

August 27, 2014

Steven P. Kraft
Sr. Technical Advisor
Nuclear Energy Institute
1201 F Street NW, Suite 1100
Washington, DC 20004

SUBJECT: REQUEST FOR CLARIFICATION AND SUPPORTING BASIS FOR INDUSTRY STATEMENTS AND SUBMITTED DOCUMENTS RELATED TO THE FILTERING STRATEGIES AND SEVERE ACCIDENT MANAGEMENT OF BOILING WATER REACTORS WITH MARK I AND MARK II CONTAINMENTS

Dear Mr. Kraft:

The purpose of this letter is to request that the Nuclear Energy Institute (NEI) provide clarification and the supporting basis to the U.S. Nuclear Regulatory Commission (NRC) related to statements made by members of industry during public meetings and in submitted documents regarding the filtering strategies and severe accident management of boiling water reactors (BWR) with Mark I and Mark II containments for the NRC filtering strategies rulemaking. This letter is based on ongoing discussions between the NRC and industry at public meetings and would assist the NRC in assuring the quality of the work undertaken by the staff satisfies the Commission direction. The NRC is also thankful to industry representatives for their participation in the public meetings and in providing responses to the previous NRC request for information in relation to the filtering strategies rulemaking.

The NRC requests that NEI provide further explanation in two general areas: (1) small filter, and (2) additional generic methodology and modeling.

For the small filter, the NRC is requesting a description of a small filter and how that differs from a "large filter." This would include a discussion of the technical specifications that were used to determine the costs of a small filter, the decontamination factor (DF) as a function of particle size, and any operator actions that would be required and when they would need to occur. Has a small filter been developed and constructed? If so, what type of testing and validation has been performed? The NRC requests that the information related to the small filter be provided by September 21, 2014. This information will be used in evaluating the benefits of the small filter for the regulatory basis of the rulemaking.

The NRC has also developed a list of general methodology, terminology and modeling questions based on industry's statements and submittals that are enclosed. The NRC requests that the questions in the enclosure be answered by September 15, 2014. The response will be used to inform the probabilistic risk assessment being developed to support the rulemaking.

S. Kraft

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If you have any questions, please contact me at (301) 415-1272 or the rulemaking project manager for the filtering strategies and severe accident management of BWR with Mark I and Mark II containments rulemaking, Aaron Szabo, at (301) 415-1985.

Sincerely,

/RA/

Jennifer L. Uhle, Deputy Director
Office of Nuclear Reactor Regulation

Enclosure:
General Questions on Methodology
and Modeling

cc: Lesa P. Hill, BWROG

S. Kraft

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*by email

OFFICE	NRR/DPR/PRMB	NRR/DPR/PRMB:BC	OGC/GCLR*
NAME	ASzabo	TInverso	JOlmstead
DATE	8/18/2014	8/18/2014	8/19/2014
OFFICE	OIS/CSD*	NRR/DPR:DD	NRR:OD
NAME	KBenney	AMohseni	JUhle
DATE	8/19/2014	08/20/2014	8/22/2014

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General Questions on Methodology and Modeling

General Questions to clarify statements made during public meetings and document submittals regarding methodology and modeling terms.

- 1) Please clarify when Severe Accident Water Addition (SAWA) is initiated. Please explain whether this is into the reactor pressure vessel (RPV) at multi-sensor core logger (MSCL).
- 2) Please clarify whether Severe Accident Water Management (SAWM) is basically the same as SAWA with flow throttling to ensure that the wetwell (WW) is not flooded. Please describe when SAWA is transitioned to SAWM.
- 3) Please explain why industry is evaluating drywell (DW) venting without a filter (EPRI case 1A). Please clarify whether this is because of liner melt-through.
- 4) Please explain why industry is not considering DW venting in the absence of SAWM (EPRI cases 2A, 2C, 3A, and 3C), especially if the WW is flooded.
- 5) Please explain what SAWM means with regard to RPV water addition (EPRI cases 2B, 2D, 2F, and 2H) and describe water management action(s) being performed in this situation.
- 6) Please define "vent control." Please explain if this is considered vent cycling between a specified pressure band. If so, what is the pressure band?
- 7) Please clarify if all EPRI alternatives assume anticipatory venting. If so, please explain at what containment pressure this would occur.
- 8) Please define "filter path." Please clarify if the filter path is synonymous with vent path. If so, please explain whether the vent path is only out of the WW vent or is it through both the DW and WW vent paths with a common downstream path to the filter.
- 9) Please define "manual" with regard to the filter path. Please clarify whether this is the manual operation of the vent.
- 10) Please differentiate between EPRI case 5B ("manual" filter path) and EPRI case 6C ("all manual" filter path).

ENCLOSURE