July 21, 2008

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
ENTERGY NUCLEAR OPERATIONS, INC.	)	Docket Nos. 50-247/286-LR
	)	
(Indian Point Nuclear Generating Units 2 and 3)	)	
	)	

AFFIDAVIT OF JAMES A. DAVIS

COUNTY OF MONTGOMERY)

) SS:

STATE OF MARYLAND)

James A. Davis, having first been duly sworn, does hereby state as follows:

1. I am employed as a Senior Materials Engineer in the Division of License Renewal, Office of Nuclear Regulation (" NRR"), U.S. Nuclear Regulatory Commission (" NRC"), in Washington, D.C. A copy of my statement of professional qualifications is attached hereto.

2. During the period of September 2007 to the present, I have served as Senior Auditor and team leader for the NRC Staff' s (" Staff") audit of Aging Management Programs (" AMPs"), Time-Limited Aging Analyses (" TLAAs"), and Aging Management Reviews (" AMRs") related to the License Renewal Application submitted by Entergy Nuclear Operations, Inc. for the Indian Point Nuclear Generating Units 2 and 3 (" Indian Point").

3. Based on my personal knowledge and my discussions with the Staff' s Indian Point audit team members, I am familiar with the document retention practices that have been employed by the Staff' s audit team for Indian Point AMPs, TLAAs and AMRs.

4. I have reviewed the statements of fact pertaining to the Staff' s audit of Indian Point AMPs, TLAAs and AMRS, contained in the " NRC Staff' s Response to the State of New York' s Motion to Preserve All NRC Staff Notes and Working Papers, and the Licensing Board' s Related Briefing Order of July 3, 2008" (" Staff Response"), dated July 21, 2008. I hereby verify that those statements are true and correct to the best of my knowledge, information and belief.

James A. Davis

Sworn to before me this
21st day of July 2008

Notary Public

My commission expires: CIRCE E. MARTIN NOTARY PUBLIC STATE OF MARYLAND My Commission Expires March 1st 2011

James A. Davis, Ph.D

Statement of Professional Qualifications

CURRENT POSITION:

Senior Materials Engineer	Division of License Renewal, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Rockville, MD

EDUCATION:

B. Met. E., The Ohio State University, 1965, Metallurgical Engineering
M.S., The Ohio State University, 1965, Metallurgical Engineering
Ph.D., The Ohio State University, 1968, Metallurgical Engineering

SUMMARY:

Over 39 years of experience in materials engineering with over 20 years of experience in the nuclear power industry. Significant experience in the following areas:

- Materials Engineering
- Corrosion and Control
- Protective Coatings and Linings
- Welding and Special Repair Processes
- License Renewal
- Nuclear Facilities Audits
- Allegations
- Reviews of Navy Submarine Power Plant Designs
- Quality Assurance
- American Society of Mechanical Engineers (ASME) Code Committees
- American Society for Testing and Materials (ASTM) D-33 Committee on Coatings for Power Generation Facilities

EXPERIENCE:

U.S. Nuclear Regulatory Commission, 11/11/1990 – Present

11/13/2005 to Present – Senior Materials Engineer, Division of License Renewal, Office of Nuclear Reactor Regulation

- Senior Auditor and team leader for the license renewal safety audit at the Indian Point Nuclear Power Plant

- Backup Audit Team Leader for the license renewal safety audit at the Wolf Creek Generating Station

- Audit Team Leader for the license renewal safety audit at the Pilgrim Nuclear Power Station

- Audit Team Member for the license renewal safety audit at the Oyster Creek Generating Station

- Expert witness for the criminal trial for Davis Besse employees involved in the boric acid corrosion event.

