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L-16-230

10 CFR 2.202

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-001

SUBJECT:

Davis-Besse Nuclear Power Station
Docket No. 50-346, License No. NPF-3
Request for Schedule Relief/Relaxation from NRC Order Modifying Licenses with
Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External
Events (Order Number EA-12-049) (CAC No. MF0961)

On March 12, 2012, the Nuclear Regulatory Commission (NRC) issued Order Number EA-12-049 (Reference 1) to FirstEnergy Nuclear Operating Company (FENOC) for the Davis-Besse Nuclear Power Station (DBNPS). Reference 1 was immediately effective and directs FENOC to develop, implement, and maintain guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities in the event of a beyond-design-basis external event (also known as FLEX strategies).

FENOC submitted its original overall integrated plan for DBNPS, by letter dated February 27, 2013 (Reference 2). In accordance with Reference 1, licensees are required to complete full implementation no later than two refueling cycles after submittal of the overall integrated plan, or December 31, 2016, whichever comes first. In accordance with Reference 1, the first refueling outage for DBNPS occurred in spring 2014. The second refueling outage required date for Reference 1 implementation for DBNPS was prior to startup from the spring 2016 refueling outage. By letter dated March 11, 2016 (Reference 3), FENOC requested relaxation of the schedule requirements for completion of full implementation for DBNPS until August 1, 2016 due to logistical issues with the design and installation of the new emergency feedwater (EFW) system and construction of the new EFW facility. The NRC staff approved the requested relaxation by letter dated April 6, 2016 (Reference 4).

During recent system testing of the new EFW system, issues were encountered that resulted in the need to remove and ship the EFW pump to an offsite facility for repair, and also to troubleshoot the system's flow control valve. Challenges associated with the repair and re-installation of the EFW pump, troubleshooting and repair of the flow

control valve, subsequent system testing, and follow-up activities needed to fully implement the mitigation strategies required by Reference 1 have placed the August 1, 2016 completion date in jeopardy. Therefore, FENOC is hereby requesting additional relaxation of the schedule requirements for completion of full implementation of Reference 1 for DBNPS.

Section IV of Reference 1 states that licensees proposing to deviate from requirements contained in NRC Order EA-12-049 may request that the Director, Office of Nuclear Reactor Regulation, relax those requirements. FENOC hereby requests that the Director, Office of Nuclear Reactor Regulation, relax the schedule requirements for completion of full implementation for DBNPS as prescribed in Section IV.A.2 of Reference 1 to December 31, 2016 to allow for completion of EFW system repairs, subsequent system testing, and follow-up activities needed to fully implement the required strategies.

FENOC considers that, upon approval by the NRC, the alternative full implementation date regarding Reference 1 proposed in the attachment will constitute a condition of the NRC Order for DBNPS.

This letter contains no new regulatory commitments. If you have any questions regarding this letter, please contact Mr. Thomas A. Lentz, Manager – Fleet Licensing, at 330-315-6810.

I declare under penalty of perjury that the foregoing is true and correct. Executed on July 11, 2016.

Sincerely,



Brian D. Boles

Attachment:

Request for Relaxation of NRC Order EA-12-049 Requirement IV.A.2 for Davis-Besse Nuclear Power Station

References:

1. NRC Order Number EA-12-049; Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events; dated March 12, 2012.
2. FENOC Letter; FirstEnergy Nuclear Operating Company's (FENOC's) Overall Integrated Plan in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-

Design-Basis External Events (Order Number EA-12-049); dated February 27, 2013.

3. FENOC Letter; Request for Schedule Relief/Relaxation from NRC Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049) (CAC No. MF0961); dated March 11, 2016.
4. NRC Letter; Davis-Besse Nuclear Power Station, Unit 1 – Relaxation of the Schedule Requirements for Order EA-12-049, “Issuance of Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events” (CAC No. MF0961); dated April 6, 2016.

cc: Director, Office of Nuclear Reactor Regulation (NRR)
NRC Region III Administrator
NRC Resident Inspector
NRC Project Manager
Ms. Jessica A. Kratchman, NRR/JLD/PMB, NRC
Utility Radiological Safety Board

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Relaxation Request:

Pursuant to the procedure specified in Section IV of Nuclear Regulatory Commission (NRC) Order EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events" (Reference 1), FirstEnergy Nuclear Operating Company (FENOC) hereby submits a request for schedule relaxation for the Davis-Besse Nuclear Power Station (DBNPS) from the Order requirements for completion of full implementation. Implementation was required to be no later than two refueling cycles after submittal of the overall integrated plan (OIP), as required in Condition C.1.a of the Order, or December 31, 2016, whichever comes first. By letter dated March 11, 2016 (Reference 2), FENOC requested relaxation of the schedule requirements for completion of full implementation for DBNPS until August 1, 2016. The NRC staff approved the requested relaxation by letter dated April 6, 2016 (Reference 3).

