UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
TEXAS UTILITIES ELECTRIC COMPANY, et al.	)	Docket Nos. 50-445 50-446
	)	
(Comanche Peak Steam Electric Station, Units 1 and 2)	)	

AFFIDAVIT OF CONRAD E. McCRACKEN

I, Conrad E. McCracken, do depose and state as follows:

Q1. What is your name and the purpose of your testimony?

A1. My name is Conrad E. McCracken. The purpose of my testimony is to provide further explanation of the background of Appendix L to Supplement 9 of the Safety Evaluation Report (SSER) as requested by the Board in its Memorandum of September 18, 1985.

Q2. By whom are you employed and what are your duties?

A2. I am employed by the U.S. Nuclear Regulatory Commission in the Division of Engineering, Office of Nuclear Reactor Regulation. I am Section Chief of the Chemical Technology Section. My duties include evaluating compliance of applicants with the Protective Coatings Criteria of Standard Review Plan (SRP) Section 6.1.2. Additionally, effective November 1984 I was assigned as Group Leader of the Comanche Peak Coatings TRT.

Q3. Have you prepared a statement of professional qualifications?

A3. Yes, a copy of my professional qualifications is attached to my affidavit.

Q4. Does the NRC have a specific requirement regarding the qualification of coatings inside containment?

A4. The NRC does not have a specific requirement that coatings inside of the reactor containment building must be qualified, i.e., safety grade.

Q5. Do applicants have an option regarding coatings inside containment?

A5.. Yes, the Standard Review Plan (SRP) Guidelines Section 6.1.2 as applicable to Comanche Peak provide the option of applying and testing coatings in containment in accordance with the positions of NRC Regulatory Guide 1.54 and ANSI N101.2, or providing justification to show that debris generated under design basis accident conditions will not adversely affect the performance of post-accident fluid systems. This is noted in SSER § 1.0.

Q6. Does the Applicants' analysis, reviewed by the Staff in the SSER, require a special exemption?

A6. No, the Applicants' election to provide justification to show that debris generated under design basis accident conditions will not adversely affect the performance of post-accident fluid systems is within the acceptance criterion in the SRP guidelines and therefore does not require a special exemption.

Q7. Has Comanche Peak been placed in a special category with respect to coatings?

A7. No, Comanche Peak is not in a special category with respect to the quality of coatings within the reactor containment building. Of the seventy-one plants licensed prior to July 1981, sixty-nine did not apply qualified coatings or perform analyses to demonstrate that post-accident fluid systems would not be adversely affected. Two plants committed to apply qualified coatings. The Staff evaluates each application for compliance with the criteria of SRP Section 6.1.2 consistent with the date the application is docketed and the status of Containment Building painting at the date SPR Section 6.1.2 was issued. Revision 0 of SRP Section 6.1.2 was issued in November 1975. The sixty-nine plants mentioned above were either operating or in an advanced state of construction and therefore were not reviewed for coatings debris generation against the criteria of Section 6.1.2.

Q8. Is it the intent of the NRC to have only qualified coatings inside containment?

A8. No, the SRP acceptance criteria on protective coatings which were initially promulgated in 1975 were not intended to force applicants to apply only qualified coatings. Had that been the case, we would

not have provided the clear option to do the analyses. They were, instead, intended to give applicants the option of providing a quantification of the effects of plant debris on post-accident fluid systems. In response to the guidelines in the SRP, most applicants elected to apply qualified coatings rather than performing extensive analyses to demonstrate that they do not need to be qualified. In addition to Comanche Peak, since July 1981, the Staff has evaluated and accepted analyses which demonstrate that coatings inside of the reactor containment for Waterford and Fermi-2 do not have to be qualified. The Staff anticipates that additional plants will elect to perform analyses to demonstrate that coatings inside of the reactor containment building do not have to be qualified.

Q9. What are your conclusions regarding the coatings inside containment at Comanche Peak?

A9. In summary, Comanche Peak has not been placed in a special category with respect to an exemption from ordinary paint quality assurance requirements. The analyses submitted by the Applicants to justify the use of non-qualified coatings is extensive and provides sufficient information for the Staff to conclude that reasonable assurance exists to demonstrate that debris generated by the failure of all coatings

inside the containment building under design basis accident conditions will not unacceptably degrade the performance of post-accident fluid system.

Conrad E. McCracken

Subscribed and sworn to before me this 9th day of September, 1985

Notary Public

My Commission expires: 7/1/86

Conrad E. McCracken
Professional Qualifications

I am Section Chief of the Chemical Technology Section in the Chemical Engineering Branch of the Division of Engineering, Office of Nuclear Reactor Regulation. My responsibilities in this position include supervision of the evaluation of all PWR's for compliance with chemical and corrosion requirements of the Commission. Specifically, this includes evaluating compliance of applicants with the protective coatings criteria of Standard Review Plan (SRP) Section 6.1.2. I have served in this capacity since April 1982. Between February 1981 and April 1982, I served as a senior chemical engineer with the same branch, where my duties included the evaluation of protective coatings at both operating plants and plants in the licensing process.

From 1966 to 1981, I was employed by Combustion Engineering Corporation in a variety of management and engineering positions, the last of which was Manager of Chemistry Development from 1977 to 1981. During this 15-year period, my prime technical responsibility was support to operating nuclear power plants and nuclear plants in construction in the area of chemical and radiochemical sampling, analysis, data interpretation, establishing chemistry specifications and conducting laboratory experiments to verify or support nuclear plant requirements. In this capacity, I made frequent visits to nuclear power plants where I physically conducted sample and analysis programs or audited the utilities' capabilities in the chemistry and radiochemistry area. During this period, I was responsible for review, testing and approval of various organic and inorganic compounds for use in nuclear power plants.

From 1958 to 1966, I served in the United States Navy where I was Qualified in submarines for all nuclear duties. For three years of this period, I was an instructor, responsible for teaching office and enlisted personnel in the area of chemistry, corrosion and mechanical systems operation and control. My final duty station in the Navy was on the USS Nautilus where I was responsible for all chemistry and corrosion control and personnel radiation exposure.

Education

I attended the University of Hartford School of Engineering and completed course work in 1970. I am a Registered Professional Corrosion Engineer.