

From: Waggoner, Larry O
Sent: Friday, September 15, 2006 1:49 PM
Subject: ALARA Center Activities for Week of September 11, 2006

Attachments: GO Corp Equipment.doc

Visit our Website at <http://www.hanford.gov/rl/?page=974&parent=973>

1. Christine Bullock at LANL contacted the Center looking for evaluations on OREX PPE clothing at Hanford. Forwarded information that had been received from CH2M and additional info from the ALARA Center archives. Bill Rambow of NFS/RPS called with info about filters on bagin/bagout sleeves as noted in last weeks activity report. He recommended checking Flanders, at: www.flanderscorp.com/corp/home.htm and Farr, web site: www.farrapc.com, who make sleeves with filters. The FFTF group looking for the filtered sleeves were referred to the PFP plastic shop, where they have standard stock glue on filters.

2. Traci Rued, Ground Water RadCon, has some interest in the new PPE overshoes from Unitech, named "Unitrek", at www.unitech.ws. SRS facilities are replacing all overshoes with Unitrek overshoes because each size overshoe has a specific color and is much more flexible (easier for workers to don). The Center has samples if you're interested in comparing to the ones worn now.



3. Met with the salesperson from Kelly Klosures, who was visiting the Site. He has submitted proposals to CH2M, T Plant, Energy Northwest and the Vit plant on temporary buildings that could be used for radiological work. See <http://www.kellyklosure.com/> Discussed methods for emergency egress from a containment with WCH Radcon. They will be using a containment in the 300 area and workers raised a concern about evacuating the tent in case of an emergency. Recommended he talk to the containment vendor and consider the use of a knife in a leather pouch inside the containment or a "kick-out" panel in the containment wall held in place with Velcro. Also recommended hanging a flashlight in the containment in case of loss of power.

4. Delivered ten samples of Hex-Armor Gloves to PFP for evaluation. PFP selected three styles they intend to order. Transferred the gloves to SNF to evaluate. So far, three facilities have looked at the gloves and each has placed orders. These gloves are rated at Level 5, which is the highest level of cut and puncture resistance. The company offered to make large sizes to fit over glovebox gloves. See www.hexarmor.com Recommend looking at the Website video. Our goal is to make the handling of

sharp objects safer for workers and reduce the chance of a contaminated wound. To order, call Jay Robbins of National Safety at (509) 670-9985 or (800) 213-7092.

5. Met with six personnel from CH2M and listened to them brainstorm a job involving the removal of a HEPA filter housing from a tank riser. After looking at several options, they determined the safest way to accomplish the job was to remove the HEPA filter, dry the free-standing moisture from the housing and spray a fixative. The filter housing can then be removed in a glovebag. Three personnel from WCH stopped and discussed the need for a containment sleeve for removing 20' long components. They decided to make a sketch and fax to Lanc's Industries. See www.lancsindustries.com.

6. George Carter, Fluor Project Engineering, called the Center looking for on site CO-2 blast units for possibly cleaning ventilation ducting for CH2M Hill. The Center referred him the Dave Andrews at T-Plant who has an ice blast unit that was in storage. Jerry and site respiratory technical authorities attended a 3M Respiratory Protection Seminar at the TRAC that focused on protection measures for welding/cutting fumes and airborne particulate. The main subject was working with stainless steel and the new OSHA Hexavalent Chromium (Cr6) Standard. The remaining Hanford work scope includes a large amount of size-reducing of stainless steel components and we were interested in new engineered and administrative control requirements. 3M displayed a number of respirators, masks, hoods, PAPR's, air supplied masks and other respiratory equipment. The seminar was at no-charge and presented by two 3M Welding Products personnel and one speaker from Associated Industries.

FOR YOUR INFORMATION

1. Found interesting website with a video showing a worker decontaminating himself after working in an area with a simulated chemical spill. See <http://www.mitico.com/> and click on "Decontamination Wash Systems".

The ALARA Center has been invited to work with CH2M and the HAMMER Training facility on setting up realistic mockups to improve RCT training. Recommended calling Susan Raymond, who coordinates what materials are excessed on site, to obtain piping, valves, gauges, etc to construct a mockup.

2. Often we need to drain or depressurize piping as part of D&D and maintenance. Sometimes there isn't a convenient way to ensure the piping is drained or depressurized. One of the technologies used is to mount a "hot tap" to the piping and drill into the pipe. The water or pressure is relieved through a drain connection on the hot tap. Hot taps can be mounted to the pipe by welding a threaded connection on the outside of the pipe or attaching a saddle around the pipe and drilling through the saddle. You can see a video of a hot tap on a pipe at <http://www.aquatap.com/>. In the video, the saddle is already mounted to the side of the pipe. Normally the hot tap would be positioned at the lowest point to drain the entire pipe. In the video, the liquid in the pipe drains straight down into a bucket and it is difficult to see. Hot taps have also been used to drill a hole up or downstream of a cut location so that a HEPA filtered vacuum cleaner can be connected and draw a suction on the pipe. With the vacuum cleaner operating, once severance is obtained during the cut, air flow will be into the cut because of the vacuum cleaner suction. This can reduce contamination spread during the cutting. Drop by the ALARA Center to see different types of hot taps that have been used at Hanford.

3. The Office of Environment, Safety and Health (OSHA) has just changed the protection factors for respiratory protection. Read the change at http://www.eh.doe.gov/paa/safety_advisory.html. Also note the other Safety Advisories at this website. Forwarded this info to HAMMER to evaluate whether changes in Respirator Training are required. Forwarded info to Energy-Northwest on cleaning/decontamination contaminated vent ducting. Referred them to George Carter who is working on a similar project.

