emergency Response Data System (ERDS) link of NPIS. ERDS is activated through NPIS within 60 minutes of an Alert or higher classification.

4. The NPIS computer feeds key plant parameters to individual terminals in the Control Room, TSC, and EOF which display data identical in accuracy, resolution, and reliability. Support personnel may assist the Control Room staff to analyze and diagnose plant abnormalities so that corrective action may be taken and then monitored.

5. The Safety Parameter Display System (SPDS) provides for continuous indication of plant parameters or derived variables representative of the safety status of the plant. The primary function of the SPDS is to aid the user in the rapid detection of abnormal operating conditions. As a plant safety information and diagnostic tool, SPDS concentrates on a minimum set of plant parameters from which the plant safety status can be assessed.

6.14.2 Onsite Radiological Monitors

1. Process monitors monitor the radiation intensity of materials within plant systems. These monitors continuously measure, indicate and record the radioactive material concentrations located within systems being monitored. Each monitor includes an adjustable alarm to provide indication of a significant change or the existence of a concentration of radioactive material above pre-selected values. The USAR, Chapter 11.5, includes a listing and range of plant monitors.

2. The Area Radiation Monitoring System monitors provide information about radiation intensity at specific plant locations. These monitors provide the following:

a. Warnings of excessive gamma radiation levels in areas where nuclear fuel is stored or handled

b. Control Room personnel with a continuous indication of gamma radiation levels at selected locations within the various plant buildings

c. Assistance in detecting unauthorized or inadvertent movement of radioactive material in the plant, including the radwaste area

d. Supplementation of other systems, such as process radiation monitoring or leak detection, in detecting abnormal migrations of radioactive material

e. Local alarms to warn personnel in the area

3. Effluent monitors provide information about the concentration of radioactive material in plant effluent pathways. Each significant effluent pathway from the plant includes an effluent monitor to enable the quantification of the radioactive material concentration exiting the plant.

6.14.3 Meteorological Monitoring System

1. The Meteorological Monitoring System is composed of a 90-meter instrument tower and a temperature controlled shelter at the base of the tower housing associated instrumentation and equipment.

2. The function of the meteorological system is to monitor and record meteorological conditions.

3. Information provided by instruments at the meteorological tower is available from the NPIS computer system.

4. Time interval measurements are used in calculating 15-minute averages for all parameters.

5. When needed, Meteorological data can be obtained from the National Weather Service.

6.14.4 Seismic Monitoring System

1. The seismic warning panel in the Control Room provides local visual and audible indication when a seismic event has occurred.

6.14.5 Hydrologic Monitoring

1. Hydrologic monitoring is not required as WCGS is a "dry site" as defined by Regulatory Guide 1.102. The plant site is located above the design basis flood level.

6.14.6 Fire Protection

1. WCGS is protected by an independent fire protection system consisting of two subsystems, a detection/alarm system and a suppression system.

2. Activation of the fire systems results in an audible alarm throughout the plant. Alarms are also displayed in the Control Room.

6.14.7 Laboratory Facilities

1. A radiochemistry (hot) laboratory, radwaste laboratory, and turbine building chemistry laboratory are located in the power block. The chemistry shop laboratory is located in the Walter P. Chrysler Building. Further information on onsite laboratory equipment can be found in USAR, Chapter 12.5.

2. The environmental laboratory at the EOF may be used for processing of routine and emergency field samples. The Kansas Health and Environmental Laboratory in Topeka, KS, is available to further augment the processing of emergency samples.

3. Private laboratories under contract to WCGS or laboratories of neighboring utilities who are signatories of the INPO Voluntary Assistance Agreement may be considered for use.

6.15 Emergency Supplies

6.15.1 Emergency supplies include protective, communications, and radiological monitoring equipment, check sources, and other supplies. The EPPs list emergency supplies and their locations.

6.15.2 Emergency supplies are maintained, inventoried, and inspected on a quarterly basis in accordance with EPPs. The EPPs contain an inventory list of WCGS equipment for emergency supplies. This equipment may be augmented by other onsite equipment.

6.15.3 Instruments are calibrated in accordance with WCGS Health Physics Procedures. For any items removed from the emergency supplies for calibration or repair, an operable equivalent instrument is used to replace it. Sufficient quantities of spare instruments/equipment are onsite to provide replacements.

6.16 Communications

6.16.1 Communication Equipment

1. Telephones provide primary communications contact with the State and County EOCs. The on-site system in the Olive Beech Building and the off-site system in Dwight D. Eisenhower Learning Center are powered by their own battery and charger. The battery will supply the system if the charger fails.

   a. The Emergency Telecommunications System (ETS) is used for NRC communications.

   b. Trunk lines are available for communications with outside agencies.

   c. Cell phones or other comparable equipment are used as a backup means of communications with joint radiological monitoring teams.

2. Radio communications provide backup communications with the State and County EOCs. Fixed AC-powered transmitter/receiver units and a number of portable and hand-held units are also capable of providing fixed and mobile communications to joint radiological monitoring teams.

   a. Radio communication is the primary communication method for the joint radiological monitoring teams.

3. A paging system is used for initial notification of key personnel. Pager coverage is provided in and around the cities of Burlington, Emporia, Topeka, Ottawa and Lawrence.

6.16.2 Communication Dissemination

1. The methods of employee communications may be employee meetings, announcements, or literature handouts.

2. The Public Information Organization is responsible for interfacing with the media. Communication between WCGS and media organizations are performed in accordance with EPPs.

3. Annually, WCGS offers the news media with the following information:

   - o Information concerning the emergency plan
   - o Information concerning radiation
   - o Facilities available for media
   - o Points of contact for statements of public information
   - o Differences between normal and emergency plant operations

4. Standardized public announcements for broadcast during an emergency have been written by the state, county, and WCGS and are found in the State Plan.

5. WCGS, state, and local emergency organizations provide members of the public, including transients, public education information on how they are notified and what their initial actions should be during an emergency.

   a. Emergency planning information is provided within local telephone directories. The information, developed jointly by WCGS, Coffey County and the State of Kansas, is distributed to residences of the EPZ.

   b. Information includes educational facts on radiation, protective measures, special needs of the handicapped and the points of contact for additional information.

   c. An annual mail-out to the public provides information regarding operation of Tone Alert Radios.

6. Emergency planning information, displayed on information boards, is provided for transients in the public use areas of John Redmond Reservoir (JRR), Coffey County Lake (CCL), and other WCGS controlled areas. Transients have access to emergency plan information within motel rooms and telephone books.

6.17 Emergency Plan Training

6.17.1 WCGS has developed an emergency preparedness training program which meets the requirements of 10CFR50, Appendix E, Section IV. F.

6.17.2 The Superintendent Emergency Planning ensures required training is provided for ERO personnel in accordance with plant procedures.

6.17.3 The Superintendent Emergency Planning ensures corrective actions for any Emergency Planning weakness or deficiencies identified are initiated and corrected using the WCGS corrective action process.

6.17.4 Personnel receive general RERP training as a portion of Plant Access Training prior to receiving unescorted access to WCGS.

6.17.5 Initial and re-qualification training is provided for personnel on the ERO. This training may be in the form of self study, class room training, drills, tabletops, or any combination of these.

1. Position specific training is provided for personnel filling positions in the following areas:

   - o Directors/Coordinators of the emergency
   - o Personnel responsible for accident assessment
   - o Radiological monitoring teams
   - o Fire brigade members
   - o Emergency response teams
   - o Medical support personnel
   - o Security personnel
   - o Support personnel

2. Critiques are performed after each training class to identify weak or deficient areas.

6.17.6 Where Letters of Agreement exist between WCGS and local agencies and for each off-site response organization's emergency support role, training is offered annually. Training is also offered to the participants in the Interlocal Agreements between Coffey County and host counties, Anderson and Lyon.

1. This training consists of an orientation to plant operations and site access procedures, basic radiation protection and monitoring information, procedures for notification, an overview of the ERO duties and activities, and training materials associated with performance of their expected roles.

6.17.7 Drills are considered part of the Emergency Plan Training Program. Periodic drills conducted between the biennial exercise ensure that the ERO is capable of executing the crucial tasks necessary to detect emergency conditions, assess and mitigate the consequences, notify key licensee and non-licensee personnel and organizations, perform appropriate response and protective actions, and recommend off-site protective actions to state and local agencies.

1. State and County participation in drills will be allowed if they so desire.

6.18 Emergency Plan Drills

6.18.1 Annual communication drills between WCGS, State and County EOCs, and field assessment teams ensure that contact can be made and that messages are comprehended.

1. Monthly communication tests verify communications with the local County and State authorities. Communications tests are made with the NRC Headquarters via the Emergency Telecommunications System (ETS). These tests are performed in accordance with EPPs.

6.18.2 Fire drills are conducted in accordance with plant administrative procedures.

6.18.3 Annual medical emergency drills include transportation and treatment of simulated contaminated individuals by ambulance and off-site medical treatment facilities.

6.18.4 Annual radiological monitoring drills include collection and analysis of sample media, field activities, and provisions for communications and record keeping.

6.18.5 Semi-annual Health Physics drills involve response to and analysis of simulated elevated airborne and liquid samples and direct radiation measurements in the environment.

1. Annually, analysis of in-plant liquid samples using the post-accident sampling system (PASS) is included in a Health Physics drill.

6.18.6 Each calendar quarter, a callout drill is conducted to verify the operability of the notification system.

6.18.7 Critiques should be conducted following each drill to identify and correct noted deficiencies.

6.19 Emergency Planning Exercises

6.19.1 In accordance with 10CFR50 Appendix E, Section IV.F, emergency exercises will test the adequacy of timing and content of implementing procedures and methods, test emergency equipment and communication networks, test the public notification system, and ensure that ERO personnel are familiar with their duties.

6.19.2 Exercises will be conducted biennially to test the on-site and off-site emergency plans.

6.19.3 To meet NRC and FEMA requirements, the exercises are varied so as to test, at least once every six years, all major components of the WCGS, State, and County plans and response organizations. The State and County actively participate in these exercises.

1. Exercises should be conducted under various weather conditions.

2. At least once every six years an unannounced exercise is initiated between 6:00 p.m. and 4 a.m.

3. At least once every six years an ingestion pathway exercise shall be conducted.

6.19.4 Designated observers from federal, state, local governments, and WCGS observe the required exercises. Certain of these observers also evaluate the exercise.

1. The Superintendent Emergency Planning has the lead responsibility for ensuring corrective actions associated with emergency planning are initiated.

2. Critiques are conducted following each exercise to identify and correct noted deficiencies.

6.19.5 Prior to an exercise a scenario package is prepared which contains the following:

- Basic objective of each exercise and appropriate evaluation criteria
- Simulated events
- Dates, time periods, places, and participating organizations
- Time schedule of all initiating events

- o Descriptive scenario addressing the conduct of the exercise which should include public information activities, off-site fire department assistance, simulated casualties, rescue of personnel, use of protective clothing and radiological monitoring teams

- o Description of the arrangements for, and advance materials to be provided to official observers

6.19.6 Remedial exercises will be conducted for exercises which do not satisfactorily test the emergency response plan as determined by FEMA and the NRC.

6.20 Emergency Plan And Procedures Administrative Controls

6.20.1 The NSRC is responsible for assuring that a review of the WCGS Emergency Preparedness Program will be performed, at least once every twelve months, in accordance with 10CFR 50.54(t).

1. Personnel performing this review will have no direct responsibility for implementation of the Emergency Preparedness Program.

2. The review shall evaluate interfaces with state and local governments, licensee drills, exercises, capabilities, procedures and emergency facilities.

