

April 18, 2000

**UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION**

**Before the Atomic Safety and Licensing Board**

In the Matter of	)	
	)	
PRIVATE FUEL STORAGE L.L.C.	)	Docket No. 72-22
	)	
(Private Fuel Storage Facility)	)	ASLBP No. 97-732-02-ISFSI

**APPLICANT'S FOURTH SUPPLEMENTAL RESPONSE TO  
STATE'S FIRST REQUESTS FOR DISCOVERY**

Applicant Private Fuel Storage L.L.C. ("Applicant" or "PFS") files this Fourth Supplemental Response to "State of Utah's First Set of Discovery Requests Directed to the Applicant ("State's First Discovery Requests"). The Applicant files this Supplemental Response pursuant to 10 C.F.R. § 2.740(e), to name additional witnesses it expects to call at hearing. The Applicant's original response to the State's First Discovery Requests noted that it would file such supplemental responses as it identified additional witnesses.<sup>1</sup>

**I. GENERAL DISCOVERY REQUESTS**

**A. GENERAL INTERROGATORIES**

**GENERAL INTERROGATORY NO. 3.** For each admitted Utah contention, give the name, address, profession, employer, area of professional expertise, and

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<sup>1</sup> Applicant's Objections and Non-Proprietary Responses to State's First Requests for Discovery, dated April 21, 1999, at 17.

educational and scientific experience of each person whom PFS expects to call as a witness at the hearing. For purposes of answering this interrogatory, the educational and scientific experience of expected witnesses may be provided by a resume of the person attached to the response.

**APPLICANT'S RESPONSE:** The Applicant supplements its response to the State's First Discovery Requests by identifying the following additional persons whom the Applicant expects to call as witnesses at the hearing with respect to the State's admitted contentions. The Applicant is still in the process of identifying witnesses that it expects to call at the hearings and will supplement this response in accordance with 10 C.F.R. § 2.740(e).

**Utah Contention E – Financial Assurance**

<b><u>Name and Address:</u></b>	George Takacs Stone and Webster 7677 East Berry Avenue Englewood, CO 80111-2137
<b><u>Profession:</u></b>	Cost Estimator
<b><u>Employer:</u></b>	Stone and Webster Engineering Corporation
<b><u>Professional Expertise:</u></b>	Cost estimating
<b><u>Educational, Scientific Experience, and Professional Qualifications:</u></b>	See attached resume
<b><u>Publications in the last ten years:</u></b>	None
<b><u>Testifying experience as expert in last four years:</u></b>	None
<b><u>Subject Matter of Testimony:</u></b>	Mr. Takacs will testify with Joseph Gase regarding the cost estimates developed for construction of the Private Fuel Storage Facility (PFS Bates 53,178 – 53,184).

**Documents reviewed and/or  
relied upon:**

Mr. Takacs (and Mr. Gase) will rely on the PFS license application, responses to RAIs, PFS construction cost estimates and materials supporting the cost estimates (PFS Bates 53,186 – 53,293, 53,340 – 53,373). In addition, Mr. Takacs (and Mr. Gase) will rely on standard cost estimating reference manuals, including R.S. Means' and Richardson's. Mr. Takacs (and Mr. Gase) may rely on documents produced by the State and any other documents that may come into the possession of PFS, as well as additional documents identified in previous discovery responses.

**Name and Address:**

John D. Parkyn  
Dairyland Power Cooperative  
3200 East Avenue South  
LaCrosse, WI 54601

**Profession:**

Chairman of the Board of Managers

**Employer:**

Private Fuel Storage, L.L.C.

**Professional Expertise:**

Nuclear Engineering and Management

**Educational, Scientific Experience,  
and Professional Qualifications:**

See attached resume

**Publications in the last ten years:**

See attached resume

**Testifying experience as expert  
in last four years:**

See attached resume

**Subject matter of testimony:**

Mr. Parkyn will testify concerning construction and operational costs, including the cost of rail equipment, associated with the PFS Facility as well as the amount of on-site property insurance that PFS will obtain and maintain.

