



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

August 26, 2009

Mr. Barry S. Allen
Site Vice President
FirstEnergy Nuclear Operating Company
Davis-Besse Nuclear Power Station
Mail Stop A-DB-3080
5501 North State Route 2
Oak Harbor, OH 43449-9760

SUBJECT: DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1 - REQUEST FOR ADDITIONAL INFORMATION RELATED TO NINE MONTH RESPONSE TO GENERIC LETTER 2008-01, "MANAGING GAS ACCUMULATION IN EMERGENCY CORE COOLING, DECAY HEAT REMOVAL, AND CONTAINMENT SPRAY SYSTEMS" (TAC NO. MD7819)

Dear Mr. Allen:

By letter to the Nuclear Regulatory Commission (NRC) dated October 14, 2008 (Agencywide Documents Access and Management System Accession No. ML082900577), FirstEnergy Nuclear Operating Company submitted its nine-month response to Generic Letter 2008-01, for the Davis-Besse Nuclear Power Station, Unit No. 1.

The NRC staff is reviewing your submittal and has determined that additional information is required to complete the review. The specific information requested is addressed in the enclosure to this letter. During a discussion with your staff on August 5, 2009, it was agreed that you would provide a response within 60 days from the date of this letter.

The NRC staff considers that timely responses to requests for additional information help ensure sufficient time is available for staff review and contribute toward the NRC's goal of efficient and effective use of staff resources. If circumstances result in the need to revise the requested response date, please contact me at (301) 415-3154.

Sincerely,

A handwritten signature in black ink that reads "Stephen P. Sands".

Stephen P. Sands, Project Manager
Plant Licensing Branch III-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-346

Enclosure:
Request for Additional Information

cc w/encl: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION

DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1

DOCKET NO. 50-346

In reviewing the FirstEnergy Nuclear Operating Company's submittal dated October 14, 2008 (Agencywide Documents and Access Management System Accession No. ML082900577), related to the nine-month response to Generic Letter 2008-01 (GL 08-01), for the Davis-Besse Nuclear Power Station, Unit No. 1, the Nuclear Regulatory Commission (NRC) staff has determined that the following information is needed in order to complete its review:

1. GL 08-01 (Reference 3) discussed the loss of high-pressure safety injection pumps at Oconee in 1997, as an example of failure of a subject system. This was caused by a failure of level transmitters associated with the letdown storage tank that is commonly referred to as the volume control tank (VCT). The VCT was not identified in the Reference 4 reply to the GL. Either identify the VCT as a part of the subject systems, or provide a justification for its omission.
2. Provide a schedule and commitment for applying the Technical Specification Task Force process to any technical specification (TS) modifications related to GL 08-01.
3. Summarize the corrective action program results that were initiated to develop a design calculation to address vortex formation for the decay heat removal pumps during suction from the reactor coolant system hot-legs.
4. An evaluation of vortex formation was stated to have concluded that maximum flow scenarios during design basis actuations did not have the potential for adverse gas intrusion since the void fraction would be less than 2 percent. Since expected flow rates under accident conditions may significantly exceed the design-basis accident (DBA) flow rates, discuss how the stated conclusions are applicable to actual expected accident conditions.
5. Table 2 of Reference 4 lists quarterly monitoring items. Have these been implemented? What is the justification for quarterly monitoring in light of the general industry surveillance requirement of 30 days?
6. The TS surveillance requirement addresses high point venting of the discharge piping on a one time post-maintenance vent. Additional venting is stated to be performed by periodic procedure DB-SP-04212, "Venting of ECCS Piping – SOER 97-1." Summarize this and any other procedures that address surveillance with respect to specific venting frequency, method of determining void volumes, maintenance of void volume records, acceptance criteria, and follow-up actions if acceptance criteria are not met. If this procedure update is not complete, identify the incomplete items and provide a schedule for completion. Where the monitoring is to be accomplished via the work management process, provide the same information and, in addition, describe what ensures acceptable follow-up if voids are identified. Note that "periodic" and

ENCLOSURE

“appropriate periodic” are not specific with respect to this request for additional information .

7. The statement is made that “the surveillance and periodic testing procedures DB-SP-03212, “Venting of ECCS Piping,” and DB-SP-04212 require that a Condition Report be generated if gas voiding concerns are identified.” Clarify this statement with respect to the meaning of a gas voiding concern. If the Corrective Action Program is not entered whenever a void is identified during operation, then provide a justification why this is not accomplished.
8. Summarize the procedural checks to periodically identify leakage through check valves that separate the subject systems from higher pressure locations and the response actions in procedures and the Corrective Action Plan if such leakage is identified. Include in-series check valves that could be exposed to a higher pressure if the “first off” check valves were to leak.
9. With respect to Section C, “Additional Planned Actions,” Table 2, of Reference 4, the statement is made that “... current practices have been determined to be effective at preventing equipment damage caused by voids, and these actions are not required for compliance with existing regulatory requirements....” Clarify this statement since operability, not damage, is a compliance requirement. Clarify the “existing regulatory requirements” with respect to the GL requirement that information be provided for all conditions and all modes of operation, not just DBAs or power operation.
10. Provide a table that lists the current incomplete items and the completion schedule.
11. Training was not identified in the GL, but is considered to be a necessary part of applying procedures and other activities when addressing the issues identified in the GL. Briefly discuss training as it relates to both venting and the procedures.

REFERENCES

1. Ruland, William H., “Preliminary Assessment of Responses to Generic Letter 2008-01, ‘Managing Gas Accumulation in emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems,’ and Future NRC Staff Review Plans,” NRC letter to James H. Riley, Nuclear Energy Institute, ML091390637, May 28, 2009.
2. Riley, James H., “Generic Letter (GL) 2008-01, ‘Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Contain Spray Systems’ Evaluation and 3 Month Response Template,” Letter to Administrative Points of Contact from Director, Engineering , Nuclear Generation Division, Nuclear Energy Institute, Enclosure 2, “Generic Letter 2008-01 Response Guidance,” March 20, 2008.
3. Case, Michael J. “NRC Generic Letter 2008-01: Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems,” Letter from Director, Division of Policy and Rulemaking, Office of Nuclear Regulation, NRC, ML072910759, January 11, 2008.

4. Allen, Barry S., "Davis-Besse Nuclear Power Station, Docket No. 50-346, License No. NPF-3, "Nine Month Response to NRC Generic Letter 2008-01, 'Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems,' (TAC No. MD7819)," Letter to Document Control Desk, NRC, from Vice President, First Energy Operating Company, ML082900577, October 14, 2008.
5. "Revision 2 To NRC Staff Criteria For Gas Movement In Suction Lines And Pump Response To Gas," ML090900136, March 26, 2009. ¹

¹ Revisions of this reference are anticipated. If a more recent version has been published, it should be used in place of the March 26, 2009 version. Note that revisions will be provided to NEI for forwarding to licensees at the same time as they are placed in ADAMS.

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Sincerely,
/RA/
Stephen P. Sands, Project Manager
Plant Licensing Branch III-2
Division of Operating Reactor Licensing
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NRR-088

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