3. The results of the review are reported to owner representatives and WCGS Senior Management and shall be retained for at least five years.

4. Correction of review findings are evaluated and implemented using normal WCGS procedures.

5. The applicable portions of the review shall be made available to the State and local governments.

6.20.2 The Superintendent Emergency Planning ensures the coordination and documentation of RERP reviews and revisions and the RERP distribution. The RERP is revised annually to incorporate changes identified during drills, exercises and the 10CFR 50.54(t) review.

1. The RERP and approved changes are distributed to all organizations and individuals with responsibility for implementation of the RERP.

6.20.3 The Superintendent Emergency Planning ensures emergency planning personnel are properly trained.

6.20.4 Action items required to be performed in a time period are allowed a 1.25 times frequency grace period to complete the item.

6.21 Recovery Plan

6.21.1 The Recovery Plan is activated in a progressive manner when the Site, if EOF not activated, or Off-site Emergency Manager determines stabilized plant conditions warrant the transition of the emergency response efforts to the recovery phase.

6.21.2 If a General Emergency has been reached, NRC and KDEM concurrence shall be obtained prior to downgrading.

6.21.3 The EPPs provide the general plans for reentry and recovery and describe the means by which decisions to relax protective measures are reached.

1. Evaluation of the status of the three fission product barriers is used for de-escalation. As the situation improves and barriers are restored, the next lower level of event may be declared.

2. De-escalation may also occur if conditions have stabilized such that the potential for re-escalation to a higher level has been removed and a controlled situation exists. A declaration of de-escalation is provided by the Emergency Manager based on known information and recommendations of the ERO.

3. Guidelines are provided for Reentry Team(s) to perform surveys and monitoring activities to be employed for initial reentry.

6.21.4 During the recovery process the normal procedures employed for configuration control, reporting, interfaces with regulatory agencies and support groups, exposure control, environmental monitoring, and procurement of supplies and services shall be utilized.

6.21.5 The Recovery Plan utilizes the necessary technical, administrative, managerial and support personnel that may be required for the recovery phase of emergency response, as determined by Site or Off-site Emergency Managers. The responsibilities and functions of the Emergency Managers and staff are detailed in the EPPs.

7.0 RECORDS

7.1 None

8.0 FORMS

8.1 APF-06-002-01, EMERGENCY ACTION LEVELS

- END -

ATTACHMENT A
(Page 1 of 1)
EFFECTIVE 10-MILE EPZ POPULATION CENTERS

Significant Population Centers	Approximate Population	Subzone	Distance (miles) And Direction From The Site To Population Center
Burlington, KS	2,812	SW-1	3.5 Southwest
New Strawn, KS	434	W-1	3.4 West-Northwest
Waverly, KS	642	NE-2	11.5 North-Northeast
LeRoy, KS	582	SE-3	11.1 South-Southeast
Aliceville, KS	40	SE-2	9.3 Southeast
Ottumwa, KS	20	NW-1	6.8 West-Northwest
Sharpe, KS	10	N-1	2.4 North
Jacob's Creek	70	W-2	10.0 West

The population numbers were taken from the 1992 census.

- END -

ATTACHMENT B
(Page 1 of 3)
SUBZONE EVACUATION TIMES

B.1 Table B.1 lists each subzone and the population in that subzone.

TABLE B.1
POPULATION BY SUBZONE

Evacuation Subzone	Evacuation Zone	Population
Center (CTR)	0 - 2	75
North-1 (N-1)	2 - 5	65
Northeast-1 (NE-1)	2 - 5	82
East-1 (E-1)	2 - 5	53
Southeast-1 (SE-1)	2 - 5	40
South-1 (S-1)	2 - 5	40
Southwest-1 (SW-1)	2 - 5	2,866
West-1 (W-1)	2 - 5	463
Northwest-1 (NW-1)	2 - 5	82
North-2 (N-2)	5 - 10	121
Northeast-2 (NE-2)	5 - 10	721
Northeast-3 (NE-3)	5 - 10	144
East-2 (E-2)	5 - 10	71
Southeast-2 (SE-2)	5 - 10	138
Southeast-3 (SE-3)	5 - 10	650
Southeast-4 (SE-4)	5 - 10	56
South-2 (S-2)	5 - 10	88
Southwest-2 (SW-2)	5 - 10	88
West-2 (W-2)	5 - 10	142
Northwest-2 (NW-2)	5 - 10	114

B.2 Total Coffey County population equals 8,559 persons (1992 census). Effective 10-Mile Emergency Planning Zone Subtotals are as follows:

- Effective 0 - 2-mile zone = 75 persons
- Effective 2 - 5-mile zone = 3,691 persons
- Effective 5 - 10-mile zone = 2,333 persons
- Effective 0 - 10-mile zone = 6,099 persons

B.3 Table B.2 lists evacuation confirmation time parameters.

TABLE B.2
EVACUATION CONFIRMATION TIME PARAMETERS

EPZ Location	Miles Traveled	Number of Houses	Speed Between Houses	Effort in Vehicle	Vehicles Assumed Available	Confirmation Time
Burlington	36	1,183	5 mph	105 Hrs	11	9.5 Hrs
New Strawn	3	229	5 mph	20 Hrs	3	6.6 Hrs
LeRoy	9	289	5 mph	43 Hrs	5	8.6 Hrs
Waverly	7	280	5 mph	33 Hrs	4	8.3 Hrs
Remaining EPZ*	289	649	30 mph	80.5 Hrs	8	10.3 Hrs

* Includes the evacuation confirmation of the U.S. Army Corps of Engineers areas at John Redmond Reservoir, Coffey County Lake, and the U.S. Fish and Wildlife Service area north of the Neosho River.

ATTACHMENT B
(Page 2 of 3)
SUBZONE EVACUATION TIMES

B.4 Table B.3 lists Ambulances and Funeral Directors (FD) who may assist with transportation for non-ambulatory persons, distance to travel, time to travel, capacity of each vehicle, and an accumulative total of person capacity.

TABLE B.3
TRANSPORTATION FOR NON-AMBULATORY PERSONS

			Availability Due To Weather		Accumulated
Location	Distance (miles)	Capacity (persons)	Good (minutes)	Adverse (minutes)	Capacity (persons)
Coffey Co Ambu		10	Immediate	Immediate	10
Yates Center FD	23	4	30	40	14
Allen Co Ambu	49	6	47	67	20
Lyon Co Ambu	40	12	48	68	32
Emporia FD	40	4	48	68	36
Franklin Co Ambu	46	9	55	79	45
Chanute FD	50	6	60	86	51
Garnett FD	30	3	36	52	54
Eureka FD	55	4	66	94	58
McPherson FD	122	2	132	210	60
Osawatomie FD	70	4	78	120	64
Lyndon FD	28	3	30	48	67
LIFESTAR	50 (air)	2	30	Limited by ceiling and visibility	69
Anderson Co Ambu	30	8	25	45	77

B.5 Tables B.4 and B.5 lists the 10-mile evacuation time for average and adverse weather conditions.

TABLE B.4
10 MILE EVACUATION TIMES FOR AVERAGE WEATHER CONDITIONS (HOURS)*

Subzone	Effective 2-mile	Effective 5-mile	Effective 10-mile
CTR	0.7	0.9	1.1
CCL	2.5	2.5	2.5
JRR	2.5	2.5	2.5
N-1	-	0.8	1.1
NE-1	-	0.9	1.1
E-1	-	0.9	0.9
SE-1	-	0.8	1.0
S-1	-	0.9	1.2
SW-1	-	1.4	1.5
W-1	-	1.0	1.1
NW-1	-	0.8	1.0
N-2	-	-	0.9
NE-2	-	-	1.0
NE-3	-	-	0.9
E-2	-	-	0.8
SE-2	-	-	0.9
SE-3	-	-	1.0
SE-4	-	-	0.7
S-2	-	-	0.9
SW-2	-	-	0.9
W-2	-	-	0.8
NW-2	-	-	0.7

ATTACHMENT B
(Page 3 of 3)
SUBZONE EVACUATION TIMES

TABLE B.5
10 MILE EVACUATION TIMES FOR ADVERSE WEATHER CONDITIONS (HOURS)

Subzone	Effective 2-mile	Effective 5-mile	Effective 10-mile
CTR	0.7	1.0	1.3
CCL	2.5	2.5	2.5
JRR	2.5	2.5	2.5
N-1	-	0.9	1.3
NE-1	-	1.0	1.1
E-1	-	1.0	1.1
SE-1	-	0.9	1.1
S-1	-	0.9	1.4
SW-1	-	1.7	1.8
W-1	-	1.1	1.3
NW-1	-	0.9	1.1
N-2	-	-	1.0
NE-2	-	-	1.1
NE-3	-	-	1.0
E-2	-	-	0.9
SE-2	-	-	1.0
SE-3	-	-	1.1
SE-4	-	-	0.8
S-2	-	-	1.0
SW-2	-	-	0.9
W-2	-	-	0.9
NW-2	-	-	1.0

NOTE: For all transportation-dependent people, including the non-ambulatory occupants of the Burlington Life Care Center, Sunset Manor Nursing Home and the Coffey County Hospital, an evacuation time of 2.5 hours is estimated using area resources.

* Evacuation times are based on the population from the 1980 census. The 1980 population was larger than the population determined from the 1990 census. Since the evacuation times are based on a greater population than what is presently in Coffey County, and because the condition of some of the evacuation routes has improved (e.g. paving), the times are considered to be conservative.

- END -

ATTACHMENT C
(Page 1 of 8)
CROSS REFERENCE BETWEEN NUREG 0654, RERP, AND WCGS PROCEDURES

0654 Section	RERP Section	Comments	Procedure
A. - ASSIGNMENT OF RESPONSIBILITY (Organization Control)			
1.a	6.5, 6.6, 6.8, 6.9	WCGS onsite and off-site organizations	EPP 06-002, TECHNICAL SUPPORT CENTER OPERATIONS EPP 06-003, EMERGENCY OPERATION FACILITY OPERATIONS EPP 06-004, PUBLIC INFORMATION ORGANIZATION
1.a	6.10, 6.11, 6.12, 6.13	Outside organizations	
1.b	6.5 - 6.13		
1.c	FIGURE 6		
1.d	6.5, 6.6, 6.8, 6.9		EPP 06-001, CONTROL ROOM OPERATIONS EPP 06-002, TECHNICAL SUPPORT CENTER OPERATIONS EPP 06-003, EMERGENCY OPERATION FACILITY OPERATIONS
1.e	6.5.2	Notifications are made from the control room, at the direction of the Site Emergency Manager.	
2.a & 2.b	N/A		
3.	ATTACH. G		
4.	6.8.2	Off-site Emergency Manager	EPP 06-003, EMERGENCY OPERATION FACILITY OPERATIONS
	6.6.11, 6.8.10	Administrative Coordinators	EPP 06-002, TECHNICAL SUPPORT CENTER OPERATIONS EPP 06-003, EMERGENCY OPERATION FACILITY OPERATIONS
B. - ONSITE EMERGENCY ORGANIZATION			
1.	6.5, Figure 2		EPP 06-001, CONTROL ROOM OPERATIONS
2.	6.5.2	Site Emergency Manager	EPP 06-001, CONTROL ROOM OPERATIONS
3.	5.1.1, 5.2.1, 6.5.2, 6.6.5, 6.6.5.1, 6.8.2	Transfer of control from the Shift Manager to the Site Emergency Manager.	EPP 06-001, CONTROL ROOM OPERATIONS EPP 06-002, TECHNICAL SUPPORT CENTER OPERATIONS EPP 06-003, EMERGENCY OPERATION FACILITY OPERATIONS

