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U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
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Ref 10 CFR50.4(b)(5)
10 CFR50.54(q)

Subject: Comanche Peak Nuclear Power Plant (CPNPP)
Docket Nos. 50-445, 50-446
Transmittal of Revised Emergency Plan (Revision 43)

References:

1. Letter from Tom McCool to U. S. Nuclear Regulatory Commission, "Comanche Peak Nuclear Power Plant Docket Nos. 50-445 and 50-446, Response to Supplemental Request for Additional Information Regarding License Amendment Request (LAR) 18-002 for Revision of the Emergency Plan and Supplement to LAR 18-002," dated June 3, 2019 (Adams Accession No. ML19156A370)
2. Letter from U. S. Nuclear Regulatory Commission, "Comanche Peak Nuclear Power Plant, Unit Nos. 1 and 2 – Issuance of Amendment Nos. 172 and 172 to Revise Augmentation Times and Emergency Response Organization Staffing for the Emergency Plan (EPID L-2018-LLA-0299)," dated November 4, 2019 (Adams Accession No. ML19267A018)

Dear Sir of Madam:

Pursuant to 10 CFR50.54(q)(5), Vistra Operations Company LLC (Vistra OpCo) hereby submits a report of changes made to the Comanche Peak Nuclear Power Plant (CPNPP) Emergency Plan without prior NRC approval. CPNPP retains an analysis demonstrating that the changes do not reduce the effectiveness of the plan and the plan, as changed, continues to meet the requirements in appendix E to 10 CFR50 and the planning standards of 10 CFR50.47(b). A summary of each 10 CFR50.54(q)(3) based change analysis is included in the attached report.

This revision of the CPNPP Emergency Plan also includes changes made with prior NRC approval as described in the Reference 1 letter and approved by the NRC with the letter in Reference 2.

The latest revision (43) of the CPNPP Emergency Plan is enclosed.

This communication contains no new licensing basis commitments regarding Comanche Peak Units 1 and 2.

Should you have any questions, please contact Jim Barnette at (254) 897-5866 or James.Barnette@luminant.com.

Sincerely,

Jack C Hicks

Jack C. Hicks

Attachment: 10CFR50.54(q) Change Report and Analysis Summary
Enclosure: Comanche Peak Nuclear Power Plant Revision 43

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10CFR50.54(q) Change Report and Analysis Summary

Comanche Peak Nuclear Power Plant Emergency Plan Revision 43 (Effective April 16, 2020) – changes made without prior NRC approval.

Description of Change
Remove/delete Section 6.7, "Laboratory Facilities in EOF-NOSF"

Change Detail:

- The contents of Section 6.7 were removed and replaced with "(THIS SECTION HAS BEEN DELETED)"

Change Analysis Summary
There is no regulatory requirement to maintain an onsite backup laboratory and no requirement for an onsite backup laboratory in NUREG-0654/FEMA-REP-1. There are other laboratory facilities that can be made available to provide back-up radiological analysis of low activity samples (including the Texas Department of State Health Services mobile laboratory) – those facilities are listed in Section 6.8 of the CPNPP Emergency Plan.

Description of Change
Editorial changes:

Change Detail:

- Throughout the plan, update the licensee name from "Luminant" to "Vistra Operations Company LLC (Vistra OpCo)."
- Change "Houston Lighting and Power" to "South Texas Project" in Sections 1.2.3 and 6.8; to reflect the current plant name.
- Revise Figure 1.6 to read "Electronic Media Monitoring Aide" instead of "Electronic Media Monitoring Aides" (singular instead of plural).

Change Analysis Summary
The listed changes update licensee or facility names or correct a typographical error and do not represent material changes to technical aspects of the plan.

Changes Made with Prior NRC Approval
Other changes in Revision 43 document implementation of CPNPP License Amendment Request (LAR) 18-002. The changes were approved by the NRC prior to implementation – the letters in References 1 and 2 provide the change details and the NRC approval/safety evaluation.

COMANCHE PEAK NUCLEAR POWER PLANT

EMERGENCY PLAN

UNITS 1 AND UNIT 2

TABLE OF CONTENTS

TABLE OF CONTENTS

TABLE OF CONTENTS

TABLE OF CONTENTS

TABLE OF CONTENTS

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

1.0 PURPOSE

The objective of the Comanche Peak Nuclear Power Plant (CPNPP) Emergency Preparedness Program is to protect the health and safety of the general public, persons visiting or temporarily assigned to the station, and station employees in the event of an emergency at the station.

To meet this objective, the CPNPP Emergency Plan creates a high order of preparedness and ensures an orderly and timely decision-making process in times of stress. Emphasis is placed on maintaining emergency preparedness through training, drills, and exercises. It further assures availability of equipment, supplies, and essential services. This plan also provides for coordination of onsite and offsite emergency response.

Specific details for execution of this plan are incorporated by implementing procedures referred to as Emergency Plan Procedures. While this document outlines overall aspects of emergency preparedness, Emergency Plan Procedures contain specific individual responsibilities and establish instructions for accomplishing specific tasks. A list of Emergency Plan Procedures is maintained in Section 15.0, Appendix K. The CPNPP Emergency Plan and Emergency Plan Procedures are also complemented by many general and/or discipline specific provisions that are related to emergency preparedness but which are incorporated into other station procedures (e.g. Operations, Security, Chemistry, Radiation Protection).

The CPNPP Emergency Plan provides direction and coordination of the CPNPP Emergency Response Organization (ERO). Emergency Plan Procedures detail various job functions in support of the Emergency Plan and assure a smooth transition from normal mode to emergency mode of operation. Assignment of CPNPP Emergency Response Organization personnel to job functions is discussed in this plan. Additional assistance may be provided to the onsite group by offsite company personnel, local, state, and federal agencies, and contract personnel as required.

The normal organization of station personnel is discussed in Section 1.1.2.1 which describes and assigns authority and responsibility for declaring an emergency. Upon declaration of an emergency, individuals in the normal operating organization assume Emergency Response Organization responsibilities.

Criteria are established to promptly determine the emergency classification. Emergency classifications for CPNPP are Unusual Event, Alert, Site Area Emergency, and General Emergency. Degree of involvement of onsite, local, state, and federal personnel depends on the emergency classification. At the least severe classification, Unusual Event, the emergency situation may have no potential for escalation to a more severe classification and there may be no effect on station operating status. Response to this situation should involve only onsite personnel and would not necessitate mobilization of the offsite emergency organization. If an emergency event results in a higher classification and offsite consequences require protective action, then local, state, and federal agencies along with additional company personnel would become involved to assist in mitigation of the emergency. The interrelationships between CPNPP, local, state, federal, and any private agencies are described throughout this plan section and are shown in Figure 1.1.

This plan does not address operation of station equipment as this is covered in operating, abnormal operating and emergency operating procedures. This plan and its implementing procedures are designed to interface with, but not interfere with, objectives of the Security Plan, the Fire Protection Report, and the Spill Prevention Control and Countermeasure Plan. The

CPNPP Emergency Plan is designed to complement the Texas Emergency Management Plan and to interface with Hood and Somervell County Emergency Operations Plans.

The CPNPP Emergency Plan is designed to provide guidance when confronting an emergency. Emergency Plan Procedures provide guidance and information to ensure the purpose of the Emergency Plan is achieved. The Emergency Plan reflects management's recognition of a need to cope with a broad spectrum of consequences and prescribes actions necessary for onsite personnel to activate support groups and establish communications to protect the public and CPNPP.

1.1 CONCEPT OF OPERATION

The Emergency Plan includes provisions for actions to be taken during three phases of emergency management:

- Preparedness
- Response
- Recovery

1.1.1 PREPAREDNESS

Actions and activities associated with this phase are described in various sections of this Plan, and include the development and maintenance of the following:

- Emergency Plan with supporting appendices, implementing procedures, facilities, and equipment.
- Training, drill, and exercise programs.
- Review of the Emergency Preparedness Program.

1.1.2 RESPONSE

Actions and activities required to place the station in a safe stable condition, to protect the health and safety of the public, and to initiate requests for assistance.

The CPNPP response to an emergency event begins with the personnel resources assigned on-shift. On-shift personnel are augmented as determined by the Emergency Coordinator and in accordance with this plan and the emergency classification. Prior to declaring an Alert, the Shift Manager (Emergency Coordinator) has the authority to call in any portion of the augmentation staff specified in Table 1.1 as may be required for emergency response. The organized response of the on-shift and any augmented personnel resources identified in this plan represents the CPNPP Emergency Response Organization. Staffing of the entire CPNPP Emergency Response Organization shall be initiated in the event of an Alert or higher classification. On-shift staffing and staff augmentation assignments for emergencies are identified in Table 1.1. Predetermined response actions, based on the emergency classification declared, are identified in Table 1.2. The total emergency response organization includes support by local, state, federal, and private sector organizations. Figure 1.1 shows the interfaces between the various organizations.

A brief discussion of the purpose of each emergency classification and predetermined response actions is provided below.

Unusual Event (UE)

The purpose of this classification is to:

- assure preliminary emergency response actions have been implemented,
- bring operating staff to a state of readiness, and
- provide for systematic handling of unusual events, information and decision making.

At the UE, key CPNPP personnel as well as State and local officials are notified.

Alert

The purpose of this classification is to:

- assure emergency response personnel are readily available to respond if the situation becomes more serious or to perform confirmatory radiological monitoring, if required, and
- provide offsite authorities with current status information.

In addition to actions taken for an UE, at the Alert callout of the CPNPP ERO is initiated and the Technical Support Center (TSC) and Operations Support Center (OSC) are activated and the Emergency Operations Facility (EOF) and Joint Information Center (JIC) are staffed to augment the operating staff.

Site Area Emergency

The purpose of this classification is to:

- assure emergency response facilities are staffed,
- assure radiological monitoring teams are deployed,
- assure personnel required for evacuation of near-site areas are at their duty stations if the situation becomes more serious,
- provide for consultation with offsite authorities, and
- provide periodic updates to the public through offsite authorities.

In addition to actions taken for an UE and/or Alert, at the Site Area Emergency:

- all CPNPP Emergency Response Facilities are activated (OSC, TSC, EOF, and JIC),
- non-essential personnel are evacuated from the CPNPP site unless otherwise directed by the Emergency Coordinator,
- the State and county EOC's are staffed and activated,

- the County Judge(s) will consider evacuation of schools and special facilities as well as make a decision on any protective action recommendations, and

- the County Judge(s) request the Relocation Centers to be activated.

General Emergency

The purpose of this classification is to:

- initiate predetermined protective actions for the public,

- provide continuous assessment of plant information and radiological monitoring measurements taken by licensee and offsite organizations,

- initiate additional measures as indicated by actual or potential radiological releases,

- provide for consultation with offsite authorities, and

- provide periodic updates to the public through offsite authorities.

In addition to actions taken at the UE, Alert, and/or Site Area Emergency, at the General Emergency the County Judge(s) decide which protective action recommendations to implement.

1.1.2.1 CPNPP ORGANIZATION

The initial response starts with the normal Operations shift. The operating organization, along with minimum on-shift complement is discussed in the Final Safety Analysis Report, section 13.1.

The Operations shift is responsible for the safe operation of the plant and provides for 24-hour per day emergency response. The Operations shift responds to all abnormal and emergency events and takes action as necessary to mitigate the consequences of an event. Minimum response actions, based upon the emergency classification declared, are identified in Table 1.2. Details regarding these actions are specified in the Emergency Plan Procedures.

10 CFR 50 Appendix E requires each utility to perform a detailed staffing analysis for specified scenarios to determine if the minimum staffing designated in the Emergency Plan is sufficient to permit required mitigation response and effectively implement the Emergency Plan. Nuclear Energy Institute (NEI) document NEI 10-05, “Assessment of On-Shift Emergency Response Organization Staffing and Capabilities,” Revision 0, dated June 2011 (ADAMS Accession No. ML111751698) established a standard methodology for a licensee to perform the required staffing analysis. Interim Staff Guidance, NSIR/DPR-ISG-01 endorses the use of guidance in NEI 10-05, “Assessment of On-Shift Emergency Response Organization Staffing and Capabilities.”

Table 1.1 of the Emergency Plan reflects the results of the Comanche Peak On-Shift Staffing Analysis. The Comanche Peak On-Shift Staffing Analysis is retained as a record in the Reference Table of the Comanche Peak Document Management System.

The On-Shift Emergency Response Organization consists of the following positions:

Shift Manager

- At the onset of an event, assess, classify, and declare the emergency.
- Assume the duties and responsibilities of the Emergency Coordinator.
- Implement response actions based upon the emergency classification declared.

Shift Technical Advisor

- Provide engineering expertise and advice regarding plant transient analysis, accident mitigation, core/thermal hydraulics, and other matters related to operational safety.

Control Room Communicator

- Notify the CPNPP ERO of the event.
- Notify state and local offsite agencies by initial and follow-up notifications.
- Notify the Nuclear Regulatory Commission (NRC) of the event.
- Notify other selected personnel.

Radiation Protection Technicians

- Perform in-plant and onsite radiological surveys.
- Provide radiological control coverage for emergency repair, search and rescue, first aid, fire fighting and other activities.
- Provide radiological support to emergency response facilities.

Chemistry Technicians

- Perform in-plant chemistry sampling and analysis.
- Function as part of the CPNPP First Aid Team.
- Perform dose assessment.

Security Shift Supervisor

- Control access to site property.
- Assist with site evacuation.
- Perform personnel accountability.

Emergency Teams

- Emergency Repair & Damage Control

- Perform maintenance activities associated with mechanical equipment, electrical equipment, and instrumentation and control systems.

• Fire Brigade

  - Perform fire fighting activities in accordance with station procedures.

  - Perform rescue activities.

• First Aid

  - Provide first aid services to injured personnel.

  - Provide transportation to local hospitals.

1.1.2.2 CPNPP EMERGENCY RESPONSE ORGANIZATION (ERO)

The Operations shift is staffed to be self-reliant for a period of time to allow for the notification of other personnel and the staffing and activation of emergency response facilities per Section 6.0, "Facilities and Equipment."

In addition to Operations shift personnel, other personnel in the CPNPP ERO assume roles in supporting the overall emergency response. The CPNPP ERO is outlined in Figures 1.2 through 1.6. Emergency Response Organization positions and principal responsibilities not discussed in Section 1.1.2.1, are discussed below.

Emergency Coordinator

Has responsibility and authority to immediately and unilaterally initiate all provisions of the CPNPP Emergency Plan, and for evaluation, coordination and control of all onsite activities related to the emergency response until the event is closed out or the CPNPP Recovery Organization is formed.

a. Additional principal responsibilities include:

  • Assessment, classification, and declaration of an emergency.

  • Ensuring notification of officials in Hood and Somervell counties, Texas Department of Public Safety, the Nuclear Regulatory Commission, and other organizations as needed.

  • Approving shift schedules that support long-term emergency response to permit continuous operation.

  • Authorizing onsite protective actions.

  • Requesting and providing support to federal, state and local personnel, as appropriate.

  • Coordinating offsite CPNPP emergency response activities with activities conducted onsite.

b. The Emergency Coordinator shall NOT delegate the decision-making authority for:

- recommending use of Potassium Iodide
- authorizing reentry into evacuated onsite areas
- authorizing personnel exposures in excess of 10CFR20 limits
- making protective action recommendations to offsite authorities
- approval of notification messages.

c. The duties and responsibilities of the Emergency Coordinator are transferred after the successor has been briefed on current plant status and status of offsite and onsite emergency response activities and as described below:

Upon classifying an event, the Shift Manager assumes the role of Emergency Coordinator. The Technical Support Center (TSC) Manager relieves the Shift Manager of Emergency Coordinator duties at an Alert or higher emergency classification. The TSC Manager may relieve the Shift Manager of Emergency Coordinator duties at an Unusual Event. After the Emergency Operations Facility (EOF) has been activated, the duties of Emergency Coordinator may be transferred to the EOF Manager; however, the responsibility to assess, classify, and declare the emergency shall remain with the TSC Manager unless the TSC and EOF Manager agree to transfer this function.

CR Operations (Ops) Advisor

The CR Ops Advisor serves as the contact point between the operating crew and the TSC staff.

Technical Support Center Manager

The TSC Manager is responsible for activation and control of emergency response activities conducted in the TSC. The TSC Manager relieves Control Room personnel of administrative functions and decisions and maintains direction and control of onsite emergency response activities conducted within the Protected Area which are required to place the plant in a safe, stable condition. Prior to EOF activation the position is also responsible for administrative and logistical support.

TSC Communications Coordinator

The TSC Communications Coordinator is responsible for coordinating communications activities in the TSC.

TSC Onsite Radiological Assessment Coordinator

The TSC Onsite Radiological Assessment Coordinator provides backup dose assessment capabilities and is responsible for directing the onsite radiological assessment activities and ensuring the radiological safety of personnel onsite.

TSC Operations (OPs) Coordinator

The TSC OPs Coordinator serves as the Operations representative to the TSC staff and as the contact point between the TSC and the operating crew.

TSC Engineering Team Coordinator

The TSC Engineering Team Coordinator is responsible for directing and coordinating activities of the TSC Engineering Team to assess plant status and severity of emergency conditions.

TSC Engineering Team

The TSC Engineering Team is composed of at least three individuals with the experience and competence to provide technical support to the Control Room staff in the following areas:

- monitor and evaluate changing core/thermal hydraulic issues to support timely corrective action(s), ECL declarations, and subsequent PARs;
- expertise in electrical/instrumentation and control (I&C) systems and equipment to support the development of repair plans if necessary; and
- expertise in mechanical systems and equipment to support the development of repair plans if necessary.

With the location of the TSC being in close proximity to the Control Room (less than one minute transit time), contact is made with the Control Room staff for assistance and if necessary or requested an engineer(s) can promptly relocate to the Control Room.

Operations Support Center Manager

The OSC Manager is responsible for activation and control of emergency response activities conducted in the OSC. The OSC Manager is also responsible for dispatching and coordinating personnel to assist in emergency repair and damage control activities, performing radiological surveys, personnel rescue operations, establishing controlled areas, and implementing recovery actions.

OSC Radiation Protection Coordinator

The OSC Radiation Protection Coordinator directs the activities of the RP Technicians and is responsible for providing radiological protective measures for teams dispatched from the OSC.

OSC Chemistry Coordinator

The OSC Chemistry Coordinator directs the activities of the Chemistry Technicians and is responsible for coordinating requests for chemical analysis and for coordinating medical response and spill control teams from the OSC.

OSC Emergency Response and Damage Control (ERDC) Coordinator

The OSC ERDC Coordinator directs the activities of the Maintenance personnel, and is responsible for coordinating emergency repair and damage control teams dispatched from the OSC.

Company Spokesperson

The Company Spokesperson is responsible for coordinating with the Emergency Coordinator and approving public information releases issued by Vistra OpCo from the JIC.

Information Coordinator

The Information Coordinator is responsible for gathering and communicating current technical event related information from the Emergency Coordinator to the JIC.

JIC Communicator

JIC Communicator is responsible for receiving the information from the Information Coordinator and forwarding that information to the Company Spokesperson and/or JIC Director.

Information Liaison

The Information Liaison informs corporate communications, government sources, and media news services of event developments and obtains emergency-related information from outside sources.

Joint Information Center Director

The JIC Director schedules, coordinates and hosts press briefings and approves access to the JIC.

Press Release Writer

The Press Release Writer prepares press releases from approved information for dissemination to the media.

Rumor Control Coordinator

The Rumor Control Coordinator reviews received rumors and media broadcasts for consistency with approved information and reports findings to the Company Spokesperson.

JIC Support Staff (Aides)

The JIC Support Staff:

- host media representatives,
- set up and monitor audio visual equipment,
- record news conferences,
- monitor media broadcasts for event related information, and
- answer telephone requests for information from the public and the media.

EOF Manager

The EOF Manager is responsible for activation and control of emergency response activities conducted in the EOF.

EOF Communications Coordinator

The EOF Communications Coordinator is responsible for coordinating communications activities in the EOF.

EOF Radiation Protection Coordinator

The EOF Radiation Protection Coordinator (RPC) and staff (see Figure 1.5) are responsible for coordinating Vistra OpCo offsite radiological monitoring efforts. The EOF RPC is also responsible for coordinating Vistra OpCo offsite radiological assessment activities with those of local, state and federal agencies.

a. The EOF Offsite Radiological Assessment Coordinator (OFFRAC), who reports to the EOF RPC, is responsible for coordinating the efforts of the offsite radiological assessment team in performing activities such as:

   - Nuclear Operations Support Facility (NOSF) habitability, and

   - dose projections and assessment.

b. The Offsite Monitoring Team Director, who reports to the EOF RPC, is responsible for coordinating the efforts of the offsite radiological monitoring team(s) in performing activities such as:

   - locating and tracking the offsite plume, and

   - offsite monitoring team direction and control.

EOF Logistical Support Coordinator

The EOF Logistical Support Coordinator and his staff (see Figure 1.5) coordinate requests from the ERO for administrative and logistical assistance. These requests include such items as meals, parts and supplies, transportation, and manpower issues (such as shift relief schedules).

EOF/TSC Liaison

The EOF/TSC Liaison provides technical support (which includes classification input if required) to the EOF Management team and serves as a liaison between the EOF personnel and the TSC Engineering team.

EOF Security Coordinator

The EOF Security Coordinator is responsible for coordinating onsite security force activities.

Emergency Planning (EP) Advisors

EP Advisors assist the ERO with facility activation and provide expertise and information to ERO personnel concerning both utility and offsite supporting emergency facilities, communication capabilities, personnel and equipment resources, and procedural requirements.

State and Local EOC Advisors

Station personnel assigned to augment and advise state/county emergency organizations. Duties of the Local EOC Advisors are described in Section 1.2.2, “Local Services Support”.

Emergency Communicators

Designated personnel, as depicted on Table 4.2, are assigned the function of providing an interface between the CPNPP emergency facilities, accident assessment teams, and State/ Local/Federal authorities. The communicators use dedicated equipment, as depicted on Table 4.1, to perform these functions.

Administrative and Clerical Support Personnel

Various administrative and clerical support personnel are used in the emergency response facilities for duties such as maintaining logs, answering telephones, and distributing information.

Board Recorders

Various personnel are assigned to post and update status boards within the emergency response facilities. These personnel use dedicated boards and communications equipment to facilitate the sharing of information between facilities.

1.1.3 RECOVERY

Actions taken to return the plant to an operational status or maintain long-term safe shutdown condition after the emergency response actions have been completed. If a recovery effort is deemed necessary, the CPNPP Recovery Organization is established in accordance with Section 11.0 “Recovery and Reentry.”

1.2 EMERGENCY RESPONSE SUPPORT AND RESOURCES

1.2.1 CORPORATE SUPPORT

Vistra OpCo maintains sufficient management and personnel resources at the CPNPP site to effectively staff (24 hours) the CPNPP Emergency Response Organization and its intended emergency mitigation functions. This arrangement preempts the need for a separate organization of offsite corporate personnel to be identified for, and incorporated in, the CPNPP Emergency Response Organization; however, in the event of an emergency requiring assistance from offsite organizations, Vistra OpCo management is fully committed to providing other resources to assist the CPNPP Emergency Response Organization. Examples of other corporate capabilities existing within Vistra OpCo include public information services, materials procurement services, contract manpower and construction services, legal and insurance services, and additional technical support.

1.2.2 LOCAL SERVICES SUPPORT

The local response organizations involved with emergencies at CPNPP are the Hood County and Somervell County Emergency Organization. Each county has an emergency operations plan which describes the county's emergency response. The County Judge is in charge of the emergency organizations and has the legal authority for protective action decision making within their respective county. To assist the county emergency organizations, Vistra OpCo sends a representative who is familiar with station operations and the CPNPP Emergency Plan to each county Emergency Operations Center. The representative functions as an advisor and may act as liaison between the county officials and the CPNPP Emergency Response Organization; however, these representatives are not company spokespersons.

Support from local organizations may be obtained through direct notification to the individual organization. Letters of Agreement from each organization to provide their respective emergency assistance to CPNPP are maintained onsite. A list of Letters of Agreement is provided in Section 15.0, Appendix H, which identifies the local services support organizations.

1.2.3 PRIVATE SECTOR SUPPORT

Support from private sector organizations may be obtained through direct notification to the individual organization. The following organizations provide services, if requested:

- Westinghouse Corporation

  Westinghouse Corporation, the designer for the Nuclear Steam Supply System (NSSS), has an emergency response group which provides for emergency engineering assistance to facilities having a NSSS designed by Westinghouse. This assistance is available on a 24-hour/day, 7-day/week basis. Details of the response is contained in the Westinghouse Emergency Response Plan.

- Institute of Nuclear Power Operations (INPO)

  INPO is an industry technical association whose Emergency Preparedness Division acts as a clearinghouse for maintaining a roster of individuals and skills available to each utility for augmenting the onsite ERO. INPO also serves as a clearinghouse for maintaining an inventory listing of material, equipment, and services which may be used to supplement onsite resources. Details of the response is contained in a letter of agreement.

- South Texas Project

  The South Texas Project provides a backup service for analyzing Post Accident Samples. A Letter of Agreement outlines the analyzing capabilities of the South Texas Project Laboratory.

- American Nuclear Insurers (ANI)

  Vistra OpCo maintains a policy with ANI. ANI has agreed to assume responsibility for promptly assisting members of the public who may be adversely affected by an event at CPNPP. This insurance policy alleviates the immediate financial burden that may be incurred by members of the public due to evacuation and relocation associated with an incident. ANI will have their representatives on the scene, prepared to commence the distribution of emergency funding at the earliest possible time, on a 24-hour a day basis.

1.2.4 STATE AGENCIES

The State of Texas has developed a Radiological Emergency Management Plan as a part of the State of Texas Emergency Management Plan. The fundamental legislation providing the basis for emergency response by civil authorities is the Texas Disaster Act of 1975, as amended. This act creates a Division of Emergency Management. The Division of Emergency Management is part of the Governor's office and is placed under the Director of the Texas Department of Public Safety by an Executive Order of the Governor. The duties and responsibilities of the principle and support agencies of the State of Texas are summarized below. The Commissioners of the Texas Department of Agriculture and the Texas Department of Health are responsible for implementing protective actions within the Ingestion Exposure EPZ in accordance with the Texas Emergency Management Plan. A detailed discussion of the state's response is contained in the Texas Emergency Management Plan and supporting Letters of Agreement. See Section 15.0, Appendix H for a list of Letters of Agreement.

- Division of Emergency Management

  The Division of Emergency Management (DEM) is the agency responsible for coordinating overall response to emergency situations in the State of Texas. The Director, DEM, assumes overall direction and control of the state's response to an emergency condition at CPNPP.

- Texas Department of Public Safety

  The Texas Department of Public Safety (DPS) serves as the primary communication contact and coordinates emergency communications between CPNPP and the State of Texas, Hood and Somervell Counties. The DPS coordinates with the local law enforcement officials and assists in maintaining traffic control, protecting life and property, establishing road-blocks, and alerting and warning persons in the affected area. Highway Patrol Captains serve as Chairmen of the Disaster District Committees. Requests for assistance from the local county EOC's are forwarded to the appropriate disaster district. Requests that exceed the District's capability are forwarded to the state EOC in Austin. Response time for DPS personnel from the Disaster District to the station is approximately 2 hours.

- Texas Department of Health

  The Texas Department of State Health Services (DSHS), is the responsible agency for providing technical assistance and advice to local governments during a radiological emergency at CPNPP. Once notified of a Site Area or General Emergency by DEM, the DSHS will establish a communication link from their Austin office to the station. The DSHS dispatches response teams to the station in accordance with provisions of the Texas Radiological Emergency Management Plan. The DSHS response is directed by the Bureau Chief. The response team is capable of providing environmental sampling and radiological monitoring, including a mobile radiological laboratory. This laboratory serves to analyze low-level radiological environmental samples. CPNPP provides telephone and electrical hook-ups for use by the laboratory. It is expected that DSHS personnel and the laboratory should arrive at pre-determined locations within approximately four hours of notification. Space and telephone lines have been provided in the EOF for the response team. The DSHS also provides assessment of offsite hazards and protective action recommendations.

