

Environmental Monitor

January 2012

“No Further Action” Status Achieved at SWMUs 19 and 35

By Chris Pulskamp, PCD Project Manager

The Colorado Department of Public Health and Environment (CDPHE) will be selecting the remedy for two Solid Waste Management Units (SWMUs) at Pueblo Chemical Depot (PCD) in the near future. The remedy for these SWMUs will be No Further Action (NFA) with restrictions on future use. NFA means that the site has been investigated, the nature and extent of contamination has been identified, and a remedy to clean up the contamination is complete. SWMUs 19, Red Fuming Nitric Acid Washout Disposal Area, and 35, Vehicle Maintenance Building 595, are now closed as far as corrective actions are concerned.

SWMU 19 is located in the southwestern corner of PCD, within the Western Wildlife Management Reuse Area. Tanks containing Red Fuming Nitric Acid, which mixed with rocket fuel, were steam cleaned during the early 1950s. This cleaning resulted in groundwater contamination consisting of a compound known as N-nitrosodimethylamine, or NDMA, which is a breakdown product of rocket fuel. Future use of this SWMU will be restricted to wildlife use.

SWMU 35 was used for long-term maintenance, steam cleaning, and undercoating of military vehicles. This SWMU is located in the northwestern corner of the warehouse area, and includes Building 595, a drainage ditch to the east of the building, and two storage areas to the north and northeast of the building. Building 595 was demolished in 2001 and only the foundation remains. Future use of this SWMU will be restricted to industrial use. ♦

Article Correction

The article on LTC Greenhaw in the October 2011 issue of the *Environmental Monitor* should have been credited to the Assembled Chemical Weapons Alternatives, *Connect with PCAPP* July issue. We apologize for this oversight.

Groundwater Sampling Demonstration for RAB

By Lisa Stahl, Shaw Environmental, Inc.

Shaw Environmental, Inc. provided an informative groundwater sampling demonstration for Restoration Advisory Board (RAB) meeting attendees at the October 17, 2011 RAB meeting. The demonstration



Mike Barker and Kyle Trask of Shaw Environmental, Inc. demonstrate sampling procedures.

was held so interested community members could see the activities involved with collecting groundwater samples as part of the environmental remediation work conducted at PCD. ♦



Mike Barker shows how to collect a water sample.



Showing how a sample is prepared to be sent to the lab.

Calendar of Events

Important DATES!

January 9, 2012: 6:00 p.m.
Restoration Advisory Board (RAB) Meeting, Pueblo Chemical Depot Theater, Building 6

April 9, 2012: 6:00 p.m. Restoration Advisory Board (RAB) Meeting, Pueblo Chemical Depot Theater, Building 6

The *Environmental Monitor* is published quarterly by Pueblo Chemical Depot for the citizens of Pueblo County and surrounding communities. Editorial views and opinions expressed in this publication are not necessarily those of the Department of the Army.

The *Environmental Monitor* encourages comments, questions, and suggestions. Please direct all correspondence to the Public Affairs Office, Pueblo Chemical Depot, 45825 Hwy. 96E, Bldg. 1, Pueblo, CO 81006-9330, or call 719-549-4135.

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Step by Step, SWMUs Are Cleaned Up Under RCRA Corrective Action

by Ann Mead, PCD Project Manager

Areas at Pueblo Chemical Depot (PCD) where wastes have been managed historically are subject to rules governing investigation and cleanup under the Resource Conservation and Recovery Act (RCRA). The RCRA corrective action process is a phased approach to address these areas, called Solid Waste Management Units (SWMUs). PCD currently has 60 SWMUs in various phases of the corrective action process. Not all steps of the RCRA process are completed at a SWMU; activities conducted are based on the level of contamination found at a SWMU. The following is a summary of the steps that make up the corrective action process:

Assess: A **RCRA Facility Assessment (RFA)** is conducted to identify past and present operations that occurred at the SWMU. The assessment includes a records review and site visit, as well as possible sampling and analysis to evaluate whether a release of hazardous waste has occurred. A RFA Report is prepared and summarizes conditions found at a SWMU and whether further action is required.

