

## **Nuclear Information and Resource Service**

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February 14, 2003

Dr. Richard Meserve, Chair  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

By FAX 301-415-1672:

**Regarding Commission Comments On The Abandonment Of The Agency's Risk-Informed Safety Decision Making Process As Pertains To The Davis-Besse Lessons Learned Task Force Commission Briefing, February 04, 2003**

Dr. Meserve:

On behalf of Nuclear Information and Resource Service (NIRS), I would like to thank you and the Commissioners again for the opportunity to address the Commission on February 04, 2003 regarding the Davis-Besse Lessons Learned Task Force and the Davis-Besse vessel head corrosion.

However, NIRS remains concerned by the Nuclear Regulatory Commission's (NRC) Lessons Learned Task Force less than thorough review of the agency's safety decision making process as it pertained to Davis-Besse and the risk informed treatment by the staff and Director of Nuclear Reactor Regulation, the Executive Director of Operations and the Commission and the agency's abandonment of the December 31, 2001 shutdown Order per NRC Bulletin 2001-01.

At the briefing, the Commission Chair characterized NIRS as not having an accurate understanding of NRC regulations and its oversight process of the Davis-Besse event. Specifically, in response to NIRS testimony, the Chairman provided the following comment:

“Your presentation relied principally on the principles that were drawn from Reg. Guide 1.174. That is a Regulatory Guide that is intended to be used for changes in the licensing basis that would be license amendments that involve permanent changes in the plant and by its literal terms would not be the document which one would rely upon for temporary action such as the one that the staff was making in allowing six weeks of continued operation. I recognize that you were invited into reliance on it and the staff made

reference to it in some documents that NRC made available to you, but it literally is not something by its terms was applicable to the decision that was made by staff.”<sup>1</sup>

As the Chairman correctly states, the NIRS presentation focused on Regulatory Guide 1.174 “An Approach for Using Probabilistic Risk Assessment In Risk-Informing Decisions on Plant-Specific Changes to the Licensing Basis.”

However, it is the Chair’s assertion that Regulatory Guide 1.174 was inapplicable to safety decisions made regarding the extension of Davis-Besse’s operation beyond December 31, 2001 that further invites NIRS to assess the Commission’s abandonment of RG 1.174 safety principles as a significant breach of the agency’s established risk-informed safety decision making process.

More than just “some documents,” it is a full range of NRC communications, documents and personnel involvement that conveyed the agency’s reliance upon Regulatory Guide 1.174 and its five safety principles as the foundation for the decision making process in preparing an Order to not let Davis-Besse operate beyond December 31, 2001 without inspections of Control Rod Drive Mechanism Vessel Head Penetrations. The Order and its regulatory basis were abandoned in a controversial 11<sup>th</sup> hour decision.

The five safety principles of RG 1.174 are explicitly cited as the risk informed foundation of the Davis-Besse Order as prepared and finalized by Nuclear Reactor Regulation staff, signed by Nuclear Reactor Regulation Director Sam Collins, transmitted though the NRC Office of General Counsel and signed by the Executive Director of Operations William Travers before being transmitted to the Commission.

The final Davis-Besse Order as submitted by Dr. Travers to all five Commissioners on November 21, 2001 recognized and acknowledged that “Regulatory Information Summary 2001-002, ‘Guidance on Risk-Informed Decisionmaking In License Amendment Reviews,’ dated January 18, 2001, provides a process for the staff to consider whether a ‘special circumstance’ exists which may rebut the presumption that compliance with the regulations provides adequate protection of the health and safety. *Although developed as a tool for staff reviews of license amendment requests, the process in Regulatory Issue Summary 2001-02 is appropriate for other regulatory decisionmaking purposes because it addresses a fundamental requirement for operation of a nuclear power plant, i.e., reasonable assurance of adequate protection of public health and safety.*”<sup>2</sup> [Emphasis added]

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<sup>1</sup> Briefing on Lessons Learned Davis-Besse Vessel Head Degradation, Transcript, U.S. Nuclear Regulatory Commission, < <http://www.nrc.gov/reading-rm/doc-collections/commission/tr/2003/20030204.pdf> >, February 04, 2003, p. 133, Lines 17 through 21.

