

N281. Paving the Way for Full System Decontamination with the Fuel In

The Indian Point 2 (IP2) full-system decontamination will be done with the fuel removed. Wastinghouse developed a program which involves the chemical decontamination of actual fuel assemblies in a specialized canister with the same dilute chemical solvent parameters as were employed in the full-RCS (reactor coolant system) qualification program.

To take account of current generation fuel and future generation fuel designs, one assembly of Vantage 5 and one assembly of Vantage-Plus type were exposed to CAN-DEREM solvents and one assembly each was exposed to LOMI solvents.

The two Vantage-Plus and twice-burned Vantage 5 assemblies were decontaminated and extensive TV visual and eddy current cladding oxide thickness inspections were performed before and after exposure to solvents with the same inspections planned after full cycle operation. Preliminary data shows no significant cladding corrosion performance differences between any of the assemblies. High-magnification TV visual examination of the grids, grid springs, and assembly nozzles, and hold downsprings show no adverse effects.

A number of decontamination process application anomalies were observed. These anomalies resulted in recommendations for further study.

Taken from, "Paving the Way for Full System Decon with the Fuel In," by R.S. Miller, P.E. Miller and D.R. Peffer, EPRI Radiation Control News, No. 18, August 1993, p.3. (Electric Power Research Institute, 3412 Hillview Avenue, Palo Alto, CA 94303)