ATTACHMENT C
(Page 2 of 8)
CROSS REFERENCE BETWEEN NUREG 0654, RERP, AND WCGS PROCEDURES

0654 Section	RERP Section	Comments	Procedure
B. - ONSITE EMERGENCY ORGANIZATION			
4.	6.5.2, 6.6.5, 6.8.2	Responsibilities of the Shift Manager, Site Emergency Manager, Off-site Emergency Manager	EPP 06-001, CONTROL ROOM OPERATIONS EPP 06-002, TECHNICAL SUPPORT CENTER OPERATIONS EPP 06-003, EMERGENCY OPERATION FACILITY OPERATIONS
5	6.5, 6.6, 6.7, 6.8, 6.9	Major ERO positions and their functions	EPP 06-001, CONTROL ROOM OPERATIONS EPP 06-002, TECHNICAL SUPPORT CENTER OPERATIONS EPP 06-003, EMERGENCY OPERATION FACILITY OPERATIONS
6.	6.5, 6.6, 6.7, 6.8, 6.9, Fig. 5 & 6	Interfaces between WCGS and outside organizations	
7a.	6.8.11	Administrative Coordinator	EPP 06-003, EMERGENCY OPERATION FACILITY OPERATIONS
7b.	6.21	Recovery Plan	EPP 06-003, EMERGENCY OPERATION FACILITY OPERATIONS
7c.	6.8.2	Duty Emergency Manager	EPP 06-003, EMERGENCY OPERATION FACILITY OPERATIONS
7.d	6.9	On-site & Off-site Public Information Coordinator & Wolf Creek Public Information Officer	EPP 06-002, TECHNICAL SUPPORT CENTER OPERATIONS EPP 06-003, EMERGENCY OPERATION FACILITY OPERATIONS EPP 06-004, PUBLIC INFORMATION ORGANIZATION
8.	6.13	Specify contractors / organizations available on request	
9.	6.10	Identify local support agencies	
C. - EMERGENCY RESPONSE SUPPORT AND RESOURCES			
1.a	6.8.2	Persons authorized to request assistance	
1.b	6.12	Expected Federal resources	

ATTACHMENT C
(Page 3 of 8)
CROSS REFERENCE BETWEEN NUREG 0654, RERP, AND WCGS PROCEDURES

0654 Section	RERP Section	Comments	Procedure
C. - EMERGENCY RESPONSE SUPPORT AND RESOURCES			
1.c	6.4.1, 6.4.2, 6.4.4, 6.12.5	Space is provided for NRC personnel in the Control Room, TSC, and EOF. The EOF also has limited space for state and local personnel.	
2a.	N/A		
2.b	6.8.12		
3.	6.14.7	Identify radiological laboratories	
4.	6.13 and ATTACH G	Identify other facilities and organizations which could assist	
D. - EMERGENCY CLASSIFICATION SYSTEM			
1.	6.2	Emergency Classifications	EPP 06-005, EMERGENCY CLASSIFICATION
2.	6.2	Initiating conditions	EPP 06-005, EMERGENCY CLASSIFICATION
3. & 4.	N/A		
E. - NOTIFICATION METHODS AND PROCEDURES			
1.	6.3.3, 6.5.2, 6.6.5, 6.8.2	Notifications	EPP 06-007, EMERGENCY NOTIFICATIONS
2.	6.16.1, 6.5.3	Notification of responding personnel	EPP 06-015, EMERGENCY RESPONSE ORGANIZATION CALLOUT
3.	6.3.3, 6.5.2, 6.6.5, 6.8.2	Initial notifications	EPP 06-007, EMERGENCY NOTIFICATIONS
4.a thru 4.n	6.5.2, 6.6.5, 6.8.2	Follow-up Notifications	EPP 06-007, EMERGENCY NOTIFICATIONS
5.	N/A		
6.	6.10.3, 6.3.4.3, Attach B	Evacuation times	
7.	6.16.2.4		
F. - EMERGENCY COMMUNICATIONS			
1.a	6.5		
1.b	6.5.2		
1.c	6.5.2, 6.5.4, 6.6.5, 6.6.9, 6.8.2		

ATTACHMENT C
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CROSS REFERENCE BETWEEN NUREG 0654, RERP, AND WCGS PROCEDURES

0654 Section	RERP Section	Comments	Procedure
F. - EMERGENCY COMMUNICATIONS			
1.d	6.4.4, 6.16		
1.e	6.5.3, 6.16.1	ERO Callout	EPP 06-015, EMERGENCY RESPONSE ORGANIZATION CALLOUT
1.f	6.4.4, 6.5.2, 6.5.4, 6.6.9, 6.16.1		EPP 06-001, CONTROL ROOM OPERATIONS EPP 06-002, TECHNICAL SUPPORT CENTER OPERATIONS EPP 06-003, EMERGENCY OPERATION FACILITY OPERATIONS
2.	6.10.6		
3.	6.15, 6.18.1, 6.18.6		EPP 06-018, MAINTENANCE OF EMERGENCY FACILITIES AND EQUIPMENT/COMMUNICATION CHECKS
G. - PUBLIC EDUCATION AND INFORMATION			
1.	6.16.2		
2.	6.17.5, 6.17.6		
3.a	6.4.5, 6.16.2		EPP 06-004, PUBLIC INFORMATION ORGANIZATION
3.b	6.4.5		
4.a	6.9.1		EPP 06-004, PUBLIC INFORMATION ORGANIZATION
4.b	6.9.1, 6.9.10		EPP 06-004, PUBLIC INFORMATION ORGANIZATION
4.c	6.4.5, 6.9.8		EPP 06-004, PUBLIC INFORMATION ORGANIZATION
5.	6.16.2		
H. - EMERGENCY FACILITIES AND EQUIPMENT			
1.	6.4.2, 6.4.3, 6.6, 6.7		EPP 06-002, TECHNICAL SUPPORT CENTER OPERATIONS
2.	6.4.4, 6.8		EPP 06-003, EMERGENCY OPERATION FACILITY OPERATIONS
3.	6.8	Establish EOF.	
4.	6.6.1, 6.8.1, Fig.2,3,4 ATTACH. D		

ATTACHMENT C
(Page 5 of 8)
CROSS REFERENCE BETWEEN NUREG 0654, RERP, AND WCGS PROCEDURES

0654 Section	RERP Section	Comments	Procedure
H. - EMERGENCY FACILITIES AND EQUIPMENT			
5.a	6.14.3, 6.14.4, 6.14.5		
5.b	6.4.1, 6.4.2, 6.14.2		EPP 06-011, EMERGENCY TEAM FORMATION AND CONTROL
5.c	6.2.2, 6.14.2		
5.d	6.14.6		
6.a	6.14.1		
6.b	6.14.1 and Figure 8		EPP 06-011, EMERGENCY TEAM FORMATION AND CONTROL
6.c	6.14.7		
7.	6.15		EPP 06-011, EMERGENCY TEAM FORMATION AND CONTROL
8.	6.14.3		
9.	6.4.3		EPP 06-002, TECHNICAL SUPPORT CENTER OPERATIONS
10.	6.15		EPP 06-018, MAINTENANCE OF EMERGENCY FACILITIES AND EQUIPMENT/COMMUNICATION CHECKS
11.	6.15		
12.	6.14.7		EPP 06-011, EMERGENCY TEAM FORMATION AND CONTROL
I. - ACCIDENT ASSESSMENT			
1.	6.2		APF 06-002-01, EMERGENCY ACTION LEVELS
2.	6.3.20, 6.14.2		EPP 06-017, CORE DAMAGE ASSESSMENT METHODOLOGY
3.a	6.3.7		EPP 06-012, DOSE ASSESSMENT
3.b	6.3.7		EPP 06-012, DOSE ASSESSMENT
4.	6.3.7		EPP 06-012, DOSE ASSESSMENT
5.	6.14.3		
6.	6.3.7		EPP 06-012, DOSE ASSESSMENT
7.	6.3.8, 6.8.4		EPP 06-011, EMERGENCY TEAM FORMATION AND CONTROL
8.	6.3.7, 6.5.2, 6.6.5, 6.8.2		

ATTACHMENT C
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CROSS REFERENCE BETWEEN NUREG 0654, RERP, AND WCGS PROCEDURES

0654 Section	RERP Section	Comments	Procedure
I. - ACCIDENT ASSESSMENT			
9.	6.4.2, 6.4.4	Lower bound for iodine measurement capability is 1.0E-7uCi/cc.	
10.	6.3.7		EPP 06-012, DOSE ASSESSMENT
11.	6.3.8		EPP 06-011, EMERGENCY TEAM FORMATION AND CONTROL
J. - PROTECTIVE RESPONSE			
1.a thru 1.d	6.3.10, 6.3.11, 6.6.5		EPP 06-010, PERSONNEL ACCOUNTABILITY AND EVACUATION
2.	6.3.10, 6.3.11, Figure 1		
3.	6.3.9, 6.3.12, 6.4.8,		
4.	6.3.9, 6.3.12		
5.	6.3.10, 6.3.11, 6.6.5		EPP 06-010, PERSONNEL ACCOUNTABILITY AND EVACUATION
6.a thru 6.c	6.3.13, 6.3.14		EPP 06-013, EXPOSURE CONTROL AND PERSONNEL PROTECTION EPP 06-011, EMERENCY TEAM FORMATION AND CONTROL
7.	6.3.3		EPP 06-006, PROTECTIVE ACTION RECOMMENDATION
8.	Attach. B		
9.	N/A		
10.a & 10.b	Fig. 1		
10.c	6.1.6, 6.1.7, 6.10.2		
10.d & 10.1	N/A		
10.m	6.3.4.2		EPP 06-006, PROTECTIVE ACTION RECOMMENDATION
11. & 12.	N/A		
K. - RADIOLOGICAL EXPOSURE CONTROL			
1.a thru 1.g	6.3, 6.4.6, 6.10.5, 6.10.6		

ATTACHMENT C
(Page 7 of 8)
CROSS REFERENCE BETWEEN NUREG 0654, RERP, AND WCGS PROCEDURES

0654 Section	RERP Section	Comments	Procedure
2.	6.3.15, 6.3.16, 6.5.2, 6.6.5, 6.8.2		EPP 06-001, CONTROL ROOM OPERATIONS EPP 06-002, TECHNICAL SUPPORT CENTER OPERATIONS EPP 06-003, EMERGENCY OPERATION FACILITY OPERATIONS
3.a & 3.b	6.3.16, 6.3.17, 6.3.18, 6.4.2, 6.15.1		
4.	N/A		
5.a & 5.b	6.3.21, 6.3.23		
6.a thru 6.c	6.3.22, 6.3.23, ATTACH. E		
7.	6.3.13, 6.4.6		
L. - MEDICAL AND PUBLIC HEALTH SUPPORT			
1.	6.10.5		
2.	6.4.6		
3.	N/A		
4.	6.10.6		
M. - RECOVERY AND REENTRY PLANNING AND POST-ACCIDENT OPERATIONS			
1.0	6.21		EPP 06-008, RE-ENTRY, RECOVERY, AND TERMINATION OPERATIONS
2.	6.21		
3.	6.21		
4.	6.3.7	This is not specifically identified as a post-accident function	
N. - EXERCISES AND DRILLS			
1.a & 1.b	4.17, 6.19		EPP 06-009, DRILL AND EXERCISE REQUIREMENTS
2.a	6.18		
2.b	6.18.2		
2.c	6.18.3		
2.d	6.18.4		
2.e(1)	6.18.5		
2.e(2)	6.18.5		
3.a thru 3.f	6.19.5		
4.	6.19.4		
5.	6.19.4		

