

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))

Docket Nos. 50-445
 50-446

NRC STAFF TESTIMONY OF DAVID M. ROHRER
REGARDING EMERGENCY PLANNING (CONTENTION 22)

- Q.1. Please state your name and occupation.
- A.1. My name is David M. Rohrer. I am employed by the U.S. Nuclear Regulatory Commission as an Emergency Preparedness Specialist in the Emergency Preparedness Licensing Branch, Division of Emergency Preparedness, Office of Inspection and Enforcement.
- Q.2. Please describe the nature of the responsibilities you have had with respect to nuclear power plant emergency preparedness.
- A.2. Since May 1980, I have had responsibility for the review and evaluation of radiological emergency response plans submitted by nuclear power plant license applicants and licensees to assure that the proposed plans meet the regulatory requirements and guidance of the Commission. I also function as a Team Leader and Team Member on Emergency Preparedness Implementation Appraisal Teams engaged in the onsite inspections of the implementation phase of licensee's emergency preparedness programs. I observe nuclear power plant

emergency drills and exercises, including those involving State and government response agencies. I also participate in inter-agency critiques of emergency planning.

Q.3. Have you prepared a statement of professional qualifications?

A.3. Yes. A copy is attached to this testimony.

Q.4. Please describe the nature of the responsibilities you have had with respect to the Comanche Peak Steam Electric Station ("CPSES")

A.4. I performed the NRC Staff's ("Staff") review and evaluation of the Comanche Peak Emergency Plan, Revision Three, dated May 21, 1982. Revision Three of the Comanche Peak Emergency Plan resulted from: (1) my review and evaluation of Revision Two of the Comanche Peak Emergency Plan, dated October 26, 1981; and (2) a meeting between myself and the Applicants to identify areas in the Emergency Plan where additional information was needed to improve the Applicants' emergency preparedness program. In order to assist me in understanding Revisions Two and Three of the Applicants' Emergency Plan, I reviewed the previous Staff evaluations of the Applicants' January 31, 1979 Revision to the Emergency Plan, the Staff's questions to Applicants regarding that Revision, and the Applicants' response to the Staff questions.

Q.5. Please describe the division of responsibility between NRC and Federal Emergency Management Agency ("FEMA") for the review and evaluation of the adequacy of emergency preparedness for the licensing of nuclear power plants.

A.5. As part of Commisison's final rulemaking on emergency planning, which resulted in changes to 10 C.F.R. Part 50 and 70, the Commission recognized that significant responsibilities were assigned to FEMA by Executive Order 12148 of July 15, 1979, to coordinate the emergency planning functions of executive agencies. Furthermore, on December 7, 1979, the President issued a directive assigning FEMA the lead responsibility for offsite emergency preparedness around nuclear facilities. The NRC and FEMA negotiated a Memorandum of Understanding ("MOU") which became effective on January 14, 1980, and was revised on November 1, 1980.

The MOU sets forth the following FEMA responsibilities with respect to emergency preparedness as they relate to NRC:

1. To make findings and determinations as to whether State and local emergency plans are adequate.
2. To verify that the State and local emergency plans are capable of being implemented (e.g., adequacy and maintenance of procedures, training, resources, staffing levels and qualification, and equipment).
3. To assume responsibility for emergency preparedness training of State and local officials.
4. To develop, issue and update interagency assignments that delineate respective agency capabilities and responsibilities, and define procedures for coordination

and responsibilities, and define procedures for coordination and direction for emergency planning and response.

The NRC responsibilities for emergency preparedness, which are identified in the MOU, are:

1. To assess licensee emergency plans for adequacy.
2. To verify that the licensee emergency plans are adequately implemented (e.g., adequacy and maintenance of procedures, training, resources, staffing levels and qualifications, and equipment).
3. To review the FEMA findings and determinations on the adequacy and capability of implementation of State and local plans.
4. To make decisions with regard to the overall state of emergency preparedness (i.e., integration of the licensee's emergency preparedness and the state/local governments, as determined by FEMA and reviewed by NRC), and the issuance of operating licenses or shutdown of operating reactors.