1.2.5 FEDERAL AGENCIES

The CPNPP Emergency Coordinator is authorized to request federal assistance on behalf of the station under provisions of the Federal Radiological Emergency Response Plan. The CPNPP Emergency Coordinator requests federal assistance by contacting the NRC. The Federal Emergency Management Agency (FEMA) is also a federal agency responding to CPNPP.

To support the federal emergency response efforts, the following facilities are available:

Airports:	Granbury, Cleburne, Stephenville, Meacham in Fort Worth, Love Field in Dallas, and Dallas-Fort Worth International
Motels:	Granbury, Cleburne, Stephenville, Dallas, and Fort Worth
CPNPP:	Working space within the CPNPP Emergency Response Facilities (ERFs) has been allocated for co-location of NRC personnel. Phones are available for NRC personnel within the ERFs.

- Nuclear Regulatory Commission

  Specific responsibilities assigned to the NRC include:

  Notification of FEMA whenever a radiological event occurs or when there is a high potential for such an event.

  Monitoring operational data and assuring that adequate information and recommendations are being provided to offsite agencies.

  As a back-up to CPNPP, providing a technical assessment of onsite radiological and plant conditions to FEMA and other federal agencies, and keeping state and local offsite agencies apprised of any operational discussions that may affect offsite protective actions.

  In coordination with CPNPP and state and local offsite agencies, disseminate onsite data to FEMA and federal agencies, the news media, and the general public.

  Methods of notifying the NRC are discussed in Section 3.0, '"Notification Methods and Procedures." The NRC may be expected onsite within 4 hours of receiving notification of the event.

- Federal Emergency Management Agency

  FEMA is responsible for coordinating all offsite federal agency responses. Specific responsibilities assigned to FEMA include:

  Coordination of federal support to state and local officials.

  Dissemination of data on offsite support actions to the federal agencies.

  FEMA may send personnel to the EOF to coordinate activities with CPNPP, NRC, and the state.

TABLE 1.1
STAFFING REQUIREMENTS FOR EMERGENCIES
Page 1 of 4

FUNCTIONAL AREA	TASK	ONSHIFT [c]	ADDITIONS WITHIN MINUTES OF ALERT		ADDITIONS WITHIN 60 MIN OF SAE OR GE
			60	90	
Station Operations	Assessment of Operational Aspects	Shift Manager (SRO) Unit Supervisor (SRO)(2) Reactor Operators (RO) (4) Nuclear Equipment Operators (7)			
Emergency Direction and Control [b]	Direction and control of onsite emergency activities as Emergency Coordinator.	Shift Manager (SRO) [a]	TSC Manager		EOF Manager
Communications	Notify station, local, state, and federal personnel and maintain communications.	Communicator	TSC Communications Team (2)		EOF Communications Team (1)
Security	Site access control and personnel accountability	Security Shift Supervisor Security Officers (Per Security Plan)	Local Support		EOF Security Coordinator
Public Information	Approve release of public information	Shift Manager [a]	TSC Manager [a]		Company Spokesperson
Logistics	Obtain/Expedite needed resources for the ERO.	Shift Manager [a]	TSC Manager [a]		
Station System Engineering	Coordination/Control Technical Support	 Shift Technical Advisor	 TSC Eng Team (2) [d]	TSC Engineering Team Coordinator TSC Eng Team (1) [e]	

TABLE 1.1
STAFFING REQUIREMENTS FOR EMERGENCIES
Page 2 of 4

FUNCTIONAL AREA	TASK	ONSHIFT [c]	ADDITIONS WITHIN MINUTES OF ALERT		ADDITIONS WITHIN 60 MIN OF SAE OR GE
			60	90	
Radiological Assessment	In-plant Survey	R.P. Technician		R.P. Technician	
	Chem/ Radiochemistry	Chemistry Technician [a]		Chemistry Technician	
	Onsite Surveys	R.P. Technician		R.P. Technician	
	Offsite Surveys		Offsite Radiological Monitor (2)	Vehicle Drivers (2)	
	Dose Assessment	Chemistry Technician [a]	TSC OnRAC		EOF Dose Assessor
	Protective Actions	R.P. Technicians (2) [a]	R.P. Technicians (3)	R.P. Technician	
	Coordination/Control	Shift Manager [a]	TSC OnRAC [a]		EOF R.P. Coordinator
System Corrective Action	Emergency Repair and Damage Control (ERDC)	Nuclear Equipment Operator [a]	OSC Manager Mechanic Electrician	I&C Technician OSC RP Coordinator [a] OSC ERDC Coordinator	

TABLE 1.1
STAFFING REQUIREMENTS FOR EMERGENCIES
Page 3 of 4

FUNCTIONAL AREA	TASK	ONSHIFT [c]	ADDITIONS WITHIN MINUTES OF ALERT		ADDITIONS WITHIN 60 MIN OF SAE OR GE
			60	90	
Fire	Fire Fighting and Rescue	Fire Brigade (5) [a]	Local Support		
Medical	First Aid	First Aid Team Member Chemistry Technician [a]	Local Support		
TOTAL		21	14	10	6

(a) May be provided by onshift or augmentation personnel assigned other functions.

(b) Shift Manager serves in this capacity until relieved by a designated individual (Section 1.1.2.2).

(c) The minimum onshift crew composition may be one (1) less than the minimum specified for any position during normal operations for a period of time not to exceed two (2) hours in order to accommodate unexpected absence, provided immediate action is taken to fill the required position. This exception does not permit any crew composition to be unmanned upon shift turnover due to an oncoming crew member being late or absent. This exception is not applicable during declared emergencies.

(d) One (1) with expertise in electrical / I&C systems and equipment and one (1) with expertise in mechanical systems and equipment.

(e) One (1) to monitor and evaluate changing core/thermal hydraulic issues.

TABLE 1.1
STAFFING REQUIREMENTS FOR EMERGENCIES
Page 4 of 4

ON SHIFT MINIMUM PERSONNEL	
POSITION	# ON SHIFT
Shift Manager	1
Unit Supervisor	2
Shift Technical Advisor	1
Reactor Operator	4
Nuclear Equipment Operator	7
Chemistry Technician	1
RP Technician	2
Security Supervisor	1
*Security Officers - As per Security Plan	*
Control Room Communicator	1
First Aid Team Member (Chemistry or other First Aid Qualified personnel)	1
Total	21+*

TABLE 1.2
PREDETERMINED RESPONSE ACTIONS
PAGE 1 OF 1

PREDETERMINED RESPONSE ACTIONS	UE	ALERT	SAE	GE
Notify state and local authorities within 15 minutes of declaring the event.	X	X	X	X
Notify the Nuclear Regulatory Commission (NRC) immediately after notification of the state and local authorities but not later than one (1) hour after declaring the event.	X	X	X	X
Staff and activate the Emergency Response Facilities: Technical Support Center (TSC) Operations Support Center (OSC) Emergency Operations Facility (EOF) Joint Information Center (JIC)		X [1]	X	X
Activate the Emergency Response Data System (ERDS) as soon as possible but not later than one (1) hour after declaring the event.		X	X	X
Assess the event and respond accordingly.	X	X	X	X
Dispatch Onsite Survey Teams.		X	X	X
Dispatch Offsite Monitoring Teams.			X	X
Provide periodic plant status updates to offsite authorities.	X	X	X	X
Provide periodic assessments of meteorological conditions to offsite authorities.		X	X	X
Provide periodic media briefings.			X	X
Provide senior onsite technical and management staff available for consultation with NRC and state on periodic basis.			X	X
Provide release rate and dose projection information.		X	X	X
Recommend protective actions to offsite officials.				X
Escalate to more severe class, if appropriate.	X	X	X	
Closeout the event with verbal summary to offsite authorities followed by written summary.	X_2	X_2	X_2	X_2

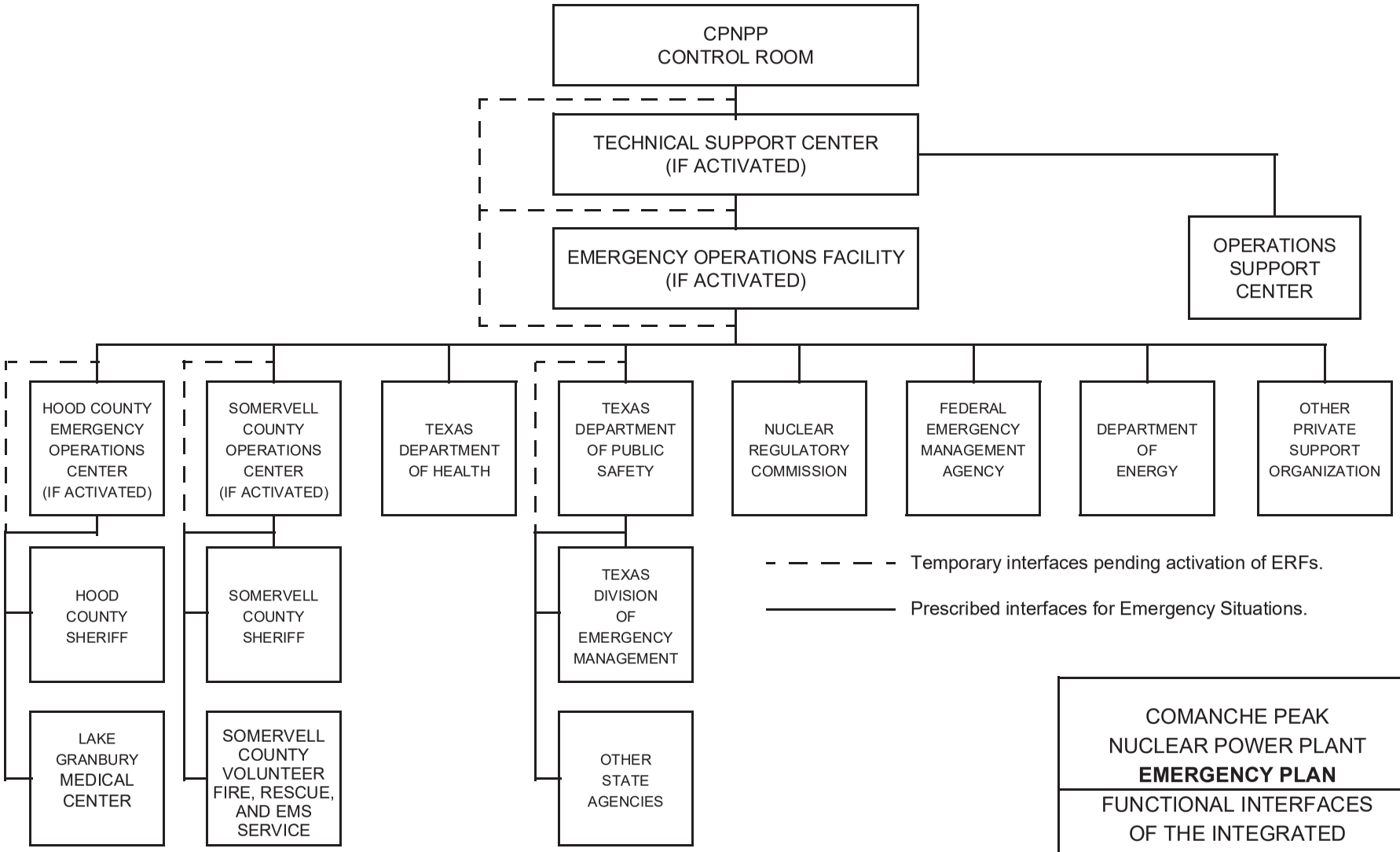
1 EOF and JIC activated at the SAE.

2 Notification Message Form used to closeout the emergency may be used to satisfy the requirements of verbal notification and written summary to offsite agencies.

UE Unusual Event

SAE Site Area Emergency

GE General Emergency

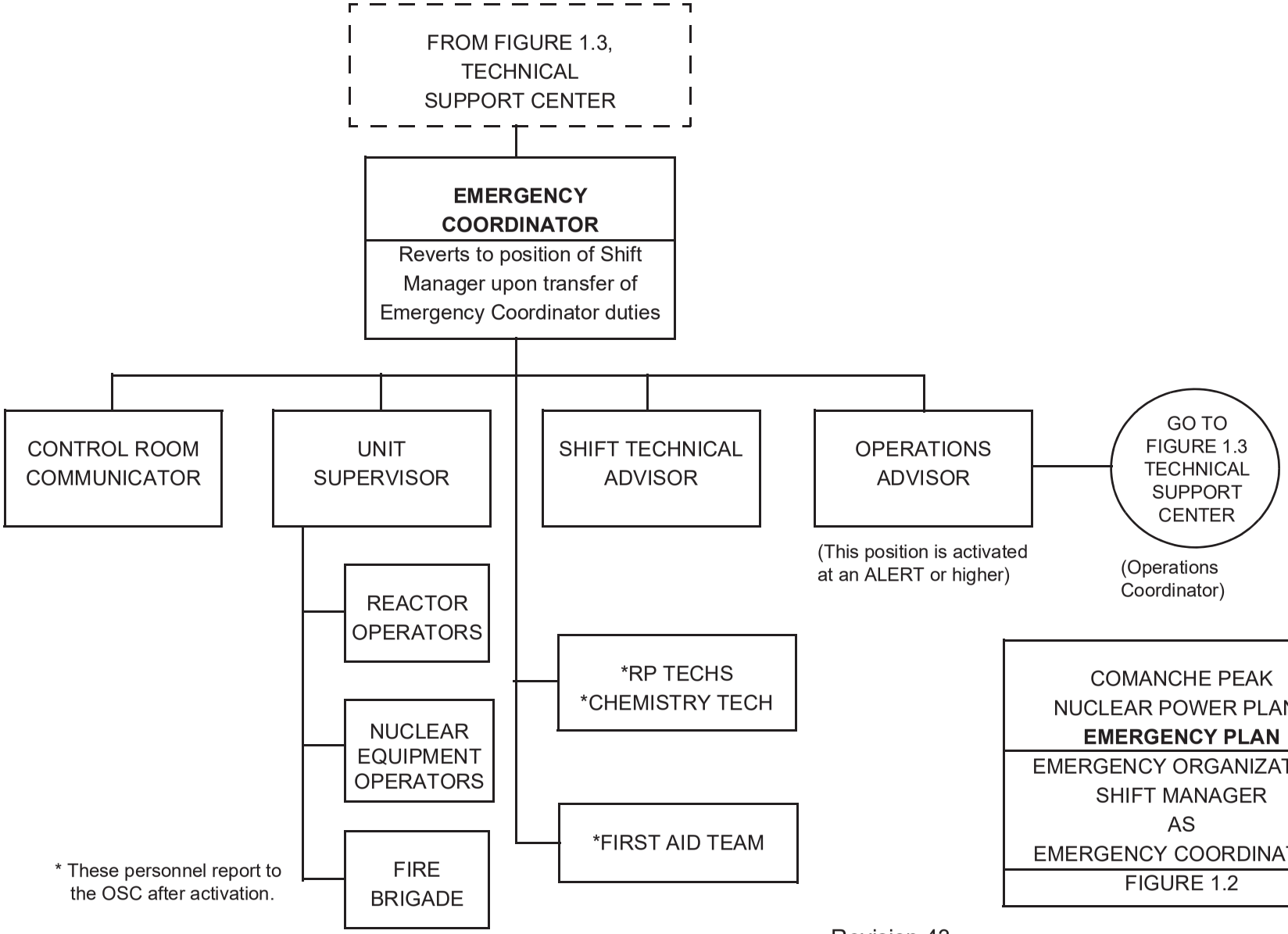


COMANCHE PEAK
NUCLEAR POWER PLANT
EMERGENCY PLAN

FUNCTIONAL INTERFACES
OF THE INTEGRATED
EMERGENCY RESPONSE
ORGANIZATION

FIGURE 1.1

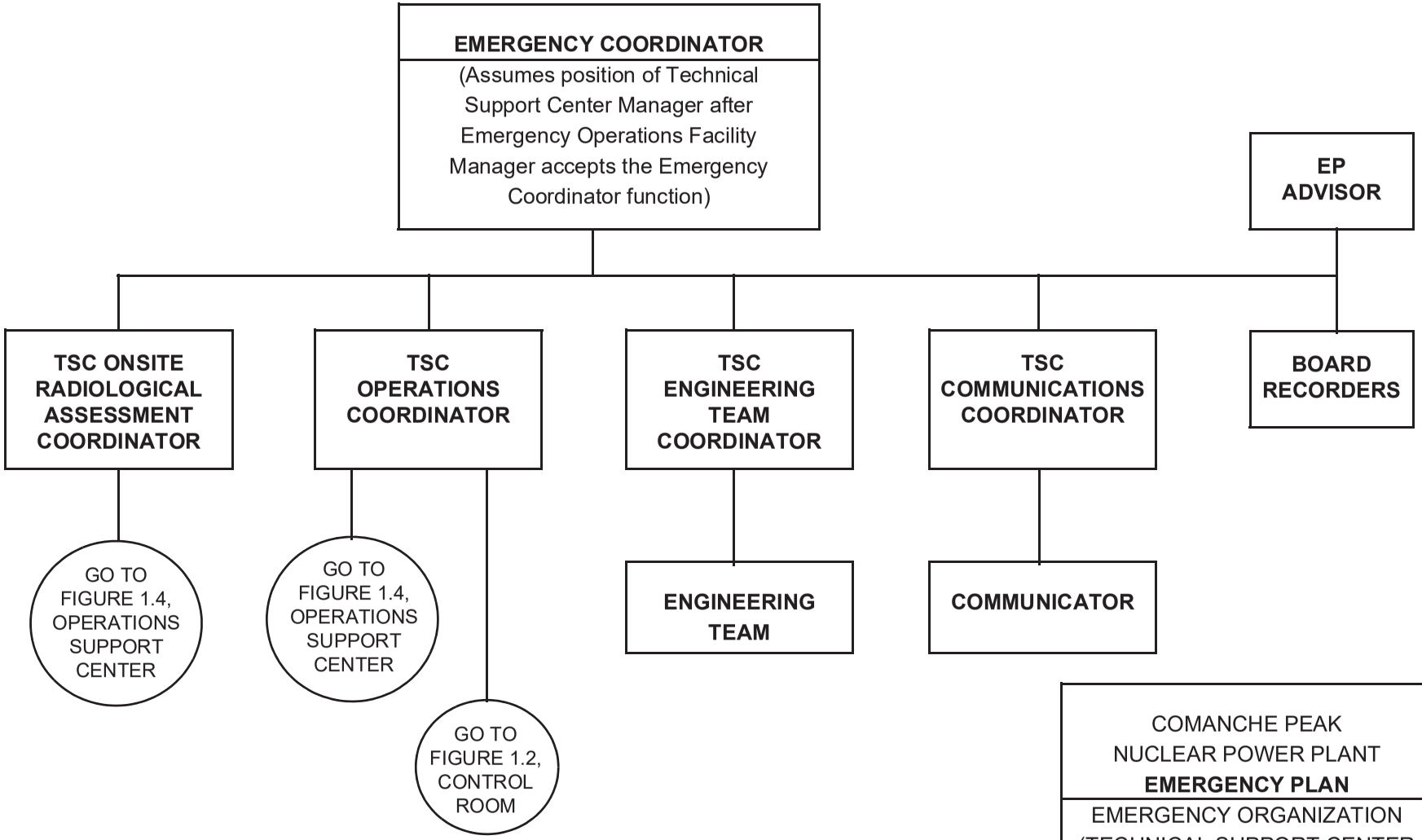
Revision 37



COMANCHE PEAK
NUCLEAR POWER PLANT
EMERGENCY PLAN

EMERGENCY ORGANIZATION
SHIFT MANAGER
AS
EMERGENCY COORDINATOR

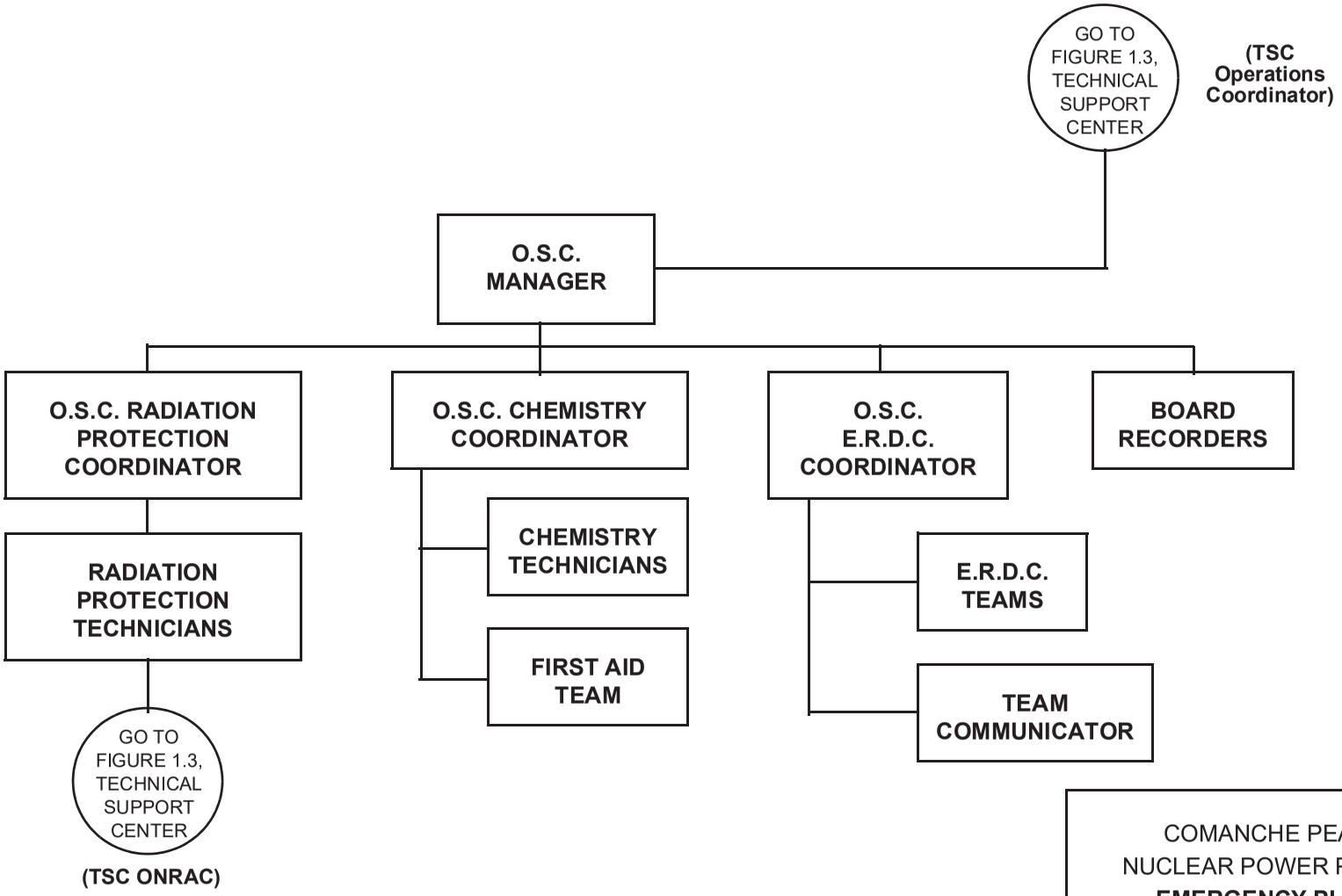
FIGURE 1.2



COMANCHE PEAK
NUCLEAR POWER PLANT
EMERGENCY PLAN

EMERGENCY ORGANIZATION
(TECHNICAL SUPPORT CENTER MANAGER AS EMERGENCY COORDINATOR)

