

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

TEXAS UTILITIES GENERATING COMPANY,
ET AL.

(Comanche Peak Steam Electric Station,
Units 1 and 2)

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Docket Nos. 50-445
50-446

FEMA STAFF TESTIMONY OF ALBERT LOOKABAUGH AND JOHN BENTON
REGARDING EMERGENCY PLANNING (CONTENTION 22)

Q.1. Mr. Lookabaugh, please state your name and occupation.

A.1 My name is Albert L. Lookabaugh. I am the Supervisor, Community Planner, Natural and Technological Hazards ("NTH") Division, Region VI, of the Federal Emergency Management Agency ("FEMA") in Denton, Texas.

Q.2. Mr. Benton, please state your name and occupation.

A.2. My name is John W. Benton, Community Planner, NTH Division, Region VI, of FEMA.

Q.3. Please describe the nature of the responsibilities you have had regarding nuclear power plant emergency preparedness.

A.3. We are responsible for the review and evaluation of all off-site Radiological Emergency Preparedness Plans ("REPs") for fixed nuclear generating facilities within FEMA's Region VI.

Q.4. Have you prepared a statement of your professional qualifications?

A.4. Yes. A statement of our professional qualifications is attached to this testimony.

Q.5. Please describe the nature of the responsibilities you have had with respect to Comanche Peak Steam Electric Station ("CPSES").

A.5. We reviewed and evaluated the off-site REP plans for CPSES.

Q.6. What is the purpose of this testimony?

A.6. This testimony addresses Contention 22 which states:

Applicants have failed to comply with 10 C.F.R. Part 50, Appendix E, regarding emergency planning, for the following reasons:

- a. The FSAR does not identify state or regional authorities responsible for emergency planning or who have special qualifications for dealing with emergencies.
- b. No agreements have been reached with local and state officials and agencies for the early warning and evacuation of the public, including the identification of the principal officials by titles and agencies.
- c. There is no description of the arrangements for services of physicians and other medical personnel qualified to handle radiation emergencies and arrangements for the transportation of injured or contaminated individuals beyond the site boundary.
- d. There are no adequate plans for testing by periodic drills of emergency plans and provisions for participation in the drills by persons whose assistance may be needed, other than employees of the Applicant.
- e. There is no provision for medical facilities in the immediate vicinity of the site, which includes Glen Rose.
- f. There is no provision for emergency planning for Glen Rose or the Dallas/Ft. Worth metroplex.

In particular, we will be addressing the adequacy of off-site emergency preparedness for CPSES.

Q.7. How does FEMA accomplish its review and evaluation of nuclear power plant off-site emergency preparedness?

A.7. FEMA is responsible for reviewing off-site plans for emergency preparedness for nuclear power plants. This review results in FEMA's determination as to the adequacy of State and local plans for off-site emergency preparedness as they relate to the 10 and 50 mile emergency planning zones ("EPZs") around the site of a nuclear power plant. Criteria used in these evaluations are contained in NUREG 0654/FEMA-REP-1, Revision 1. FEMA does not review the Applicants' Final Safety Analysis Report ("FSAR") for criteria evaluation purposes.

Q.8. With respect to Contention 22(a), what provisions does the Applicants' emergency plan contain identifying the state and regional authorities responsible for emergency planning or who have special qualifications for dealing with emergencies?

A.8. Evaluation criteria with regard to identification of State and local authorities responsible for emergency planning, are contained in Section II, Parts A and P of NUREG-0654/FEMA-REP-1, Revision 1. The criteria provide:

Criterion A.1. Each plan shall identify the State, local, Federal, and private sector organizations that are intended to be part of the overall response organization; and

Criterion P.2 Each organization shall identify by title the individual with the overall authority and responsibility for radiological emergency response planning.

Tab 1, "Fixed Nuclear Facility Accidents", of Appendix 7, "Radiological Emergency Response", to Annex L "Texas Department of Health", Texas Emergency Management Plan ("State Plan"), states: "Tab 1 amplifies the assignment of essential emergency functions identified in Appendix 7; focusing on their application to fixed coordination of multi-jurisdictional incident response by identifying a framework of relationships among the State of Texas, the Hood and Somervell county governments which are located within the Emergency Planning Zones (EPZ's), the Applicants, and agencies of the United States Government having response or regulatory assignments under Federal plans or regulations."

Our evaluations of the State and local plans indicate that they adequately identify the appropriate State and county officials responsible for emergency planning. This will be documented in FEMA's Preliminary Findings regarding the off-site planning for CPSES, which will be published in the near future.

