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I recently became aware that the NRC is soliciting Public Comments on Documents Under Consideration To Establish the Technical Basis for New Performance-Based Emergency Core Cooling System Requirements and that Comments on these documents should be submitted by September 5, 2008. The NRC announced the availability of Research Information Letter (RIL) 0801, "Technical Basis for Revision of Embrittlement Criteria in 10CFR 50.46" and NUREG/CR-6967, "Cladding Embrittlement During Postulated Loss-of-Coolant Accidents," and that it is seeking public comment on these documents.

It is interesting that the NRC solicits Public Comments related to crud deposition as follows:

II. Performance-Based Testing Requirements

3. Crud deposits on the fuel cladding surface may affect fuel stored energy, fuel rod heat transfer, and cladding corrosion.

a. What role does plant chemistry and crud deposits play on these items?

b. How should normal and abnormal levels of crud deposits be addressed from a regulatory perspective?

This is interesting because the word *crud* is not in RIL 0801 and it appears only once in NUREG/CR-6967. Each document has no discussion that focuses on crud.

I have included the following slide along with several other entries in my prior submittal (Comment tracking no. 806f3102). In this comment I focus on several aspects that not discussed in the prior submittal.

The ultrasonic fuel cleaning equipment and process appears to have been evaluated by NRC site inspectors. However, there apparently has been no evaluation of the rather complex factors by specialists at the NRR or RES. It appears that the engineering staff and the sales forces of the equipment supplier have successfully bypassed the NRC's regulatory processes in implementing the application of ultrasonic fuel cleaning. The staff at the nuclear power reactor apparently evaluated the equipment and effected its acceptance by the NRC via the 50.59 Evaluation 00-17679.

The NRC inspectors are presumed to be qualified to review and approve the very specialized reports by EPRI and Dominion Engineering, Inc. The NRC's site inspectors, "... reviewed the following documents to evaluate the testing used to establish the safe operating conditions and the impact on the fuel, as well as to compare the conditions between the tests and the actual plant procedure."

SUNSI Review Complete
Template = ADM-013

E-AIDS = ADM-03
Call = P.M. Clifford (PUC3)

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION

1. Ultrasonic Fuel Cleaning

**From NRC Report 50-498/02-05
January 27, 2003**

a. Inspection Scope

On October 21, 2002, the inspectors observed portions of work activities in support of the ultrasonic fuel assembly cleaning activities in Unit 2. This was a first-time evolution using equipment which was specially designed for South Texas Project fuel. The inspectors reviewed Plant Operating Procedure OPOP08-FH-0013, "Ultrasonic Fuel Cleaning System," Revision 2, and the associated work package used to control the work. The inspectors also reviewed the following documents to evaluate the testing used to establish the safe operating conditions and the impact on the fuel, as well as to compare the conditions between the tests and the actual plant procedure:

- "South Texas Project Ultrasonic Fuel Cleaner Qualification Test Report R-3712-01-1," Revision 0, dated May 2002 by Dominion Engineering, Inc.
- Electric Power Research Institute Technical Report 1001095, "Fuel Pellet Integrity Assessment for the EPRI Ultrasonic Fuel Cleaning Device," dated December 2000.
- Electric Power Research Institute Technical Report 1003229, "Ultrasonic Fuel Cleaning Efficacy Campaign Results at Callaway"
- 50.59 Evaluation 00-17679

b. Findings

No findings of significance were identified.

It is also revealing that the NRC site inspectors had the authority to accept (essentially the authority to license) the equipment and procedures for this "... first-time evolution using equipment which was specifically designed for South Texas Project fuel.

Apparently there has been no analysis of potential accidents. At least there is no such analysis that is available to outsiders (the public).

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