

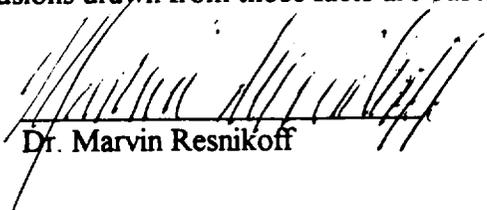
UNITED STATES OF AMERICA  
BEFORE THE U.S. NUCLEAR REGULATORY COMMISSION  
ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
PRIVATE FUEL STORAGE, L.L.C.	)	
	)	Docket No. 72-22-ISFSI
(Independent Spent Fuel	)	
Storage Installation)	)	November 20, 1997
	)	

**DECLARATION OF DR. MARVIN RESNIKOFF**

I, Dr. Marvin Resnikoff, declare under penalty of perjury that:

1. I am the Senior Associate at Radioactive Waste Management Associates, a private consulting firm based in New York City. I have extensive experience in the areas of nuclear waste transportation, storage, and disposal, and decommissioning of nuclear facilities. A copy of my resume is attached to this Declaration.
2. I am familiar with Private Fuel Storage's ("PFS's") license application and Safety Analysis Report in this proceeding, as well as the nonproprietary versions of applications for the storage and transportation casks PFS plans to use. I am also familiar with NRC regulations, guidance documents, and environmental studies relating to the transportation, storage and disposal of spent nuclear power plant fuel, and with NRC decommissioning requirements.
3. I assisted in the preparation of, and have reviewed, the State of Utah's Contentions regarding failure to comply with NRC dose limits; inadequate facilitation of decommissioning; inadequate thermal design; inadequate inspection and maintenance of safety components, such as canisters and cladding; inadequate quality assurance program; lack of a procedure for verifying presence of helium in canisters; inadequate technical qualifications; inadequate monitoring and control of effluents; failure to consider impacts of onsite storage and transportation of spent nuclear fuel; and the no-action alternative. The technical facts presented in those contentions are true and correct to the best of my knowledge, and the conclusions drawn from those facts are based on my best professional judgment.

  
Dr. Marvin Resnikoff

## Exhibit MR-2. Resume of Marvin Resnikoff, Ph.D.

**Dr. Marvin Resnikoff** is Senior Associate at Radioactive Waste Management Associates and is an international consultant on radioactive waste management issues. He is Principal Manager at Associates and is Project Director for risk assessment studies on radioactive waste facilities and transportation of radioactive materials. Dr. Resnikoff has concentrated exclusively on radioactive waste issues since 1974. He has conducted studies on the remediation and closure of the leaking Maxey Flats, Kentucky radioactive landfill for Maxey Flats Concerned Citizens, Inc. under a grant from the Environmental Protection Agency, the Wayne and Maywood, New Jersey thorium Superfund sites and on proposed low-level radioactive waste facilities at Martinsville (Illinois), Boyd County (Nebraska), Wake County (North Carolina), Ward Valley (California) and Hudspeth County (Texas). He has conducted studies on transportation accident risks and probabilities for the State of Nevada and dose reconstruction studies of oil pipe cleaners in Mississippi and Louisiana, residents of Canon City, Colorado near a former uranium mill, residents of West Chicago, Illinois near a former thorium processing plant, and former workers at a thorium processing facility in Maywood, New Jersey. In West Chicago he calculated exposures and risks due to thorium contamination and served as an expert witness for plaintiffs A Muzzey, S Bryan, D Schroeder and assisted counsel for plaintiffs KL West and KA West. He also evaluated radiation exposures and risks in worker compensation cases involving G Boeni and M Talitsch, former workers at Maywood Chemical Works thorium processing plant.

In Canada, he has conducted studies on behalf of the Coalition of Environmental Groups and Northwatch for hearings before the Ontario Environmental Assessment Board on issues involving radioactive waste in the nuclear fuel cycle and Elliot Lake tailings and the Interchurch Uranium Coalition in Environmental Impact Statement hearings before a Federal panel regarding the environmental impact of uranium mining in Northern Saskatchewan. He has also worked on behalf of the Morningside Heights Consortium regarding radium-contaminated soil in Malvern and on behalf of Northwatch regarding decommissioning the Elliot Lake tailings area before a FEARO panel. More recently he completed a study for Concerned Citizens of Manitoba regarding transportation of irradiated fuel to a Canadian high-level waste repository.

He was formerly Research Director of the Radioactive Waste Campaign, a public interest organization conducting research and public education on the radioactive waste issue. His duties with the Campaign included directing the research program on low-level commercial and military waste and irradiated nuclear fuel transportation, writing articles, fact sheets and reports, formulating policy and networking with numerous environmental and public interest organizations and the media. He is author of the Campaign's book on "low-level" waste, *Living Without Landfills*, and co-author of the Campaign's book, *Deadly Defense, A Citizen Guide to Military Landfills*.

Between 1981 and 1983, Dr. Resnikoff was a Project Director at the Council on Economic Priorities, a New York-based non-profit research organization, where he authored the 390-page study, *The Next Nuclear Gamble, Transportation and Storage of Nuclear Waste*. The CEP study details the hazard of transporting irradiated nuclear fuel and outlines safer options.