Q.9. With respect to Contention 22(b), describe the agreements which have been reached between the Applicants and State and local officials and agencies for the early warning and evacuation of the public, including the identification of the principal officials by titles and agencies.

A.9. FEMA's evaluation criteria with regard to emergency notification and evacuation of the public are contained in Section II, Part E of NUREG-0654, Revision 1. The criteria provide:

Criterion E.5. State and local government organizations shall establish a system for disseminating to the public appropriate information contained in initial and followup messages received from the licensee including the appropriate notification to appropriate broadcast media, e.g., the Emergency Broadcast System (EBS).

Criterion E.6. Each organization shall establish administrative and physical means, and the time required for notifying and providing prompt instructions to the public within the plume exposure pathway Emergency Planning Zone. (See Appendix 3.) It shall be the licensee's responsibility to demonstrate that such means exist, regardless of who implements this requirement. It shall be the responsibility of the State and local governments to activate such a system.

The Emergency Operations Plan for both Hood and Somervell Counties state in Annex A, "Warning", Paragraph V.C., "Fixed Nuclear Facility Incident", that "... in the event of an incident at the Comanche Peak Steam Electric Station, the County will receive notification from officials of the plant, or from officials of the Texas Department of Public Safety ("DPS"). All emergency activities relating to Comanche Peak are detailed in Annex F of this Emergency Operations Plan, and its attachments. These documents are contained in the manual of Emergency Procedures."

Attachments F, "Standing Operating Procedures for Public Warning", to the Hood County and Somervell County Emergency Operations Plans state: "The public will be given warning based upon protective

actions recommended to the cities and the county by the Texas Department of Health. Generally, the public will be advised to seek shelter where they are (in-place), or to evacuate (relocate)."

Notification that an incident has occurred at CPSES will be sent by the Texas Department of Health, the Texas Department of Public Safety, and/or Texas Utilities Generating Company to the County Judges for Hood and Somervell Counties. Applicants will notify the Department of Public Safety District Office in Waco, which will in turn notify the Sheriff's Office of the appropriate Emergency Action Levels ("EALs"), by DPS radio or the Texas Law Enforcement Teletype System ("TLETS"). Commercial telephone will be used if necessary. Attachments D, page 161, Hood County Emergency Operations Plan, page 150; Somervell County Emergency Operations Plan.

Once the decision to warn the public has been made, the Warning Officer (Dispatcher or other designated personnel) will activate outdoor pole-mounted sirens in the threatened area(s) and dispatch mobile public address ("PA") systems mounted in vehicles.

An outdoor siren notification system must be completely installed prior to full power operation of CPSES. The system is designed to provide coverage of the entire 10 mile EPZ, including urban, rural,

and recreational areas. The system will be operated and controlled by the local officials of Hood and Somervell Counties.

Warning must be followed by information. The primary method for providing information to the public, once the sirens have alerted them, is the Emergency Broadcast System ("EBS"). The County Judge will activate this system by contacting WBAP radio/TV in Fort Worth and instructing them to initiate the EBS procedures.

Simultaneously, the National Weather Service's Weather Radio System may be contacted and asked to transmit information to the public. In the event that EBS cannot be utilized, and as a complement to that system, the County's mobile PA units will be dispatched to provide information to the public. (See Attachment F to the Hood and Somervell Counties' Emergency Operations Plans).

FEMA will withhold final approval on warning systems until all the systems are installed, tested, and evaluated in accordance with FEMA rules and regulations.

Attachment G to both the Hood County and Somervell County Emergency Operations Plans, entitled, "Standing Operating Procedures for Evacuation", sets forth how evacuation is to be accomplished should the need arise. The decision to evacuate any or all parties of a county will be made by the County Judge for that County. The County Judge's evacuation order is implemented by the County Sheriff, who will be located at the County Jail. The Sheriff will

receive advice and guidance from the Texas Department of Health and/or Applicants regarding which parts of the area should be evacuated. To accomplish evacuation from designated areas, the Sheriff will establish roadblocks, notify the residents of the designated areas to evacuate, and assist in relocation of evacuees.

The State and county plans contain adequate provisions for the notification and evacuation of the public in the 10 mile EPZ. This conclusion will be documented in FEMA's Preliminary Findings regarding off-site planning for CPSES.

