

Permit 3/18/10



STATE OF NEW MEXICO
BEFORE THE SECRETARY OF ENVIRONMENT

IN THE MATTER OF:

APPLICATION OF THE UNITED STATES)
DEPARTMENT OF ENERGY AND)
LOS ALAMOS NATIONAL SECURITY, LLC)
FOR A HAZARDOUS WASTE FACILITY)
PERMIT FOR LOS ALAMOS NATIONAL)
LABORATORY)

No. HWB 09-37(P)
HWB 10-04(P)

TESTIMONY OF JAMES STREIT

My name is Jim Streit. I am the Division Leader of the Fire Protection Division at Los Alamos National Laboratory (LANL). I have worked at LANL within its Fire Protection organization since 1999; I became the Group Leader of the organization and LANL Fire Marshal in 2001; and have held my current position since February 2009. The Division provides fire protection engineering and fire safety expertise at LANL to minimize fire-related risks. I oversee the application of DOE Orders/Standards, National Fire Protection Association (NFPA), International Building Code (IBC), commercial highly-protected risk and LANL standards for fire protection and life safety within all facilities at LANL. Therefore, I am familiar with fire protection and emergency response systems through LANL, including those at the units which are subject to the draft permit as proposed.

I have reviewed the requirements for fire protection in Proposed Permit, including Attachment D, the Contingency Plan. The Plan specifies how LANL will satisfy the requirements of 40 CFR 264 Subparts C and D with respect to fire protection and response, and fully addresses the requirements of those subparts. LANL has the necessary personnel and equipment in place to meet the fire protection requirements of the Proposed Permit. LANL agrees with the language in Sections 2.10 and 2.11, and Attachments A and D of the Proposed Permit with respect to fire protection and response. The conditions and requirements of those sections of the Proposed Permit meet the requirements of RCRA and are protective of human health and the environment.



FURTHER AFFLIANT SAYETH NAUGHT

James R. Streit
James R. Streit

STATE OF NEW MEXICO)
) ss.
COUNTY OF LOS ALAMOS)

SUBSCRIBED, SWORN TO AND ACKNOWLEDGED before me this 18th day of March, 2010

Julie A. Garcia
NOTARY PUBLIC

My Commission Expires:
4-16-12



James R. Streit, PE, ARM

Education	1980 – 1982 Humboldt State University Forestry, Environmental Engineering	Arcata, California
	1982 – 1985 California State Polytechnic University Bachelor of Science, Chemical Engineering (BS ChE) Minor, Material Science and Engineering	Pomona, California
	1993 – 1996 The University of South Carolina Masters of Business Administration (MBA)	Columbia, SC
	2003 – 2009 The University of New Mexico Master of Science – Mechanical Engineering	Albuquerque, NM

Professional Experience	Los Alamos National Laboratory (LANL) Los Alamos, New Mexico	
	Technical Staff Member / Fire Protection Engineer	2/1999 – 11/2001
	Fire Protection Group Leader / Fire Marshal	11/2001 – 6/2006
	Fire Marshal	6/2006 – 2/2009
	Fire Protection Division Leader / Fire Marshal	2/2009 – present
	<ul style="list-style-type: none"> ◦ Manage the Laboratory's Fire Protection Division, providing fire protection engineering and life safety expertise for on-going programmatic and facility operations at this Department of Energy (DOE) / National Nuclear Security Administration (NNSA) research laboratory. ◦ Serve as the Laboratory's authority having jurisdiction (AHJ) for fire protection and life safety, including enforcement authority. Application of DOE Orders/Standards, National Fire Protection Association (NFPA), International Building Code (IBC), commercial highly-protected risk and Laboratory standards for fire protection and life safety within all facilities. ◦ Plan review/approval, construction inspection, and commissioning / acceptance testing of fire protection and life safety systems/features for new facility construction and modification projects. ◦ Code research, rulings on the applicable requirements, plan review/approval, construction inspection, and commissioning/acceptance testing of fire protection and life safety systems/features for unique new facility construction projects. ◦ Technical leadership and direction for the on-going implementation of the Lab-wide comprehensive fire protection program (development and maintenance of policies, procedures and compliance documentation) to satisfy DOE fire safety and loss prevention objectives. ◦ Manage the Division's facility fire protection and life safety inspection / surveillance program. Tracking of internally-observed and externally-determined deficiencies to acceptable resolution/closure. ◦ Oversee and fund the day-to-day operation (maintenance, hardware, software, databases and change control) of the Laboratory's fire alarm receiving system. 	

- Integration of the Los Alamos Fire Department (LAFD) into Laboratory operations and emergency management programs, including direction of Laboratory-specific fire fighting training, facility familiarization tours, and assigned administrative roles by NNSA local office.
- Extensive interface with Laboratory senior management, NNSA local office and DOE assessment organizations (e.g., Operational Assurance, headquarters assessment teams, and the independent Defense Nuclear Facility Safety Board).
- Coordination with Laboratory environmental, safety and health (ESH) and emergency preparedness and management organizations for the effective implementation of all ESH program commitments at the Laboratory.
- Negotiation and preparation of equivalency (acceptable by alternate means) and exemption (request for relief from) compliance documentation to DOE Orders/Standards, NFPA and IBC requirements with DOE.
- Development and maintenance of facility and programmatic fire hazard analyses (FHAs) in support of nuclear and high/moderate hazard facility safety analysis reports (DSAs, BIOs, JCOs, FSAs, FSPs, etc.).
- Manage an annual budget of ~\$2.6 million with 15 direct reports. Staff recruitment, interviews, hiring and professional development.

