

From: Waggoner, Larry O

Sent: Thursday, May 18, 2006 11:25 AM

Subject: ALARA Center Activities for Weeks of May 8 and May 15, 2006

Attachments: ICM color hor big.jpg; Partial PPE.doc; RAD_4WebInterstate Technology & Regulatory Council Real-Time Measurement of Radionuclides in Soil.pdf; Registration.doc
Visit our Website at <http://www.hanford.gov/rl/?page=974&parent=973> *NOTE: Most of the ALARA Center will be moving to the TRAC in Pasco during the week of May 22 for the Hanford Health and Safety Expo. Larry Waggoner will be running the ALARA booth and will have the most popular tools and equipment. Jerry Eby will continue to work out of the ALARA Center but is assigned to a self-assessment team working on "Design and Control". To reach Waggoner, contact him on his pager 85-2367. To reach Eby, call 372-8961.*

1. Forwarded several pocket charts showing pipe sizes and wall thicknesses to D&D project managers. These charts provide dimensions of tubing/pipe sizes from 1/8" to 30" and tells you that a Schedule 40, 6" pipe has a wall thickness of 0.280", an inside diameter of 6.065, and an outside diameter of 6.625". If this is the kind of info you need, contact the ALARA Center and we'll send you your own pocket chart. PFP Training used the Mockups in Room 220 to train personnel on glovebag sleeve and glove operations. Forwarded website for the American Glove Box Society to H.P. at Washington State University who had concerns about using acids in gloveboxes. See www.gloveboxsociety.org He called and I told him what I knew. Apparently, they want to use toxic materials in an aluminum glovebox and were concerned the chemicals would eat through the aluminum. Recommended he call T. Merkling at PFP.
2. Spent half-day with two senior Managers from Fluor Construction Technologies and L. Peterson looking at the ALARA Center and how it developed from a small trailer to the 4,000 ft² we have today. They intend to develop a similar Center to cover both nuclear and non-nuclear work for Fluor Government Services. They requested we take some of the info we developed on ALARA Protective Measures and place it on the Fluor Website under "Knowledge On-Line". This website is available to all Fluor employees and promotes the sharing of information including "best practices" throughout the company. Attended their out-brief and was impressed with the new computer software in use for scheduling, planning, tracking records, crane operations, and executing field operations. They emphasized the need for modular construction when building systems to reduce costs and save time. In addition, they discussed other efforts being made to increase productivity, lower cost, meet schedules and the need to keep customers informed and happy.
3. Forwarded info on the Nilfisk GM-80 with speed controller to M. Gibson. SWSD needs to ventilate a glovebag used to vent waste drums and wanted a HEPA filtered vacuum cleaner with a way to adjust the flow. See www.pa.nilfisk-advance.com. PFP engineer borrowed our spare cutting bits for a Trumpf nibbler in order to keep a filter cutup job working. He will replace the bits as soon as PFP receives their shipment.
4. Received call from D&D personnel preparing to demolish Building 242-Z. They will be employing misters on the excavator and in the rain gutters of adjacent buildings and across the top of 242-Z. Ground will be damp. They wanted info on companies that sell protective clothing that only covers a portion of the worker's body. With 95+ degree temperatures, they would like to add additional protection for the worker without adding a full set of protective clothing. Forwarded the attached list. Contacted the vendors on the list that will have a booth at the Health and Safety Expo and asked them to bring samples of their protective clothing.
5. Took the chipless tubing cutter from Tri-Tool to Bremerton, Wa and demonstrated how easily it cut stainless steel tubing to the nuclear test pipe section of Puget Sound Naval Shipyard. Understand it has been used at Norfolk Naval Shipyard to make 48 cuts in stainless steel tubing aboard ship and the job was completed 8 days ahead of schedule. This tool is made to fit into areas with lots of interferences. It

operates like a rotating can opener to slice through the pipe or tubing wall without dropping any chips or debris inside the piping. See it demonstrated at the Tri-Tool booth at Expo.

6. Shipped most of the popular tools and equipment to TRAC for next week's Health and Safety Expo. Jerry will show a tour group from Sellafield the stuff that was left behind. Provided photo and advice to WM engineer looking for a low flow rate exhauster to ventilate a glovebag attached to the lid of a waste drum. Recommended the GM-80 HEPA filtered vacuum cleaner sold by Nilfisk with a speed controller and the Bypass Motor.