- Expert witness for the Oyster Creek drywell shell sand bed region license renewal ASLB Hearing

- Expert witness for the Pilgrim buried piping and tanks license renewal ASLB Hearing

12/15/2001 - 11/13/ 2005 – Senior Materials Engineer, Division of Engineering Technology, Office of Nuclear Regulatory Research

- Program Manager on the Steam Generator Tube Integrity Program overseeing work conducted at Argonne National Laboratory

- Acting Program Manager for Non-Destructive Examination research at Pacific Northwest National Laboratory

- Member of the Augmented Inspection Team for the Davis Besse reactor vessel head boric acid corrosion event

11/11/1990 - 12/15/2001 – Materials Engineer, Chemical Engineering and Metallurgy Section, Materials and Chemical Engineering Branch, Division of Engineering, Office of Nuclear Reactor Regulation

- ASTM Committee member for Coatings for nuclear power plants

- Lead reviewer for auxiliary systems for license renewal for Calvert Cliffs, Oconee, Arkansas Nuclear One, Hatch, and Turkey Point

- Responsible for all threaded fastener issues (such as stress corrosion cracking, boric acid corrosion, and fatigue)

- Lead reviewer for full system chemical decontamination at Indian Point

- Lead reviewer for Boiling Water Reactor internals cracking

- Lead reviewer for pump and valve internals cracking

- Lead reviewer for pipe integrity issues

- Assisted the Spent Fuel Program Office in the review of corrosion behavior for dry cask storage and interaction of coatings with spent fuel water

- Coordinated the responses to a generic letter on containment coatings for nuclear power plants

- NRC representative to ASTM D-33 on coatings for power generation facilities

- Member of the Board of Directors for the National Board of Registration for Nuclear Safety Related Coating Engineers & Specialists

- Member of ASME on Welding and Special Repair Processes

- Member of an Augmented Inspection Team at Palisades on fuel handling problems

- Member of the Augmented Inspection Team at Point Beach on the hydrogen burn as a result of interactions between borated water and the inorganic zinc coating during dry cask loading operations

- Member of the Augmented Inspection Team at Davis-Besse on the boric acid corrosion of the vessel head.

- Contract Technical Monitor and Project Officer for numerous contracts at Brookhaven National Labs

- Technical reviewer for the design of the Navy Seawolf Submarine and the Virginia Class Submarine

- Reviewer on the Department of Energy ("DOE") project to produce tritium in a commercial reactor (Watts Bar)

- Numerous presentations to senior NRC management including the Chairman, the Executive Director for Operations, the Committee to Resolve Generic Issues, and the Advisory Committee on Reactor Safety and Safeguards

- Testified before Representative Dingle's staff on the safety of fasteners in nuclear power plants as a result of concerns raised by a private citizen. Convinced Representative Dingle's staff that there is no safety issue because of the redundant design of mechanical joints, the fact that the joints will leak before they break, and that the joints are inspected every refueling outage.

Polyken Division of the Kendall Company, Senior Research Associate, 1981 – 1990:

- Responsible for Technical Marketing for the pipeline coating division providing technical data and reports to domestic and international customers
- Company representative to the National Association of Corrosion Engineers, the American Water Works Association coatings committees, and ASTM coating committees

Arthur D. Little, Senior Consultant, 1979 - 1981:

- Consultant to DOE on Defense Nuclear Waste and Waste Tank corrosion issues
- Consultant on numerous commercial contracts on corrosion, coating, metallurgical, and plating issues

Allied Tube and Conduit Corp., Director of Research, 1978-1979:

- Responsible for research and development for metallurgical tube forming, welding, chemical cleaning of steel, galvanizing, surface treatment and coating of electrical conduit, fence posts, and specialty tubing
- Responsible for Quality Assurance and Process Control Departments

Allegheny Ludlum Steel Corp., Research Specialist, 1976-1978:

- Responsible for customer service for use of stainless steels in corrosive service
- Responsible for conducting failure analyses
- Conducted research on corrosion mechanisms for stainless steels

Bell Aerospace Company, Senior Research Scientist, 1970-1976:

