

May 25, 2000

MEMORANDUM TO: William H. Bateman, Chief
Materials and Chemical Engineering Branch
Division of Engineering

FROM: Keith R. Wichman, Chief */ral*
Component Integrity Section
Materials and Chemical Engineering Branch
Division of Engineering

SUBJECT: THE THIRD MEETING WITH THE INDUSTRY TO DISCUSS THE
ELIMINATION OF RPV NOZZLE INNER RADIUS INSPECTION

On May 9, 2000, a public meeting was held at the U.S. Nuclear Regulatory Commission (NRC) headquarters in Rockville, Maryland, with the participation of Materials and Chemical Engineering Branch (EMCB) staff, Probabilistic Safety Assessment Branch (SPSB) staff, and representatives from the Westinghouse Owners Group (WOG), Electric Power Research Institute (EPRI), and NUS Information Services. The purpose of the meeting was to discuss the issue on proposed elimination of the inner radius inspections for reactor pressure vessel (RPV) nozzles, pressurizer nozzles, and steam generator nozzles, and to solicit NRC comments on draft ASME Code Case N619 on the above subject. A list of the meeting attendees is provided in the attachment.

The first meeting, which was held on November 16, 1999, identified the need for (1.1) detailed information on RPV nozzles inspection history and the detection and sizing capability of the current technology in terms of equipment, personnel qualification, and procedures, (1.2) the justification for using 300 ksi $\sqrt{\text{in}}$ for the crack initiation fracture toughness, and (1.3) sufficient information in the probabilistic analysis. The second meeting concentrated on issue (1.1). The staff's comments from discussions in the second meeting are centered on the following: (2.1) the need to perform a cost benefit analysis to address the reduction in unnecessary burden, the reduction in radiation exposure (man-rems), and cost saving; (2.2) the need to tabulate all the inspections performed showing the specific plant, the type of nozzle, years of operation, coverage, and special features of the UT; and (2.3) the need to discuss visual (VT) examinations on RPV, pressurizer, and steam generator nozzles and its qualifications. This last meeting concentrated on issues (1.3), (2.2), and (2.3). A video tape was played in the meeting to show the visual examination performed on the RPV nozzles of Indian Point Unit 3. The resolution of this visual examination was good but had not been qualified to be either a VT-1 or an enhanced VT-1. Presentations covering the subjects mentioned above were then made by various attendees from industry.

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415-2708

The staff caucused at the end of the meeting and determined that UT inspections could be replaced by VT-1 for the proposed RPV nozzles inspection, on the basis that surveillance is maintained and VT-1, which is superior to the current requirement for VT-3, would ensure the same capability of the visual examination as that shown in the tape for the Indian Point Unit 3 inspection. The staff indicated it does not believe that the Code Case N-619 proposal to eliminate the inner radius UT examination without the monitoring provided by a high quality visual examination provides an acceptable level of safety. Further, the staff noted that the probabilistic analysis for the pressurizer and steam generator nozzles is not as complete as that for RPV nozzles and the visual inspection is difficult, especially for the steam generator nozzle. To address the staff's concerns, WOG will consider expanding the probabilistic analysis on pressurizer and steam generator nozzles, explore a better approach for alternative visual examinations for these nozzles, and address the cost benefit analysis in terms of man-rem reduction and cost saving.

Attachment: As stated

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Attachment: As stated

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NAME	SSheng:ss		TSullivan:ejs		KWichman:krw	
DATE	5/ 25 /00		5/25/00		5 / 25 /00	

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MEETING ATTENDEES

MAY 9, 2000

1. K. Wichman, NRR
2. T. Sullivan, NRR
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4. B. Elliot, NRR
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ATTACHMENT