In February 1976, assisted by four engineering students at State University of New York at Buffalo, Dr. Resnikoff authored a paper which changed the direction of power reactor decommissioning in the United States. His paper showed that power reactors could not be entombed for long enough periods to allow the radioactivity to decay to safe enough levels for unrestricted release. The presence of long-lived radionuclides meant that large volumes of dismantled reactors would still have to go to low-level waste disposal facility. He has more recently served as a technical consultant on irradiated fuel storage facilities for the Palisades, Prairie Island and Point Beach nuclear reactors, testifying at hearings before Public Service Commissions and the courts.

Dr. Resnikoff is an international expert in nuclear waste management, and has testified often

before State Legislatures and the U.S. Congress. He has extensively investigated the safety of the West Valley, New York and Barnwell, South Carolina nuclear fuel reprocessing facilities. His paper on reprocessing economics (Environment, July/August, 1975) was the first to show the marginal economics of recycling plutonium. He completed a more detailed study on the same subject for the Environmental Protection Agency, "Cost/Benefits of U/Pu Recycle," in 1983. His paper on decommissioning nuclear reactors (Environment, December, 1976) was the first to show that reactors would remain radioactive for hundreds of thousands of years.

Dr. Resnikoff has prepared reports on incineration of radioactive materials, transportation of irradiated fuel and plutonium, reprocessing, and management of low-level radioactive waste. He has served as an expert witness in state and federal court cases and agency proceedings. He has served as a consultant to the State of Kansas on low-level waste management, to the Town of Wayne, New Jersey, in reviewing the cleanup of a local thorium waste dump, to WARD on disposal of radium wastes in Vernon, New Jersey, to the Southwest Research and Information Center and New Mexico Attorney General on shipments of plutonium-contaminated waste to the WIPP facility in New Mexico and the State of Utah on nuclear fuel transport. He has served as a consultant to the New York Attorney General on air shipments of plutonium through New York's Kennedy Airport, and transport of irradiated fuel through New York City, and to the Illinois Attorney General on the expansion of the spent fuel pools at the Morris Operation and the Zion reactor, to the Idaho Attorney General on the transportation of irradiated submarine fuel to the INEL facility in Idaho and to the Alaska Attorney General on shipments of plutonium through Alaska. He was an invited speaker at the 1976 Canadian meeting of the American Nuclear Society to discuss the risk of transporting plutonium by air. As part of an international team of experts for the State of Lower Saxony, the Gorleben International Review, he reviewed the plans of the nuclear industry to locate a reprocessing and waste disposal operation at Gorleben, West Germany. He presented evidence at the Sizewell B Inquiry on behalf of the Town and Country Planning Association (England) on transporting nuclear fuel through London. In July and August 1989, he was an invited guest of Japanese public interest groups, Fishermen's Cooperatives and the Japanese Congress Against A- and H- Bombs (Gensuikin).

Between 1974 and 1981, he was a lecturer at Rachel Carson College, an undergraduate environmental studies division of the State University of New York at Buffalo, where he taught energy and environmental courses. The years 1975-1977 he also worked for the New York Public Interest Group (NYPIRG).

In 1973, Dr. Resnikoff was a Fulbright lecturer in particle physics at the Universidad de Chile in Santiago, Chile. From 1967 to 1973, he was an Assistant Professor of Physics at the State University of New York at Buffalo. He has written numerous papers in particle physics, under grants from the National Science Foundation. He is a 1965 graduate of the University of Michigan with a Doctor of Philosophy in Theoretical Physics, specializing in group theory and particle physics.

**Dr. Marvin Resnikoff**

Radioactive Waste Management Associates  
526 West 26th Street, Room 517  
New York, NY 10001  
(212)620-0526 FAX (212)620-0518

241 W. 109<sup>th</sup> St, Apt. 2A  
New York, NY 10025  
(212) 663-7117

**EXPERIENCE:**

- April 1989 - present **Senior Associate**, Radioactive Waste Management Associates, management of consulting firm focused on radioactive waste issues, evaluation of nuclear transportation and military and commercial radioactive waste disposal facilities.
- 1978 - 1981; 1983 - April 1989 **Research Director**, Radioactive Waste Campaign, directed research program for Campaign, including research for all fact sheets and the two books, *Living Without Landfills*, and *Deadly Defense*. The fact sheets dealt with low-level radioactive waste landfills, incineration of radioactive waste, transportation of high-level waste and decommissioning of nuclear reactors. Responsible for fund-raising, budget preparation and project management.
- 1981 - 1983 **Project Director**, Council on Economic Priorities, directed project which produced the report *The Next Nuclear Gamble*, on transportation and storage of high-level waste.
- 1974 - 1981 **Instructor**, Rachel Carson College, State University of New York at Buffalo, taught classes on energy and the environment, and conducted research into the economics of recycling of plutonium from irradiated fuel under a grant from the Environmental Protection Agency.
- 1975 - 1976 **Project Coordinator**, SUNY at Buffalo, New York Public Interest Research Group, assisted students on research projects, including project on waste from decommissioning nuclear reactor.
- 1973 **Fulbright Fellowship** at the Universidad de Chile, conducting research in elementary particle physics.
- 1967 - 1972 **Assistant Professor of Physics**, SUNY at Buffalo, conducted research in elementary particle physics and taught range of graduate and undergraduate physics courses.
- 1965 - 1967 **Research Associate**, Department of Physics, University of Maryland, conducted research into elementary particle physics.

**EDUCATION**

University of Michigan  
Ann Arbor, Michigan

PhD in Physics, June 1965  
M.S. in Physics, Jan 1962  
B.A. in Physics/Math, June 1959