In addition, FEMA has prepared a proposed rule regarding "Review and Approval of State and Local Radiological Emergency Plans and Preparedness", 45 Fed. Reg. 42341 (June 24, 1980), 47 Fed. Reg. 36386 (August 19, 1982). According to the proposed FEMA rule,

FEMA will approve State and local emergency plans and preparedness, where appropriate, based upon its findings and determinations with respect to the adequacy of State and local plans and the capabilities of State and local governments to effectively implement these plans and preparedness measures. These findings and determinations will be provided to the NRC for use in its licensing process.

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

A.6. The purpose of this testimony is to respond to those portions of Contention 22 for which the NRC has the responsibility to make findings as regards the adequacy of emergency preparedness of the Applicants.

Those portions of Contention 22 which I will address state:

- 22(a). The FSAR does not identify state or regional authorities responsible for emergency planning or who have special qualifications for dealing with emergencies.
- 22(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.
- 22(e). There is no provision for medical facilities in the immediate vicinity of the site, which includes Glen Rose.

Contention 22(b),(d),and (f), and portions of Contention 22(a),(c) and (e) relate to the adequacy of emergency preparedness by State and local authorities, and therefore fall within the review and evaluation responsibilities of FEMA. FEMA will provide testimony on those issues.

- Q.7. With respect to Contention 22(a), please describe the Commission's requirements and guidance concerning the identification of State and regional authorities responsible for emergency planning or who have special qualifications for dealing with emergencies.
- A.7. 10 C.F.R. Section 50.47(b)(1), requires in part that the primary responsibilities for emergency response by the nuclear facility licensee and by State and local organizations within the Emergency Planning Zones ("EPZs") be assigned. 10 C.F.R. Part 50, Appendix E, Paragraph IV.A.8 requires that the Applicants' emergency plan describe the organization for coping with radiological emergencies, including the identification of the State and/or local officials responsible for the planning for, ordering, and controlling appropriate protective actions, including evacuations when necessary.

Evaluation criteria contained in Regulatory Guide 1.101, Revision 2 (NUREG-0654, Rev. 1) 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.

- Q.8. Describe the provisions made by the Applicants to fulfill these requirements and guidance.

A.8. Section 1.3.1 of the Applicants' Emergency Plan, dated May 21, 1982, identifies the Hood and Somervell County Emergency Organizations as the key emergency planning organizations involved at the local level. These organizations are responsible for planning and implementing protective measures for citizens in the respective counties. Section 1.3.1 of the Applicants' plan also identifies the County Judges for Hood and Somervell Counties as the individuals who are in charge of the respective county emergency organizations and who are responsible for directing their operations.

Section 1.3.2 of the Applicants' Emergency Plan, dated May 21, 1981, identifies the Bureau of Radiation Control of the Texas Department of Health as the lead responsible agency in the State of Texas for response to radiological emergencies. The planning, direction and control for overall emergency response by State agencies and departments is the responsibility of the Director, Division of Emergency Management (Director of the Department of Public Safety) of the State of Texas.

I conclude that the Applicants' Plan adequately identifies the State and local county government organizations or individuals with the responsibility and authority for emergency response planning.

Q.9. With respect to Contention 22(c), please describe the Commission's requirements and guidance concerning the description of

arrangements made by the Applicants for the service of physicians and other medical personnel qualified to handle radiation emergencies and for the transportation of injured or contaminated individuals beyond the site boundary.

- A.9. 10 C.F.R. Section 50.47(b)(12) requires that the Applicants make arrangements for medical services for contaminated injured individuals. 10 C.F.R. Part 50, Appendix E, Paragraph IV.E.5 requires that the Applicants' emergency plan describe the arrangements for the services of physicians and other medical personnel qualified to handle radiation emergencies onsite. 10 C.F.R. Part 50, Appendix E, Paragraph IV.E.6 requires that the Applicants' emergency plan describe the arrangements for the transportation of contaminated injured individuals from the site to specifically identified treatment facilities outside the site boundary. 10 C.F.R. Part 50, Appendix E, Paragraph IV.E.7 requires that the Applicants' emergency plan describe arrangements for treatment of individuals injured in support of on-site licensed activities at treatment facilities outside the site boundary. Evaluation criteria contained in Regulatory Guide 1.101, Revision 2, 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.4 Each organization shall arrange for transporting victims of radiological accidents to medical support facilities.

