

SRS ALARA CENTER (AC) SEPTEMBER 2008 ACTIVITY REPORT

ASSISTANCE, DEMONSTRATIONS, 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 ALARA Center provided D&D Operations with Nilfisk VT60 HEPA Vacuum System accessories to expedite work. www.nilfiskcfm.com/ProductDetail.aspx?m=88

Veasey Wilson, SRNS Business Services Vice-President, and Chris Boroughs, SRNS Procurement, toured the ALARA Center on 9/8/08.

The ALARA Center provided both the Saltstone Facility and F-Area Tank Farm with a Kestrel 1000 Wind Meter. Twelve were ordered for H-Area Tank Farm. In accordance with SRS Manual 5Q1.2, Procedure 496 *Radiological Containments*, the Kestrel 1000 is the preferred vane anemometer for site Radiological Control use and is available from the SRS ALARA Center. Each meter is valid for two years from the date of issue and is labeled to communicate the expiration date.

The ALARA Center ordered the Effluent Treatment Facility (ETF) six buckets of metal rad barrier chain, #2 double loops, yellow and magenta, 500 ft. per bucket. A patented process is used to apply the "EVERLAST" 2-mil powder coating that is then baked on to create a durable and long lasting finish. Part #GZ1380 is available from G/O Corporation. www.gocorp.com/product.php?ID=41

The ALARA Center arranged for Greg Holley, Sherwin Williams Paint Company Certified NACE Coating Inspector, to walk down the Saltstone Facility Vault #4 outer concrete wall prior to recommending a surface coating. Loxon Finish A24W300 was his recommendation. It is an acrylic coating specifically engineered for exterior, above-grade, masonry surfaces requiring high performance protection. It is highly alkali and efflorescence resistant. It also provides a highly durable and weather resistant finish to concrete, concrete block, brick, and stucco and may be applied to a surface with a pH of 6 to 13.

The ALARA Center loaned the K-Area Radiological Engineer two one inch thick samples of Thermo poly shielding to evaluate neutron shielding effectiveness. The shielding was placed at four locations of differing radiation rates and demonstrated a one inch thickness of the poly shield material consistently reduced the neutron rate by 30% at all locations.

The ALARA Center loaned the Waste Management Area Projects Radiological Engineer a Cuno CTG-Kleen Liquid Filter System to evaluate prior to use. CTG-Klean is a totally enclosed filtration system that uses a separate pressure vessel and disposable filter pack to isolate the product to be filtered from the housing. This exclusive design eliminates the extensive time and labor involved with filter change-outs and cleaning of conventional housings. Environmental concerns and operator exposure to product cleaning solvents are substantially reduced. The system will be used to filter 200-300 gallons of liquid waste to reduce the activity from TRU Waste to Low Level Waste prior to disposal.



The ALARA Center provided the Tritium Facility with several Nalgene Polypropylene 0.5 gallon bottles with 100 mm screw cap (part number 2121-0005). This is the highest density poly bottle of its size that Nalgene manufactures. The bottle will be used to store radioactive material.

Joe Butler, FTF Rad Con, visited the ALARA Center and realized an application for the NFS In-Line Flow Indicator. Currently, Rad Con periodically measures and records the Tanks 5 & 6 exhaust using the Kestrel 1000 Wind Meter. If the In-Line Flow Indicator were used a FTF Operator could verify an acceptable operating range during routine rounds. www.nfsrps.com/prod/133/58

The Defense Waste Processing Facility (DWPF) ALARA Coordinator provided the ALARA Center with results of their use of Decon Gel 1101 strippable fixative coating applied to recessed and flat surfaces inside a stainless steel radiohood. The results are reported in transferable beta gamma contamination per 100 cm². The area background radiation dose rate was too high to probe for fixed contamination.

- 1st application before - 120,000 dpm after - 10,000 dpm
- 2nd application before - 10,000 dpm after - 4,000 dpm
- 3rd application before - 4,000 dpm after - yet to be removed

The 772-F Laboratory Rad Con Manager contacted the ALARA Center needing personnel protective equipment for workers to wear with a plastic suit while standing in six inches of water. The two options listed below were provided.

- Sterns Lightweight Utility Stocking feet Chest Waders (Respiratory Protection Program Lead approval would be needed to wear them over a plastic suit). These waders have been successfully used by Liquid Waste when cleaning outside basins. www.maddoggear.com/dyn_prod.php?p=STRH109
- 17 inch high PVC Overshoe Slicker with strap. (SRS store stocked numbers 32-7023.00 thru 32-7027.00 sizes 9 – 13) www.onguardindustries.com/content/index.cfm?mID=1&mpage=product&prodID=50

The ALARA Center ordered six sets of Unitech CoolTech modesty clothing and six Shafer Enterprises Ponchos at the request of the H-Area ALARA Coordinator. The modesty clothing will be used to combat heat stress during a job in the Hot Gang Valve Corridor section 5 in H-Area Canyon. Samples were evaluated last month and results warranted their use. www.unitech.ws/literature/CoolTech_Scrubs.pdf
www.coolshirt.net/acc-cool-shirt-options.html

VENDOR INFORMATION AND VISITS

The ALARA Center received a Nilfisk Eliminator 1 HEPA Filtered Dry Collection Vacuum System and a Nilfisk Eliminator 2 HEPA Filtered Wet/Dry Collection Vacuum System for display. These systems require review and approval by the Site Ventilation Committee before site use is permitted. Vacuum includes: HEPA Filter, Float Chamber (Eliminator 2 only), Hose with Curved Aluminum Wand, 2 Telescoping Wands, Dust Brush, Crevice Nozzle and a Floor Tool with 3 inserts, each designed for a specific floor surface. See pictures and information below.



Eliminator 1



Eliminator 2

Specifications	for	both:
Voltage	120V	
Power	1350 watts	
Current Draw	11.2 amps	
Waterlift, max	95" of H ₂ O	
Airflow, max	130 cfm	
Noise Level @ 3'3"	65dB(A)	
Filter Area, main filter	225 sq in	
Filter Area, HEPA	1007 sq in	
Paper Bag Capacity	7.25 gal	
Tank Capacity (dry/wet)	12	
Cord Length	50 feet	

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