

February 1, 2013

Mr. Farouk D. Baxter
Expert/Specialist
Nuclear Power Plant Electrical Systems
23 Pilgrim Path
Sudbury, MA 01776

Dear Mr. Baxter:

I am responding to your e-mail dated December 21, 2012, that you submitted to the U.S. Nuclear Regulatory Commission (NRC) regarding solar activity. You stated in the e-mail that you submitted correspondence to the NRC on August 28, 2010, "identifying that GDC 2 failed to identify Terrestrial Solar Activity as a natural phenomenon required to be considered to protect safety systems in nuclear power plants." In your e-mail, you also stated that you received an e-mail correspondence back from the NRC stating "that NRC did not have any plans to update GDC 2." You stated that you submitted a letter to former Chairman Jaczko on February 8, 2012, based on the "negative response" received on your August 28, 2010, e-mail. You further stated "[n]o acknowledgement was ever received from Dr. Jaczko." You asked that the NRC reconsider your correspondences "in view of your deliberation of Mr. Popik's petition addressing the same subject."

The NRC received a petition for rulemaking (PRM), PRM-50-96, on March 14, 2011, submitted by Thomas Popik (the petitioner) on behalf of the Foundation for Resilient Societies. The petitioner requested that the NRC amend its regulations to require facilities licensed by the NRC to assure long-term cooling and unattended water makeup of spent fuel pools (SFPs). On May 6, 2011 (76 FR 26223), the NRC published a notice of receipt and request for comment for PRM-50-96 in the *Federal Register*. The public comment period closed on July 20, 2011. On December 18, 2012 (77 FR 74788), the NRC published a document in the *Federal Register* notifying the public that it will consider in the NRC rulemaking process the issues raised in PRM-50-96. The public comments received were also addressed in this document. Based on the NRC's review of the PRM and the public comments, the NRC determined to consider the petition in the rulemaking process. At this time, no proposed rule has been issued for public comment. The NRC will add your December 21, 2012, e-mail, including your August 28, 2010, and February 8, 2012, correspondences to the docket for PRM-50-96 (NRC-2011-0069). This petition docket will be linked to the rulemaking docket related to the NRC's consideration of the issues raised in PRM-50-96.

The NRC will initiate the rulemaking process by developing a regulatory basis in a phased approach. Initially, the NRC will monitor the progress of several ongoing and potential regulatory activities. The NRC staff will monitor the implementation of Order EA-12-049, which requires that licensees develop, implement, and maintain guidance and strategies to maintain or restore core cooling, containment, and SFP cooling capabilities following a beyond-design-basis external event. The NRC will also monitor the ongoing enhancements to the station blackout

rule being developed under Fukushima Near-Term Task Force (NTTF) Recommendation 4.1 (Near-Term Report and Recommendations for Agency Actions Following the Events in Japan, dated July 12, 2011, NRC's Agencywide Documents Access and Management System Accession No. ML112510271). The NRC staff will also monitor possible rulemakings in response to Fukushima NTTF Recommendation 7.2, which could potentially require all licensees to provide Class 1E (safety-grade) electric power to SFP makeup systems, and the activities being developed for prolonged station blackout scenarios under Fukushima NTTF Recommendations 8 and 9. If an assessment of the progress in these areas concludes that the efforts are not likely to address the diesel generator fuel depletion and resupply issue raised by the petition, then the NRC will begin work to develop a regulatory basis to address the extensive grid outage scenario that could potentially be caused by an extreme solar storm.

Preparation of a proposed rule for public comment and publication in the *Federal Register* would begin only if a viable regulatory basis is developed. If the effort to establish the regulatory basis for this rulemaking does not support the issuance of a proposed rule, then the NRC will issue a supplemental notice in the *Federal Register* that addresses why the requested rulemaking changes in PRM-50-96 were not adopted by the NRC.

Although outside the scope of PRM-50-96, it should be noted that the NRC, as part of its core mission to protect public health and safety, is updating its previous evaluation of the effects of geomagnetic storms on systems and components needed to ensure safe shutdown and core cooling at nuclear power reactors.

You may track future actions on PRM-50-96 at www.regulations.gov by searching on Docket ID NRC-2011-0069. The Federal rulemaking Web site allows you to receive alerts when changes or additions occur in a docket folder. To subscribe: (1) Navigate to the docket folder (NRC-2011-0069); (2) click the "Email Alert" link; and (3) enter your e-mail address and select how frequently you would like to receive emails (i.e., daily, weekly, or monthly).

Manash Bagchi, NRR/DPR
Nuclear Regulatory Commission