

Mail Envelope Properties (3FA81C89.282 : 18 : 20163)

Subject: Staff Comments on Open Item 14.2.10-1
Creation Date: 11/04/2003 4:39PM
From: Joelle Starefos

Created By: JLS1@nrc.gov

| Recipients | Action | Date & Time |
|------------------------------------|------------------|-----------------------------|
| nrc.gov | | |
| owf2_po.OWFN_DO | Delivered | 11/04/03 04:39PM |
| FXT BC (Frank Talbot) | Opened | 11/04/03 04:39PM |
| JPS1 CC (John Segala) | Opened | 11/05/03 07:06AM |
| KXC BC (Kevin Coyne) | Opened | 11/04/03 04:40PM |
| westinghouse.com | | |
| vijukrp (Vijukrp@westinghouse.com) | Transferred | 11/04/03 04:39PM |
| Post Office | Delivered | Route |
| owf2_po.OWFN_DO | 11/04/03 04:39PM | nrc.gov westinghouse.com |

| Files | Size | Date & Time |
|---------------------------|------|------------------|
| Comments OI 14.2.10-1.wpd | 4043 | 11/04/03 04:35PM |
| MESSAGE | 1216 | 11/04/03 04:39PM |

Options

Auto Delete: No
Expiration Date: None
Notify Recipients: Yes
Priority: Standard
Reply Requested: No
Return Notification: None

Concealed Subject: No
Security: Standard

To Be Delivered: Immediate
Status Tracking: All Information

From: Joelle Starefos
To: Vijukrp@westinghouse.com
Date: 11/04/2003 4:39PM
Subject: Staff Comments on Open Item 14.2.10-1

Ron,
Please see attached comments on Open Item 14.2.10-1. Please contact me if you need further clarification or would like to discuss this with the Staff.
Thanks, Joelle

Joelle L. Starefos
Project Manager, AP1000
NRC/NRR/DRIP/RNRP
Mail Stop: OWFN 4D9A
(301) 415-8488
jls1@nrc.gov

CC: Segala, John

Staff Comments on DSER Open Item 14.2.10-1

In reviewing Revision 1 to the applicant's Open Item 14.2.10-1 response (dated July 29, 2003), the staff agrees that Westinghouse has provided an adequate basis for not performing low power pseudo-rod ejection testing (described in RG 1.68, Appendix A, Item 4.c) for the purposes of verifying calculational models. However, the applicant has not provided sufficient information to demonstrate that this testing is not needed to verify accident analysis assumptions. Specifically, the staff lacked sufficient information to conclude that the AP1000 test program was capable of identifying an appropriate spectrum of potential fuel loading errors in a manner consistent with accident analysis assumptions.

Please address how the following are considered with respect to fuel loading error identification in the AP1000 test program:

- a. The spectrum of mis-loading events analyzed. A sufficient number of fuel loading errors must be studied by the applicant and presented to show that the worst situation undetectable by incore instrumentation has been identified. The kinds of errors considered include loading of one or more assemblies into improper locations, and where physically possible, with incorrect orientation. For the AP1000 design, for burnable poison or fuel rods added to or removed from fuel assemblies, errors in these processes must be considered.
- b. Changes in the power distribution and increased local power density.
- c. The provisions made to search for loading errors after initial fuel loading.
- d. How the test acceptance criteria would verify that the requirements of General Design Criteria (GDC) 13 are met via plant test and operating procedures include a provision requiring reactor instrumentation be used to search for potential fuel loading errors after initial fuel loading. A principle objective of GDC 13 is to ensure the appropriate use of instrumentation (e.g., the incore instruments used to detect fuel loading errors after initial fuel loading).