

**N3425. EVALUATION OF PWR RADIATION FIELDS: 1991-1996**

The data compiled in this report permit utility engineers to compare dose rates at the units they operate with rates at other units designed by the largest nuclear steam supply vendor. Utility personnel can use this information to assess the potential benefits of implementing various measures that have proved effective in reducing dose rates. Implementation of EPRI-recommended radiation field control measures will lower personnel exposure by about a factor of two. Although elevated lithium results in the lowest radiation fields, concerns about operation above 2.2 ppm lithium for a significant time result in modified chemistry being the prevailing operating regime. EPRI plans to address this issue by implementing a program to reassess the benefits of using enriched boric acid. EPRI work currently being implemented in field applications, such as cobalt-free NOREM™ hardfacing alloys, chromium coatings, zinc injection, and advanced decontamination technology, will provide additional dose reduction opportunities for PWRs.

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