- Q.10. With regard to Contention 22(c), describe the State and local emergency plans' provisions for the services of physicians and other qualified medical personnel for handling radiation emergencies, and the transportation of injured or contaminated individuals beyond the site boundary.
- A.10. FEMA's evaluation criteria regarding physicians, medical facilities and transportation of injured and radiological contaminated individuals are contained in Section II, Part L of NUREG-0654/FEMA-REP-1, Revision 1. The criteria provide:
- Criterion L.1. Each organization shall arrange for local and backup hospital and medical services having the capability for evaluation of radiation exposure and uptake, including assurance that persons providing these services are adequately prepared to handle contaminated individuals.
 - Criterion L.2. Each licensee shall provide for onsite first aid capability.

Criterion L.3. Each State shall develop lists indicating the location of public, private and military hospitals and other emergency medical services facilities within the State or contiguous States considered capable of providing medical support for any contaminated injured individual. The listing shall include the name, location, type of facility and capacity and any special radiological capabilities. These emergency medical services should be able to radiologically monitor contamination personnel, and have facilities and trained personnel able to care for contaminated injured persons.

Criterion L.4. Each organization shall arrange for transporting victims of radiological accidents to medical support facilities.

The Hood County and Somervell County Emergency Operations Plans, and the Texas Emergency Management Plan do not adequately address Criteria L.1 to 4 of NUREG-0654/FEMA-REP-1 Revision 1. Three local hospitals are identified in the State plan for treatment of radiologically-contaminated persons: Hood General Hospital in Granbury; Stephenville Hospital in Stephenville; and Johnson County Memorial Hospital in Cleburne. However, the State and local county plans do not contain or reference letters of agreement between these hospitals, and the State and county governments which confirm the hospitals' willingness to accept and treat radiologically-contaminated persons.

In addition, there is insufficient description in the plans of the capability of the three hospitals identified above for receiving, evaluating, and treating radiologically-contaminated or injured individuals.

The plans do not mention how victims will be transported to the three hospitals. Finally, the plans do not contain or reference letters of agreement between ambulance services, and the State and County governments, confirming the ambulance service's willingness to handle and transport radiologically contaminated or injured individuals.

The State and county plans were submitted to us for review on June 17, 1982. Shortly thereafter, we were given a verbal commitment by the State and County officials responsible for writing the plans that letters of agreement with any non-governmental organization having an assigned responsibility within the plans would be either incorporated or referenced in the plans. Additional conversations with the Texas Bureau of Radiation Control indicate that additional information regarding medical capabilities and resources will be incorporated in the plans.

We conclude that the State, Hood County, and Somervell County emergency plans do not adequately address the FEMA guidance criteria for provision of medical facilities and personnel to treat radiologically-contaminated individuals. However, on the basis of the verbal commitments we have received from officials for the State and the two counties, we believe that this inadequacy will be rectified. Our findings will be documented in the Preliminary Findings for CPSES.

Q.11. With regard to Contention 22(d), describe the provisions in the State and local emergency plans for testing by periodic drills of emergency plans, and provision for participation in the drills by persons whose assistance may be needed, other than employees of the Applicants.

A.11. FEMA's planning standard for periodic drills or exercises of emergency plans are contained in Section II, Part N of NUREG-0654/FEMA-REP-1, Revision 1, which states:

Periodic exercises are (will be) conducted to evaluate major portions of emergency response capabilities, periodic drills are (will be) conducted to develop and maintain key skills, and deficiencies identified as a result of exercises or drills are (will be) corrected.

The five guidance criteria for this area are attached to our testimony as Attachment 3 to our testimony.

Attachment 4, Tab 1, "Fixed Nuclear Facility Accidents", Appendix 7, Annex L to the State Plan, provides that the Bureau of Radiation Control will participate, along with appropriate Utility, Local, State and Federal agencies, in annual exercises of Fixed Nuclear Facility Response plans. The scope of these annual exercises will be in accordance with requirements identified by FEMA. Scenarios for annual exercises will be developed by the Bureau of Radiation Control in cooperation with the Applicants and the Division of Emergency Management. Other participants will be included in scenario development covering the involvement of their agencies.

Exercise scenarios will be designed to test major components of relevant plans, and will be scheduled to demonstrate 24-hour operating capabilities starting at any time of day or night in any type of weather.

In addition to official observers from Federal agencies, the annual exercises will be observed by representatives from participating State agencies. Following each exercise a critique will be conducted, observer comments will be evaluated, necessary changes to appropriate plan elements will be incorporated, and plan updates will be issued.

Either in conjunction with the major annual exercise, or as separate limited exercises and drills, the following will be conducted at the stated frequencies.

