

**BNL ALARA CENTER****Processes and Practices Related to Occupational Dose**

ID: 48

**SEMI-AUTOMATIC BWR CRD OVERHAULING AND INSPECTION DEVICE**

**Keywords:** SEMI-AUTOMATIC CRD OVERHAULING; OPERATIONAL AND MAINTENANCE TECHNIQUES; CONTROL ROD; MAINTENANCE; IMPROVED TOOLING AND DEVICES

**Description:**

Description: Hitachi offers a semi-automatic control rod drive disassembly and cleaning system. The systems provides underwater disassembly and cleaning using high-pressure water. Work can be done by three people and Hitachi claims reduction of one-third in working time, 40% in manpower, and between 50-70% in radiation exposure. Since this job typically contributes about 20 person-rem collective exposure per year, significant dose savings are possible. Toshiba also offers an improved system with similar savings. The Hope Creek plant is planning to install a remote handling device. In addition, plans have been made for installation of semi-automatic CRD disassembly and cleaning system at the Hope Creek plant.

**References and Selected Abstracts:**

1. Baum, J., et. al., "Proceedings of an International Workshop on Historic Dose Experience and Dose Radiation (ALARA) at Nuclear Power Plants," NUREG/CP-0066, June 1985, p. 97-113. (Available from National Technical Information Service, Springfield, VA 22161.)