

September 30, 2002

Mr. David Lochbaum
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SUBJECT: RESPONSE TO E-MAIL INQUIRIES REGARDING RISK INFORMATION
ASSOCIATED WITH THE DAVIS-BESSE NUCLEAR POWER PLANT

Dr. Mr. Lochbaum:

I am responding to the e-mails that you sent to the U.S. Nuclear Regulatory Commission (NRC) staff. The first, dated July 1, 2002 (Accession No. ML022690416), asks questions about the individual plant examination (IPE) and significance determination process (SDP) notebooks for the Davis-Besse Nuclear Power Plant (Davis-Besse). The second e-mail, also dated July 1, 2002 (Accession No. ML022690363), addresses the availability of various documents for public inspection at the NRC public document room (PDR) and Agencywide Documents Access and Management System (ADAMS). The staff's response to your questions is provided below:

Davis Besse IPE and SDP notebook (e-mail dated July 1, 2002, to P. Wilson)

The issues identified in your e-mail were primarily the result of the process that the NRC used in developing the SDP notebooks. The Davis Besse SDP Phase 2 notebook that you found in ADAMS was a draft version of the notebook (although noted as Revision 0 in the page footers). The NRC and its contractor used licensee IPEs to generate these draft versions of the notebooks. In some cases, if the plant's IPE submittal did not have sufficient explanation of the licensee's probabilistic risk assessment (PRA) model, the draft version of the SDP notebooks used partial event tree logic from other plants of similar design. These draft notebooks were not issued for inspector use, but were used to facilitate dialog between the NRC and the licensees. The NRC forwarded these draft notebooks to all licensees to solicit comments and to obtain updated PRA information to ensure that the notebooks reflected the the current design and operation of NRC licensed facilities. This information was then used to modify the SDP notebooks, including the SDP notebook for Davis Besse.

Footnotes, like the one you mentioned in your first e-mail, were subsequently removed from the draft SDP notebooks prior to being formally issued to NRC inspectors and licensees as Revision 0. The Revision 0 notebook for Davis-Besse has not been transmitted to the licensee and thus, not placed into ADAMS. The Revision 0 Davis-Besse notebook reflects how the licensee's PRA currently models a Loss of Offsite Power (LOOP) event. During the week of July 8, 2002, the NRC staff visited the Davis-Besse site to benchmark the Davis-Besse SDP notebook (Revision 0) against the licensee's current PRA model. The staff intends to issue a report on the results of the benchmark and revise the notebook accordingly, based information obtained in July. The NRC staff plans to issue Revision 1 of the Davis-Besse notebook in the near future. The NRC staff will review the revisions to the notebook to determine if they may be released to the public or should be withheld from public disclosure in light of concerns identified after September 11, 2001 (see response to second question).

In the Davis-Besse IPE submittal, LOOP was modeled; however, the requisite detail needed to construct a draft, plant-specific LOOP sequence was not readily identified in the documentation used to develop the draft notebook. This was because the LOOP was included in the general transient functional sequence (TBU). The functional accident sequences were developed to estimate the core damage frequency (CDF) and included transients, internal floods, steam generator tube ruptures, loss of coolant accidents (LOCAs), and inter-system LOCAs. TBU is an accident sequence initiated by some type of transient (e.g., a LOOP), followed by a total loss of feedwater and failure of makeup/high pressure injection cooling. The TBU sequence has a CDF of 3.5E-5/yr and contributes ~55% to the total CDF. A LOOP is the main contributor to a TBU. The top initiating events contributing to the TBU functional sequence include:

<u>Initiating Event</u>	<u>~CDF</u>	<u>~% CDF</u>
Loss of offsite power	1E-5	18%
Loss of main feedwater	8E-6	12%
Reactor/turbine trip	5E-6	8%
Loss of 4kv bus D1	4E-6	7%
Loss of power from bus YAU	2E-6	3%

The dominant contributors to the accident sequences initiated by LOOP include (in order of importance):

- operator fails to control turbine driven auxiliary feedwater pumps locally;
- failure to restore offsite power;
- emergency diesel generators fail to run.

A frequency for LOOP, 0.035/yr (mean value with a 3.6 error factor), was estimated by updating generic with plant-specific data considering plant-centered, grid-centered and weather related type of events. At the time of the IPE, in the 11 years of operation, Davis-Besse had experienced 0 events for each type. In addition, a conditional LOOP (7.3E-3 per demand) following a plant trip was estimated by updating generic with plant-specific information. At the time of the IPE, Davis-Besse had experienced 1 event in 45 trips.

Withholding of risk information from public disclosure (e-mail dated July 1, 2002, to M. Landau)

The NRC staff is continuing to evaluate what information should be withheld from public disclosure to address possible concerns identified after the events of September 11, 2001. The guidance being used by the staff is described in COMSECY-02-0015, "Withholding Sensitive Homeland Security Information From the Public," and the related Staff Requirements Memorandum issued by the Commission. These documents are available on the NRC web site at www.nrc.gov/reading-rm/doc-collections/commission/comm-secy/2002.

The NRC has traditionally been very open in terms of the types and amount of information made available to the public. Shortly after September 11, 2001, the NRC took actions to review information made available directly through our web site and also removed some general categories of information (such as IPE submittals) from general release through the PDR or ADAMS. This action was taken as an interim measure until such time as policies and practices could be developed and specific documents could be reviewed. NRC is aware that some documents remained in ADAMS, even though they are similar to documents that are being

withheld pending additional reviews. The volume of material in ADAMS has presented a significant challenge to the staff in terms of reviewing and withholding information that was previously released to the public. The specific reviews performed by the staff have identified relatively few documents to withhold because they contain information considered sensitive in light of heightened concerns about terrorism (sometimes referred to as sensitive homeland security information or sensitive but unclassified information).

In deciding what information to withhold from public disclosure, the staff is attempting to balance the cost and benefits of its decisions. Decisions regarding some of the information provided in discussions of risk assessments for nuclear power plants have been challenging in terms of balancing competing interests and agency goals. The staff is continuing to review its guidance and practices in this area and would appreciate any insights you can offer. If you have any suggestions or questions about this topic, or our response to the other questions addressed by this letter, please feel free to call Bill Reckley at (301) 415-1323.

Sincerely,

/RA by J. Zwolinski for/

Ledyard B. Marsh, Deputy Director
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

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