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Date: 5/30/02 8:41AM
Subject: Comments to GSI-191 Action Plan

Attached, my comments on subject. Hope you find them useful in some way.
Thanks, Lanson Rogers

CC: <Michal.Freedhoff@mail.house.gov>

Enclosure 3

Comments to GSI-191 Action Plan

by: Lanson Rogers (5/22/2002)

I reviewed the NRC's action plan for the resolution of GSI-191, and have the following comments:

- 1) The NRC has concluded, at this point, that ECCS sump blockage from coatings and other debris is a potential generic concern for PWR's. There are several reasons presented for this conclusion including recent events and reconsideration of old information under new criteria.
- 2) The NRC has placed the responsibility on the licensees to determine the probability of debris causing clogging of strainers and/or sumps and the resulting compromising of ECCS.
- 3) While the NRC has given "relief" to BWR's on the debris/ECCS issue, it is with certain assumptions and design changes in strainers and plant modifications (in my opinion, inappropriate compromises, which circumvent the root cause, i.e. coatings).
- 4) The NRC has essentially "signed off" on the new programs for qualification, application, and management of Level I coatings (resulting from GL 98-04) and that is a step in the right direction, but does nothing about the existing coatings.
- 5) The NRC has made assumptions (such as coating particle sizes, radiation exposure levels, etc.), and given credit for such things as Leak before Break (LBB) and allowing some ECCS pump cavitation, to reduce the immediate concern for safety.

In general, I believe the NRC has made much progress in the matter of Level I coatings and their (the coatings') past mismanagement and poor quality control. However, I believe they have over-simplified a very complex problem, and have "grouped" a wide variation of coating problems and potential problems into one "catch-all" evaluation program, so that it is more manageable. This works on paper, but not in real life, there are potentially dangerous coating situations which will fall outside the tested parameters. The information given to Los Alamos Labs for the Parametric Evaluation was flawed, in that the amounts of projected debris was far too low for realistic comparisons. Admittedly by the NRC, that "evaluation is ill suited for making a determination that sump blockage will prevent long term recirculation at a specific plant".

In conclusion, there are too many unanswered questions; there are too many vague assumptions; there is too much "new information" for a problem this old; and there are too many ifs, and what ifs?, for a safety issue of this magnitude. A more direct, more controllable, more conclusive direction is needed, and very badly and very quickly.

Several years ago, the technology for in-situ, or in place testing of existing coatings was developed specifically to address coatings of unknown, undocumented, aged, radiation-exposed, or combinations of these and other influences which could have an adverse effect on the coatings' performance during a LOCA/DBA accident. There are many advantages of in-situ testing. Most obviously, it will provide immediate and comprehensive results which can unquestionably predict the performance of the tested coated surfaces, real-time and as-existing. It uses the as-accumulated radiation dosage and therefore takes into consideration any physical damage or reduced physical strengths or other altered properties. Secondly, if the coating fails, or delaminates, the results will provide the necessary evidential debris to be used in ECCS blockage considerations. These two important properties (i.e. will the coating remain in place?, and, if not, how will it detach?) need to be determined by in-situ testing representative areas of plants in order to disposition GSI-191 using scientifically credible information.