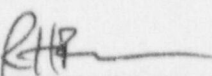
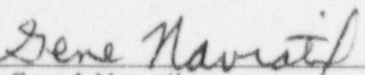


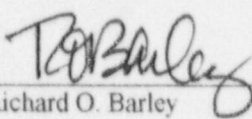
FORM NIS-1 OWNERS' DATA REPORT FOR INSERVICE INSPECTIONS

Revision 1

REPORT ON THE 1997 OUTAGE 12R
EDDY CURRENT EXAMINATIONS OF THE
TMI-1 OTSG TUBING

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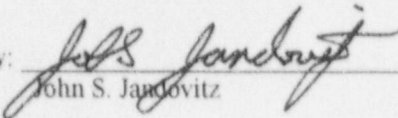
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Revision 1 Note- Corrected third paragraph of page 11, Section C.1 to reflect the correct number of ID IGA indications remaining in service. Revision 0 did not account for tubes removed from service by plugging. Remove Revision 0 pages 1 through 4 and replace with Revision 1 pages 1 through 4. Remove Revision 0 page 11 and replace with Revision 1 page 11.

C. DISPOSITION OF RESULTS

C.1 Inside Diameter IGA

Inside diameter (ID) IGA eddy current indications were dispositioned in accordance with the TMI-1 Technical Specifications, including GPUN's Technical Specification Change Request (TSCR) #268 and the resulting License Amendment No. 206. In accordance with the amendment, all ID IGA indications that were detected during the bobbin coil eddy current examinations were subsequently examined with MRPC probes. The length and width of the indications (as discerned by MRPC extent calls) were compared to the structural limits described in the amendment. In addition, the MRPC examinations were used to confirm that the indications were volumetric in geometry (-in order to prevent crack-like indications from remaining in service.) The surface of origin (i.e. inside surface) was also confirmed for all ID IGA indications. ID IGA indications with sufficient bobbin coil signal-to-noise ratio and bobbin voltage were also given a percent through wall estimate based on phase angle analysis.

ID IGA indications in expanded tubing $\geq 40\%$ through wall, or of axial and circumferential extent $>0.25''$ or $0.52''$, respectively, were removed from service by plugging in accordance with the Tech. Specs. In addition, as required by the Technical Specifications, the remaining ID IGA indications were verified for serviceability by in-situ pressure testing and a growth evaluation. [See Sections III.B.1 and III.C.1 of this report.]

Appendix II provides a list of tubes containing ID IGA indications in the freespan. The 3-letter code "VOL" was used to delineate ID IGA indications; the tube numbers of those tubes having ID IGA flaws have been placed in **bold** print. [Note that some of the indications listed in the Appendices were removed from service as a result of the tube plugging listed in Table I-1.] At the end of the outage 793 ID IGA indications in 327 OTSG "A" tubes, and 78 ID IGA indications in 22 OTSG "B" tubes, remain in service in the TMI-1 generators.

C.2 Kinetic Expansion Region

TMI-1's OTSGs have kinetic expansions within the generators' upper tubesheets. During the 12R Outage, a $>21\%$ sample of the tubes with 17" kinetic expansions and 100% of the tubes with 22" kinetic expansions were inspected with a rotating probe (i.e. MRPC). The specific region examined is further defined in Section III, A of this report.

Analysis Process

Each tube inspected with the rotating probe in the kinetic expansion region was analyzed to determine if the tube was a structural and/or leakage concern. There are five factors which were used in addressing the structural and leakage issues associated with any indication that was found. These are:

- 1) the axial and/or circumferential extent of the indication,
- 2) the estimated depth of the indication,
- 3) the radial distance of the tube from the center of the tube bundle,
- 4) whether the kinetic expansion was 17" or 22" in length, and
- 5) the minimum required axial kinetic expansion length (AKEL_{min}) to ensure structural integrity in the event of a MSLB.