ATTACHMENT C
(Page 8 of 8)
CROSS REFERENCE BETWEEN NUREG 0654, RERP, AND WCGS PROCEDURES

0654 Section	RERP Section	Comments	Procedure
O. - RADIOLOGICAL EMERGENCY RESPONSE TRAINING			
1.a	6.17		EPP 06-021, TRAINING PROGRAMS
1.b	N/A		
2.	6.17.2, 6.17.4		
3.	6.4.6		
4.	6.17.4		
5.	6.17		
P. - RESPONSIBILITY FOR THE PLANNING EFFORT: DEVELOPMENT, PERIODIC REVIEW AND DISTRIBUTION OF EMERGENCY PLANS			
1.	6.17		
2.	5.3, 6.17.2		
3.	6.20.2		
4.	6.20.2		
5.	6.20.2		
6.	6.10, 6.11		
7.	ATTACH. C		
8.	Table of Contents and ATTACH. C		
9.	6.20.1		
10.	6.20.2		

- END -

ATTACHMENT D
(Page 1 of 1)
WCGS MINIMUM STAFFING FOR EMERGENCIES

FUNCTIONAL AREA	POSITION TITLE OR EXPERTISE	ON SHIFT	Capability For Additions: ** 60 mins	90 mins
Plant Operations & Assessment of Operational Aspects	Shift Manager (SRO)	1	-	-
	Control Room Supervisor (CRS)	1	-	-
	Reactor Operator (RO)	2	-	-
	Nuclear Station Operator	4	-	-
Emergency Direction and Control	Site Emergency Manager	1*	-	-
Notification/ Communication	Emergency Communicator	1*	3	-
Radiological Accident Assessment & Support of Operational Accident Assessment	Off-site Emergency Manager and staff	-	-	5
	Sr. Health Physics Expertise	-	1	-
	HP Personnel	1	8	-
	Chemistry Personnel	1	1	-
Plant System Engineering, Repair & Corrective Actions	Shift Technical Advisor	1	-	-
	Core/Thermal Hydraulics Eng.	-	1	-
	Electrical Eng.	-	1	-
	Mechanical Eng.	-	1	-
	Radwaste Operator	1*	-	-
	Mechanical Maint.	-	2	-
	Electrical Maint.	1*	2	-
	I&C Technician	-	1	-
Protective Actions (In-Plant)	HP Personnel	1*	4	-
Fire fighting = Fire Brigade(FB)	--	FB per Tech Specs	Local Support	Local Support
Rescue Operations and First Aid	--	2*	Local Support	Local Support
Site Access Control and Accountability	Security Personnel	All per Security Plan		
	TOTAL	11	25	5

* May be provided by shift personnel assigned to other functions.

** It is a goal to add, in accordance with this table, to the on-shift capabilities when determined necessary after a declared Emergency.

- END -

ATTACHMENT E
(Page 1 of 2)
EPA/KANSAS PROTECTIVE ACTION GUIDES

E.1 Population Protective Action Guides (PAG) For Exposure To A Plume - Early Phase

Protective Action	PAG (Projected Dose)	Comments
Evacuation	1-5 rem (Note 1)	Evacuation (or sheltering should normally be initiated at 1 rem.
Administration of stable iodine (Note 2)	25 rem (Note 3)	Special Populations

(1) Dose is TEDE, which includes effective dose equivalent from external and internal sources and committed effective dose equivalent from inhalation. Committed dose equivalents to the thyroid and to the skin may be 5 and 50 times larger, respectively.
(2) Use of KI is not planned for general population in Kansas. The State considers prompt evacuation of the public to be a more effective protective measure than administration of KI.
(3) Committed dose equivalent to be thyroid from radioiodine.

E.2 Emergency Worker Dose Limits

E.2.1 Keep all doses ALARA and limit doses to the following TEDE levels:

Dose Limit (Rem)	Activity	Condition
5	All	
10	Protecting valuable property	Lower dose not practicable
25	Life saving or protection of large populations	Lower dose not practicable
>25	Life saving or protection of large populations	Only on a voluntary basis to persons fully aware of the risks involved

E.3 Emergency Worker Iodine Dose Limits

E.3.1 Keep all doses ALARA and limit iodine doses to the following committed dose equivalent through use of KI and/or respiratory protection:

Dose Limit (Rem)	Activity
25	Any worker, any phase
No Limit - Life saving activities	No specific upper limit is given for thyroid dose since in life saving activities, complete thyroid loss might be an acceptable sacrifice if a life can be saved. However, this should not be necessary if respirators and/or thyroid protections for rescue personnel are available as a result of adequate planning.

ATTACHMENT E
(Page 2 of 2)
EPA/KANSAS PROTECTIVE ACTION GUIDES

E.4 Protective Action Guides For Exposure To Deposited Radioactivity - Intermediate Phase

Protective Action	PAG (Projected Dose) (1)	Comments
Relocate the general population (2)	$\geq$ 2 rem	Beta dose to skin may be up to 50 times higher. Doses in any single year after the first will not exceed 0.5 rem, and the cumulative dose over 50 years will not exceed 5 rem.
Apply simple dose reduction techniques (3)	<2 rem	These protective actions should be taken to reduce doses to as low as practicable levels

(1) The projected sum of effective dose equivalent from external gamma radiation and committed effective dose equivalent from inhalation suspended materials, from exposure or intake during the first year. Projected dose refers to the dose that would be received in the absence of shielding from structures of the application or dose reduction techniques. These PAGs may not provide adequate protection for some long-live radionuclides.

(2) Persons previously evacuated from areas outside the relocation zone defined by this PAG may return to occupy their residences. Cases involving relocation of persons at high risk from such action (e.g. patients under intensive care) should be evaluated individually.

(3) Simple dose reduction techniques include scrubbing and/or flushing hard surfaces, soaking or plowing soil, minor removal of soil from spots where radioactive materials have concentrated, and spending more time than usual indoors or in other low exposure rate areas.

- END -

ATTACHMENT F
(Page 1 of 1)
USAR CHAPTER 15 POSTULATED EVENTS

Feedwater system malfunctions that result in decrease of feedwater temperature
Feedwater system malfunctions that result in increase of feedwater system flow
Excessive increase in secondary steam flow
Inadvertent opening and failure to close of SG ARV or safety vlv
Steam system piping failure (inside containment)
Steam system piping failure (outside containment)
Loss of external load (Main Generator trip)
Turbine Trip
Inadvertent closure of MSIVs
Loss of condenser vacuum & other events resulting in turbine trip
Loss of non-emergency AC power to station auxiliaries
Loss of normal feedwater
Feedwater system pipe break
Partial loss of forced RCS flow
Complete loss of forced RCS flow
RCP shaft seizure (locked rotor)
RCP shaft break
Uncontrolled RCCA bank withdrawal from a subcritical of low-power startup condition
Uncontrolled RCCA withdrawal at power
RCCA misalignment
Startup of inactive RCP at an incorrect temperature
CVCS malfunction resulting in a decrease in the boron concentration in the RCS
Inadvertent loading and operation of a fuel assembly in improper position
RCCA ejection accidents
Inadvertent ECCS operation at power
CVCS malfunction that increases RCS inventory
Inadvertent opening, with failure to close, of pressurizer safety or relief valve
Break in instrument line or other lines from RCS pressure boundary that penetrate containment
SG tube rupture
LOCA spectrum
Radioactive waste gas decay tank failure
Postulated radioactive releases due to liquid tank failure
Fuel handling accident (inside containment)
Fuel handling accident (Fuel Building)
Spent fuel cask drop
Anticipated transients without scram

- END -

ATTACHMENT G
(Page 1 of 1)
LETTERS OF AGREEMENT

Party:

The Coffey County Sheriff's Office

Board of Trustees Fire District No. 1, Coffey County, KS

Newman Memorial Hospital

Coffey County Hospital and EMS

Topeka Air Ambulance Inc. (d.b.a. Life Star)

Wolf Creek Nuclear Operating Corporation/Union Electric Co. Emergency Mutual Assistance Agreement

INPO (Support During an Emergency)

Department of Energy**

Nuclear Regulatory Commission**

National Weather Service***

EPRI/INPO/NEI/Member Utilities Coordination Agreement on Emergency Information

Westinghouse

* As of January 1, 1987, the Letters of Agreement in this Supplement are transferred from Kansas Gas and Electric Company to the Wolf Creek Nuclear Operating Corporation. These Letters of Agreement are maintained on file and may be reviewed upon request.

** These LOAs will not be updated. They have been superseded by the publication of the "Federal Radiological Emergency Response Plan" in the Federal Register on 11/8/85.

*** As of 8/25/93, the National Weather Service stated in writing that a Letter of Agreement with WCGS is unnecessary. Their "National Plan for Radiological Emergencies at Commercial Nuclear Power Plants," November 1982, remains in effect.

- END -

ATTACHMENT H
(Page 1 of 1)
REPORTING OF INCIDENTS PER 10 CFR 20

RADIATION INCIDENTS	VALUES	.2202 Telephone & Telegraph						.2203 Written		
		Immediate Notification			24 Hour Notification			30 Day Notification		
		WCGS	NRC	KDEM	WCGS	NRC	KDEM	WCGS	NRC	KDEM
TEDE	25 REM (.25 Sv)	X	X	X				X	X	X
	5 REM (.05 Sv)	X				X	X	X	X	X
	MPE .1201				X			X	X	X
Shallow dose to skin or extremities in excess of	250 Rad	X	X	X				X	X	X
	50 REM	X				X	X	X	X	X
	MPE .1201				X			X	X	X
To the eye	75 REM (.75 Sv)	X	X							
	15 REM (.15 Sv)	X				X	X			
	MPE .1201				X			X	X	
Effluent release excess of	5 ALI	X	X	X				X	X	X
	1 ALI	X				X	X	X	X	X
	MPE .1201				X			X	X	X

X = Indicates notification is required
MPE = Maximum Permissible Exposure
DAC = Derived Air Concentration
WCGS = Wolf Creek Generating Station
NRC = Nuclear Regulatory Commission
KDEM = Kansas Division of Emergency Management
ALI = Annual Limit on Intake

