

FY2016

DETROIT ARSENAL
Army Defense Environmental Restoration Program
Installation Action Plan

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Statement of Purpose

The purpose of the Installation Action Plan (IAP) is to outline the total multiyear cleanup program for an installation. The plan identifies environmental cleanup requirements at each site or area of concern, and proposes a comprehensive, installation-wide approach, along with the costs and schedules associated with conducting investigations and taking the necessary remedial actions.

In an effort to coordinate planning information between the restoration manager, the Installation Management Command (IMCOM)-Central, the US Army Environmental Command (USAEC), US Army Garrison-Detroit Arsenal (USAG-DTA), the executing agencies, the regulatory agencies, and the public, an IAP was completed. The IAP is used to track requirements, schedules, and tentative budgets for all major Army installation cleanup programs.

All site-specific funding and schedule information has been prepared according to projected overall Army funding levels and is, therefore, subject to change.

Acronyms

AEBD-CC	Army Environmental Database-Compliance-related Cleanup
AEDB-R	Army Environmental Database-Restoration
AS	Air Sparging
BASEOP	Base Operations
Bldg	Building
BRAC	Base Realignment and Closure
CAP	Corrective Action Plan
CC	Compliance-related Cleanup
CR	Compliance Restoration
DERP	Defense Environmental Restoration Program
FY	Fiscal Year
IAP	Installation Action Plan
IMCOM	Installation Management Command
IR	Installation Restoration
IRA	Interim Remedial Action
K	thousand
MDEQ	Michigan Department of Environmental Quality
MR	Munitions Response
NFA	No Further Action
PAH	Polycyclic Aromatic Hydrocarbons
POL	Petroleum, Oil and Lubricants
RAB	Restoration Advisory Board
RC	Response Complete
RIP	Remedy-In-Place
SANGB	Selfridge Air National Guard Base
SI	Site Inspection
SVE	Soil Vapor Extraction
SVOC	Semi-volatiles
TAPP	Technical Assistance for Public Participation
TRC	Technical Review Committee
USACE	US Army Corps of Engineers
USAEC	US Army Environmental Command
USAG-DTA	US Army Garrison-Detroit Arsenal
VOC	Volatiles

Installation Information

Installation Locale

Installation Size (Acreage): 2

City: Mt. Clemens

County: Macomb

State: Michigan

Other Locale Information

The USAG-DTA site (CC-002) is located on the Selfridge Air National Guard Base (SANGB). The property is on the US Air Force Real Property Inventory.

Building (Bldg) 1533 and its associated parking lots and drainage area occupy approximately 2 acres.

Installation Mission

This site was built as part of the NIKE missile defense system, the building and the underground storage tanks (UST) were part of the support buildings for the silo. Subsequent to that use, the Army used this site for support of base operations (BASEOP). Currently, the Army has no mission at the site. The current occupant uses the site as a vehicle maintenance service center.

Lead Organization

IMCOM

Lead Executing Agencies for Installation

US Army Corps of Engineers (USACE)-Louisville District

Regulator Participation

State Michigan Department of Environmental Quality (MDEQ)

National Priorities List (NPL) Status

DETROIT ARSENAL is not on the NPL

Installation Restoration Advisory Board (RAB)/Technical Review Committee (TRC)/Technical Assistance for Public Participation (TAPP) Status

RAB established 199511

Installation Program Summaries

CR

Primary Contaminants of Concern: Metals, Other (Methane), Petroleum, Oil and Lubricants (POL), Polycyclic Aromatic Hydrocarbons (PAH), Semi-volatiles (SVOC), Volatiles (VOC)

Affected Media of Concern: Groundwater, Other (Vapor intrusion), Soil, Surface Water

5-Year / Periodic Review Summary

5-Year / Periodic Review Summary

Status	Start Date	End Date	End FY
Complete	200909	200912	2010
Complete	201409	201412	2015
Complete	200407	200412	2005