Documents reviewed and/or  
relied upon:

The documents reviewed and relied upon by Mr. Parkyn will include the License Application, Safety Analysis Report, Environmental Report, responses to RAIs, NRC regulations and regulatory guides, the PFS Business Plan, and the cost estimates, and associated materials developed for the PFS Facility.

Name and Address:

Hanson D. Pickerl

Profession:

Insurance Executive

Employer:

Marsh & McLennan Nuclear

Professional Expertise:

Nuclear Insurance

Educational, Scientific Experience,  
and Professional Qualifications:

See attached resume

Publications in the last ten years:

See attached resume

Testifying experience as expert  
in last four years:

See attached resume

Subject matter of testimony:

Mr. Pickerl will testify as to the availability, scope of coverage, and cost of on-site property damage insurance for PFS.

Documents reviewed and/or  
relied upon:

The documents reviewed and relied upon by Mr. Pickerl will include: the PFSF license application; communications with nuclear insurers; and studies concerning the costs of remediation of nuclear accidents.

### Utah Contention K – Credible Accidents

Name and Address:

Col. Ronald E. Fly, USAF (Ret.)  
901 S. Frankland Road  
Tampa, Florida 33629

**Profession:** Consultant, Retired Air Force Colonel

**Employer:** Burdeshaw Associates, Ltd.

**Professional Expertise:** Pilot/Military Flight Operations

**Educational, Scientific Experience, and Professional Qualifications:** See attached resume

**Publications in the last ten years:** See attached resume

**Testifying experience as expert in last four years:** See attached resume

**Subject matter of testimony:** Col. Fly will testify concerning the risk to the PFSF posed by military flight operations in and around Skull Valley, Utah and the Utah Test and Training Range.

**Documents reviewed and/or relied upon:** The documents reviewed and relied upon by Col. Fly will include: the PFSF license application; documents concerning the risk to the PFSF posed by military flight operations submitted by PFS to the NRC Staff; supporting materials, to include Air Force flight manuals; and any other flight operations risk assessments developed by PFS.

**Utah Contention S – Decommissioning**

**Name and Address:** John D. Parkyn  
See Utah Contention E for information

**Subject matter of testimony:** Mr. Parkyn will testify concerning decommissioning funding issues, including escalation and the year in which costs will occur, as well as the amount of on-site property insurance that PFS will obtain and maintain.

**Documents reviewed and/or relied upon:** See Utah Contention E for information

**Name and Address:**

Hanson D. Pickerl  
See Utah Contention E for information

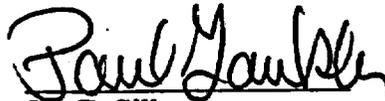
**Subject matter of testimony:**

Mr. Pickerl will testify as to the availability, scope of coverage, cost of on-site property damage insurance for PFS.

**Documents reviewed and/or relied upon:**

The documents reviewed and relied upon by Mr. Pickerl will include: the PFSF license application; communications with nuclear insurers; and studies concerning the costs of remediation of nuclear accidents.

Respectfully submitted,



Jay E. Silberg  
Ernest L. Blake, Jr.  
Paul A. Gaukler  
SHAW PITTMAN  
2300 N Street, N.W.  
Washington, DC 20037  
(202) 663-8000  
Counsel for Private Fuel Storage L.L.C.

Dated: April 18, 2000

**UNITED STATES OF AMERICA**  
**NUCLEAR REGULATORY COMMISSION**

Before the Commission

In the Matter of )  
 )  
PRIVATE FUEL STORAGE L.L.C. ) Docket No. 72-22  
 )  
(Private Fuel Storage Facility) )

**CERTIFICATE OF SERVICE**

I hereby certify that copies of Applicant's Fourth Supplemental Response to State's First Requests for Discovery, Declaration of Paul Gaukler, and the attached resumes were served on the persons listed below (unless otherwise noted) by e-mail with conforming copies by U.S. mail, first class, postage prepaid, this 18th day of April 2000.