Duke Engineering & Services, Inc.

Fort Worth, Texas

Consulting Fire Protection Engineer

1/1997 – 2/1999

- Provided fire protection engineering consulting services to commercial nuclear power plant industry clientele. Services included;
 - Fire protection system design services
 - Fire protection system analysis and design basis verification
 - Independent assessment team participation
 - On-site fire protection engineering staff augmentation
 - Nuclear power plant fire protection program implementation assistance
 - Application of Nuclear Regulatory Commission (NRC) 10 CFR 50 Appendix R, NFPA codes/standards, and insurance loss prevention criteria
- Clients included;
 - Northeast Utilities' Millstone Station Units 1 & 3 (Waterford, CT)
 - Philadelphia Electric Company's (PECo) Limerick Generating Station (Limerick, PA)
 - Florida Power & Light's (FP&L) Turkey Point Nuclear Power Plant (Homestead, FL)
 - Entergy's Waterford Station Unit 3 (Taft, LA)
 - Entergy's River Bend Station (St. Francisville, LA)
 - Pennsylvania Power & Light (PP&L) Susquehanna Station Units 1 & 2 (Berwick, PA)
 - American Electric Power's (AEP) D.C. Cook Station (St. Joseph, MI)

Westinghouse Savannah River Company

Aiken, South Carolina

Sr. Technical Advisor / Sr. Fire Protection Engineer 10/1992 – 1/1997

- Provided fire protection engineering and life safety expertise for on-going programmatic and facility operations at this Department of Energy (DOE) production and research site.

- Technical leadership and direction for the on-going implementation of the Site-wide Company comprehensive fire protection program (development and maintenance of policies, procedures and compliance documentation) to satisfy DOE fire safety and loss prevention objectives.
- Plan review/approval, construction inspection, and commissioning / acceptance testing of fire protection and life safety systems/features for new facility construction and modification projects.
- Application of DOE Orders/Standards, NFPA, Southern/Standard Building Code (SBC), commercial highly-protected risk and Company standards for fire protection and life safety within all facilities.
- Negotiation and preparation of equivalency (acceptable by alternate means) and exemption (request for relief from) compliance documentation to DOE Orders/Standards, NFPA and SBC requirements with DOE.
- Leadership of a six-member engineering support group and additional subcontractors serving the major administrative and infrastructure operating division at the Site.
- Development and maintenance of facility and programmatic fire hazard analyses (FHAs) in support of nuclear and high/moderate hazard facility safety analysis reports (SARs).

Daart Engineering Company, Inc.

Redlands, California (now located in San Bernardino, California)

Chief Engineer

4/1987 – 10/1992

- Provided engineering design and project management of fire protection system installations. Types of facilities/occupancies included;
 - Hospitals
 - Elementary through college/university educational facilities
 - High-rise office and residential towers
 - Industrial, manufacturing, laboratory and commercial office facilities
 - Warehouses
 - Historical structures
 - New construction and retro-fit installations
- Engineering design, including design/shop/installation drawings, hydraulic and seismic bracing calculations, and fabrication schedules, for the following types of fire protection systems;
 - Wet, dry, preaction, deluge and anti-freeze automatic sprinkler systems
 - Foam-water and water spray fixed systems
 - Standpipes
 - Fire pump, water supply storage and distribution systems
 - Application of NFPA 13, 13D, 13R, 14, 15, 16, 20, 22, 24, 101, 230, 232 + others, Uniform Building Code (UBC), California State Fire Marshal (typically educational facilities), California Office of Statewide Health Planning and Development (OSHPD – for hospital and medical facilities), local AHJ and commercial insurer standards.
- Field acceptance testing and evaluation of fire suppression system installations with building owners, AHJs and insurance representatives.
- Negotiation with AHJs on fire protection requirements/approaches.
- Training and supervision of staff design engineers and technicians,

including: installation code requirements, hydraulics, hazards evaluation and in-house design reviews.

Factory Mutual Engineering Association

Orange, California

Loss Prevention Consultant

7/1985 – 4/1987

- Performed fire and extended perils insurance inspections at insured and proposed insured (candidate) facilities, including engineering analysis of fire protection system capabilities and detailed loss report preparation.
- Plan review/approval, construction inspection, and field acceptance / periodic testing of fire protection systems/features at insured facilities.
- Consultations with plant management, engineering and risk management personnel to recommend, assist and implement fire protection, extended perils and related safety improvements at insured facilities.

Professional Registrations / Certifications

Professional Fire Protection Engineer

#FP-1252

State of California

Professional Engineer

#16873

State of South Carolina

Professional Engineer

#15321

State of New Mexico

Associate of Risk Management (ARM)

American Institute for Chartered Property and Casualty Underwriters (AICPCU) / American Insurance Institute (All)

Professional Memberships

Member, National Fire Protection Association (NFPA)

Member, Society of Fire Protection Engineers (SFPE)

Professional Activities

Principal, NFPA Technical Committee for Water Spray Fixed Systems

- NFPA 15, *Standard for Water Spray Fixed Systems for Fire Protection*

Principal, NFPA Technical Committee for Fire Protection for Nuclear Facilities

- NFPA 801, *Standard for Fire Protection for Facilities Handling Nuclear Materials*
- NFPA 804, *Standard for Fire Protection for Advanced Light Water Reactor Electric Generating Plants*
- NFPA 805, *Performance-Based Standard for Fire Protection for Advanced Light Water Reactor Electric Generating Plants*
- NFPA 806, *Performance-Based Standard for Advanced Nuclear Reactor Electric Generating Plants Change Process*