7. Received request from Fluor Environmental on which vendors sell solar powered air samplers. Recommended <http://www.hi-g.net/Group/LYO4TKIL96OM7VPV.htm>, <http://www.jsits.com/geneg/en/air-sampler.pdf> and <http://www.bgiusa.com/aam/frmomni.htm> Discussed protective clothing with Bill Smoot, who is heading a team of CH2M personnel trying to improve operations in the Tank Farms. He has ordered 500 sets of OREX breathable disposable clothing and will have one of the Tank Farm Organizations try them out. He then wants to compare them with another product like Gore-Tex or the Protech-2000 nylon clothing sold by Unitech. We also have three cases of breathable disposable protective clothing sold by Unitech so CH2M should have several choices. Bill will be making a presentation at the Hanford ALARA Workshop on the results of this testing. (See below)

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FOR YOUR INFORMATION

1. Argonne National Lab is conducting a training course on Facility Decommissioning in Oak Ridge, TN in July and Albany, NY in September. See www.dd.anl.gov/ddtraining/index.html. NEED ENGINEERING HELP? There is a small engineering company that comes highly recommended for solving difficult problems. Check out their website at <http://www.intellegrationllc.com/index.php> Operating Experience Summaries 2006-05 and 06 have just been issued. See <http://www.eh.doe.gov/paa/oesummary/oesummary2006/2006-06screen.pdf> and <http://www.eh.doe.gov/paa/oesummary/oesummary2006/OES2006-05.pdf>

2. International Climbing Machines forwarded info on the new capabilities of their wall-walking Climbing Machines. They have proven very effective in removing coatings, installing coatings, performing dry film thickness readings and high quality visual inspections. In the past, these small remote controlled climbing machines were used to scabble concrete and take radiological surveys. The machine weighs 20 pounds and has a 50 pound payload so a number of tools and equipment can be mounted to each machine. See the attached photo. Contact Sam Maggio at sam@icm.cc or call (607) 288-4001 for more info.

3. George Carter forwarded a report on "Real-Time Measurements of Radionuclides in Soil - Technology and Case Studies". If you're interested, it is attached. Columbia Basin Hotsy is now the local distributor for Ingersoll Rand air compressors, generators and hand tools. If you need to see a demonstration of either the Ingersoll Rand or Hotsy Pressure Washers, contact JoAnn at the Richland Airport or www.cbhotsy.com.

4. Attended a presentation last week at the local Columbia Chapter of the Health Physics Society by Brian Dodd, who is head of the International Atomic Energy Agency (IAEA) and the incoming president of the Health Physics Society. The presentation concerned the worldwide efforts being done to recover orphan sources (initially regulated, but were then abandoned, lost, misplaced, stolen or removed without authorization), vulnerable sources (are currently regulated but control is insufficient for long-term safety/security), and disused sources (are no longer in use or intended to be used). Part of the presentation showed a video of volunteers in the State of Georgia, which is a part of the former USSR,

recovering two Radioisotopic Thermoelectric Generators (RTGs). These units each had a 30,000 Curie Sr90 source and had been used to power navigational beacons and communications equipment in remote areas. Two woodcutters had been using the sources to keep warm. They had been leaning against the sources and had large open sores from radiation burns on their backs. The video shows a team of volunteers that trained for two weeks on the use of long handling tools and tongs in a relatively flat, dry area. The volunteers were then taken into a remote forest area where the source was located. A shielded container on a trailer was towed into place by a bulldozer. The two sources were located 50 meters down a 30 degree slope and the ground was covered with 12" of snow. The volunteers each worked for a maximum of two minutes with long poles dragging the sources up the steep slope. At the top of the slope, each source was placed in a bucket and a long rod was pushed through the bail so two persons could lift the bucket onto the trailer where two other persons dumped the source from the bucket into the shield. The operation was repeated a second time for the other source. Although the operation appeared to be primitive at times, the volunteers used time, distance, and shielding to keep their dose low. The training had been conducted on flat ground with no snow. Improvements would likely be made in the future to train in conditions that more accurately represent the actual terrain. To learn more about RTGs see: http://en.wikipedia.org/wiki/Radioisotope_thermoelectric_generator

The International Atomic Energy Agency is finding sources all over the world that have little or no controls and are working with each country/state on remediating past problems and preventing future problems. The Columbia Chapter has been asked to provide assistance and will evaluate establishing a close relationship with health physicists in these countries to give them support on source recovery. See the IAEA website at <http://en.wikipedia.org/wiki/IAEA>

UPCOMING EVENTS (REVISED)

Last week's report failed to list the Hanford ALARA Workshop that will be held on July 18 and 19 at the Clarion Hotel and the Nuclear Air Cleaning Conference. [See attachment to register for the Workshop.](#) Preregistration ends on June 1. Cost is \$75.00

Hanford Health and Safety Expo May 23 & 24 at TRAC in Pasco

Nuclear Air Cleaning Conference June 17-19, 2006 Cincinnati, OH See <http://isnatt.org/ISNATT%2029th%20NACC%20Registration.pdf> to register

Health Physics Society Annual Meeting Jun 25-29 in Providence, RI

Hanford ALARA Workshop July 18 and 19, 2006 in Richland, WA

Health Physics Society Mid-Year Meeting Jan 21-24, 2007 in Knoxville, TN on D&D and Environmental

World of Concrete (for D&D personnel) Jan 23-26, 2007 in Las Vegas, NV

Waste Management Symposium Feb 25-Mar 1, 2007 in Tucson, AZ

Health Physics Society Annual Meeting July 8-12, 2007 in Portland, OR

American Nuclear Society Topical on Sept 16-19, 2007 in Chattanooga, TN
Decommissioning, Decontamination
and Reutilization & Technology Expo

International Symposium on Packaging and Transportation of Radioactive Materials Oct 21-26, 2007 in Miami, FL
(Sponsored by DOE)