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# Union of Concerned Scientists

Citizens and Scientists for Environmental Solutions

October 12, 2004

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Dr. Mario V. Bonaca, Chairman  
Dr. Graham B. Wallis, Vice Chairman  
Advisory Committee on Reactor Safeguards  
United States Nuclear Regulatory Commission  
Washington, DC 20555-0001

**SUBJECT: TWO MISSING PIECES OF THE DIALOGUE ABOUT GSI-191,  
"ASSESSMENT OF DEBRIS ACCUMULATION ON PWR SUMP  
PERFORMANCE"**

Dear Chairmen Bonaca and Wallis:

As Chairmen of the Advisory Committee on Reactor Safeguards and its Subcommittee on Thermal Hydraulics, you have led a series of meetings where representatives of the Nuclear Regulatory Commission staff and industry discussed proposals to remedy Generic Safety Issue 191, "Assessment of Debris Accumulation on PWR Sump Performance." The June 22-23 Subcommittee and the October 7<sup>th</sup> full Committee meetings probed the matter in considerable detail and asked many questions that must be answered before this important issue is resolved.

We believe two topics have been omitted from the dialogue about the resolution of GSI-191. We do not feel the topics have been intentionally ignored by any party to the dialogue. We suspect that the enormity and complexity of the GSI-191 resolution consumes so much attention that these topics have been overlooked. But we feel both of these topics are so closely related to the GSI resolution that their inclusion in the dialogue can actually facilitate, rather than impede, progress towards resolution.

The first topic involves continued operation of PWRs until GSI-191 is resolved. Many of the questions posed by ACRS members about various aspects of the GSI-191 resolution plans also apply to the situation at the PWRs today. For example, the thin-bed effect and the validity of the assumption about homogeneous debris loading on the sump screens apply to the current designs as much as they do to the final design configuration. Issues such as these that question whether the proposed resolution path is adequate should be accompanied by questions whether the justification for continued operation remains adequate. Absent such questions, opportunities to supplement/revise/enhance interim compensatory measures may be lost. These questions also seem relevant when debating the pros and cons of acting upon the available knowledge base or waiting for additional research to fill in more of the gaps.

The second topic involves the correction to the containment sump screen problem at the Davis-Besse nuclear plant. Among the problems that FirstEnergy had to correct prior to obtaining NRC approval to restart Davis-Besse was the containment sump problem. Many of the questions still being debated – such as debris generation, debris transport, debris loading, and impact on net positive suction head – were answered by FirstEnergy last year. The NRC reviewed the answers, found them acceptable, and allowed Davis-Besse to restart. We are not suggesting that the Davis-Besse fix is a template that all other PWRs must follow, but it seems to us that there are lessons learned at Davis-Besse that can better inform the GSI-191 dialogue. Davis-Besse seems remembered only for what it did wrong, not for what it may have done right.

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We hope these two topics will be explicitly included in the GSI-191 dialogue in the future. We feel their inclusion would constructively supplement the extensive dialogue to date.

Sincerely,

A handwritten signature in black ink that reads "David Lochbaum". The signature is written in a cursive style with a large, prominent initial "D".

David Lochbaum  
Nuclear Safety Engineer  
Washington Office