FIGURE 1
EFFECTIVE 10 MILE EPZ, SUBZONES AND EVACUATION ROUTES

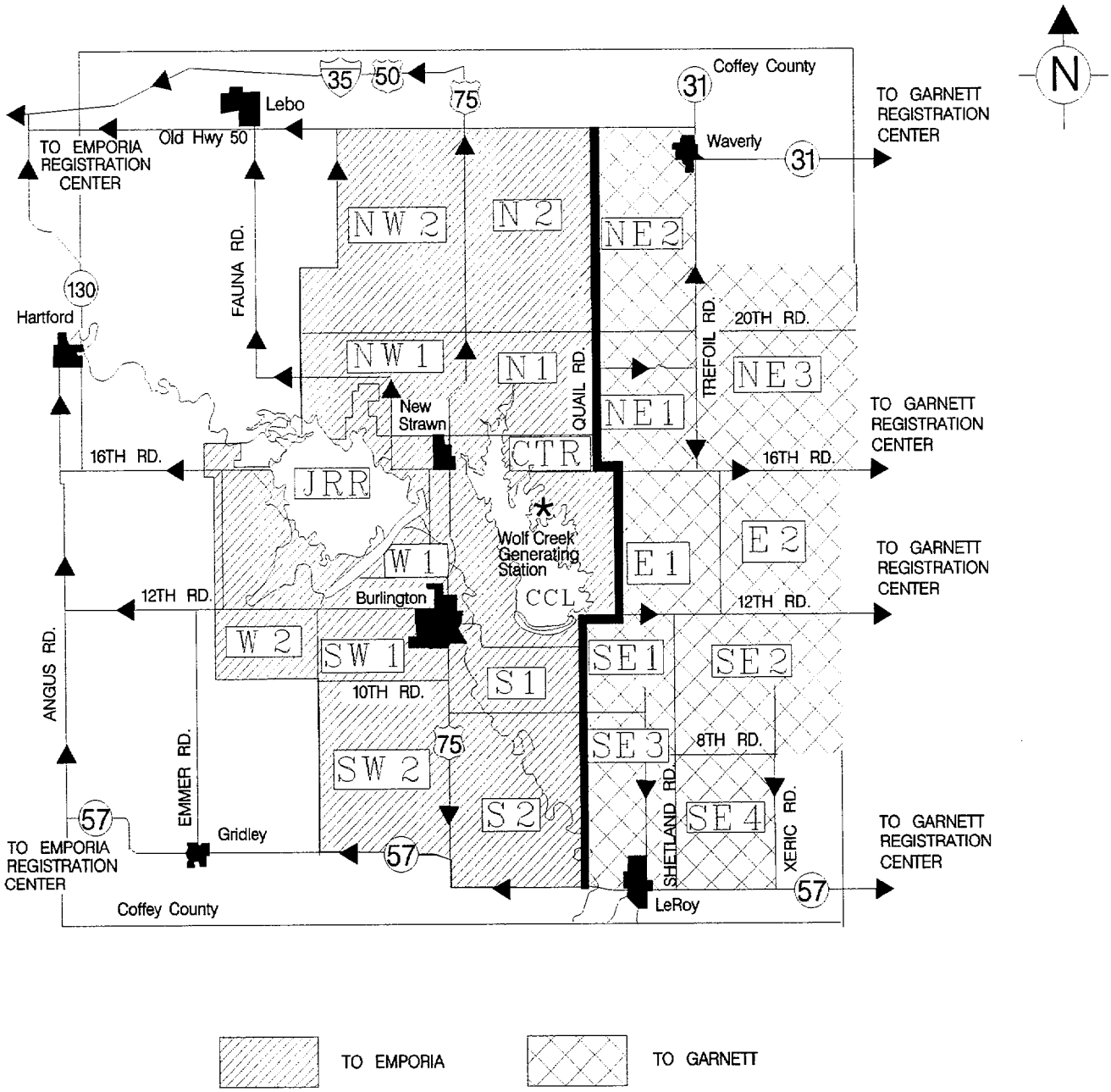
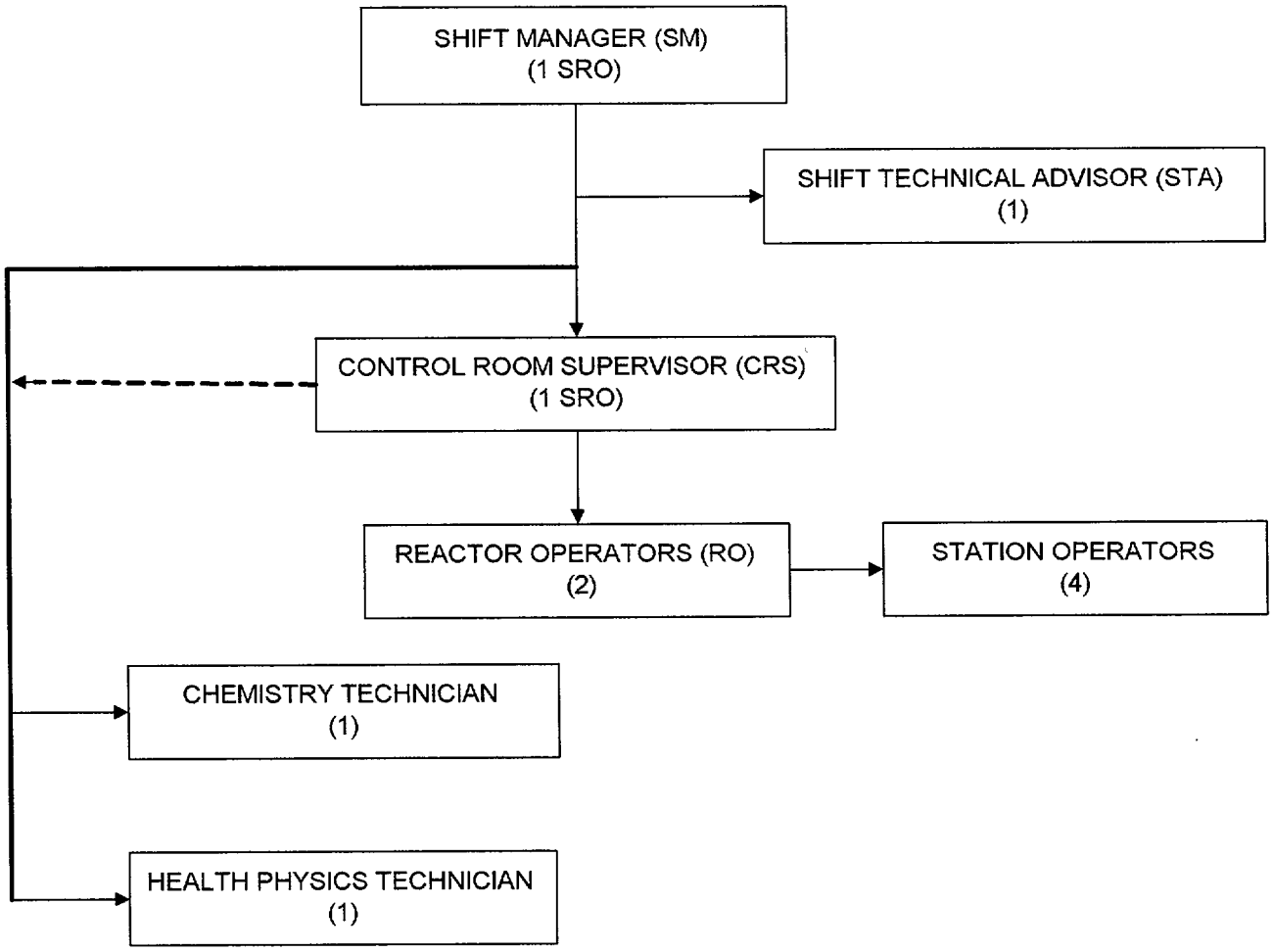


FIGURE 2
MINIMUM SHIFT COMPLEMENT



Direction

Technical Guidance

SRO = Senior Reactor Operator

STA = Shift Technical Advisor

NOTE:
The STA or an SRO meeting the STA requirements of the NRC must be on shift in Modes 1 thru 4