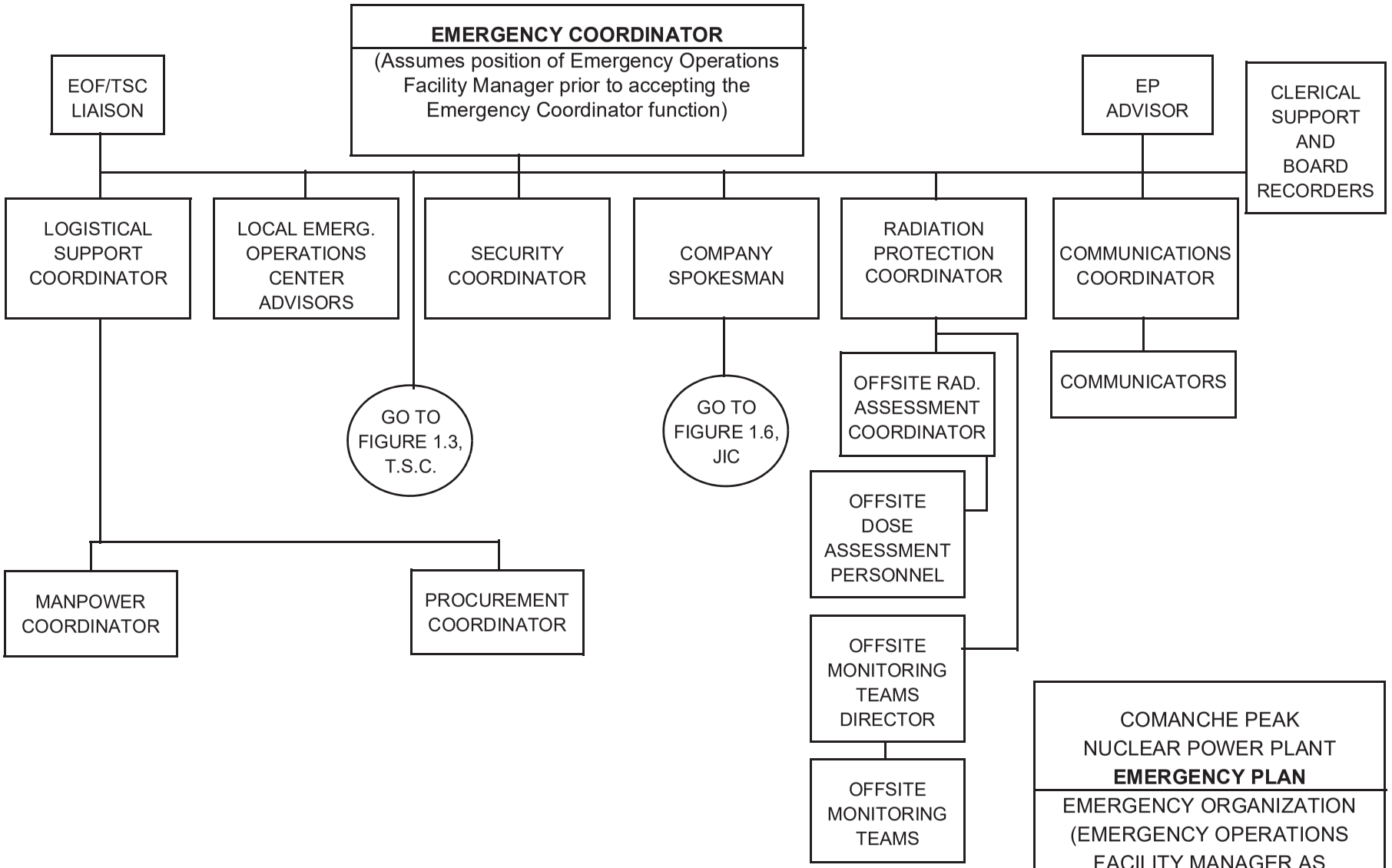
FIGURE 1.3



COMANCHE PEAK
NUCLEAR POWER PLANT
EMERGENCY PLAN

EMERGENCY ORGANIZATION
OPERATIONS
SUPPORT
CENTER

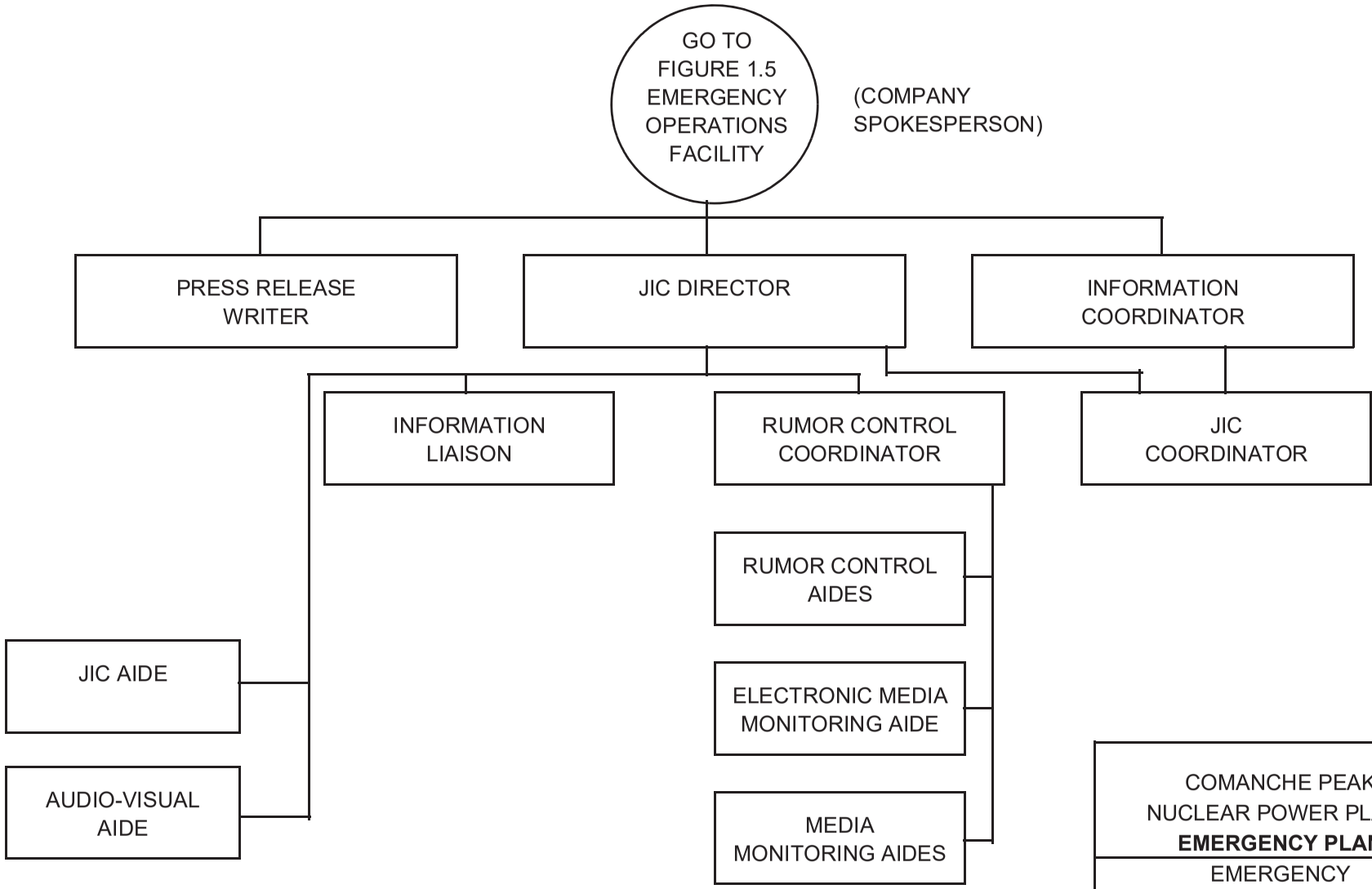
FIGURE 1.4



COMANCHE PEAK
NUCLEAR POWER PLANT
EMERGENCY PLAN

EMERGENCY ORGANIZATION
(EMERGENCY OPERATIONS FACILITY MANAGER AS EMERGENCY COORDINATOR)

FIGURE 1.5



COMANCHE PEAK
NUCLEAR POWER PLANT
EMERGENCY PLAN

EMERGENCY
ORGANIZATION
JOINT INFORMATION CENTER

Revision 43

FIGURE 1.6

2.0 EMERGENCY CLASSIFICATION SYSTEM

Emergency conditions are situations which cause or threaten to cause hazards affecting the health and safety of employees or the public, or which may result in property damage. This section describes the system to be utilized at CPNPP to classify possible radiological and other emergency conditions. This system is based on guidance set forth in NEI 99-01, Revision 6, and is compatible with that used by state and local agencies. Emergency Action Levels (EAL) established for each emergency classification have been accepted by offsite authorities responsible for implementing protective measures for the population-at-risk.

2.1 EMERGENCY CLASSIFICATIONS

The four Emergency Classifications are:

a. Unusual Event

b. Alert

c. Site Area Emergency

d. General Emergency

The first two classes, Unusual Event and Alert, are designed to provide early notification to offsite officials of the occurrence of minor events at CPNPP which might escalate if incorrect actions were taken or subsequent equipment failure occurred. The Site Area Emergency class includes conditions in which releases are occurring or are expected to occur, or where core degradation may be indicated. The General Emergency class includes situations in which actual or imminent core degradation or melting is occurring with potential for or loss of containment integrity. A gradation of responses is provided to assure prompt action whether the event intensifies or diminishes.

Initiating Conditions (ICs) which determine the appropriate classification are generally described in the following paragraphs and in Table 2.1. Specific instrument readings, parameters or equipment status are used to determine whether an Emergency Action Level has been reached as specified in the appropriate Emergency Plan Procedures. If an emergency changes in severity the situation is reassessed and reclassified (if appropriate) and corresponding actions will be taken.

2.1.1 A brief discussion of each emergency classification is provided below.

a. UNUSUAL EVENT

This classification includes the least severe events requiring offsite notification. This emergency classification will be declared whenever events are in process or have occurred which indicate a potential degradation of the level of safety of the plant or indicate a security threat to facility

protection has been initiated. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs.

b. ALERT

The Alert class is the second emergency classification in increasing order of severity. An Alert will be declared whenever events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant or a security event that involves probable life threatening risk to site personnel or damage to site equipment because of hostile action. Any releases are expected to be limited to small fractions of the EPA Protective Action Guideline exposure levels.

c. SITE AREA EMERGENCY

The Site Area Emergency class is the third emergency classification in increasing order of severity. A Site Area Emergency will be declared whenever events are in process or have occurred which involve an actual or likely major failures of plant functions needed for protection of the public or hostile action that results in intentional damage or malicious acts; (1) toward site personnel or equipment that could lead to the likely failure of or; (2) that prevent effective access to equipment needed for the protection of the public. Any releases are not expected to result in exposure levels which exceed EPA Protective Action Guideline exposure levels beyond the site boundary.

d. GENERAL EMERGENCY

The General Emergency class is the most severe emergency classification. A General Emergency will be declared whenever events are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity or hostile action that results in an actual loss of physical control of the facility. Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels offsite for more than the immediate site area.

2.2 EMERGENCY CLASSIFICATION INITIATING CONDITIONS

Emergency Plan Procedures identify specific conditions and associated limits which serve as the basis for initiating appropriate accident assessment and emergency response actions prescribed in this plan. As the severity of each event is identified, the event is classified (or reclassified), based on instrument readings, equipment status and other parameters set forth in appropriate Emergency Plan Procedures to assure appropriate emergency response actions.

The ICs/EALs specified in Emergency Plan Procedures are based on criteria in one or more of the following documents:

a. Plant system design specifications

b. Plant Technical Specification limits

c. FSAR accident analyses

d. 10CFR, Part 20 and 10CFR, Part 100 limits

e. EPA Protective Action Guides

f. NUREG-0578, “TMI-2 Lessons Learned Task Force Status Report and Short-Term Recommendations”

g. NEI 99-01, Revision 6, “Development of Emergency Action Levels for Non-Passive Reactors”

TABLE 2.1
INITIATING CONDITION FOR EMERGENCY CLASSIFICATIONS
PAGE 1 OF 3

Categories	GE	SAE	Alert	UE
ALL Modes				
Abnormal Rad Levels / Rad Effluent (R)	Rad Effluent	Rad Effluent	Rad Effluent	Rad Effluent
	Irradiated Fuel Event	Irradiated Fuel Event	Irradiated Fuel Event	Irradiated Fuel Event
			Area Radiation Levels	
ISFSI (E)				Confinement Boundary
Hazards (H)	Security	Security	Security	Security
				Seismic Event
				Natural or Tech Hazard
				Fire
			Hazardous Gases	
		Control Room Evacuation	Control Room Evacuation	
	EC Judgment	EC Judgement	EC Judgement	EC Judgement

TABLE 2.1
INITIATING CONDITIONS FOR EMERGENCY CLASSIFICATIONS
PAGE 2 OF 3

Categories	GE	SAE	Alert	UE
HOT Conditions				
System Malfunctions (S)	Loss of Emergency AC Power	Loss of Emergency AC Power	Loss of Emergency AC Power	Loss of Emergency AC Power
		Loss of Vital DC Power		
			Loss of Control Room Indications	Loss of Control Room Indications
				RCS Activity
				RCS Leakage
		RPS Failure	RPS Failure	RPS Failure
				Loss of Comm.
				CMT Failure
			Hazardous Event Affecting Safety Systems	
Fission Product Barriers (F)	Fission Product Barrier Degradation	Fission Product Barrier Degradation	Fission Product Barrier Degradation	

TABLE 2.1
INITIATING CONDITION FOR EAL CLASSIFICATIONS
PAGE 3 OF 3

Categories	GE	SAE	Alert	UE
COLD Conditions				
Cold SD / Refueling System Malfunct. (C)	RCS Level	RCS Level	RCS Level	RCS Level
			Loss of Emergency AC Power	Loss of Emergency AC Power
			RCS Temp.	RCS Temp
				Loss of Vital DC Power
				Loss of Comm.
			Hazardous Event Affecting Safety Systems	

3.0 NOTIFICATION METHODS AND PROCEDURES

This section describes methods for notifying local and State authorities and the CPNPP Emergency Response Organization (ERO) in the event of a declared emergency classification at CPNPP. Details required in INITIAL and FOLLOWUP messages are also described.

Emergency Plan Procedures (EPP's) describe processes for performing these notifications and contain the message format for transmitting information to local and State Emergency Operation Centers (EOCs). EPPs also describe maintenance of the CPNPP ERO Roster and the Emergency Facility Telephone Directory that lists emergency telephone numbers for offsite agencies and authorities.

Upon declaration of an emergency at CPNPP, the CPNPP ERO and the CPNPP Security Shift Supervisor are notified using either the plant page party system, the intraplant telephone system or commercial telephone (see Section 1.1.2 discussion of notification).

Offsite authorities are notified via dedicated telephone, commercial telephone or electronic communication.

More information regarding communication systems may be found in Section 4.

This plan section also describes how the populace within the 10-Mile Emergency Planning Zone (EPZ) is alerted to and advised of a CPNPP emergency by local officials.

3.1 NOTIFICATIONS

3.1.1 INITIAL NOTIFICATIONS

INITIAL notifications from CPNPP to local and State authorities are performed when the following conditions occur:

- Initial declaration of an emergency classification (Unusual Event, Alert, Site Area Emergency, General Emergency)
- Escalation of an emergency classification
- Initial Protective Action Recommendation (PAR)
- Change in a PAR
- Emergency termination

INITIAL notifications shall begin no later than fifteen (15) minutes after one of the above conditions are met.

INITIAL notifications are made to the following offsite authorities/locations:

- Somervell County EOC
- Hood County EOC
- Texas Department of Public Safety

INITIAL notifications, either verbal or via Notification Message Form, to Somervell County EOC, Hood County EOC, and DPS provide the following information:

- CPNPP Communicator's name
- Emergency Classification and Emergency Action Level (EAL) Identifier
- Warning of whether an emergency-related radiological release is occurring
- PARs, if any and if so, what sectors and Emergency Response Zones (ERZs) are affected.

The first Notification Message Form sent from CPNPP to offsite authorities is verified authentic as specified in the Texas Department of Public Safety Communications Operating Procedures.

3.1.2 NOTIFICATION OF NRC

The NRC Operations Center should be immediately notified after notification is made to those offsite authorities identified above. The NRC should always be notified within one hour after the emergency was declared.

3.1.3 FOLLOWUP NOTIFICATIONS

FOLLOWUP notifications are made to status ongoing emergency response efforts.

FOLLOWUP notifications are made to offsite authorities approximately every hour unless otherwise requested by these authorities.

In addition to information required for an INITIAL notification, the following information is provided in the FOLLOWUP notification:

- Meteorological conditions-wind velocity and direction; temperature, atmospheric stability data, and form of precipitation, if any, is provided if requested.
- IF needed, requests for onsite support.
- IF requested, by the Texas Department of State Health Services:
  a. Type of radiological material release (whether actual or projected): airborne, waterborne or surface spill and estimated or known release duration
  b. Estimated or known quantities of radioactive material released.

c. Point of release

d. Chemical and physical form of released material, including estimates of relative quantities and concentrations of noble gases, radioiodines and particulates.

e. Estimates or known quantities of radioactive surface contamination, onsite or offsite.

f. Actual or projected dose rates and integrated doses at the site boundary, and at two, five and 10 miles, and affected sectors and Emergency Response Zones (ERZs).

g. Prognosis for escalation or termination of emergency based on current plant information.

h. Licensee emergency response actions underway.

3.2 PUBLIC WARNING

An Alert and Notification System consisting of 72 sirens within the 10-Mile Emergency Planning Zone (EPZ) is owned, maintained and tested by Vistra OpCo in accordance with CPNPP Emergency Plan Procedures. The system was designed, installed and tested to meet the requirements of the Federal Emergency Management Agency (FEMA). The resident and transient population within the 10-mile EPZ is alerted to an emergency at CPNPP by the Alert and Notification System. Upon being alerted by this system, the populace has been informed to tune their radios to the primary Emergency Alert System (EAS) station to obtain current information and recommended protective actions.

The EAS provides emergency related information to the general public in the CPNPP area over radio station WBAP (820 AM) and other broadcast media which re-broadcast EAS messages provided by the primary station. CPNPP and state emergency response personnel provide protective action recommendations to local officials; however, information and instructions provided to the general public via the EAS originates from the county officials.

Local officials, primarily County Judges and County Sheriffs, authorize use of and are responsible for operating the Alert and Notification System and providing messages to the EAS stations. Preformatted EAS messages are included in county and State emergency plans.

Operation of the Alert and Notification System is accomplished from either county's Emergency Operations Center (EOC). Normally, each county EOC will operate those sirens within its jurisdiction; however, if needed, either EOC can operate the entire system. The 10-mile EPZ is divided into quadrants. Sirens located in each quadrant are programmed to a unique control code. Each quadrant can be activated independently; however, each siren can be operated individually for purposes of testing.

3.3 METHODS OF PROVIDING PUBLIC INFORMATION REGARDING PROTECTIVE ACTION MEASURES

Public warning, discussed above, is part of the mechanism for providing information to the public. Preceding and continuing into the CPNPP operations phase, emergency response information is provided to the public within the 10-mile EPZ. Local residents are provided printed media which

provides instructions for emergency actions. Information regarding emergency actions is also provided by printed media at various locations or establishments within the 10-mile EPZ, and in local telephone directories. Additional information about public information is provided in Section 5 of this plan.

4.0 EMERGENCY COMMUNICATIONS

Comprehensive communication systems are provided to ensure reliable intraplant communications, plant-to-offsite telephone and carrier communications, and offsite emergency response communications with public safety agencies. Table 4.1, "Communications Interfaces" describes CPNPP communication interfaces between each emergency response facility and various responding organizations and offsite agencies.

Effective communications between personnel during plant start-up, operation, shutdown, refueling and maintenance activities are provided by Intraplant Telephone System (ITS), sound-powered telephone, plant page-party system and two-way radio systems.

Emergency Plan Procedures provide instructions for notification of CPNPP emergency response personnel, and offsite organizations who respond to, or are required to be cognizant of, an emergency at CPNPP. Procedures also control emergency response personnel call lists and provide instructions for completing initial and follow-up notification messages to ensure accurate information is transmitted to offsite authorities.

Communications responsibilities for organizations are described in Table 4.2, "Emergency Response Communications Responsibilities and Interfaces." This table lists titles of individuals who have primary responsibilities for emergency response communications.

4.1 SYSTEM DESCRIPTION

The following systems comprise intraplant and plant-to-offsite communication systems for both units at CPNPP:

4.1.1 PUBLIC ADDRESS SYSTEM

The plant page-party system, part of the public address system, provides two independent channels of communication: page and party lines. Page-party line loud speakers are powered by individual amplifiers, and power to this system is supplied from a source which remains available in the event of a loss of offsite power.

The system layout allows Control Room personnel to announce emergency information to all plant areas and permanent buildings for both units. Similar capabilities exist in the Technical Support Center and the Emergency Operations Facility for use by Emergency Coordinators. This system also permits two-way communications between two or more locations. Speakers and microphone handsets are installed at locations vital to operation of the plant and safety of personnel. Voice paging channel output is audible over expected noise levels under normal and emergency conditions.

Four independent party lines are provided to permit communications between handset stations only, thereby making the plant and Control Room paging channel available to others. At least one independent party line, to be selected by the on-shift Control Room staff, should be dedicated for use during any ongoing emergency. All four party lines are available at all handset

stations, except those located in plant elevators where only one party line is available. Selection of a desired channel is achieved by a multi-position switch provided as part of the handset station. The page channels and the party line channels are independent and may be used simultaneously without interference.

4.1.2 INTRAPLANT TELEPHONE SYSTEM

The Intraplant Telephone System (ITS), is provided for uninterrupted private communication between virtually all areas of Comanche Peak Nuclear Power Plant.

The ITS is integrated with the public telephone system and configured such that a single failure in either does not affect safe and reliable operation of the other system. Power is supplied to the ITS from the non-ESF bus. When the Integrated Telephone System's normal AC power supply is lost, electric generators and battery backup power supply keep the ITS operational. In addition, a number of predetermined telephone stations which get their power from the public telephone system remain operable.

4.1.3 INTRAPLANT SOUND-POWERED TELEPHONE SYSTEM

A sound powered telephone system, independent of other communications systems and external power sources, is provided to serve three purposes: (1) provide communications in critical in-plant areas, (2) serve as backup to plant page-party system in critical in-plant areas, and (3) provide uninterruptible communication channels for maintenance, calibration, testing and refueling activities. This system provides standby communications capability and does not depend on external sources of power.

This system consists of three subsystems per unit as follows:

Subsystem One: Maintenance Loops - Consists of two-channel, hard-wired communications link between Control Room area and critical in-plant areas.

Subsystem Two: Refueling Loops - Consists of two-channel, hard-wired communications link between Control Room area and fuel handling areas. This subsystem is provided primarily for refueling operations.

Subsystem Three: Emergency Loops - Consists of a two-channel, hard-wired communications link between Remote Shutdown Panel and safety related equipment areas. Cables of this subsystem are routed in separate conduits from other subsystems. This subsystem is provided primarily for communications in the unlikely event the Control Room becomes uninhabitable.

The headset jack stations are located on panels in the Control Room and in critical areas.

Communications can be established between the Control Room and any local panel or between any two local panels by plugging the headsets into jack stations mounted in the Control Room, or in or near the panels. The number and location of sound-powered telephone system receptacles provide for sufficient communications to place the plant in hot shutdown or cold shutdown mode from the Control Room or Remote Shutdown Panel and other areas. The sound-powered telephone system can be used as backup to the plant page-party system in critical equipment

areas of the plant. One independent howler loop per unit is provided for sound-powered signaling.

4.1.4 INTRAPLANT RADIO TRANSMITTER-RECEIVER SYSTEM

Two-way radio transmitter-receiver systems, operating on unique wavelengths, is provided for emergency response communications between emergency response support personnel (e.g., onsite and offsite radiological monitoring teams and emergency repair and damage control teams) and various emergency response facilities. Details of this system can be found in the applicable Emergency Plan Procedure.

For the CPNPP Security Organization's use, separate communication channels of unique wavelength are provided to enable two-way radio communication between security posts and the various plant buildings. Portable transmitter-receivers are provided to Security personnel for communication between areas of the plant.

To improve reception in plant buildings, monitor receivers or coaxial slotted cables, or both, are installed where required. The radio transmitter carrier frequencies are chosen to preclude interference with radio controlled cranes and carrier frequencies used by the Switchyard remote supervisory carrier current equipment.

The intraplant radio system has been upgraded to carry the station operations frequency. This modification allows operations or maintenance personnel, as well as emergency response personnel, to use a radio inside station structures.

4.1.5 PUBLIC TELEPHONE SYSTEM

The public telephone system is interconnected to the Intraplant Telephone System. This permits access to the public telephone system from virtually any area within Comanche Peak Nuclear Power Plant.

4.1.6 OTHER TELEPHONE LINES

A number of trunk lines provide direct communications between offsite locations and various CPNPP facilities. These lines allow offsite emergency response organizations to contact CPNPP emergency response personnel at any time to verify initial communications and to establish, if necessary, communications with their personnel and facilities stationed onsite; allow CPNPP radiological monitoring teams to transmit field data should their radio fail, and allow the general public direct access to CPNPP Public Information personnel manning rumor control telephones.

4.1.7 EMERGENCY EVACUATION ALARM SYSTEM

The emergency evacuation alarm is generated by a solid state multifrequency audio oscillator capable of producing five distinctive tones which can be heard over all plant paging zones, except the Control Room, via the plant page-party system. The evacuation alarm is a pulse tone at a frequency of 475 (±25) hertz at a rate of 4.5 (±0.5) cycles/sec. This tone meets specifications described in ANSI/ANS 2.3-1979 and Regulatory Guide 8.5.

The emergency evacuation alarm system, including the multifrequency audio oscillator, is powered by a source which remains available in the event of a loss of offsite power and provides a unique alarm signal to prompt personnel evacuation in the event of an emergency. This alarm

is initiated by the Control Room operator in the event that a site evacuation is ordered by the Emergency Coordinator.

4.1.8 DIRECT LINE TO STATE AND LOCAL EMERGENCY OPERATIONS CENTERS

A dedicated line has been established that simultaneously links CPNPP with the Texas Department of Public Safety, the Somervell County Emergency Operations Center and the Hood County Emergency Operations Center. When a call has been initiated, the other telephones ring until answered. Communications by CPNPP individuals, unrelated to an emergency, exercise/ drill, system test or Public Information notification shall not be conducted on this line.

4.2 FEDERAL TELECOMMUNICATIONS SYSTEM

The Federal Telecommunications System (FTS) is an independent phone link used for communications between CPNPP and the NRC. At CPNPP, the FTS lines are used as the Emergency Notification System (ENS), Health Physics Network (HPN), and for NRC personnel communications. Extensions to the FTS are in the Control Room, Technical Support Center (TSC) and Emergency Operations Facility (EOF). A communications equipment test shall be conducted monthly in accordance with applicable Emergency Plan Procedures and shall involve the ENS telephone in the Control Room and the ENS and HPN telephones in the TSC and EOF. Wireless handsets and/or headsets are provided for some dedicated FTS circuits in the CR, TSC, and EOF.

4.3 ELECTRONIC COMMUNICATION

Electronic communications capability is provided between the Control Room, Technical Support Center, Emergency Operations Facility, Operations Support Center, Corporate Office, NRC, state agencies and local county Sheriff's offices.

4.4 AUTODIAL CALLING SYSTEM

An automatic dialing system is one of the methods used to call-out Emergency Response Personnel. The system is used at an Alert or higher class emergency. As an individual is contacted, a message is played informing that an emergency is in progress and of the action(s) which should be taken. This system uses multiple telephone lines to contact the response organization. Should this system fail to operate, a backup notification method shall be used to contact emergency personnel.

TABLE 4.1
COMMUNICATIONS INTERFACES
PAGE 1 OF 1

	Control Room	Technical Support Center	Operations Support Center	Emergency Operations Facility	JIC	Security
Control Room		A, C, D, E, F, G	A, B, F, G	A, B, C, D, F, G	A, G	A, F
Technical Support Center	A, C, D, E, F, G		A, B, F, G	A, B, C, D, F, G	A, G	A, F
Operations Support Center	A, B, F, G	A, B, F, G		A, B, F, G		A, F
Emergency Operations Facility	A, B, C, D, F, G	A, B, C, D, F, G	A, B, F ,G		A, G	A, F
JIC	A, G	A, G		A, G		
Security	A, F	A, F	A, F	A, F		
NRC Regional Incident Resp Ctr	A, D, G	A, D, G		A, D, G		
NRC Operations Center	A, D, G	A, D, G		A, D, G		
Dept of Public Safety	A, C, G	A, C, G		A, C, G	A	
Texas Department of State Health Services, Austin		A, G		A, G	A	
Hood County EOC	A, C, G	A, C, G		A, C, G	A	A, B
Somervell County EOC	A, C, G	A, C, G		A, C, G	A	A, B
Offsite Support Agencies and Off-duty personnel	A	A		A		A
Access Control		A	A, F			
Onsite/Inplant Survey Teams		B, E, F	B, F			
Offsite Monitoring Teams			A, B	A, B		
System Dispatcher	A, H					
Corporate Security				A		A
Vistra OpCo Divisions		A, G		A, G		
Uninvolved Government Officials				A		
Offsite Support Contractors				A		
INPO and Other Utilities		A, G		A, G		

A	Telephone	E	Sound-Powered Telephone
B	Two-way radio	F	Plant Page-Party System/All-Page
C	State/County Dedicated System	G	Electronic Communication
D	Federal Telecommunications System	H	Point-to-point

Note: This table shows communication interfaces between organizations which normally communicate with one another. If no communication is expected between organizations, then no interface is shown.

TABLE 4.2
EMERGENCY RESPONSE COMMUNICATIONS
RESPONSIBILITIES AND INTERFACES
PAGE 1 OF 1

Emergency Response Facility/Organization	Primary Responsibility	Interface
Control Room	Shift Manager	Control Room personnel
Technical Support Center	TSC Manager	Communicator
Emergency Operations Facility	EOF Manager	Communicator
Operation Support Center	OSC Manager	ERDC Coordinator
Onsite Survey Teams	OSC Manager	ERDC Coordinator
Offsite Monitoring Teams	EOF Radiation Protection Coordinator	Offsite Monitoring Team Director
Hood County Emergency Operations Center	County Sheriff	Dispatcher
Somervell County Emergency Operations Center	County Sheriff	Dispatcher
Texas Department of Public Safety	Communications Supervisor	Dispatcher
NRC Operations Center	Duty Officer	Duty Officer
NRC-Region IV	Duty Officer	Duty Officer
Lake Granbury Medical Center	Hospital Administrator	Hospital Operator

NOTE: The individual delegated responsibility for communications is not required to operate the equipment.

5.0 PUBLIC EDUCATION AND INFORMATION

A public information program has been developed with state and local governments to inform the public within the 10-mile Emergency Planning Zone (EPZ). Emergency information is provided annually to residents through the distribution of printed media as decided by Vistra OpCo management; information is provided annually to the transient population by placement of posters and distribution of printed media to selected local businesses, public buildings, recreational areas, etc.

