

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK, ROOM PI-37 (EXT. 20079) TO ELIMINATE YOUR NAME FROM DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

TOTAL NUMBER OF COPIES REQUIRED: LTTR 22 ENCL

Α

D

D

S

٢,

κ ¥::

1

·

.

• • • • • • • • •





P.O. Box 968 • 3000 George Washington Way • Richland, Washington 99352-0968 • (509) 372-5000

June 12, 1991 G02-91-119

Docket No. 50-397

U.S. Nuclear Regulatory Commission Attn: Document Control Desk Washington, D.C. 20555

9106190300 910612

PDR D ADOCK 05000397

Gentlemen:

Subject: NUCLEAR PLANT NO. 2, OPERATING LICENSE NPF-21 CRACKING OF BWR JET PUMP HOLD DOWN BEAMS

Reference: Letter, G02-80-279, GD Bouchey to RL Tedesco, same subject, dated December 4, 1980

The purpose of this letter is to provide information regarding the missed VT-1 inspection of the jet pump hold down beams at WNP-2 during the sixth refueling outage. This inspection was initially performed during the fourth refueling outage with a reinspection frequency of two years as described in the WNP-2 10 year ISI Plan. This problem was noted internally via a Plant Problem Report (PER 291-499) with the following resolutions:

- 1) Perform the VT-1 inspections at the next refueling outage (R7).
- 2) Review responsibilities of implementation of the ISI Outage Plan with the ISI Program Leader, Task Leaders and ISI Engineer.
- 3) Include in the ISI Summary Report a description of the examination program, its status and commit to performing the VT-1 exam during the R7 outage.
- 4) Discuss the condition with the NRC Resident Inspector.

The root cause of this problem was an oversight by those individuals who prepared, reviewed and approved the Examination Plan for Inservice Visual Examinations of WNP-2 RPV Internals for Refueling Outage R6. The requirements for a visual examination of the jet pump beams appears in the 10 year ISI Plan for WNP-2 and that document serves as the reference point for the development of annual examination plans. The Supply System will rectify this problem by revising internal procedures before the next outage to more clearly delineate responsibilities of the three groups who are involved in the review/approval process.

Page Two CRACKING OF BWR JET PUMP HOLD DOWN BEAMS

100

Upon review of the technical requirements that led to specification of a VT-1 exam of these beams, it was determined that such exams are not required, even though they are specified in the 10 year ISI Plan. The initial requirement for examination of BWR jet pump hold down beams was provided in IE Bulletin 80-07, dated April 4, 1980 for plants in operation. At that time, both UT and VT exams were required. On June 9, 1980 GE's SIL-330 was issued recommending only a UT exam be performed. Later that year (December 4, 1980) the Supply System notified the NRC (Reference 1) that their Inconel X-750 jet pump beams were detensioned to a 25 kip preload to avoid the stress corrosion cracking concerns identified in IE Bulletin 80-07 and SIL-330. In December 1981, GE issued NEDE-24362-1 entitled "Improvements in Jet Pump Hold Down Beam Service Life". This document recommended UT only on beams in BWR/4-6 with original heat treatment and a 25 kip preload, the category in which WNP-2 fits. The last report on this issue was NUREG/CP 3052 entitled "Closeout of IE Bulletin 80-07: BWR Jet Pump Assembly Failure", issued in November 1984. This document repeated GE's December 1981 recommendation of UT only on the beams with the first exam at five years and subsequent exams at two year intervals thereafter. In all of the above GE reports, there were no requirements for VT-1 or VT-3 exams of the jet pump beams.

The Supply System's 10 year ISI Plan was developed during the same time frame (1980 - 1984) when the requirements were evolving for exam of jet pump beams. Therefore, what appears in the 10 year ISI Plan, with today's knowledge, appears to be conservative. The Supply System has indeed complied in full with the UT requirements by completing the first exam at R4 and again at R6. In addition, GE, who performed the exams during R4 and R6, also conducted a VT-3 type exam of the beams. No problems were noted in either case.

Finally, a recent assessment by GE (SASR-91-01, dated April 1991) entitled "Prioritization of BWR Internals and Attachments for Detailed Repair Development" concludes that the susceptibility for cracking and consequences of cracking are both low for BWR/4, 5 and 6. Reasons cited include prior steps taken to mitigate the chances for stress corrosion cracking, e.g., detensioning the preload on the beams from 30 kips to 25 kips.

In conclusion, the Supply System has determined that there are no technical concerns or safety issues associated with the missed VT-1 exam of its jet pump beams at WNP-2. In comparing R6 ISI results with the Annual ISI Plan commitments, as is normally done each outage, no other problems were detected. The administrative problems have been identified and internal steps are being taken to preclude reoccurrence of that type of problem on the ISI program.

Very truly yours,

IC Jourser

G. C. Sórensen, Manager Regulatory Programs

RAM/bk

cc: JB Martin - NRC RV NS Reynolds - Winston & Strawn PL Eng - NRC DL Williams - BPA/399 NRC Site Inspector - 901A

a in Marian 20 Not - Jareson

.