- Program Manager on numerous Navy sponsored programs involving corrosion of aluminum alloys, stainless steels, and titanium alloys in high velocity sea water for the Navy's high performance ships program
- Conducted research on corrosion fatigue, stress corrosion, and fouling in sea water
- Conducted research on the compatibility of rocket fuels and oxidizers with fuel handling equipment

U.S. Steel Corporation, Senior Research Engineer, 1968-1970:

- Conducted research on the mechanism of pitting/crevice corrosion, stress corrosion cracking, hydrogen embrittlement, and intergranular corrosion using electrochemical techniques, transmission electron microscopy, optical microscopy, and scanning electron microscopy

PUBLICATIONS-PRESENTATIONS:

1. J. A. Davis and R. W. Staehle, "Initiation of Stress Corrosion Cracks in Iron-Chromium-Nickel Alloys: an Electron Microscopy Study," Presented at the Research in Progress Symposium, Corrosion/69, March, 1969, Houston, Texas

2. J. A. Davis, "Resistance of 18 Cr-18Ni-2Si Stainless Steel to Stress Corrosion Crack Propagation in Boiling magnesium Chloride" Corrosion, Vol. 26, No. 3, 1970

3. J. A. Davis and B. E. Wilde, "Electrochemical Measurements on Austenitic Stainless Steels in Boiling Magnesium Chloride," Jnl. Electrochemical Soc., Vol. 117, No. 11, November, 1970, p 1348-1351

4. J. A. Davis, A. A. Staklis, and A. A. Watts, "Potential and pH Measurements During Stress Corrosion of Some Metallic Alloys," Presented at Corr/71, Research in Progress, Chicago, Ill. Mar., 1971

5. J. A. Davis, A. A. Staklis, and A. A. Watts, "Potential and pH Changes During Stress Corrosion of Some Metallic Alloys," Institute of Environmental Sciences Proceedings, 7th Annual Conference, Living in Our Environment, Los Angeles, California, Apr 26-30, 1971, p 117-122

6. J. A. Davis, "pH and Potential Measurements During Stress Corrosion of Aluminum Alloys," AGARD-CP-98 NATO Conference, Brussels, Belgium, 1972, p9/1-13

7. J. A. Davis and G. A. Gehring, Jr., "The Effect of Velocity on the Sea Water Corrosion Behavior of High Performance Ship Materials," Corr/74 International Corrosion forum, Paper 78, Mar 4-8, 1974, Houston, Tx p78/1-78/17

8. J. A. Davis, "Use of Miscroelectrodes for Study of Stress Corrosion of Aluminum Alloys," International Conference on Localized Corrosion, Williamsburg, Va., NACE No. 3, 1974, p32-39

9. J. A. Davis and G. A. Gejring, Jr., "The Effect of Velocity on the Sea Water Corrosion Behavior of High Performance Ship Materials," Materials Performance, Vol 14, No. 4, 1974, p 32-39

10. J. A. Davis, A. A. Watts and G. A. Gehring, Jr., "Pitting Behavior of Aluminum Alloys in High Velocity Sea Water," Presented at the annual Conference of the Electrochemical Society, Las Vegas, Nevada, Oct 18-22, 1976

11. T. J. Nichol and J. A. Davis, "Intergranular Corrosion Testing and Sensitization of Two High-Chromium Ferritic Stainless Steels," ASTM Spec. Tech. Publication STP 656, Intergranular Corrosion of Stainless Alloys, May 2-3, 1977, p179-196

12. R. A. Lula and J. A. Davis, "Intergranular Corrosion in 12 Chromium Ferritic Stainless Steels," ASTM Spec. Tech. Publication STP 656, Intergranular Corrosion of Stainless Steels, May 2-3, 1977, p233-247

13. J. A. Davis and M. J. Johnson, "The Effect of Temperature on the Pitting Behavior of High Performance Stainless Steels," Presented at Corr/78, Chicago, Ill., Mar., 1978

14. J. A. Davis, H. E. Deverell and M. J. Johnson, "Comparison of Stainless Steels with Cooper Nickel Alloys in Polluted Seawater," presented at Corr/78, Chicago, Ill., Mar. 1978

