

**From:** Eby, Jerald L

**Sent:** Friday, April 13, 2007 1:12 PM

**Subject:** ALARA Center Activities for the Week of April 9, 2007

**Attachments:** Portable Radioactive Work Facility for RPP.rtf; Iso-Con.pdf; D&D of Nuclear Facilities.doc; 241-Z.doc

Visit our Website: [www.hanford.gov/rl/?page=974&parent-0](http://www.hanford.gov/rl/?page=974&parent-0)

1. The Center held a Basic Glove Bag class, 020729, for six NCO's from Waste Disposal & Compliance Ops. The Center received from K-Basin's some hand tools that were in the process of being excessed. The Center in turn will try to find a new homes, on site, for tools and equipment that has been excessed. Some of the K-Basin's tools will be used in glove bag training that is given by the Center and some future training at HAMMER. If any Hanford facility have equipment and/or tools that you are considering excessing, please contact the Center prior to excess so that we might try and find a new home for your material. (RECYCLE)
2. Forwarded attached information to CH2M Radcon on the steps necessary to convert a 40' long Conex Container into a portable radioactive work facility. Tank Farms is looking for a location that could be used to decontaminate cameras, cables, tools, and small equipment. Puget Sound Naval Shipyard has several conex containers that have been converted to a decon/work facilities, machine shop, weld shop, and breathing air facilities. These containers are shipped around the country to support radioactive work. The used conex boxes were purchased from a company in Tacoma, WA and much of the tools/equipment were obtained at no cost using excess government materials. Recommended that if a containment were installed, to consider using a ISO-CON latch-together containment sold by NFS/Radiation Protection Systems at [www.nfsrps.com](http://www.nfsrps.com) **See Attachment**.
3. Forwarded contact info for Cellular Bioengineering Inc to WCH manager. They are interested in a strippable latex paint and this company has been working at SRS and Hanford to develop a new product for decon of Pu gloveboxes. See <http://www.nerac.com/research-victories/cellular-bioengineering-inc/> Loaned a Stout battery-powered Porta-Band saw to WCH at 100-N to use for mockup training. See <http://www.stoutool.com/>. Forwarded info on commercially made collector drums to WCH Radcon. They want to install a collector device in the suction hose to remove debris before it reached the HEPA Filtered vacuum cleaner. Gave them websites for Nilfisk-Advance and Power Products vacuum cleaners.
4. Received a query from the Los Alamos ALARA Center concerning a radiation resistant sealant that can be used to seal glove box windows. Referred him to the "Glove box Society website at [www.gloveboxsociety.org](http://www.gloveboxsociety.org). Under "Publications", the Society issues a quarterly magazine called "Enclosures". The latest issue (#20) has an article on Glove box Windows and Frames written by Dale Tobias at (208) 782-9107. LANL will contact the author and report back what they learn. This website contains a lot of technical reports about gloveboxes.
5. Attached is an article from the Tri-City Herald Newspaper that describes recent D&D work at the 241-Z Liquid Waste Treatment Facility.

#### **FOR YOUR INFORMATION**

1. Found a 2006 Annual Report from Oak Ridge showing multiple pictures of the D&D work done by Bechtel Jacobs LLC. Read this report at <http://www.bechteljacobs.com/pdf/CleanProg2006.pdf> Several photos show a Fog Cannon in use to reduce contamination spread. Other photos show how expandable foam and grout are injected into piping to stabilize it. Buildings were demolished by decontaminating them first or fixing the contamination and then bringing them down with an excavator. In one case, a large containment 80' X 100' was installed over a high-risk facility so that it was completely enclosed during demolition. This report is interesting and shows a lot of good work being done by Bechtel Jacobs.

2. Attended the monthly meeting of the Columbia Chapter of the Health Physics Society and listened to Dr. Kevin Nelson of the Mayo Clinic talk about the need for a "Nuclear Terrorism Response Plan". He discussed an incident that occurred in Jacksonville, Florida in January 2006 that concerned a Krypton85 source. Up to 500 workers at a manufacturing plant were evacuated after a container that housed a Krypton source exploded and the Krypton gas escaped. Once the Krypton was in the air the first responders detected an increase in background radiation as they got near the accident scene and notified their superiors there was a radiation incident. Since the Krypton is a noble gas, it behaves like Radon and attached itself to the first responders clothing. The County Emergency Plan was implemented. One person was injured in the explosion. Twenty ambulances arrived and Emergency Services were mobilized. About 1,200 people had to be surveyed to assure them they were not contaminated. Many personnel insisted they be decontaminated so an Emergency Decon line was set up. Many other personnel working in the area decided they needed to go to the nearest hospital and be surveyed. Many of these people arrived before the injured person. This inundated local hospitals and revealed that many medical personnel don't understand what actions are needed if patients are possibly contaminated but are uninjured. It was suggested that a workable plan be developed to lay the groundwork on actions that are needed should there be a threat of a radiological incident or an act of nuclear terrorism. Emphasis of the plan should be on integrating all the services and coordination between County and State Agencies and the FBI. Dr. Nelson emphasized that communications between all agencies is important and someone needs to be in charge. Hospitals need to know how to deal with contaminated personnel or personnel that may have received high doses of radiation. A Triage plan is necessary to ensure the patients are treated in the correct order. Many personnel will require counseling during and after the occurrence. The HPS website at [www.hps.org](http://www.hps.org) has information on how anyone can get help from the radiation safety experts of the Health Physics Society. The Columbia Chapter has conferences scheduled later this year on planning for and recovering from this type of incident.

3. Found a report written by the International Atomic Energy Agency in 2001 on the "Methods for the Minimization of Radioactive Waste from the Decontamination and Decommissioning of Nuclear Facilities". The report can be found at: [http://www-pub.iaea.org/MTCD/publications/PDF/TRS401\\_scr.pdf](http://www-pub.iaea.org/MTCD/publications/PDF/TRS401_scr.pdf) A copy of the Table of Contents is Attached. This report is a good read by anyone involved in the planning for D&D of radiological work facilities. A report on "Technical Assessment of Dust Suppression Techniques Applied during Structural Demolition" can be found at <http://www.osti.gov/bridge/servlets/purl/952-8612pD/webviewable/952.pdf>. Need to cut or grind metal underwater? See Report on "CAMX - A High Performance Cutting Technique for Underwater Use" at <http://graylit.osti.gov/cgi-bin/dexpld.cgi?qry1600219216;8>

## **VENDORS CORNER**

1. Five engineers and sales personnel will be here from GE Inspection Technologies to help solve any problem you're having by showing the latest in remote viewing equipment. They are also going to be showing the newest equipment built for CH2M to look inside their underground tanks and other new stuff developed for Fluor. The Demo is 9:00 to 3:00 on April 18 and 19 at the ALARA Center in Building 2101-M, Room 222. If you need to talk to Nick Clyma sooner call: T: 425-391-4036, C: 425-210-4729, web site: <http://www.geinspectiontechnologies.com/en/index.html>

2. PFP held a demo of Circular Saw Tool Testing & Practice, Friday, April 13, 2007 1:00 PM-3:30 PM., Maintenance Shop/Yard. The circular saw cuts steel. The Center will have pictures and a write up of the results of the saw test for the next weeks' activity report. This saw is supposedly has minimal sparks and less issues with hot work.

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