

From: Waggoner, Larry O
Sent: Friday, February 17, 2006 2:48 PM
Subject: ALARA Center Activities for Week of February 13, 2006

Attachments: Beta Reduction by PPE.pdf; Shielding Materials.doc; ErgoAward-MG-DD-JCfini.doc

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1. Forwarded info on expandable foam to A. Holbrook of CH2M. Forwarded article from Oak Ridge on Reduction of Beta Dose from Protective Clothing and another article containing info from the Brookhaven Lab to R. Elder. See attachments. Forwarded website to PFP engineer looking for info on what other sites have done to seal penetrations in concrete slabs left after D&D work is complete. He needs to seal penetrations that will be exposed to the environment and the seal has to last for at least 20 years. Tentative plans are to insert a plug and fill the end of the penetration with an epoxy. Recommended he look at <http://www.osti.gov/graylit/> and then click on "Search the Literature". Then "check" DOE Information Bridge, type in what to search for and select "Search". This leads you to many documents in DOE's database and some should provide the info he needs. Also recommended he read the "Concrete Openings" magazine at <http://www.cstda.org/> and consider subscribing to this free publication. This is a good reference book for anyone involved in D&D work. We recommend getting the magazine, as it contains more info than is present on the website. Later in the week the engineer determined that Tank Farms seals the penetrations in pit cover blocks with "Snow-Seal" or a similar product, which is often used to water-proof the roofs of mobile homes. See http://www.amesresearch.com/archspecs_ss.htm#metal For application instructions see http://www.amesresearch.com/app_ss.htm
2. Received call from a Health Physicist at the E. Lilly Pharmaceutical Firm requesting information on how items are transferred out of glovebags. They have purchased a "doghouse" glovebag for handling radioactive drugs and the transfer sleeve is too large (18" diameter). Recommended they use one of the two unneeded glove sleeves and attach a glove ring. They can then purchase 6" diameter sleeving, attach the open end to the glove ring and transfer their radioactive drug containers down the sleeve. Mailed the Radiological Containment Guide and other documents related to glove bag work to the Lilly Company. Mailed CD to DOE person at INEEL containing presentations on Cutting Techniques, D&D Strategies, and two power point presentations on the closure of Rocky Flats.
3. Met with the Radcon Supervisor from Pacific Eco-Solutions (PEcoS) and discussed how we could improve the sharing of lessons learned. They replaced the 5 gallons of Strippable TLC latex paint we loaned them two weeks ago. They are applying it in the immediate work area prior to cutting the hose and it is reducing the time it takes to decontaminate the work area later. As a result, they are seeing reductions in dose and less time spent on work area decontamination. They also reported they are getting decontamination factors of 85-95% using the Tag-Away graffiti remover product during cut up of hose-in-hose waste from Tank Farms. Tag-Away is designed to remove graffiti from painted and smooth surfaces. Groundwater has purchased two gallons of Taginator, which is designed to remove graffiti from masonry surfaces. They intend to use it for decontamination of the sonic drill rig enclosure based on the reports from PEcoS on how well the Tag-Away product works. Taginator and Tag-Away can be purchased at Columbia Basin Hotsy at (509) 943-6022 or toll free (888) 88HOTSYS.
4. Received a call from Julie Parson, a health physicist at WRAP, who was looking for a clean 24" X 24" bag in/bag out filter bank for mockup training prior to an actual filter bank HEPA filter change out at WRAP. We first sent her to the 400 area, where a clean facility behind FFTF was once available for this type of training. That facility was no longer available. We then called CH2M Hill personnel, who had acquired a filter bank for training purposes from Bechtel a few years back, and received permission to use the bank for WRAP training. WRAP personnel inspected the filter bank and are making plans to

accomplish the mockup training. The filter bank is located at the CH2M Cold Test Facility across the street from the 200 Area Fire Station.

5. D&D called looking for a borescope to check the internals of a non-contaminated fan. They finally found a borescope at a tool crib (MO269) at Liquid Effluents in 200E. This borescope has been used for stack sample probe inspections around the site. Tim Heidcamp is the contact and can loan it out if it is not in use. Groundwater stopped by looking for temporary shielding to install around high dose waste drums. They liked the Radishield flexible lead sold by Frham Safety and will call them. They will also contact WCH (Greg Gibbons) to see if he has some lead blankets he's not going to use.

6. Two engineers from Environmental Technical Support visited the ALARA Center and looked at the HEPA filtered vacuums and collector drums. They need to remove dirt that has fallen between layers of drums in the burial ground. The set up they liked the best was setting a Nilfisk VT-60 DT vacuum cleaner upper section on a ring adapter, which sets on the top of a 30 or 55 gallon drum. This results in the drum becoming the lower part of the vacuum cleaner. The ring adapter and the VT-60 DT upper section could be moved as a unit from drum-to-drum as they fill. Vent & Balance will put their sticker at the connection where the vacuum cleaner attaches to the ring adapter. Gave them a copy of the GSA contract the government has with Nilfisk. This allows us to purchase the vacuum cleaner directly from Nilfisk at a reduced cost without going through a downtown supplier who typically adds ~\$400 to the cost of the vacuum just to handle the paperwork.

