Hanford ALARA Center and D&D Knowledge Management Hotline Information Update

January 27, 2011

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ALARA Center Activities and Information

1. Mark Dieterle of Quest Environmental visited the ALARA Center to demonstrate the Avacen Grip (photo below). The Avacen Grip was developed to help people maintain their ideal core body temperature when working in hot or cold conditions. Avacen uses a small vacuum to pull blood into the complex vascular structures (called AVAs) and keeps the AVAs open at the skin surface. Warm or cold temperature is applied to these open AVAs and then that warming or cooling is distributed by the heart to the core organs and muscles throughout the body. To view an example video of how the Avacen Grip works go to http://www.avacen.com/avacen/action?do=overview&topic=quick.

2. Larry Waggoner and Lewis Byrd of Lancs Industries visited the ALARA Center to meet with Hanford workers to discuss Lancs product capabilities and other recent changes at the company. As you may be aware, Lancs is an industry leader in custom glovebags, tents, and plastic goods. For more information about Lancs visit www.lancsindustries.com.

3. Bullard visited the ALARA Center to introduce "Evolutional Air" (EVA, pictured below), their next generation of powered air purifying respirator (PAPR), to the Hanford Respiratory Committee and other interested parties. Some of the futures that make EVA interesting are: two distinct alarms that notify the wearer of low battery and low air flow, a two speed blower so the user can choose between more or less cooling with air flow, and a system that automatically maintains constant air flow. For more information about the EVA PAPR visit http://www.bullard.com/V3/products/respiratory/PAPR/EVA/.

4. The research group of CEA (a French government-funded technological research organization) and AREVA have constructed a new generation of very compact gamma camera called GAMPIX (photo below). The gamma camera was developed for nuclear dismantling activities or radioactive source search. The device enables the superimposition of a gamma image with a visible image, which is of help to locate radioactive hot spots in a given area. The best results in terms of sensitivity are obtained for ^{241}Am because of the low energy gamma-rays emitted by this radionuclide. Hence, this camera can be of great interest in order to detect plutonium, with high ^{241}Am concentrations. The detection of high-energy gamma-ray emitters, like ^{137}Cs or ^{60}Co, requires thicker masks. For more information see the ISOE News Letter No. 16, December 2010, page 3 (http://www.isoe-network.net/index.php?option=com_docman&Itemid=123).

5. G/O Corporation, supplier of radiological signs and supplies used in the nuclear field, has launched a new website at http://www.gocorp.com/index.php. The improved site has updated pictures and many new products. You'll notice that there is a login and password that enables customers to view their past and present quotes. If you have any questions or concerns about the new site e-mail Ty Finley at sales@gocorp.com or call him at 800-933-8501.

D&D Hotline Activities and Information

1. The Nuclear Plant Journal product and service directory for 2011 has been issued and can be found at https://www.cds1976.com/EmlForm/NPS20101228Ltr1.asp?0118382. The commercial nuclear power industry and DOE work have many similarities and share several contractors so this product and service directory is very useful. Visit http://nuclearplantjournal.com/ for more information about Nuclear Plant Journal.

2. Company Wrench sells demolition equipment which is reason enough to visit their website at http://www.companywrench.com/. However, they currently have an interesting video of the Stanly F16 Remote Controlled Demolition Robot breaking concrete rubble into smaller more manageable pieces, a common task at DOE D&D facilities. There are several remote controlled demolition robots on the market today such as: Stanly, Brokk, Husqvarna, and others.

3. I attended Washington State Department of Ecology's "Vadose Zone Industrial Cleanup Technologies Workshop". The focus of the workshop was to review common mining and construction technologies that could be used for vadose zone remediation at Hanford. The goal of the workshop was to determine which technologies should receive consideration in future feasibility study screening processes for vadose zone cleanup.

Contact Information

We invite you to visit the Hanford ALARA Center located on the Hanford Site in Building 2101M in 200 East, Rooms 220 to 226. The Center's focus is on supporting your project's safety, radiological engineering, ALARA, and D&D challenges. You also can send your questions, comments, and lessons learned to me via e-mail or contact me by phone. Additionally, I would be happy to come to your site to assist with your project's challenges. My contact information is below.

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Other helpful links are:

Hanford ALARA Center: www.hanford.gov/rl/?page=974&parent=973
D&D Knowledge Management Tool: dndkm.arc.fiu.edu/dndkm/
SRS ALARA Center: www.srs.gov/general/programs/alara/alara_center.htm
Department of Energy Hanford Site: www.hanford.gov/
Virtual Hanford Tour: www.hanford.gov/?page=326&parent=317
Dade Moeller: http://www.moellerinc.com/index.php
Mission Support Alliance: http://www.msa-hanford.com/