The information provided addresses the following:

- Method of public notification
- Protective actions
- Instructions for evacuation
- A map of the EPZ showing evacuation zones and routes
- The location of Relocation Centers
- Primary EAS station that broadcasts emergency information
- Telephone numbers for obtaining information
- A method for those with special needs to inform the local responsible agency of their location and the nature of the special assistance required.
- Educational information on radiation

The news media is provided information and offered training annually about emergency plans, radiation and contact points for information during an emergency.

5.1 PUBLIC INFORMATION RELEASES DURING EMERGENCY CONDITIONS

In the event of an emergency, press briefings may be conducted at the Joint Information Center. Press briefings are coordinated with federal, state and local public information personnel. Any emergency related public information releases shall be made in accordance with Emergency Plan Procedures.

5.2 RUMOR CONTROL

Telephones are established for rumor control. During an emergency, personnel use these telephones as part of the public information response.

6.0 EMERGENCY FACILITIES AND EQUIPMENT

This section describes emergency response facilities and equipment used by the CPNPP Emergency Response Organization in the event an emergency is declared at CPNPP.

Facility activation is dependent on the emergency classification declared; however, the Emergency Coordinator has the option of activating one or all of the CPNPP emergency response facilities at an emergency classification less severe than that prescribed in Emergency Plan Procedures. Details regarding activation and staffing of each emergency response facility are provided in the Emergency Plan Procedures.

6.1 CONTROL ROOM

6.1.1 FUNCTION

The Control Room (CR) is the onsite location from which the CPNPP is operated. The CR is also the location where the initial assessment and coordination of corrective actions for emergency conditions takes place.

6.1.2 LOCATION

The CR is located at elevation 830' 0" of the Control Building.

6.1.3 STAFFING AND TRAINING

The CR, because of its role in normal Station operations, is always staffed and functional. The staffing requirements and responsibilities of CR personnel are discussed in Section 1.1.2.1. Table 1.1 shows the staffing requirements for emergencies. Figure 1.2 shows an organizational chart of the CR staff.

Training of CR staff is referenced in Section 13.0.

6.1.4 HABITABILITY

The habitability system for the CR is described in FSAR Section 9.4.1, "Control Room Area Ventilation System". The CR is designed to be habitable following design basis accidents (See FSAR Section 15.6.5.4.). Details of CR habitability are presented in the CPNPP Design Basis Documents (DBDs).

6.1.5 COMMUNICATIONS

The communication system for the CR is described in Section 4.0 and Table 4.1.

Emergency response personnel in other emergency facilities interface with the CR staff through the Technical Support Center. Only personnel performing activities coordinated directly by the CR staff communicate directly with the CR.

6.2 TECHNICAL SUPPORT CENTER

6.2.1 FUNCTION

The CPNPP Technical Support Center (TSC) provides the following functions:

- Provide plant management and technical support to plant operations personnel during emergency conditions.
- Relieve the control room operators of peripheral duties and communications not directly related to reactor system manipulations.
- Prevent congestion in the control room.
- Perform Emergency Operations Facility (EOF) functions until the EOF is activated.
- Serve as primary communications center for the plant during the emergency.
- Provide technical support during recovery operations following an emergency.

The TSC is the emergency operations work area for designated technical, engineering and senior management personnel, and a small staff of NRC personnel. The TSC Manager uses the resources of the TSC to provide guidance and technical assistance to the Control Room during an emergency. The TSC has facilities to support plant management and technical personnel who will be assigned there during an emergency.

6.2.2 LOCATION

The TSC is located above the Control Room, at elevation 840’ 6” of the Control Building. The TSC and CR are connected by a common stairwell, which may provide face-to-face interaction between CR personnel and the TSC Manager. TSC personnel have access to information in the CR that is not available through the TSC data system.

The stairwell between the TSC and CR is located outside the CR environment; therefore, provisions have been made for safe and timely movement of personnel under emergency conditions. These provisions include considerations of effects of direct radiation and airborne radioactivity from inplant sources.

There are no major security barriers between the TSC and CR, other than access stations at each facility.

6.2.3 STAFFING AND TRAINING

Personnel assigned to the TSC are notified at an Alert or higher emergency classification and should activate the facility as soon as possible with a goal of sixty (60) minutes in accordance with Emergency Plan Procedures. Activation of the TSC ensures only designated operating personnel are in the CR and that needed technical support is provided without obstructing plant manipulations or overcrowding the CR.

The staffing requirements and responsibilities of TSC personnel are discussed in Section 1.1.2.2. Table 1.1 shows the staffing requirements for emergencies. Figure 1.3 shows an organizational chart of the TSC staff.

Training of TSC staff is referenced in Section 13.0.

6.2.4 SIZE

The TSC is located in an area that is large enough to provide:

- Work space for the personnel assigned to the TSC.
- Space for the TSC Data Display Equipment.
- Space for unhindered access to communication equipment by all TSC personnel.
- Space for storage of and/or access to plant records and historical data.
- A separate room for private NRC consultations.

The TSC working space is sized for 25 persons, including five NRC personnel. The TSC floor space is approximately 1500 sq. ft.

6.2.5 STRUCTURE

The TSC is located in a Seismic Category I structure, which is able to withstand the most adverse conditions expected, including earthquakes, high winds, and floods.

6.2.6 HABITABILITY

The Habitability System for the TSC is the same system that is provided for the CR. See Sections 6.1.4 and 6.6 for a more detailed description of facility habitability.

6.2.7 COMMUNICATIONS

The communication system for the TSC is described in Section 4.0 and Table 4.1.

6.2.8 INSTRUMENTATION, DATA SYSTEM EQUIPMENT, AND POWER SUPPLIES

The TSC Data System is provided as part of the integrated Emergency Response Facility (ERF) Computer System. The ERF Computer System gathers, stores, and displays data needed in the TSC to analyze the plant conditions. The TSC Data System performs its function independent of action in the CR and without degradation or interfering with CR and plant functions. Details of the ERF Computer System are described in FSAR Section III.A.1.2 and the CPNPP DBDs.

6.2.9 RECORDS AVAILABILITY AND MANAGEMENT

The TSC has a repository of plant records and procedures at the disposal of the TSC personnel to aid in their technical analysis and evaluation of emergency conditions. The following reference material is provided in the TSC:

- CPNPP FSAR
- Plant Technical Specifications
- Operating Instructions, Both Normal and Emergency
- Technical Manuals
- As-Built Drawings

6.3 OPERATIONS SUPPORT CENTER

6.3.1 FUNCTION

The Operations Support Center (OSC) is the onsite emergency response staging area separate from the CR and TSC, where operations support personnel assemble and are dispatched during an emergency. The OSC functions to:

- Provide a location where plant support can be coordinated during an emergency.
- Restrict CR access to support personnel specifically requested by the Shift Manager.

6.3.2 LOCATION AND SIZE

The OSC is located in the office space in the Control Building on the 810' elevation. This location provides immediate access to the plant as well as the TSC.

6.3.3 STAFFING AND TRAINING

Personnel assigned to the OSC are notified at an Alert or higher emergency classification and should activate the facility as soon as possible with a goal of sixty (60) minutes in accordance with Emergency Plan Procedures.

The staffing requirements and responsibilities of OSC personnel are discussed in Section 1.1.2.2. Table 1.1 shows the staffing requirements for emergencies. Figure 1.4 shows an organizational chart of the OSC staff.

Training of OSC staff is referenced in Section 13.0.

6.3.4 HABITABILITY

The OSC has the same habitability conditions as the Turbine Building but is monitored for airborne radioactivity and external (gamma) radiation (see Section 6.6). If the OSC should be unavailable for use or require evacuation, personnel should be relocated to a safe area as specified by the Emergency Plan Procedures.

6.3.5 COMMUNICATIONS

The communication system for the OSC is described in Section 4.0 and Table 4.1.

6.4 EMERGENCY OPERATIONS FACILITY

6.4.1 FUNCTION

The CPNPP Emergency Operations Facility (EOF) is the emergency response facility which provides the following functions:

- Management of overall CPNPP response during an emergency condition.
- Coordination of radiological and environmental assessment.
- Determination of recommended public protective actions.
- Coordination of emergency response activities with federal, state, and local agencies.

The EOF is equipped with technical data displays to assist EOF personnel in diagnosis of plant conditions and to evaluate potential or actual release of radioactive materials to the environment.

6.4.2 LOCATION

The EOF is located in the Nuclear Operations Support Facility (NOSF) which is 1.2 miles west of the reactor site.

6.4.3 STAFFING AND TRAINING

Personnel assigned to the EOF are notified at an Alert or higher emergency classification and should activate the facility as soon as possible with a goal of sixty (60) minutes if a Site Area or General Emergency is declared in accordance with Emergency Plan Procedures.

When the EOF is activated, security protection will be upgraded to restrict access to those personnel assigned to the facility.

The staffing requirements and responsibilities of EOF personnel are discussed in Section 1.1.2.2. Table 1.1 shows the staffing requirements for emergencies. Figure 1.5 shows an organizational chart of the EOF staff.

Training of EOF staff is referenced in Section 13.0.

6.4.4 SIZE

The EOF is large enough to provide the following:

- Work space for the personnel assigned to the EOF.
- Space for the EOF Data Display Equipment.
- Space for unhindered access to communication equipment by all EOF personnel.
- Space for storage of and/or access to plant records and historical data.
- A separate room for private NRC consultations.

The EOF working space is sized for 45 persons, including federal, state, and local emergency response personnel. The EOF floor space is approximately 3,200 sq. ft.

The EOF has been designed and is equipped to support continuous operations over an extended period of time.

6.4.5 STRUCTURE

The EOF is a well engineered building meeting the Uniformed Building Code. It is designed for the expected life of the plant. The walls and ceilings are approximately eight (8) inches of concrete. The ventilation system and structure are not seismically qualified.

6.4.6 HABITABILITY

The EOF has special shielding and ventilation provisions for habitability. The EOF is shielded to provide a gamma protection factor of $\geq$15. The dedicated ventilation system has a High Efficiency Particulate (HEPA) filter which filters the incoming air. The ventilation system maintains a slight positive pressure in the EOF.

Should evacuation of the EOF be required, the Alternate Emergency Operations Facility, located in the Daffan Industrial Park on Hwy 51 north of Granbury in Hood County may be used as an alternate location. This facility provides for continuity of EOF dose prediction and decision making functions using a combination of dedicated and portable backup equipment. Radiological assessment activities may be relocated to the state's mobile radiological laboratory.

6.4.7 COMMUNICATIONS

The communication system for the EOF is described in Section 4.0 and Table 4.1.

6.4.8 INSTRUMENTATION, DATA SYSTEM EQUIPMENT, AND POWER SUPPLIES

The EOF Data System is provided as part of the integrated Emergency Response Facility (ERF) Computer System. The ERF Computer System gathers, stores, and displays data needed in the EOF to analyze the plant conditions. The EOF Data System performs its function independent of action in the CR and without degradation or interfering with CR and plant functions. Details of the ERF Computer System are described in FSAR Section III.A.1.2 and the CPNPP DBDs.

6.4.9 RECORDS AVAILABILITY AND MANAGEMENT

The EOF has ready access to plant records, procedures, and emergency plans needed to exercise overall management of CPNPP emergency response resources. The EOF reference material includes:

- CPNPP FSAR
- Plant Technical Specifications
- Operating Instructions, Both Normal and Emergency
- Off-site Population Distribution Data
- Evacuation Plans

6.5 JOINT INFORMATION CENTER

6.5.1 FUNCTION

The function of the JIC is to provide a single contact point at CPNPP for dissemination of emergency related information to the news media.

6.5.2 LOCATION

The JIC is located in Granbury, Texas at the Granbury City Hall, 116 W. Bridge, which is greater than 10 miles from the reactor site.

6.5.3 STAFFING AND TRAINING

Personnel assigned to the JIC are notified at an Alert or higher emergency classification and should activate the facility as soon as possible with a goal of sixty (60) minutes if a Site Area or General Emergency is declared in accordance with Emergency Plan Procedures.

The staffing requirements and responsibilities of JIC personnel are discussed in Section 1.1.2.2. Table 1.1 shows the staffing requirements for emergencies. Figure 1.6 shows an organizational chart of the JIC staff.

Training of JIC staff is referenced in Section 13.0.

6.5.4 SIZE

The JIC is large enough to provide for the following:

- Working space for the personnel assigned to the JIC.
- Space for unhindered access to communications equipment by all JIC personnel.
- Space for accommodating 75 media personnel.

6.5.5 HABITABILITY

There are no special habitability provisions taken for the JIC.

6.5.6 COMMUNICATIONS

The communication system for the JIC is described in Section 4.0 and Table 4.1.

6.6 EMERGENCY RESPONSE FACILITIES RADIOLOGICAL HABITABILITY

In addition to the habitability provisions provided for each facility, the TSC, OSC, and EOF are monitored for airborne radioactivity and external (gamma) radiation.

For radioiodines, portable equipment capable of continuously detecting radioiodine air activity as low as 1.0E-07 microcuries per cubic centimeter ($\mu Ci/cc$) is used.

Noble gas (external gamma exposure) is continuously monitored using a gamma detection device set to alarm at a predetermined exposure rate or dose.

6.7 LABORATORY FACILITIES IN EOF-NOSF (THIS SECTION HAS BEEN DELETED)

6.8 OTHER RADIOLOGICAL LABORATORY SUPPORT

In addition to chemical and radiochemical laboratory facilities located at CPNPP, the following resources are available to Vistra OpCo in support of emergency response activities:

- Texas Department of State Health Services mobile laboratory. (See Section 1.2.4)
- Chemical and radiochemical laboratory facilities of neighboring nuclear utilities as coordinated by INPO.
- South Texas Project. (See Section 1.2.3)

6.9 DECONTAMINATION FACILITIES

The in-plant decontamination facility is described in FSAR Section 12.5.2.2.

An offsite decontamination facility illustrated in Figure 6.1 is located in the Nuclear Operations Support Facility (NOSF) for use during emergency situations. Suitable decontaminants and clothing are provided. Water used for decontamination at the NOSF decontamination facility can be retained in a separate storage tank for later sampling, and if required, processing. Any solid waste generated as a result of decontamination activities shall be introduced into the Station radioactive waste processing system when appropriate.

6.10 ONSITE EMERGENCY AID FACILITIES

Onsite first aid capabilities are described in Sections 10.2 and 10.3.

6.11 EMERGENCY EQUIPMENT AND SUPPLIES

Each emergency response facility, as well as local hospitals and the NOSF, is supplied with emergency equipment and supplies suitable to the response expected from that facility. Section 15.0, Appendix J provides a representative listing of the emergency equipment and supplies maintained.

Inspections of the operational readiness of emergency equipment and supplies are conducted quarterly and after use. Deficiencies noted during inspections are corrected. Use of inspection checklists and follow-up actions ensures that equipment is ready for use. Sufficient reserves of equipment are maintained to replace those undergoing calibration or repair.

6.12 STATE AND LOCAL EMERGENCY OPERATIONS CENTERS

The State of Texas Emergency Operations Center (EOC) is located at Headquarters, Department of Public Safety in Austin. This facility is not continuously staffed. Its activation is at Site Area Emergency or higher classification in accordance with the Texas Emergency Management Plan.

The two county EOC's, within the 10-Mile Emergency Planning Zone, are located in county law enforcement centers. The Hood County EOC is in Granbury and the Somervell County EOC is in Glen Rose. These law enforcement centers are continuously staffed. County EOC activation is

at Site Area Emergency or higher classification in accordance with the respective county Manual of Emergency Procedures.

6.13 ASSESSMENT SYSTEMS AND EQUIPMENT

The following paragraphs identify systems and equipment to be used by the CPNPP Emergency Response Organization to assess plant systems status, inplant, onsite and offsite radiological conditions, and overall safety status of the plant.

6.13.1 SAFETY PARAMETER DISPLAY SYSTEM

The Safety Parameter Data System (SPDS) is designed to provide indications to detect the approach to, the existence of, and the recovery from inadequate core cooling. The SPDS also provides a minimum set of parameters from which abnormal plant operating conditions may be quickly assessed. The SPDS data is displayed in the CR, TSC, and EOF.

A detailed description of the SPDS system is given in FSAR Section III.A.2.1.

6.13.2 EMERGENCY RESPONSE FACILITY COMPUTER SYSTEM

See Sections 6.2.8 and 6.4.8.

6.13.3 RADIATION MONITORING SYSTEM

The CPNPP Radiation Monitoring System (RMS) is comprised of the following subsystems:

- Area Radiation Monitoring System (ARMS), which continually monitors radiation fields in various areas within the plant. The ARMS is described in Section 12.3.4 of the FSAR.

- Process Radiation Monitoring System (PRMS), which provides a means for assessing radioactivity levels in plant process and effluent streams. The PRMS is described in Section 11.5.1.2 of the FSAR.

The RMS data is displayed in the CR, TSC, OSC, and EOF.

6.13.4 HEALTH PHYSICS INSTRUMENTATION

The CPNPP Radiation Protection Department maintains a supply of health physics laboratory and portable survey equipment. While this equipment is used routinely during normal station operations, it is also available to supplement the emergency response radiological monitoring equipment. FSAR Table 12.5-1 provides a listing of the health physics laboratory and portable survey equipment routinely maintained at CPNPP.

6.13.5 METEOROLOGICAL MEASUREMENTS PROGRAM

The Meteorological Measurements Program is designed to measure the parameters needed to evaluate the dispersive characteristics of the site for both the routine operational and the hypothetical accidental releases of radionuclides to the atmosphere. The program is described in detail in Section 2.3.3 of the FSAR.

The meteorological data can be displayed in the CR, TSC, and EOF.

The National Weather Service office in Fort Worth is contacted if additional meteorological data or forecasts are required. The National Weather Service also provides back-up meteorological information during emergencies.

6.13.6 SEISMIC INSTRUMENTATION

Seismic instrumentation is provided so that in case of an earthquake, it can be quickly determined whether the OBE has been exceeded and it is required to shutdown both units.

The instrumentation is described in Section 3.7B.4 of the FSAR. A schematic diagram is presented in FSAR Figure 3.7B-54.

Recorded information is available in the CR.

6.13.7 HYDROLOGICAL MONITORING

Hydrological monitoring equipment installed at CPNPP provides data on the water level in Squaw Creek Reservoir. Operations personnel provide this information to the Control Room. Lake level may also be determined using SSI level indication available in the Control Room.

Based on information contained in Section 2.0 of both the CPNPP FSAR and Environmental Report, which discuss low probability of a significant hydrological event occurring within the CPNPP area, the requirement for accessing offsite hydrological monitoring equipment is considered unnecessary.

6.13.8 PROCESS MONITOR INSTRUMENTATION

FSAR Table 7.2-3 lists the principle reactor trip system instrumentation, and FSAR Table 7.5-1 summarizes main control board indications available to CR personnel.

6.13.9 FIRE DETECTION INSTRUMENTATION

A complete description of the CPNPP Fire Protection Program is provided in the CPNPP FSAR, Section 9.5.1, and Fire Protection Report.

6.13.10 ENVIRONMENTAL RADIOLOGICAL MONITORING PROGRAM

The CPNPP Environmental Radiological Monitoring Program is described in the CPNPP Offsite Dose Calculation Manual.

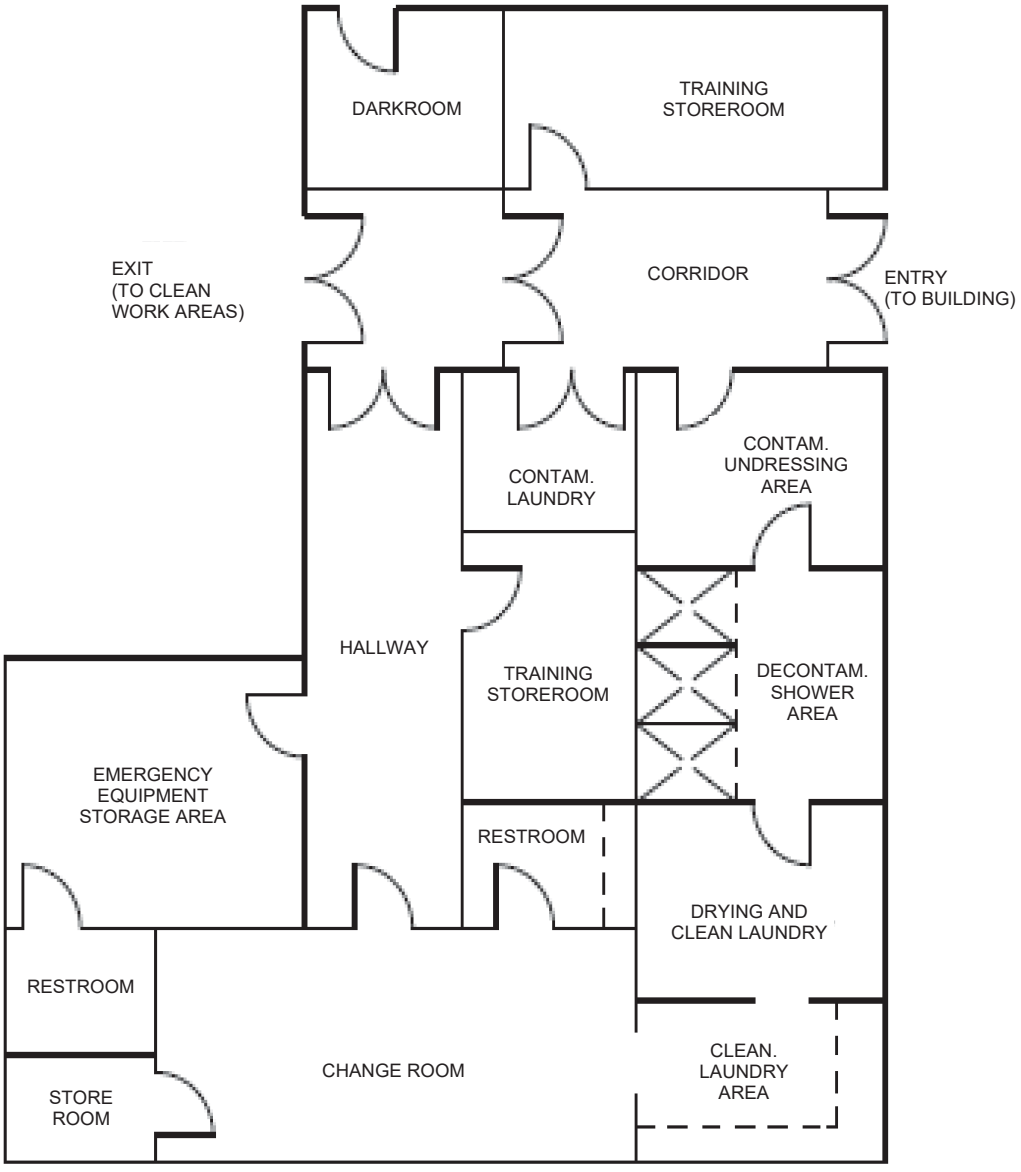
6.14 ALTERNATIVE FACILITY

The alternative facility is accessible even if the site is under threat of or experiencing a hostile action. The alternative facility provides the following functions:

- Staging area for augmentation of the emergency response staff;
- Communications with the EOF, Control Room and plant security;
- Perform offsite notifications; and

- Engineering assessment activities, including damage control team planning and preparation.

The alternative facility and its location are described in the Emergency Response Facility implementing procedures.



COMANCHE PEAK NUCLEAR POWER PLANT **EMERGENCY PLAN**
EMERGENCY OPERATIONS DECONTAMINATION FACILITIES IN THE NUCLEAR OPERATIONS SUPPORT FACILITY
FIGURE 6.1

7.0 ACCIDENT ASSESSMENT

Initial response to an emergency at CPNPP is from the Control Room. Abnormal events observed in or near plant facilities are reported to Control Room personnel, who take appropriate actions to correct the problem. The Control Room staff has numerous assessment tools available to aid in diagnosing problems and to assist in placing the plant in a safe and stable condition.

Primary systems used in assessment of any radiological incident are the Digital Radiation Monitoring System (DRMS) and Emergency Response Facility Computer System (ERFCS). The DRMS and ERFCS are used by the plant operating staff to analyze steady state and dynamic behavior of plant systems and to classify the emergency. Proper assessment and classification of the emergency is important not only to accident mitigation, but also to ensure proper resources and predetermined protective measures are employed to protect plant personnel and the public. Upon recognition of an abnormal or emergency condition, plant operations personnel implement prearranged response procedures. The Control Room staff evaluates conditions and, if appropriate, classifies the emergency into one of four Emergency Classifications. To accomplish this, operational parameters and radiation monitoring instrument readings, or other symptoms indicative of system degradation would be evaluated against the Emergency Action Level criteria. These criteria are provided in the appropriate Emergency Plan Procedures. The Emergency Action Levels provided in these procedures are based on instrument readings or identified abnormal conditions which relate to the classification.

If core damage is suspected, appropriate procedures may be used to estimate the extent of damage. A core damage assessment procedure is provided in the Emergency Plan Procedures.

A contingency sampling plan that may be used post-accident for obtaining potentially useful information about liquids or gases inside containment has been developed and is maintained in Chemistry procedures.

The following provides a general description of the capabilities and resources available to emergency response personnel in evaluating onsite and offsite radiological conditions during an emergency.

7.1 COMPUTER ASSESSMENT OF RADIOLOGICAL CONDITIONS

The DRMS and ERFCS receive data from the Area Radiation Monitoring System (ARMS) and Process Radiation Monitoring System (PRMS). DRMS data provides radioactive materials source term and release rate information.

The ERFCS also collects and stores meteorological data. This data is used by dose assessment personnel to calculate offsite doses which are provided to the Emergency Coordinator to help formulate offsite protective action recommendations.

7.2 CALCULATION OF OFFSITE DOSES

A computer-based dose projection program is used to estimate the offsite consequences of a radiological release from CPNPP to the surrounding public. The dose assessment program is site specific and consists of a straight-line Gaussian plume model for initial dose projections within the Plume Exposure Emergency Planning Zone (EPZ) and a separate segmented-plume model for tracking of wind shifts and plume deposition over portions of the Ingestion Exposure EPZ. This program can use system parameters from the Plant Computer System (PCS),

radiation monitor instrument readings from the Radiation Monitoring System (RMS), or the results from in-plant sampling to estimate the source term and release rate. These values are then used, with meteorological parameters from the PCS, to estimate plume location and calculate projected doses to the public. If system or monitor parameters are unavailable, default or estimated information can be used to generate dose projections. Once information becomes available from the offsite survey teams, this data may be used by the software to update projected doses and plume location based on field observations.

The dose projection program provides terminology and concepts consistent with 10CFR20 requirements and EPA-400 guidance.

Dose projections are used by radiological assessment personnel for development of protective action recommendations, to predict plume location for dispatching and control of Offsite Field Teams, as well as estimating the dose received by persons exposed to the plume. Once field data becomes available from CPNPP onsite radiological survey teams and offsite radiological monitoring teams, projected dose information is reevaluated and protective action recommendations to offsite officials are updated as required.

Computers are provided in the appropriate emergency facilities to enable backup means of performing dose assessment. Wall maps of the area which are used for plume tracking and field team placement are maintained in the TSC and EOF. Wall maps are not available in the Control Room, since it is not likely Control Room personnel would be directing field teams.

7.3 ONSITE AND OFFSITE RADIOLOGICAL CONDITIONS

In the event of an uncontrolled release of radioactive materials, the protection of onsite personnel shall be given as high a priority as is given for protection of the general public. A release to the environment is normally monitored by permanently installed, real-time monitoring instruments located at effluent release points. Information from these monitors will be used to predict onsite and offsite radiological conditions, thus reducing the potential for unexpected or unnecessary exposure to radiation. Radiation hazards within plant structures are also monitored by area radiation monitors which provide data regarding specific areas of the plant to the plant staff. To further aid in assessing potential onsite radiation hazards, in-plant and onsite radiological survey activities will be conducted to determine whether additional protective actions should be taken for protection of personnel remaining on site.

