

Radford Army Ammunition Plant

FACT SHEET SWMU 40

Introduction

This fact sheet describes the selected action for Solid Waste Management Unit (SWMU) 40 – Nitro Landfill at Radford Army Ammunition Plant (RFAAP). This alternative was selected in accordance with the Resource Conservation and Recovery Act of 1976 (RCRA), the Hazardous and Solid Waste Amendments of 1984 (HSWA), the RFAAP RCRA permit requirements (USEPA, 2000) (EPA ID No. VA1210020730).

Background

SWMU 40 is an approximate 2 acre landfill area that was used in the 1970s and early 1980s for the burial of paper, office trash, concrete, and rubber tires. The unit was not permitted as a solid waste landfill by the Commonwealth of Virginia. Operations ceased and the unit was closed with a clay cap and grass cover. The RFAAP RCRA Corrective Action Permit identified SWMU 40 as an area of concern that had the potential to pose a threat or potential threat to human health and the environment.

RCRA Facility Investigation (RFI)/Corrective Measures Study (CMS)

RFI field efforts were conducted at the sites from 2002 through 2007. Based on the results of the RFI investigation and risk assessments, the primary site-related chemical of concern (COC) identified in soil at SWMU 40 was aluminum. Chloroform was identified as a COC in site groundwater at levels above its United States Environmental Protection Agency (USEPA) tap-water risk-based screening level (T-RBC) but below the maximum contaminant level (MCL) for trihalomethanes. However, chloroform was not detected in soil or landfill materials sampled at SWMU 40. Perchlorate was detected in groundwater monitoring wells around SWMU 40 during the RFI/CMS. Analytical data for perchlorate ranged from 0.52 ug/L to 5.40 ug/L.

Corrective measures alternatives were evaluated in the CMS. The final selected alternative was Alternative Two: Institutional Controls, Engineering Controls and Long-Term Monitoring and Maintenance. The Final RFI/CMS (URS, 2009) was approved by USEPA and VDEQ in June 2009.

Implementation of Corrective Measures

The corrective measures are being implemented as Interim Measures. A work plan was submitted to USEPA and VDEQ for review and approval on December 03, 2010 and was approved August 27, 2011. Interim measures were implemented October through November 2011.

The selected alternative included repairs to and stabilization of the northern edge of landfill, where limited erosion occurred. The corrective measures also included installation of an additional groundwater monitoring well and conducting of Long Term Monitoring (LTM) at SWMU 40. In accordance with the approved work plan LTM includes inspection and maintenance of the landfill cap, groundwater sampling, and preparation of LTM reports. The LTM was initiated November 20, 2011 after completion of the installation of the down gradient monitoring well in accordance with the approved IMWP. The Interim Measures Completion Report (IMCR) was submitted to USEPA and VDEQ as final March 24, 2012 and approved July 10, 2012. The LTM is currently ongoing with a remedy review report scheduled for submittal in 2015.

Perchlorate has been detected in the SWMU 40 monitoring well network during the ground water sampling events from November 2011 through March 2014. Analytical data for perchlorate range from 0.506 ug/L to 9.67 ug/L. The MCL for perchlorate at RFAAP is 15ug/L.