1. Monthly communications drills designed to test the ability of the state system to receive a simulated message from the Applicants; relay that message from the Department of Public Safety District Office through Department of Public Safety Headquarters Communications, the Division of Emergency Management and the Department of Health's Disaster Response Program to the Bureau of Radiation Control; and have that message arrive at the Bureau in an understandable form. Similar drills may be conducted wherein messages are sent from the Applicants to

appropriate local governments, either direct or via relay through the Department of Public Safety District Office(s).

Message verification during Hood and Somervell Counties' drills will be in accordance with the respective county's procedures. Verification will not be a factor in State drills since initial notification will be via dedicated telephone line from the Applicants to the Department of Public Safety District Office; or will be verified by the Department of Public Safety in accordance with Standing Operating Procedures of the Department. Once a message enters the official State communications channel, it may be considered to be authentic by all parties.

2. Semi-annual Health Physics drills will be conducted in which each four-man shift of the accident assessment team receives, evaluates, and develops recommendations for protective responses to simulated elevated airborne and liquid releases and direct radiation measurements in the environment. Typical drills will include use of the mini-computer in the mobile laboratory, appropriate models, and the computer graphics terminal and printer which would be available in the Applicants' Emergency Operations Facility.

Although suggested by federal guidance, the following drills will not be conducted as discrete activities. They are adequately included in other activities.

1. Monthly communications drills involving Radiological Monitoring teams

The communications equipment involved is in daily use by the Department of Public Safety members of those teams. Message contents will be familiar to Bureau of Radiation Control team members and Department of Public Safety team members will be present at all times during actual response to give technical assistance in equipment use.

2. Communications with Federal emergency response organizations

Proper channels for this type of communication are between the Division of Emergency Management and the Federal Emergency Management Agency's Region VI offices in Denton, Texas. Primary communications mode between those agencies is by telephone. National Warning System ("NAWAS"), the secondary communications system is tested every day, and the Civil Defense National Radio System, the tertiary system, is tested on a weekly basis.

3. Radiological monitoring drills

Monitoring teams will participate in annual exercises, but additional annual drills are not necessary because the

skills and procedures involved are identical to those used in routine sampling at other locations, and because the communications and record keeping systems are in daily use.

On the basis of our review of the State and the two county plans, we conclude that there are adequate provisions in those plans for periodic drills and exercises. This will be documented in FEMA's Preliminary Findings regarding the off-site emergency plans for CPSES.

Q.12. With regard to Contention 22(e), describe the Applicants' Emergency Plan provisions which identify the medical facilities in the immediate vicinity of the site, including Glen Rose.

A.12. FEMA's guidance criterion for identification of medical facilities with the capability of treating radiologically-contaminated individuals is contained in Section II, Part L of NUREG-0654/FEMA-REP-1, Revision 1. Criterion L.3. states:

Criterion L.3. Each State shall develop lists indicating the location of public, private and military hospitals and other emergency medical services facilities within the State or contiguous States considered capable of providing medical support for any contaminated injured individuals. The listing shall include the name, location, type of facility and capacity and any special radiological capabilities. These emergency medical services should be able to radiologically monitor contamination personnel, and have facilities and trained personnel able to care for contaminated injured persons.

Tab 1, "Fixed Nuclear Facility Accidents", Appendix 7, Annex L of the Texas Emergency Management Plan, states: "Within the 10-mile EPZ for Comanche Peak Steam Electric Station, persons injured in on-site accidents where radiation contamination could be a factor will be instructed to seek medical attention either at the Hood General Hospital in Granbury, the Stephenville Hospital in Stephenville, or the Johnson County Memorial Hospital in Cleburne. All of those hospitals have the capability to handle contaminated injury victims, and all have expressed to local officials their willingness to do so in support of CPSES response plans."

There is no specific guidance criterion that all medical facilities, regardless of their capability to treat radiologically-contaminated individuals, be identified in the State or county emergency plans. Nonetheless, the Counties of Hood and Somervell have committed to listing supporting medical facilities in Attachment Q to their respective Emergency Operations Plan. This list should identify any medical facilities that are located in Glen Rose.

Q.13. With regard to Contention 22(f), are there emergency planning provisions for the City of Glen Rose?

A.13. Yes. The City of Glen Rose is located in Somervell County, and is within the 10 mile EPZ for CPSES. The Somervell County Emergency Operations Plan contains the emergency planning provisions, including emergency notification and evacuation, for Glen Rose. There

are specific provisions in this Plan for notifying persons living, working or traveling within the 10 mile EPZ of the Comanche Peak Steam Electric Station (including Glen Rose). The Plan also contains procedures for further contact and possible evacuation. As will be documented in our Preliminary Findings, the Somervell County Emergency Operations Plan is adequate with regard to emergency notification and evacuation.

