

SRS ALARA CENTER (AC) AUGUST 2007 ACTIVITY REPORT

ASSISTANCE, DEMONSTRATIONS, RESEARCH, AND TOURS

The SRS ALARA Center & SRS ALARA Program web-sites have been combined into one ALARA web-site. The external SRS ALARA Center website is posted at

<http://irmsrv35.srs.gov/general/programs/alara/>.

The internal SRS ALARA Center website is available in ShRINE at the ES&H 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 was involved in the evaluation and corrective action plan concerning a Nilfisk GS625 vacuum HEPA filter failure on 8/14/07. A formal lesson learned will be issued soon. D&D was using a Nilfisk GS625 HEPA filtered vacuum system to collect concrete dust and nickel to dime sized concrete debris when a HEPA filter failed. It was determined that the concrete debris degraded the paper bag, cloth main filter and overloaded the HEPA filter. The cloth micro filter is the last stage of filtration to provide additional protection to the motor and HEPA filter but was not installed. It can be assumed that the cloth micro filter would not have prevented failure of the HEPA filter since the cloth main filter degraded. The manufacturer was contacted and recommended using AES poly composite main and micro filters rather than cloth filters when vacuuming abrasive material such as chunks of concrete. The AES poly composite main filter is part number 01723200 and the AES poly composite micro filter is part number 01723000. The Nilfisk GM80 series HEPA vacuum is the same technology as the GM/GS625 and the same recommendations apply. The GM80 uses the same micro filter as the GM/GS625 and the part number for the GM80 poly composite main filter is 01723110. Nilfisk will revise the GM80 and GM/GS625 "Instructions for Use" to add a caution documenting when to use the poly composite filters. In addition, all future Nilfisk GM80 and GM/GS625 vacuums supplied to SRS will come with the poly composite filters. HEPA Filter Custodians should ensure that Nilfisk GM/GS625 main filter and micro filters are inspected to verify integrity. These filters should be replaced with poly composite filters if the possibilities exist to vacuum abrasive debris such as concrete. The poly composite main filter and micro filter will be the standard filters provided by Nilfisk when the GM/GS625 and GM80 HEPA vacuums are ordered by SRS in the future. The second, third, and fourth pictures below are from the actual event. The first and last were taken in the ALARA Center to provide additional information.



Nilfisk GS625



Failed Main Filter



Failed HEPA Filter



Gasket in Place



Micro filter

The ALARA Center ordered six Infab full coat wrap aprons in the Greenlight (no lead) from Pacific Northwest X-Ray Inc. for Spent Fuels in L-Area. This is an ALARA initiative to reduce personnel occupational radiation exposure.

www.pnwx.com/Accessories/LeadProducts/Aprons/Infab/FullCoatWrap/

The ALARA Center ordered four-twelve foot long EZ Reachers for FTF. They will be used as an ALARA initiative to reduce occupational radiation exposure during Pump Pit 1 work.

The ALARA Center provided D&D with information on the Nilfisk VT-60 HEPA vacuum system for use in wet and dry applications.



The ALARA Center recommended LANCS Industries and Extra Packaging Corp. to DuPont USA who is looking for 55 gallon fire resistant plastic bags.

A team consisting of personnel from the ALARA Center, Safety, and a First Line Rad Con Manager performed a rubber overshoe evaluation in HTF on Tank 43 in response to reported slips while wearing the Unitrek rubber overshoes in wet conditions. The Unitrek rubber overshoes were adequate except where unsafe conditions existed. The unsafe condition was epoxy painted concrete tank top areas that did not have grit applied. In addition, Unitech Laundry Services will stop using a particular chemical in the rinse cycle that somewhat contributes to slippage. HTF has identified and will correct all of the unsafe conditions.

The ALARA Center provided the Hanford ALARA Center with information on "Diamond Wrap". It is a carbon composite wrap for pipeline repair. The product was demonstrated at SRS in July 2004 and the product was impressive. www.cittech.com



NEW VENDOR INFORMATION AND VISITS

On August 21, 2007 Rory Mackenzie with Industrial Automation Services, Inc. conducted a demonstration of the DMS RF Welder in the 705-C Containment Fabrication Facility. The welder has potential use at SRS and another demonstration will be scheduled for October 07.

The ALARA Center met with Pete Parrington with Expansion Seal Technologies and received information regarding OD GripTight Test Plugs and Double Block & Bleed Isolation Plugs. This information was passed on to Utilities Maintenance personnel.

The ALARA Center met with Todd Rockwood with GE Inspections Technologies and received information regarding their Off-Riser Sampler System and Robotic Crawler With Sampling Scoop. The attachment tools can be used with a fiber pole rather than a robot for use in tanks with cooling coils. www.ge.com/inspectiontechnologies



The ALARA Center was contacted by D&D who needs a portable air sampler for use where line power is not available. The F&J Specialty Emergency Response Sampling System Model DF-AB-40L was recommended. It is portable, lightweight, and is powered by an on-board 4500 mAH NiMH battery, line power, or a vehicle cigarette lighter.



The ALARA Center has on display a Milwaukee electric 16 gauge bolt shearer received from MSC Industrial Supply Company.

The ALARA Center returned a CFM 217 HEPA vacuum loaned to the ALARA Center by Nilfisk-Advance. This system has been discontinued.

POINT OF CONTACT

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