Last Completed 5-Year / Periodic Review Details

Associated ROD/DD Name	Sites
FOST-6 DECISION DOCUMENT	DATP95--44, DATP95-42, DATP95-43
Site Wide Decision Document/RAP	DATP95--44, DATP95-20, DATP95-21, DATP95-22, DATP95-23, DATP95-24, DATP95-25, DATP95-26, DATP95-27, DATP95-28, DATP95-29, DATP95-30, DATP95-31, DATP95-32, DATP95-33, DATP95-34, DATP95-35, DATP95-36, DATP95-37, DATP95-38, DATP95-39, DATP95-40, DATP95-41, DATP95-42, DATP95-43, DATP95-45, DATP95-46, DATP95-47, DATP95-48, DEARS-15, DEARS-3, SWITCHGEAR

Results Vapor Intrusion required per Michigan Department of Environmental Quality law.

Actions Vapor Intrusion in process of being accessed by environmental legal department.

Plans Pending approval.

Recommendations and Implementation Plans:

To be determined.

Cleanup Program Summary

Installation Historic Activity

In 1990, the Air Force issued a permit granting the Army use and occupancy of real property identified as Facility 1533, Vehicle Maintenance Shop, SANGB. The term of occupancy was for five years from 1989 through 1994. The tenant permit was silent regarding the on-site UST. In 1991, the Army, as user of the site USTs, discovered that they were losing fuel and upon further investigation, determined that the tanks were leaking. Because there was no way to determine how long the leak had been occurring, the Army, as tenant at the site, took action and excavated the leaking tanks.

The Army submitted a notice of the release and contaminated soil conditions to the Michigan Department of Natural Resources (now known as MDEQ). The Army, as the tenant, funded a voluntary partial cleanup of the site; however, the responsibility and ramifications of assuming this task from the host were not fully understood. Subsequent to the partial cleanup action, the Army petitioned the MDEQ for site closure, but it was rejected. When the Army tenant permit issued by the Air Force was terminated, there was acknowledgement by both the Army and the Air Force that the site was contaminated and in need of further characterization and remediation.

Between discovery of the contamination and the present, the site has been extensively studied and an air sparging (AS) system was installed and operated to protect private residential drinking water wells near the base.

In 2011, despite not having a signed agreement, the Army was assigned responsibility for the site cleanup under the Installation Restoration Program (IRP). Because of the length of time that the site has been in existence, and the lack of effort to reach a site decision regarding target cleanup levels, the first step will be outreach with MDEQ to establish objectives and criteria for the site cleanup. Based on a 2010 final site investigation and corrective action plan (CAP) containing historic groundwater monitoring data, it is expected that MDEQ will require additional groundwater monitoring to ensure that groundwater remediation is not compromised and is protective of the private residential drinking water wells.

The site and building structure are currently occupied and used as an industrial/commercial site for vehicle maintenance. The current occupant was granted use of this site by the Michigan Air National Guard 127th Wing which controls this property.

In 2014 the Detroit Arsenal encountered contaminated soil and groundwater during utility work. A single groundwater sample was taken. The soil was not analyzed. The groundwater sample results had two parameters above state cleanup criteria. It is suspected the contamination may be following the utility pathways. The remedial investigation (RI) phase began with the groundwater sample in fiscal year (FY)14. A contract to investigate the nature and extent of soil and ground water contamination was awarded in FY15. The investigation will proceed in the spring of 2016.

Installation Program Cleanup Progress

CR

Prior Year Progress: During FY15 the CAP was implemented. The AS system continued operation.

Future Plan of Action: The CAP implementation will continue into FY17. The exit strategy for the AS system will be developed during the CAP implementation. Monitoring of groundwater and soil gas will continue as needed to close the site, with five years of quarterly sampling anticipated. RI sampling will be started at CC-003 in FY16.