*If an immediate threat to human health or the environment is discovered during assessment or investigation, an **Interim Corrective Action or Measure (ICA or ICM)** may be taken to control or reduce these threats prior to selection of a final remedy.*

Investigate: A **RCRA Facility Investigation (RFI)** is performed if additional investigation is required after the assessment. The purpose of the RFI is to physically investigate the site through sampling and analysis of environmental media to identify the nature and extent of contaminant releases from the SWMU. A RFI report summarizes investigation results and presents conclusions and recommendations. If the information gathered during the RFI is not adequate, a Supplemental RFI may be required to fill in data gaps.

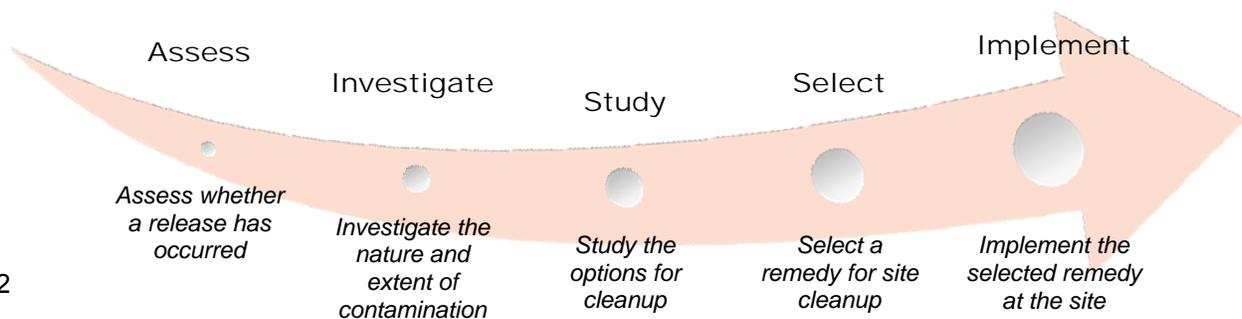
Study: A **Corrective Measures Study (CMS)** is developed if the investigation indicates there is contamination in the environment. The CMS is used to develop and evaluate various alternatives for cleaning up a SWMU, which are then presented in a report outlining the alternatives.

Select: Remedy selection to clean up the SWMU comes after the CMS is developed. At this point, PCD and/or CDPHE seek public comment on recommended options prior to CDPHE selecting and PCD implementing a remedy. Once a remedy is selected, work plans are prepared for conducting remediation work.

*During the study or implementation of corrective measures, a **pilot study** may be undertaken at a particular SWMU. Pilot studies test a technology on a small scale to determine whether it will be appropriate at that SWMU given site-specific conditions.*

Implement: **Corrective Measures Implementation (CMI)** begins after a remedy has been selected. Remedy implementation typically involves a detailed remedy design, followed by remedy construction, regular operation and maintenance of the remedy, and, finally, remedy completion.

After the SWMU has reached the identified cleanup standards, a Remedy Completion Report is prepared to demonstrate that cleanup standards were achieved. If the RFI showed that remediation of the site was not necessary (i.e., cleanup levels were not exceeded), a **No Further Action (NFA) Petition** is submitted to the appropriate State agency to demonstrate that “no further action” is required. It includes a comparison of site investigation data to background levels, identification of risk-based screening levels and ecological benchmarks, and identification of applicable groundwater protection levels. A NFA petition may also be submitted after an assessment or investigation indicates a release has not occurred or there is no significant threat to human health or the environment. ♦





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The Pueblo Chemical Depot Heritage Display

by Max Canestorp, PCD Natural Resource Manager

Most people who have lived in the Pueblo area for any length of time have family members, neighbors, or friends who have worked for the Army at what is now Pueblo Chemical Depot (PCD). The Depot plays an important part in the history and consciousness of the community and the surrounding area. Therefore, it seems fitting that a museum exhibit featuring PCD be located in Pueblo for the benefit of the public in general, and the Depot “family” in particular, to visit and reminisce.

In 1997, PCD entered into an agreement with the Colorado State Historic Preservation Office to capture PCD history in a manner that could be shared with the public. An exhibit was developed to meet this agreement and originally was to be located on-base in Building 6. However, with security tightened after 9/11, Building 6 was no longer an option if the exhibit were to be open to the public. After researching museums and heritage sites in Pueblo, PCD selected the Southeastern Colorado Heritage Center for the exhibit, which was installed in 2007.