FIGURE 3
TSC/OSC ORGANIZATION

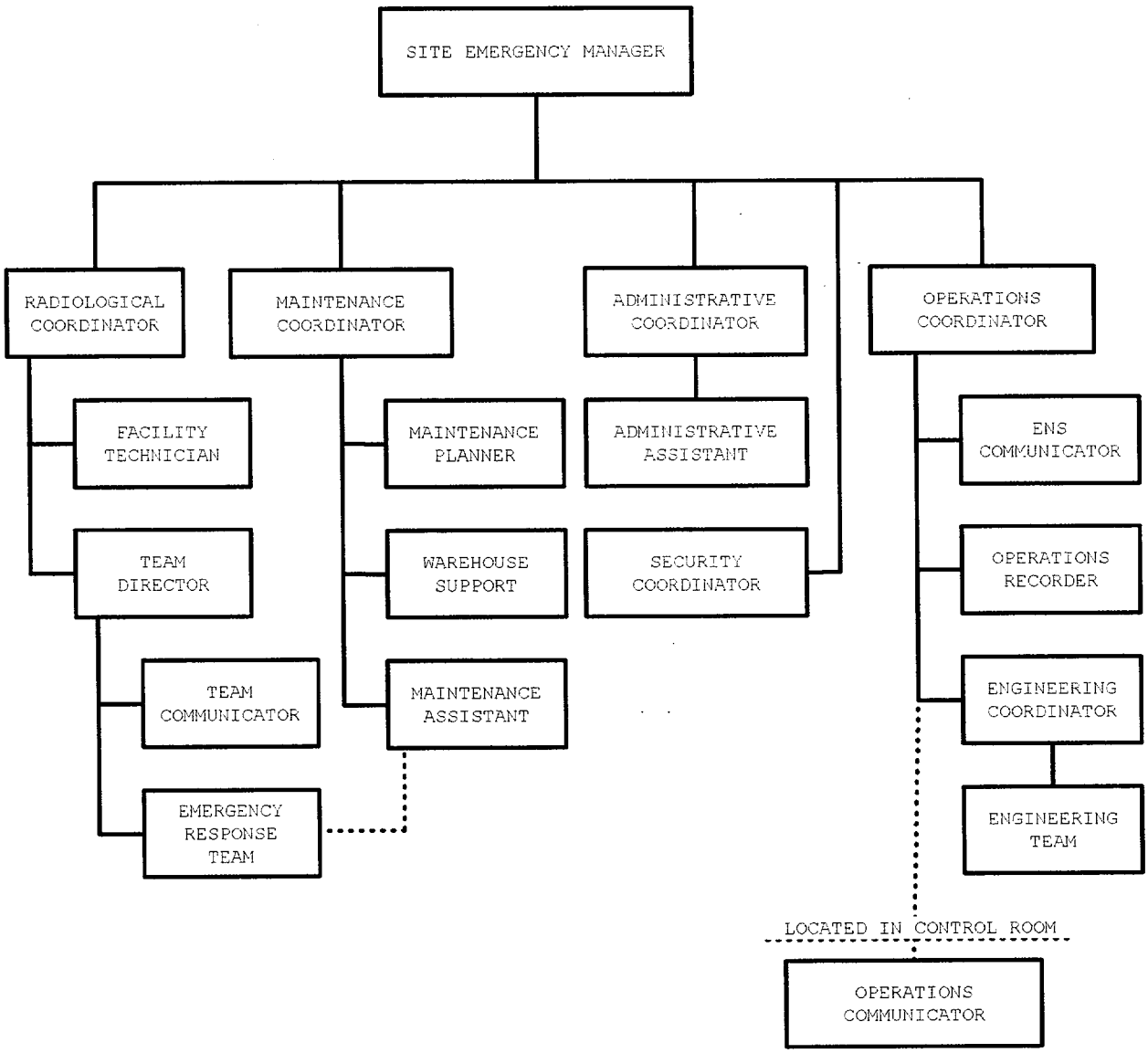


FIGURE 4
EOF ORGANIZATION

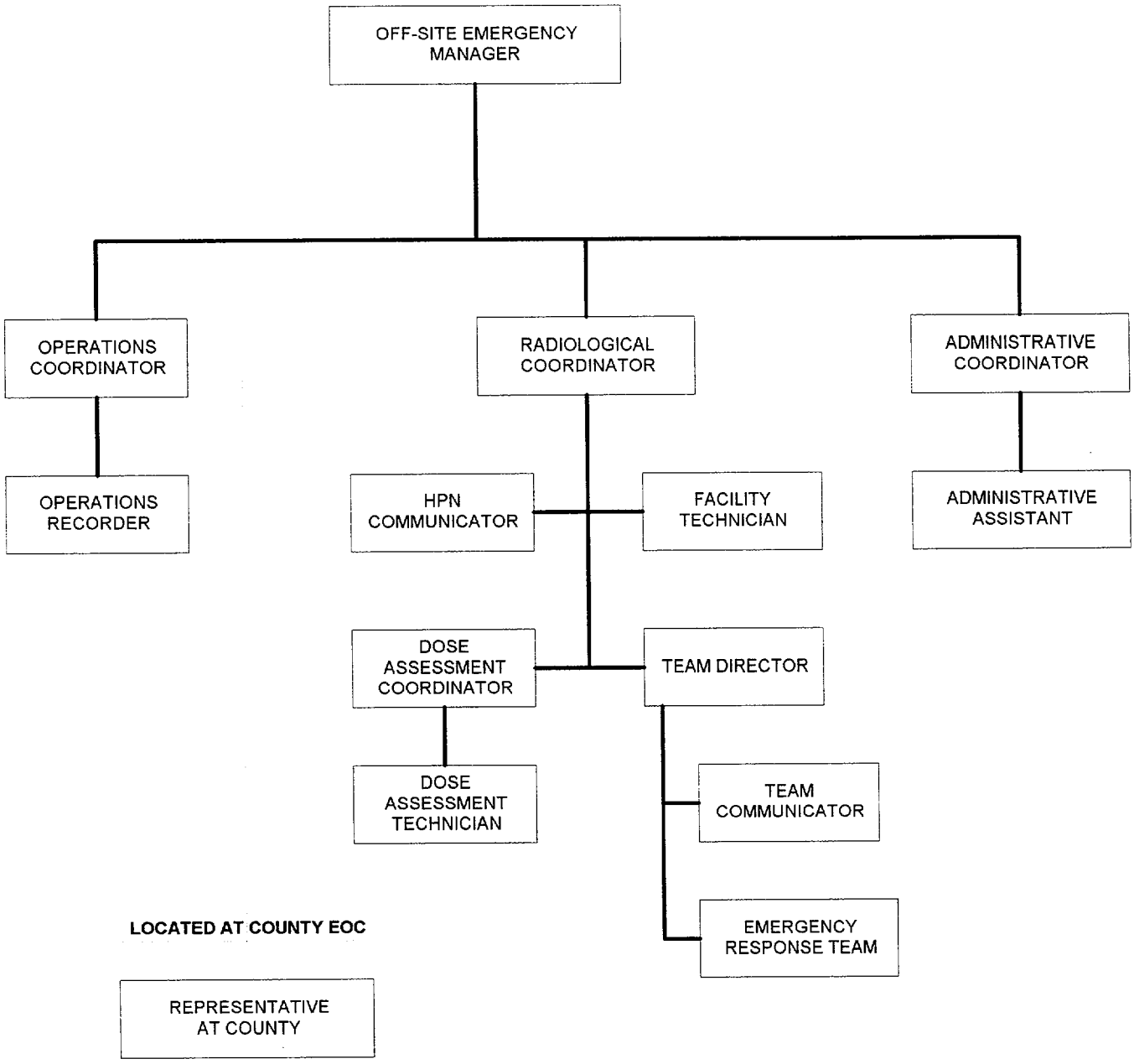
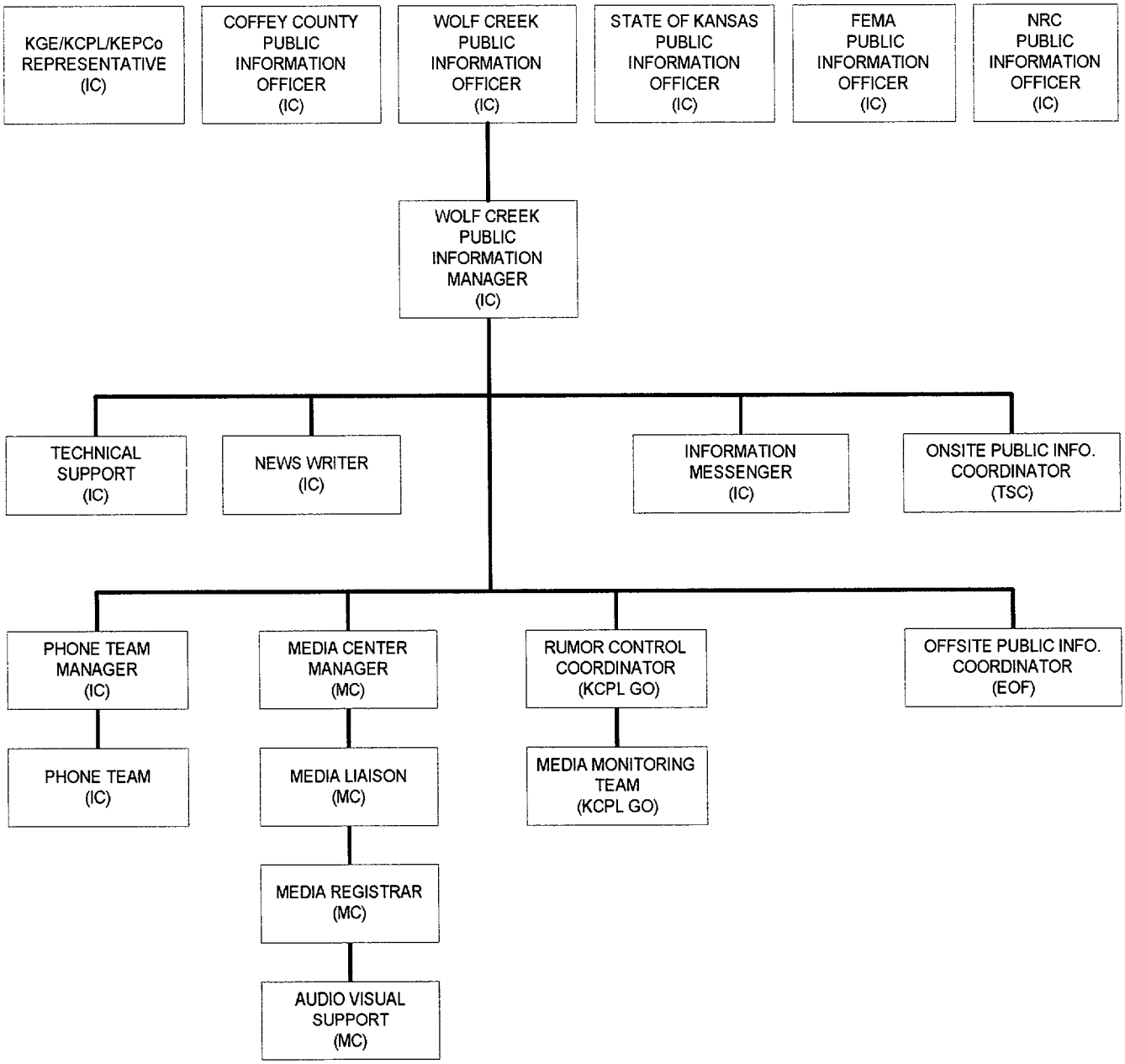


FIGURE 5
PUBLIC INFORMATION ORGANIZATION



EMERGENCY ORGANIZATIONS INTERFACES

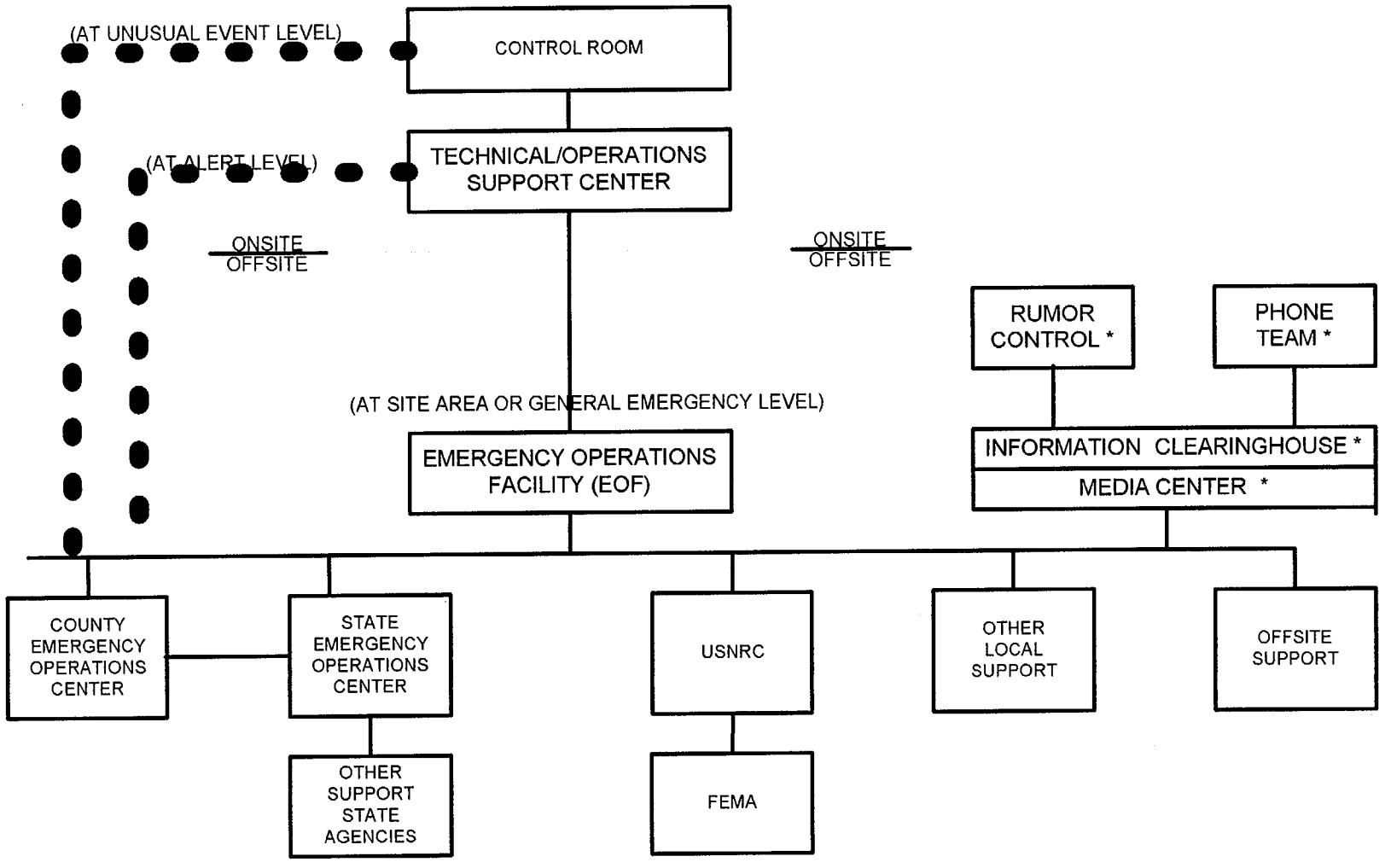


FIGURE 6
EMERGENCY ORGANIZATIONS INTERFACES

EOF may be activated at Alert level.
* Any of these functions may be activated at any emergency classification level.

