From: Waggoner, Larry O
Sent: Thursday, April 07, 2005 12:54 PM
Subject: ALARA Center Activities for Week of April 4, 2005

Attachments: GammaGuard.doc; Response on value of EAI chemicals.doc
Visit our Website at www.hanford.gov/alara/

1. Demonstrated a wall walking robot platform made by International Climbing Machines. Several personnel from PFP were interested and discussed how it could be used in different areas at PFP. A new version is being developed that will crawl across the floor and then climb the wall. The unit can crawl across ceilings too. Additional tool packages are being added to increase its capabilities. Read about this at www.icmachines.com Conducted PHMC ALARA Council meeting for April. Discussion included info on the floor decon at the ATG Building, demo of the International Climbing Machine and heat stress prevention.

2. Forwarded info on GammaGuard shielding to T-Plant ALARA Coordinator. They are preparing to grout the sludge received from K Basins. Gamma Guard materials can be added to concrete/grout to reduce dose rates on the outside of containers. They also sell materials that reduce neutron dose rate. See attached document. PFP is looking for better shoe covers to wear in areas that are grossly contaminated. Delivered a pair to PFP Rad Engineering that were received from Marynn Safety.

3. Dropped off two sets of OREX protective clothing at T Plant. The company is shipping several more cases for other facilities to evaluate. Assembled a package of articles on decontamination using Carbon Dioxide pellets for PFP engineering. Also provided them with literature from USF Surface Preparation Group, which specializes in different methods used to treat surfaces. They will be able to recommend the most cost-effective method of decontaminating the walls of the scrubber cell at PFP. See www.surfacepreparation.com. This company will save you a lot of time researching the best methods for work on surfaces.

4. Received a call from FFS who needed a shear to cut 1.5" carbon steel piping. Set up a demo of the TRUTech "Nucut" battery powered shear for April 12. SNF has purchased about a dozen of these units to cut up equipment underwater at K Basin and there are other facilities that have bought this tool as well. See http://www.trutechllc.com/nucut.htm and click on "Products". Loaned two vent units to CH2M Rad Planner to take to Seattle to film ventilation flow paths using a smoke generator in a containment tent at Lanc's Industries.

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FOR YOUR INFORMATION

1. Last week we assisted National Safety with a demonstration of a new foam decon technique at the old ATG facility near Richland. This technique uses compressed air applicators made by Intelagard and chemicals developed by Environmental Applications Inc. We asked people who attended the demonstration to comment on whether this technology would be valuable for work at Hanford. Their responses are attached. It is apparent this technology has the potential to make a significant impact on future D&D work.
Received word that all accessible areas in the ATG facility have been released from radiological controls. They have to lift two large components to get underneath to finish the decon but this technique works!
To purchase the foam spraying equipment or the chemicals contact Jay Robbins at (509) 670-9985 or see http://nationalsafetyinc.com/

2. Need info on metal cutting in radiological environments? Take a look at the following document that describes cutting with a plasma torch, grinding with an abrasive disc, a hydraulic shear, and a high pressure abrasive water jet cutter.

- http://www.osti.gov/bridge/servlets/purl/473994-E9yPWg/webviewable/473994.pdf

3. Need info on surveying piping and ducts with a robot crawler? See

- http://www.osti.gov/bridge/servlets/purl/621859-OIKp2w/webviewable/621859.pdf

4. John Stamper forwarded this website that shows "Cool Tools" . See the Dewalt saw with blades designed for cutting stainless steel. This might work well for size reducing material inside gloveboxes.http://www.kk.org/cooltools/archives/cat_general_purpose_tools.php

5. Forwarded the following website to Nancy Milliken of CH2M who heads up a team working on heat stress issues. http://www.circletrack.com/techarticles/77438/ The article describes how race car drivers are cooled and makes a couple of points.

- Tests show that if an astronaut's core temperature increased 1.5 degrees, they made 80 unrecognized errors
- Cool water transfers heat 28 times faster than cool air
- This company sells a tee shirt that contains 50' of tubing for circulating ice water. A Kwik-Kool system can be added that sends ozone-safe freon through the tubing in the tee shirt. One can of freon will last 1-2 hours and the worker would have to activate it every 2-3 minutes for effective heat relief.

SAVANNAH RIVER NEWS

The SRS ALARA Workshop is May 2-4 at Augusta, GA. They are still accepting papers for presentations at the workshop. Point of Contact is Athena Freeman at (803) 208-3603. Their website is **http://irmsrv02.srs.gov/general/enviro/rosc/index.html**

SRS has been looking at different protective clothing to reduce heat stress. This includes:

- Jenkins Comfort System Eliminator Vest
- Shafer Enterprises, LLC Cool Shirt and Poncho
- G/O Corp disposable coveralls
- Frham Safety Stay Cool disposable coveralls
- DuPont NUFAB disposable coveralls sold by Hagemeyer

SRS has revised their Radiological Planners Guide to consolidate three other documents and get everyone to use the Radiological Containment Guide. We have requested that SRS forward a copy of their Planner's Guide for evaluation. Contact Lee Smith at (803) 208-3602 or Robbie Bates at (803) 208-3601 for info on the SRS ALARA Center.