Photo display in exhibit showing HiPODner Park

The permanent exhibit tells the Depot’s story through the years. With that in mind, a search for historic “artifacts” followed – looking through old buildings, attics, and storage vaults for items reflecting PCD’s past, present, and future. Of special interest were photographs depicting people and events on the installation during bygone years. Current and former employees

were asked to donate photos or other memorabilia from their years with PCD. RMC Consultants Inc., was contracted to undertake the project, and they subcontracted to Atomic Exhibits to design and assemble the exhibit. Atomic Exhibits has considerable experience in developing museum exhibits, including several in the western states.



Max Canestorp (PCD Cultural Resources), Paul Duran (photo cutout), LTC Riley (PCD Commander in 2007), Ben Riley (LTC Riley’s son), John Carr (Atomic Exhibits). 2007 Photo courtesy of RMC Consultants, Inc.

Exhibit construction began at the Heritage Center in early 2007, and the grand opening celebration was held in May 2007 with LTC John Riley officiating. Many local people attended the event, including several who recognized family members, neighbors, and friends in displayed photographs.

When you visit the PCD Heritage Display, a cut-out of a Depot guard, Paul Duran, backed by an image of the front gate, greets you. Continuing into the exhibit, you’ll find several panels of photographs, separated into time periods by chain link sections, showing operations and activities on the Depot during World War II, the Korean and Vietnam wars, the Cold War, and on into the future. A chemical response suit, a sign in Russian (from a building used by the Soviets during their inspections), and a corner devoted to natural and cultural resources are among the items you will find there. The ROMEO Club (Retired Old Men Eating Out – an organization of retired Depot employees) also donated a photograph album and mementos to the collection.

The Southeastern Colorado Heritage Center is located across the street from Union Depot, at 201 West B Street in Pueblo. In addition to the PCD display, the Center has many other exhibits telling the story of southeastern Colorado’s fascinating history. Stop by and visit! ♦



Chemical emergency response suit

CONTACT US If you have questions about the environmental restoration projects or base reuse, please call: Chuck Sprague, Pueblo Chemical Depot (PCD) Public Affairs Officer, 719-549-4135 • Kathryn Cain, Chief, PCD Environmental Management Office, 719-549-4201

Or return this form to: U.S. Army Pueblo Chemical Depot, 45825 Hwy. 96E, Building 54, Pueblo, CO 81006-9330

Would you like to be added to our mailing list? Yes No

Please complete the following: Name _____ Address _____
City/State/Zip _____ Phone (optional) _____ Email (optional) _____

The PCD Environmental Program schedules presentations that can be given to community groups, clubs, and schools. If you know of a group that might be interested, please complete the following:

Name _____ Address _____
City/State/Zip _____ Phone _____ Email _____



U.S. ARMY PUEBLO CHEMICAL DEPOT

Environmental Monitor

ENVIRONMENTAL MANAGEMENT OFFICE

45825 Highway 96 East, Building 54
Pueblo, Colorado 81006-9330

Information Repositories

Boone Fire Station: 421 E. 1st St, Boone, CO, (719) 947-3311
Hours: 8 a.m. to 2 p.m. M-Th

Robert Hoag Rawlings Public Library: 100 East Abriendo, Pueblo, CO, (719) 562-5600
Hours: 9 a.m. to 9 p.m. M-Th; 9 a.m. to 6 p.m. F-Sat;
1 p.m. to 5 p.m. Sun

Avondale Water & Sanitation District: 321 3rd St,
Avondale, CO, (719) 947-3186
Hours: 8 a.m. to 5 p.m. M-F (closed 12:00 to 1:00 p.m. for lunch)

Pueblo Chemical Depot Document Tracking Center
Environmental Management Office, (719) 549-4268
Hours: 6:30 a.m. to 5 p.m. M-Th

Additional Contacts

Deb Anderson, Project Manager, (303) 692-3379 or (888) 569-1831, ext. 3379
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Hazardous Materials and Waste Management Division,
Colorado Department of Public Health and Environment

Vera Moritz, Program Manager, U.S. Environmental Protection Agency, (303) 312-6981

Heather Maio, Environmental Health Director, Pueblo City-County Health Department, (719) 583-4321