

N283. Laying the Foundations for the Field Implementation of Full System Decontamination

Pacific Nuclear has turnkey responsibility for all engineering, equipment, construction, processing and waste processing services during the full reactor coolant system (RCS) decontamination at Indian Point 2 (IP2).

Installation of the decon equipment and tie-in to the plant RCA will require engineering and field implementation of several plant modifications.

The IP2 effort requires engineering and fabrication of decontamination process equipment, ion-exchange and resin storage capacity, a transfer module for chemical mix and injection and spent resin processing. A computerized control system for remote operation is also being designed. A pre-shipment test program will be conducted to simulate key decon and waste processing operations. Once the laydown areas and other site preparations are completed, the system will be installed and tested at IP2.

After the outage has started and fuel has been removed, a tie-in spool with a flow control valve in the RHR system will be installed. Flow will be diverted through this temporary spool piece to the decon system and then returned through the same spool piece.

A 6-day schedule for implementation of the decon process has been established. CAN-DEREM and AP (access permit) alternated during the decon process.

Spent resin will be dried and stored at a temporary on-site storage location. High integrity containers will be supplied with optional mixing blades for solidifying if required.

Plant restoration will be performed to support the plant outage schedule. Restoration will include replacement/removal of the temporary modifications. The decon process equipment will be demobilized after resin processing has been completed.

A final report will be prepared and issued describing the result of the decontamination process.

Taken from, "Laying the Foundations for the Field Implementation," by John Sheffield, EPRI Radiation Control News, No. 18, August 1993, p.2. (Electric Power Research Institute, 3412 Hillview Avenue, Palo Alto, CA 94303).