FIGURE 7
WCGS EMERGENCY RESPONSE FACILITIES

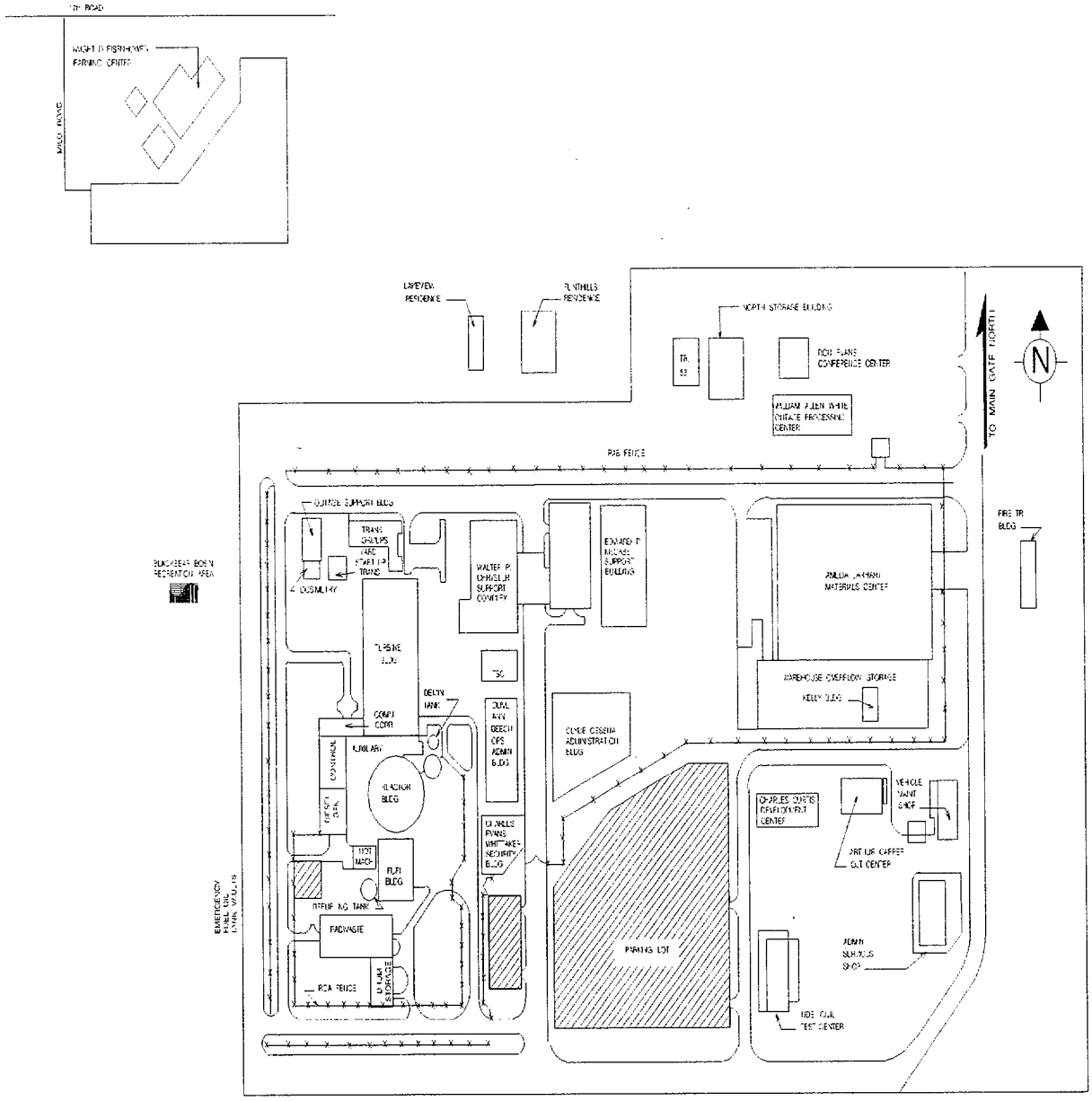
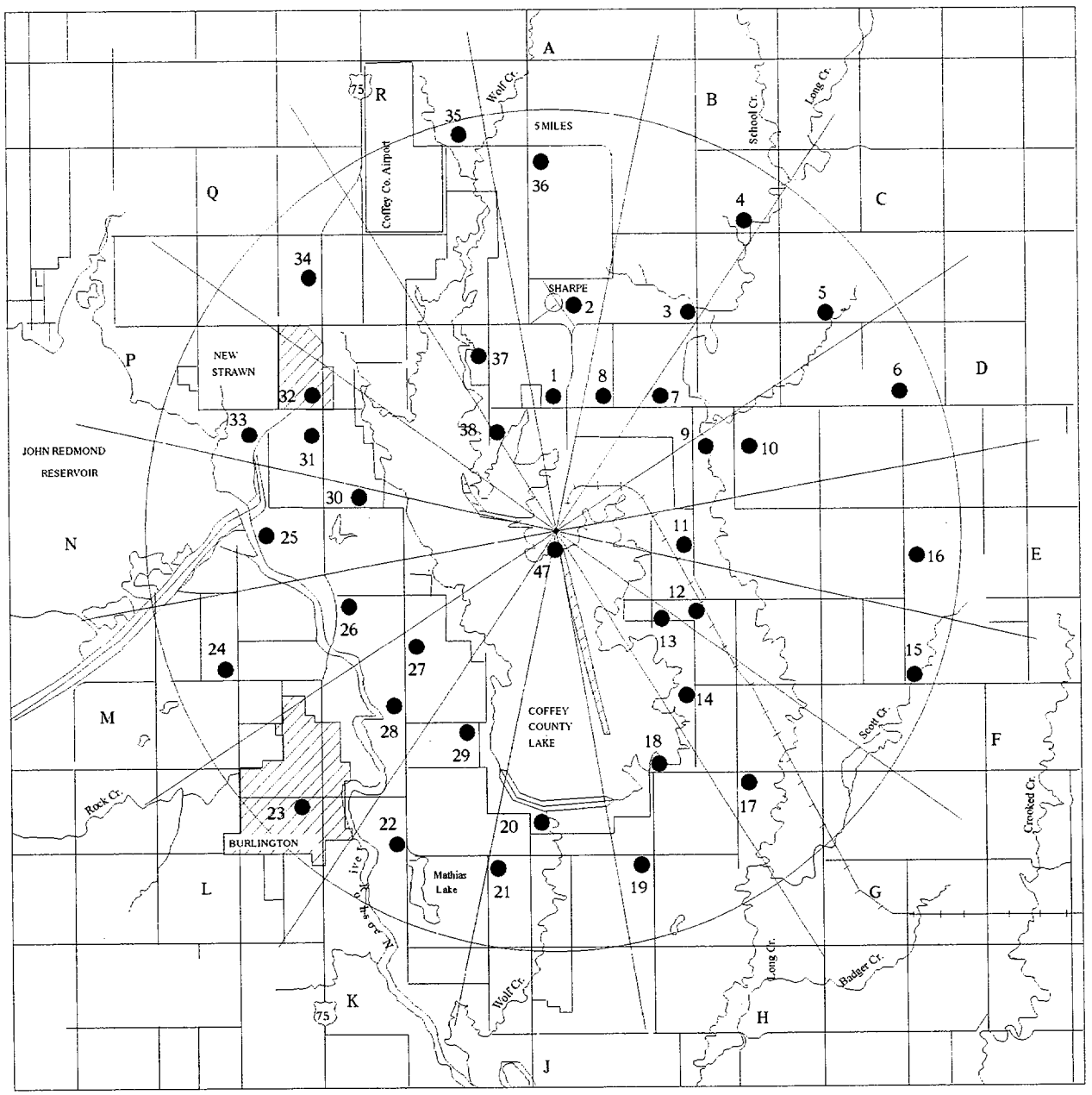


