

**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 RAM SRINIVASAN**

CITY OF Scotts Valley	)	
	)	SS:
STATE OF CALIFORNIA	)	

Ram Srinivasan, being duly sworn, states as follows:

1. I am the Manager of Design Engineering at BNFL Fuel Solutions (formerly Sierra Nuclear Corporation). In that position I am responsible for the analysis and design of TranStor™ storage and transportation casks and related components. I am providing this affidavit in support of a motion for partial summary disposition of Contention Utah K in the above captioned proceeding to describe the ability of the TranStor™ spent fuel storage cask, to be used at the Private Fuel Storage Facility (PFSF), to withstand heat and temperatures under fire conditions.

2. My professional and educational experience is summarized in the curriculum vitae attached as Exhibit 1 to this affidavit. I have over 25 years of experience in the design of nuclear power plants. I have participated in and coordinated the design and analysis of dry cask spent fuel storage and transportation systems, including the TranStor™ and the VSC-24 designs, and I have contributed to the Safety Analysis Reports of both the TranStor™ and VSC-24.

3. I participated in, and am knowledgeable regarding, the design of the TranStor™ system spent fuel storage cask, in particular its capability to withstand heat and temperatures

under fire conditions. Specifically, the TranStor™ storage casks, to be used at the PFSF, are highly resistant to the effects of fire, as described in the Safety Analysis Report (SAR) for the TranStor™ Storage Cask at section 2.3.6 (attached as Exhibit 2).

4. The TranStor™ spent fuel storage cask system consists of a sealed, cylindrical, steel basket or canister (containing the spent fuel assemblies and pressurized helium gas) standing on end inside a ventilated, steel-lined, hollow concrete cylinder. The cask is 222.5 in. high and 136 in. in diameter. The concrete cylinder is 29 inches thick. The TranStor™ spent fuel storage cask system is depicted in the PFS SAR in Figure 4.2-4.

5. As described in section 2.3.6 of the TranStor™ storage cask SAR, the thick concrete walls of the TranStor™ storage cask protect the spent fuel from the effects of fire. While exposing the storage cask to an ambient air temperature of about 1500 °F. might cause the concrete near the surface of the cask to lose some of its strength, it would not threaten the integrity of the casks or the spent fuel inside them. It would take a continuous exposure for a period much greater than the duration of a typical wildfire in Skull Valley before most of the cask wall thickness would experience a temperature above its design limit due to the low thermal conductivity and the high specific heat of the concrete. Thus, the storage cask would protect the canister and the spent fuel from the effects of a fire at that temperature.

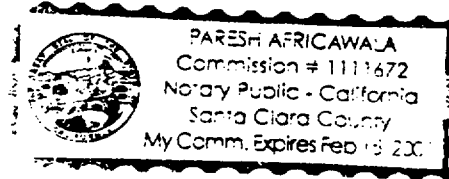
6. The potential for a TranStor™ spent fuel storage cask to be damaged by the heat from a fire depends on the total amount of energy absorbed by the cask from the fire. I have reviewed the affidavit of Carlton Britton regarding the effects of a wildfire at the PFSF site. Wildfires in the vicinity of the PFSF are expected to result in temperatures over 200 °F. at the edge of the PFSF Restricted Area for less than 5.4 minutes. Britton Aff. ¶ 7. Because the TranStor™ casks would be located inside the Restricted Area, at least 100 ft. from any wildfire, the fire would not have a detrimental effect on any components of the TranStor™ cask system or the spent fuel contained inside.

Ram Srinivasan  
Ram Srinivasan

Sworn to before me this 5<sup>th</sup> day of June 1999.

Paresh Africawala  
Notary Public

My Commission expires Feb 15 2001



Typed Doc. Affidavit of Ram Srinivasan - Docket # 72-22.  
pages (3).

State of California  
County of SANTA CRUZ

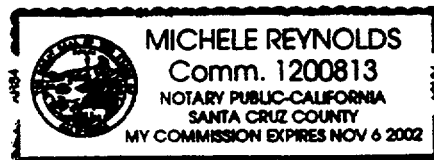
On 06-03-99 before me, the undersigned, a Notary Public in and for said State, personally appeared RAM SRINTIVASAN personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature

Name MICHELE REYNOLDS

(typed or printed)



(Seal)