

From: Eby, Jerald L

Sent: Friday, October 28, 2005 1:56 PM

Subject: ALARA Center Activities for the Week of October 24, 2005

Attachments: WEBSITES.doc; Champion.png

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

1. S. Lachmann, of WCH, requested info on fixing contamination in piping. Her group is demolishing buildings and she estimates the work could be accomplished faster if contaminated piping in the building could be left in place and removed as part of the debris after the building is demolished. Began brain-storming and discussed the possibility of injecting expandable foam or grout into the pipe or fogging with a glycerin-base aerosol fixative. Since it is impossible to accurately predict where the piping would fracture it might be possible to weaken the piping at locations where you want it to fracture. Foam could be injected at these locations and a blade plunging cutter with a blunt blade could be used to bend, but not break the piping. Two crimps could be an inch apart so that the pipe would fracture between the crimps. The crimped pipe end would be much less likely to spread contamination. A photo of a blade plunging cutter is attached (It's the tool at the top). Will continue to look at other options.

2. PFP called concerning the need for a smaller blade plunging cutter for cutting pipes and valves. They have two larger units and two scissor-type shears. Referred them to Mega-Tech Services who represent Champion Rescue Tools to the nuclear industry. See www.championrescuetools.com or call Jon Stucky at (336) 316-0707.

PFP engineer called with questions about filling pipes with expandable foam prior to cutting. They have a 6" diameter pipe with 5 internal lines and they want to stop the lines from flopping around during cutting by using the foam. Told them CH2M used foam to secure pump shafts located inside larger diameter casings. The ALARA Center has been successful getting foam to expand inside vertical piping by drilling one or more holes a few inches beneath the cut area and inserting bottle brushes. The brushes collapse when inserted through the hole and expand as soon as they're inside the pipe. These brushes form a shelf in the pipe that allows the foam that falls onto the brushes to expand upward. Recommended he try this in a mockup before trying it on actual job. Forwarded him info on applying foam, using a lubricant to cool the saw blade that had been approved for PFP gloveboxes, and a lesson learned from BHI on the concerns about the off-gas from using some types of foams in confined spaces.

3. CH2M engineer stopped and looked at the fixatives currently in use that could be used to seal openings and crevices in single-shell valve pit covers. Showed him samples of polyurea, polyurethane (Rhino or Line-X pickup coatings) and Polymeric Barrier system (PBS) sold by Bartlett Nuclear Services, website: www.barlettinc.com. Recommended he read the 109 page report done on polyurea before it was used inside Tank Farms Pits. The report revealed that polyurea was compatible with tank waste, would withstand very high levels of gamma radiation, had proper adhesion strength, and was easily decontaminated. This report is available on the RMIS Database (Acquisition Number D8660842) or the ALARA Center. Recommended he contact Bartlett and talk to their engineering department about whether the PBS would make a satisfactory sealant for the pit covers. Plan is to secure these pits and the sealant needs to last for up to 75 years.

4. Received message from INEEL concerning methods to decontaminate the metal beds of several leased trucks. They had tried grinding and wire brushing but were unsuccessful. Referred them to Section 9 of the DOE Decommissioning Handbook at <http://www.osti.gov/bridge/servlets/purl/10157678-yUQL4E/webviewable/10157678.pdf>. There are several pages starting at 9-30 showing effective methods to decontaminate different materials. Suggested they consider electro polishing or the use of chemicals from Environmental

Alternatives Inc. PFP has been used these chemicals as part of the Rad-Pro process to decontaminate Pu gloveboxes. See website: www.eai-inc.com. The chemicals are sprayed on as a foam, allowed to soak for at least 20 minutes and then vacuumed up.

INEEL has a new ALARA Coordinator. He is Rick Butler who works for CH2M-WG at RB1@inel.gov or (208) 526-4359. Rick has been assigned the task of setting up an ALARA Center, so will arrange a visit to Hanford soon.

5. PNNL requested help in decontamination a of 500 ft2 area in one of their facilities. They were interested in fixatives that could be used to cover this contamination before workers entered the room. Encapsulation Technologies at website: www.fogging.com sells a small portable fogger that could be used. Recommended they don't tear up the floor, as it probably has asbestos tile underneath. The last time they had a similar problem in another location they painted the floor with two colors of epoxy paint and left the floor removal to a future D&D contractor.

6. Delivered two rusty 55 gallon drums to HAMMER for use later on the demonstration of the Nucap sealant. They intend to poke holes in the drum to simulate a corroded drum removed from a burial ground. They will then use fiberglass cloth and spray the Nucap sealant over the holes.

7. EnergX held a class , "ALARA For Technical Personnel" with 8 students at the Center. A tour of the ALARA Center was given following the class.

8. The Center gave 12- 62" X 54" PVC bags to B- Plant for a pre-filter change out. These bags were part of the excessed material the Center received last week from West Valley DOE Site. A list of the excessed material received from West Valley DOE site, by the Center, was in last weeks report.

FOR YOUR INFORMATION

1. INTEK Technology is now offering proprietary chemical compounds for the decontamination of materials that are radioactively contaminated. Read about them at website: <http://www.intekmarine.com/>. Operations personnel should take a look at the Website for Link Tools. <http://www.link-tools.com/> These tools are becoming very popular at operating nuclear plants where there is a concern about dropping foreign material into the plant. A 20 page catalog can be printed by clicking on the link.

2. Found a DNFSB Report that concerns Safety Considerations at Nuclear Facilities. See website: http://www.dnfsb.gov/pub_docs/dnfsb/tr_200412_multi.pdf Report discusses past nuclear incidents and their causes. This is a good read, especially for facilities that are considering changing their mission due to reduced budgets.

3. The websites used by the ALARA Center are attached for your information. As you scroll down the list you may find several that should be your "favorites" as you plan radiological work. The list of vendors is not complete, as we learn about new tools and equipment each day. Fluor Hanford Inc does not endorse these vendors, but the ALARA Center has found their products to work well in a radiological environment and many have excellent track records. As with anything, check them out yourself before you buy.

4. Argonne National Lab is teaching a class on Facility Decommissioning in San Diego on December 5-8. Registration fee is \$1195. See www.td.anl.gov/D&D/ Found a new vendor that sells shrouded tooling and vacuum cleaners.

<http://www.cdclarue.com/pb/index.html?OVRAW=Novatek&OVKEY=novatek&OVMTTC=standard>
The vendor is forwarding brochures and will send tools for display at the ALARA Center.

5. Larry Waggoner will be in Washington DC the week of October 31 attending the Electrical Facility Contractors Group meeting on Radiation Protection and presenting a paper on the Hanford ALARA Center. Waggoner will continue with a week's vacation during the week of November 7th. Contact Jerry Eby for assistance.

VENDOR CORNER

1. Received information from JarDar Systems, Inc. They specialize in air pollution control. Web site: www.jardarsystems.com . JarDar has bag-in /bag-out filtration elements for filter change outs, in-line dust separators, Infa-Micron Cassette filter units and other filtration configuration. The Center has a couple of the companies brochures available. The Infa-Micron system has been used extensively in the Nuclear industry in Europe according to JarDar Systems brochure.

2. Olympus Remote Visual Inspections Group gave a one day demonstration of their equipment at the Center. They showed fiberscope, borescopes, videoscopes and other visual inspection tools, website: www.olympusindustrial.com .

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