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Docket Number 50-346

License Number NPF-3

Serial Number 3008

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United States Nuclear Regulatory Commission  
Document Control Desk  
Washington, D. C. 20555-0001

Subject: Withdrawal of 10 CFR 50, Appendix R, Subsection III.L.1, Exemption Regarding Time to Reach Cold Shutdown

Ladies and Gentlemen:

This letter transmits a FirstEnergy Nuclear Operating Company (FENOC) request for withdrawal of an exemption from Title 10 of the Code of Federal Regulations (CFR), Section 50, Appendix R, "Fire Protection Program for Nuclear Power Facilities Operating Prior to January 1, 1979," Subsection III.L.1 for the Davis-Besse Nuclear Power Station, Unit 1 (DBNPS).

Subsection III.L.1 of 10 CFR 50, Appendix R, states, in part, that the alternative shutdown capability shall be able to achieve cold shutdown conditions within 72 hours. Further, Subsection III.L.3 of 10 CFR 50, Appendix R, states that the alternative shutdown capability must accommodate post-fire conditions where offsite power is available and where offsite power is not available for 72 hours. Thus, the alternative shutdown capability must be able to achieve cold shutdown conditions within 72 hours, independent of offsite power.

In the request for exemption dated September 30, 1983 (DBNPS letter Serial number 991), the DBNPS staff cited two issues that prevented the DBNPS from complying with the requirements of 10 CFR 50, Appendix R, Subsection III.L.1. Specifically, with a loss of offsite power the driving force for the pressurizer spray (the Reactor Coolant Pumps) is lost, limiting the ability to depressurize the Reactor Coolant System (RCS) to a rate controlled by heat loss from the pressurizer to the Containment Vessel environment. In addition, the cooldown rate was limited to no more than 1.5°F/hr under natural circulation conditions to prevent the formation of voids in the upper reactor vessel head. This exemption was approved by the Nuclear Regulatory Commission (NRC) by letter dated August 20, 1984 (DBNPS letter Log number 1586).

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An evaluation consisting of short-term transient analyses, the plant simulator, and plant empirical data was recently performed to determine the time required for the DBNPS to achieve cold shutdown conditions. The issue related to the ability to depressurize the RCS due to a loss of driving force for the pressurizer spray was resolved by using alternate pressurizer spray from the High Pressure Injection (HPI) pumps. In addition, subsequent analysis and the RCS continuous vent line permit a maximum RCS cooldown rate of 50°F/hr. The evaluation showed that the DBNPS alternative shutdown capability is able to achieve cold shutdown conditions within 72 hours, independent of offsite power. Therefore, the exemption is no longer required and the FENOC requests that it be withdrawn.

If you have any questions or require further information, please contact Mr. Kevin L. Ostrowski, Manager – Regulatory Affairs, at (419) 321-8450.

Very truly yours,



CWS

Enclosure

cc: Regional Administrator, NRC Region III  
J. B. Hopkins, DB-1 NRC/NRR Senior Project Manager  
C. S. Thomas, DB-1 NRC Senior Resident Inspector  
Utility Radiological Safety Board

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**COMMITMENT LIST**

The following list identifies those actions committed to by the Davis-Besse Nuclear Power Station, Unit Number 1, (DBNPS) in this document. Any other actions discussed in the submittal represent intended or planned actions by the DBNPS. They are described only for information and are not regulatory commitments. Please notify the Manager – Regulatory Affairs (419-321-8450) at the DBNPS of any questions regarding this document or associated regulatory commitments.

**COMMITMENTS**

**DUE DATE**

None

N/A