DETROIT ARSENAL
Army Defense Environmental Restoration Program
Compliance Restoration

CR Summary

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count: 2/0

Installation Site Types with Future and/or Underway Phases

- 1 Soil Contamination After Tank Removal
(CC-003)
- 1 Underground Storage Tank
(CC-002)

Most Widespread Contaminants of Concern

Metals, Other (Methane), Petroleum, Oil and Lubricants (POL), Polycyclic Aromatic Hydrocarbons (PAH), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern

Groundwater, Other (Vapor intrusion), Soil, Surface Water

Completed Remedial Actions (Interim Remedial Actions/ Final Remedial Actions (IRA/FRA))

Site ID	Site Name	Action	Remedy	FY
CC-002	Building 1533 Diesel UST Gasoline UST	IRA	WASTE REMOVAL - SOILS	2003
CC-002	Building 1533 Diesel UST Gasoline UST	IRA	NATURAL ATTENUATION	2004
CC-002	Building 1533 Diesel UST Gasoline UST	IRA	SOIL VAPOR EXTRACTION	2004
CC-002	Building 1533 Diesel UST Gasoline UST	IRA	AIR SPARGING	2004
CC-002	Building 1533 Diesel UST Gasoline UST	IRA	NATURAL ATTENUATION	2004

Duration of CR

Date of CR Inception: 199212

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 201908/202106

Date of CR completion including Long Term Management (LTM): 202106

CR Contamination Assessment

Contamination Assessment Overview

On Dec. 29, 2008, the Office of the Deputy Under Secretary of Defense for Installations and Environment, issued an interim policy for the Defense Environmental Restoration Program (DERP) eligibility that rescinded the 1986 eligibility date for the IRP and the 2002 eligibility date for the Military Munitions Response Program. This made many sites previously addressed in the Army's Compliance-related Cleanup (CC) program eligible for the DERP. Sites which are now eligible for the Munitions Response (MR) program have been migrated from Army Environmental Database-Compliance-related Cleanup (AEDB-CC) and given the naming convention of other MR sites. The newly eligible non-MR type sites are considered to be Installation Restoration (IR) sites; however, the newly eligible sites are being coded as Compliance Restoration (CR) in Army Environmental Database - Restoration (AEDB-R) to distinguish them from the original IR sites and IR metrics.

Environmental restoration activities managed by USAG-DTA include only one CR site at SANGB.

Site CC-002, Bldg 1533, is contaminated by leaking from two former fuel USTs. The contaminants of concern are: total petroleum hydrocarbons, diesel and gasoline range organics, volatile organic compounds, and polyaromatic hydrocarbons. These contaminants are typical for leaking UST sites. The media of concern are: soil, groundwater, vapor intrusion, and surface water.

The site investigation phase was completed and approved by MDEQ in FY14. The CAP was completed and approved in FY15. The contract to implement the CAP was awarded in FY15. CAP implementation will begin summer of FY16.

At the Detroit Arsenal, site CC-003, contaminated soil and groundwater were encountered during utility work in July 2014. The suspected source was the removal of an underground fuel tank farm in the 1990s. Therefore the contaminant of concern are petroleum fuel related. A single groundwater water sample was taken. The soils were not sampled. The sample results had two parameters above state clean-up criteria. It is suspected the contamination may be following the utility pathways. The RI phase began in FY14 and is anticipated to be complete in 2019.

Cleanup Exit Strategy

In FY16 the CAP for site CC-002 will be implemented. Several strategies will be implemented. In FY 16 contaminated soil in the location of the former fuel tanks will be removed. This action will allow the current AS/soil vapor extraction (SVE) system to be decommissioned approximately in FY18. An additional AS/SVE unit will be installed to address the plume underneath Bldg 1533. Groundwater, soil gas, and vapor intrusion monitoring will continue for a period of five years after the CAP is implemented and site closure is anticipated in FY21.

Site CC-003 was discovered in July 2014. The RI phase has begun.

