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UTILITY CHEMICAL DECONTAMINATION EXPERIENCE AT COMMONWEALTH EDISON'S BOILING WATER REACTORS

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CHEMICAL DECONTAMINATION; DECOMMISSIONING; DOSE; DOSE
RATE; HYDROGEN WATER CHEMISTRY

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Objectives: To investigate the effect of various chemical decontamination processes which are new to plant experience for Commonwealth Edison BWRs.

Comments: Recently Commonwealth Edison performed subsystem chemical decontamination at LaSalle-2, Quaid Cities-2, and Dresden-2 to reduce radiation fields, all in 1995. These decontaminations featured the use of Citrox for the first time at all three of ComEd's BWRs. The Dresden decontamination also featured the use of dilute Nitric Permanganate (NP) during the oxidation steps on the Reactor Water Cleanup piping. Alkaline Permanganate (AP) had been the accepted oxidizing step for many year at ComEd but artifact testing showed that NP would give higher Decontamination Factors.

Remarks: Dresden has been on Hydrogen Addition since 1983. This may be the reason that the NP oxidizing step showed better results than AP.

References: Hester, W.L., "Recent Utility Chemical Decontamination Experience at Commonwealth Edison's BWRs" Proceedings, EPRI Radiation Field Control and Chemical Decontamination Seminar, Tampa, Florida, November 1995, available from EPRI Distribution Center, P.O. Box 23205, Pleasant Hill, CA 94523, Phone: (501)934-4212.

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