

Mr. Guy G. Campbell, Vice President - Nuclear      July 25, 2001  
FirstEnergy Nuclear Operating Company  
5501 North State Route 2  
Oak Harbor, OH 43449-9760

SUBJECT:      DAVIS-BESSE NUCLEAR POWER STATION, UNIT 1 - REQUEST FOR  
                    ADDITIONAL INFORMATION (RAI) REGARDING THE SPENT FUEL POOL  
                    (SFP) RE-RACKING (TAC NO. MB0688)

Dear Mr. Campbell:

By letter dated December 2, 2000, FirstEnergy Nuclear Operating Company, submitted a request to increase the SFP storage capacity as a result of the SFP re-racking project from the current capacity of 735 fuel assemblies, to a new capacity of 1624 fuel assemblies.

During the review, the Nuclear Regulatory Commission staff has identified that additional information is needed in order to complete the review. Specific questions are presented in the enclosed RAI.

The enclosed questions have been discussed with your staff. Based on those discussions, the RAI response is expected by July 30, 2001. If you have any questions concerning our review, or additional time is needed to respond to the RAI, please contact me at (301) 415-3154.

*/RA/*

Stephen P. Sands, Project Manager, Section 2  
Project Directorate III  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-346

Enclosure: Request for Additional  
                    Information

cc w/encl: See next page

Mr. Guy G. Campbell, Vice President - Nuclear     July 25, 2001  
FirstEnergy Nuclear Operating Company  
5501 North State Route 2  
Oak Harbor, OH 43449-9760

SUBJECT:     DAVIS-BESSE NUCLEAR POWER STATION, UNIT 1 - REQUEST FOR  
                  ADDITIONAL INFORMATION (RAI) REGARDING THE SPENT FUEL POOL  
                  (SFP) RE-RACKING (TAC NO. MB0688)

Dear Mr. Campbell:

By letter dated December 2, 2000, FirstEnergy Nuclear Operating Company, submitted a request to increase the SFP storage capacity as a result of the SFP re-racking project from the current capacity of 735 fuel assemblies, to a new capacity of 1624 fuel assemblies.

During the review, the Nuclear Regulatory Commission staff has identified that additional information is needed in order to complete the review. Specific questions are presented in the enclosed RAI.

The enclosed questions have been discussed with your staff. Based on those discussions, the RAI response is expected by July 30, 2001. If you have any questions concerning our review, or additional time is needed to respond to the RAI, please contact me at (301) 415-3154.

***/RA/***

Stephen P. Sands, Project Manager, Section 2  
Project Directorate III  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-346

Enclosure: Request for Additional  
                  Information

cc w/encl: See next page

**DISTRIBUTION:**

PUBLIC            PD3-2 r/f  
SBlack            AMendiola  
SSands            THarris  
LBerry            OGC  
ACRS              GGrant, RIII

Accession No: ML011940230

OFFICE	LPD3-2/PM	LPD3-2/LA	LPD3-2/SC
NAME	SSands	THarris	AMendiola
DATE	07/20/01	07/20/01	07/25/01

OFFICIAL RECORD COPY

Mr. Guy G. Campbell  
FirstEnergy Nuclear Operating Company

Davis-Besse Nuclear Power Station, Unit 1

cc:

Mary E. O'Reilly  
FirstEnergy  
76 South Main Street  
Akron, OH 44308

Harvey B. Brugger, Supervisor  
Radiological Assistance Section  
Bureau of Radiation Protection  
Ohio Department of Health  
P.O. Box 118  
Columbus, OH 43266-0118

Manager - Regulatory Affairs  
FirstEnergy Nuclear Operating Company  
Davis-Besse Nuclear Power Station  
5501 North State - Route 2  
Oak Harbor, OH 43449-9760

Carol O'Claire, Chief, Radiological Branch  
Ohio Emergency Management Agency  
2855 West Dublin Granville Road  
Columbus, OH 43235-2206

