

June 17, 2016

Dr. Dennis C. Bley, Chairman  
Advisory Committee on  
Reactor Safeguards  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

SUBJECT: RESPONSE TO THE ADVISORY COMMITTEE ON REACTOR SAFEGUARDS LETTER, "NRC STAFF UPDATED ASSESSMENT OF FUKUSHIMA TIER 2 RECOMMENDATION RELATED TO EVALUATION OF NATURAL HAZARDS OTHER THAN SEISMIC AND FLOODING," DATED MAY 17, 2016

Dear Dr. Bley:

I am responding to your letter dated May 17, 2016 (Agencywide Documents Access Management System (ADAMS) Accession No. ML16130A254). In your letter, the Advisory Committee on Reactor Safeguards (ACRS) provided conclusions and recommendations on the Nuclear Regulatory Commission (NRC) staff's assessment of a Fukushima-related recommendation regarding the evaluation of natural hazards other than seismic and flooding. The staff appreciates the Committee's insights and used them in developing SECY-16-0074, "Assessment of Fukushima Tier 2 Recommendation Related to Evaluation of Natural Hazards other than Seismic and Flooding," dated June 2, 2016 (ADAMS Accession No. ML16102A297).

In your letter, you provided the following four recommendations and conclusions:

1. The ACRS agreed with the staff's conclusion that further evaluation of the effects from high winds and snow loads is warranted.
2. The ACRS stated that it planned to review the analyses which supports the staff's conclusions that no further effort is needed to examine the effects from downstream dam failures and intake water seiche conditions at selected sites.
3. The ACRS noted that the staff provided adequate justification for excluding most other natural hazards from further evaluation but stated the following items merit additional attention:
  - hazards that may disable the ultimate heat sink as a source of water with adequate quality to support long-term heat removal; and

- hazards that may prevent reliable operation of plant equipment and alternative mitigation equipment which rely on adequate air quality for combustion or ventilation.
4. The ACRS noted that the staff should remain involved in the multiagency investigation of severe geomagnetic storms and that the staff needs to distill from this effort expeditiously those factors important for the NRC's regulatory process.

The NRC staff intends to update its assessments for high winds and snow loads. The NRC staff's assessment of downstream dam failures and intake water seiche conditions that the Committee expressed interest in reviewing can be found in SECY-16-0074. The NRC staff also revised the assessment found in SECY-16-0074 to include additional information related to hazards that may disable the ultimate heat sink and hazards that could adversely affect equipment relying on adequate air quality for proper operation. The staff will engage the ACRS later this year on these updated assessments.

Regarding geomagnetic storms, the NRC staff is engaged in several activities regarding this hazard including: 1) addressing comments received related to this hazard during the mitigation of beyond-design-basis events rulemaking process, 2) responding to a petition for rulemaking (PRM-50-96) that requested the NRC amend its regulations to ensure long-term cooling in the event of a geomagnetic storm impact, and 3) addressing issues identified through the NRC's participation in the interagency task force developing a National Space Weather Strategy. The staff will continue to expeditiously distill from these efforts those factors important to the regulatory process. To date the staff has not identified any immediate safety concerns requiring regulatory action.

The NRC staff appreciates the ACRS's review of the staff's assessment of natural hazards other than seismic and flooding.

Sincerely,

***/RA by Michael R. Johnson Acting for/***

Victor M. McCree  
Executive Director  
for Operations

cc: Chairman Burns  
Commissioner Svinicki  
Commissioner Ostendorff  
Commissioner Baran  
SECY

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**/RA by Michael R. Johnson Acting for/**  
 Victor M. McCree  
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cc: Chairman Burns  
 Commissioner Svinicki  
 Commissioner Ostendorff  
 Commissioner Baran  
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**ADAMS Accession Nos.:** Package **ML16144A868**; Letter **ML16130A254**; Response **ML16145A015\***via email

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