

From: Eby, Jerald L

Sent: Monday, December 19, 2005 7:12 AM

Subject: ALARA Center Activities for the week of December 12, 2005

Visit our website: www.hanford.gov/rl/?page=974&parent=973/

1. A Plant Engineer from WRAP visited the Center looking for information on glove bags and HEPA filtered ventilation for glove bags. WRAP is working on 85 gallon over packs that have been used for containing and in venting the 55 gallon drum inside. WRAP has to remove the stem tool, used for venting, between the 85 and 55 gallon drum lids. The Center suggested using a modified dog house glove bag from Lancs Industries, web site: www.lancsindustries.com. The vacuum cleaner suggested was a GM-80 Nilfisk, web site: www.pa.nilfisk-advance.com using the by-pass motor and the speed controller to adjust flow of the vacuum cleaner. The Center also gave him a Trumf Nibbler, web site: www.trumpf.com. They are looking for a tool to easily cut out a portion of the 55 gallon drum lid. The Center gave the engineer a 40-50 cfm glove bag HEPA filter for use on a drum glove bag at WRAP. The Center had received a number of 40-50 cfm HEPA filters from a site project that was going to excess them.

2. CH2M Hill Health Physicists visited the Center looking for a overshoe or galoshes to be worn in the farms, with a non-skid surface on the bottom. The Center showed a number of shoes covers and booties from Lancs, I.S.A Corp, G/O Corp, Frahm Safety, Marynn Safety and Grainger Products. The Center gave the H.P. contact point for the various vendor. Grainger was at the Center during H.P.'s visit and is going to return a list a possible products for the CH2M request.

Health Physicist from CH2M stopped by and discussed upcoming job they have in a Tank Farms pit. They have to roughen the surface on the pit floor and contamination levels are very high. Plan is to copy a lesson learned from FFS who did a similar job in another pit. The pit drain will be plugged and 3" of water added to the pit. A Desco Roto-Peen FX Surface tool will be modified with a long handle, the air motor will be rotated to an upright position, plastic sleeving will be installed around the air exhaust, and the vacuum cleaner connection taped over. Plan is to operate the tool submerged in the 3" of water without a vacuum cleaner hose attached. Lessons learned from previous times reveals that the high levels of contamination and paint chips are trapped in the water and don't become airborne as the roto-flex spins in the water. The long handle allows workers to operate the tool and move it around from above the pit. Workers will practice on the clean mockup pit at HAMMER using the tool on display at the ALARA Center. They will purchase their own tool for the actual job.

3. Forwarded info on a possible fogging machine that could apply a fixative to personnel exiting highly contaminated rooms at PFP. Currently, workers are sprayed with hair spray before undressing to "fix" contamination. See website at <http://www.dynafog.com/home.html> We are looking for a fixative that settles on the worker as an atomized mist, rather than a spray.

4. The Center received a call from a RadCon first line supervisor and a operation person at the Los Alamos National Lab, looking for information on HEPA Filtered ventilation for core drilling through a concrete floor and removal of contaminated dirt during a sampling process. The Center suggested a GM-80 from Nilfisk, with the speed controller. The Center also suggested placing in line collectors (rock stoppers) to collect heavy material and in line filters (made of pre-filter material) to collect the lighter material prior to the vacuum cleaners. Discussed the design of the in line filter and collector and a couple of commercial suppliers of the items. Suggested, Los Alamos build their own units for the project they are planning.

FOR YOUR INFORMATION

1. An engineer at the Savannah River Site did some test measurements on the effect of protective clothing hoods on the ability of workers to hear sounds and alarms. Read this report at <http://sti.srs.gov/fulltext/ms9900355/ms9900355.html> Results revealed:

- "The protective clothing (PPC) tested in this project evidenced significant insertion loss above 1000 Hz. While the PPC has little effectiveness as a hearing protection device in terms of Noise Reduction Rating (NRR), its strong frequency-dependent insertion loss may significantly alter the perceived level and spectral content of speech and alarms, as well as their audibility."

2. As we do more and more D&D work that requires workers to wear respiratory equipment and multiple hoods, we need to remember that the sounds the worker hears may be muffled and hard to understand. If you are not providing the worker with a communication system made for work in multiple sets of protective clothing you may want to consider communications equipment from a vendor such as Cobalt Audio/Visual at www.cobaltav.com. They specialize in communication equipment worn under protective clothing.

3. During D&D planning one of the choices planners could make is to fill piping and components with expandable foam rather than size reducing using some other method. The report at <http://www.osti.gov/bridge/servlets/purl/325792-MHz9JO/webviewable/325792.pdf> compares the use of foam to cutting up D&D debris using an oxy-acetylene cutting torch. If you're considering the use of foam, you should read this report.

4. DOE Standard on Specification of HEPA Filters used by DOE Contractors has just been revised. Read it at <http://www.eh.doe.gov/techstds/standard/std3020/doe-std-3020-2005.pdf>

5. Received copy of the December issue of "Concrete Openings" magazine. It has an article on "Wire Sawing at the Core of Historic Decommissioning Project". The article describes how diamond wire was used to cut up the 2,600 ton reactor vessel at Fort St. Vrain Power Station. The magazine should appear on their website in a few days at <http://www.cstda.org/> If cutting concrete is in your future, you can subscribe to the free magazine on their website or contact the ALARA Center.

VENDORS CORNER

1. 3M personnel, website: www.mmm.com , were at the Center. They were accompanied by a representative from Safety and Supply, website: www.safetyandsupply.com . One person was a Training Executive from 3M headquarters, here to discuss training programs on respiratory issue that 3M has available. While here at the Center, a discussion with 3M continued on finding an applicator to spray on a fixative onto PPE on egress from some highly contaminated zones at PFP. This is a continuation of the demo held a couple of week back at the Center.

2. Grainger, Inc. and vendor from Fluke instruments visited the Center. See comments in item #2 above.

3. Sponsored visit by salesmen from Novatek. He left brochures and CDs of his shrouded tooling, HEPA filtered vacuum cleaners and portable vent units. We are especially interested in the Novatek two-speed portable vent unit that draws 2,000 CFM and only costs about \$600. This would work well on many D&D projects and could be thrown away as rad waste when the job is complete.



Contact Rocky Ventitelli at (610) 363-9620 or check their website at www.novatekcorporation.com. They will be displaying several of their tools at the ALARA Center in February and will have a booth at the Health & Safety Expo in May.

Jerry Eby

ALARA Center of Technology
509-372-8961 fax 509-376-7717

Larry Waggoner

ALARA Center of Technology
509-376-0818 fax 509-376-7717