15. J. A. Davis and M. J. Johnson, "Corrosion Characteristic of Stainless Steels," Presented at the Pittsburgh Section of ASM Sept., 1978

16. J. A. Davis, "Stabilization of High Chromium Ferritic Stainless Steels," Presented at the Annual Meeting of the Electrochemical Society, Seattle, Washington, Oct., 1978

17. J. A. Davis and T. J. Nichol, "Intergranular Corrosion Testing of High Chromium Stainless Steels," Presented at the Pittsburgh Section of the Electrochemical Society, Oct., 1978

18. J. A. Davis, H. E. Deverell, and T. J. Nichol, "Intergranular Corrosion Resistance of 26 wt. % Chromium, 1 wt. % Molybdenum Ferritic Stainless Steel Containing Niobium," Corrosion, 36, No. 5, 1980, p215-220

19. J. A. Davis, "Performance of Polyethylene Tape Coated Steel Water Pipe," L. B. Foster Seminar on Large Diameter Steel Water Pipe, Feb. 18, 1982, Houston, Texas

20. J. A. Davis, "Performance of Polyethylene Tape Coated Pipelines for Underground Service," Shreveport, La, NACE, July 6, 1982

21. J. A. Davis, "Polyethylene Tape Coating for Underground Service," Northeastern Regional Meeting of NACE, Great Gorge, N. J., Oct. 15, 1982

22. J. A. Davis, "Performance of Polyethylene Coated Pipelines with Underground Burial," NACE Eastern Canadian Regional Conference, November 23-25, 1982, Montreal, Quebec

23. J. A. Davis, "Performance of Polyethylene coated Pipelines With Underground Burial," Proceedings of the Australian Pipeline Industry Association Annual Conference, Camberra, New South Wales, Australia, Nov., 1983

24. J. A. Davis and S. J. Thomas, "Properties and Application Procedures for Polyethylene Tape Coating systems," Pipeline Engineering Symposium of ASME, Dallas, Tx Feb. 17-21, 1985, p11-16

25. J. A. Davis, D. Rizzone and R. N. Stretton, "Polyurethane Foam, PE Tape Thermal Insulation System for Underground Pipelines," Western Canadian Regional NACE Meeting, Feb. 25-28, 1985, Victoria, British Columbia

26. J. A. Davis and S. J. Thomas, "Properties and Application Procedures for Polyethylene Tape Coating Systems," Proceedings of the Tenth International Conference on Slurry Technology, Lake Tahoe, Nevada, Mar 26-28, 1985, p26-28

27. J. A. Davis, J. D. Kellner, and H. J. Dritt, "Comparison of Laboratory Soil Stress Results with In Service Behavior of Pipeline Coatings," Proceedings of the BHRA Conference, Nice, France, Nov. 4-8, 1985

28. J. A. Davis, "Polyethylene Tape Coatings for Underground Service," Presented to the Toronto Section of NACE, Dec.10, 1985, Toronto, Ontario

29. J. A. Davis et al, "Analysis of Stresses on Buried Pipelines," Presented at the NACE Western Canadian Regional Meeting, Calgary, Alberta, Feb. 25-27, 1986

30. J. A. Davis, Polyethylene Tape Coatings for Underground Service, "Presented to the Calgary Section of NACE, Sept. 15, 1986, Calgary, Alberta

31. J. A. Davis et al, "Soil Stress Effects on Pipeline Coatings," Lead Speaker, Pipeline Coating Section, Australasion Corrosion Association, Inc, Conference 26, Adelaide, Australia. Nov. 17-21, 1986

32. J. A. Davis et al, "Interaction Between Soil and Coatings on Buried Pipelines," Presented at Corr/87, Underground Corrosion Symposium, San Francisco, Cal., Mar. 9-19, 1987

33. J. A. Davis, "Polyethylene Tape Coatings for Underground Service," Presented at the North Central NACE Regional Meetings, Cleveland, Ohio, Sept. 28-30, 1987