G. Paul Bollwerk III, Esq., Chairman  
Administrative Judge  
Atomic Safety and Licensing Board Panel  
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\* Susan F. Shankman  
Deputy Director, Licensing & Inspection  
Directorate, Spent Fuel Project Office  
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Office of the Secretary  
U.S. Nuclear Regulatory Commission  
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Attention: Rulemakings and Adjudications  
Staff  
e-mail: [hearingdocket@nrc.gov](mailto:hearingdocket@nrc.gov)  
(Original and two copies)

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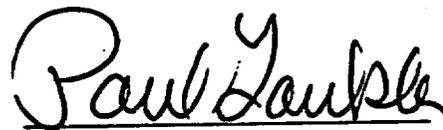
\* By U.S. mail only

\* Adjudicatory File  
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Paul A. Gaukler

April 18, 2000

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PRIVATE FUEL STORAGE L.L.C.	)	Docket No. 72-22
	)	
(Private Fuel Storage Facility)	)	ASLBP No. 97-732-02-ISFSI

DECLARATION OF PAUL A. GAUKLER

Paul A. Gaukler states as follows under penalties of perjury:

1. I am with Shaw Pittman in Washington, D.C.
2. I am duly authorized to verify Applicant's Fourth Supplemental Response to State's First Requests for Discovery; specifically, the supplemental response to General Interrogatory No. 3.
3. I certify that the statements in such responses are true and correct to the best of my personal knowledge and belief.

I declare under penalty and perjury that the foregoing is true and correct.

Executed on April 18, 2000.

  
Paul A. Gaukler

**Resume of  
Ronald E. Fly**

**RONALD E. FLY, Colonel, USAF (Retired)**  
901 S. Frankland Rd., Tampa, Florida 33629  
(813) 254-2069

## **CAREER SUMMARY**

Twenty-four years of demonstrated accomplishment in leadership, management and staff positions. Extensive operational experience to include leading three large organizations.

## **LEADERSHIP POSITIONS**

Commander, 388<sup>th</sup> Fighter Wing, Led 2,200 personnel in nine squadrons with an annual budget of \$66M.

- Maintained a 4% higher aircraft readiness rate at a 20% lower operating cost than two similar organizations, an annualized saving of \$6,970,000.
- Executed the first "no-notice" Air Expeditionary Force, generated the tasked aircraft and 5 spares 12 hours ahead of schedule.

Commander, 8<sup>th</sup> Operations Group. In charge of 830 personnel in 3 squadrons with an annual budget of \$24M.

- Exceeded every command readiness standard, fighter squadrons took first and second place in the command wide bombing competition.
- Aggressively managed aircraft engine repair flow to prevent the loss of 25 engines.

Commander, 63<sup>rd</sup> Fighter Squadron. Responsibilities for 325 personnel and an annual operations and maintenance budget of \$10M.

- Turned the perennial "also ran" into the wing's premier fighter squadron. Won the Annual Top Combat Unit competition by the largest margin on record and swept every major maintenance and operational category.
- Maintained the wing's highest readiness rate using only 54% of the operations and maintenance budget.

## **STAFF POSITIONS**

Chief, Defense and Space Operations Division, The Joint Staff. Responsible for operational cognizance over all air and missile defense matters, and space operations. Worked extensively at the inter-agency level on Intelligence and Missile Defense. Co-chaired the Quadrennial Defense Review Navigation Warfare subpanel.

Action Officer, International Affairs Division, Headquarters USAF. One of only six officers designated by the Secretary of the Air Force with the authority to release sensitive classified and unclassified information and technologies to foreign governments and international organizations.

## OPERATIONS

Seventeen years experience in all phases of aviation to include, flight operations, maintenance, logistics, quality assurance, training and scheduling.

## STRATEGIC PLANNING

Co-chaired the operations panel for the 1995-96 Advanced Battlespace Information Study commissioned by the Undersecretary of Defense Deputy for Research and Engineering and the Joint Chiefs of Staff. The Department of Defense accepted the report recommendations and redirected command and control research funds to those programs which supported the study's technology roadmap. This study, published in 1996, served as a cornerstone for the Joint Chiefs of Staffs 15 year strategic plan, *Joint Vision 2010*.

Instituted an infrastructure planning process addressing the unit's 77 buildings and 1.3 million square feet of floor space. Procured \$80,000 from regional headquarters for a long-term engineering development plan.

