

N103. Full System Decontamination Workshop Planned

EPRI is organizing a workshop to discuss full-system decontamination (FSD) qualification result results and determine the course of future FSD work. The workshop will be held June 4-5, 1991, at the NDE Center in Charlotte, North Carolina.

U.S. nuclear plants have carried out over 50 chemical decontaminations, including recirculation piping, steam generators, reactor water cleanup systems, pumps, and heat exchangers. Although complete reactor systems at pressure tube reactors are routinely decontaminated with modern dilute chemical processes, such an FSD has yet to be performed at any domestic LWR plant. Following earlier feasibility studies, two major programs, BWR and PWR, commenced in 1988 to qualify FSD and prepare safety reports. These studies will be completed in the first half of 1991, and there appears to be no unresolved safety issues.

The feasibility studies showed that FSD would be far more effective in reducing radiation fields than part-system decontamination, mainly because radiation hot-spots not included in subsystem decontamination would be cleaned and because use of the reactor coolant pumps would ensure more uniform chemical distribution. As a result, dose savings would be three to five times greater than for subsystem decontamination during major outage work, such as steam generator replacement or core internals inspection/repair. The cost of each avoided rem will be \$5,000-\$15,000, which is high on the basis of traditional estimates of \$5,000/rem, but low for key workers who may be close to their exposure limits. A national demonstration program through an EPRI-tailored collaboration program is being proposed to facilitate the technology introduction to the U.S. utility industry.

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