UNITED STATES
NUCLEAR REGULATORY COMMISSION
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April 23, 2015

Mr. James H. Riley
Senior Technical Advisor
Nuclear Energy Institute
1201 F Street, NW, Suite 1100
Washington, DC 20004

Dear Mr. Riley:

The U.S. Nuclear Regulatory Commission (NRC) staff has considered your request to endorse the Nuclear Energy Institute (NEI) white paper entitled "Warning Time for Maximum Precipitation Events" made available in your letter dated October 30, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14309A596), as supplemented, by letter dated April 8, 2015 (ADAMS Accession No. ML15104A157).

The NRC is currently evaluating the licensees' response to the NRC's March 12, 2012, request for information pursuant to Title 10 of the *Code of Federal Regulations*, Part 50, Section 50.54(f) (ADAMS Accession No. ML12053A340), (hereafter referred to as the 50.54 (f) letter). The request was issued as part of implementing lessons learned from the accident at the Fukushima Dai-ichi nuclear power plant. Enclosure 2 to the 50.54(f) letter requested licensees to reevaluate flood-causing mechanisms using present-day methodologies and guidance. One of the mechanisms to be evaluated is a local intense precipitation (LIP) event. Traditionally, the LIP analysis evaluated a sudden, highly localized storm for which no warning time was assumed. The paper submitted by NEI was developed to establish a basis for allowing warning time for a LIP event under the conditions described in the paper.

The NRC has reviewed the information submitted to date and have concluded that use of the white paper submitted by letter dated April 8, 2015, is acceptable with the clarifications provided below.

The NRC recently discussed this white paper with staff from the National Weather Service (NWS) to ensure that the products cited in the paper are described accurately, although a formal review by NWS was not requested or performed. Based upon the discussion with NWS, the NRC staff considers the following items important enough to include in this endorsement letter:

(1) Section 4.1 accurately describes the short-range forecast process. However, the white paper should recommend that plant procedures prescribe coordination with the NWS (or similar forecasting entity) when heavy rainfall is expected. Extreme rain forecasts are produced by forecasters who are constantly monitoring the heavy precipitation threat using all available tools. The process used for heavy rainfall prediction may vary from the description in the white paper due to special considerations of relevance for such events. This may affect the appropriateness of the process described in Section 4.1 for forecasting heavy rainfall events.

(2) Section 4.1.3 describes the Excessive Rainfall Outlooks provided by NWS and their issuance frequency. As of the April 8, 2015, submittal of the white paper, these products are described accurately. However, these products are scheduled to change in May 2015[1].

In light of the above items, licensees should consult with their local NWS Forecast Office to ensure that plant procedures are based on appropriate and up-to-date NWS products. In addition, plant procedures should be reviewed periodically to confirm credited products remain available and appropriate.

If you have any questions concerning this letter, please contact Mohamed Shams, of my staff, at (301) 415-0501, or via email to Mohamed.Shams@nrc.gov.

Sincerely,

Jack R. Davis, Director
Japan Lessons-Learned Division
Office of Nuclear Reactor Regulation

[1] The announcement for the change is available at: http://www.nws.noaa.gov/os/notification/scn15-17ero_cca.htm