

SRS ALARA CENTER (AC)

Engineered Solutions for Radiological, Safety & Industrial Hygiene Applications.

JUNE 2009 ACTIVITY REPORT

ASSISTANCE, RESEARCH, AND TOURS

The external SRS ALARA Center website is posted at www.srs.gov/general/programs/alara/alara_center.htm

The internal SRS ALARA Center website is available in ShRINE at the ESH&QA Regulatory and Radiological Technologies web-site. www.srs.gov/general/programs/alara/

The FLUOR Hanford ALARA Center website is available at www.hanford.gov/rl/?page=973&parent=0

The D&D Knowledge Management Information Tool (D&D KM-IT) is a web-based knowledge management information tool custom built for the D&D community. This system was developed by Florida International University – Applied Research Center (FIU-ARC) in collaboration with the Department of Energy (DOE EM20), EFCOG, and the ALARA Centers at Hanford and Savannah River. <http://dndkm.arc.fiu.edu/dndkm/>

The ALARA Center ordered H-Area Tank Farm RPD personnel two Unitech swing gate stanchions (part number Stanchion-05A). The display from the ALARA Center was provided to expedite usage. This stanchion holds up well in an outdoor environment.

The ALARA Center ordered the following G/O Corp items for posting emergency radiological areas in the F-Area Tank Farm. www.gocorp.com

- Four Portable Posting Kits, part number GZ1952-N - 36"H x 23" dia. "X" frame base, Magenta and yellow belts, (kit includes four postings with carrying bag).
- Four sign holders that fit on top of the stanchion, part number GZ2014-N
- Ten clamp mounts for radiological entry point, part number GZ2065-N

An ALARA Center staff member is an Integrated Project Team member looking at potential improvements to the site glove box glove program in response to multiple failures in a facility.

AMERICAN RECOVERY AND REINVESTMENT ACT (ARRA) SUPPORT

The ALARA Center assisted D&D Radiological Protection Department (RPD) with writing specifications for six outdoor radiological posting signs.

On 4/22/09 the ALARA Center facilitated a presentation by Environmental Alternatives Inc. (EAI) decontamination technologies for D&D Area Projects personnel interested in their RadPro chemical extraction process for potential use at a SRS plutonium facility on the ARRA D&D list. The DOE site at Hanford identified the potential for self-heating caused fires within TRU waste drums containing RadPro. The issue was addressed and Hanford resumed decontamination work using RadPro. However, they are not shipping any waste containing RadPro until a USQ is completed.

D&D Operations borrowed the ALARA Center Bullard Isotherm Cool Vest then ordered twelve of their own to combat heat stress. The vest will maintain a constant 55° F for over 2 hours of cooling duration at 90°F. www.bullard.com/V3/products/body_temp_management/isotherm/

The ALARA Center met with TRU Remediation operations and Rad Con personnel on multiple occasions to determine equipment needs listed in the remainder of this section.

The Nilfisk GM-80 HEPA vacuum system and accessories listed below will be used to remove debris from glovebox exhaust screens. One each of all items was ordered to support mock-up training.

Part #	Description
01790190	GM80 GMPJ 110-120V W/O ACCESS

Part #	Description
01710440	Filter Exhaust HEPA
11730410	Polyester Microfilter
01720515	Inlet Coupler 1.25"
81813200	Gray Plastic Hose 32 mm
01745900	Grey Hose Cuff 32 mm
11276901	3" Round Dust Brush

Two glove options listed below were provided to wear over the glove box gloves for added worker protection.

- The Salisbury LP3S-10 size 10 (12 inches long) leather lineman's glove made to fit over an electrical rubber glove. The Stores caption/item number is 20-2565.00. Although not store stocked it is available in a size 11.
- The PIERCAN USA Hexarmor Overglove HOG0408 utilizes Hexarmor material with leather on the inside area of palm, fingers, and thumb. This glove extends to the elbow and was designed specifically to fit over glove box gloves to protect both the worker and glove box glove. Attached is a brochure. 

The recently SRS store stocked Kimberly Clark Sterling Xtra Nitrile single use glove was recommended as a disposable latex glove replacement. The nitrile glove will not tear when handling duct tape like latex and therefore will provide better worker protection.

A peelable decon product such as Decon Gel 1101 was recommended for coating prior to papering the floor. This would prevent contaminating the floor if contaminated paper was torn. If the Decon Gel became contaminated another coat could be applied to fix contamination then removed after drying. www.decongel.com

D&D Operations during asbestos abatement work pilot tested Quest Q-Gard Quantumwear, a new disposable white coverall with attached hood/booties and reinforced knees and elbows. Feedback was positive and evaluations are extending to other facilities and could be considered for TRU Remediation activities. The same fabric is available in a Quest coverall named Comfortwear that doesn't have attached hood and booties. D&D Operations ordered twenty-eight cases of Quantumwear in a variety of sizes. They also ordered six cases of Barrierwear coveralls because they provide better protection from liquids.

VENDOR INFORMATION & DEMONSTRATIONS

On 6/1/09 Earl Jacobson from Nuclear Power Outfitters visited SRS to discuss their ALARA/Rad Waste engineered solutions and services such as T-Flex tungsten shielding, lead blankets and mobile lead blanket support systems. www.alarasolutions.com. Larry Jassin from Eichrom was also present. Eichrom recently acquired Nuclear Power Outfitters. www.eichrom.com

On 6/22/09 Chris Smith from Intellegation, LLC visited SRS to discuss their custom extended tools. He will return soon and demonstrate a new extended tool that telescopes using either hydraulics or pneumatics. www.IntellegrationLLC.com

Tungsten Spheres is a subsidiary of Tungsten Heavy Powder, Inc., which manufactures a unique type of very heavy pure tungsten powder in the form of solid spheres, balls, shot, and cubes. Sphere, ball, and cube dimensions range from 3 mm to 100 mm (1/8" – 4") with a maximum density of 18.5 gr/cc. Shot dimensions range from 2.03 mm to 4.83 mm with a density between 14 and 15 g/cc. In certain shielding applications these products could be a cost effective solution to lead. www.tungsten-spheres.com/tungsten_shot.html

Shafer Enterprises, Inc. is now offering a Self Contained Personal Cooling System. It utilizes a cooling unit with pump and 12 volt battery worn at the waist. The unit connects to a Cool and cold water circulates through small diameter tubing sewn into the shirt to maintain a worker safe core body temperature. The ALARA Center is pursuing obtaining a loaner unit. www.coolshirt.net/comfort-cooler.html

Jon Stouky has two like new (used only for about 6 demonstrations and for trade show displays), Mega-Tech Services, Inc. BPC-2.5 Hydraulic cutting tools, a new 50' by 10,000 PSIG hydraulic hose set, 4 spare blades and a brand new Honda 5 HP by 10,000 PSIG portable Hydraulic Power Unit (gas powered) for sell at a discounted price. Jon can be reached at 336.210.0662.

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