34. J. A. Davis and J. D. Kellner, "Electrochemical Principals Applied to Operating Pipelines," Presented at Corr/89, Underground Corrosion Symposium, New Orleans, Louisiana, April 17-21, 1989

35. F. J. Witt, J. A. Davis and R. A. Hermann, "Second EPRI Balance-of-Plant Heat Exchanger NDE Workshop, The U. S. Nuclear Regulatory Commission Perspective," Second SPRI Balance-of-Plant Heat Exchange NDE Workshop, Key West, Florida, May 26-29, 1992

36. J. A. Davis, "Full Reactor Coolant System Chemical Decontamination, NRC Approval of the Westinghouse Owners Group Topical Report" Fifth SPRI Workshop on Chemical Decontamination, Charlotte, North Carolina, June 8-9, 1993

37. Richard E. Johnson and James A. Davis, "The Regulatory Approach to Fastener Integrity in the Nuclear Industry," Symposium on Structural Integrity of Fasteners, Sept. 8-19, 1993

38. James A. Davis, "Nuclear Power Plant Service Water Systems, NRC Perspective," International Joint Power Generation Conference, ASME Power Division, Heat Exchange Committee, Kansas City, Mo., October 17-21, 1993.

39. J. A. Davis, G. P. Hornseth, and R. A. Hermann, "NRC Regulatory Perspective for Service Water Systems," Third EPRI Balance-of-Plant Heat Exchanger NDE Workshop, Myrtle Beach, SC., June 6-8, 1994.

40. Herman, R., Davis, J., and Banic, M., "Primary Water Stress Corrosion Cracking of Alloy 600," International Atomic Energy Agency Specialists Meeting in Light Water Reactor Head Penetrations, Philadelphia, PA, May 2-4, 1995.

41. Herman, R. A., Davis, J. A., and Banic, M. J. "Age Related Degradation in Operating Nuclear Plants, Joint ASME/JSME Pressure Vessel and Piping Conference, Honolulu, HI, July 23-27, 1995.

42. J. A. Davis, "A Regulatory Perspective on Service Water Problems," Invited Keynote Speaker, Fourth EPRI Balance-of-Plant Heat Exchange Workshop, Jackson Hole, WY, June 10-12, 1996.

43. J. A. Davis, "Nuclear Power Plant Fastener Thread Gaging - NRC Staff Perspective," the Eighth International Symposium on Environmental Degradation of Materials in Nuclear Power Systems, Amelia Island, FL, August 10-14, 1997.

44. J. A. Davis, "A Regulatory Perspective on Service Water Problems," Invited Keynote Speaker, Fifth EPRI Balance-of-Plant Heat Exchange Workshop, Lake Tahoe, NV, June 15-17, 1998.

45. J. Strosnider, Jr., W.H. Koo, J.A. Davis, M.C. Modes, "A Regulatory History of BWR Pipe Cracking in the U.S.," IAEA Regional Workshop on Environmentally Assisted Cracking in Nuclear Power Plant Austenitic Piping," Slavutych, Ukraine, June 22-26, 1998.

46. J. A. Davis, "Licence Renewal in the Nuclear Power Industry - Its Application to Balance-of-Plant," Invited Keynote Speaker, Sixth EPRI Balance-of-Plant Heat Exchange Workshop Scottsdale, AZ, June 19-21, 2000.

47. J. A. Davis, C. L. Lauron, and A. D. Lee, "Code Cases Currently Being Reviewed by the NRC Staff on Bolting and Erosion Corrosion," 2001 ASME Pressure Vessel and Piping Conference, Atlanta, Georgia, July 22-26, 2001.

48. James A. Davis, "Recent Failures of Control Rod Drive Mechanisms and Jet Pump Hold-Down Beams in Operating Nuclear Power Plants," ASM Albany, NY spring meeting, Albany, NY, April 22, 2002.