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CHEMICAL DECON OF SYSTEMS: RESULTS AND PROBLEMS

Keywords: CONTAMINATION REMOVAL; FULL SYSTEM DECONTAMINATION; SUB-SYSTEM DECONTAMINATION

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Objectives:

- 1) Summarize the work done to date on the National Demonstration of a full system decontamination at Indian Point 2, scheduled for 1995.
- 2) Summarize the fuel decontamination qualification program at the V.C. Summer site.
- 3) Summarize the results of the Fuel-In Full RCS Chemical Decontamination Seminar conducted on July 1993.
- 4) Present recent Westinghouse subsystem decontamination experience.

Comments:

- 1) Phase 2 - Decon Process Qualification and Detailed Engineering Evaluation - of the National FSD Demonstration Program was completed in Jan. 1991. Waste Certification Program completed by Chem Nuclear Systems in 1993. Program is on schedule for FSD in 1995.
- 2) Fuel Decon Qualification Program was completed at V.C. Summer in 1993. It was found that the post-decon fuel cladding corrosion behavior was unaffected by decontamination processes.
- 3) All attending utilities at the Fuel-In Full RCS Chemical Decon Seminar expressed interest in establishing a comprehensive program leading to qualification of fuel-in FSD. Westinghouse will elicit additional support and report back.
- 4) Westinghouse has conducted 18 sub-system decon applications at 11 different plants from 8/91 to 3/93. Fourteen of the applications were performed at BWRs, the rest at PWRs. The processes used include LOMI, CAN-DEREM, CANDECON and CITROX.

Remarks/Potential for dose limitation: A successful FSD will have significant impact on efforts to reduce worker radiation field exposure. Westinghouse, in conjunction with several utilities and other organizations, are on schedule for a 1995 FSD demonstration.

References: Miller, P. and Schwartz, C., "Chemical Decon of Systems: Results and Problems," 1993 *Radiation Exposure Management Seminar*, Westinghouse, Pittsburgh, Pennsylvania, 1993.

Duration: from: 19 to: 1993

Funding: N/A

Status: In progress

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