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Director
Nuclear Safety & Regulatory Affairs

October 2, 1995

U.S. Nuclear Regulatory Commission
Mail Station P1-37
Washington, D.C. 20555

Attention: Document Control Desk

Subject: Grand Gulf Nuclear Station
Docket No. 50-416
License No. NPF-29
Entergy Comments Regarding NRC Bulletin and Draft Regulatory Guide Regarding "Potential Plugging of Emergency Core Cooling Suction Strainers by Debris in Boiling Water Reactors"

References: (1) NRC Bulletin 95-XX, "Potential Plugging of Emergency Core Cooling Suction Strainers by Debris in Boiling Water Reactors"

(2) Draft Regulatory Guide DG-1038 (Proposed Revision 2 to Regulatory Guide 1.82), "Water Sources for Long-Term Recirculation Cooling Following a Loss-of-Coolant Accident"

GNRO-95/00111

Gentlemen:

The referenced Draft Regulatory Guide requested public comments regarding the contents of the guide and implementation schedule. Entergy Operations, Inc., has reviewed both of the referenced documents, and is submitting the requested comments by this letter.

Bulletin 95-XX Comments

Comment (1) Page 6, line 44 and page 7, line 3. The proposed modifications described in the Requested Actions will require considerable assessment of existing plant insulation type, location, and condition. Most plants will require a thorough verification of input parameters used to perform a strainer sizing analysis, and preferably this verification would be performed during the first available refueling outage. After this verification of insulation parameters, the

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modification analysis and design would be performed. Considering the strainer analysis, design and fabrication stages, the actual modifications would be ready for implementation by the second refueling outage.

Suggestion (1) The due date of implementation should be plant start-up after the second refueling outage past the issue date of the bulletin. Also, the response to the bulletin within 180 days will require a "... detailed description of planned actions and mitigative strategies used ...". The licensee action response should be 180 days following the start-up after the first refueling outage past the issue date of the bulletin. This would provide a detailed plan based on insulation data identified during the first refueling outage.

Draft Regulatory Guide DG-1038 Comments

Comment (2) Page 16, line 28. The model used for debris generation is for frangible insulation and could be misinterpreted as a new NRC position regarding the design of structures, systems and components for jet blast effects.

Suggestion (2) If the debris generation model differs from the present licensing basis jet blast models, please state that the model is only to be used to evaluate debris generation for ECCS suction strainer NPSH analysis.

Comment (3) Page 17, lines 1/3. The spherical zone of influence is a reasonable model to use based on engineering judgment; however, not specifying the distance from the zone of the break requires the licensee to validate the basis of the sphere. The sphere is a means of encompassing each individual BWRs unique plant configuration into one generic geometry that can be universally applied. One pipe break could result in a cone, one could result in an oval, etc. based on the unique environs and restraint of the break location. The sphere couples the initial acoustic blast, steam jet collision, and associated reflection within a reasonable geometry that could surround the break. Since this model is based on engineering judgment, it would seem impractical to validate the model with empirical data for the large range of pipe break locations. No single test will likely duplicate the isobars of a sphere. Implicit in this approach is that

the pressure regimes, and therefore the zones of destruction, will be spherical.

Suggestion (3) If the NUREG/CR-6224 model is the final model regarded as acceptable to the NRC, the spherical model should be endorsed in totality regarding shape, zone of influence, and destruction factors.

Comment (4) Page 18, lines 4/5. The primary basis for re-opening this issue was the Barseback event. Although there are several thoughts on the exact implication of Barseback, the transport from that accident was no greater than 50% of the total destroyed insulation, and later analysis has the transport fraction at approximately 5% - 10%.

Suggestion (4) Assume a large percentage of the fibrous insulation covering the immediate gap of the pipe break transports to the pool as aerosol transport. The transport fraction for the rest of the damaged insulation should either use the actual Barseback transport factor, or the transport factors endorsed in NUREG/CR-6224 with modification regarding individual licensee transport barriers.

If you have questions regarding any information in this letter, please contact Brian Blanche at (601) 437-6475.

Yours truly,

MJM/BJB

cc: (See Next Page)

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