Q.14. With regard to Contention 22(f), is there an emergency plan for the Dallas/Fort Worth metroplex?

A.14. Yes. Portions of the Dallas/Fort Worth metroplex are within the 50 mile Ingestion Exposure Pathway EPZ. The emergency plan for residents located within the 50 mile EPZ is in the Texas Emergency Management Plan. As outlined in Tab 1, Appendix 7, Annex L of the State Plan, the primary concern is preventing public ingestion of radioactive contamination from agricultural products produced within the 50 mile EPZ. Thus, emergency activities will be limited to controlling the transport and use of agricultural products produced in the 50 mile EPZ. Emergency actions regarding this goal will be ordered by the State, after consultation with the United States Department of Agriculture. Implementation of these actions will be carried out by the County Judges, the County Agricultural Agents, and County Emergency Boards. The emergency planning provisions contained in the State Plan for the 50 mile EPZ are adequate. Our findings on this subject will be documented in FEMA's Preliminary Findings regarding off-site planning for CPSES.

STATEMENT OF
PROFESSIONAL QUALIFICATIONS
OF
JOHN W. BENTON

I, John W. Benton, am presently employed by the Federal Emergency Management Agency, Region VI, Denton, Texas as Community Planner. In that capacity, my responsibilities include review of Radiological Emergency Response Plans (RERPs) prepared by State and local governments in accordance with the requirements of NUREG-0654/FEMA Rep. 1, Revision 1. I have formally been involved with RERP since FEMA was designated as lead agency in this area by President Carter. I have previously testified in the Waterford III ASLB hearings in May 1982.

The past seventeen years of my professional career have involved training and assisting State and local officials in emergency planning.

Prior to the creation of FEMA, I was employed by its predecessor, the Defense Civil Preparedness Agency, Department of Defense, as a Region Field Officer. In that position, I acted as a liaison between DCPA and State and local governments.

The substantial portion of my experience in emergency preparedness has been as an educator. At North Texas State University (1976-1978), I conducted training courses for State and local officials at various locations in Arkansas, Louisiana, New Mexico, Oklahoma, and Texas. This training was designed to develop emergency operating skills within the States.

Since 1965, I have served as Assistant Director of the Civil Defense University Extension Program at the University of New Mexico, Department of Continuing Education (1965-1968), and as Director of that same program (1968-1976). In these positions, I developed curricula and conducted workshops for public officials in subjects related to civil preparedness including shelter management and civil preparedness planning. I was also personally involved in writing school disaster and emergency operation plans for all of the schools in the State of New Mexico.

I received an Associate of Arts degree from Northwest Community College, Powell, Wyoming (1958), and Bachelor of Arts and Master of Arts degrees from Colorado State College in 1960 and 1961 respectively. I have also attended a post-master degree course at the University of New Mexico. I have completed a number of courses relating to emergency planning for civil preparedness at the Civil Defense Staff College. From 1952-1956, I served in the United States Air Force where I received training as a communications specialist.

STATEMENT OF
PROFESSIONAL QUALIFICATIONS
OF
ALBERT L. LOOKABAUGH

I, Albert L. Lookabaugh, am presently employed by the Federal Emergency Management Agency, Region VI, Denton, Texas as a Supervisor Community Planner. I also serve as the Chairperson of the Regional Assistance Committee (RAC), the Interagency committee which, among other things, reviews and comments upon Radiological Emergency Response Plans. I have previously testified in the Waterford III ASLB hearings in May 1982.

Prior to employment with FEMA, I worked for its predecessor agency, the Defense Civil Preparedness Agency, Department of Defense (1966-1977) (DCPA). While employed by DCPA, I worked in both a management capacity, assessing the use of agency resources and funds, and as a Regional Field Specialist. In the latter capacity, my responsibilities included the development and implementation of emergency plans and the coordination of Federal, State, and local emergency planning efforts.

I was also employed by the Department of Justice, Federal Bureau of Investigation, as a special agent (1962-1966). During that period, I worked extensively with State and local police and sheriff departments in investigating and coordinating multi-jurisdictional police efforts.

I received a Bachelor of Science Degree from Oklahoma State University in 1959. I received additional training in the Army (1959-1961), as a special agent and have completed a number of courses related to emergency planning and preparedness.