

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

82 MAY -6 10:40

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of
LONG ISLAND LIGHTING COMPANY
(Shoreham Nuclear Power Station,
Unit 1)


Docket No. 50-322 O.L.

STATEMENT OF QUALIFICATIONS OF
ROBERT NEIL ANDERSON AND VERA BARLIT

Suffolk County hereby submits the qualifications of Robert
Neil Anderson and Vera Barlit, who will testify on behalf of
Suffolk County in this proceeding.

Respectfully submitted,

DAVID J. GILMARTIN
Suffolk County Attorney
PATRICIA A. DEMPSEY
Assistant Suffolk County Attorney
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Veterans Memorial Highway
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May 4, 1982

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Robert Neil Anderson, Professor
Department of Materials Engineering
San Jose State University
San Jose, California 95192

Education

B.S., Chemistry, University of San Francisco, 1956
B.S., Chemical Engineering, University of California - Berkeley 1958
M.S., Chemical Engineering, University of California - Berkeley 1959
Ph.D., Metallurgy, Stanford University 1970
Post Doctoral Study - Stanford University

Professional Activities

American Nuclear Society, American Institute of Chemical Engineers,
American Chemical Society, American Institute of Metallurgical
Engineers (Past Chairman of Northern California Section),
American Society of Metals, National Society for Professional
Engineers, American Society for Engineering Education, Alpha Chi
Sigma, Tau Beta Pi and Sigma Xi.

Professional Experience

Arabian American Oil Company, Dhahran, Saudi Arabia 1954-55, Chemist.
University of San Francisco/Mt. Zion Hospital, 1955-56, Chemist.
Department of Chemical Engineering, Berkeley, 1958-59, Research Assistant
U.S. Naval Radiological Defense Lab., 1959-66, Research Engineer.
U.S. Naval Radiological Defense Lab., 1966-69, Op. Research Analyst.
Stanford University, 1969-72, Research Assoc., and Asst. Proj. Director.
Stanford University, 1972-74, Research Metallurgist & Assoc. Proj. Dir.
Stanford University, 1974-75, Associate Professor (Acting).
San Jose State University, 1974-78, Associate Professor.
San Jose State University, 1978-current, Professor.

Consulting (current 1978)

OSTP and CEQ, Executive Office of the President of the U.S.
Lawrence Livermore Laboratory.
California State Energy, Resources and Development Commission.
Standard Oil of Indiana.

Credentials and Licenses

California Standard Teaching Credential.
Registered Metallurgical Engineer, California.
Registered Nuclear Engineer, California.
Fallout Shelter Analyst.
Private Pilots License.

THESES

"Thermodynamics of Nitride Reactions in Molten Uranium-Tin Alloys and Applications to Nuclear Fuel Reprocessing." Ph.D. Thesis, Stanford University, Dec. 1969.

"The Effect of Ultrasonic Vibrations on the Heat Transfer to a Liquid in Annular Flow," M.S. Thesis, University of California at Berkeley, April 1959.

PATENTS

"Carbothermic Reduction Method for Converting Metal Oxides to Metal Form," U.S. Patent 3,794,482. Also patented in W. Germany, Japan, Australia, Canada, France, Sweden, New Zealand, So. Africa, Great Britain, and Mexico.

"Actinide Nitride-Fueled Reactor and Continuous Method of Operating Same," U.S. Patent 3,843,765. Also patented in Belgium, W. Germany, Japan, Canada, Great Britain, France and Australia.

"Method of Reprocessing Nuclear Fuels," U.S. Application #883,498.

TECHNICAL REPORTS

1. "High Temperature Liquid Metal-Gas Reactions," one of four papers from Stanford University submitted at the request of the National Science Foundation for a report of Materials Research in the U.S. Presented to the Congress of the United State, June 1972.
2. Classified Reports and Title, U.S. Naval Radiological Defense Laboratory.

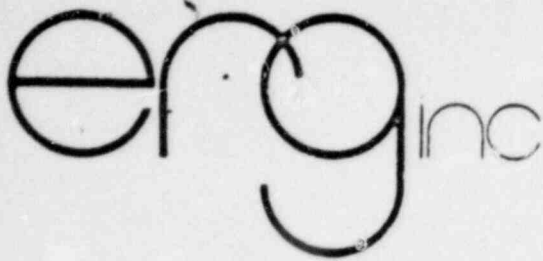
LR-007, March 1967	LR-215, Sept. 1966	LR-187, June 1966
LR-227, Nov. 1966	LR-211, Sept. 1966	LR-184, May 1966
LR-225, Oct. 1966	LR-204, Aug. 1966	LR-181, April 1966
LR-220, Oct. 1966	LR-199, Aug. 1966	LR-175, Mar. 1966
LR-218, Oct. 1966	LR-195, July 1966	LR-172, Mar. 1966
3. "Absorption of Lanthanum by Navy Gray Painted Surfaces," U.S. Naval Radiological Defense Laboratory Technical Report 1013, March 1966.
4. "Decontamination of Ships' Surfaces," U.S. Naval Radiological Defense Laboratory Technical Report 830, Aug. 1964.
5. "A Review of Ship Radiological Countermeasures," U.S. Naval Radiological Defense Laboratory Technical Report 549, Jan. 1962.

