

## **EXERPT FROM ALARA NOTES #8:**

### **Editors:**

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### **Decontamination of Reactor Cavity using Isolock-300**

**Description:** Reactor cavity decontamination using immersible coating, Isolock 300.

**Comments:** The application and removal of coating required a total of 148 hours to complete. Radiological surveys performed after the removal of the coating indicated contamination levels of 10,000 dpm/100 cm<sup>2</sup> and 50,000 dpm/100 cm<sup>2</sup> on the walls and floors, respectively. The cavity decontamination was completed with 65 mman-Sv of exposure; a reduction of approximately 38% as compared to the previous outage. The reactor head work was completed with 33.5 mman-Sv of exposure, a 20% reduction as compared to the previous outage. The man-Sv savings on the reactor head work was attributed to an increase in worker efficiency due to a decline in the protective clothing (plastics) and respiratory protection required to perform the work. The total personnel contaminations decreased from 264 to 120 as compared to the previous outage, and the calculated dose equivalent to the skin as a result of these contaminations was down from 312 mSv to 120 mSv.

**Recommendations:** A post-outage critique identified several recommendations to be considered prior to the next refueling outage. An increase in the work crew to six is suggested for refueling outage, bringing the total to twenty-six (26) individuals, including two foremen. The increase in the work crew should decrease the time required to mask the cavity and remove the coating. Increased communication between the Health Physics Staff and Planning and Scheduling is needed to specify delays for cure-time. The coating cure time is a function of the cavity wall temperature and relative humidity; therefore, it is difficult to schedule a fixed time. A recommended schedule allowance of twenty (20) hours will be used in the future. Access to the polar crane directly affects the evolution of the masking, painting, and stripping. For this reason, a Cav-Span crane system has been developed and will accelerate the masking and stripping evolutions of the job.

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**Nine Mile Point 1: BWR-2 MK1 U.S.A.**