## OPERATIONAL ANALYSIS

Used unit cost and repair data to isolate a low-cost, high failure rate item in the F-16 wheel brake system. Formed and directed a team of technical experts to investigate the problem and develop corrective actions. The locally developed procedures were adopted Air Force wide in 1995.

Developed a unit based metric for tracking aircraft engine transportation to and from the Pacific regional repair facility. This metric was adopted throughout the Pacific Air Forces in 1995 and led to an asset reallocation reducing the transportation time 375%.

## EDUCATION

National Security Manager's Course, Syracuse University, 1996  
(2 month executive education)

Master of Science (Management), Troy State University 1985

Bachelor of Science (Economics), US Air Force Academy, 1974

## PROFESSIONAL MILITARY EDUCATION

NATO Defense College, Rome, Italy, 1994

Air War College, 1988

Air Command and Staff College, 1985

**RONALD E. FLY, Colonel, USAF (Retired)**  
**Addendum**

**EDUCATION & TRAINING**

**Member, Board of Directors, Air Combat Command's Professional Military Education. Set the education and training policy and guide lines for approximately 90,000 USAF personnel.**

**Eight years experience as a formal course instructor.**

- **Wrote course objectives, study guides, teaching manuals, tests and other academic courseware.**
- **Designed syllabi to include integrated academic and advanced practical training flow.**
- **Academic instructor, taught all phases of aerial combat, air-to-air munitions, radar, electronic countermeasures, and aerospace physiology.**
- **Multiple awards as the Top Academic Instructor and the Best Instructor Pilot.**

**INTERNATIONAL AFFAIRS**

**Over four years experience in the HQ USAF International Affairs Division Office of the Vice Chief of Staff.**

- **2½ years on the Middle East Africa desk, 2 years as the NATO and multinational desk officer**
- **Daily interaction with foreign attaches concerning access to USAF information and visits to USAF installations**
- **Technology Transfer . . . served as the gatekeepers for technology**
  - **Chairman, F-16 Multinational Technical Coordinating Group (US and the four NATO F-16 co-production partners). Responsible for resolving all technology transfer issues within the group.**
  - **Recognized expert in weapons systems, fighter aircraft, radars, and electronic countermeasures**
  - **Authored the USAF LANTIRN release policy, approved by CSAF**

- **IIQ USAF lead on the UK and French E-3 AWACS sale, adroitly handled several key issues concerning software and technical drawings.**

## **SPACE OPERATIONS**

**Planned and led the ICS sponsored Tactical Exploitation of National Capabilities (TENCAP) Special Project 97 exercise. Focused on providing national capability to support theater ballistic missile defense initiatives.**

**Defense Support Program. The JCS lead for the current shared early warning program. Met the aggressive schedule directed by the President to provide Israel with an early warning capability, established the baseline architecture for the growing SEW initiative.**

**Routinely Co-chaired the NIMA Customer Advisory Board involving over 12 different agencies. Helped ensure a smooth transition as NIMA was formed by merging other agencies.**

## **NATIONAL MISSILE DEFENSE**

**Designed and developed the exercise evaluation program to test NMD weapons engagement scenarios and weapons release authority levels.**

## **PLANNING**

**Planned and procured funding for \$7M major runway infrastructure repair project at Kunsan AB, Korea. The project, involving moving over 600 personnel and \$1B dollars worth of assets to two other operating locations, was successfully executed providing much needed infrastructure repair and enhancement.**

## **CONTINGENCY EXECUTION**

**Led the Hurricane Andrew evacuation, involving 75 airplanes and over 200 personnel, from MacDill AFB, FL to Dobbins AFB, GA. The short notice evacuation was smoothly executed with minimum problems.**

## **OPERATIONAL TEST AND EVALUATION**

**Commander of the Utah Test and Training Range., the largest overland range in the free world and the only overland range authorized for test of cruise missiles and other large safety footprint weapons.**

- **Directed the use and implementation of test range assets for calibration of airborne laser targeting systems. Leveraged the use of test equipment to improve operational capability.**

- **Implemented new procedures to increase range safety and minimize the possibility of damage to non-test facilities located on the range.**

