

DEC 28 1987

Docket No. 50-416

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LICENSEE: System Energy Resources, Inc.

FACILITY: Grand Gulf Nuclear Station (GGNS), Unit 1

SUBJECT: SUMMARY OF OCTOBER 15, 1987 MEETING REGARDING INSERVICE
INSPECTION (ISI) OF THE REACTOR PRESSURE VESSEL

The purpose of the meeting was to discuss the licensee's request for ISI relief for certain reactor pressure vessel (RPV) welds. Enclosure 1 is a list of attendees at the meeting. Enclosure 2 is a handout prepared by the licensee to describe ISI requirements for RPV welds, equipment and techniques available for ISI and limitations to GGNS Unit 1 RPV. Enclosure 3 is a copy of Relief Requests I-00015 and I-00004.

The licensee had requested relief from certain RPV welds in Relief Request Nos. I-00004 and I-00015. The staff verbally informed the licensee that there was insufficient information provided to grant relief for Examination Category B-A welds in the RPV (Sheet 13 of Enclosure 2).

The licensee described the GGNS Unit 1 reactor pressure vessel and access for ISI (Sheet 2 of Enclosure 2). The BWR-6 has access to the 3'-3" annulus between the biological shield wall and the RPV. There is access to the annulus from the top and the bottom so that inspection personnel do not pass through the annulus at the core elevation, where radiation exposure is high. For the first refueling outage (RF01), the licensee built a man-lift for use during ISI. However, it was found to be cumbersome and would have resulted in more exposure to personnel than would the use of ladders and scaffolds. Therefore ladders and scaffolds were used during RF01.

The licensee described ASME Section XI Code requirements applicable to GGNS Unit 1 (Sheets 4 and 5 of Enclosure 2). The licensee pointed out that inspections of Category B-D welds cannot be deferred to the end of the 10-year inspection interval because of Note 5 in Table IWB-2500-1 which allows such deferral if examinations are conducted from the inside surface. However, BWRs are examined from the outside surface because of the cladding on the inside surface.

The licensee described equipment and techniques used in the examinations (Sheets 6-8 and 10 of Enclosure 2). Typical interferences with equipment associated with a RPV ISI for BWRs were discussed (Sheet 9 of Enclosure 2). Such interferences are due to radiused areas which cause separation of the transducer from the vessel surface (Sheet 38), obstructions such as the vessel skirt (Sheet 39), vessel nameplate (Sheet 40), nozzles in bottom head (Sheet 41) and insulation brackets (Sheet 43).

The licensee identified the Category B-A welds in Relief Request I-00015 (Enclosure 3, Sheets 1-34) and provided the following comments regarding these welds (Weld locations are shown on Sheet 11B of Enclosure 2).

- Seams DA, DB, DC and DD These welds in the bottom head are more than 50% inaccessible because of components installed in the bottom head (control rod drives and in core instruments).
- Seam AD This weld is 1.4% inaccessible because of the nameplate welded to the vessel.
- Seam AE This weld is near the vessel flange which prevents examination from the flange side.
- Seams BB and BC Cutouts were made in these vertical welds for two nozzles, which prevent examination of the weld for about 15 inches above and below the nozzle centerline.
- Seam BA A nozzle prevents complete examination. The licensee noted that Figure 11 in its submittal was incorrect and would be replaced.
- Seams BH, BJ and BK Nozzles prevent complete examination. The staff noted that percentage of weld that is inaccessible was not reported in the submittal and requested that it be provided.
- Seam AG Relief had been requested for this top head weld because of its proximity to the flange. However, further consideration indicates that this weld can be examined from the inside surface, because the head is not clad. Therefore, the request for relief from ISI requirements of this weld will be withdrawn.
- Seams BM, BN, BP AND BR These longitudinal welds intersect with the circumferential weld that joins the shell ring to the flange. Therefore, the portions of the welds near the flange cannot be fully examined from the flange side.
- Seams DH, DJ, DK, DM, DN and DP Relief for these welds in the top head was requested because they intersect the head-to-flange weld. However, as in the Seam AG weld, they can be examined from the inside surface of the head. Therefore, the request for relief from ISI requirements of these welds will be withdrawn.

Relief Request No. I-00004 is reproduced on Sheets 35-41 of Enclosure 3. This RPV shell-to-bottom-head weld cannot be examined by automated equipment now available because of the curvature of the bottom head. Radiation in this area is high and exposure of personnel for manual examination of all the weld would be very high. As an alternative, the licensee is proposing to examine that area which had three recordable indications in the preservice examination. The staff has no need for further information on Relief Request No. I-00004.

The staff requested that Relief Request I-00015 be revised to make the changes indicated above, i.e., delete requests for relief for top head welds and provide a corrected Figure 11. The staff's review will include the revised request.

/s/

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MEETING SUMMARY DISTRIBUTION

Docket No(s): 50-416
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