<sup>2</sup> FOIA 2002-0229 Appendix G-8, Memorandum To Chairman Meserve, Commissioner Dicus, Commissioner Diaz, Commissioner McGaffigan, Commissioner Merrifield, From William Travers, EDO, “Issuance of Order Regarding Response To Nuclear Regulatory Commission (NRC) Bulletin 2001-01 ‘Circumferential Cracking of Reactor Pressure Vessel Head Penetrations,” U.S. Nuclear Regulatory Commission, November 21, 2001, p. 11.

The November 21, 2001 Order goes on to state: “Applying the risk-informed decisionmaking process described in Regulatory Guide 1.174 ‘An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant Specific Changes to the Licensing Basis,” a risk associated with current operation in these circumstances may be acceptable if (1) the current regulations are met, (2) operation is consistent with the “defense-in-depth” philosophy, (3) sufficient safety margin is maintained, (4) only a small increase in core damage frequency results, and (5) the basis for the risk estimate is monitored using performance measurement strategies.”<sup>3</sup>

The Order then goes on to elaborate that while Davis-Besse inspections to date met the requirements of 10 CFR 50.55a, compliance is not adequate to detect flaws potentially resulting in failure of the reactor coolant boundary. The Order goes on to say that the remaining four criteria are not satisfied as I outlined before the Commission in my testimony on February 04<sup>th</sup>.

The RIS 2001-002 “special circumstance” was identified earlier by NRC staff communications identified “Basis for Order to Perform Adequate Inspection of CRDM Nozzles for SCC” dated September 19, 2001 which states:

“2. Use procedures in RIS 2001-002 ‘Guidance on Risk-Informed Decisionmaking in License Amendment Reviews’ to initiate ‘adequate protection’ consideration. This process addresses ‘special circumstances’ that could rebut the presumption that compliance with our regulations provides adequate protection of public health and safety.

“3. The current regulation requires inspections to be performed in accordance with ASME Code requirements, which allow visual inspections without removing insulation around the potentially leaking nozzles. This requirement is inadequate to detect the subject degradation because it cannot detect the amount of leakage that is expected to occur before CRDM housing failure and LOCA results. So, a ‘special circumstance’ exists with respect to this issue.

“4. *RIS 2001-002 process is to assess RG 1.174 safety principles...*”<sup>4</sup> [Emphasis added]

Furthermore, as outlined in the Status of NRC Staff Review of FENOC’s Bulletin 2001-01 Response for Davis-Besse” dated November 30, 2001 after the abandonment of the shutdown Order, in briefing materials before the Commissioners’ Technical Assistants, the final page of the NRC staff presentation viewgraphs concludes with a review of RG 1.174 criteria where 4 of 5 safety principles are identified as not met. This is a striking summation of the staff’s assessment to the Commission of the calculated risk to public safety in allowing Davis-Besse to operate beyond Bulletin 2001-01 inspection deadlines and the lack of reasonable assurance of adequate protection of the public health and safety.

NIRS reiterates that it is the NRC’s documented conclusion as signed off by its entire chain of command that the tools as provided in RIS 2001-002 are “appropriate for other

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<sup>3</sup> Ibid, NRC Order, p.12-13.

<sup>4</sup> FOIA 2002-0229, Appendix B-29, “Basis for Order to Perform Adequate Inspection of CRDM Nozzles of SCC, September 19, 2001, p. 1.

regulatory decisionmaking purposes” precisely because they address risk informing agency decisions to assurance adequate public safety and protection.

The fact that the agency explicitly relied upon the very same public safety decision making process for Davis-Besse that the Chairman states “literally is not something by its terms was applicable to the decision that was made by staff” is a significant contradiction conspicuously absent from the analysis and recommendations of the NRC Lessons Learned Task Force Final Report on Davis-Besse as NIRS contended before the Commission on February 04, 2003.

NIRS welcomes a clarification to Commission statements and the documented agency reliance on this established decision making policy as it significantly relates to present and future public health and safety.

Sincerely,

Paul Gunter, Director  
Reactor Watchdog Project / NIRS

CC:  
U.S. Senator George Voinovich  
U.S. Representative Dennis Kucinich  
U.S. Representative Marcy Kaptur  
U.S. Representative Edward Markey  
U.S. NRC Office of the Inspector General  
U.S. General Accounting Office  
David Lochbaum, Union of Concerned Scientists