

## UPDATE ON SS22, FORMER DRMO STORAGE YARD ENVIRONMENTAL RESTORATION PROGRAM ELMENDORF AIR FORCE BASE, ALASKA

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Remedial investigation results from environmental restoration site SS22 indicate the need to expand the site boundaries and continue investigating to ensure protection of human health and the environment and to complete appropriate cleanup of contaminants.

SS22, Former Defense Reutilization and Marketing Office Storage Yard, located on Elmendorf Air Force Base, is a 22-acre contaminated site located east of the current DRMO facility. Past practices at the storage yard resulted in various contaminants affecting the soil, soil vapor and groundwater at the site.

The area of the SS22 site historically was used to store excess material for reuse, resale or disposal. In 1988, SS22 was identified as a potential site by Alaska Department of Environmental Conservation because the area was used to store empty drums. No evidence of spills or a release of hazardous material was identified; therefore, in 1991, the Air Force, U.S. Environmental Protection Agency and ADEC determined no further action was necessary at SS22.

In 2002, the site was reopened after discovery of tar seeps and buried drums in the area. A geophysical survey identified 15 areas of interest within the original 22 acres of property. The Air Force awarded a contract in 2007 for completion of a Remedial Investigation/ Feasibility Study under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

Phase 1 of the Remedial Investigation included field screening completed in the summer of 2007. Phase 2 occurred during 2008 – 2009 and included collecting soil, groundwater and soil gas samples.

Several types of contamination were detected:

- Petroleum such as diesel, oil and asphalt,
- Benzene, an ingredient in fuels,
- Metals such as lead and arsenic,
- Chlorinated solvents such as degreasers,
- Pesticides including DDT and DDD,
- Polynuclear aromatic hydrocarbons (PAHs) and dioxins, likely from burning activities,
- Polychlorinated biphenyls (PCBs), likely from electrical equipment, and
- Radium-226, from self-luminescent paint used in instrument dials.



*Location of SS22 site on Elmendorf AFB, Alaska*

The base's Radiation Safety Officer determined that the Radium-226 levels did not pose a significant health risk. However, the area is fenced and work in the area is monitored to ensure people with access to the area take appropriate precautions, as required by the Air Force Radioisotope Committee.

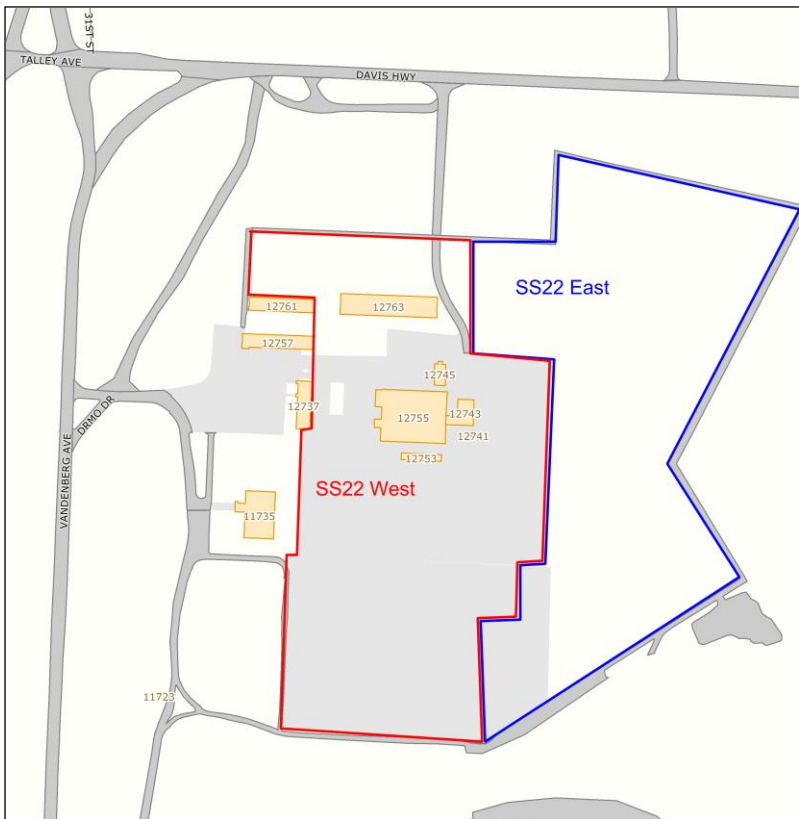
A chlorinated solvent plume in groundwater appears to extend from an area of buried debris in the southern portion of the SS22 site toward the current DRMO facility. The extent of this plume will be defined during upcoming field investigations.