4. Received copies of new G/O catalogs on Safety Equipment for the Nuclear Industry and a 1" thick catalog on Warning Signs, labels, and accessories. G/O sells high quality equipment to the nuclear industry. In reviewing their catalog there are several items that are valuable products that aren't well

known to many workers. I copied some of the products from the catalog and have attached them to this report. ALARA Center comments on the Attachment are in **BLUE**. Stop by the ALARA Center to get a copy of a catalog or call to have one mailed. See the entire catalog at www.gocorp.com.

5. Spent some time with 222-S lab Radcon discussing portable HEPA ventilation requirements for a containment they are going to use to remove a large contaminated lead cave. Recommended minimum air flow through the tent to be 20 Air Changes per hour. (An air change is the equivalent of drawing the volume of the work section through the vent system. Measure the containment work section volume in ft³, multiply by 20 air changes per hour and divide by 60 minutes per hour. Answer is the minimum volume for the vent blower in CFM.) Recommended they purchase a NFS/RPS vent system that has been tested by a Nationally Recognized Testing Lab. See www.nfsrps.com.

6. We use grout to fill the void spaces in waste containers. I always understood that grout was liquefied concrete. A better explanation can be found at <http://www.nrmca.org/aboutconcrete/cips/22p.pdf> This document is published by the National Ready Mixed Concrete Association (NRMCA) and can't be copied, but can be read. The NRMCA website is at <http://www.nrmca.org/> and if you scroll down the page and click on "Concrete in Practice" in the left margin you can see a list of 39 documents related to the concrete industry. These documents can be purchased by following the instructions on the website.

LESSONS LEARNED

1. Received information from Washington Closure Group Radcon concerning problems they have recently had when using air samplers connected to portable generators. The following is an excerpt from an email from Dave Brehm at (509) 372-9393 that describes the problem and what was done to correct it. NOTE: F&J Specialty Products and Radeco are two air sampler companies that have met the OSHA requirements that electrical equipment has to be tested by a Nationally Recognized Testing Lab. There may be other manufacturers that we don't know about.

- The F&J Specialty Product digital air samplers have a 95 volt under-volt cut off. This protects the instrument from over-current (and over heating) during an under-voltage condition. When the samplers are run on a generator, even a large one, the starting load of the sampler can cause a momentary dip in the supplied voltage from the generator. This is most prevalent when the generator is at idle. My best guess it that the slight delay between the generator sensing the increased load and the generator's governor responding is long enough to allow the voltage to dip below 95 volts.
- During testing we ran the samplers on self-contained light plants. When the lights are off (and the generator is at idle), they often had problems starting the samplers. If the lights are on (and the generator is more into its power curve), the samplers start just fine. Once the sampler is started, it continues to run just fine, lights on or off.
- Just a note, we verified the samplers work as expected all the time when connected to a facility 110VAC outlet.
- There is no problem starting & running older, analog air samplers on generators. I suspect that is because there is no under-volt protection other than the standard slo-blow fuse on the device. Something to consider when running an analog air sampler on a generator is what the steady-state (i.e., after start up) voltage being supplied to the sampler is. Continued use at a reduced voltage will result in damaged to the sampler from over heating.

2. The Occurrence Report Description below describes a possible problem with a vendor supplying a fixative that was different than what was ordered. The investigation is continuing and more info will be provided later by WCH.

OCCURRENCE REPORT NUMBER: Pending (GENAREAS)

REPORTING CONTRACTOR: WCH

REPORTING FACILITY/AREA: 118-K-1 Burial Ground/600 Area

REPORT ORIGINATOR/PHONE #: T. S. Quinn 372-9439

DATE/TIME OF DISCOVERY: 09/14/06 1300

DATE/TIME CATEGORIZATION: 09/14/06 1300

DATE/TIME ONC NOTIFIED: 09/14/06 1441

OCCURRENCE REPORT STATUS: Notification Report pending

SIGNIFICANCE CATEGORY: 4

HQ-OC PROMPT NOTIFICATION: NA

OCCURRENCE REPORT CRITERIA: Group 4C, Suspect/Counterfeit and Defective Items or Material,(2) SC4: Discovery of any suspect/counterfeit item or material other than office supplies, office equipment, or household products.

OCCURRENCE REPORT DESCRIPTION: On September 13, 2006, Washington Closure Hanford (WCH) subcontract workers were preparing to apply a soil fixative in response to anticipated high wind conditions at the 118-K-1 burial ground remediation site. At the time, an odor was noted that could have been associated with the fixative product (Terrabond). In researching the odor, WCH Industrial Hygiene contacted the vendor and requested a Material Safety Data Sheet (MSDS). The provided MSDS contained no indication the product had a specific odor associated with it. WCH contacted the manufacturer, who indicated Terrabond had not been manufactured or sold to the vendor for 5+ years. The vendor was contacted again and admitted to purchasing a product called Stockopam and replacing the manufacturer label with a vendor-made Terrabond label. The vendor indicated he had verbal permission from the manufacturer but could produce no supporting documentation.

Note: The initial investigation began on 9/13/2006, at which time the DOE FR was notified of the situation.

IMMEDIATE ACTIONS TAKEN: All WCH projects suspended the use of the product on all projects and initiated an investigation to determine if the vendor was actually providing Stockopam or an alternate substitute.

DID YOU KNOW?

Hanford personnel - Did you ever want to visit someone on Site but don't know where their office is located? You can pull up their phone information on the net and it lists their primary location, along with their company, manager, etc. If you click on the primary location, a map will appear showing the location of the building or mobile office.