CR Previous Studies

	Title	Author	Date
2010			
	Final Site Investigation/Corrective Action Plan, Bldg 1533	AMEC	MAR-2010
2014			
	Final Site Investigation Report (1533)	AMEC	MAR-2014
2015			
	Final Corrective Action Plan (1533)	AMEC	JAN-2015

DETROIT ARSENAL
Compliance Restoration
Site Descriptions

Site Name: Building 1533 Diesel UST Gasoline UST

STATUS

Regulatory Driver: RCRA

Contaminants of Concern: Petroleum, Oil and Lubricants (POL), Polycyclic Aromatic Hydrocarbons (PAH), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern: Groundwater, Other (Vapor Intrusion), Soil, Surface Water

Phases	Start	End
ISC.....	199212.....	199212
INV.....	199301.....	200301
CAP.....	200810.....	201505
IRA.....	200303.....	200401
IMP(C).....	201503.....	201707
IMP(O).....	201606.....	202106

RIP Date: 201707

RC Date: 202106

SITE DESCRIPTION

Historically, Bldg 1533 and the associated area is a former NIKE missile site and support building.

In 1990, the Air Force issued a permit granting the Army use and occupancy of the real property, in land tenant capacity, identified as Building 1533, Vehicle Maintenance Shop, SANGB, Michigan. The term of occupancy was for five years from 1989 through 1994. The permit was silent with regards to the two USTs (one gasoline and one diesel) located onsite.

In 1991, the Army discovered they were losing fuel from the USTs and, upon further investigation determined the tanks were leaking. In 1992, as it was impossible to determine how long the USTs had been leaking, the Army excavated the two USTs. Subsequently, the Army submitted a notice of release and contaminated soil conditions to the MDEQ. Following the partial cleanup action, the Army petitioned the MDEQ for site closure. Site closure was not granted.

In 1994, the Army vacated the site. There was an acknowledgement by both the Army and the Air Force that the site was contaminated and would require further characterization and remediation. The current tenant uses the site in an industrial/commercial capacity. They were granted use of the site by the Michigan Air National Guard 127th Wing which controls said property.

In 2009, due to changes in DERP eligibility, the site was migrated from database AEDB-CC to AEDB-R. Prior to the opening of FY13 AEDB-R spring data call, site CC-002 was removed from reporting under US Army Garrison-Michigan and realigned to report under USAG-DTA.

In 2010 MDEQ identified potential data gaps including, but not limited to, incomplete horizontal/vertical delineation, vapor intrusion concerns, and uncertain hydrologic conductivity with a downgradient drainage trench.

In 2011, despite not having a signed agreement between the Army and the Air Force, the Army was assigned responsibility for the site cleanup under IRP. Between 2003 and 2005, an AS/SVE system was installed as an interim preventive measure for off-base migration of contaminants. MDEQ approved the system based on the initial site investigation. The Base Realignment and Closure (BRAC) of 2005 identified the SANGB for closure. As a result, all Army cleanup sites with an identified SANGB location automatically dropped out of the Army's cleanup programs. The SANGB continued to fund the AS/SVE out of BASEOP dollars until closure in September 2008. The USAG-DTA provided BASEOP dollars for AS/SVE operations in 2009, as a temporary measure. The USAG-DTA was unable to sustain site funding as this was an unauthorized SANGB mission. In 2012, a contract was awarded to repair, operate, and maintain the AS/SVE and complete an site inspection (SI) which addressed the data gaps. After completion of the SI the CAP was awarded in 2014.

During the SI it was determined the SVE system was not needed. With MDEQ approval the SVE was shut down in June 2014. The AS system remains in operation. The final round of quarterly monitoring under the site investigation contract was completed July 2015.

Site ID: CC-002

Site Name: Building 1533 Diesel UST Gasoline UST

A CAP was completed and approved in January 2015. The contract for implementing the approved CAP was awarded in July 2015. CAP construction and implementation begins summer 2016.

