
FORMER FIRE TRUCK MAINTENANCE FACILITY SS-28 (formerly AOC-32)

Joint Base Andrews

January 2018

BACKGROUND

Site SS-28 is located on the western portion of Joint Base Andrews (JBA) near the intersection of Arnold and South Dakota Avenues. SS-28 began as a combination of Building 1206, Solid Waste Management Unit (SWMU) #2, and SWMU #40. Building 1206 has been an active military gasoline service station since 1980, and was once a maintenance facility for fire trucks. It currently houses vehicles for JBA's executive driver's vehicle fleet. SS-28 is centered in the vicinity of Building 1206 and its two fuel islands. The site is covered with a mixture of concrete and asphalt pavements, unpaved manicured areas, and adjacent facilities.

The Building 1206 area formerly contained a 1,000-gallon fuel oil underground storage tank (UST), a 25,000-gallon gasoline UST, two hydraulic lifts, a 6,000-gallon diesel UST, a 15,000-gallon diesel UST, a 250-gallon waste oil aboveground storage tank, SWMU 2, and the SWMU 40 hazardous waste storage area. SWMU 40 reportedly was used to temporarily store antifreeze, transmission fluid, and waste oil. Currently, the Building 1206 area contains a 20,000-gallon gasoline UST and 20,000-gallon diesel UST.

Contaminants were detected in groundwater during both the 2006 and 2007 Preliminary Assessment/Site Inspection (PA/SI), but this work did not completely characterize the nature and extent of the SS-28 contaminants. The 2013 Remedial Investigation (RI) identified trichloroethene (TCE), tetrachloroethene (PCE), 1,2-dichloroethane (1,2-DCA), carbon tetrachloride (CTC), chloroform, and benzene in groundwater that require remediation, and detected various other volatile organic compounds (VOCs) from four potential sources areas at SS-28. The resulting contaminated groundwater plumes extend 3700 feet to the southeast and 3,000 feet to the east-southeast from the potential source areas beneath highly secure buildings, a fire station, airfield parking aprons, taxiways, the west flightline, and the grassy airfield. No soil or indoor air contaminants requiring remediation were identified.

The 2017 Feasibility Study (FS) for SS-28 identified and evaluated five potential remedial options for the VOC-contaminated groundwater at the site. Based on the comprehensive evaluation of the five alternatives, in-situ biodegradation and in-situ chemical reduction with land use controls was recommended to remediate the site.

CHALLENGES

The site extends approximately 55 acres beneath highly secure buildings and facilities, airfield aprons, and taxiways, and grassy airfield. Classified underground utilities are present, as well as many other unclassified but sensitive utilities. Access to areas of the site require significant efforts, including airfield construction waivers, wing-tip restriction Notices to Airmen, and potential Presidential taxiway closures.

PERFORMANCE BASED APPROACH

The RI was finalized in 2013. It characterized the nature and extent of a large dilute contaminant plume. The FS was completed in August 2017. The Proposed Plan (PP) for the recommended remedial action is in draft form currently under Air Force review, and is scheduled for completion in 2018. The Record of Decision (ROD) for SS-28 is scheduled for completion in 2019. The ROD will formally attach the site FT-02 "Southern Plume" to the SS-28 remedial process. Land use controls will be used to limit human exposure to contaminants while the recommended remedy is being implemented to degrade contaminants to meet the ROD's remedial action objectives. The SS-28 remedy is scheduled to be installed and functioning by 2022. SS-28 is projected to reach Site Closure in 2045.

RISK DRIVERS

Contaminants: TCE, PCE, CTC, 1,2-DCA, chloroform, benzene, and other VOCs.

Impacted Media: Groundwater

Exposure Pathways Completed: Human & Potential Vapor Intrusion

Drainage: Piscataway Creek

Current Land Use/Surface Cover: Industrial/Airfield

Reasonably Anticipated Land Use: Industrial/Airfield

Relative Risk: Low

Figure 1: TCE Plume SS-28