7.3.1 ONSITE RADIOLOGICAL ASSESSMENT

Initially, during an emergency condition, the on-shift Radiation Protection and Chemistry Technicians perform onsite and in-plant radiological assessment, and sampling activities, respectively, as directed by the Shift Manager.

Once the TSC is activated, responsibilities for onsite and offsite radiological assessment and survey activities shall be assumed by the TSC Onsite Radiological Assessment Coordinator. As CPNPP Emergency Organization personnel become available, onsite radiological survey teams shall be formed as required and dispatched from the OSC. Onsite Survey Teams initially shall be composed of at least two members, at least one of which shall be a Radiation Protection technician. The Onsite Survey Team(s) perform required onsite and in-plant surveys in accordance with approved Emergency Plan Procedures.

Once the EOF is activated, overall responsibility for offsite radiological assessment shall be assumed by the EOF Radiation Protection Coordinator.

Communications between the Control Room, TSC, OSC, EOF and the Onsite Survey Team(s) shall be conducted in accordance with Section 4.0 of this plan.

Transportation for Onsite Survey Team(s) is provided in accordance with Emergency Plan Procedures. Based on arrival time(s) of CPNPP Emergency Organization personnel, Onsite Survey Teams should be deployed within 15 to 30 minutes after arrival on site. Deployment time may vary due to duration of onsite briefing session, time required to obtain protective clothing and equipment and time required to prepare for entry into plant environs.

7.3.2 OFFSITE RADIOLOGICAL ASSESSMENT

Once the EOF is activated, the EOF Radiation Protection Coordinator assumes responsibilities for coordinating offsite radiological assessment and monitoring activities. Each Offsite Radiological Monitoring Team should be composed of at least two members, one of which shall be Offsite Radiological Monitor trained and qualified to perform monitoring activities.

In the event that dose projection or onsite monitoring results indicate the potential for radioactivity release with offsite dose consequences, a Radiological Offsite Monitoring Team can be dispatched. Deployment time for the first offsite team dispatched is estimated to be within 60 to 90 minutes of an Alert or higher classification. This time includes team arrival, equipment check out and receiving a brief on expected radiological conditions.

The EOF Radiation Protection Coordinator and his staff dispatch Offsite Radiological Monitoring Teams to preselected points in affected downwind sectors. Offsite environmental monitoring locations are identified in Plant Procedures. At preselected points, the team should perform external dose measurements, obtain air samples, determine contamination levels and obtain vegetation and liquid samples as required. From this point the team can be moved to determine the plume boundary, centerline of the plume and other factors necessary to determine impact of the release on the public and environment. This monitoring shall continue, as required, during the emergency so the need for protection measures can be quickly assessed.

Communications between the OSC, EOF, and Offsite Monitoring Teams shall be conducted in accordance with Section 4.0 of this plan.

Transportation for Offsite Radiological Monitoring Teams shall be provided in accordance with Emergency Plan Procedures. Deployment times may vary due to duration of the onsite briefing session, time required to obtain protective clothing and equipment and time to check equipment, if required.

CPNPP Offsite Radiological Monitoring Teams shall be equipped with two-way radios, survey equipment, including dose rate meters and air samplers, protective clothing and other equipment needed to evaluate radiological hazards under emergency conditions. This equipment shall allow for field evaluation of air samples and detection of radioiodine concentrations as low as 1×10^{-7} uCi/cc.

8.0 PROTECTIVE RESPONSE

Protective response represents actions taken for emergency workers and the public based on the emergency classification and the resulting assessment of plant status and radiological conditions. Guidelines for the choice of protective actions are provided in this section, including methods to notify the population-at-risk of the emergency.

8.1 ONSITE PROTECTIVE ACTIONS

Onsite plant personnel and visitors are warned of an emergency at CPNPP by announcements and alarms broadcast over the plant page-party system.

Personnel arriving or remaining onsite are to be notified of protective measures and shall be provided protective equipment, as necessary, depending on the actual radiological conditions existing during the emergency.

8.1.1 EVACUATION

During an emergency at CPNPP, the Emergency Coordinator may choose to evacuate certain areas, buildings, or the entire site. This decision to evacuate is made by the Emergency Coordinator based on the action that presents the least risk to non-essential personnel.

During an area or building evacuation, non-essential personnel should leave the affected area or building and report to the designated assembly area. Designated assembly areas include:

- Containment Building - shield wall outside containment hatch

- Radiation Controlled Area (RCA) - outside access control

- Protected Area (PA) - outside the Primary and/or Alternate Access Points

Personnel in buildings outside the Protected Area should use normal fire evacuation assembly areas.

During all evacuations, visitors are to remain with their escort until they are outside the affected area.

At a SITE AREA EMERGENCY classification or above, the Emergency Coordinator should order a site evacuation. This site evacuation includes the Exclusion Area, Squaw Creek Park, and Squaw Creek Reservoir. Should a site evacuation be ordered, non-essential personnel shall depart the site, preferably using normal site egress routes, as directed by the Emergency Coordinator. Personnel with Emergency Organization assignments shall report to their designated Emergency Response facility, unless otherwise directed.

During a site evacuation, station security personnel shall control access to the exclusion area.

8.1.2 ACCOUNTABILITY

Security is responsible for an initial accountability of all personnel within the Protected Area within approximately 30 minutes after the evacuation alarm has sounded. Security shall report

results of the initial accountability and attempt to locate missing personnel as specified by plant procedures.

After initial accountability, continuous accountability should be maintained in each onsite facility.

8.1.3 MONITORING OF EVACUEES

During a site evacuation, if the evacuees are potentially contaminated, the Emergency Coordinator should direct evacuees to proceed for radiological monitoring at an offsite Reception Center. At this center, evacuees are logged in/out, monitored for contamination, and decontaminated if required.

8.1.4 RESPIRATORY PROTECTION

During an emergency, air sampling is performed throughout the site area to ensure protective measures are implemented in a timely manner. These protective measures may include external exposure thresholds, DAC-hr tracking, ingestion of radioprotective drugs, relocation, respiratory protective equipment, or a combination of the above. Respiratory protective equipment is available onsite for issue in accordance with Radiation Protection procedures.

8.1.5 PROTECTIVE CLOTHING

Protective clothing is available from storage areas and Radiation Protection supplies located throughout the site. This clothing is standard anti-contamination clothing and includes coveralls, hoods, gloves, and boots.

8.1.6 RADIOPROTECTIVE DRUGS

A thyroid blocking agent such as Potassium Iodide (KI), supplied at various strategic onsite and offsite locations, shall be offered to CPNPP emergency response personnel in accordance with an Emergency Plan Procedure. Quantities of KI supplied at the onsite and offsite locations shall be maintained in accordance with provisions of Section 15, Appendix J. State or local government emergency plans and procedures describe KI use respective to offsite personnel.

8.2 OFFSITE PROTECTIVE ACTIONS

Personnel and visitors offsite, but within the owner-controlled area, are warned of an emergency by the Security Organization or by Squaw Creek Park personnel in accordance with the Squaw Creek Park Emergency Plan. Security personnel are notified of the emergency by Control Room personnel as described in Section 3.1. Squaw Creek Park personnel are notified of the emergency by the CPNPP Security organization in accordance with Security procedures.

Protective action recommendations (PARs) are formulated during an emergency by CPNPP personnel and are included in notifications to offsite authorities as specified in Section 3. These PARs are based on either existing plant conditions or projected offsite doses, and are updated as conditions warrant.

Offsite protective actions are then directed and implemented by State and local authorities based on the recommendations and information supplied by CPNPP.

Specific protective actions to be recommended are based on the guidance of the EPA's "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents."

8.2.1 EMERGENCY PLANNING ZONES

Emergency Planning Zones (EPZ) have been established surrounding CPNPP for planning purposes in the event of an accidental release of radioactive material from the site.

The Plume Exposure EPZ, or 10 mile EPZ, is divided into 22.5 degree sectors and concentric circles of one (1) mile increments. It is subdivided into Emergency Response Zones (ERZ), including separate zones for Glen Rose and Tolar.

A map of the Plume Exposure EPZ and its ERZs is contained in Section 15, Appendix F. Protective actions are recommended to State and local authorities based on the affected ERZs.

The Ingestion Exposure EPZ, or 50 mile EPZ, is divided into 22.5 degree sectors and concentric circles of ten (10) mile increments. A map of the Ingestion Exposure EPZ is contained in Section 15, Appendix G.

8.2.2 EVACUATION TIME ESTIMATES

Time estimates have been developed for evacuation of the Plume Exposure EPZ. The evacuation plan is included in the local County plans. It is the responsibility of the local authorities to execute the evacuation plan.

9.0 RADIOLOGICAL EXPOSURE CONTROL

During an emergency at CPNPP, applicable Emergency Plan Procedures shall be used. These procedures specify responsibilities and actions of the Emergency Coordinator, EOF Radiation Protection Coordinator and TSC Onsite Radiological Assessment Coordinator regarding use of high range dosimeters, processing frequency of dosimetry, and criteria which allows emergency response personnel to receive radiation exposure in excess of limits set forth in 10 CFR, Part 20. Unless a lifesaving or urgent plant emergency condition requires a planned overexposure, all emergency response activities shall be performed so as not to exceed exposure limits established in 10 CFR, Part 20. Radiation Protection procedures governing frequency of dosimeter evaluation and maintenance of exposure records exist for routine operations. These procedures discuss proper use of self-reading dosimeters and establish frequency and criteria for TLD Badge evaluation.

Routine TLD Badge processing is accomplished by Radiation Protection personnel shipping TLD Badges to the processing vendor. The processing results are transmitted to CPNPP Radiation Protection for update of the record management computer. During emergency conditions Radiation Protection personnel shall be assigned to support 24-hour-per-day operation of shipping TLD Badges to the processor and updating the electronic results to a records management computer, if required.

Use of self-reading dosimeters permits timely tracking of personnel exposures. Decisions related to planned overexposure, TLD Badge processing and exposure extensions are based on each individual's current exposure history and self-reading dosimeter data. Personnel exposure history records are available to all emergency facility personnel.

9.1 EMERGENCY EXPOSURE CRITERIA

CPNPP utilizes emergency exposure criteria recommended by the Environmental Protection Agency (EPA) and published in the "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents." The EPA guidelines were selected over the NCRP Report No. 39 ("Basic Radiation Protection Criteria") because of the more conservative nature of the EPA guidelines. Exposure guidelines provided in the EPA Manual shall be followed and doses to emergency response personnel shall be held to the lowest practical levels. Only the Emergency Coordinator may authorize emergency workers to receive doses in excess of 10 CFR, Part 20 limits. If time permits, the Emergency Coordinator or Radiation Protection Coordinator shall discuss rationale for exceeding 10 CFR, Part 20 limits with NRC representatives.

For lifesaving actions the following shall apply:

a. Rescue personnel should be volunteers or professional rescue personnel.

b. Rescue personnel should be familiar with consequences of exposure to radiation.

c. Women capable of reproduction should not take part in these actions.

d. Volunteers 45 or older, if available, should be selected.

e. Planned individual emergency dose should not exceed 25 rems.

f. Internal exposure should be minimized (as long as total effective dose equivalence is maintained ALARA) by using best available respiratory protection, and contamination should be controlled by use of available protective clothing.

g. Normally, exposure under these conditions shall be limited to once in a lifetime.

h. Persons receiving exposures as indicated above should be advised to avoid procreation for a period up to a few months.

For actions in less urgent emergency situations, where it is necessary to enter a hazardous area to protect facilities and equipment, eliminate further escape of effluents, or to control fires, the following shall apply:

a. Persons performing planned action should be volunteers familiar with consequences of exposure to radiation and with task to be performed.

b. Women capable of reproduction shall not take part in these actions.

c. Planned individual emergency dose should not exceed 10 rems.

d. Planned individual hands and forearms dose should not exceed 100 rems.

e. Internal exposure shall be minimized (as long as total effective dose equivalence is maintained ALARA) by use of respiratory protection and contamination controlled by use of protective clothing.

f. Normally, exposure under these conditions shall be limited to once in a lifetime.

9.2 CONTAMINATION CONTROL

Results of onsite and offsite contamination surveys, performed in accordance with approved Emergency Plan Procedures, shall be used as the basis for determining and posting radiologically controlled areas. Posting of a controlled area shall be accomplished in accordance with Radiation Protection Instructions.

Whenever ground or surface contamination levels in unrestricted areas exceed 1,000 DPM per 100 cm^2 Beta-Gamma removable within the Exclusion Area Boundary, but outside the Radiation Controlled Area, that contaminated area shall be isolated and treated as a radiation controlled area. Appropriate radiological protection and access control measures shall be implemented as described in Radiation Protection Instructions. In the event contamination levels in a radiation controlled area exceed 1000 DPM per 100 cm^2 Beta-Gamma removable, decontamination or other necessary protective actions shall be considered. Return of the affected area to normal use shall be permitted when contamination levels have been reduced to unrestricted area levels.

To ensure onsite personnel do not receive excess exposure via the ingestion pathway, drinking water and food supplies that have been outside the Control Room ventilation envelope and within a Radiation Controlled Area shall not be consumed without being surveyed by Radiation Protection personnel.

9.3 DECONTAMINATION

Decontamination shall be directed by personnel trained in radiation protection practices. Decontamination shall be performed in accordance with approved Emergency Plan Procedures and Radiation Protection Instructions. Emergency Plan Procedures prescribe that personnel decontamination is deemed necessary if contamination levels are found to be in excess of 1000 DPM per probe area (using a Ludlum Model HP-210 probe or equivalent in a low background area [<100 cpm]). Approved Emergency Plan Procedures and Radiation Protection Instructions list decontamination methods and techniques as well as actions to be taken in the event of severe skin contamination or suspected internal contamination.

Decontamination facilities are available and are described in Section 6.9.

Decontamination of personnel, equipment and areas depends on conditions at the time. Personnel decontamination is given first priority to minimize exposures and to release individuals as soon as possible back to the work force. Equipment and areas are decontaminated as conditions permit, with priority given to equipment or areas essential to recovery activities.

During an emergency, areas of the Station which are normally considered unrestricted access areas may become contaminated and as such shall be considered radiation controlled areas. Radiation Protection personnel should survey the Station and make changes as necessary during the course of the emergency. If the immediate area around the Station is contaminated, then a radiation controlled area access point may be established at the NOSF. The decontamination facility at the NOSF would then be used as required to decontaminate personnel leaving the Station.

9.4 RADIOACTIVE WASTE

Because of decontamination activities, limited amounts of radioactive waste may be generated or accumulated by the hospital, ambulance or other emergency response functions and may be brought to the NOSF Laboratory Facilities for temporary storage. As conditions permit, this radioactive waste shall be returned to the Station for processing.

10.0 MEDICAL AND PUBLIC HEALTH SUPPORT

10.1 HOSPITAL AND MEDICAL SUPPORT

Two area hospitals are equipped and their personnel have been trained to care for contaminated injured personnel or radiological overexposure requiring medical evaluation. A third area hospital is available to handle personnel with non-contaminated injuries. Medical services beyond the capabilities of the area hospitals (e.g., expertise, specialized support, or definitive care) may be provided by other institutions depending on the circumstances of the medical/ radiological emergency.

The area hospitals are listed in Section 15.0, Appendix H.

10.2 ONSITE FIRST AID

A first aid station is maintained onsite and is equipped with standard supplies such as bandages, splints and stretchers. Pre-staged equipment for responders is located at the primary RCA access and Fire Brigade assembly areas. First aid kits with basic supplies are located throughout CPNPP. Eyewash stations are located throughout the plant at strategic locations.

Selected CPNPP personnel are trained to provide basic first aid and patient preparation for onsite personnel who become injured or ill. A number of CPNPP employees have also received basic first aid training and are capable of rendering first aid to injured or ill personnel. In addition, selected CPNPP Emergency Response Organization personnel receive annual instruction in handling injured, contaminated individuals.

10.3 TRANSPORTATION OF INJURED TO OFFSITE FACILITIES

A vehicle is available to transport injured personnel to the appropriate medical facility. Agreements with local ambulance services (see Section 15 Appendix H for a list) provide assistance as needed. Any injured and contaminated individual transported from CPNPP is accompanied by a Radiation Protection Technician who is equipped with suitable radiological monitoring equipment. Via the ambulance radio, any ambulance should be able to communicate with the staff at the receiving hospital. Should care beyond the capabilities of the area hospitals be required, arrangements for transporting the individual are made contingent on the injuries and radiological conditions.

11.0 REENTRY AND RECOVERY

Once the emergency has subsided at CPNPP and the situation is no longer considered a threat to onsite personnel or the general public, efforts shall be initiated to restore the affected unit(s) to full operation or place the affected unit(s) in a long-term safe shutdown condition until full operation can be resumed. The scope of these efforts depends on severity of the emergency, ranging from a simple close-out to a full-scale mobilization of personnel and resources to support a long-term recovery effort. If a recovery effort is deemed necessary, the CPNPP Recovery Organization shall be established to ensure personnel and resources are properly applied to that effort.

Transition from the CPNPP Emergency Organization to the CPNPP Recovery Organization is dictated by severity of the emergency. Once the Emergency Coordinator has established that conditions have subsided, he and other appropriate Vistra OpCo personnel assess the need for initiating a recovery effort. Emergency Plan Procedures describe the process by which Vistra OpCo management decides when an event should be closed out and the CPNPP Recovery Organization established. State and county emergency response organizations and the NRC shall be notified prior to initiating recovery phase.

If established, overall technical direction and control of the CPNPP Recovery Organization is assumed by the Recovery Manager. The CPNPP Recovery Organization absorbs the existing CPNPP Emergency Organization. Management of all activities conducted from the EOF, as well as direction and control of the CPNPP Emergency Organization, is assumed by the Recovery Manager. During the recovery phase, CPNPP Emergency Organization personnel continue their functional assignments. As appropriate, the TSC or EOF Communications Coordinator ensures supporting emergency response organizations are informed of the change in Station status and of the CPNPP organizational transition. Emergency Plan Procedures delineate requirements and actions to be taken for recovery phase activities, including transition to the CPNPP Recovery Organization.

Recovery operations include evaluation of historical and real-time data and reports, verification of system/equipment status and alignment, selection of proper corrective action and restoration activities, and acquisition of equipment and personnel to accomplish those activities.

Reentry into environs of the Station by selected personnel is one of the most important sources of information available to the CPNPP Recovery Organization. These activities should aid in ascertaining the resources, manpower and recovery actions necessary to restore the Station to operational status.

The Emergency Coordinator (or Recovery Manager) has the responsibility for authorizing initial reentry into an area previously evacuated for radiological reasons. Reentries shall be made and exposure guidelines established in accordance with criteria established in Emergency Plan Procedures. These procedures provide specific instructions and criteria for exposure control and, if necessary, a planned overexposure. All efforts shall be made to keep exposures as low as reasonably achievable (ALARA).

11.1 CPNPP RECOVERY ORGANIZATION

The Recovery Organization is composed of CPNPP personnel; Vistra OpCo resources are available as necessary. Contract personnel are used as needed to expand the capabilities of Vistra OpCo personnel. Since the magnitude of any recovery effort is dependent on the scope of the event, CPNPP Recovery Organization staffing requirements are difficult to predict in

advance; therefore, this plan only predesignates certain management level positions in the CPNPP Recovery Organization. Managers form their respective groups as appropriate to deal with recovery.

The basic CPNPP Recovery Organization is illustrated in Figure 11.1.

11.1.1 CPNPP RECOVERY ORGANIZATION -- FUNCTIONAL RESPONSIBILITIES

11.1.1.1 RECOVERY MANAGER

A member of senior CPNPP management is designated as the Recovery Manager and is responsible for directing actions of the CPNPP Recovery Organization.

Responsibilities and authorities assigned to the Emergency Coordinator in Section 1.0 of this plan are transferred to the Recovery Manager when the CPNPP Recovery Organization is formed, thus assuring continuity of resources, communications and other activities initiated by the CPNPP Emergency Organization.

11.1.1.2 OPERATIONS SUPPORT

Operations Support personnel are responsible for analysis and development of plans and procedures in direct support of operations with the objective of restoring the Station to operational status. Their primary responsibilities include:

a. Providing direct support to shift operations.

b. Analyzing instrument and control problems and developing modification and repair plans.

c. Analyzing conditions and developing guidance for shift operations personnel regarding core protection.

d. Developing out-of-normal and emergency procedures for operations support.

11.1.1.3 TECHNICAL SUPPORT

Technical Support personnel are responsible for:

a. Determining need for and providing engineering and technical specialists to support other managers as required.

b. Assuring design activities are adequately staffed and equipped to provide timely support.

c. Providing direct interface between CPNPP personnel and others on administrative matters.

d. Directing, coordinating and approving all engineering and design activities conducted on site during recovery.

e. Developing any required modifications for radwaste systems in support of recovery operations.

f. Providing technical expertise for Station repair and modification activities in support of the resolution of mechanical and electrical problems.

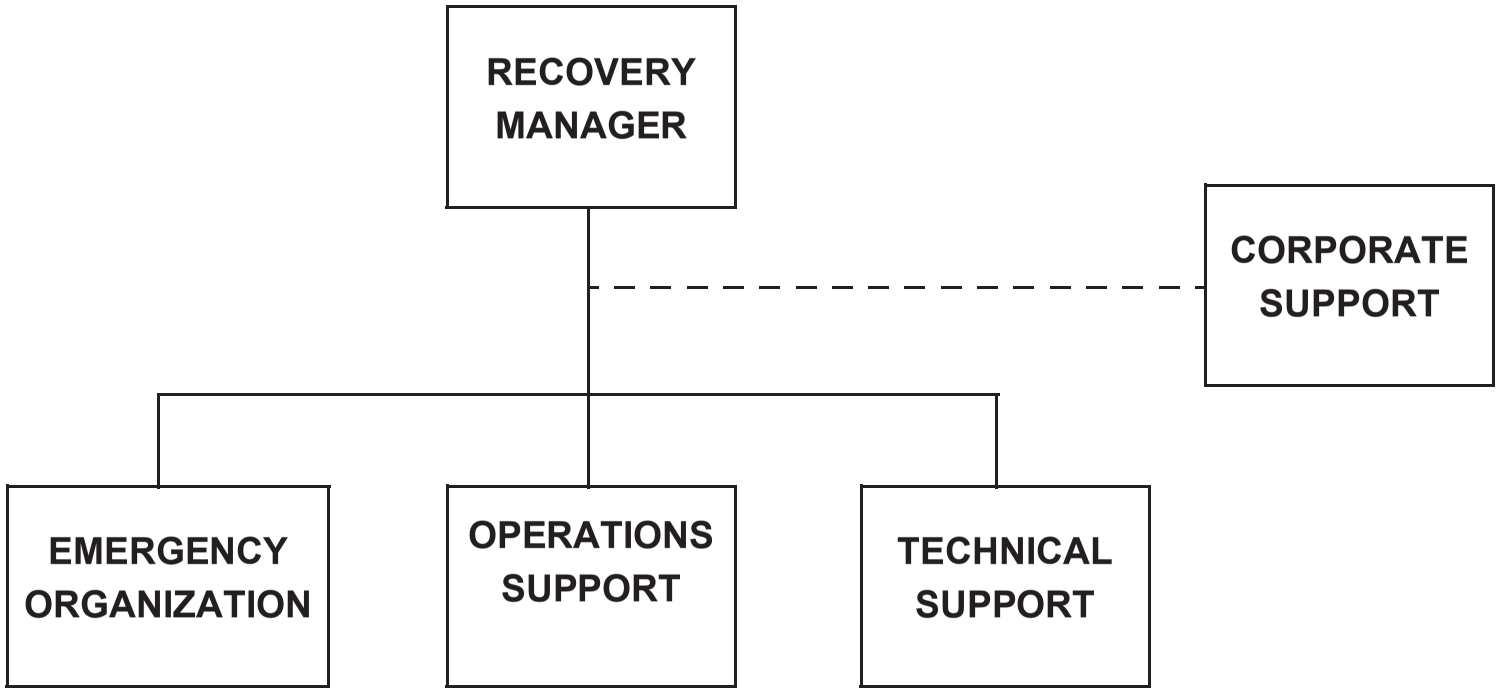
g. Providing qualified personnel to augment emergency repair and damage control teams.

11.1.1.4 CORPORATE SUPPORT

Vistra OpCo resources and personnel are available upon request by the Recovery Manager. These resources are discussed in Section 1.2 of this plan.

11.2 ESTIMATING TOTAL POPULATION EXPOSURE

The State oversees this activity. It is conducted in accordance with procedure 22 of appendix 7 of the Texas Radiological Emergency Management Plan.



Revision 37

COMANCHE PEAK
NUCLEAR POWER PLANT
EMERGENCY PLAN

CPNPP RECOVERY ORGANIZATION

FIGURE 11.1

12.0 EXERCISES AND DRILLS

Emergency preparedness exercises are conducted to evaluate the integrated capability and a major portion of basic elements of the utility's overall emergency response. Drills are conducted to develop and maintain key skills, to evaluate segments of overall emergency response and to periodically confirm availability and operability of emergency equipment. Exercises and drills shall be conducted in accordance with NRC and FEMA rules (10 CFR, Part 50.47 and 44 CFR, Part 351) and approved Emergency Plan Procedures.

12.1 EXERCISES

Exercises are conducted to test adequacy of timing and content of implementing procedures and methods, emergency equipment and communication networks, and the public notification system, and ensure emergency organization personnel know their duties.

At least once every two (2) years, an exercise will be conducted involving full participation of local response organizations and at least partial participation of state organizations. The state fully participates with CPNPP at least once every four (4) years. Other exercises (or drills) should be conducted at least annually to test integrated portions of emergency response capabilities.

12.2 DRILLS

Drills for testing, developing and maintaining emergency response skills are conducted periodically at CPNPP. Drills are also used to evaluate emergency response personnel and allow for hands-on training. The drills should follow preplanned scenarios developed to thoroughly test response of personnel involved. During drills, if appropriate, on-the-spot correction of incorrect performance should be made and demonstration of proper performance offered by the drill controller. State personnel should periodically participate in radiological monitoring and health physics drills. The following drills are required:

12.2.1 COMMUNICATIONS DRILLS

Communications links between CPNPP, the DPS, and Hood County and Somervell County Emergency Operations Centers shall be tested monthly. Communications between CPNPP, state and federal agencies shall be tested quarterly. Communications between CPNPP, state and local Emergency Operations Centers and radiological monitoring teams shall be tested annually. Communications drills shall also address the aspect of understanding messages.

12.2.2 FIRE DRILLS

Fire drills shall be conducted in accordance with requirements of TRA-104, "Fire Protection Training." The Somervell County Volunteer Fire, Rescue, and EMS Service shall be invited to participate annually in one of the periodic drills.

12.2.3 EMERGENCY MEDICAL DRILLS

Offsite ambulance and medical support services participate in an annual drill, and may participate in conjunction with a CPNPP exercise.

12.2.4 RADIOLOGICAL MONITORING DRILLS

Station personnel assigned to radiological monitoring teams shall participate in annual drills to prepare them to perform air sampling and beta-gamma exposure rate determinations within the 10-Mile Emergency Planning Zone during the Plume Exposure Pathway phase. These drills shall include provisions for communications and record keeping.

Station personnel assigned to radiological monitoring teams should participate in drills to collect environmental samples such as soil, water, and vegetation. These drills maintain station personnel capable to assist, if necessary, state agencies during the Ingestion Pathway phase.

12.2.5 HEALTH PHYSICS DRILLS

Health physics drills shall be conducted semi-annually and involve response to and analysis of simulated elevated airborne and liquid samples and direct radiation measurements in the environment.

