

Radford Army Ammunition Plant

FACT SHEET **Army Reserve Small Arms Range**

Introduction

This fact sheet describes the selected action for contaminated soil at Munitions Response Site (MRS) Army Reserve Small Arms Range (ARSAR) at Radford Army Ammunition Plant (RFAAP). This alternative was selected in accordance with Part II(D)(11-21) IM of the *RFAAP Corrective Action Permit* (USEPA, 2000a). The investigation/removal action work is being performed under the Louisville Multiple Award Remediation Contract (LMARC), Contract No. W912QR-04-D-0027, Delivery Order DA04.

Background

ARSAR is an approximately 7.6-acre area located along the southeastern boundary of the Main Manufacturing Area (MMA). Most of the site is an open grass field with wooded areas along the banks of Stroubles Creek, which is located along the southern portion of the site. A target berm, that is approximately 10 feet high and 270 feet wide, is still present indicating that the direction of fire was to the southeast.

According to URS (2008), the ARSAR was a .30 caliber small arms firing range used by both the National Guard and the Army Reserve from approximately 1941 to 1968. The closed range consisted of an approximately 10-foot-high berm and four potential firing areas.

The RFAAP Resource Conservation and Recovery Act (RCRA) Corrective Action Permit identified ARSAR as an area of concern that had the potential to pose a threat or potential threat to human health and the environment. The Site Screening Process (SSP) (URS, 2009) involved soil samples which indicated that elevated antimony and lead concentrations were detected in the berm. Elevated arsenic levels were detected within the hillside area, though no source was identified. Based on the results of the SSP evaluation, further action was recommended at the ARSAR.

RCRA Facility Investigation/ Interim Measures

X-ray fluorescence soil screening was performed in the uncharacterized areas of the site (i.e., potential firing areas) and in areas where antimony, arsenic, and lead were determined to be present above facility-wide background levels and residential screening levels (r-SLs) during the previous SSP sampling event. The extent of lead is expected to be the greatest of the chemicals of potential concern (COPCs). Lead was used as a tracer compound and samples were screened for lead during excavation activities in the target berm and potential firing point areas. Once lead concentrations were below the remedial goal (RG), additional samples were collected for off-site laboratory analysis for target analyte list (TAL) metals and explosives. In addition to the soil sampling; sediment/surface water samples were collected from Stroubles Creek, and groundwater samples were collected from geoprobe borings within the firing range floor.

Perchlorate was detected in two ARSAR groundwater samples at 0.242µg/L and 1.14µg/L. Perchlorate was also detected in the Stroubles Creek surface water samples ranging from 0.10µg/L to 0.236µg/L. The Maximum Contaminant Level (MCL) for perchlorate at RFAAP is 15µg/L

After excavation was performed, the site was restored and vegetated.

The field work has been completed at the ARSAR study site and the RCRA Facility Investigation/Interim Measures (RFI/IM) Completion report has been submitted for review.