



Raco Army Airfield and Missile Base

September 2019

U.S. ARMY CORPS OF ENGINEERS

BUILDING STRONG®

History

The Raco Army Airfield and Missile Base site (Raco) occupies approximately one square mile and is located southwest of Sault Ste. Marie, Michigan in the Hiawatha National Forest. The Department of Defense (DoD) used the site as an airfield for 21 years and as a missile base for approximately 13 years, ending in 1972. The airfield was constructed between 1942 and 1943. Around 1960, the missile base was constructed southeast of the airfield. The Air Force released the airfield portion of the property to the U.S. Forest Service (USFS) from 1962-1964 and released the missile base portion of the property from 1973-1976. The property remains under USFS jurisdiction. The U.S. Army Corps of Engineers (USACE), Louisville District is currently conducting an investigation of a trichloroethene (TCE) groundwater plume at the site under the Defense Environmental Restoration Program-Formerly Used Defense Sites (DERP-FUDS). As a part of this investigation, we mailed a community survey in February 2014 to local residents to determine public knowledge, concerns, and preferences for receiving information about the project.



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Environmental Investigations

Since 1986, we have conducted several investigations and completed several tasks at Raco. In most of the earlier work, we focused on the investigation and removal of contaminated soil from fuel storage tanks and transformers, and the demolition and removal of structures including the Raco missile launcher. Low levels of TCE contamination in groundwater were also detected during our earlier investigations. The investigation in 2009 specifically focused on the TCE groundwater plume and included the installation of five new monitoring wells. During 2009, we detected TCE in nine monitoring wells. Seven of these wells had detectable TCE concentrations which ranged from 6 to 51 micrograms per liter ($\mu\text{g/L}$). The Environmental Protection Agency (EPA) Maximum Contaminant Level (MCL) is 5 $\mu\text{g/L}$. The EPA MCL is the maximum safe amount of TCE allowed in drinking water. In 2014 and 2015 over 400 groundwater samples were collected to better delineate the extent of the plume, and additional monitoring wells were also installed. The highest TCE concentrations measured in 2014 (50 $\mu\text{g/L}$) and 2015 (40 $\mu\text{g/L}$) were similar to the highest level measured in 2009. In 2015, twenty monitoring wells were sampled during two sampling events, and six residential wells located south-east of the site were also sampled. TCE was not detected in any of the residential well samples. Based on all the information we have, we have no reason to suspect the plume is large enough to reach any private property. Additional soil sampling and exploratory excavations were performed in a potential source area in October 2016 and August/September 2017. Although there was no evidence of a release to the environment associated with the former wastewater treatment area vaults, contaminated sludge and soil was identified inside one of the vaults. This vault is the subject of a Non-Time Critical Removal Action (NTCRA). A Remedial Investigation (RI) Report was prepared to summarize the results of the field efforts prior to the NTCRA, describe the extent of the TCE plume, and determine the potential risk to human health and the environment. The RI Report was made available for public review at the Administrative Record housed at the Bayliss Public Library and the Bay Mills Community College Library.



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Interim Response Action

Although the 2018 RI concluded that the contaminants in the sludge are not actively contributing to the dissolved TCE groundwater plume, a NTRCA is being performed to mitigate the risk associated with this Vault and its contents. An Engineering Evaluation/Cost Analysis (EE/CA) for the Vault was completed in December 2018. A Public Comment Report for the EE/CA was held from December 10, 2018 through January 10, 2019 and a Public Meeting

U.S. ARMY CORPS OF ENGINEERS – LOUISVILLE DISTRICT

P.O. Box 59, Louisville, KY 40201-0059

www.lrl.usace.army.mil

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Frequently Asked Questions

was held on December 19, 2019. No public comments were received. An Action Memorandum was authorized for the removal of the vault in June 2019. The vault is currently scheduled for removal in October 2019. Confirmation sampling will be completed and further investigation, if warranted, will be completed at that time. The results of the NTRCA will be reported in the Field Summary Report, which is anticipated for inclusion in the Administrative Record in Spring 2020.

What's Next?

A Feasibility Study has been performed to develop and evaluate remedial action alternatives from which we will select a proposed remedy and will be made available to the public at the Administrative Record. The Proposed Plan will identify the preferred cleanup alternative and will be made available to the public for review and comment once complete. For more information visit <http://bit.ly/RacoArmyAirfield> or contact the Louisville District Public Affairs Office at (502) 315-6766 or Shatara.R.Riis@usace.army.mil.

What is the FUDS program?

Under the Formerly Used Defense Sites (FUDS) program, the U.S. Army Corps of Engineers (USACE) cleans up Department of Defense (DoD)-related contamination on properties that were formerly owned, leased, possessed or used by the Army, Navy, Air Force or other defense agencies. The purpose of the FUDS program is to reduce the risk to human health, public safety and the environment from exposure to hazards from these sites.

What is a Non-Time Critical Removal Action, RI Report, Feasibility Study, Proposed Plan, and Decision Document?

NTCRAs are conducted when a removal action was found to be appropriate and a planning period of at least six-months is available for state or local government and other stakeholder commitment. The RI Report is a document that contains a review of all collected data and describes a risk assessment to determine if there are unacceptable risks from site contamination. If unacceptable risks are present, remedial action alternatives are developed and screened in the Feasibility Study. In the Proposed Plan, USACE and regulators will describe the preferred remedial action alternative and why this was selected over the others considered in the Feasibility Study. The public will have a chance to review and comment on the Proposed Plan and potentially change the proposed alternative. The chosen alternative will be summarized in the Decision Document. All of these documents will be made available to the public at the Administrative Record housed at the Bayliss Public Library and the Bay Mills Community College Library

What is trichloroethene (TCE)?

Pure TCE, a volatile (i.e., it readily evaporates) chemical, is a colorless or blue non-flammable liquid with a sweet odor. It was historically used as a metal parts degreaser and industrial solvent/cleaner. The Environmental Protection Agency (EPA) classifies TCE as carcinogenic (cancer-causing) to humans if they are exposed to high enough levels over a long period of time.

How big is the TCE groundwater plume, and what direction is it going?

Based on current knowledge from existing monitoring wells, the plume is estimated to be within an area of 1000 feet west to east and 500 feet north to south. It appears to extend further to the southeast from the site in the direction of groundwater flow. The full extent has not yet been determined, but based on all the information we have, we have no reason to suspect the plume is large enough to reach any private property.

How long does it take to clean up a FUDS property? Why so long?

It depends on the type of project. Constraints related to regulations, funding and schedules control the pace of cleanup activities. Most projects take several years to complete, and no two projects are ever quite the same.