

**FLUOR HANFORD ALARA* CENTER “SHOWCASES” TOOLS,
EQUIPMENT, AND WORK PRACTICES USED DURING D&D** WORK**

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ABSTRACT

In 1996, Fluor established the ALARA Center at the Department of Energy's (DOE) Hanford Site in southeastern Washington State to “showcase” tools and equipment used to support the principle of As Low As Reasonably Achievable (ALARA). Much of the work was being done by workers who used hand tools while dressed in multiple sets of protective clothing. The Center was opened so that workers could see and handle the latest tools and equipment and have experienced personnel to help them plan work evolutions. Experienced personnel who were familiar with the ALARA concept as well as new technology were assigned to the Center. In addition, vendors were asked to display their products so the Hanford workers could experience state-of-the-art tools and equipment for doing work in a radiological environment.

Since opening, the ALARA Center has evolved into a tremendous resource – not only for Hanford, but also most of the entire DOE Complex, as well as contractors around the world. Classes in fundamental radiological work practices are presented when the facilities recognize a need. The ALARA Center has a variety of products that range from simple hand tools to robots, video scopes, and gamma cameras. The tools and equipment on display are used in these training classes to train the workers on the work practices to operate them, take them apart to determine how they work and decide how to maintain them. Many facilities invite the ALARA Center staff to attend planning meetings at the facilities and participate in job walk-downs. Generally, ALARA Center personnel provide several options on how the radiological work can be accomplished safely and recommend the option that is ALARA and safest for the workers.

A few years ago, it became obvious that the work scope was changing and many facilities had a new job to clean out the facilities and demolish them. The ALARA Center began contacting vendors who had tools and equipment that could be used for D&D work. Today, the ALARA Center occupies 4,000 square feet (372 m²) in a building centrally located in the 586- square mile Hanford Reservation. Other DOE sites have set up their own ALARA Centers because of the success at Hanford.

*ALARA – As Low As Reasonably Achievable

**D&D – Decontamination, Deactivation, Decommissioning, and Demolition

INTRODUCTION

In 1943, the U.S. Government acquired a 586- square mile area in the southeast portion of the State of Washington, to construct a large industrial facility to produce plutonium for the nation's defense. Reactor plants and processing facilities were constructed, plutonium was produced and used in the atomic bombs dropped on Japan in 1945. The Cold War followed, and eventually ended in 1989. The mission at Hanford changed when the last reactor plant was shut down and work was started to place all the facilities in a safe condition and begin deactivation and decommissioning (D&D). These facilities consisted of old







CONCLUSION

Over the last ten years there has been a significant improvement in how radiological work is accomplished at Hanford. Many personnel who plan and execute radiological work rely on the ALARA Center staff for help when they encounter new or unique work situations. The ALARA Center has become a resource to the nuclear industry and routinely helps contractors at other DOE Sites, power reactors, DOD sites, and sites in England, Europe and Indonesia. Other ALARA Centers are located at the Savannah River Site and Los Alamos National Lab.

The Fluor Hanford ALARA Center website is www.hanford.gov/rl/?page=974&parent=973

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