Scientific and anecdotal evidence collected during Phase 2 of the investigation suggested there may be additional buried debris in the area. Consequently, the boundaries of SS22 are being expanded. The expanded site will include the original site, SS22 East, plus 24 acres of property encompassing the current DRMO facility and recreational vehicle storage lot, SS22 West, for a total of 46 acres.

Remedial investigation of the expanded SS22 area will be conducted during Phase 3 of the investigation. Details of the Phase 3 work plan are currently in development.

### **The Way Ahead**

Members of the 3rd Civil Engineer Squadron Environmental Restoration Section will work with EPA, ADEC, Air Force Radioisotope Committee, 3rd Aerospace Medical Squadron Bioenvironmental Engineering, and other agencies to determine appropriate actions based on the latest findings.



*Proposed expanded SS22 site, Elmendorf AFB*

### The Way Ahead (Cont.)

They will first decide on a plan to ensure employees and customers of the current DRMO facility are protected from unsafe exposure to contaminants during the investigation and cleanup process. Testing will include evaluating the potential risk from radionuclides and contaminated soil vapors.

Future actions at the site include steps to meet requirements of the CERCLA process, including continuing the remedial investigation and feasibility study, completing a risk assessment to identify potential environmental and human health risks related to contamination and developing a proposed plan.

The proposed plan, expected in 2012, will outline a preferred remedy for the site after a detailed analysis of the possible cleanup alternatives is conducted. Public comments on the proposed plan will be considered before the record of decision, or ROD, is published. The ROD explains the remedial actions selected for the site.

### Glossary

**Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):** A law providing broad federal authority to clean up releases or threatened releases of hazardous substances that may endanger public health or the environment.

**Defense Reutilization and Marketing Office (DRMO):** A Defense Department agency that disposes of excess

military property or materials, often through reuse, resale, or recycling.

**Radionuclide:** An atom with an unstable nucleus. Very low levels of radionuclides are common in air and water; most are naturally occurring and at levels low enough not to be considered a public health concern. When radionuclides are present in higher concentrations, radioactive contamination may be present.

**Radium-226 (Ra-226):** An isotope of radium, a radioactive chemical element. Radium is an alkaline earth metal that is found in trace amounts in uranium ores. Ra-226 has a half-life of 1,602 years and decays into radon gas.

**Remedial Investigation/Feasibility Study (RI/FS):** The remedial investigation serves as the mechanism for collecting data, while the feasibility study is the mechanism for the development, screening, and detailed evaluation of a variety of potential cleanup actions.

**Record of Decision (ROD):** The public document for a site that explains which cleanup alternatives will be used.

### For More Information

All relevant documents for SS22 and the Elmendorf AFB environmental restoration program are located at the information repository:

**Alaska Resources Library & Information Services**  
University of Alaska,  
Anchorage Consortium Library  
3211 Providence Drive  
Anchorage, AK 99508  
Phone: (907) 786-7650

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Elmendorf AFB maintains a list of individuals who have expressed an interest in receiving information and updates on the environmental restoration program. To be added to the distribution list, provide your name, organization, address and e-mail address to the environmental community relations coordinator listed above.