July 9, 2007

MEMORANDUM TO: Robert J. Lewis, Acting Deputy Director
Licensing and Inspection Directorate
Division of Spent Fuel Storage and Transportation, NMSS

FROM: James R. Hall, Senior Project Manager **/RA/**
Licensing Branch
Licensing and Inspection Directorate
Division of Spent Fuel Storage and Transportation, NMSS

SUBJECT: SUMMARY OF JUNE 28, 2007, MEETING WITH NUCLEAR MANAGEMENT COMPANY, LLC, ON A PROPOSED LICENSE AMENDMENT FOR THE PRAIRIE ISLAND ISFSI (TAC NO. L24100)

On June 28, 2007, Nuclear Regulatory Commission (NRC) staff from the Division of Spent Fuel Storage and Transportation (SFST) met with representatives of Nuclear Management Company, LLC, (NMC) at NRC Headquarters in Rockville, Maryland. The meeting was held to discuss NMC's plans to submit a license amendment application for the Prairie Island Independent Spent Fuel Storage Installation (ISFSI). The NRC issued a license under 10 CFR Part 72 for the Prairie Island ISFSI in October 1993. The purpose of the meeting was for NMC to describe its planned amendment application to support the use of a modified cask design for the storage of spent fuel with characteristics different than those approved under the current license. The meeting was noticed on June 13, 2007. Enclosure 1 is a list of attendees and Enclosure 2 contains the NMC presentation slides.

NMC's presentation addressed their need for the amendment, the proposed modifications to the TN-40 cask currently used at the Prairie Island ISFSI, the proposed formats for the revised Safety Analysis Report (SAR) and Technical Specifications (TS), and a preliminary schedule for the project. There are currently 23 loaded TN-40 casks at the Prairie Island ISFSI, which is licensed for a maximum of 48 casks. The existing TS on fuel characteristics limit the fuel that can be stored to a maximum enrichment of 3.85 w/o U-235 and a maximum burnup of 45,000 MWd/MTU. Roughly 250 spent fuel assemblies meeting those parameters remain in wet storage, so an additional 6 casks of the TN-40 design could still be loaded and placed on the ISFSI pad. At that point (in 2013, when the Unit 1 license, and the ISFSI license, are scheduled to expire), NMC would need a new cask design to accommodate additional dry storage of the different fuel types used at Prairie Island to support continued plant operation, if the reactor operating licenses were to be renewed. NMC is therefore proposing to amend the ISFSI license, to allow the use of a new cask design; the TN-40HT.

The TN-40HT cask will be designed to store spent fuel with up to 5.0 w/o enrichment and up to 60,000 MWd/MTU burnup, to accommodate the fuel types used at Prairie Island since the early 1990's. The proposed amendment, like the current license, would permit storage of intact fuel assemblies and approved non-fuel assembly hardware. NMC indicated that the goal of the new design is to allow the use of existing equipment and to minimize changes to existing loading and transfer operations. Therefore, design features such as external dimensions and overall weight for the TN-40HT will be consistent with the existing analyses and procedures for the

TN-40 casks. The design of the internal fuel basket will be modified to promote improved heat transfer and increased neutron absorption to accommodate the higher burnup, higher heat load fuel. The new basket design will be similar in construction and materials to the TN-68 design.

NMC described their planned formats for the revised SAR and TS. For the revised Prairie Island ISFSI SAR, NMC concluded that the best format would be to add 2 appendices. The first SAR appendix will be structured similar to the existing SAR format, and will indicate whether previous analyses are applicable to the new cask design, or will indicate in which section of the second appendix the technical information for the TN-40HT is provided. The second appendix will be formatted similar to NUREG-1536, the NRC staff's current Standard Review Plan (SRP) for dry cask storage systems, and will contain the bulk of the technical evaluation of the new TN-40HT design. The staff suggested that NMC also review and consider NUREG-1567, the SRP for dry cask storage facilities, which has a slightly different format, and will be used by the NRC staff in its review of the amendment application. The staff further recommended that NMC review the current Interim Staff Guidance documents, as well as a recent Regulatory Issue Summary (RIS-07-09, dated May 4, 2007) identifying common staff questions generated during the review of dry cask storage applications.

For the revised Prairie Island ISFSI TS, NMC plans to revise the format of the existing specifications and incorporate the new and revised requirements for the TN-40HT. The approach will be similar to that used by NRC and the industry in developing improved standard technical specifications for reactor licensees.

NMC plans to submit the license amendment request by September 30, 2007, with NRC approval requested by the end of 2008. Cask fabrication is anticipated to commence in mid-2009, with the first new TN-40HT casks estimated to be loaded in mid-2011. NMC indicated the need for additional approvals from the State of Minnesota, and further indicated that it anticipates applications for reactor license renewal and ISFSI license renewal to be submitted in 2008 and 20011, respectively.

The NRC staff suggested that another meeting between NRC and NMC would be helpful, to focus on some of the design changes and new technical analyses in greater detail. Such a meeting could be scheduled just prior to, or shortly after, the submittal of the amendment application.

No regulatory decisions were made by the NRC during the meeting.

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Enclosures:
1. Attendance List
2. NMC Presentation Slides

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OFC	SFST	E	SFST		SFST		SFST		SFST	
NAME	JRHall		MDeBose		MWaters		LCampbell		RNelson	
DATE	07/02/2007		07/02 /2007		07/05/2007		07/09/2007		07/09/2007	

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Enclosure 1

NRC Meeting with NMC
June 28, 2007

ATTENDANCE LIST

Name	Affiliation
Ed Hackett	NRC/NMSS/SFST
James R. Hall	NRC/NMSS/SFST
Mike Waters	NRC/NMSS/SFST
Larry L. Campbell	NRC/NMSS/SFST
Nancy Osgood	NRC/NMSS/SFST
Jorge Solis	NRC/NMSS/SFST
Bob Tripathi	NRC/NMSS/SFST
Allen Hansen	NRC/NMSS/SFST
Nate Jordan	NRC/NMSS/SFST
Alexis Sotomayor	NRC/NMSS/SFST
Zhian Li	NRC/NMSS/SFST
Ed Kish	NRC/NMSS/SFST
Dale Vincent	NMC
Kenneth Albrecht	NMC
Mark McKeown	NMC
Oley Nelson	NMC
Lynn Johnson	NMC
Steve Streutker	Transnuclear
Maureen Conley	McGraw Hill
Carlyn Greene (by phone)	Washington Nuclear Corp.

Enclosure 2

NMC Presentation Slides