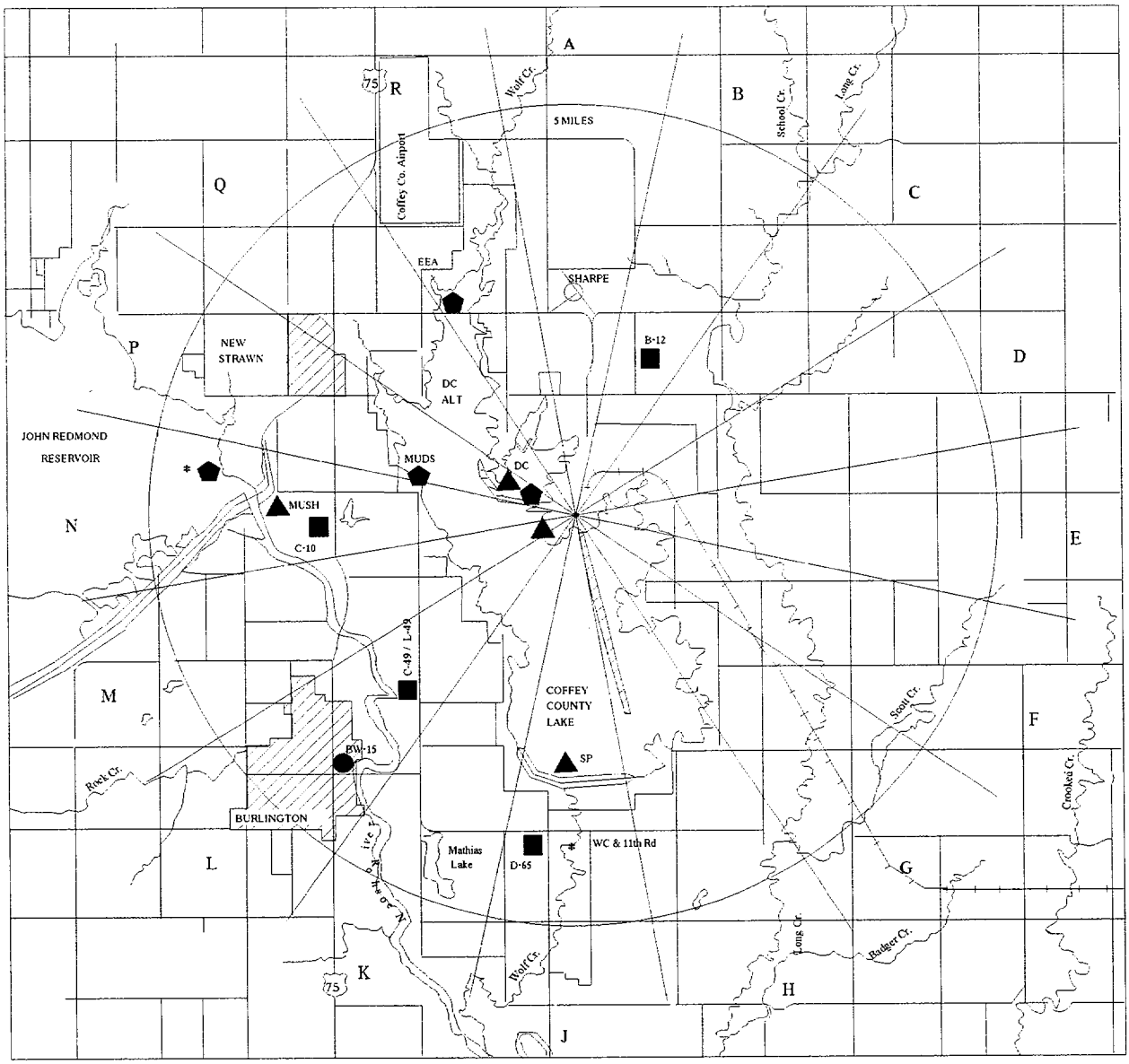
FIGURE 8
DIRECT RADIATION PATHWAY SAMPLING LOCATIONS



DIRECT RADIATION PATHWAY SAMPLING LOCATIONS

● = TLD LOCATIONS

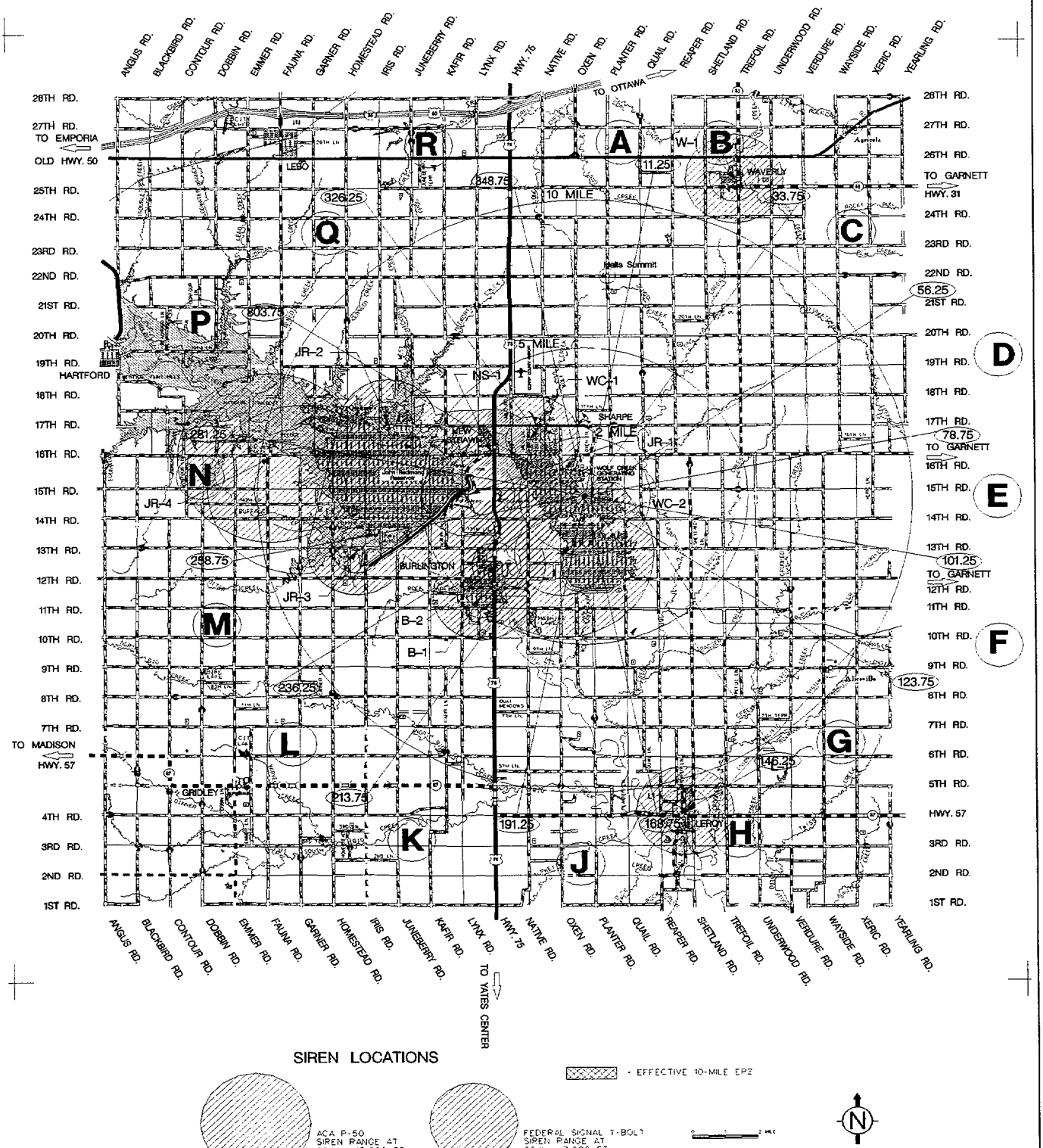
FIGURE 9
WATERBORNE PATHWAY SAMPLING LOCATION



WATERBORNE PATHWAY SAMPLING LOCATIONS

- ● = DRINKING WATER
- ▲ = SURFACE WATER
- ■ = GROUND WATER
- ⬟ = SHORELINE SEDIMENT
- * = BOTTOM SEDIMENT
- ✓ = AQUATIC VEGETATION / ALGAE

FIGURE 10
FIXED SIREN SIGHTING



WOLF CREEK
NUCLEAR OPERATING CORPORATION

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

TABLE OF CONTENTS

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

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.

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.

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

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.

   - EPF 06-001-02, ALERT EMERGENCY ANNOUNCEMENT
   - EPF 06-001-03, SITE AREA EMERGENCY ANNOUNCEMENT
   - 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:

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.

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 IF radiological conditions warrant, THEN direct the following onsite protective actions as necessary:

- 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 WHEN the responsibility and authority for the emergency has been transferred to Site Emergency Manager, THEN 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.

NOTES

- **The steps in this section may be performed in any order to ensure tasks are completed in the required time.**
- **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]**

   - Plant Page System number is 7920. At tone dial 0 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.

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

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. IF a Follow-up Notification is required, THEN confirm correct dose projection numbers have been entered on the form.

7.5.7 WHEN the EOF is activated, THEN provide dose assessment data generated in the Control Room to the EOF Radiological Coordinator.

7.6 Health Physics Technician

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 IF directed by the Shift Manager, THEN report to Access Control.

7.7 Operations Communicator

7.7.1 Set up communications system.

7.7.2 WHEN the TSC and EOF activate, THEN 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

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 IF the NPIS computer is inoperable, THEN 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.

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:

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

   OR

   - 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

11.2 EPF 06-001-02, ALERT EMERGENCY ANNOUNCEMENT

11.3 EPF 06-001-03, SITE AREA EMERGENCY ANNOUNCEMENT

11.4 EPF 06-001-04, GENERAL EMERGENCY ANNOUNCEMENT

11.5 EPF 06-001-05, RECOVERY/TERMINATION ANNOUNCEMENT

11.6 EPF 06-001-06, ENS COMMUNICATOR'S WORKSHEET

- END -

WOLF CREEK
NUCLEAR OPERATING CORPORATION

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

TABLE OF CONTENTS

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)

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 WCNOC 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).

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.

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. 3.0.1 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.

7.0 PROCEDURE

7.1 Program Description

NOTES

- **Tab and Shift Tab key manipulations may be used to move through a Model Screen.**
- **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:

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.

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.

5. 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

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:

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.

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 (μCi/cc) is known or can be estimated, THEN the following calculation could be used to determine a release rate:

$$\left(\frac{\mu Ci}{cc}\right)\left(\frac{gal}{\min}\right)\left(\frac{\min}{60s}\right)\left(\frac{3.785L}{gal}\right)\left(\frac{1000cc}{L}\right)\left(\frac{Ci}{1E6\mu Ci}\right) = \frac{\text{Ci}}{\text{s}}$$

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

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.

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

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.

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 -

ATTACHMENT A
(Page 1 of 1)
NPIS SCREEN DISPLAYS

Group Menu - Touch Screen for E-Plan Menu

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

I STATUS BOARD

1. RCS
2. Steam Generators
   a) Levels
   b) Pressures
3. ECCS
4. Containment
   a) Pressure
   b) Temperature
   c) H_2 concentration
   d) CHARM R/hr

Press F3 Key

5. Critical Parameters
6. To exit press Group Key

II AREA RAD

1. Radiological Status
   a.) MET Data
   b) Radmonitors µCi/cc

Press F2 Key

2. Area Radmonitors mR/hr and CHARM R/hr
3. To exit press F6 Key

III MET TOWER DATA

1. Stability Class
2. Wind Speed
3. Wind Direction
4. Vert Temp Difference °F

NOTE: To change to °C type GD MET and press Enter Key

5. To exit press Group Key

IV GROUP DISPLAY

1. SGCHEM 1
2. SGCHEM 2
3. SGCHEM 3
4. PORVMSIV, etc.

NOTE: a) To trend press F4 Key

b) For the New Group Display press F5 Key

5. To exit press Group Key

NOTE: Screen Display Color Code

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

-END-

ATTACHMENT B
(Page 1 of 2)
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

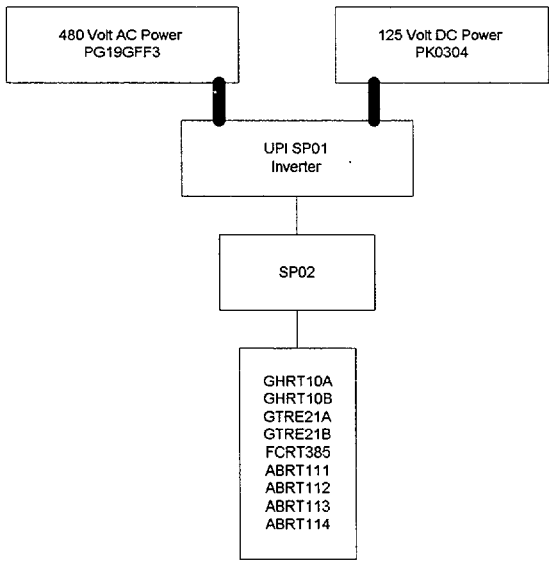
ABRT 111 Steam Line "D" PORV Discharge Monitor

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.



ATTACHMENT B
(Page 2 of 2)
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 CHECKLIST

Check When Completed	**All 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) 816-556-2897, (Alt) 816-556-2653
	Rumor Control (KCPL), 816-556-2269
	State PIO, 785-274-1192

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**

AIRBORNE RADIOACTIVITY CALCULATIONS

Team Designator: _____

Frisker / Count Rate WC / Serial #: _____ A / S WC / Serial #: _____ Dose Rate WC / Serial #: _____

No.	Location / (Time - for dose rates)	EXPOSURE RATE OPEN (mR/Hr)	EXPOSURE RATE CLOSED (mR/Hr)	A / S Time On Date	A / S Time Off Date	A / S Flow (cfm)	A / S Volume (Ft^3)	Date/Time Counted Background	Type	GROSS CPM	NET CPM See Note 1	x C.F. See Note 2	Activity (uCi/cc)	C.F. (DAC/uCi)	Gross DAC	Total DAC
1									Part.			7.95E-12		1E+08		
									Iodine			4.32E-10		5E+07		
2									Part.			7.95E-12		1E+08		
									Iodine			4.32E-10		5E+07		
3									Part.			7.95E-12		1E+08		
									Iodine			4.32E-10		5E+07		
4									Part.			7.95E-12		1E+08		
									Iodine			4.32E-10		5E+07		
5									Part.			7.95E-12		1E+08		
									Iodine			4.32E-10		5E+07		
6									Part.			7.95E-12		1E+08		
									Iodine			4.32E-10		5E+07		
7									Part.			7.95E-12		1E+08		
									Iodine			4.32E-10		5E+07		
8									Part.			7.95E-12		1E+08		
									Iodine			4.32E-10		5E+07		

NOTE 1: NCPM = GROSS CPM - Background

NOTE 2: Correction Factor (C.F.) based on standard volume (20 ft^3) and normal instrument efficiencies (0.1 Particulate & 0.0025 Iodine). If these were not used, then use formulas below to calculate Activity, or adjust for the non- standard volume as follows: Gross activity = (NCPM * C.F. * 20)/actual volume (ft^3).

$$\frac{\text{NCPM}}{2.22E{+}06 * \text{VOL.}(Ft^3) * 2.832E{+}04 * 0.1} = \text{Gross Particulate Activity (uCi/cc)}$$

$$\frac{\text{NCPM}}{2.22E{+}06 * \text{VOL.}(Ft^3) * 2.832E{+}04 * 0.0025 * 0.9 * 0.82} = \text{Gross Iodine Activity (uCi/cc)}$$

Comments: _____

_____

_____

Survey Team Technician: _____