7. Met with Shawn Mellgren, Radcon Supervisor from WRAP and watched a videotape they made showing the airflow around waste drums removed from their gloveboxes. The smoke test results show that when a drum is lowered onto conveyor rollers there is no negative ventilation that would capture any airborne particulate. The halo with negative ventilation attached to the glovebox only works for a short distance during the lowering. Once the drum is lowered onto the rollers, it slid down the rollers about 6' where the outer lid is installed. The smoke travels in every direction and it isn't obvious where workers should stand or air samplers should be placed. A fixative is applied to the top of an inner lid before the drum is lowered. The concern is what will happen if the inner lid gets cocked and high levels of contamination from the drum contents are exposed. Recommended he contact NFS/RPS who have ventilation experts that have an excellent record of solving ventilation problems. See www.nfsrps.com In the meantime we will explore the internet and our files to see if we can recommend a solution. WRAP is also looking for information on a hydraulic cutter that would cut the 5/8" bolt on drum lid rings. Some of the drums received at WRAP can not be removed by the normal means because of corrosion. Contacted Krenn Tools, web site: <http://www.diequip.com/> and Mega Tech, web site: <http://www.championrescuetools.com/> and discussed WRAP's need for a bolt cutter. The companies promised to call next week with info on whether their tools would work. The Center will post an update on this issue next week.

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FOR YOUR INFORMATION

1. The Fluor Hanford newsletter contained an article on how improvements in ergonomics has improved our safety record at the K Basins facility. Since many of the readers of the ALARA Center Weekly Report don't see this newsletter, we have attached a copy for your information.

2. [2007 Midyear Topical Meeting of the Health Physics Society- Decontamination, Decommissioning, and Environmental Cleanup: January 21 - 24, 2007, Knoxville, TN](#)
Recommendation from the ALARA Center: The theme of this meeting is about what many of the Radcon

personnel are doing here - supporting D&D work. This summer the Health Physics Society will begin looking for presentations for the Mid-Year meeting. If you would like to make a presentation we suggest you start putting it together now and ask your manager to budget travel money in next year's budget. This will provide an opportunity for you to meet other people involved in doing D&D work at other DOE Sites, DOD, Power Reactors, and from around the world. You can listen to their presentations and bring back their lessons learned to Hanford. Tours of Oak Ridge are planned which will show how they're doing on D&D. The networking that each of you can do at this conference should provide several points of contact that you can use throughout your careers. If you'd like to join the Health Physics Society see <https://www.hps.org/internal/membersonly/index.cfm> or the Columbia Chapter at <http://www.hpschapters.org/columbia/>.

3. Attended ALARA Workshop planning meeting. CH2M has taken the lead to sponsor the 5th Annual ALARA Workshop on July 18 and 19. More presentations are needed from Hanford and from any off-site personnel who will be attending. Anyone can give a presentation - not just Radcon. In fact some of the best presentations in the past were given by operations. Contact Lee Livesey at (509) 373-1975 for information on submitting an abstract.

4. Read a report written by the Defense Nuclear Safety Board on the Integrated Safety Management System; The Foundation for an Effective Safety Culture. This report was issued in December, 2005. The report assesses the effectiveness of the ISM process after it has been in use for 10 years and tries to determine: Are we any safer? There are several points made that should help facilities or contractors improve their own ISM process. Read the report at: http://www.dnfsb.gov/pub_docs/dnfsb/tr_20060120_multi.pdf Another report on the Safety Management of Complex, High Hazard Organizations is at: http://www.dnfsb.gov/pub_docs/dnfsb/tr_200412_multi.pdf

5. The Brokk Demolition Machine Website has changed to <http://www.brokk.com/>. Personnel who have ventilation problems should obtain a copy of Industrial Ventilation; A Manual of Recommended Practice, which is written by the American Conference of Governmental Industrial Hygienists. You can order it at <http://www.acgih.org/store/> under "products". It comes as a hardcopy or CD.

LESSON LEARNED

The temperatures here at Hanford are ranging between -5 and +5 degrees with the wind chill today. The PFP Plastic Shop reported they had made some Polyvinyl chloride (PVC) bags for hauling non-rad material for one facility. The material was loaded on an open truck and transported from one facility to another. The PVC bags "shattered, like glass" when the truck driver picked them up. Fortunately the bags contained no radioactive material. If you're ordering glovebags, bags, sleeving, etc that is going to be exposed to low temperatures, have them made from polyurethane, which remains flexible in cold weather. If you're using PVC bags make sure they don't freeze.