Q.10. Does the Applicants' Emergency Plan describe the arrangements for services of physicians and other medical personnel qualified to handle radiation emergencies?

A.10 Section 1.3.1.4 of the Applicants' Emergency Plan identifies the Hood General Hospital in Granbury, Texas (approximately 16 road miles from the Comanche Peak site) as the local facility for the receipt and treatment of injured personnel from Comanche Peak who are contaminated with radioactive material or who have received an overexposure to radiation requiring medical evaluation. Section 10.1 of the Applicants' emergency plan also indicates that to ensure that the appropriate members of the staff at Hood General Hospital are adequately trained to handle such individuals and that the facilities of the hospital are adequate to perform such treatment, the Applicants have contracted with the Radiation Management Corporation ("RMC") to provide expertise, facilities, and equipment to assure a comprehensive emergency medical assistance program. RMC will assist in the specification of facilities at the local hospital, training of personnel, and the conduct of appropriate drills. RMC will also provide around-the-clock, seven day per week availability of expert consultation and the services of a Radiation Emergency Medical ("REM") Team. The REM team consists of a licensed physician and a certified health physicist who will respond to an accident victim at Comanche Peak if requested by the Applicants.

Appendix H of the Applicant's Emergency Plan contains letters of agreement between the Applicants and both Hood General Hospital and Radiation Management Corporation.

After reviewing Section 1.3.1.4 of the Applicants' Emergency Plan, I conclude that the Plan adequately identifies the medical personnel and facilities for the treatment of radiologically-contaminated persons.

Q.11. Does the Applicants' Emergency Plan contain provisions describing arrangements made for the transportation of contaminated injured individuals from the site to specifically identified treatment facilities located outside the site boundary?

A.11. Section 10.2 of the Applicants' Emergency Plan indicates that a plant emergency vehicle is available at the Applicants' site to transport injured personnel, including those who may also be radiologically contaminated, to offsite medical facilities (Hood General Hospital for radiologically contaminated individuals).

Section 1.3.1.3 of the Applicants' Emergency Plan states that agreements have been made between the Applicants and both the Glen Rose/Somervell County Volunteer Fire Department Ambulance Service and the Hood General Hospital Ambulance Service to provide back-up ambulance service in support of the Applicants' plant emergency vehicle.

Appendix H of the Applicants' Emergency Plan contains letters of agreement between the Applicants and both the Hood General Hospital Ambulance Service and Glen Rose/Somervell County Volunteer Fire, Rescue and Ambulance Service.

I conclude that the Applicants' Plan adequately describes the provisions for transportation of injured persons, including persons who are radiologically-contaminated.

Q.12. Does the Applicants' Emergency Plan contain provisions describing the arrangements for both local and backup hospital facilities having the capability for evaluation of radiation exposure and uptake of radioactive contamination?

A.12. Section 1.3.1.4 of the Applicants' Emergency Plan identifies the Hood General Hospital in Granbury, Texas as the local facility to provide evaluation and treatment of radiologically contaminated individuals. That Section also identifies the Radiation Management Corporation and their affiliated hospital at the University of Pennsylvania in Philadelphia as the back-up facility. Section 10.1 of the Applicants' emergency plan provides additional details of the medical capabilities of the University of Pennsylvania Hospital, including its capability to perform detailed evaluation of radiation exposure and radioactive contamination uptake. Section 10.1 of the Applicants' emergency plan also stipulates that the Hood General Hospital will serve as the local support facility for contaminated victims, providing gross decontamination, life

saving activities, and patient stabilization. That Section also states that in the event the victim required more definitive evaluation and treatment, the individual may be sent to the RMC facilities at the University of Pennsylvania Hospital.