Order requirement from which relaxation is requested:

Section IV.A.2 of Reference 1 requires completion of full implementation of the Order requirements either no later than two refueling cycles after submittal of the OIP, as required in Condition C.1.a, or December 31, 2016, whichever comes first. In accordance with the requirements of Reference 1, FENOC submitted the OIP for DBNPS (Reference 4) by letter dated February 27, 2013. Additionally, pursuant to Section IV, Condition C.2, of Reference 1, six-month status reports were submitted, including any changes to the compliance method, schedule, or need for relief and basis, if any. The second refueling outage required date for Reference 1 implementation for DBNPS was prior to startup from the spring 2016 refueling outage. With the NRC approval of the previous relaxation request, the current implementation date for DBNPS is August 1, 2016.

Justification for relaxation request:

Reference 1 requires the development, implementation, and maintenance of guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities in the event of a beyond-design-basis external event (BDBEE). FENOC submitted the OIP for DBNPS (Reference 4) that included use of a new emergency feedwater (EFW) system in Phase 1 and a newly constructed equipment storage building to house the portable equipment used in the coping strategies (also referred to as FLEX). By letter dated August 27, 2015, FENOC reported that the construction of a new FLEX storage building was removed from the strategies. Instead, the N equipment would be stored in other robust structures (the auxiliary building or the EFW facility) constructed to withstand design basis high wind, missile (airborne object), seismic, flooding and ambient temperature/snow ice events or stored in diverse locations consistent with the requirements of NEI 12-06.

In Reference 2, FENOC requested relaxation of the schedule requirements for completion of full implementation for DBNPS. The requested relaxation was due to logistical issues with the design and installation of the new EFW system and construction of the new EFW facility. In that request, FENOC identified the FLEX capabilities that would exist following the startup from the DBNPS spring 2016 refueling outage and that work was proceeding with other activities to the extent possible based on equipment availability to support implementation of DBNPS mitigation strategies.

During the recent system testing of the new EFW system, FENOC experienced issues that have resulted in the need to remove and ship the EFW pump to an offsite facility for repair and also to troubleshoot the system's flow control valve. At this time, the cause of the component failures is being investigated, and, therefore, the resolution timeframe for the issues is uncertain. Based on final investigation results, removal and shipment of the flow control valve offsite for repair may also be warranted. Challenges associated with the repair and re-installation of the EFW pump, troubleshooting and repair of the flow control valve, subsequent system testing, and follow-up activities needed to fully implement the mitigation strategies required by Reference 1 have placed the August 1, 2016 completion date in jeopardy. DBNPS mitigating strategies rely on the Phase 1 EFW system and components. Full FLEX capabilities to support the strategies (Phase 1 and 2) are not realized until the EFW system is functional.

Consequently, due to the uncertainties described above, final implementation of the mitigation strategies in accordance with the requirements of Reference 1 by August 1, 2016 is challenged. These issues have been documented in the FENOC Corrective Action Program. FENOC continues to pursue final implementation of the Order commensurate with the significance of the Order. At this time, FENOC expects to complete the activities to implement the mitigation strategies required by Reference 1 for DBNPS prior to August 1, 2016, except for those activities dependent on final installation and testing of the EFW system. However, FENOC requests an additional schedule relaxation to fully implement the required mitigation strategies for DBNPS. Full compliance with the order would be achieved by December 31, 2016. No additional plant outage is required for compliance with Reference 1. The requested schedule relaxation for DBNPS is the bounding December 31, 2016 deadline established in Section IV.A.2 of Reference 1.

FLEX capabilities as identified in Reference 2 to exist following the startup from the DBNPS spring 2016 refueling outage have been established, and work on other activities has progressed such that FLEX support guidelines to support compliance with Reference 1 have been completed and are to be implemented prior to August 1, 2016. In addition, the applicable N FLEX equipment to be stored within the EFW facility is to be staged in its permanent storage location by August 1, 2016. Full functionality of the EFW system would be the remaining item to complete before establishing full compliance with Reference 1. Increased FENOC executive leadership team oversight of this effort will ensure full compliance with Reference 1 is achieved in a manner that minimizes the use of the requested schedule relaxation time.

The report of full compliance, as required in Section IV.C.3 of Reference 1, would be provided within 60 days following the compliance date.

The mitigation strategy requirements imposed by NRC Order EA-12-049 provide additional defense-in-depth measures for mitigating consequences of a BDBEE. A sequence of events such as the Fukushima Dai-ichi accident is unlikely to occur in the United States based on current regulatory requirements and existing plant capabilities. These strategies provide enhanced plant capability to mitigate beyond-design-basis external events. Therefore, the requested schedule relaxation does not reduce nuclear safety or impact safe plant operations.

Conclusion:

As described above, compliance with the current NRC Order EA-12-049 schedule requirement to complete full implementation of mitigation strategies will result in hardship or unusual difficulty without a compensating increase in the level of safety. Therefore, in accordance with the provisions of Section IV of the Order, FENOC requests relaxation of the requirement described in Section IV.A.2, as explained above.

References:

1. NRC Order Number EA-12-049; Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events; dated March 12, 2012.
2. FENOC Letter; Request for Schedule Relief/Relaxation from NRC Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049) (CAC No. MF0961); dated March 11, 2016.
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4. FENOC Letter; FirstEnergy Nuclear Operating Company’s (FENOC’s) Overall Integrated Plan in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049); dated February 27, 2013.