#### **LOGISTICAL SUPPORT**

**Identified problems with a high cost, high failure rate component of the F-I 6 radar.**

- **Developed local operational and repair procedures to increase the mean time between failure rate and increase the radar reliability.**
- **Directed technicians to work with the regional repair facility and identify a long term improvement. A redesign of the component involving a new memory chip was developed and an 18 month replacement plan initiated.**

**Resume of  
John Parkyn**

# John Parkyn

## Position

**Chairman of the Board, Private Fuel Storage L.L.C.**

## Education

**University of Wisconsin** **Madison, WI**

- Bachelor of Science in Nuclear Engineering

**United States Army** **White Sands Missile Range, NM**

- Certified Reactor Operator

## Nuclear Facility Licenses

**Wisconsin Electric Power Company** **Milwaukee, WI**

- NRC Licensed Senior Reactor Operator - Point Beach Units 1 & 2

**Dairyland Power Cooperative** **La Crosse, WI**

- NRC Licensed Senior Reactor Operator - La Crosse Boiling Water Reactor

## Professional Licenses

- Professional Engineer - Wisconsin
- Professional Nuclear Engineer - California

## Publications

**Author of numerous papers on nuclear energy and its implementation.**

## Professional Associations

- Past Member, National Planning Committee, American Nuclear Society
- Past Chairman, Wisconsin Division, American Nuclear Society

## Positions Held in Nuclear Facilities

- Relief Shift Supervisor
- Shift Technical Advisor
- Relief Operator
- Operations Engineer
- Technical Assistant
- Assistant Superintendent
- Plant Manager
- Acting Chief Executive Officer for Nuclear Power (CNO)

**Resume of  
Hanson Pickerl**

**Hanson Pickerl**  
*Senior Vice President*  
*Marsh USA Inc.*

Hanson joined the Chicago office of Marsh Inc. in 1985 after serving as a commissioned officer in the United States Navy nuclear submarine program. He is responsible for all aspects of business production and account management for manufacturing and energy companies and their subsidiaries in the central U.S. He serves as the principal point of contact for his clients and as liaison with all resources of Marsh & McLennan Companies, a global financial services corporation specializing in risk management and insurance services, consulting, and investment management.

Hanson's account responsibilities include several large energy companies operating both fossil and nuclear generation plants, as well as corporations involved in wire and cable manufacturing, industrial boiler and water treatment equipment production, and nuclear fuel fabrication. He manages the placement and service for all lines of insurance for his clients, as well as captive insurance company formation, strategic and integrated risk assessments, and synthetic/financial insurance program development.

Hanson holds a Bachelor of Science degree in Physics from the United States Naval Academy in Annapolis, Maryland, and a Masters in Business Administration, Financial Management specialization, from the University of Chicago Graduate School of Business.

**Resume of  
George L. Takacs**

**Executive Summary**

Mr. Takacs has over 25 years of estimating, cost control and scheduling experience in the construction industry. Presently, Mr. Takacs is employed as Principal Estimating Engineer in the Cost and Scheduling Department of Stone & Webster's Denver office. As Staff Estimator, he has prepared numerous cost estimates ranging from conceptual to LSTK bids for various power, government, industrial and process facilities. Some of these estimates have included the decommissioning of a nuclear power plant; various coal, nuclear, geothermal, and hydro power plants; FGD and Nox retrofits; oil shale projects; catalytic crackers; ethylene plants; and various transportation and mining projects.

Mr. Takacs worked on several lump sum fixed price proposal estimates such as Pueblo Combined Cycle Power Project, North Rochelle Mine, Pan Energy Substation, Milan Groundwater Treatment Plant, Akzo Salt Mine Facilities, East Mesa geothermal power plant (two - 18.5 MW units), Pacific Light and Electric System (PLES) geothermal power plant, and Chevron cogeneration project.

Prior to joining Stone & Webster, Mr. Takacs was employed as Field Cost/Schedule Engineer for Townsend and Bottum on an 800 MW coal-fired power plant. He was also with Townsend and Bottum as Cost Engineer on the home office staff providing pre-construction services for a 2400 MW, 2-unit nuclear power plant.