Based on my review of this Section of the Applicants' Plan, I conclude that the Plan contains adequate provisions for medical personnel, services and backup medical facilities for the treatment of radiologically-contaminated persons.

Q.13. With respect to Contention 22(e), please describe the Commission's requirements and guidance concerning provisions for medical facilities in the immediate vicinity of the site, which includes Glen Rose.

A.13. The Commission's requirements and guidance concerning the provision of medical facilities were set forth in my response to Question 9. There is no specific requirement that medical facilities must be provided in the Glen Rose area.

Q.14. Have the Applicants, nonetheless, identified any medical facilities in the Glen Rose area?

A.14. Yes.

Q.15. Please describe those facilities.

A.15. Section 1.3.1.4 of the Applicants' Emergency Plan provides that injured personnel whose medical treatment is not complicated by

radiological considerations may be sent to either Hood General Hospital in Granbury, Texas, or to Marks English Hospital in Glen Rose, Texas.

DAVID M. ROHRER

OFFICE OF INSPECTION AND ENFORCEMENT
STATEMENT OF PROFESSIONAL QUALIFICATIONS

From May 1980 to the present, I have been employed as an Emergency Preparedness Analyst in the Emergency Preparedness Licensing Branch, (EPLB) Division of Emergency Preparedness, Office of Inspection and Enforcement, U.S. Nuclear Regulatory Commission. I have responsibility for the review and evaluation of radiological emergency plans submitted by reactor applicants and licensees to assure that proposed plans meet the regulatory requirements and guidance of the Commission. I also function as a Team Leader and Team Member on Emergency Preparedness Appraisal Teams engaged in the onsite inspection of the implementation phase of license emergency programs. I observe nuclear power plant emergency drills and exercises involving State and local government response agencies and participate in interagency critiques. As a senior member of the EPLB Staff, I routinely act as the NRC representative at numerous meetings with licensees and applicants; State and local emergency planning groups; public meetings with other Federal and industry groups.

From September 1977 to May 1980, I was employed as a Health Physicist and Senior Project Manager with the High-Level and Transuranic Waste Branch (HLTWB) of the Division of Waste Management, Office of Nuclear Material Safety and Safeguards, USNRC. In that capacity, I served as the lead staff technical expert for the development of the technical requirements for the performance of waste forms and packaging for the disposal of high-level wastes in deep geologic repositories (NRC proposed regulation 10 CFR Part 60).

From July 1973 to September 1977 I was employed as a Staff Member in the Special Studies Section of the Radioactive Waste Management Group at the Los Alamos Scientific Laboratory (LASL). LASL is operated by the University of California for the U.S. Department of Energy. While at LASL I was assigned to a number of Health Physics related programs dealing with advanced treatment and disposal technologies for radioactive wastes, especially those contaminated with transuranic radionuclides. I also served as a technical expert and contributing author to both: the NRC S-3 Task Force on the Environmental Impacts of the Fuel Reprocessing and Radioactive Waste Management Positions of the Nuclear Fuel Cycle (NUREG-0116 and 0216); and the DOE Generic Environmental Impact Statement Task Force for the Management of Commercial Radioactive Wastes (DOE/E15-0046, DOE/ET-0028 and 0029).

From November 1972 to May 1973, I was employed as an Environmental Control Analyst with the Newport News Shipbuilding and Dry Dock Company before accepting my position at LASL.

I received a Bachelor of Science degree in Physics in 1971 and a Masters of Science degree in Environmental Engineering in 1972 from the Florida Institute of Technology (FIT). Subsequent to my graduation, I was a member of the Adjunct Faculty at FIT, teaching a masters level course in Health Physics before accepting a position with Newport News Shipbuilding and Dry Dock Company.

I am a full member of the Health Physics Society (both National and Local Chapters), the American Association for the Advancement of Science, and have been a member of the Materials Research Society and the American Ceramic Society (Nuclear Division).