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June 1, 1999

OFFICE OF THE SECRETARY  
U.S. NUCLEAR REGULATORY COMMISSION  
ADJUDICATIONS STAFF

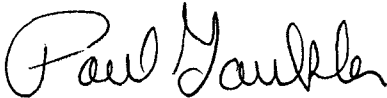
Office of the Secretary  
U.S. Nuclear Regulatory Commission  
Attn: Rulemakings and Adjudications Staff  
Washington, D.C. 20555-0001

**Re: In the Matter of Private Fuel Storage, L.L.C.**  
**Docket No. 72-22, ASLBP No. 97-732-02-ISFSI**

To the Secretary of the Commission:

Enclosed please find (a) the original of the affidavit of Wayne Lewis filed in support of Applicant's Partial Motion for Summary Disposition with Respect to Utah H and (b) the original of the affidavits of John Donnell and Jerry Cooper filed with respect to Applicant's Objections and Answers to SUWA's First Discovery Request.

Sincerely,



Paul Gaukler

Enclosures

cc: G. Paul Bollwerk, III, Esq.  
Dr. Jerry R. Kline  
Dr. Peter S. Lam  
Susan F. Shankman  
Sherwin E. Turk, Esq.  
Denise Chancellor, Esq.  
John Paul Kennedy, Sr., Esq.  
Joro Walker, Esq.  
Diane Curran, Esq.  
Danny Quintana, Esq.

20479

Before the Atomic Safety and Licensing Board

## AFFIDAVIT OF JERRY COOPER

I, Jerry Cooper, being duly sworn, states as follows:

Jerry I Cooper  
Jerry Cooper

Sworn to and subscribed  
before me this 20<sup>th</sup> day  
of May, 1999.

Joanne G. Moon  
Notary Public


My commission expires: 04-21-2003  
**JOANNE G. MOON**  
**NOTARY PUBLIC**  
**STATE OF COLORADO**

My Commission Expires 04/21/2003

Before the Atomic Safety and Licensing Board

**AFFIDAVIT OF JOHN DONNELL**

I, John Donnell, being duly sworn, states as follows:

  
John Donnell

Joanne G. Moon  
Notary Public

JOANNE G. MOON  
NOTARY PUBLIC  
STATE OF COLORADO

My Commission Expires 04/21/2003

**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)	)	

**AFFIDAVIT OF DONALD WAYNE LEWIS**

CITY OF REDWING	)	
	)	SS:
STATE OF MINNESOTA	)	

I, Donald Wayne Lewis, being duly sworn, states as follows:

1. I am Lead Mechanical Engineer with Stone & Webster for the Private Fuel Storage Facility (PFSF) project. In that position I am responsible for ensuring that all mechanically related systems for the PFSF meet the principal design criteria as stated in Chapter 3 of the PFSF Safety Analysis Report (SAR), including the storage system's thermal performance. I am providing this affidavit, in support of a motion for partial summary disposition of Contention Utah H in the above captioned proceeding, to describe the revised thermal analysis performed by Private Fuel Storage, L.L.C.

2. My professional and educational experience is summarized in the curriculum vitae attached as Exhibit 1 to this affidavit. I have been assigned to several jobs since 1991 that specifically involved the design of spent nuclear fuel storage and storage packages, including the design of spent fuel storage systems at the Prairie Island Nuclear Generating Plant, Maine Yankee Atomic Plant, Indian Point 2 Nuclear Plant, Yucca Mountain National Repository, and Goodhue County. I have specifically had to ensure the thermal performance of the storage systems on all the above jobs except for Yucca Mountain.

3. I am knowledgeable of the design of the spent fuel storage casks to be used at the PFSF for the storage of spent nuclear fuel, their thermal characteristics, and their responses to high-temperature thermal transients. I am familiar with the original and revised thermal calculations for the spent fuel storage casks to be used at the PFSF.

4. On December 10, 1998, the NRC Staff filed its second round of safety Requests for Additional Information, including RAI 4-2, which asked PFS to 1) "clarify the thermal energy balance between the concrete pad, casks, and environment" and 2) "[d]emonstrate that the 'chimney effect' incorporated into the design of the TranStor and HI-STORM casks is unaffected." In its response to RAI 4-2, dated February 10, 1999, PFS filed a revised thermal calculation to supplement the original vendor calculations.

5. PFS asked Holtec International to perform the revised calculation for the HI-STORM 100 spent fuel storage cask to show that the issues raised by the Staff in RAI 4-2 do not affect PFS's conclusions that the thermal design of both storage casks to be used at the PFSF are adequate. PFS had the calculation performed for the HI STORM 100 because it would experience the highest temperatures under the relevant conditions. RAI Resp. 4-2 at 3. Specifically, the thermal performance of the HI-Storm 100 results in greater temperatures of the fuel cladding than those for TranStor under the same external conditions. This is specifically due to storage system design and thermal modeling differences between the vendors. Therefore, all other conditions being equal, the calculated temperature of the spent fuel cladding from a fully loaded HI-Storm 100 cask will be greater than that from a fully loaded TranStor cask and therefore is bounding.

6. A copy of PFS's responses to the second round RAIs, including PFS's response to RAI 4-2, was sent to the State of Utah by overnight mail on February 11, 1999. A copy of the calculations and other backup to PFS's responses, including the backup calculation for PFS's responses to RAI 4-2, were sent to the State for next business day delivery on February 13, 1999.

7. I have reviewed the State's bases underlying the three pertinent subparts of Utah H as well as the contention itself. The new thermal calculation described in PFS's response to RAI 4-2, and described in greater detail in the Affidavit of Indresh Rampall, addresses the issues raised in each of subparts 3, 4, and 5 of Utah H.

Donald Wayne Lewis  
Donald Wayne Lewis

Sworn to before me this 18<sup>th</sup> day of May 1999.

Marlys E. Davis  
Notary Public

My Commission expires 2005