12.3 DRILL AND EXERCISE SCENARIOS

Drill and exercise scenarios are developed to provide a method to test and evaluate the CPNPP Emergency Preparedness Program. These scenarios are designed to allow free play in decision-making and shall include, as appropriate:

a. Basic objective(s) of each drill and exercise, and appropriate evaluation criteria;

b. Date(s), time period(s), location(s) and participating organizations;

c. Simulated events;

d. Time schedule of real and simulated initiating events;

e. Narrative summary describing conduct of the exercise or drill which addresses simulated casualties, offsite fire department assistance, rescue of personnel, use of protective clothing, deployment of radiological monitoring teams, public information activities; and

f. Description of arrangements for and advance materials to be provided to official observers.

The Emergency Planning Group is responsible for developing drill objectives, exercise objectives, and developing exercise scenarios. Scenarios and objectives developed for those exercises or drills requiring NRC and/or FEMA evaluation shall be approved by the Plant Manager* and submitted to the NRC and/or FEMA for review and approval.

12.4 CRITIQUE OF DRILLS AND EXERCISES

Drills and exercises provide the principal means for assessing effectiveness of the CPNPP Emergency Plan, its implementing procedures, and the state of emergency preparedness of personnel and equipment. As soon as possible after an exercise or drill, a critique is conducted to evaluate performance and lessons learned as a result of that activity. Objectives of the critique session are to evaluate emergency response of participating personnel, to assess

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* See FSAR Section 13.1.

adequacy of dedicated emergency equipment, and to identify deficiencies in the CPNPP Emergency Plan and Emergency Plan Procedures. The critique compares observed emergency response of participants with response anticipated in the drill/exercise scenario. The critique, as appropriate, includes discussion of acceptable and unacceptable emergency responses, observed deficiencies and recommended corrective actions.

The Emergency Planning Group is responsible for conducting exercise critiques and for preparing a written summary of each exercise critique. This summary should include objectives of the exercise, list of participants, controllers, evaluators, observers and a list of identified deficiencies. This summary shall be provided to the Emergency Planning Manager. He is responsible for ensuring appropriate changes are incorporated in the CPNPP Emergency Plan and Emergency Plan Procedures.

In addition, the NRC/FEMA critique of the exercise may result in recommendations or requirements to Vistra OpCo for improving emergency preparedness at CPNPP. The Plant Manager* shall be responsible for ensuring Vistra OpCo compliance to such requirements. The Emergency Planning Manager is responsible for incorporating appropriate changes to the CPNPP Emergency Plan and Emergency Plan Procedures.

For each drill, the drill evaluator is responsible for preparing a written summary of the critique. This summary should include a list of participants, controllers, evaluators, observers and observed deficiencies. This summary shall be provided to the Emergency Planning Manager. He is responsible for ensuring appropriate changes are incorporated in the CPNPP Emergency Plan and Emergency Plan Procedures.

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* See FSAR Section 13.1.

13.0 RADIOLOGICAL EMERGENCY RESPONSE TRAINING

The Emergency Response Organization (ERO) training program is described in TRA-105, "Emergency Preparedness Training". Instructions for personnel who routinely visit or are assigned to the site are provided in site access training.

Personnel not assigned to the CPNPP Emergency Response Organization receive information on reporting emergencies and expected actions in case of an emergency.

Personnel assigned to the CPNPP Emergency Response Organization receive initial training to qualify them for their respective position. This training consists of an overview of the CPNPP Emergency Plan, followed by specific position training (as applicable). Specific position training consists of:

- Accident Classification
- Dose Assessment and Projections
- Emergency Communications - Notifications
- Onsite Protective Actions
- Onsite and offsite Radiological Monitoring
- Protective Action Recommendation
- Facility/Position Walkdowns
- Medical Support

Personnel attend annual retraining to maintain their qualification.

Training is provided to the CPNPP Fire Brigade. This training is coordinated by the Nuclear Training Manager, and addresses methods and equipment used for fighting various types of fires that could occur onsite. Appropriate emphasis is placed on radiological aspects of fire fighting.

Security training is conducted by the CPNPP Security Department and is coordinated by the Security Manager. Training is provided to all security personnel based on each person's specific tasks. Appropriate emphasis is placed on emergency response required within radiologically controlled environments.

Training is offered to offsite emergency response organizations who may be called upon to help in an onsite emergency. Retraining is offered to the offsite emergency response organizations annually.

Emergency response training provides for formal critiques in order to identify areas that need correction. Formal critiques may be, but not limited to, any of the following:

- trainee exams
- self assessments
- reports (drill, exercise, and audit)
- trainee feedback

14.0 RESPONSIBILITY FOR PLANNING EFFORT

Personnel assigned to the Emergency Planning group are required to maintain proficiency in various facets of emergency preparedness. As a means of maintaining that proficiency, members may participate in activities such as drills and exercises, assist visits to other nuclear facilities, workshops and seminars, and formal training courses.

The Plant Manager* has overall responsibility for the emergency preparedness program and shall approve changes to the Emergency Plan. The Station Operations Review Committee (SORC) shall review changes to the Emergency Plan and submit recommended changes to the Operations Review Committee (ORC). The Emergency Planning Manager shall approve the Emergency Plan Procedures and is responsible for maintenance and coordination of the emergency preparedness program and training of the Emergency Response Organization (ERO).

Review of the Emergency Plan is on an annual basis. The review includes consideration of items identified during drills and exercises that could affect the Emergency Plan. The emergency action level procedure is reviewed annually with the State and local county governmental agencies. Review of the Emergency Plan Procedures is at least biennially. Copies of the Emergency Plan and Emergency Plan Procedures are distributed to the appropriate individuals and organizations with emergency response/planning responsibilities. These documents are controlled and changed/revised in accordance with station administrative procedures. Telephone numbers maintained for emergency response shall be reviewed and updated quarterly as necessary.

Section 15 of this plan maintains a list of the Emergency Plan Procedures with the corresponding plan section(s) and a list of organizations who provide support during an emergency. The letters of agreement with these organizations are maintained in the Emergency Planning office, and are reviewed annually.

An independent review of the emergency preparedness program shall be conducted at least every 24 months. An independent review shall also be conducted as necessary based on assessment by Vistra OpCo against performance indicators or after identifying a program change occurring that potentially could adversely affect emergency preparedness. In the latter case, the review shall be conducted as soon as practical but no later than 12 months after the change occurs. Independent reviews are reported to the appropriate company management personnel and governmental organizations.

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* See FSAR Section 13.1.

15.0 APPENDICES

A. CPNPP Shift Crew Chart

B. Time/Distance/Dose (Thyroid) Curve for LOCA Condition at CPNPP

C. Time/Distance/Dose (Whole body, Gamma) Curve for a LOCA Condition at CPNPP

D. Time/Distance/Dose (Whole body, Total) Curve for a LOCA Condition at CPNPP

E. CPNPP Complex and Owner Controlled Area

F. CPNPP 0-10 Miles
1. Demographic Information Map
2. Area Map

G. CPNPP 10 - 50 Mile Map

H. List of Letters of Agreement and Supporting Emergency Plans

J. Emergency Equipment and Supplies

K. List Of Emergency Plan Procedures

M. CPNPP Evacuation Time Estimates and Staffing Estimates

N. Emergency Planning Zone (EPZ) Evacuation Time Estimates

P. Cross Index to NUREG-0654

Q. Definitions

R. (Removed From CPNPP Emergency Plan)

S. Corporate Emergency Management Plan

Note: The letters “I,” “L,” and “O” are not used as appendix designators.

Appendix A

CPNPP Shift Crew Chart

See FSAR Section 13.1.2.3 and

FSAR Table 13.1-2.

Appendix B

Time/Distance/Dose (Thyroid)

Curve for LOCA Condition at CPNPP

THIS APPENDIX HAS BEEN DELETED

Appendix C

Time/Distance/Dose (Whole body, Gamma)

Curve for a LOCA Condition at CPNPP

THIS APPENDIX HAS BEEN DELETED

Appendix D

Time/Distance/Dose (Whole body, Total)

Curve for a LOCA Condition at CPNPP

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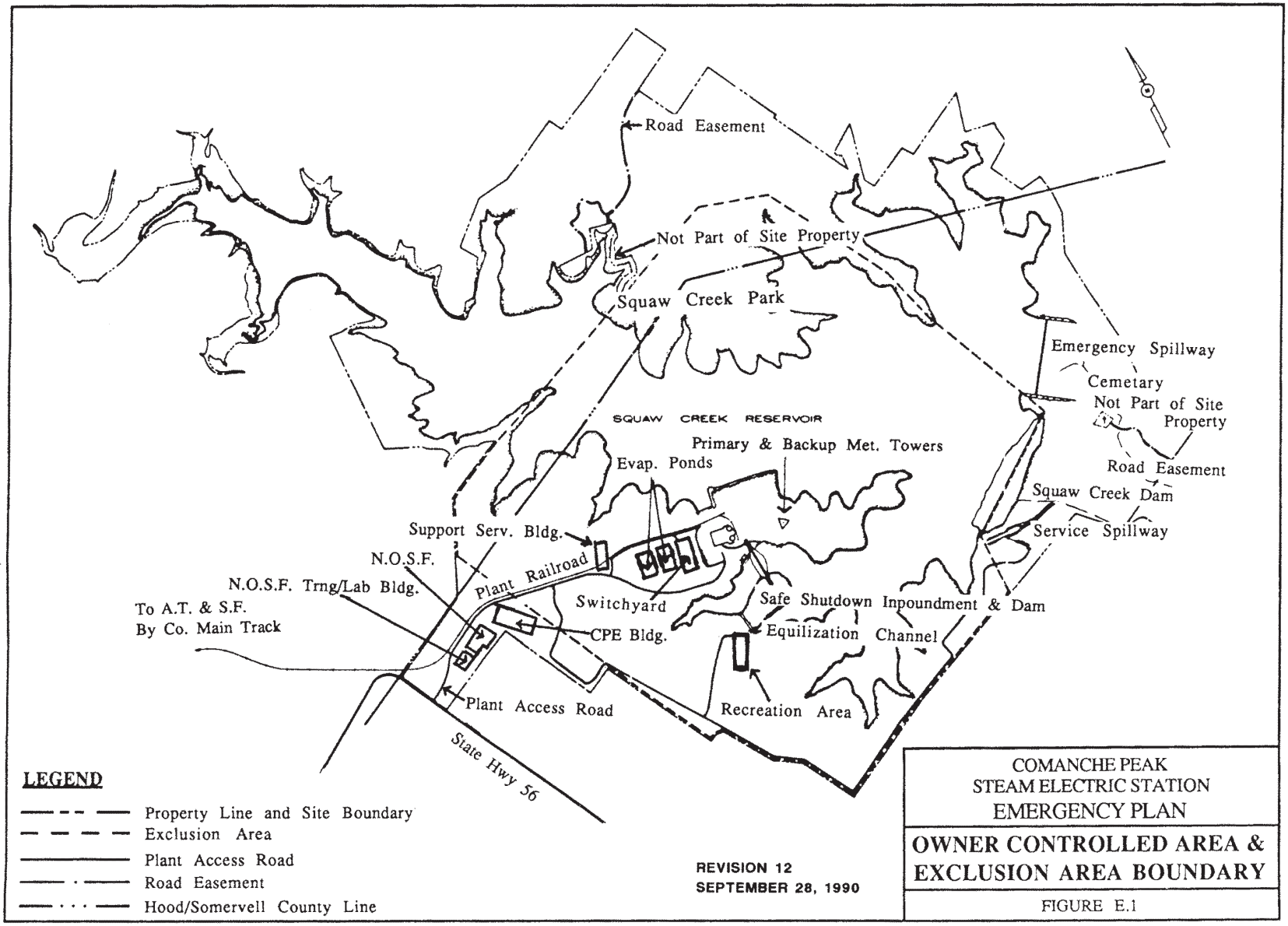
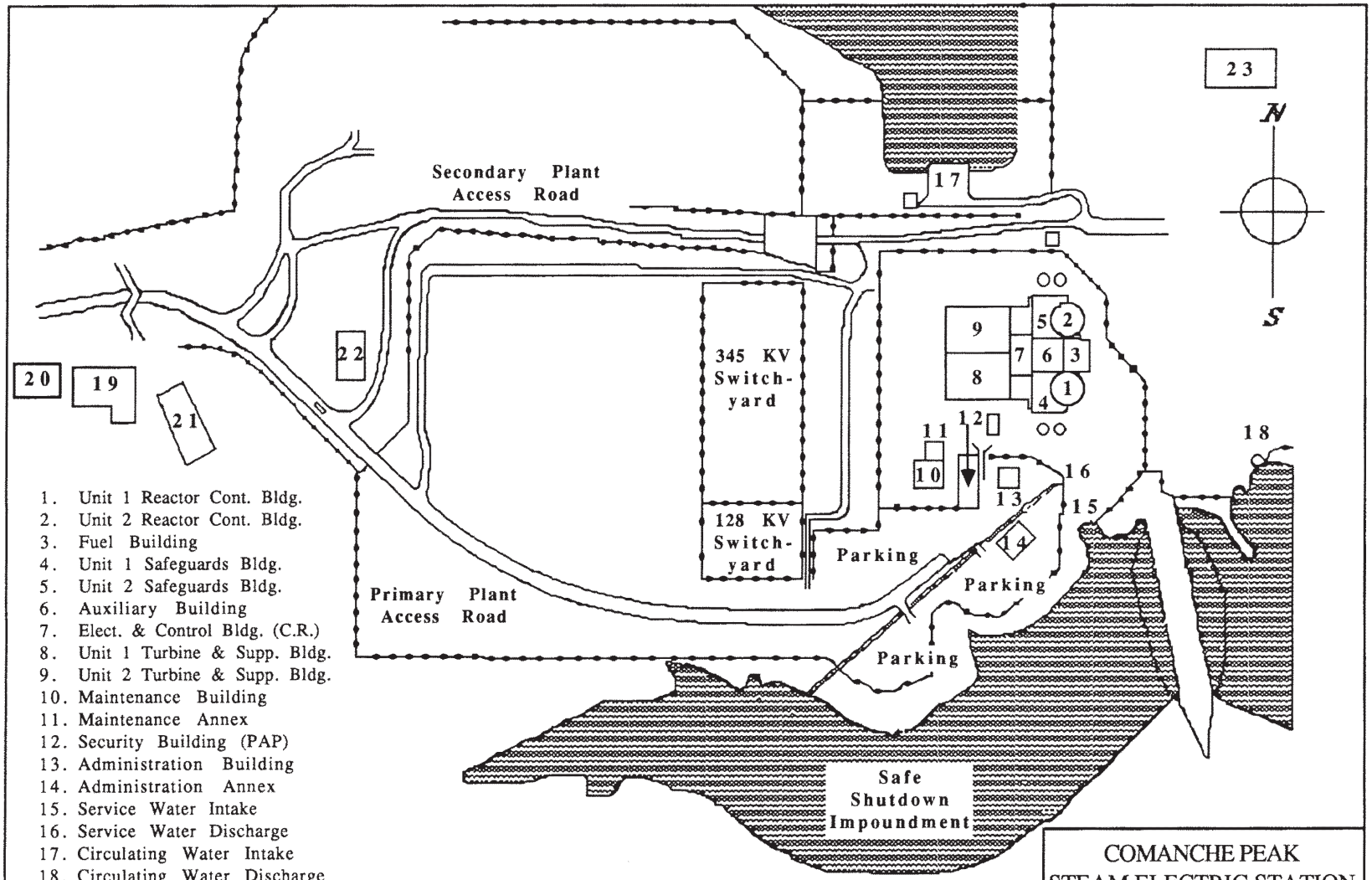
Appendix E

CPNPP Complex and

Owner Controlled Area


Road Easement
Not Part of Site Property
Squaw Creek Park
SQUAW CREEK RESERVOIR
Emergency Spillway
Cemetary
Not Part of Site Property
Road Easement
Squaw Creek Dam
Service Spillway
Primary & Backup Met. Towers
Evap. Ponds
Support Serv. Bldg.
N.O.S.F.
N.O.S.F. Trng/Lab Bldg.
To A.T. & S.F.
By Co. Main Track
Plant Railroad
Switchyard
CPE Bldg.
Safe Shutdown Inpoundment & Dam
Equilization Channel
Plant Access Road
Recreation Area
State Hwy 56
LEGEND
Property Line and Site Boundary
Exclusion Area
Plant Access Road
Road Easement
Hood/Somervell County Line
REVISION 12
SEPTEMBER 28, 1990
COMANCHE PEAK
STEAM ELECTRIC STATION
EMERGENCY PLAN
OWNER CONTROLLED AREA &
EXCLUSION AREA BOUNDARY
FIGURE E.1



COMANCHE PEAK
STEAM ELECTRIC STATION

CPSES COMPLEX

FIGURE E.2

Appendix F

CPNPP 0-10 Miles

1. Demographic Information Map

2. Area Map

SECTOR DESIGNATORS

Section Designators*	Centerline of Sections
A	N
B	NNE
C	NE
D	ENE
E	E
F	ESE
G	SE
H	SSE
J	S
K	SSW
L	SW
M	WSW
N	W
P	WNW
Q	NW
R	NNW

* The letters -I- and -O- have been omitted from these sector designators to eliminate confusion between letters and numbers.

POPULATION DISTRIBUTION BY SECTOR AND AREA (0 - 10 MILES)

SECTOR AND DIRECTION

DISTANCE FROM PLANT	ESTIMATED POPULATION DISTRIBUTION	A N	B NNE	C NE	D ENE	E E	F ESE	G SE	H SSE	J S	K SSW	L SW	M WSW	N W	P WNW	Q NW	R NNW
1 - 2	I	0	0	0	0	0	3	0	0	0	3	45	12	9	3	0	0
miles	II	0	0	0	0	0	3	0	0	0	3	35	10	7	3	0	0
	III	0	0	0	0	0	4	0	0	0	4	53	14	14	3	0	0
2 - 3	I	6	9	42	9	0	9	6	3	14	0	12	3	12	6	0	6
miles	II	7	10	47	6	0	7	4	3	10	0	9	3	15	7	0	6
	III	13	20	91	10	0	11	7	4	16	0	14	4	28	13	0	10
3 - 4	I	23	40	20	29	26	62	26	12	3	9	9	6	20	23	0	0
miles	II	27	46	23	30	21	50	21	10	3	7	7	6	25	25	0	0
	III	50	87	44	51	31	74	31	14	4	11	11	10	44	47	0	0
4 - 5	I	37	17	104	20	26	84	76	2260	185	51	45	3	14	31	0	20
miles	II	43	19	116	23	21	67	61	1801	147	41	36	3	16	35	0	23
	III	81	37	221	44	31	100	91	2686	219	61	53	4	30	67	0	44
5 - 10	I	3639	1207	409	144	189	549	115	726	98	180	87	115	79	196	348	362
miles	II	4359	1671	464	162	150	437	92	578	78	143	70	116	90	221	395	411
	III	8263	2599	880	302	223	653	136	863	117	214	104	194	171	420	749	779

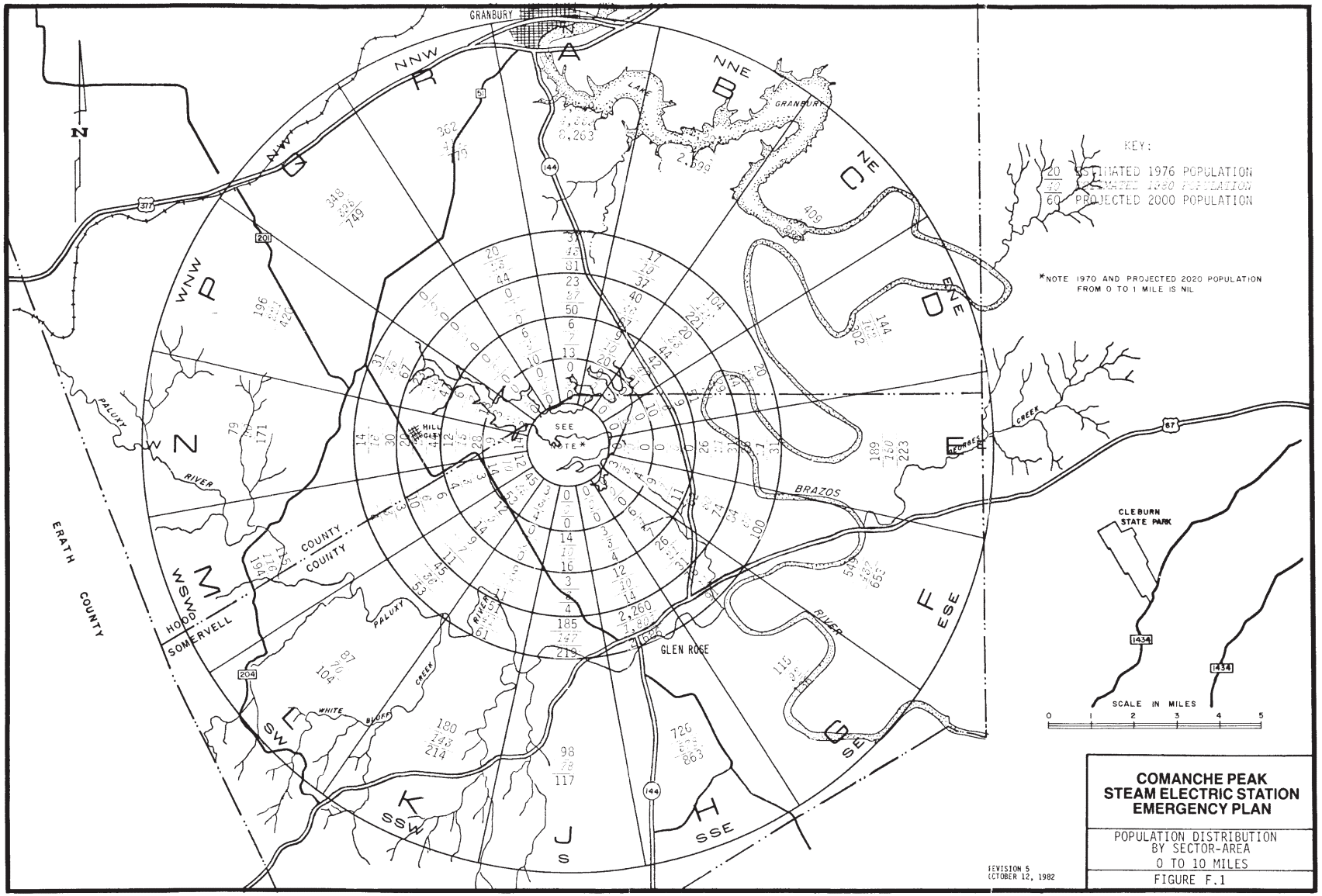
KEY:

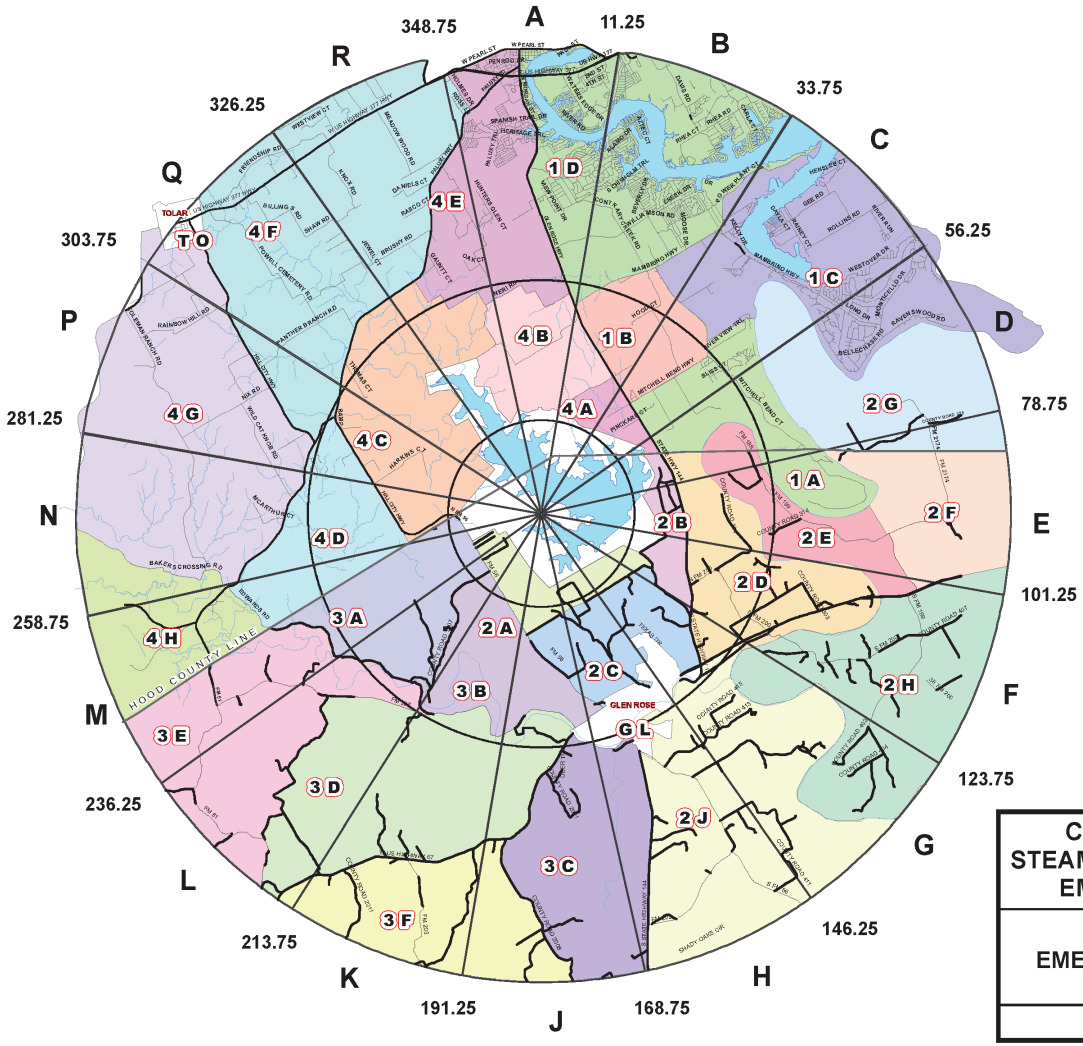
I BASED ON THE YEAR 1976 (ESTIMATED) POPULATION

II BASED ON THE YEAR 1980 (ESTIMATED) POPULATION

III BASED ON THE YEAR 2000 (ESTIMATED) POPULATION

TABLE F.1


GRANBURY
A
NNE
B
NE
C
ENE
D
E
ESE
F
SE
SSE
H
S
J
SSW
K
SW
L
WSW
M
W
N
WNW
P
NW
Q
NNW
R
N
KEY:
20 ESTIMATED 1976 POPULATION
44 ESTIMATED 1980 POPULATION
60 PROJECTED 2000 POPULATION
*NOTE 1970 AND PROJECTED 2020 POPULATION FROM 0 TO 1 MILE IS NIL
SEE NOTE *
GLEN ROSE
BRAZOS RIVER
PALUXY RIVER
PALUXY CREEK
WHITE BLUFF CREEK
HOOD COUNTY
SOMERVELL COUNTY
ERATH COUNTY
CLEBURN STATE PARK
SCALE IN MILES
0 1 2 3 4 5
COMANCHE PEAK
STEAM ELECTRIC STATION
EMERGENCY PLAN
POPULATION DISTRIBUTION
BY SECTOR-AREA
0 TO 10 MILES
FIGURE F.1
REVISION 5
OCTOBER 12, 1982

