UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of: PRIVATE FUEL STORAGE, LLC (Independent Spent Fuel Storage Installation)	Docket No. 72-22-ISFSI ASLBP No. 97-732-02-ISFSI

STATE OF UTAH)
) ss.
COUNTY OF SALT LAKE)

AFFIDAVIT OF BARRY J. SOLOMON

I, BARRY J. SOLOMON, being first duly sworn upon oath, depose and state as follows:

1. I am a Senior Geologist at the Utah Geological Survey (Division), Applied Geology Program, Utah Department of Natural Resources, and have worked at this Division since September, 1988. I earned a Bachelor of Arts degree in Geology in 1972, from University of California, Santa Barbara, and a Master of Science degree in Geology in 1979, from San Jose State University.

2. My duties at work have included the study of geologic hazards throughout Utah. I have studied the surficial geology and geologic hazards of Tooele Valley, with basin-and-range characteristics similar to those of Skull Valley and within 12 miles of the proposed independent spent fuel storage installation (ISFSI) site, and have

reviewed the geologic portions of a license application for a proposed site for the disposal of low-level radioactive waste near the Great Salt Lake Desert, also with basin-and-range characteristics similar to those of Skull Valley and within 15 miles of the proposed ISFSI site. My experience prior to employment with the Utah Geological Survey includes geologic characterization of two proposed nuclear power plant sites and a proposed site for the disposal of high-level radioactive waste. A copy of my resume is attached to this Affidavit.

3. I have evaluated the geologic and seismologic characteristics in the area of the proposed ISFSI site. I am familiar with Private Fuel Storage L.L.C.'s Safety Analysis Report (SAR) and Environmental Report (ER) in this proceeding. Specifically, I have reviewed ER Ch. 2 § 2.6 (Geology and Seismology), SAR Ch. 2 § 2.6 (Geology and Seismology), and related appendices of the SAR concerned with Geotechnical Data (Appendix 2A), Seismic Survey (Appendix 2B), Geomorphological Survey (Appendix 2C), Earthquake Ground Motions Analysis (Appendix 2D), and Analysis of Volcanic Ash (Appendix 2E). I am also familiar with NRC regulations and guidance documents related to geological and seismological characterization of nuclear-related facilities, including 10 CFR § 72.102 (characterization of geology and seismology as a licensing requirement for the independent storage of spent nuclear fuel and high-level radioactive waste); 10 CFR § 100, Appendix A (seismic and geologic siting criteria for nuclear power plants); NUREG-0800, parts 2.5.1, 2.5.2, and 2.5.3 (standard review plans for basic geologic and

seismic information, vibratory ground motion, and surface faulting); NUREG-1199, part 2.3 (standard format and content of the geology and seismology portions of a license application for a low-level radioactive waste disposal facility); and NUREG 1200, part 2.3 (standard review plan of the geology and seismology portions of a license application for a low-level radioactive waste disposal facility). I am also familiar with many scientific studies related to geological site characterization and geological hazard analysis applicable to the siting of nuclear-related facilities.

4. I assisted in the preparation of, and have reviewed, the State of Utah's Contention dealing with geotechnical issues. The technical facts presented in that contention are true and correct to the best of my knowledge, and the conclusions drawn from those facts are based on my best professional judgment.

FURTHER AFFIANT SAYETH NOT.

DATED this November 21, 1997.

Barry J. Solomon

BARRY J. SOLOMON

Voluntarily signed and sworn to before me this 21st day of November, 1997, by the signer, whose identity is personally known to me or was proven to me on satisfactory evidence.

Karma L. Pathakis

NOTARY PUBLIC

Residing at: SLC Utah

My Commission expires: 5-15-2001

NOTARY PUBLIC
Karma L. Pathakis
160 East 300 South 5th Flr.
Salt Lake City, Utah 84114
My Commission Expires
May 15, 2001
STATE OF UTAH

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BACKGROUND SUMMARY: Twenty-three years of successful development, implementation, and management of geologic studies for evaluation of geologic hazards and for site screening, selection, and characterization of hazardous and nuclear waste, construction, and mining projects to comply with governmental regulations.

EDUCATION: M.S., Geology, San Jose State University, 1979
B.A., Geology, University of California at Santa Barbara, 1972

ADDITIONAL COURSES, SEMINARS, AND TRAINING:
Geological Engineering
Geostatistics and Multivariate Analysis
Construction Management
Well Logging
Remote Sensing Techniques
Soils and Applied Geology
Quaternary Dating Methods
Reducing Radon in Structures

PUBLICATIONS: Forty-eight publications on geologic studies. Co-author of regulatory documents related to nuclear waste and site characterization, selection, and screening.

PROFESSIONAL ASSOCIATIONS:
Association of Engineering Geologists
(former Chairman, Utah Section)
Utah Geological Association (former Treasurer)
Geological Society of America
American Association of Petroleum Geologists
Northern California Geological Association (former Vice-President)

Registered Professional Geologist, State of Florida, No. PG0000318

EMPLOYMENT HISTORY:

UTAH GEOLOGICAL SURVEY, Salt Lake City, Utah (1988 to Present)

SENIOR GEOLOGIST. Responsible for assessment of geologic hazards within Utah. Directed program, under grant from EPA, to determine geologic causes of indoor-radon hazard. Devised system for regional screening of solid-waste landfill sites. Reviewed geotechnical data in license application for low-level radioactive waste site near Great Salt Lake Desert to ensure compliance with state and federal regulations. Managed team of geologists conducting detailed Quaternary stratigraphic, geomorphic, and geochronologic studies related to paleoseismicity, hazard evaluation, and facility siting; areas of study included Tooele Valley, Cache Valley, West Desert Hazardous Industry Area, and Springdale, Utah.

BATTELLE PROJECT MANAGEMENT DIVISION, Columbus, Ohio, and Hereford, Texas (1985 to 1988)

GEOTECHNICAL ADVISOR. Responsible for planning and direction of geotechnical surface-based site activities of the salt characterization program for siting of a high-level nuclear waste repository. Monitored the cost and technical status of geotechnical elements by preparing planning documents and work scopes.

BRECKINRIDGE MINERALS, INC., Salt Lake City, Utah (Southern Pacific Petroleum, Brisbane, Australia) (1980 to 1985)

SENIOR GEOLOGIST/PROJECT MANAGER. Directed all phases of exploration for oil-shale and tar-sand deposits in the United States and Canada; participated in oil-shale exploration program in Australia. Managed program of lease acquisition, and established field office. Comprehensive studies used mapping, core logging, geochemical analyses, and geophysical data to characterize potential mine sites.

U.S. GEOLOGICAL SURVEY, Menlo Park, California (1976 to 1980)

GEOLOGIST. Conducted resource evaluations and stratigraphic studies of minerals considered leasable by the U.S. Government. Provided recommendations to federal agencies regarding proper use of mineral resources on federal land.

FUGRO, INC., (now The Earth Technology Corporation), Long Beach, California (1973-1975)

ENGINEERING GEOLOGIST. Conducted engineering-geologic investigations of nuclear power plant sites in Arizona and Puerto Rico. Responsible for site mapping, logging of core and soil samples, and trenching to evaluate structure.