



**CENTERIOR
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Docket Number 50-346

License Number NPF-3

Serial Number 2344

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United States Nuclear Regulatory Commission
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Washington, D. C. 20555-0001

Subject: Additional Information for The Summary Report for Resolution
of Unresolved Safety Issue A-46

Reference: USI A-46 Evaluation for the Davis-Besse Nuclear Power Station
Submitted under Toledo Edison Letter Serial Number 2316, Dated
August 29, 1995

Ladies and Gentlemen:

During a November 1, 1995, telephone conference call with
Ms. L. L. Gundrum and Mr. K. D. Desai of the Nuclear Regulatory
Commission (NRC) Staff, Toledo Edison (TE) was requested to provide
additional information regarding the Summary Report for Resolution of
Unresolved Safety Issue A-46 submitted for the Davis-Besse Nuclear Power
Station. Attachment 1 to this letter details the information requested
and TE's corresponding responses.

Should you have any questions or require additional information, please
contact Mr. Peter W. Smith, acting Manager - Regulatory Affairs, at
(419) 321-7744.

Very truly yours,

Attachment

cc: L. L. Gundrum, DB-1 NRC/NRR Project Manager
H. J. Miller, Regional Administrator, NRC Region III
S. Stasek, DB-1 NRC Senior Resident Inspector
Utility Radiological Safety Board

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Operating Companies:
Cleveland Electric Illuminating
Toledo Edison

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Attachment 1
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REQUEST FOR ADDITIONAL INFORMATION REGARDING SUMMARY REPORT FOR
RESOLUTION OF UNRESOLVED SAFETY ISSUE A-46 FOR THE DAVIS-BESSE NUCLEAR
POWER STATION

1. Provide a complete list of sources of water (tanks, etc.), their capacities, and whether or not they are seismically qualified. In the report you mention the Borated Water Storage Tank (BWST), Boric Acid Addition Tanks (BAAT), Makeup Tank, and Service Water System. Are there any other sources which you may want to use? What is the order of preference for primary-side and secondary-side sources of water? What is the order of preference for secondary-side water sources during a Loss of Offsite Power? Are the instruments used for automatic switching of the Auxiliary Feedpumps from the Condensate Storage Tank to the Service Water System seismically qualified?

Response

Toledo Edison's (TE's) Unresolved Safety Issue (USI) A-46 Summary Report provides a list of seismic tanks for which credit is taken in the two shutdown paths (primary and backup). Non-seismic sources of water would be utilized, if available.

Primary-side tanks with capacities and seismic classification are listed below in order of preferential use:

<u>TANK</u>	<u>CAPACITY</u> (GAL)	<u>SEISMIC CLASSIFICATION</u>
Makeup	2,800*	Seismic#
BWST	482,778***	Seismic#
BAAT (2) System	5,500**	Non-seismic#
Core Flood (2)	7,555/tank***	Seismic##

* Normal Operating Level

** Technical Specification Minimum Total Volume
@ 13000 ppm Boron

*** Technical Specification Minimum

SQUG SSEL

IPEEE SSEL

Secondary-side tanks with capacities and seismic classification are listed in order of preferential use:

<u>TANK</u>	<u>CAPACITY (GAL)</u>	<u>SEISMIC CLASSIFICATION</u>
Deaerator (2)	53,000/tank**	Non-seismic
Condenser Hotwell	80,000**	Non-seismic
Condensate Storage Tanks (2)	250,000* 450,000**	Non-seismic
Service Water	See Note 1	See Note 1

Note 1: Service Water System (SWS) is supplied from Lake Erie. The Ultimate Heat Sink portion of SWS at minimum water level and maximum temperature has sufficient capacity to supply 30 days of cooling water to safety related equipment without exceeding the equipments' design basis temperature. Applicable portions of SWS are seismic and part of the SQUG SSEL

- * Technical Specification Minimum Contained Volume (total of both tanks)
- ** Normal Operating Contained Volume

For secondary-side tanks during Loss of Offsite Power, the deaerator tanks and the condenser hotwell would not be available. The Steam Generators would be fed by the steam-driven Auxiliary Feedpumps with a water source from the Condensate Storage Tank with automatic switching to the Service Water System on low level in the Condensate Storage Tank. The Auxiliary Feedpump Suction Pressure Interlocks (PSL 4928A and B, and 4929A and B) are seismically qualified and listed on the SQUG SSEL.

2. Are you planning on using the "Feed and Bleed" method as addressed in the emergency operating procedures for decay heat removal? Are all components in the "feed and bleed cooling" path seismically qualified?

Response

Feed and bleed cooling is directed in the Emergency Operating Procedure when Steam Generator heat transfer is not available. This mode of heat transfer would allow cooldown until the normal Decay Heat Removal System could be placed in service. Feed and bleed cooling would be established with a water source from the BWST followed by Containment Sump recirculation. All components in the feed and bleed cooling path are seismically qualified. However, feed and bleed cooling is not part of the DENPS licensing basis and is not discussed or credited in the TE USI-A46 Summary Report as one of the two paths for reaching Hot Shutdown (Mode 3).

3. In Section 4.3 (Pg. 22 last paragraph) you stated "Although direction to use Safe Shutdown Equipment and Instrumentation was not always provided as the primary procedure flowpath, no procedural flowpaths were identified that would prevent a trained licensed operator from completing the cooldown to the Hot Shutdown condition." Can you elaborate on this? Do procedures exist for the paths that you highlighted in the report or are you relying on operators to accomplish these paths?

Response

The symptom-based Emergency Operating Procedure (EOP), DB-OP-02000, "Reactor Protection System, Safety Features Actuation System, Steam and Feedwater Rupture Control System Trip or Steam Generator Tube Rupture," provides direction to the operators for operation of equipment following a seismic event that results in a reactor trip. With only Safe Shutdown Equipment List (SSEL) components available, this EOP provides complete guidance to achieve Cold Shutdown (Mode 4). The SSEL paths are a subset to the existing EOP flowpaths. In addition to DB-OP-02000, the Off Normal Procedure, RA-EP-02820, "Earthquake," provides additional guidance with respect to Safe Shutdown Equipment and other auxiliary equipment. This procedure would also be utilized by the operating staff during a seismic event. The operators are not required to develop flowpaths utilizing SSEL components.

4. Explain the difference between Appendix B, Composite SQUG Safe Shutdown Equipment List (SSEL), and Appendix C, Seismic Review Safe Shutdown Equipment List (SSEL), to the Summary Report.

Response

Appendix B, Composite SQUG Safe Shutdown Equipment List (SSEL) is an alpha-numeric listing of all equipment identified in the two trains associated with placing the plant in a safe shutdown condition. This composite listing includes equipment required to be reviewed for seismic adequacy (S), relay actuation (R) or both seismic adequacy and relay actuation (SR). For completeness the composite SSEL also includes equipment on the safe shutdown train that is not required to be walked down as this equipment has been determined by SQUG to be "rugged".

Appendix C, Seismic Review Safe Shutdown Equipment List (SSEL), is a subset of Appendix B and includes only those items requiring a seismic review. This appendix was generated by performing a sort on Appendix B for equipment required to be reviewed for seismic adequacy (S) or both seismic adequacy and relay actuation (SR).