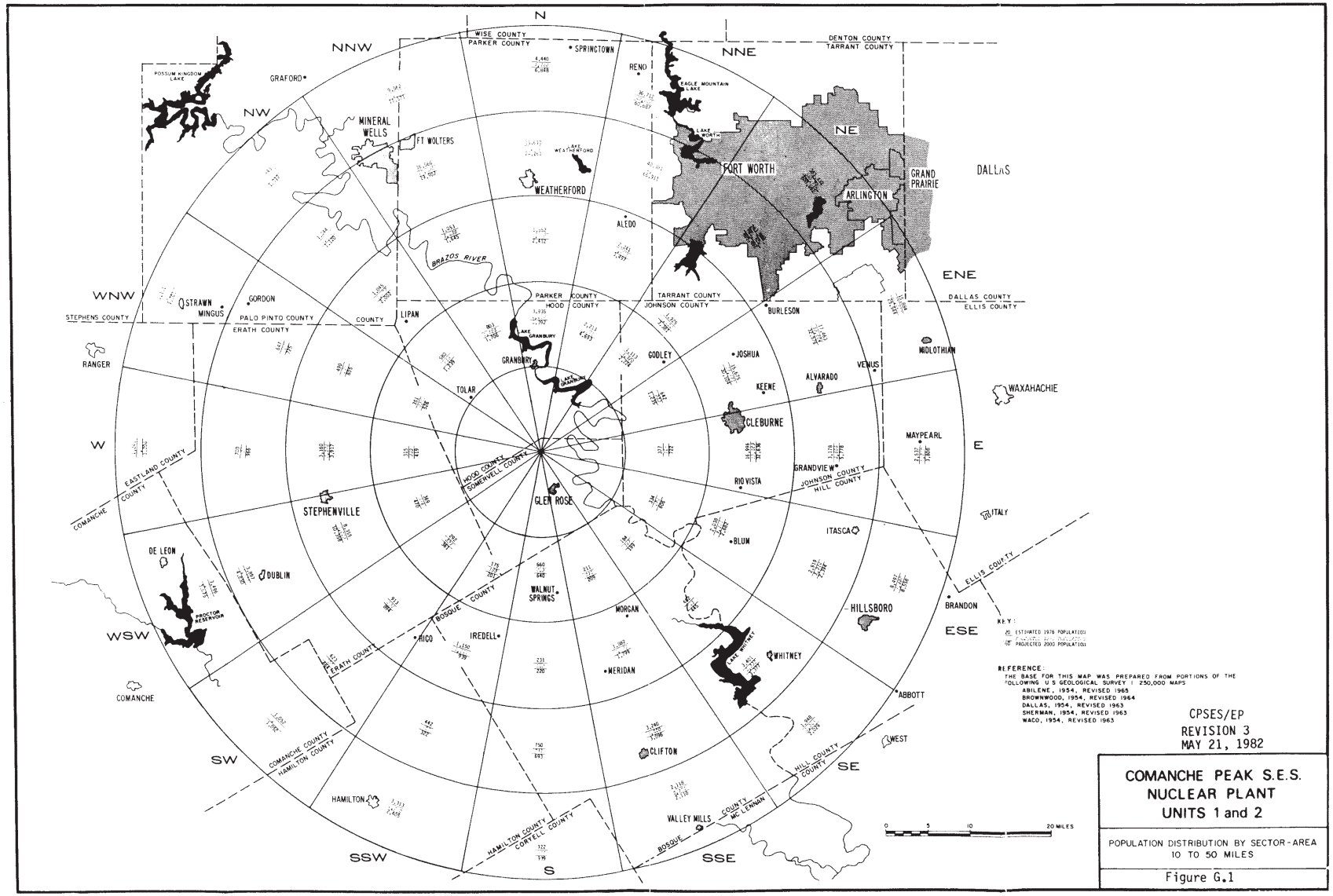


REVISION 36

COMANCHE PEAK STEAM ELECTRIC STATION EMERGENCY PLAN
10 MILE EMERGENCY PLANNING ZONE
FIGURE F.2

Appendix G

CPNPP 10 - 50 Mile Map



CPSES/EP
REVISION 3
MAY 21, 1982

COMANCHE PEAK S.E.S.
NUCLEAR PLANT
UNITS 1 and 2

POPULATION DISTRIBUTION BY SECTOR-AREA
10 TO 50 MILES

Figure G.1

Appendix H

List of Letters of Agreement

and

Supporting Emergency Plans

LIST OF
LETTERS OF AGREEMENT

Air Evac Emergency Medical Service - Emergency treatment and transportation of critically injured/burned and contaminated patients

American Red Cross - Support mass care needs at three reception centers, establish shelters for evacuees, registration of evacuees, and provide mental health and health services for evacuees and emergency workers, as needed

City of Benbrook - Reception Center

City of Cleburne, Texas - Reception Center

City of Stephenville - Reception Center

City of Granbury - Joint Information Center (JIC)

Hood County Sheriff - Law enforcement, assist evacuation efforts, traffic control, security

Hood County - CodeRED warning system partnership with CPNPP

Lake Granbury Medical Center - Treatment of contaminated injured

Granbury/Hood County Emergency Medical Service, Inc. dba Texas Emergency Medical Services - Emergency treatment and transportation of contaminated injured

South Texas Project Nuclear Operating Company - Backup post accident sample and analysis

Institute of Nuclear Power Operations (INPO) - Coordinate assistance from other utilities

National Weather Service - Weather forecasts

Somervell County Sheriff - Law enforcement, assist evacuation efforts, traffic control, security

Somervell County Fire Department and EMS Service - Local fire fighting support and emergency treatment/transportation of contaminated injured

Somervell County - CodeRED warning system partnership with CPNPP

Indian Harbor Volunteer Fire/EMS Department - Local fire fighting support

DCBE/Acton Volunteer Fire Department - Local fire fighting support

Granbury Volunteer Fire Department - Local fire fighting support

Texas Department of Health - Assistance to local government in the area of protective actions and environmental sampling

Texas Department of Public Safety - Law enforcement, assist evacuation efforts, traffic control, coordinates with and assists local law enforcement

Texas Health Hospital, Cleburne - Treatment of contaminated injured

NOTE: This is a list of agreements referring to the concept of operations developed between Federal, State, and local agencies, and other support organizations having an emergency response role within the Emergency Planning Zones. These documents are maintained in the files of Emergency Planning.

LIST OF
SUPPORTING EMERGENCY RESPONSE PLANS

(1) Hood County Emergency Management Plan and Manual of Emergency Procedures
Source: County Government

(2) Somervell County Emergency Management Plan and Manual of Emergency Procedures
Source: County Government

(3) Texas Emergency Management Plan
Source: Texas Department of Public Safety

(4) Westinghouse Emergency Response Plan
Source: Westinghouse Electric Corporation - Water Reactors Division

(5) Squaw Creek Park Emergency Plan
Source: Squaw Creek Park

(6) Region 4 Radiological Assistance Program Plan
Source: Department of Energy

NOTE: The supporting emergency response plans listed above are maintained at CPNPP, but are not contained within the body of the CPNPP Emergency Plan.

Appendix J

Emergency Equipment

and Supplies

EMERGENCY EQUIPMENT AND SUPPLIES

Vistra OpCo maintains emergency response equipment and supplies in onsite and offsite facilities, cabinets, and footlockers. Onsite this equipment is staged in such places as the Control Room, Technical Support Center, Operations Support Center, Emergency Operations Facility and Nuclear Operations Support Facility (NOSF). Offsite this equipment is staged in such places as county Emergency Operations Centers (EOCs), hospitals, and Relocation Centers.

Self-Contained Breathing Apparatus (SCBAs) and spare SCBA bottles are maintained for the Control Room; SCBAs are also maintained at the NOSF.

Two company vehicles equipped to support radiological monitoring activities are available for use by Offsite Field Monitoring Teams. Two offsite field monitoring kits are located in the NOSF. The kits contain supplies and equipment represented in the listing below.

The specific type and amount of equipment and supplies in each onsite or offsite facility, location, or kit is identified on a facility inventory worksheet. The inventory worksheet is prescribed by and maintained in accordance with an Emergency Plan Procedure.

The following listing, by category, represents typical emergency response equipment and supplies maintained:

Personal Protection and Dosimetry
Coveralls, shoe covers, gloves, hoods
Thyroid Blocking drugs (Potassium Iodide [KI])
Thermoluminescent Dosimeter (TLD)

Radiological Monitoring
Geiger-Mueller (GM) and Ionization Chamber instruments
Air Sampler, equipped with sampler head for particulates and silver zeolite collectors
Particulate filters and Silver Zeolite cartridges
Calculators

Contamination Control
Modesty clothing, plastic bags, signs/barricades, Step-Off Pads, tape, decontamination supplies

Communications
Vehicle-installed radios, base stations, handheld radios

Miscellaneous
Portable lights, Instrument check source, clerical supplies, maps, clipboards, tweezers, etc.

Appendix K

List Of Emergency Plan Procedures

LIST OF EMERGENCY PLAN PROCEDURES

Procedure No.	Procedure Title	References
EPP-100	Maintaining Emergency Preparedness	3.7, 3.8, 5.0, 6.6, 6.9, 6.11, 6.13, 12.0, 13.0, 14.0, Appendix H, J
EPP-109	Duties and Responsibilities of the Emergency Coordinator/Recovery Manager	1.1.2.2, 11.0
EPP-116	Emergency Repair and Damage Control and Immediate Entries	6.2
EPP-121	Reentry, Recovery and Closeout	11.0
EPP-201	Assessment of Emergency Action Levels, Emergency Classification and Plan Activation	2.0, 2.1, 2.2, Table 2.1
EPP-202	Emergency Communications Systems and Equipment	3.0, 4.0
EPP-203	Notifications	3.0, 4.0, Table 1.2
EPP-204	Activation and Operation of the Technical Support Center (TSC)	1.0, 1.1.2.2, Table 1.1 and 1.2, 6.0, 6.1
EPP-205	Activation and Operation of the Operations Support Center (OSC)	1.0, 1.1.2.2, Table 1.1 and 1.2, 6.0, 6.3
EPP-206	Activation and Operation of the Emergency Operations Facility (EOF)	1.0, 1.1.2.2, Table 1.1 and 1.2, 6.0, 6.4
EPP-207	Activation and Operation of the Joint Information Center	1.0, 1.1.2.2, Table 1.1 and 1.2, 6.0, 6.5
EPP-303	Operation of Computer Based, Emergency Dose Assessment System	6.13, 7.0
EPP-304	Protective Action Recommendations	8.0, 8.1, 8.2
EPP-305	Emergency Exposure Guidelines and Personnel Dosimetry	9.0, 9.1
EPP-306	Use of Thyroid Blocking Agents	1.1.2.2, 8.1.6
EPP-309	Onsite/In-Plant Radiological Surveys and Offsite Radiological Monitoring	6.7, 7.3, 9.2, Table 1.2
EPP-312	Core Damage Assessment	7.0
EPP-314	Evacuation and Accountability	4.1.8, 8.1.1,8.1.2, 8.2.2
TRA-105	Emergency Preparedness Training	13.0

Appendix M

CPNPP Evacuation Time

Estimates and Staffing

Estimates

CPNPP Evacuation Time Estimates

The time estimate for evacuating CPNPP is projected to be 114 minutes. Justification for this time estimate is provided by the following:

T(ev) = Td + Tn + Tm + Tt

Where:

T(ev) = (114 minutes) Time for evacuation of 2,500 persons from the CPNPP station.

Td = (15 minutes) Time required for detection of accident, data analysis and decision to evacuate.

Tn = (16 minutes) Time required to notify personnel.

Tm = (15 minutes) Time required for personnel to mobilize and get under way.

Tt = (68 Minutes) Travel time to leave affected area (Distance: five miles) in the Manual of Protective Action Guides for Nuclear Incidents, page 1.34, a traffic lane capacity at 35 miles per hour and four persons per car is predicted to be 10,000 persons per hour. Using two traffic lanes and adjusting lane capacity stated above to a more conservative condition of 20 miles per hour and two persons per car, it is projected that travel time for 2,500 persons will be 68 minutes.

The time estimate for evacuating personnel from the Exclusion Area by boat is projected to be 85 minutes. Justification of this estimate is provided by the following:

T(ev) = Td + Tn + Tm + Tt

Where:

T(ev) = (85 minutes) Time estimate to evacuate individuals from Exclusion Area on SCR. A typical situation could be individuals on SCR performing environmental monitoring tasks.

Td = (15 minutes) Time required for detection of accident, data analysis and decision to evacuate.

Tn = (35 minutes) Time to notify individuals to evacuate affected area. 15 minutes estimated to have boat lake-ready. 20 minutes for actual travel time.

Tm = (15 minutes) Time required for individuals to make ready and get under way.

Tt = (20 minutes) Travel time required to leave affected area.

CPNPP Staffing Estimates

In addition to personnel on shift during an emergency, capability for increasing personnel in a timely manner is presented in Table 1.1. Response time estimates were arrived at using the following:

Ta = Tn + Tp + Tt + Tw

Where:

Ta = Time for personnel to arrive in facilities

Tn = (10 minutes) Time required to notify personnel

Tp = (10 minutes) Preparation time for personnel

Tt = Travel time to plant

Tw = (5 minutes) Walking time from parking areas to facilities

The following percentages indicates where the majority of the emergency response organization lives:

15 percent of employees live in the vicinity of Glen Rose-Walnut Springs.

40 percent of employees live in Acton-Granbury-Tolar area.

45 percent of employees live in Cleburne, Stephenville and Ft. Worth area.

The range of travel times from these general areas to CPNPP are:

Glen Rose-Walnut Springs - 10 to 30 minutes

Acton-Granbury-Tolar - 20 to 40 minutes

Cleburne-Stephenville-Ft. Worth - 30 to 80 minutes

From information provided by the emergency response organization, approximately 85 percent of the organization could travel to CPNPP within 50 minutes under normal driving conditions. Under adverse driving conditions (the worst would be ice storms) approximately 30 minutes would be added to travel times.

TSC and EOF Activation Times

The Technical Support Center (TSC) and Emergency Operations Facility (EOF) are staffed by additional personnel responding to the emergency notification. With the majority of the

emergency response organization arriving after 50 minutes travel time, activation time for both facilities would be 80 minutes. This time estimate is based on the following:

$$Ta = Tn + Tp + Tt + Tw$$

Where:

Ta = (80 minutes) Time for personnel to arrive in facilities

Tn = (10 minutes) Time required to notify personnel

Tp = (10 minutes) Preparation time for personnel

Tt = (50 minutes) Travel time for personnel

Tw = (10 minutes) Walking time from parking areas to facilities

If the emergency was during an ice storm, it could take up to one hour and forty minutes for approximately 85 percent of the emergency response organization to arrive in their respective facilities.

Appendix N

Emergency Planning

Zone (EPZ) Evacuation

Time Estimates

Comanche Peak Nuclear Power Plant (CPNPP)
Evacuation Time Estimate Summary

In order to ensure the safety of the public living in the vicinity of nuclear power plants in the nation, the U.S. Nuclear Regulatory Commission (NRC) requires licensees to develop and update evacuation times estimates (ETEs) for areas within the emergency planning zone (EPZ). Updates are required following the availability of data from the decennial census (10 years) or when the sensitivity factor for changes in population within the EPZ has been exceeded. This appendix contains information from the ETE update performed in 2012. This update implements the requirements of the revised regulations relevant to ETE updates in accordance with the guidance provided in NUREG/CR-7002, Criteria for Development of Evacuation Time Estimate Studies.

Luminant Generation Company contracted KLD Engineering, P.C. to estimate evacuation times for the 2012 populations within the 10-mile plume exposure pathway emergency planning zone (EPZ) surrounding the Comanche Peak Nuclear Power Plant (CPNPP). This appendix provides a summary of the final report describing the methods used to obtain population data and to estimate evacuation times and estimated population figures, evacuation road network information, and ETEs.

The report provides a breakdown of the population by geographic areas and protective action zones (PAZ). Five categories of population are identified in the report:

- Permanent residents
- Transient population
- Transit dependent permanent residents
- Special facility residents
- Schools.

The permanent resident population is made up of individuals residing in the 10-mile EPZ. The total year 2012 permanent resident populations within the 10-mile EPZ for CPNPP are estimated to be 35,199. The transient population consists of workers employed within the area, recreational sportsmen, and visitors. The total peak transient population within the 10-mile EPZ is estimated to be 17,787. Thirteen (13) schools, Mambrino Elementary School, Premier High School, Brawner Intermediate School, Emma Robertson Elementary School, Tolar High School, Tolar Elementary School, Tolar Junior High School, North Central Texas Academy, Brazos River Charter School, Glen Rose Elementary School, Glen Rose High School, Glen Rose Intermediate School and Glen Rose Junior High School, were identified in the CPNPP EPZ. KLD Engineering, P.C. contacted the schools to collect current enrollment, staff figures, and the evacuation plan. The total peak population for the schools in the EPZ is estimated to be 4,171. Transit dependent permanent residents in the EPZ are estimated to be 707. This study also considered the voluntary evacuees, who are also known as shadow evacuees that reside within 10 to 15 miles from CPNPP.

KLD Engineering, P.C. utilized a computer traffic simulation model, DYNEV, to perform the ETE analyses. For the analysis, the I0-mile plume exposure pathway EPZ was divided into 31 unique geographic areas based on two-mile, five-mile, and ten-mile radius rings, the 16, 22.5-degree PAZs, as well as keyhole and staged evacuation logic. In order to represent the most realistic emergency scenarios, evacuations for the 31 geographic evacuation areas were modeled individually for the midweek daytime, midweek - weekend evening, and weekend daytime scenarios. Each of these scenarios was then considered under both normal and adverse weather conditions using the 2012 population estimations. A total of 12 evacuation scenarios

were considered as part of this study to represent different wind, temporal, seasonal and weather conditions.

Both 100% and 90% ETEs for each scenario were collected. The 100% ETEs for the evacuation areas ranged from 4:00 - 4:10 for the normal scenarios, and from 4:00 - 4:10 for those occurring in adverse weather. The 90% ETEs for the evacuation areas ranged from 1:25 - 2:25 for the normal scenarios, and from 1:25 - 2:45 for those occurring in adverse weather.

The factors that contributed to the variations in ETEs between scenarios include differences in the number of evacuating vehicles, the capacity of the evacuation routes used, or the distance from the origin zones to the EPZ boundary.

Based on the data gathered and the results of the evacuation simulations, the existing evacuation strategy was determined to be functional for the 2012 conditions, given the lack of severe congestion or very high ETEs. Recommendations were provided for enhancements to improve the evacuation time estimate.

Assumptions utilized in the ETE will be reviewed when evaluating changes to roadways or evacuation networks to ensure the results of the ETE remain valid. Changes in population will be evaluated utilizing the sensitivity factor developed during the ETE analysis.

The full Evacuation Time Estimate was submitted for NRC review in accordance with Section IV of Appendix E to 10 CFR Part 50. Following the NRC review, the results of the study and recommendations will be reviewed with applicable offsite agencies. The review will focus on the utilization of the results of the evacuation simulations provided in the ETE for comparison to existing protective action strategies. Modifications, if any, will be incorporated as part of the ongoing emergency planning process.

Appendix P

Cross Index to NUREG-0654

1.0 INTRODUCTION

The attached matrix cross references specific sections of the Comanche Peak Nuclear Power Plant (CPNPP) Emergency Plan to planning elements set forth in Revision 1 of NUREG-0654/ FEMA-REP-1, “Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants.”

2.0 OVERVIEW

The CPNPP Emergency Response Organization is derived from and closely parallels the normal plant operating organization. Additional support in the event of a radiological emergency at CPNPP is provided by the Vistra OpCo corporate structure as well as local, state and federal governments. Vistra OpCo recognizes the need to provide adequate protection to plant employees and the population-at-risk during a radiological emergency at CPNPP. In order to respond to NRC/FEMA guidance (NUREG-0654), the following cross-reference guide is provided:

NUREG-0654 Planning Standards and Evaluation Criteria		CPNPP Emergency Plan
A.	ASSIGNMENT OF RESPONSIBILITY	
1.a	Overall Emergency Response Organization	1.1, 1.2
1.b	Concept of Operation	1.1, 1.1.2, 1.2, Table 1.1
1.c	Diagram of Organizational Inter-Relationships	Figure 1.1
1.d	Identification of Command & Control	1.1.2.2
1.e	24-hour Operation	1.1.2.1, Table 1.1
2.a	Functions and Responsibilities	N/A *
2.b	Legal Basis for Authorities	N/A
3.	Letters of Agreement	1.2, Appendix H
4.	Continuity of Operations	1.1.2.1, 1.1.2.2, Table 1.1
B.	ONSITE EMERGENCY ORGANIZATION	
1.	Onsite Emergency Response Organization	1.1.2.1, Table 1.1
2.	Identification of Onsite Command & Control	1.1.2.1, 1.1.2.2
3.	Line of Succession for Command & Control	1.1.2.2, Table 1.1
4.	Command and Control Functions and Responsibilities	1.1.2.2
5.	Other Functions & Responsibilities	1.1.2.1, 1.1.2.2, Table 1.1
6.	Diagram of Organizational Interfaces	Figure 1.1
7.	Onsite Staff Augmentation by Corporate Personnel	N/A
7.a	Staff Augmentation by Logistical Support	1.1.2.2, Figure 1.5

* "N/A" indicates item not marked as applicable to licensee in NUREG-0654 Criteria Matrix.

NUREG-0654 Planning Standards and Evaluation Criteria		CPNPP Emergency Plan
7.b	Staff Augmentation by Technical Support	1.1.2.2, Figure 1.3
7.c	Staff Augmentation by Liaison Support	1.1.2.1, 1.2.1.2, Figure 1.1
7.d	Staff Augmentation by Public Information Support	1.1.2.2, Figure 1.6
8.	Identification of Contractors and Private Organization Support	1.2.3, Figure 1.1, Appendix H
9.	Letters of Agreement with Local Agencies	1.2.2, Appendix H
C.	EMERGENCY RESPONSE SUPPORT AND RESOURCES	
1.a	Authorities to Request Federal Assistance	1.1.2.2, 1.2.5
1.b	Requirements for Federal Assistance	1.2.5
1.c	Resources Available to Support Federal Response	1.2.5
2.a	State and Local Representatives Stationed at the EOF	N/A
2.b	Licensee Representative Stationed at the EOC	1.1.2.2, 1.2.2
3.	Identification of Radiological Laboratories	1.2.3, 1.2.4, 1.2.5, 6.7, 6.8
4.	Identification of Outside Assistance	1.2.1, 1.2.2, 1.2.3, 1.2.4, 1.2.5, Appendix H
D.	EMERGENCY CLASSIFICATION SYSTEM	
1.	Emergency Classification System	2.0, 2.1, Table 2.1
2.	Initiating Conditions for Emergency Action Levels	2.2, Table 2.1
3.	State and Local Emergency Classification System	N/A

NUREG-0654 Planning Standards and Evaluation Criteria		CPNPP Emergency Plan
4.	State and Local Emergency Response Implementing Procedures	N/A
E.	NOTIFICATION METHODS AND PROCEDURES	
1.	Notification of Emergency Response Organizations	3.0
2.	Notification of Emergency Response Personnel	3.0, 4.1.1, 4.4, 4.5
3.	Content of Initial Emergency Messages	3.1.1
4.	Content of Follow-Up Messages	3.1.3
5.	Release of Information to the Public	N/A
6.	Notification of the Public	3.2
7.	Content of Messages to the Public	5.1
F.	EMERGENCY COMMUNICATIONS	
1.a	24 Hour Communications	1.1.2.1, 4.1
1.b	Communications with State & Local Governments within EPZ	4.0, 4.1.9, 4.3, Table 4.1
1.c	Communications with Federal Emergency Response Organizations	4.0, 4.2, 4.3, Table 4.1
1.d	Communications with the EOF, EOC and Field Teams	4.0, 4.1.2, 4.1.4, 4.1.5, 4.1.7, 4.1.9, Table 4.1
1.e	Alert and Activation of Emergency Response Personnel	3.0, 4.0, 4.1.1, 4.4, 4.5
1.f	Communications between NRC, EOF & Field Teams Assembly Area	4.0, 4.1.5, 4.2, 4.3, Table 4.1
2.	Communications with Medical Support Facilities	4.0, 4.1.5, 10.3
3.	Periodic Testing of Emergency Communications System	12.2.1, 12.3

NUREG-0654 Planning Standards and Evaluation Criteria			CPNPP Emergency Plan
G.	PUBLIC EDUCATION AND INFORMATION		
	1.	Public Education Program	5.0
	2.	Education of the Transient Public within the EPZ	5.0
	3.a	Points of Contact and Accommodations for News Media	5.0, 5.1, 5.2, 6.5
	3.b	Designated Area for News Media in the EOF	5.1, 6.5
	4.a	Identification of Designated Spokesperson	1.1.2.2, Table 1.1, 5.1
	4.b	Exchange of Information Among Spokespersons	5.1
	4.c	Arrangements for Dealing with Rumors	1.1.2.2, 5.2
	5.	Information Programs for News Media	5.0
H.	EMERGENCY FACILITIES AND EQUIPMENT		
	1.	Establishment of TSC and OSC	6.2, 6.3
	2.	Establishment of the EOF	6.4
	3.	Establishment of the EOC	N/A
	4.	Activation and Staffing of Emergency Response Facilities	6.2.3, 6.3.3, 6.4.3, 6.5.3
	5.a	Geophysical Phenomena Monitors	6.13.5, 6.13.6, 6.13.7
	5.b	Radiological Monitoring System	6.13.3
	5.c	Provisions for Onsite Fire & Combustion Products Detectors	6.13.9
	6.a	Provisions for Offsite Geophysical Phenomena Monitors	6.13.5, 6.13.7
	6.b	Provisions for Offsite Radiological Monitors	ODCM
	6.c	Laboratory Facilities	6.8

NUREG-0654 Planning Standards and Evaluation Criteria		CPNPP Emergency Plan
7.	Offsite Radiological Monitoring Equipment	6.11, Appendix J
8.	Meteorological Instrumentation & Procedures	6.13.5
9.	Operations Support Center and Supplies	6.3, Appendix J
10.	Emergency Equipment Maintenance	6.11
11.	Identification of Emergency Equipment	Appendix J
12.	Point for Sample Receipt & Analysis of Field Data & Samples	6.7, 6.8
I.	ACCIDENT ASSESSMENT	
1.	Parameters for Off-Normal Conditions and Accidents	Table 2.1, 7.0
2.	Provisions for Initial and Continuing Accident Assessment	6.13.3, 7.0
3.a	Provisions for Determining Source Terms of Release	7.0, 7.1
3.b	Provisions for Determining Magnitude of Release	6.13.1, 6.13.2, 6.13.3, 6.13.10, 7.1
4.	Relationship of Release to Exposure and/or Contamination	7.2
5.	Access to Meteorological Information	6.13.5, 7.1
6.	Methodology for Determining Release Rates and Projected Doses	7.2
7.	Provisions for Field Monitoring within the Plume Exposure EPZ	Appendix J, 7.3.2
8.	Provisions for Rapid Assessment of Radiological Releases	4.0, 7.0
9.	Capabilities to Detect and Measure Radioiodines	6.6, 7.0, 7.3.2
10.	Provisions for Relating Measured Parameters to Dose Rates	7.2

NUREG-0654 Planning Standards and Evaluation Criteria		CPNPP Emergency Plan
11.	Provisions for Locating & Tracking Radioactive Plume	N/A
J.	PROTECTIVE RESPONSE	
1.	Provisions for Notification of Onsite Personnel	8.1
2.	Provisions for Evacuation from Site	8.1.1
3.	Provisions for Radiological from Site of Evacuated Site Personnel	8.1.3
4.	Provisions for Evacuating Non-Essential Onsite Personnel	8.1.1
5.	Provisions for Accountability of Onsite Personnel	8.1.2
6.a	Provisions for Onsite Use of Respiratory Protection	8.1.4
6.b	Provisions for Onsite Use of Protective Clothing	8.1.5
6.c	Provisions for Onsite Use of Radioprotective Drugs	8.1.6
7.	Mechanism for Recommendation of Protective Actions	8.2
8.	Time Estimates for Evacuation Within Plume Exposure EPZ	8.2.2, Appendices F, G, M, N
9.	State & Local Capabilities for Implementing Protective Measures	N/A
10.a	Maps Showing Evacuation Route Areas, & Relocation Centers, etc.	Appendices F, G, M, N
10.b	Maps Showing Population Distribution	Appendices F, G, N
10.c	Means for Notifying Transient and Resident Population	3.2, 5.0
10.d	Means for Protecting Individuals With Impaired Mobility	N/A

