

## Hanford ALARA Center and Knowledge Management Website Activities for Weeks of August 4 & 11, 2008

### **ALARA Center Activities and Information**

1. Savannah River Site called to request photos (attached) of the clam shell device used for corroded drum waste retrieval. The clam shell reduces the chance that contamination will spread if the drum breaks apart during handling. Some drums have required the use of more than one clam shell.
2. A Washington Closure Radiological Engineer requested information about the different types of radiation and the effects of the temporary shielding. We forwarded the attached shielding table. We also conducted the PHMC ALARA Council meeting for August.
3. We forwarded a "White Paper" to Key Waste Management personnel describing methods the Pharmaceutical Industry uses to sort waste removed from a drum. Read this paper at <http://www.pharmaceuticalonline.com/download.mvc/Flexible-Containment-Solutions-Guide-Drum-Tra-0001> and see the attached photo of the glovebag and sorting table. Or, contact Sid Williams at ([willis@ilcdover.com](mailto:willis@ilcdover.com)) for a copy of the full test report.
4. Nilfisk CFM, an industrial vacuum manufacturer, has launched a new maintenance blog to share readers' wisdom and solutions. The blog can be found at [www.nilfiskcfmblog.com](http://www.nilfiskcfmblog.com). The blog provides an online forum where readers can share their individual maintenance experiences and questions and participate in discussions on industry trends. The blog will also discuss industry trends such as federal regulations and relevant trade news. We reviewed the blog and found an article on the dangers of combustible dust that is worth reading. Some of the other articles are highly opinionated and readers are reminded to use good judgement.
5. We provided a recommendation to 200LEF planner on painting over fixed contamination. We referred her to Article 222.3 of the PHMC Radcon Manual that documented approval by the Facility Radcon Manager is required before painting over fixed contamination. We recommended that she contact the painters who will suggest the best products to use. Typically, the area is surveyed and decontaminated, if necessary. Yellow epoxy paint is applied and then a second coat of non-yellow paint. If workers wear through the upper layer they will see the yellow first-coat and know the area needs to be repainted.
5. 100 K D&D Industrial Hygiene visited the ALARA Center to view the Delta Protection Anti-Contamination Suit. The suit is a one-piece supplied air with either remote or a portable ventilation system. Visit the ALARA Center if you would like to see the suit in person, or go to <http://www.sperianprotection.com/index.asp> for more information.
6. Fluor personnel working on the South Texas Project nuclear plant turbine building contacted the Center for information regarding which companies sell concrete that is mixed with products to make it a better shielding material. We forwarded information on Gamma-Guard, which are products sold by Tri-E Radiation Technologies. We couldn't find a website but their phone is (513) 870-3840. We also forwarded the ALARA Center's list of custom shielding companies.

7. A representative from the National Safety Council toured the ALARA Center as part of an evaluation process for the Robert W. Campbell safety award. The representative also interviewed several craft and management personnel in the Center conference room. Fluor is a finalist for the prestigious award. For more information about the Robert W. Campbell award visit <http://www.campbellaward.org>.

### **D&D Hotline and Activities**

1. Notes on the D&D Knowledge Management website: D&D KM-IT Help module is successfully completed and deployed on the web site. It can be accessed from web address [www.dndkm.org](http://www.dndkm.org) or <http://dndkm.arc.fiu.edu> and clicking on Help link from the home page. It provides details on various features of the system with screen shots for registration, login, search, posting problem, problem status, workflow, glossary etc.
2. We found a document that summarizes the D&D and Cleanup up work done at Hanford from 1974-1990. Read it at [http://www.osti.gov/bridge/product.biblio.jsp?query\\_id=1&page=4&osti\\_id=5112307](http://www.osti.gov/bridge/product.biblio.jsp?query_id=1&page=4&osti_id=5112307) We also found an additional document on the history and stabilization of Hanford's Plutonium Finishing Plant. Read it at [http://www.osti.gov/bridge/product.biblio.jsp?query\\_id=1&page=5&osti\\_id=325360](http://www.osti.gov/bridge/product.biblio.jsp?query_id=1&page=5&osti_id=325360).
3. While searching the DOE Information Bridge at <http://www.osti.gov/bridge/> I found several documents concerning D&D that I forwarded to key Hanford D&D personnel. See the attached list. Dave Encke forwarded an article on a "bottle-brush" robot that could be used to inspect piping. Read about it at <http://www.newscientist.com/article/dn14462-bottlebrush-robot-goes-where-pigs-cant-reach.html>
4. Attended planning conference at K Basin concerning the removal of a 23' long internally contaminated chiller (similar to a heat exchanger). The team looked at several options. The chiller is covered with lead blankets and dose rates on the bottom of the chiller are ~300 mrem/hr. The chiller is too long to fit in their 20' long waste containers. After discussing the tools and equipment that could be used to size-reduce the chiller it was decided to look at another option of shipping it to the ERDF Waste Disposal Facility without placing it into a container. The team discussed what could be done to provide a grout connection at each end of the container so that it can be grouted once it arrives at the trench. Key personnel will propose a plan to place shielding and plastic/shrink wrap on the flat bed trailer and then place the chiller on top of the shielding. It will then be wrapped in plastic and temporary shielding installed, as needed. If necessary, a box will be placed over the chiller to get satisfactory contact radiation readings that are less than DOT shipping requirements. The planning team will meet again next week and refine the plan.

### **Contacts**

Visit the Hanford ALARA Center which is located in the 200East Area at Bldg 2101-M. We can help with rad engineering, ALARA, and D&D challenges. You can also forward your lessons learned, questions, and comments to:

Jeff Hunter (509) 373-0656, Cell (509) 948-5906 or [jeffery\\_l\\_hunter@rl.gov](mailto:jeffery_l_hunter@rl.gov)  
Larry Waggoner (509) 376-0818 Cell (360) 801-6322 [larry\\_o\\_waggoner@rl.gov](mailto:larry_o_waggoner@rl.gov)

ALARA Center Website [www.hanford.gov/rl/?page=974&parent=973](http://www.hanford.gov/rl/?page=974&parent=973)  
D&D Knowledge Management Website <http://dndkm.arc.fiu.edu/dndkm/>