PUBLICATIONS

1. "Evaluation of Mineral Waste Utilization Processes and Strategies by Net Energy Analysis," Proceedings of the Fifth Mineral Waste Utilization Symposium, April 13-14, 1976.
2. "A Technical and Economic Analysis of Processes for the Recovery of Metals in the Non-Ferrous Portion of Automobile Shredder Refuse," Proceedings of the Fifth Mineral Waste Utilization Symposium, April 13-14, 1976.
3. "Carbothermic Reduction of Refractory Metals," J. of Vacuum Science & Technology, V. 13, No. 1, Jan/Feb 1976 (526-529).
4. "Thermodynamics of Nitride Formation in Liquid U-Gd-Sn Alloys," J. of High Temp. Sci., V. 7, 1975 (249-258).
5. "Study of Interdiffusion in Electroplated Si-Ni on Au," Solid State Technology, Nov. 1974 (47-48).
6. Nitrogen-Nitride Equilibria in Molten Y-Sn Alloys," J. of High Temp. Sci., V. 6, 1974 (259-266).
7. "The Kinetics of Uranium Nitride Formation in Liquid U-Sn Alloys," J. of High Temp. Sci., V. 6, 1974 (351-368).
8. "Nitrogen-Nitride Equilibria in Molten Gd-Sn Alloys," J. of High Temp. Sci., V. 5, 1973 (325-334).
9. "Nitrogen-Nitride Equilibria in Molten Pr-Sn Alloys," J. of High Temp. Sci., V. 5, 1973 (165-175).
10. "Continuous Removal of Fission Products in a Nitride Fueled Reactor," Nuclear Technology, V. 13, March 1972 (297-300).
11. "Application of Nitride-Forming Reactions to Reprocessing of Spent Nuclear Fuels," Nuclear Technology, V. 13, Jan. 1972 (29-35).
12. "Reassessment of the Copper-Boron Phase Diagram," J. of the Less Common Metals, V. 25, Dec. 1971 (427-430).
13. "Nitrogen-Nitride Reactions in Molten U-Sn Alloys," TMS-AIME Met. Trans., V. 2, June 1971 (1599-1604).
14. "Standard Free Energy of Nitride Formation from the Elements, An Estimation Technique," J. of High Temp. Sci., V. 2, 1970 (289-292).
15. "The Contamination-Decontamination of Fission Products in Sea Water," Nuclear Detonations and Marine Radioactivity Symposium, Kjeller, Norway 1963 (203-216).
16. "Two-Phase Heat Transfer," Industrial and Engineering Chemistry, V. 51, 1959 (1369-1372).

Recent Publications (1978)

1. A Program Assessment of Nuclear Fuel Reprocessing and Radioactive Waste Disposal, January, 1978 (Report to State of California Energy Resources Conservation and Development Commission).
2. A Technical Assessment of Nuclear Fuel Reprocessing and Radioactive Waste Disposal, March, 1978 (Report to State of California Energy Resources Conservation and Development Commission).
3. "The Application of MHD to Steelmaking," September, 1978, Industrial Research and Development.
4. "Spent Fuel Disposal Costs," July 1978, (Prepared for Natural Resources Defense Council).
5. "Examinations of Radioactivity and Environmental Aspects of Antarctic Soils at Point Hueneme," July 1978 (Report to the California Solid Waste Board).
6. Contributor to OSTP document on Nuclear Power and Nuclear Waste Disposal for the President of the United States, June 1978.
7. "Technical Review of the Deutch Draft Report on Nuclear Waste Management," May, 1978.



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OFFICE OF THE
DIRECTOR OF THE
BRANCH

VERA BARLIT

PROFESSIONAL BIOGRAPHY

CURRENT POSITION	Assistant Research Engineer
EXPERTISE	Technical Research Chemical Engineering Analysis
EDUCATION	B.S. Chemical Engineering University of Lowell
EMPLOYMENT	
1981 - Date	Assistant Research Engineer Energy Research Group, Inc.
1980	Channing Laboratories Harvard Medical School
1978	Mobil Tyco Laboratories Saphikon Division

Energy Research Group, Inc.

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VITA

Ms. Barlit received her B.S. degree in Chemical Engineering from the University of Lowell, Massachusetts. She also completed several graduate courses at Lowell in Environmental Engineering and Chemistry. While at Lowell, Ms. Barlit was involved in several undergraduate engineering research projects one involving the production of gasohol through various chemical processes. In addition, she was involved with a computer analysis simulation of heat transfer flow within a specially designed solar heating facility.

Prior to joining ERG, Ms. Barlit was a part-time employee of Channing Laboratories and Mobil Tyco Laboratories. Her responsibilities at Channing Laboratories included compilation of research medical information. Her responsibilities at Channing Laboratories included preparation of synthetic materials for computer use.

At ERG, Ms. Barlit is responsible for conducting research in several technical areas. These areas include radiation and coolant chemistry control programs for light water nuclear reactors and spent fuel management transportation systems; nuclear power plant safety systems analysis, and alternative combustion fuel evaluations.

MEMBERSHIPS

American Institute of Chemical Engineers - Local and National Member
Society of Women Engineers

PROJECT
EXPERIENCEEvaluation of Alternate Fuels Production Processes.

Chemical and economic evaluation of ethanol production.

Computer Simulation of Heat Transfer Flows.

Mathematical (computer) analysis of heat transfer flow within a specially designed solar facility.

Alternatives for the Disposition of Turkey Point Spent Fuel.

Detailed technical assessment of all potentially feasible alternatives for on-site storage or off-site domestic or foreign disposition of Turkey Point spent fuel.

Technical Analysis and Evaluation of Nuclear Power Plant Safety.

Provided technical assistance to a government client intervening in the operating license proceedings before the Atomic Safety and Licensing Board.