

Environmental Monitor

April 2011

PCD Completing Supplemental RCRA Facility Investigations at SWMUs 34 and 38

By Chris Pulskamp, PCD Project Manager, and Lance Preuss, AECOM

Pueblo Chemical Depot (PCD) is preparing supplemental Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) reports for Solid Waste Management Units (SWMUs) 34 and 38. These reports summarize the results of additional field work conducted at each site to better understand the nature and extent of any contamination and the progress of cleanup.

SWMU 34, the Former Test Range Near East Lagoons, is located in the southeastern corner of the primary warehouse area at PCD. It covers an area of about 270 acres, and extends about 2,000 feet beyond the southeastern corner of PCD's property boundary. It surrounds the East Lagoons (SWMU 21). The test range was used intermittently from the 1950s until 1980 as a small arms range and a vehicle test track. Possible contaminants include metal fragments and unexploded ordnance.

Between March and April 2008, PCD conducted a magnetic geophysical survey to verify the adequacy of earlier munitions clearance work at SWMU 34. Technicians reviewed the data to identify magnetic anomalies that may indicate the presence of buried metal. Next, the field team collected soil samples at targeted areas where contamination may exist. Sampling results did not detect explosives, and all metal levels were below regulatory screening levels. PCD is preparing a supplemental RFI report, summarizing all data results to date, for state review. When the state approves the report, PCD will further investigate the anomalies to evaluate whether munitions are present, and perform excavations, if necessary.

SWMU 38, former Building 406, is located on the eastern side of the Depot, just northwest of



Lynda Ann Reservoir. The former laboratory building was used from 1965 until 1973 to reclaim gold and silver from electronic components and military uniform items. In 1967, it was also used to test plating shop solutions. Workers removed an empty underground storage tank from the north side of Building 406 in 1992. The building was demolished in 1997.

The initial RFI for SWMU 38 indicated the need for additional soil and groundwater sampling. In September 2010, PCD conducted that sampling, which fully characterized the nature and extent of contamination at this site. A supplemental RFI report was prepared and is being reviewed by the Colorado Department of Public Health and Environment (CDPHE). When CDPHE approves the supplemental RFI, the next step will be to plan any required remediation.◊

Calendar of Events

April 11: 6:00 p.m. Restoration Advisory Board Meeting, PCD Theater, Building 6

April 26: PCD Earth Day Celebration

May 4: Annual Chemical Stockpile Emergency Preparedness Plan Exercise

May: Annual RCRA Inspection by State of Colorado



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.

Environmental Monitor

—PUBLIC NOTICE— U.S. ARMY PUEBLO CHEMICAL DEPOT

Colorado Department of Public Health and Environment Approves Resource Conservation and Recovery Act Facility Investigation Report for Solid Waste Management Unit 60 at Pueblo Chemical Depot

On February 22, 2011, the Colorado Department of Public Health and Environment (CDPHE) approved the Resource Conservation and Recovery Act Facility Investigation Report for Solid Waste Management Unit (SWMU) 60, the Pershing Missile Disposal Site and Asbestos Landfill Area. CDPHE reviewed the investigation report and concluded that Pueblo Chemical Depot (PCD) has successfully determined the nature and extent of contamination at SWMU 60.

The Asbestos Landfill covers 3 acres of the eastern portion of SWMU 60 and consists of two asbestos disposal pits. However, only one pit has been used for asbestos disposal; the other remains empty. The Pershing Missile Disposal Site covers approximately 7 acres on the western portion of the SWMU. Trenches where Pershing Missile components were disposed are directly west of the Asbestos Landfill. Pershing missile rocket motors, casings, trainer modules, and other missile components were buried in these trenches.

Asbestos is listed in PCD's hazardous waste permit as the sole constituent of concern, and soil is the medium of concern. ◇

PCD Discusses Results of Additional Sampling at SWMU 57

By Chris Pulskamp, PCD Project Manager, and Chuck Luyten, AECOM Project Manager

In January 2011, PCD met with state and federal regulators to brief them on the results of recent sampling conducted at Solid Waste Management Unit (SWMU) 57 (Buildings 701, 706, and 731).

SWMU 57 is located on a 68-acre tract northeast of the primary warehouse area in the industrial reuse portion of PCD (see map, page 3). It includes three structures that were used to renovate ammunition and rockets and recondition projectiles. Waste generated from these activities included lead, phosphorus, paint, propellants, explosives, solvents, boiler and compressor blowdown water, cooling tower water, detergents, and abrasive powders.



