February 26, 2009

MEMORANDUM TO: Charles E. Ader, Director
Division of Safety Systems and Risk Assessment
Office of New Reactors

FROM: Donald A. Dube, Senior Technical Advisor **/ RA Lynn Mrowca for /**
Division of Safety Systems and Risk Assessment
Office of New Reactors

SUBJECT: PUBLIC MEETING SUMMARY REGARDING RISK METRICS FOR NEW LIGHT-WATER REACTORS HELD ON FEBRUARY 18, 2009

On February 18, 2009, a public meeting was held at the Two White Flint North Building, Room T-2B3, to discuss the issues, and obtain stakeholder feedback, regarding the implementation of risk metrics for new light-water reactor risk-informed applications, and to identify potential paths forward. The agenda is provided as Enclosure 1, and a list of attendees is provided as Enclosure 2. Presentation hand-outs prepared by the staff can be found via ADAMS Accession Number ML090490778.

The meeting was the first in what is expected to be a series of discussions between stakeholders and the staff on the subject matter. The staff is currently reviewing one application for risk-informed technical specifications initiatives 4b and 5b (concerning completion times and surveillance test intervals, respectively) as part of the US-APWR design certification and the Comanche Peak combined license application. Longer term needs include the possibility of additional risk-informed applications for new reactors that may be considered for post-COL such as:

- EPRI research program on risk-informed inservice inspection of piping
- Risk-managed Technical Specifications
- Special treatment requirements (10CFR50.69).

During the staff's presentation, the question arose of whether the current numerical risk metric goals for core damage frequency (CDF) and large early release frequency (LERF) should be applicable to new light-water reactors, or whether alternate metrics for CDF and large release frequency (LRF) should be developed consistent with the Commission's safety expectations and approved goals for new reactors. As discussed during the meeting, a white paper has been prepared that discusses the issues posed by the lower risk estimates of new reactors in risk-informed applications, including changes to the licensing basis and the reactor oversight process (ROP), and describes the advantages and disadvantages of each option. This white paper can be found in ADAMS Accession Number ML090430220.

Other implementation issues were discussed during the meeting, including:

- Use of current numerical risk metric goals (e.g., LERF) would result in risk-informed applications/amendments being evaluated against less restrictive criteria than those used for the licensing basis of new reactors.

- Should the principle of “small increase” be based on *relative* or *absolute* ΔCDF and ΔLERF / ΔLRF?

The last part of the meeting was devoted to the discussion of possible options regarding risk metrics for new reactors, as outlined in the white paper. Stakeholders identified additional advantages and disadvantages of many of the options. One sub-option presented by stakeholders was to proceed with the current set of risk metrics for operating reactors (i.e., RG 1.174) on the first few risk-informed applications, and then to assess the need for change based on lessons learned.

Staff will consider the feedback received from stakeholders to further refine the options presented in the while paper, including consideration of additional options and expanded consideration of the implementation issues identified during the meeting.

A possible follow-up meeting will be considered along with a briefing of the Advisory Committee on Reactor Safeguards.

CONTACT: Donald A. Dube, NRO/DSRA
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Enclosure:
As stated

- Use of current numerical risk metric goals (e.g., LERF) would result in risk-informed applications/amendments being evaluated against less restrictive criteria than those used for the licensing basis of new reactors.

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Agenda

Public Meeting Regarding Risk Metrics for
New Light-Water Reactor Risk-Informed Applications*

8:30 a.m. to 12:00 noon
Wednesday, February 18, 2009
NRC Headquarters (Room T-2B3)

TIME	TOPIC	LEAD
8:30 – 8:40 a.m.	Introduction and opening remarks	NRC
8:40 – 8:50 a.m.	Discussion of immediate need for revised metrics	NRC
8:50 – 9:50 a.m.	Discussion of background on risk metrics for new reactors	NRC
9:50 – 10:00 a.m.	Break	
10:00 – 10:50 a.m.	Open discussion on risk metrics regulatory issues	NRC/ All
10:50 – 11:00 a.m.	Break	
11:00 – 11:50 a.m.	Open discussion on risk metrics options/ Implementation issues	NRC/ All
11:50 – noon	Closing Remarks	NRC
12:00 noon	Adjourn	

* Category 3: The public is invited to participate in this meeting by providing comments and asking questions throughout.

Enclosure 1