Before holding that position, Mr. Takacs was Architectural/Structural Estimator for the Western Division, Naval Facilities Engineering Command. In this position he was responsible for reviewing all types of estimates for construction projects in the Western Naval Districts, including Alaska.

Prior to joining the Naval Facilities Engineering Command, Mr. Takacs was employed as Associate Engineer for Commonwealth Associate's Cost Engineering Department.

**Education**

Montana State University - Bachelor of Science, Construction Engineering Technology, 1974

**Training**

Colorado State University and the University of Colorado - Graduate courses in Business and Economics  
Several seminars on Process Estimating  
Forty-hour seminar on Value Engineering  
Various Stone & Webster-sponsored courses

**Professional Affiliations**

American Association of Cost Engineers - Served on the 1978 Annual Convention Technical Committee and the Technical and General Arrangement Committees for the 1985 Annual Convention. Vice-Chairman Cost Estimating Committee 1986-1991.

**Experience History**

**STONE & WEBSTER ENGINEERING CORPORATION, DENVER, COLORADO  
(APRIL 1980 TO PRESENT)**

**General Staff Estimating Support  
Principal Estimating Engineer**

**Department of Energy, Rocky Flats Environmental Technology Site  
Project Estimator**

**Westinghouse Savannah River Company, Actinide Packaging & Storage Facility  
Project Estimator**

**Pacific Gas & Electric, Pittsburg and Contra Costa Units  
Project Estimator**

**Salt River Project, Navajo Scrubber Project  
Project Estimator**

**Army Corps of Engineers, Garrison Dam Major Rehabilitation  
Project Estimator**

**Kennecott Energy Company, Puron Processing Facility  
Project Estimator**

**Rosario Dominicana, S.A.  
Project Estimator**

**Hellenic Alumina Industry S. A., Elva Alumina Project  
Independent Reviewer**

**Summit Energy, Summit Pumped Storage Project  
Independent Reviewer**

**Kiewit Construction Company, Smithland/Chanelton Hydro Project  
Cost Estimator**

**Public Utility District No. 1 of Pend Orielle County, Box Canyon Hydro Unit 5  
Cost Estimator**

**Montana Power Company  
Cost Estimator**

**First Kentucky Coal Refining Company**  
Cost Estimator

**Tennessee Valley Authority**  
Cost Estimator

**Cordero Mining Company**  
Cost Estimator

**Northern States Power Company**  
Cost Estimator

**Usibelli Coal/Alaska Industrial Development and Export Authority**  
Cost Estimator

**City and County of Denver, Colorado**  
Cost Estimator

**Alaska Power Authority**  
Cost Estimator

**City of Independence, Missouri**  
Cost Estimator

**Mitsubishi International Corporation**  
Cost Estimator

**Mobil Chemicals, Houston**  
Cost Estimator

**BP Australia LTD**  
Project Cost Engineer

**Northern States Power Company**  
Project Cost Engineer

**Indiana Oil Shale Project**  
Cost Estimator

**Northern States Power Company**  
Project Cost Engineer

**Total Petroleum**  
Cost Estimator

**American Syn-Crude**  
Cost Estimator

**Pacific Power and Light**  
Project Cost Engineer

**Nielsen Resources Corp.**  
Cost Estimator

**Sunedco**  
Cost Estimator

**Thermal Power Company**  
Cost Estimator

**Alaska Power Authority**  
Cost Estimator

**Omaha Public Power District**  
Cost Estimator

**Portland General Electric**  
Cost Estimator

**Montana Power Company**  
Cost Estimator

**Public Service Company of Colorado**  
Cost Estimator

**TOWNSEND AND BOTTUM**  
**ANN ARBOR, MICHIGAN**  
Field Cost/Schedule Engineer -J.H. Campbell Unit 3

Cost Engineer - Ann Arbor, Michigan

**WESTERN DIVISION NAVAL FACILITIES ENGINEERING COMMAND,**  
**SAN BRUNO, CALIFORNIA**  
**(SEPTEMBER 1975 TO AUGUST 1978)**  
Architectural/Structural Estimator

**COMMONWEALTH ASSOCIATES, JACKSON, MICHIGAN**  
**(SEPTEMBER 1975 TO JULY 1978)**  
Assistant Cost Engineer