

March 28, 2003

MEMORANDUM TO: John A. Zwolinski, Director  
Division of Licensing and Project Management  
Office of Nuclear Reactor Regulation

FROM: Scott F. Newberry, Director /RA/  
Division of Risk Analysis and Applications  
Office of Nuclear Regulatory Research

SUBJECT: REQUEST FOR REVIEW OF INTEGRATED INDUSTRY INITIATING  
EVENT INDICATOR REPORT

Attached for your information and review is a draft report documenting development efforts for an integrated industry initiating event indicator (IIIEI) for potential use in NRR's Industry Trends Program (ITP). We would appreciate receiving your comments by 60 days from the receipt of this memorandum.

As background, in a user need letter of December 14, 2001, the Inspection Program branch of NRR requested that RES update the data for the initiating events studies published in NUREG-5750, "Initiating Events at U.S. Nuclear Power Plants: 1987 - 1995." The Operating Experience Risk Analysis Branch (OERAB) of RES provided this data for fifteen risk-important initiating events, and NRR included the results in SECY-02-0058, "Results of the Industry Trends Program for Operating Power Reactors and Status of Ongoing Development." Subsequently, in consultation with NRR, we focused our efforts on developing an integrated industry initiating event indicator for these fifteen events. This integrated indicator is closely related to risk (core damage frequency [CDF]), and relies on concepts similar to those currently used in the development of the mitigating systems performance indicator for the Reactor Oversight Process (ROP). RES is continuing to develop risk-informed thresholds for the IIIEI.

We have worked closely with IIPB staff in development of the IIEPI. We have mutually briefed the ACRS subcommittees on PRA and Operating Experience on the ITP and the IIIEI. We have also briefed industry representatives, including NEI, at several monthly working group meetings on the ROP. This draft report addresses several comments received during these briefings. The draft report contains refinements of the baseline period determination rules, predictive distributions for the individual initiating events, an evaluation of the uncertainties in the IIIEI, and sensitivity studies to help us understand the behavior of the integrated indicator. We are specifically interested in your review of:

- The concept of the IIIEI and its technical basis
- The relationship of the IIIEI to other risk-informed efforts, including the ITP and the ROP
- Your responses to the technical questions contained in Section 6 of the report.

In accordance with our peer review procedures, we will also send this report to external stakeholders (e.g., NEI, INPO, EPRI, owners groups) for their review. If you have any questions regarding this report, please contact Dr. Dale Rasmuson (301-415-7571, [dmr@nrc.gov](mailto:dmr@nrc.gov)) of my staff.

Attachment: As stated

cc w/att.:

J. Strosnider/A. Thadani, RES

S. Collins, NRR

B. Sheron, NRR

R. Borchardt, NRR

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REQUEST FOR REVIEW OF INTEGRATED INDUSTRY INITIATING EVENT INDICATOR REPORT

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