

UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

September 26, 2018

OMB Control No. 3150-0231

Mr. Bryan C. Hanson Senior Vice President Exelon Generation Company, LLC President and Chief Nuclear Officer Exelon Nuclear 4300 Winfield Road Warrenville, IL 60555

SUBJECT:

NINE MILE POINT NUCLEAR STATION, UNITS 1 AND 2 – CLOSEOUT OF GENERIC LETTER 2016-01, "MONITORING OF NEUTRON-ABSORBING MATERIALS IN SPENT FUEL POOLS" (CAC NOS. MF9428 AND MF9429;

EPID L-2016-LRC-0001)

Dear Mr. Hanson:

On April 7, 2016, the U.S. Nuclear Regulatory Commission (NRC) issued Generic Letter (GL) 2016-01, "Monitoring of Neutron-Absorbing Materials in Spent Fuel Pools" (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16097A169), to address the degradation of neutron-absorbing materials (NAMs) in wet storage systems for reactor fuel at power and non-power reactors.

The generic letter requested that licensees provide information to allow the NRC staff to verify continued compliance through effective monitoring to identify and mitigate any degradation or deformation of NAMs credited for criticality control in spent fuel pools (SFPs).

By letter dated November 3, 2016 (ADAMS Accession No. ML16308A470), as supplemented by letter dated January 25, 2018 (ADAMS Accession No. ML18025A799), Exelon Generation Company, LLC (the licensee), responded to GL 2016-01 for Nine Mile Point Nuclear Station, Units 1 and 2 (NMPNS-1 and 2). In the licensee's response to GL 2016-01, as supplemented, the licensee stated that, for NMPNS-1 and 2, the licensee credits Boral for criticality control and has an established NAM monitoring program. The NRC staff's review determined that the provided response sufficiently addressed the five areas of information described in Appendix A of GL 2016-01 for Boral. In particular, the described monitoring program for the Boral includes the following key features:

- Neutron attenuation testing of coupons or in-situ material.
- Established processes to ensure that the licensee will take the appropriate corrective actions if any potentially non-conforming material is discovered.
- A testing frequency not to exceed 10 years.

Acceptance criteria to ensure maintenance of the 5-percent subcriticality margin for the SFP.

The NRC staff found that the licensee intends to continue monitoring the condition of its NAMs as described in its response.

In the licensee's response to GL 2016-01, as supplemented, the licensee licensee also credits Boraflex for criticality control at NMPNS-1 and identified the Boraflex installed in the SFP at NMPNS-1 as having experienced degradation. The licensee committed to a monitoring program as part of license renewal, but has extended its testing interval. The aging management program documentation has not yet been updated to reflect the new testing interval, and this issue has been entered in the licensee's Corrective Action Program. Some questions exist regarding the adequacy of the technical basis for extending the testing intervals; however, the NRC staff acknowledges that a license amendment request is currently under review which would, if approved, remove credit for Boraflex to meet NRC subcriticality requirements. Should this occur, no further actions regarding GL 2016-01 will be necessary to address Boraflex degradation. If necessary, the NRC staff will perform a follow-up inspection through the baseline reactor oversight process to ensure that the licensee is properly managing the degradation and maintaining the subcriticality of the SFP.

Based upon the information submitted by the licensee in response to GL 2016-01, the NRC staff has determined that the submission addresses the information requested in GL 2016-01, and no further information is requested regarding this matter. If necessary, the NRC staff will perform a Boraflex-specific follow-up inspection through the baseline reactor oversight process to ensure that the licensee is properly managing the degradation and maintaining the subcriticality of the SFP. Any safety or timeliness issues associated with the degraded condition of the Boraflex will be addressed through NRC inspection activities consistent with Inspection Manual Chapter 0326, "Operability Determinations & Functionality Assessments for Conditions Adverse to Quality or Safety."

Sincerely,

Douglas A. Broaddus, Chief

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Special Projects and Process Branch Division of Operating Reactor Licensing

Office of Nuclear Reactor Regulation

Docket Nos. 50-220 and 50-410

cc: ListServ

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