

Indian Point Unit 2

- W 4-loop plant with Model 44 SGs, Alloy 600 Tubes
 - Replacement SGs with Alloy 600 tubes are on site.
- Received OL in Sept 73
- SG Tube Degradation Summary
 - denting (severe, including hourglassing)
 - pitting
 - ODSCC at support plate intersections
 - ODSCC in sludge pile
 - ODSCC in TS crevice
 - PWSCC at roll transitions
 - PWSCC in U-bends
 - Broken plugs (explosive type)
- SGs last inspected in Spring 1997
 - 100% of tubes inspected full length
 - insitu pressure testing of 6 tubes, including axial indication above TS
 - 173 tubes plugged
- Total plugging to date:
 - SG 21 - 313 tubes (9.6%)
 - SG 22 - 405 tubes (12.4%)
 - SG 23 - 301 tubes (9.2%)
 - SG 24 - 306 tubes (9.4%)
- IP-2 restart from refueling/inspection outage on June 13, 1997
- Oct 27, 1997 to August 5, 1998: maintenance outage
- Tech Specs require inspections every 24 calendar months. Thus, reinspection of the Sgs was required by June 1999.

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- Licensee requested and staff approved extension of the required inspection interval to June 2, 2000.
 - By June 2, 2000, IP-2 will have accumulated 26 calendar operating months or 21.5 EFPM
 - Basis:
 - layup conditions were maintained during maintenance outage consistent with the EPRI guidelines.
 - During operation, secondary water chemistry was maintained in accordance with EPRI guidelines with no significant chemistry transients reported.
 - Operational assessment was performed by licensee for each degradation mechanism. The results indicated that tube integrity would be maintained through the end of the current fuel cycle (June 2, 2000).
 - Multiple methods available for the early detection of SG leakage, including N-16 monitors. Administrative leakage limits in place which are more restrictive than TS LCO limits.
- IP-2 has had a very low level of primary to secondary leakage (slightly above 1 gpd total, all SGs) in three of the four SGs since October 1999. N-16 monitor indicated that leakage in SG 24 increased slightly to 1.5 gpd on Feb 5, 2000. *No information currently available beyond that date.*
- SGTR history summary is attached.