

To: Waggoner, Larry O

Subject: ALARA Center Activities for Week of April 16, 2007

Attachments: shield blocks.jpg; Razor Knife Cut.doc; PAPR.doc

Visit our website at www.hanford.gov/rl/?page=974&parent=973

1. Forwarded photos to 222-S ALARA Coordinator of the concrete "Ecology Blocks" used for shielding the new fuel storage area near the Canister Storage Building. These blocks are 2' X 2' X 6' and cost less than \$40.00 each. They weigh about 3,000 pounds and have a lifting bale for handling. 222-S personnel need to shield one side of a building in order to reduce radiation levels in an adjacent building. These blocks can be stacked three high and Central Pre-Mix will deliver on site. Also forwarded photos of modular shielding blocks sold by NFS/Radiation Protection Services. These blocks are more expensive but can be hand-carried, stacked and then filled with water. They work well when there is no crane or forklift access. See attached photo of the Ecology Blocks and check out the NFS/RPS website at www.nfsrps.com. Gave sample of Polymeric Barrier System (PBS) to WCH personnel looking for a permanent sealant to cover waste drums. They will contact Bartlett Nuclear Services and discuss application methods and how much to dilute the PBS with water so they can spray from a distance. See www.bartlettinc.com.

2. Loaned new protective clothing and pictures to a CH2M RCT for show & tell at local Junior High School. Discussed the entry made in last week's ALARA report with M. Crossley of NuVision Engineering concerning recommendations on constructing a portable work facility in a Conex box for CH2M. NuVision makes a device that ensures all air flow in the facility would exit through a HEPA filter, even if a compressed air line in the facility were to rupture. We will wait and see if there is any further interest in constructing this facility. Received samples of "Benchmark" Flame Resistant coveralls from J. Robbins of National Safety. Gave samples to Refrigeration Services and Electrical Linemen to try out.

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FOR YOUR INFORMATION

1. Attended the "Hanford Old-Timers" (HOT) Health Physics luncheon

2. In case you missed them, we attached lessons learned from Oak Ridge concerning a worker who cut himself while working in a Contamination Area and a problem with a Powered Air Purifying Respirator. See attached report on "Razor Knife" and PAPR.

3. (Containment Devices) We have acquired some new work related to the use of containment devices on the Hanford Site. Recent glovebag problems and the results of a work review have revealed that improvements are needed in our training classes and our Containment Guide. Currently we are preparing a 3-hour training class for the RCT Continuing training that will cover the kinds of things that RCTs should know about containment devices. In addition, we will revise the Basic Course for Containment Installation, Certification and Removal to include more information about how glovebags are used and the need for sealing Velcro or Zip-Lock openings. Finally, the Radiological Containment Guide, DOE/EP-0749 will be revised to include these changes. Jerry Eby has the lead and will work with L. Livesey of CH2M, who is working on a similar project.

4. (Hanford Newsletter, dated April 16) Fluor has awarded a contract that could lead to divers' being deployed in the fuel pools at K Basins. Underwater Construction Corp (UCC) will accomplish practice dives in an uncontaminated pool to refine procedures and analyze the hazards. At the end of this phase,

Fluor will decide whether to proceed with actual deployment of the divers in the K Basin pools, which have higher levels of contamination than what is typically seen in nuclear diving. The significant area of concern for K Basins personnel is ensuring they can get the divers out of the pool without experiencing skin contaminations. If the decision is made to go ahead and use divers they will assist with removing sludge, connecting hoses, changing strainers, retrieving material/debris and vacuuming in hard-to-reach locations. UCC has accomplished other dives in spent fuel pools at INEL and at commercial nuclear facilities

NOTE from the ALARA Center: This decision comes down to "How much risk are you willing to accept?" The preliminary steps to demonstrate diving in an uncontaminated fuel pool should provide information needed to refine the procedures for getting the divers out of the pool. Managers can then decide whether they can manage the risk and prevent divers from becoming contaminated. Making choices and managing the risk is what D&D work is all about.