AECOM workers collect soil samples at SWMU 57

PCD conducted a RCRA Facility Investigation (RFI) at SWMU 57 between December 2001 and May 2005. Results detected several types of contamination at levels that exceeded industrial (groundskeeper) reuse criteria, including polychlorinated biphenyls, polycyclic aromatic hydrocarbons, metals (antimony and lead), and diesel-range organics.

In October 2010, PCD submitted a Pre-Characterization Letter Work Plan for SWMU 57 to the Colorado Department of Public Health and Environment (CDPHE) for additional field work to help develop a presumptive remedy for this site. A presumptive remedy is a choice approved by CDPHE for certain types of cleanup conditions based on their past successful performance at other sites.

PCD completed all work outlined in the Pre-Characterization Letter Work Plan in November 2010. PCD is working with the CDPHE and the U.S. Environmental Protection Agency to determine the next steps to be taken at this site. ◇

Environmental Monitor



Presumptive Remedy Work Plans Near Completion for Several Sites

by Chris Pulskamp, PCD Project Manager, and Kip Wiley, PCD Project Manager

PCD is finalizing Presumptive Remedy Work Plans for SWMUs 25, 40, and 43. These work plans describe presumptive remedy activities to be done to address contamination at each of these sites.

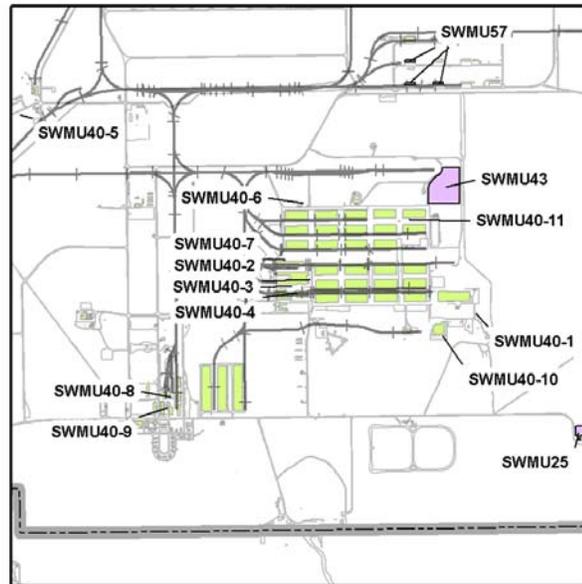
SWMU 25, the former Sanitary Sewage Treatment Plant (STP), is located in the southeastern part of the Depot's warehouse areas. The facility was originally constructed in 1942 to treat domestic wastewater from the administrative and warehouse areas.

The former STP facility is fenced and consists of a sewage tank, a trickling filter, sludge drying beds, a concrete building used for administrative functions and water chlorination, a pesticide storage shed, and a chlorine contactor. A flume (an artificial water channel) at the facility discharge area and a small laboratory testing building lie outside the fenced portion of SWMU 25. During operation, treated water was discharged through the flume to a dry ditch leading to Boone Creek. The facility was taken offline in 1991.

Past investigations at SWMU 25 identified pesticides in surface soils around the laboratory building. Polycyclic aromatic hydrocarbons (PAHs) were also detected in isolated surface and sub-surface soils at levels above regulatory screening levels.

In November 2010, PCD submitted the Presumptive Remedy Work Plan for SWMU 25 to the CDPHE, which approved it as final in February 2011. The presumptive remedy consists of excavation and off-site disposal of soils containing pesticides or PAHs above residential screening levels.

SWMU 40 is comprised of nine oil/water separators (OWSs), a sediment trap, and a holding tank. Eight OWSs, the sediment trap, and the holding tank are located throughout the primary warehouse area, within the industrial reuse area in the south-central portion of PCD. One OWS is located in the Ammunition Workshop Area in the proposed Wildlife Management Reuse Area.



PCD submitted the Draft Final Presumptive Remedy Work Plan for SWMU 40 to CDPHE in December 2010. The presumptive remedies for the eleven structures consist of documentation of historic removal and No Further Action at five sites, documentation of previous abandonment and No Further Action at two sites, cleaning and testing of one active OWS, and abandoning and rendering useless three OWSs.

SWMU 43, the Historical Vehicle Staging and Storage Area Northeast of Building 594, is located in the southern portion of PCD. From 1945 to 1979, the site was used for the staging and storage of parts and damaged vehicles, including jeeps, personnel carriers, 2.5-ton trucks, and tanks. During this period, PCD's vehicle maintenance facilities serviced at least 50,000 vehicles.