NUREG-0654 Planning Standards and Evaluation Criteria		CPNPP Emergency Plan
10.e	Provisions for Offsite Use of Radioprotective Drugs	8.1.6
10.f	Decision Making Process for Administering Radioprotective Drugs	N/A
10.g	Means of Relocation	N/A
10.h	Identification of Relocation Centers	N/A
10.i	Projected Traffic Capacities of Evacuation Routes	N/A
10.j	Control of Access to Evacuated Areas	N/A
10.k	Contingency Measures Regarding Use of Evacuation Routes	N/A
10.l	Evacuation Time Estimates for Sectors within the Plume Exposure EPZ	8.2.2
10.m	Basis of Choice for Recommended Protective Actions	8.2, Appendices B, C, D, M, N
11.	Protective Measures for Ingestion Pathway EPZ	N/A
12.	Means for Registering & Monitoring Evacuees at Relocation Centers	N/A
K.	RADIOLOGICAL EXPOSURE CONTROL	
1.a	Onsite Exposure Guidelines for Removal of Injured Personnel	9.1
1.b	Onsite Exposure Guidelines for Undertaking Corrective Actions	9.1
1.c	Onsite Exposure Guidelines for Performing Assessment	9.0
1.d	Onsite Exposure Guidelines for Providing First Aid	9.1
1.e	Onsite Exposure Guidelines for Performing Personnel Decontamination	9.3

NUREG-0654 Planning Standards and Evaluation Criteria		CPNPP Emergency Plan
1.f	Onsite Exposure Guidelines for Providing Ambulance Service	9.1
1.g	Onsite Exposure Guidelines for Providing Medical Treatment Services	9.1
2.	Onsite Radiation Protection Program	9.0, 9.1
3.a	Capabilities to Determine Doses Received by Emergency Personnel	9.0
3.b	Maintenance of Emergency Personnel Dose Records	9.0
4.	Decision Making Process for Authorizing Excess Exposure	9.1
5.a	Action Levels for Determining Need for Decontamination	8.1.3, 9.2, 9.3
5.b	Decontamination of Emergency Personnel and Equipment	9.3, 9.4
6.a	Provisions for Access Control to Onsite Contaminated Areas	9.2, 9.3
6.b	Provisions for Onsite Control of Drinking Water and Foodstuffs	9.2
6.c	Criteria for Permitting Return of Areas & Items to Normal Use	9.2
7.	Provisions for Decontamination of Relocated Onsite Personnel	6.9, Figure 6.1, 8.1.3
L.	MEDICAL AND PUBLIC HEALTH SUPPORT	
1.	Arrangements for Local and Backup Hospital and Medical Services	10.1, Appendix H
2.	Provisions for Onsite First Aid Capability	10.2, 13.0
3.	Listing of Hospitals and Other Emergency Medical Services	10.1, Appendix H

NUREG-0654 Planning Standards and Evaluation Criteria		CPNPP Emergency Plan
4.	Arrangements for Transporting Victims of Radiological Accidents	10.3, Appendix H
M.	RECOVERY AND REENTRY PLANNING AND POST ACCIDENT OPERATION	
1.	Plans and Procedures for Reentry and Recovery	11.0
2.	Licensee Recovery Organization	11.1.1, Figure 11.1
3.	Initiating of Recovery Operations	3.0, 4.0, 11.0
4.	Methods for Periodically Estimating Total Population Exposure	11.2
N.	EXERCISES AND DRILLS	
1.a	General Content of Emergency Preparedness Exercises	12.0
1.b	General Conduct of Emergency Preparedness Exercises	12.1
2.a	Provisions for Conducting Communications Drills	12.2.1
2.b	Provisions for Conducting Fire Drills	12.2.2
2.c	Provisions for Conducting Medical Emergency Drills	12.2.3
2.d	Provisions for Conducting Radiological Monitoring Drills	12.2.4
2.e (1)	Content and Conduct of Health Physics Drills	12.2.5
2.e (2)	Conduct of In-plant Liquid Sample Analysis Drills	12.2.5
3.a	Objectives and Evaluation Criteria for Each Drill and Exercise	12.3
3.b	Date, Time, Location and List of Participants for Each Drill & Exercise	12.3

NUREG-0654 Planning Standards and Evaluation Criteria		CPNPP Emergency Plan
3.c	Summary of Simulated Events in Scenarios for Drills & Exercises	12.3
3.d	Scenario Time Schedule for Drills & Exercises	12.3
3.e	Summary of Conduct of Drills & Exercises	12.3
3.f	Arrangements for Materials Provided to Drill/Exercise Observers	12.3
4.	Provisions for Observing, Evaluating and Critiquing Exercises	12.4
5.	Provisions for Implementing Corrective Actions	12.4
O.	RADIOLOGICAL EMERGENCY RESPONSE TRAINING	
1.	Provisions for Training Emergency Response Organization	13.0
1.a	Provisions for Training Offsite Emergency Response Organizations	13.0
1.b	Participation in Training by Offsite Emergency Response Organizations	13.0
2.	Content and Conduct of Training for Onsite Emergency Organization	13.0
3.	Content of Training for Onsite First Aid Teams	10.2
4.a	Training Program for Emergency Response Organization Management	13.0
4.b	Training Program for Accident Assessment	13.0
4.c	Training Program for Field Teams and Analysis Personnel	13.0
4.d	Training Program for Police, Security, and Fire Fighting Personnel	13.0
4.e	Training Program for Reentry and Recovery Teams	13.0

NUREG-0654 Planning Standards and Evaluation Criteria		CPNPP Emergency Plan
4.f	Training Program for First Aid and Rescue Personnel	10.2
4.g	Training Program for Local Emergency Response Support Personnel	13.0
4.h	Training Program for Medical Support Personnel	13.0
4.i	Training Program for Licensee Headquarters Support Personnel	13.0
4.j	Training Program for Personnel Communicating Information and/or Instructions	13.0
5.	Provisions for Retraining Emergency Response Personnel	13.0
P.	PLANNING EFFORT	
1.	Provisions for Training Emergency Planners	14.0
2.	Overall Authority and Responsibility for Emergency Planning	14.0
3.	Identification of Emergency Planning Coordinator (Supervisor)	14.0
4.	Provisions for Plan Maintenance	14.0
5.	Provisions for Plan & Procedures Distribution	14.0
6.	Listing of Supporting Plans and Sources	14.0, Appendix H
7.	Appendix to Plan Listing Implementing Procedures	14.0, Appendix K
8.	Plan Table of Contents and Cross-Reference Matrix	i, Appendix P
9.	Conduct of Independent Reviews	14.0
10.	Provisions for Updating Telephone Lists	14.0

Appendix Q

Definitions

ACCESS CONTROL POINT

A designated entry/exit point for personnel entering/exiting inplant Radiation Controlled Areas. The Access Control Point is supervised by radiation protection personnel.

ACCOUNTABILITY

The process of identifying the names of individuals in the Protected Area who are unable to contact Security after announcement of a site evacuation.

ACTIVATION

Condition where an Emergency Response Facility is staffed with the minimum personnel and capable of performing the functions defined in Table 1.1.

ADMINISTRATIVE DOSE LEVELS

Allowable dose levels imposed by Vistra OpCo - levels less than Federal Occupation Dose Limits and less than Emergency Dose Limits.

AFFECTED POPULATION

Those individuals within the minimum affected area.

ALERT AND NOTIFICATION SYSTEM

A system of sirens and activation consoles used to alert the populace within 10 miles of CPNPP to an emergency. This system is also known as the Outdoor Warning System (OWS) as well as the Siren System.

AS BUILT DRAWINGS

Drawings which provide location, configuration or design of buildings, systems and components throughout CPNPP.

ASSEMBLY AREAS

Locations in and around CPNPP where personnel assemble in the event of an emergency when the Emergency Coordinator calls for a building/protected area evacuation.

DECLARED EMERGENCY

Any event assigned an emergency classification.

DEDICATED (or DESIGNATED) EMERGENCY EQUIPMENT

Any items which are staged primarily for use by the Emergency Response Organization.

EMERGENCY ACTION LEVEL

Plant or radiological parameters which provide a basis for determining the appropriate Emergency Classification during an emergency situation.

EMERGENCY OPERATIONS CENTERS (EOCs)

Facilities established by local governments for controlling resources in an emergency situation. (NOTE: State and local county plans define EOC as “Emergency Operating Center”.)

EMERGENCY RESPONSE EQUIPMENT

Any item which is identified or made available for emergency response.

EMERGENCY OPERATIONS FACILITY (EOF)

The onsite emergency response facility from which management of the overall CPNPP emergency response, including coordination with federal, state and local officials, will occur.

EMERGENCY RESPONSE ORGANIZATION (ERO)

Personnel assigned to perform selected emergency response tasks during a declared emergency.

EMERGENCY RESPONSE ORGANIZATION ROSTER

A listing of Emergency Response Organization personnel.

EMERGENCY REPAIR AND DAMAGE CONTROL ACTIVITIES

Activities required to mitigate emergency conditions.

ENGINEERING WORKBOOK

A notebook containing various calculation tables, formulas and figures.

FRISKER

A portable count rate instrument sensitive to low levels of radioactive contamination.

IN-PLANT

Buildings or structures, located inside the Protected Area, directly associated with plant primary, secondary, control, or fuel-handling system (e.g., the Auxiliary Building, Containment Buildings, Safeguards Buildings, Fuel Building, Control Building, and Turbine Building).

JOINT INFORMATION CENTER

The JIC is the single point on site from which information regarding an emergency condition at CPNPP will be disseminated to the public and news media.

NONESSENTIAL PERSONNEL

Personnel in one or more of the following categories:

Employees not having emergency response organization assignments, excluding on-shift Nuclear Operations personnel.

Visitors

Contractors (excluding Security organization), unless authorized by the Emergency Coordinator.

Individuals involved in non-operational activities permitted by the FSAR within the Exclusion Area.

Squaw Creek Park patrons.

Other persons who may be in a public access area or passing through the Owner Controlled Area.

OFFSITE

All areas not covered under the definition of “onsite.”

ONSITE

The land area forming the peninsula on which CPNPP is sited. The western boundary of this area is the western-most evaporation pond.

OPERATIONS SUPPORT CENTER (OSC)

The onsite emergency response staging area where the Emergency Repair and Damage Control Group personnel assemble and are dispatched during an emergency.

PERIODIC DEFINITIONS

The following definitions are applicable to those plan events/tasks which occur on a regular basis:

“Monthly” means once during a calendar month;

“Quarterly” means once during a calendar quarter;

“Semi-annual” or “Semi-annually” means twice during a calendar year;

“Annual” or “Annually” means once during a calendar year.

PLANT EVACUATION ROUTES

Predetermined evacuation routes designated by signs located throughout the plant.

PLANT PERSONNEL

Personnel employed or contracted by Vistra OpCo who are involved in the operation, construction or maintenance at CPNPP.

RUMOR CONTROL

Personnel in the Joint Information Center (JIC) dedicated to answer questions and dispel rumors from residents or media during an emergency situation.

SHIFT MANAGER

A member of management, holding a Senior Reactor Operator's license, in charge of Control Room functions.

SITE EVACUATION

Withdrawal of non-essential personnel from the Exclusion Area.

SQUAW CREEK PARK

A park, owned and controlled by Vistra OpCo, that provides restricted access to Squaw Creek Reservoir.

TECHNICAL SUPPORT CENTER (TSC)

The TSC is the onsite emergency response facility located in close proximity to the Control Room, providing plant management and technical support to Control Room personnel during an emergency.

Appendix R

(Removed From CPNPP

Emergency Plan)

Appendix S

Corporate Emergency

Management Plan

THIS APPENDIX HAS BEEN DELETED

COMANCHE PEAK NUCLEAR POWER PLANT
EMERGENCY PLAN (EP)
EFFECTIVE LISTING FOR SECTIONS, TABLES, AND FIGURES

BELOW IS A LEGEND FOR THE EFFECTIVE LISTING OF SECTIONS, TABLES, AND FIGURES:

Revision 0 (FSAR Amendment 12)	Submitted to the NRC October 8, 1980
Revision 1 (FSAR Amendment 16)	Submitted to the NRC March 31, 1981
Revision 2 (FSAR Amendment 28)	Submitted to the NRC October 26, 1981
Revision 3 (FSAR Amendment 32)	Submitted to the NRC May 21, 1982
Revision 4 (FSAR Amendment 34)	Submitted to the NRC August 20, 1982
Revision 5 (FSAR Amendment 35)	Submitted to the NRC October 12, 1982
Revision 6 (FSAR Amendment 39)	Submitted to the NRC March 8, 1983
Revision 7 (FSAR Amendment 43)	Submitted to the NRC August 29, 1983
Revision 8 (FSAR Amendment 48)	Submitted to the NRC April 30, 1984
Revision 9 (FSAR Amendment 58)	Submitted to the NRC June 30, 1986
Revision 10 (TXX-88625)	Submitted to the NRC August 22, 1988
Revision 11	August 31, 1989
Revision 12	September 28, 1990
Revision 13	January 31, 1992
Revision 14	June 12, 1992
Revision 15	June 1, 1993
Revision 16	September 10, 1993
Revision 17	January 1, 1994
Revision 18	January 31, 1994
Revision 19	November 1, 1994
Revision 20	January 6, 1995
Revision 21	March 10, 1995
Revision 22	June 16, 1995
Revision 23	August 23, 1995
Revision 24	April 19, 1996
Revision 24 (ERRATA)	April 25, 1996
Revision 25	October 1, 1996
Revision 26	October 15, 1997
Revision 27	July 24, 1998
Revision 28	December 17, 1999
Revision 29	March 3, 2000
Revision 30	March 13, 2003
Revision 31	June 20, 2003
Revision 32	May 17, 2005
Revision 33	January 19, 2006
Revision 34	January 30, 2007
Revision 35	May 28, 2008
Revision 36	January 8, 2009
Revision 37	April 2, 2009
Revision 38	November 4, 2010
Revision 39	February 21, 2013

Revision 40	September 30, 2015
Revision 41	January 6, 2017
Revision 42	August 2, 2018
Revision 43	April 16, 2020

EPLAN TOC	Revision 42
EPLAN LOT	Revision 41
EPLAN LOF	Revision 37
Section 1.0	Revision 43
Table 1.1	Revision 43
Table 1.2	Revision 43
Figure 1.1	Revision 37
Figure 1.2	Revision 43
Figure 1.3	Revision 43
Figure 1.4	Revision 37
Figure 1.5	Revision 43
Figure 1.6	Revision 43
Section 2.0	Revision 41
Table 2.1	Revision 41
Section 3.0	Revision 43
Section 4.0	Revision 43
Table 4.1	Revision 43
Table 4.2	Revision 43
Section 5.0	Revision 43
Section 6.0	Revision 43
Figure 6.1	Revision 37
Section 7.0	Revision 43
Section 8.0	Revision 37
Section 9.0	Revision 39
Section 10.0	Revision 37
Section 11.0	Revision 43
Figure 11.1	Revision 37
Section 12.0	Revision 43
Section 13.0	Revision 37
Section 14.0	Revision 43
Section 15.0	Revision 37
Appendix A	Revision 37
Appendix B	Deleted

Appendix C	Deleted
Appendix D	Deleted
Appendix E	Revision 37
Figure E.1	Revision 12
Figure E.2	Revision 12
Appendix F	Revision 37
Table F.1	Revision 37
Figure F.1	Revision 5
Figure F.2	Revision 36
Appendix G	Revision 37
Figure G.1	Revision 3
Appendix H	Revision 39
Appendix J	Revision 43
Appendix K	Revision 37
Appendix M	Revision 43
Appendix N	Revision 41
Table N.1	Deleted
Figure N.3	Deleted
Figure N.4	Deleted
Figure N.6	Deleted
Appendix P	Revision 43
Appendix Q	Revision 43
Appendix R	Revision 37
Appendix S	Deleted
EL-1	Revision 42
EL-2	Revision 42
EL-3	Revision 42
EL-4	Revision 42

Emergency Plan - Revision 33

LDCR-EP-2005-2 (EVAL-2005-003329-01) (RJK):

The capability to respond to significant events at CPSES is enhanced by the addition of new letters of agreement (MOU's) with four area fire departments. The letters have been secured and the resources of these departments are available to enhance CPSES response to such an event.

Sections Revised: 15-H

Tables Revised: None

Figures Revised: None

LDCR-EP-2005-3 (EVAL-2005-002793-01) (RJK):

Update Eplan Section 2 classification definitions to match NRC Bulletin 2005-02. Also update the references in the back of Section 2

Sections Revised: 2

Tables Revised: None

Figures Revised: None

LDCR-EP-2006-1 (CPSES-200600062) (RJK):

These editorial changes are administrative and contain no technical changes. The electronic files have been converted from Microsoft Word to Adobe Framemaker and published in Adobe Portable Document Format (PDF). The type of changes include changes such as (1) correction of spelling errors, (2) correction of inadvertent word processing errors from previous changes, and (3) style guide changes (e.g., changing from a numbered bullet list to an alphabetized bullet list and vice versa, change numbering of footnote naming scheme). The entire EP will be reissued as Revision 33 (except as noted below). For the text and tables there will be no change bars in the page margins for the editorial changes. Some Figures and Tables will retain a revision number prior to Revision 33 since the source file is not in Adobe Framemaker (e.g. scanned page). The list of effective pages is being replaced with an effective list of sections, tables, and figures.

Sections Revised: All

Tables Revised: All (except as noted above)

Figures Revised: All (except as noted above)

Emergency Plan - Revision 34

LDCR-EP-2006-2 (EVAL-2004-001966-04) (RJK):

The CPSES Seismic Instrumentation System is being upgraded to replace an aging and obsolete system. The new system will still provide information to the plant staff to enable evaluation of plant conditions and for plant staff to make the resulting emergency declarations. The EP-related functions provided by the existing system will still be provided by the replacement system, and therefore this change does not constitute a decrease in effectiveness of the CPSES Emergency Plan.

Emergency Plan - Revision 35

LDCR-EP-2008-1 (EVAL-2008-000685-02) (RJK):

Section 1, 3, 4 and 12 - Remove references to the Waco location of the Department of Public Safety (DPS). The licensee responsibilities remain the same without regard to the location of the receiving authority for notifications and communications.

LDCR-EP-2008-2 (EVAL-2008-000746-02) (RJK):

Section 6.4.6 - Change location of the Alternate EOF. New location is a dedicated response-ready facility versus the previous dual-use facility that required ad hoc setup to obtain continuity of function.

Emergency Plan - Revision 36

LDCR-EP-2008-10 (EVAL-2006-001694-02) (JEB):

This changes the current northern boundary of the Emergency Response Zones (ERZ) in the Granbury Area by adjusting the northern boundary of Zones 4E and 1D northward to Pearl Street and deleting the city of Granbury as an ERZ of its own. This change to the ERZ's will more clearly define the physical location of the Northern-most boundary of the 10 mile EPZ for the purpose of evacuation planning and execution, and will eliminate confusion with respect to use of the term "Granbury" in implementation of Protective Action Decisions by local officials.

Emergency Plan - Revision 37

LDCR-EP-2008-8 (EVAL-2008-001718-06) (JEB):

LDCR EP-2008-008 (tracked by EVAL-2008-001718-06) changes throughout the Plan; TXU Power to Luminant Power and Comanche Peak Steam Electric Station (CPSES) to Comanche Peak Nuclear Power Plant (CPNPP). The revision also changes any BRC reference to their new name; Department of State Health Services (DSHS). These changes do not affect the operating organizations or corporate structures with respect to the Emergency Plan.

LDCR-EP-2008-8 (EVAL-2008-001718-06) (JEB) (continued):

Change from TXU Power to Luminant Power as the licensee was approved by the NRC in their Order of 9/17/07 and Amendment 139 to the Operating Licenses. In addition, Luminant Power as the new licensee changed the station name to Comanche Peak Nuclear Power Plant (CPNPP) concurrently. Both changes do not affect the operating organization or corporate support structure with respect to the Emergency Plan.

Also change all references to Texas Bureau of Radiation Control (BRC) to Texas Department of State Health Services (DSHS). This offsite bureau was renamed, but retains all functional capabilities and authorities under the State of Texas Emergency Response Plan.

This LDCR is an administrative change only, reflecting these name changes.

LDCR-EP-2008-3 (EVAL-2008-001718-01) (JEB):

LDCR EP-2008-003 (tracked by SMF EVAL-2008-001718-01) deletes the language in Section 4.1.6 describing a direct phone line between plant operators and the Systems Operations Center. As a result of deregulation, the direct phone line no longer exists.

LDCR-EP-2008-4 (EVAL-2008-001718-02) (JEB):

LDCR EP-2008-004 (tracked by SMF EVAL-2008-001718-02) changes Section 5.1 terminology from "news conferences" to "press briefings" and designates the Joint Information Center (JIC) as the location for public information releases during emergencies.

LDCR-EP-2008-5 (EVAL-2008-001718-03) (JEB):

LDCR EP-2008-005 (tracked by SMF EVAL-2008-001718-03) clarifies in Section 10.3 that the ambulance radio can be used to communicate with the local hospital during transport of contaminated and injured personnel.

LDCR-EP-2008-7 (EVAL-2008-001718-05) (JEB):

LDCR EP-2008-007 (tracked by EVAL-2008-001718-05) enhances the Section 6.4.6 description of the physical location and functional capabilities of the Alternate Emergency Operations Facility.

LDCR-EP-2008-9 (EVAL-2008-001718-07) (JEB):

LDCR EP-2008-009 (tracked by EVAL-2008-001718-07) corrects a listing in the Emergency Plan/NUREG-0654 Cross Reference in Appendix P, Sect J. 10.c. The referenced information was moved in an earlier revision but the cross reference was not changed.

LDCR-EP-2009-1 (EVAL-2008-002039-04) (JEB):

LDCR EP-2009-001 (tracked by SMF EVAL-2008-002039-04) changes references in Section 9.0 from thermo luminescent dosimeters (TLDs) to Optically Stimulated Luminescence (OSL) Badges. This change acknowledges the recent switch from TLDs to OSLs.

Emergency Plan - Revision 38

LDCR-EP-2010-1 (EV-CR-2010-007894-1) (JEB):

TOC

Table of Contents revised to list 2.1.1.a as "Unusual Event" (instead of Notification of Unusual Event)

Section 1

Section 1 is revised to insert "Unusual Event" in the place of "Notification of Unusual Event" to reflect the updated designation of that emergency classification. Affected pages include 1-1, 1-3, 1-41-7

Table 1.2 is revised to update the lowest emergency classification designation to Unsual Event (instead of Notification of Unusual Event)

Section 2

Page 2-1 is changed to insert "Unusual Event" in the place of "Notification of Unusual Event."

Page 2-3 updated to include NEI-99-01 Revision 5, "Methodology for Development of Emergency Action Levels" in the IC/EAL basis document list.

Table 2.1

The initiating conditions for EAL classifications listed in Table 2.1 were revised to reflect the NRC approved NEI 99-01 Rev. 5 based EALs.

Section 3

The lowest event classification is changed from "Notification of Unusual Event" to "Unusual Event" to match NEI 99-01 Rev. 5 and current industry practices. The term "Emergency Action Level (EAL) Identifier" is used for consistency with the new EALs.

Emergency Plan - Revision 39

LDCR-EP-2013-1 (EV-CR-2011-013606-10) (JEB):

Revise Emergency Plan Section 1 (1.1.2.1) to include results of the On-Shift Staffing Analysis required by 10 CFR 50, Appendix E.

Table 1.1 of the E-Plan reflects the results of the staffing study. Table 1.1 did not have to be revised, only new wording added to 1.2.1.1 to describe the required staffing study.

LDCR-EP-2013-2 (EV-CR-2012-002886-1) (JEB):

Update the Appendix P table which cross-references the CPNPP Emergency Plan contents with the requirments in NUREG-0654 "Criteria for Preparation and Evaluation of adiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants."

LDCR-EP-2013-3 (EV-CR-2012-002878-1) (JEB):

Appendix H revised to update the listing of Letters of Agreement and supporting emergency plans. This change has no impact on emergency plan functions as it only changes supplemental information. The deletion of the TolarFire Department removes a tertiary local VFD whose capabilities are still available under local mutual aid agreements with primary responding fire departments.

LDCR-EP-2012-1 (EV-CR-2012-001382-2) (JEB):

E-Plan Section 4 revised to reflect change from PBX (private branch exchage) phone system to Intraplant Phone System (ITS), currently consisting of the VoIP (voice over internet protocol) phone system. The microwave communications system is also removed (no longer designated as an alternate communications system) from Section 4. Table 4.2 revised to update an interface to "Offiste Monitoring Team Director/ Communicator."

LDCR-EP-2012-2 (EV-CR-2012-010400-2) (JEB):

Adminstrative revision to E-Plan Section 9 and Appendix J to reflect the January 1, 2013 dosimetry change from OSL (optically stimulated luminescence) to TLD (thermoluminescent dosimeter). Reference CR-2012-010400

Emergency Plan - Revision 40

LDCR-EP-2015-3 (EV-CR-2015-004563-2) (JEB):

Table 1.1 changes to reflect Operations minimum staffing increases resulting from the NEI 12-01, "Guideline for Assessing Beyond Design Basis Accident Response Staffing and Communications Capabilities" based Phase II staffing study. The assessment was necessary to respond to information requests contained in NRC letter "Request for Information Pursuant to title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-Ichi Accident," dated March 12, 2012.

Emergency Plan - Revision 41

LDCR-EP-2015-4 (EV-CR-2014-012646-9) (JEB):

Incorporation of description and use of NEI 99-01, Rev. 6, Development of Emergency Action Levels for Non-Passive Reactors.

LDCR-EP-2015-2 (EV-TR-2016-001102-1) (JEB):

Remove outdated data/references and replace with revised CPNPP Evacuation Time Estimate (ETE) Summary which was developed from NEI EPFAQ 12-17, Example Evacuation Time Estimate Summary.

LDCR-EP-2016-1 (EV-CR-2015-005680-3) (JEB):

Add section 6.14 to the Emergency Plan to described the alternative facility (or facilities) as described in 10CFR50 Appendix E, IV.E.8.d.

Emergency Plan - Revision 42

LDCR-EP-2018-1 (EV-TR-2018-002999-1) (JEB):

Remove pagers and replace facsimile, fax and or telecopier with electronic communication.

Emergency Plan - Revision 43

EP LAR 2018-002 (TR-2018-005895) (JEB):

Implement the NRC-approved LAR to:

- Extend augmentation time requirements for selected Emergency Response Organization (ERO) members to 60 and 90 minute response times (from 40 and 70 respectively).

- Reduce the number of required ERO augmentation positions through consolidation and elimination.

LDCR EP-2020-001 (CR-2019-008831)

Delete Section 6.7 "Laboratory Facilities in EOF-NOSF."

LDCR EP-2020-002 (CR-2018-007026)

Editorial Changes:

- Change the company name from Luminant to Vistra Operations Company LLC (Vistra OpCo).
- Revise Sections 1.2.3 and 6.8 to "South Texas Project" from "Houston Lighting and Power."
- Change Figure 1.6 to "Electronic Media Monitoring Aide" (instead of "Aides").