

SRS ALARA CENTER (AC) MAY 2005 ACTIVITY REPORT

ASSISTANCE, DEMONSTRATIONS, RESEARCH, AND TOURS

Be looking for the new and improved SRS ALARA Center web site in the near future. Current information is available at www.srs.gov/general/enviro/rosc/index.html. The FLUOR Hanford ALARA Center website is available at www.hanford.gov/alara/.

Personnel from the ALARA Center continue to be involved with planned and systemic actions to alleviate heat stress in the upcoming summer work. This includes work with Closure Business Unit (including interaction with the morning call) and work with in the Personal Protective Equipment Advisory Group.

The use of disposable PPE in place of launderables continues to be explored in “select” opportunities where there exist a waste or cost savings.

The ALARA Center is working with Nuclear Filter Technology (www.nuclearfilter.com) to provide a model 1HF004 HEPA filter for a one inch line in DWPF.

Personnel from the ALARA Center provided assistance to the Tritium Extraction Facility in the design of a shielded booth for a personal contamination monitor.

The ALARA Center is working with G/O CORP (www.gocorp.com) to modify their strobe light to include a motion detector to only illuminate when personnel are in the area.

The ALARA Center has worked with HAGEMEYER (SRS Strategic Supplier) to provide two items. One, a pebble finish skid proof step off pad with and without a rubber backed matting. The rubber back matting is necessary for outdoor use. And two, Soft Knees disposable adhesive knee pads to be used to increase worker comfort and decrease potential to tear a plastic suit.

The ALARA Center provided information regarding a fixative for use in a fume hood contaminated with beryllium.

The ALARA Center provided the Laboratory with a NFS (www.nfsrps.com) drum hood to be used with a HEPA MAC-21 to control air flow when working with 55 gallon drums containing radioactive material. A MAC-21 was also provided to D&D.

The ALARA Center provided DURATECH in Oak Ridge, TN with information concerning the Jenkins Comfort System Eliminator Cooling vest (www.jenkinscomfort.com).

The use of casks as shielding for high radiation scrap is being considered in Solid Waste. The casks are constructed of lead encased in stainless steel.

Interest in using the Excel Modular Scaffolding (www.excel Scaffold.com/page3.html) on display in the ALARA Center has been expressed by D&D. Excel scaffolding is quicker and easier to assemble than traditional tube lock scaffolding.

The ALARA Center provided information on other shielding materials to Solid Waste. This included the use of Bar-Ray Products, namely LEADX LEAD VINYL sheeting (www.bar-ray.com/pplbvc.html).

DOE has information that can be found on the GRAYLIT NETWORK (www.osti.gov/graylit/). A copy of the Decommissioning Handbook, DOE/EM-0142P, dated March 1994, can be found at the following address www.osti.gov/bridge/servlets/purl/10157678-UQL4E/webviewable/1015678.pdf.

NEW VENDOR INFORMATION AND VISITS

NILFISK visited the ALARA Center. The purpose was to audit the inventory of supplies and introduce their new sales representative, Andy Doyle.

ALARA

The SRS ALARA Workshop was held in May as scheduled. The focus of the workshop (see attached photograph) is education and information based on applied ALARA programs. Subject matter experts from SRS and other DOE locations gave presentations on the first days and an onsite tour of SRS was conducted on the last day. In all, over twenty vendors displayed their products and proposed solutions to problems and ways to keep exposures as low as reasonably achievable. The workshop will be hosted on an alternating year basis with Hanford and Los Alamos. Information on the ALARA Workshop including master presenter schedule, all abstracts, 33 slide show presentations, and those papers submitted will soon be available on the ALARA Center web site.

The Site ALARA Committee meeting was held as scheduled. Agenda items included Radiological Improvement Strategic Plan initiatives, an approved goal reduction for Solid Waste and Wackenhut, an overview of new Electronic Radiation Survey Log Sheet software and a review of the ALARA Workshop.

PERIODIC/TOPICAL VENDOR DEMONSTRATIONS IN THE FUTURE

- DESCO Floor Shaving in July
- NILFISK CFM3707 vacuum system in July

LESSONS LEARNED FROM ROCKY FLATS

Rocky Flats was supposed to have the Site shutdown by the end of 2006 but are on track to complete the work by October, 2005. Records have revealed that a waste shipment was sent off site on an average of one every seven minutes in 2004. Much of the RAD waste was shipped by railroad to the ENVIROCARE Site in Utah. Using the railroad saved 3,000 shipments by truck. The following is a partial "grocery" list of the tools and ALARA protective measures:

- Controlled use of explosives eliminated hundreds of hours of manual demolition on buildings and stacks.
- They real-time monitored airborne radionuclide concentrations inside worker's supplied air suits.
- Large tanks were removed through holes cut into buildings to save many hours of size-reduction work.
- Tanks were shipped as low-level surface contaminated object (SCO) waste
- Thousands of square feet of concrete surface area were decontaminated using concrete shaving equipment, a BROKK remote-controlled demolition machine to knock down walls and diamond wire technology to cut thick, reinforced concrete walls.
- Workers designed extension tools to remove inaccessible tracks, a forklift to peel off stainless steel flooring, and a complex metal box used to hoist heavy equipment.
- Fixatives were used to seal contamination and strict contamination controls were used during demolition.
- Implemented Radio Frequency Identification tags at the weight scales to expedite identification and information processing of waste shipments.
- Used hydro lasing technology to decontaminate large floor and wall areas.

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