

## **N40. Update On Full-System LWR Decontamination**

Chemical decontamination of the complete BWR or PWR coolant system is now technically and financially feasible for major outage work. Potential advantages of decontaminating the full coolant system rather than a subsystem include lower residual radiation fields, reduced outage time, and lower recontamination rates. An EPRI study which developed a method for assessing the site-specific technical feasibility and cost savings for full-system decontamination reached the following conclusions:

- Full system decontamination of BWRs and PWRs is technically feasible, upon consideration of engineering application, process chemistry, and radioactive waste (radwaste) management requirements.
- Full-system decontamination of BWRs is cost-beneficial for fuel-in and fuel-out cases if applied during major outage work. Including the fuel in decontamination increases the benefit but also raises radwaste disposal cost. In both cases, man-rem cost to avoid radiation exposure was about the same (\$740-\$1440).
- Full system decontamination of PWRs is cost-beneficial for fuel-in and fuel-out cases in major outage work. The fuel-in case had the lowest man-rem cost to avoid radiation exposure (\$1490-\$1080/man-rem).

*For more, see C.J. Wood (EPRI Project Manager), "Feasibility of Full-System LWR Decontamination," EPRI NP-5900, July 1988. (Available from Research Reports Center, Box 50490, Palo Alto, CA 94303.)*