

April 27, 2015

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
NORTHERN STATES POWER CO.	)	Docket No. 72-10-ISFSI-2
	)	
(Prairie Island Nuclear Generating Plant	)	ASLBP No. 12-922-01-ISFSI-MLR-BD01
Independent Spent Fuel Storage Installation)	)	

AFFIDAVIT OF MICHELE SAMPSON CONCERNING NORTHERN  
STATE POWER COMPANY'S MOTION FOR SUMMARY DISPOSITION OF  
PRAIRIE ISLAND INDIAN COMMUNITY'S CONTENTION 6 (HIGH BURNUP FUEL)

I, Michele Sampson, do hereby state as follows:

1. I am employed by the United States Nuclear Regulatory Commission ("NRC") as a Branch Chief in the Office of Nuclear Materials Safety and Safeguards, Division of Spent Fuel Management, Spent Fuel Licensing Branch. I have been employed by the NRC since June 2007. My responsibilities include supervising the NRC Staff's safety review of Northern States Power Company's ("NSPM") application to renew Special Nuclear Material ("SNM") License No. 2506 authorizing an Independent Spent Fuel Storage Installation ("ISFSI") facility located at the Prairie Island Nuclear Generating Plant.
2. In preparing this Affidavit, I have thoroughly reviewed NSPM's Motion for Summary Disposition of the Prairie Island Indian Community's Contention 6 (High Burnup Fuel), including the attached Statement of Material Facts, Declaration of Terry A. Pickens, and other supporting documents. I have also reviewed the relevant Orders issued by the Atomic Safety and Licensing Board ("Board") in this proceeding.
3. After reviewing the information listed above, I agree with the statements contained in NSPM's Statement of Material Facts ¶¶ 1-19. Consistent with NRC requests for additional information and guidance related to the storage of high burnup fuel, NSPM has supplemented

its application. Further, NSPM has provided sufficient information to support the Staff's review of the acceptance criteria contained in Interim Staff Guidance-11, *Cladding Considerations for the Transportation and Storage of Spent Fuel*, Revision 3 ("ISG-11") (November 2003) and Interim Staff Guidance-24, *The Use of a Demonstration Program as a Surveillance Tool for Confirmation of Integrity for Continued Storage of High Burnup Fuel Beyond 20 Years*, Revision 0 ("ISG-24") (July 11, 2014). The information contained in NSPM's Statement of Material Facts is consistent with its application, as supplemented.

4. Pending the finalization of the NRC Staff's license condition regarding a confirmatory evaluation for high burnup fuel, I cannot agree with the statement in NSPM's Statement of Material Facts ¶ 20. The NRC Staff has identified the potential need for a license condition to confirm whether the high burnup fuel assemblies will continue to perform their intended function for the license renewal term. The NRC Staff has yet to complete its Safety Evaluation Report for NSPM's license renewal application, and has not made a finding whether NSPM has demonstrated compliance with the regulatory requirements in 10 C.F.R. § 72.122 or the acceptance criteria in ISG-11 and ISG-24.

5. I declare under penalty of perjury that my statements set forth above and in my statement of professional qualifications attached hereto are true and correct to the best of my knowledge, information, and belief.

**Executed in Accord with 10 CFR § 2.304(d)**

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Dated in Rockville, Maryland  
this 27th day of April 2015