



Hanford ALARA Center and D&D Knowledge Management Hotline Information Update February 18, 2010

ALARA Center Activities and Information

1. The DOE Annual Report on Occupational Radiation Exposure has been issued and can be viewed at <http://www.hss.energy.gov/CSA/Analysis/rems/annual/annual08.htm>. Section 4 describes how contractors can submit ALARA Project reports to the DOE Website located at <http://www.hss.energy.gov/CSA/analysis/rems/rems/ALARA.cfm>. This is a great way to publicize your company success stories that saved dose, eliminated contamination spread and protected the environment.
2. The ALARA Center trained four classes of RCTs and Operators on use of containments. Contact HAMMER to schedule your staff for this hands-on training course at 372-3020.
3. The Center provided fluorescent powder to a Lead RCT at 100K to use in their mockup training for core drilling into the reactor bio shielding, thermal shielding and graphite shielding. The powder, black light and feather dusters can be obtained from <http://www.lynnpeavey.com>.
4. A Lead Operator at Tank Farms requested information regarding HEPA vacuums and portable vent systems. He is responsible for the units at Tank Farms and wants to train his operators. We forwarded him the latest HNF chapters on vent systems and vacuums that are out for review along with supporting information. Contact the ALARA Center if you would like a copy of "Use of HEPA Temporary Portable Ventilation Systems".

D&D Hotline Activities and Information

1. Argonne National Laboratory is offering their D&D training course in Las Vegas Nevada, March 22-25. This three day course serves to introduce the topic of decommissioning to those new to the area, as well as serving as a refresher to those who have previously worked or currently work in the D&D area. An optional fourth day is a tour of the Nevada Test Site to see various D&D projects in progress. Visit Argonne's website at <http://www.dd.anl.gov/ddtraining/> to learn the specific details about the course and accommodations. You are encouraged to register as soon as possible to facilitate security badges for the tour.
2. We found a Power Point Presentation on Tank Farm's Mobile Arm Retrieval System (MARS) that can be viewed at http://www.osti.gov/bridge/product.biblio.jsp?query_id=1&page=1&osti_id=952593 and a report on D&D of PFP's 216-Z-9 Crib Plutonium Mining Facility that can be viewed at http://www.osti.gov/bridge/product.biblio.jsp?query_id=1&page=5&osti_id=908812.



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3. The ALARA Center information regarding the use of expandable foam for D&D work was revised and forwarded to various Site D&D personnel. If you'd like a copy, contact the ALARA Center. We received a call from D&D personnel at Humboldt Bay, CA concerning the use of expandable foam. On piping greater than 6", they could not get the foam to expand out a drilled hole in the top of the pipe. We made some recommendations and forwarded our information on foam, reports from Argonne and Oak Ridge, list of D&D websites, and our fixative list to Humboldt Bay.
4. The use of Plasma Arc Cutting, flame cutting and grinding are used during D&D work to cut materials quickly and cheaply. One of the biggest concerns during this cutting is the creation of airborne particulate and smoke that may contain hot particles. We found the link (<http://www.hss.energy.gov/csa/analysis/oesummary/oesummary2002/oe2002-07.pdf>) to an article from 2002 that concerns a fire in a HEPA filter caused by burning debris at Oak Ridge. The ALARA Center recommends that if you are using a HEPA filtered vent system for hot work that has the potential to draw hot debris into the system, a spark arrestor is installed and the ducting from the source to the spark arrestor be made from metal. Visit <http://rpsct.com/prod/108/87> to view a typical spark arrestor.
5. D&D personnel from Lawrence Livermore National Laboratory contacted the ALARA Center to discuss several ideas to remove potentially radiologically contaminated asbestos floor tiles. They are considering "Outside the Box" techniques for removing contaminated asbestos tile and one suggestion is to pour liquid nitrogen on the floor to crack the tile and hopefully get each piece to curl up. We recommended they discuss this proposal with the vendor Nitrocision. Nitrocision is preparing to use liquid nitrogen to remove PBS coating on the floor of a hot cell at the West Valley Site. It has been tested at INEEL. See their website at <http://www.nitrocision.com>. The photo below is of Nitrocision using liquid nitrogen through a rotating nozzle to cut 4" wide path through heavy layers of PBS fixative.





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6. Nuclear Power Outfitters (NPO) and Tri Tool Cutting Machines visited the ALARA Center to discuss products and services. NPO left brochures and samples of tungsten shielding. Tri Tool discussed cutting techniques with PFP engineers. Tri-Tool will return March 10 and demonstrate their tooling on a mockup at PFP. We provided copies of an ALARA Center handout on determining the optimum cutting speed and radiological controls for using split-frame or clam-shell cutting tools to the attendees of Tri Tools presentation.
7. D&D Lessons Learned can be found at the following links:
http://www.osti.gov/bridge/product.biblio.jsp?query_id=1&page=0&osti_id=5923322,
http://www.osti.gov/bridge/product.biblio.jsp?query_id=5&page=0&osti_id=815096.
“Decontamination of Urban Areas after an explosion of a Radiological Dispersal Device, RDD” discusses chemical and mechanical decontamination techniques that could be used for decontamination efforts at DOE facilities. The document can be viewed at
http://www.osti.gov/bridge/product.biblio.jsp?query_id=1&page=0&osti_id=965879.

Contacts

We invite you to visit the Hanford ALARA Center located on the Hanford Site in Building 2101M in 200 East, Rooms 220 to 226. The Center’s focus is on supporting your project’s safety, radiological engineering, ALARA, and D&D challenges. You also can send your questions, comments, and lessons learned to me via e-mail or contact me by phone. Additionally, I would be happy to come to your site to assist with your project’s challenges. My contact information is below.

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Larry Waggoner, (509) 376-0818, [Larry O Waggoner@rl.gov](mailto:Larry_O_Waggoner@rl.gov)

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Other helpful links are:

Hanford ALARA Center: www.hanford.gov/rl/?page=974&parent=973
D&D Knowledge Management Tool: dndkm.arc.fiu.edu/dndkm/
SRS ALARA Center: www.srs.gov/general/programs/alara/alara_center.htm
Department of Energy Hanford Site: www.hanford.gov/
Virtual Hanford Tour: www.hanford.gov/?page=326&parent=317
Dade Moeller: <http://www.moellerinc.com/index.php>
Mission Support Alliance: <http://www.msa-hanford.com/>