

**From:** Waggoner, Larry O  
**Sent:** Thursday, January 11, 2007 3:01 PM  
**Subject:** ALARA Center Activities for Week of January 8, 2007

**Attachments:** Announcement\_07.doc; OES\_2006-15.pdf

Visit our Website at <http://www.hanford.gov/rl/?page=974&parent=973> The attached announcement concerns a class being offered to prepare personnel to take Part 1 or Part 2 of an examination to become a "Certified Health Physicist".

1. Conducted tour of the ALARA Center for three visitors from Costain Ltd, from England. They were visiting Hanford to look at SNF, D&D Operations, FFTF, and HAMMER. Attended the 4 hour training course on the Automated Job Hazard Analysis. There have been significant changes in this course over the last 5 years.
2. Loaned Fluor Government Group a glue-on swipe box and HEPA filter to mount on their glovebag in "C" Tank Farm. Loaned T-Plant two pair of the Hexarmor cut/puncture resistant gloves for their evaluation. See [www.hexarmor.com](http://www.hexarmor.com) J. Cornelison is preparing a revision to HNF-PRAC-30472 to add several models of the Hexarmor gloves to the "pre-approved" list of acceptable gloves. If your facility needs a glove that isn't on the list, contact your Safety Rep for approval. Forwarded catalog on Master-Flex pumps to WCH work planner. They are using a peristaltic pump to drain equipment.
3. BC CRIBS Discussed upcoming plans to evaluate whether the BC Cribs should be excavated and the soil transferred to the ERDF Trench. Preliminary estimates concluded the soil is so highly contaminated, it would have to be mixed with clean soil at a ratio of 10:1 to reduce the dose to workers. Meetings are being scheduled whether to remove this material or leave in place and contain it. D. Ottley will invite the ALARA Center to participate in the planning meetings. These cribs are located south of the 200 East area near the US Ecology Site. For additional info, see <http://www.hanford.gov/cp/gpp/functionareas/wastesite/wastesite.cfm>, <http://www.hanford.gov/cp/gpp/functionareas/wastesite/bccribs.cfm>, <http://www2.hanford.gov/ddrs/common/findpage.cfm?AKey=N1D0045190>, and <http://www2.hanford.gov/ddrs/common/findpage.cfm?AKey=N1D0059068> (The last two are photos showing the cribs).
4. Participated in Teleconference with J. DeGregory and S. Waisley from DOE HQ and the SRS ALARA Center concerning the possibility of conducting a future Workshop on D&D. Discussed various topics that could be covered including the different phases of Decommissioning and the decisions that managers make on whether to decontaminate or demolish structures without decontamination. The D&D EFCOG group on D&D is working on changes to several manuals and DOE HQ is interested in documenting the latest technology. Forwarded them handouts on the fixatives used at Hanford, cutting techniques, use of expandable foam and other material written by the ALARA Center staff. DOE HQ asked both ALARA Centers to review the D&D Technology Priorities and provide input on the areas of need identified by the Sites.
5. TEMPORARY SHIELDING Discussed shielding of 55 gallon drums with Building 222-S Rad planner. They have drums stored in a building that are causing radiation problems in an adjacent building. Recommended stacking concrete "Ecology" blocks 3-high to eliminate the dose problem between the buildings. They will also look at other alternatives.

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**FOR YOUR INFORMATION**

1. Some of our vendors recently established new websites to better promote their products. These are:

- Randolph Peristaltic Pumps [www.randolphaustin.com](http://www.randolphaustin.com)
- F&J Specialty Products (Air sampling equipment that has an Underwriter's Label) [www.fjspecialty.com](http://www.fjspecialty.com)
- Hytorc Hydraulic Tools [www.hytorc.com](http://www.hytorc.com)
- R.L. Mussman Specialty temporary shielding [www.rlmussman.com](http://www.rlmussman.com)

2. Found interesting website at <http://www.osti.gov/> Looks like a lot of useful information. Read the DOE Decommissioning Handbook at [http://www.efcog.org/wg/dd\\_fe/docs/decomhandbk.pdf](http://www.efcog.org/wg/dd_fe/docs/decomhandbk.pdf) See the attached latest DOE Operating Summary.

3. The ALARA Center will be shut down on Wednesday, January 17 so we can attend a conference in Umatilla with personnel working on the D&D of chemical weapons facilities. They looked at our website and think the tools, equipment, and work practices used to work in the Hanford environment will work with their contamination. Ten personnel who are helping Umatilla and other sites are scheduled to tour the ALARA Center on Friday, January 19 to learn more. We think they may have some tools and equipment that may help Hanford. Since they are very interested in our nibbler tools, we arranged to have the Trumpf tool vendor set up and demonstrate his entire line of tools during the tour. Anyone else wanting to see the Trumpf nibblers should stop by the ALARA Center after 10:00. See [www.trumpf.com](http://www.trumpf.com).

## LESSONS LEARNED

HEAT STRESS In order to accomplish work in hot environments, it is necessary to manage the work, recognize the potential for heat stress, and take measures to prevent it. We have just completed a very hot summer that had several weeks of weather that was >100 degrees F. The weather is cooler now and the chances of having a heat stress injury are diminished. Some of the radiological work in protective clothing this summer was done at night when temperatures were cooler or during the day with short work - long rest regimens. Some buildings, like PFP, got very warm and had poor ventilation. These conditions set up possible heat stress incidents even though some of the workers were not in direct sunlight.

Last winter CH2M formed a team of personnel to look at improvements that could be made to better protect the workers. Arctic-Heat vests were purchased and worn this past summer with great success. See [www.arcticheat.com.au](http://www.arcticheat.com.au). Orex breathable-disposable clothing was worn on a few jobs where there was a high potential for heat stress and the workers loved them. See [www.orex.com](http://www.orex.com). On a few jobs, misters were used to provide a cool-down area for workers to assemble if they became too hot or there was a delay in the job. FH personnel working in the burial grounds purchased backpacks that could be filled with 2 liters of water with a hose that was clipped to the worker's collar. By biting on a valve on the end of the hose, workers could stay hydrated in work areas. Some manufacturers approved wearing the backpack with a PAPR. Workers would routinely fill the backpack 1/3 full with water, freeze it over night and fill it with water the next day.

This kept the water cold. See <http://www.outdoorproducts.com/proddetail.aspx?sku=4311OP>

Looking ahead to this coming summer, if your workscope is going to require a lot of work that has the potential for heat stress you might want to look at new choices in technology that can prevent heat stress -beginning now. Recommend your ALARA or Safety Committee review the actions taken this year and get determine whether this technology or different engineered controls are needed to solve your heat

stress problems. If you order new equipment now it will be here before the weather turns hot.

In addition, if your Field Work Supervisors, Persons-in-Charge or lead workers have not taken the non-mandatory training course on heat stress (Class #020193), this winter is a good time to get them trained. This course covers the following:

- medical conditions resulting from heat strain,
- possible sources of exposure during the job and from the environment,
- actions to minimize the potential for heat strain
- engineering/administrative controls for heat stress, and
- emergency procedures for heat-related illnesses.