CLEANUP/EXIT STRATEGY

The site investigation was completed in FY14. The CAP (SI/CAP) contract was awarded in FY14 and completed in FY15. The contract for CAP implementation was awarded in FY15. CAP implementation will begin in FY16. It is anticipated groundwater, soil gas, and vapor intrusion monitoring will continue for five years after CAP implementation. Site closure is anticipated in FY21.

Site ID: CC-003

Site Name: NE Ut Corridor Bldg 203/212

STATUS

Regulatory Driver: CERCLA

Contaminants of Concern: Petroleum, Oil and Lubricants (POL)

Media of Concern: Groundwater, Soil, Surface Water

Phases	Start	End
PA.....	201407.....	201407
SI.....	201407.....	201407
RI/FS.....	201408.....	201908

RIP Date: N/A

RC Date: 201908

SITE DESCRIPTION

Contaminated soil and groundwater were encountered at site CC-003 during utility work. Contamination appears to have followed the utility pathway. A groundwater sample has two parameters above the state cleanup criteria. Soils need to be analyzed for contaminants of concern.

A contract for an RI and feasibility study to determine the nature and extent of the potential contamination was awarded in July 2015. The site investigation is anticipated to begin spring 2016.

CLEANUP/EXIT STRATEGY

The RI phase began in July 2014. The RI is anticipated to be complete in August 2019.

Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
There are no NFA sites			

CR Schedule

Date of CR Inception: 199212

Past Phase Completion Milestones

1993

ISC (CC-002 - Building 1533 Diesel UST Gasoline UST)

2003

INV (CC-002 - Building 1533 Diesel UST Gasoline UST)

2004

IRA (CC-002 - Building 1533 Diesel UST Gasoline UST)

2014

PA (CC-003 - NE Ut Corridor Bldg 203/212)

SI (CC-003 - NE Ut Corridor Bldg 203/212)

2015

CAP (CC-002 - Building 1533 Diesel UST Gasoline UST)

Projected Phase Completion Milestones

See attached schedule

Projected Record of Decision (ROD)/Decision Document (DD) Approval Dates

Site ID	Site Name	ROD/DD Title	ROD/DD Date
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Final RA(C) Completion Date: 201707

Schedule for Next Five-Year Review: N/A

Estimated Completion Date of CR at Installation (including LTM phase): 202106

DETROIT ARSENAL CR Schedule

= phase underway

SITE ID	SITE NAME	PHASE	FY17	FY18	FY19	FY20	FY21	FY22+
CC-002	Building 1533 Diesel UST Gasoline UST	IMP(C)						
		IMP(O)						
SITE ID	SITE NAME	PHASE	FY17	FY18	FY19	FY20	FY21	FY22+
CC-003	NE Ut Corridor Bldg 203/212	RI/FS						

Community Involvement

Technical Review Committee (TRC): None

Community Involvement Plan (Date Published): 201510

Restoration Advisory Board (RAB): RAB established 199511

RAB Adjournment Date: 200204

RAB Adjournment Reason: All environmental restoration remedies are in place and are operating properly and successfully.

Additional Community Involvement Information

A RAB was established for the Detroit Arsenal BRAC site in 1995 and then adjourned in 2002. There has never been a RAB covering the non-BRAC actions for Detroit Arsenal. Site CC-002 (1533) is not located at the Detroit Arsenal. The site is located at SANGB on Air Force property that was formerly permitted to the Army. Site CC-002 is covered by the SANGB RAB and community involvement efforts. The National Guard Bureau is the one point of contact with the public and regulators for any issue dealing with SANGB property.

The Army prepared an addendum to the SANG CIP in January 2014 which covers site CC-002.

Administrative Record is located at

US Army Garrison Detroit Arsenal
Directorate of Public Works (Environmental MS117)
6501 East Eleven Mile Road
Warren, MI 48397-5000

Information Repository is located at

Selfridge Air National Guard Base
127th Wing CEV
29570 Wilbur Wright Blvd
Selfridge ANG Base
MI 48045-5195

Current Technical Assistance for Public Participation (TAPP):N/A

TAPP Title: N/A

Potential TAPP: N/A