PCD conducted an RFI at SWMU 43 in 1998. Contaminants identified in soils or sediments above regulatory screening levels included cadmium, lead, a PAH, and total extractable hydrocarbons in the diesel range. In November 2010, PCD submitted the Final Presumptive Remedy Work Plan to CDPHE. The presumptive remedy for SWMU 43 includes excavation and off-site disposal of soils and sediments containing contaminants above industrial cleanup levels. ◊

Environmental Monitor

--PUBLIC NOTICE-- U.S. ARMY PUEBLO CHEMICAL DEPOT

PCD RECEIVES CLASS 1 PERMIT MODIFICATION

Pueblo Chemical Depot (PCD) received the following Class 1 permit modification to its Waste Analysis Plan (WAP) for 94 Interim Status Storage Units as required by the Compliance Schedule dated April 30, 2010. A modification to the WAP was approved March 8, 2011, to update the waste codes applied to mustard agent-related waste as described in Section II.B and Table A. .

Questions or comments regarding these public notices may be directed to the permittee's contact personnel:

Kathryn Cain
Environmental Management Office
Pueblo Chemical Depot
Telephone: (719) 549-4201

Chuck Sprague
Public Affairs Office
Pueblo Chemical Depot
Telephone: (719) 549-4135

Or the Department's contact personnel:

Colorado Department of Public Health and Environment
HMWMD-B2, 4300 Cherry Creek Drive South
Denver, CO 80246-1530

Deb Anderson
Denver Metro: (303) 692-3379
Toll-Free: 1 (888) 569-1831

Jeannine Natterman, Public Information Officer
303-692-3303
Toll-Free 1 (888) 569-1831, extension 3303

This notice is published in accordance with 6 Code of Colorado Regulations (CCR) 1007-3, Section 100.63(a), requiring notice of Class 1 permit modification approval, to all individuals on PCD's mailing list.

The modification can be reviewed at the repositories located at the Boone Fire Station, Avondale Water & Sanitation District, Pueblo Chemical Depot Document Tracking Center, and the Robert Hoag Rawlings Library.



Environmental Monitor Is Now Available Electronically

By Lisa Stahl, Shaw Environmental, Inc.

In an effort to promote greener practices throughout all aspects of PCD activities, the Environmental Management Office is offering the option of receiving the Environmental Monitor electronically instead of the hard copy in the mail.

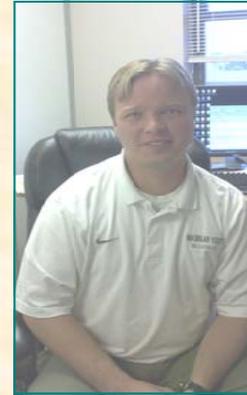
If you would like to receive the Environmental Monitor electronically, please call Kathryn Cain, PCD Environmental Management Office, at (719) 549-4201 or send an email to Lisa Stahl at lisa.stahl@shawgrp.com.◇



Environmental Monitor

PCD Welcomes New Environmental Engineer

PCD's Environmental Management Office recently selected Mr. Kip Wiley as an environmental engineer. Wiley came to us in January from Fort Carson, Colorado, where he worked for Innovar Environmental and AECOM as an environmental technician responsible for compliance assessments, environmental sampling, well drilling, and waste management. He has a Bachelor of Science in Environmental Engineering from Lake Superior State University in Sault Ste. Marie, Michigan. Wiley's responsibilities at PCD will include project management for several solid waste management units, base-wide recycling, and site-wide groundwater monitoring.



PCD is glad to welcome Kip Wiley on board!



Preparing SDC-9 bacteria for injection into groundwater to remediate contamination



Checking gravel pack depth at SWMU 28/36 Eastern Mid-Plume infiltration gallery



Injecting SDC-9 and sodium lactate into well at SWMU 28/36 Western Mid-Plume to remediate groundwater contaminants



Excavating explosives-impacted soils at SWMU 17, Area of Interest 3A

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

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

Jeannine Natterman, Public Information Officer
Hazardous Materials and Waste Management Division
Colorado Department of Public Health and Environment
(303) 692-3303 or (888) 569-1831, ext. 3303

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

If you would like to receive the Environmental Monitor electronically, please call Kathryn Cain, PCD Environmental Management Office, at (719) 549-4201 or send an email to Lisa Stahl at lisa.stahl@shawgrp.com.