

### **N189. Depleted Zinc Evaluation At FitzPatrick**

New York Power Authority's FitzPatrick plant will be the first BWR in the United States to evaluate depleted zinc-64 when it returns to power after its current outage. This is part of a Tailored Collaboration project with EPRI. The overall plan calls for evaluating depleted zinc in several plants under different conditions: hydrogen and normal water chemistry, and zinc and previously non-zinc plants. Also, the cost-effectiveness of various strategies will be evaluated, including the use of depleted zinc only in the second half of a cycle and the use of different concentrations of zinc-64. Leibstat in Switzerland has joined the program and discussions are in progress with two or three other plants to complete the lineup.

The overall object is to define the optimum application for zinc injection. The main adverse effect of zinc is the formation of zinc-65; use of depleted zinc-64 will undoubtedly avoid activation to zinc-65. However, depleted zinc-64 is more expensive than gold and the long-term cost-effectiveness must be determined.

*Taken from "Depleted Zinc Evaluation at FitzPatrick," Howard Ocken, Radiation Control News, No. 13, March 1992 (EPRI, 3412 Hillview Avenue, Palo Alto, CA 94303, or contact Howard Ocken, (415) 855-2055).*