Jay E. Silberg, Esq.  
Shaw, Pittman, Potts  
and Trowbridge  
2300 N Street, NW.  
Washington, DC 20037

Director  
Ohio Department of Commerce  
Division of Industrial Compliance  
Bureau of Operations & Maintenance  
6606 Tussing Road  
P.O. Box 4009  
Reynoldsburg, OH 43068-9009

Regional Administrator  
U.S. Nuclear Regulatory Commission  
801 Warrenville Road  
Lisle, IL 60523-4351

Ohio Environmental Protection Agency  
DERR--Compliance Unit  
ATTN: Zack A. Clayton  
P.O. Box 1049  
Columbus, OH 43266-0149

Michael A. Schoppman  
Framatome ANP  
1700 Rockville Pike, Suite 525  
Rockville, MD 20852

State of Ohio  
Public Utilities Commission  
180 East Broad Street  
Columbus, OH 43266-0573

Resident Inspector  
U.S. Nuclear Regulatory Commission  
5503 North State Route 2  
Oak Harbor, OH 43449-9760

Attorney General  
Department of Attorney  
30 East Broad Street  
Columbus, OH 43216

Plant Manager  
FirstEnergy Nuclear Operating Company  
Davis-Besse Nuclear Power Station  
5501 North State - Route 2  
Oak Harbor, OH 43449-9760

President, Board of County  
Commissioners of Ottawa County  
Port Clinton, OH 43252

**REQUEST FOR ADDITIONAL INFORMATION  
FOR DAVIS-BESSE SPENT FUEL POOL (SFP) RE-RACKING**

1. In your submittal, you state that “Underwater diving operations are required to remove underwater obstructions and the existing racks, to aid in the rack installation by assisting in the positioning of new rack modules, and to verify installation per design.” In addition, you stated that you will use the Davis-Besse Nuclear Power Station procedures to ensure safe diving operations, including radiological controls. Do these procedures meet the intent of the guidance in Regulatory Guide 8.38, “Control of Access to High and Very High Radiation Areas in Nuclear Power Plants,” Appendix A (e.g., do they include details concerning the method of radiation surveys for the dive area and the emergency procedures for diver rescue, etc.)? Also, do the procedures provide for continuous observation of diving operations by a dedicated member of the dive support team to prevent a loss of control of the diver in SFP? (Refer to the Nuclear Regulatory Commission Information Notice 97-68).
2. The radioactivity in the pool water is, as you noted, dependent on the amount of fuel assembly movement within the pool. Prior to starting the SFP reracking, the fuel assemblies stored in existing racks will be moved to Cask Pit and Transfer Pit racks. After the installation of new high density racks in the SFP, fuel shuffling will be also performed. What steps will be taken to minimize the impact of these fuel movements on the concentrations of radioactive materials in the pool water, and their contribution to occupational dose received by workers, especially for divers?
3. The footnote to Table 9.5.1, “Estimate of Person-rem Dose During Re-racking,” indicates the dose rate for diving operations was assumed to be 20-40 mrem/hr. It is unclear for which of the re-racking steps listed in the table this is applies. Please specify the person-rem estimate for the diving operations including a number of divers and expected total man-hrs.
4. Is there any job or operation which needs mock-up training? If it is, have you developed a plan to perform a mock-up training?
5. Does the fuel integrity history of Davis-Besse spent fuel indicate that it is likely that this operation will generate or encounter discrete radioactive particles (DRPs)? If so, what controls will be implemented to address the unique exposure situations posed by DRPs?
6. The April 1997 Calvert Cliff’s diving event demonstrated that tending the diver’s tether is not an effective restraint that prevents diver access to unauthorized areas in the pool. Discuss the physical controls that will be used to ensure that the diver is not able to access spent fuel or other highly activated components during these operations.

Prepared by: Seung Haeng Lee and Roger Pedersen