Decontamination of BWR Systems Using NP/LOMI Preoxidation Steps

"The use of a nitric or alkaline permanganate preoxidation step to remove the chromium-rich films that form in BWRs operating under hydrogen water chemistry helped achieve good decontamination factors at the Hatch BWRs." (Dennis Zabala and Gregory Riner, Southern Nuclear Operating Company/Georgia Power Company.)

- Decontamination of the reactor recirculation system, the reactor water cleanup system, and the fuel pool system at Hatch 1 and the fuel pool system at Hatch 2 was estimated to have saved ~120 person-rem of personnel exposure during the 1996 refueling outage. Projected subsequent savings are estimated to be 95 person-rem at the 1997 outage and 35 person-rem at the 1999 outage.

- Decontamination of the reactor recirculating system (RRS) Mat Brunswick Unit 2 in early 1996 using the four-step NP/LOMI process yielded a decontamination factor of 50 for the RRS piping and removed 280 curie primary Co-60.