

FY2016

**VIETNAM VET MEM USARC (SOUTH)
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 (AOC), and proposes a comprehensive, installation-wide approach, along with the costs and schedules associated with conducting investigations and taking the necessary remedial actions (RA).

In an effort to coordinate planning information between the restoration manager, the US Army Environmental Command (USAEC), the 88th Regional Support Command (RSC), the Installation Management Command-Army Reserve Office (IMCOM-ARO), the executing agencies, regulatory agencies, and the public, an IAP was completed. The IAP is used to track requirements, schedules, and 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

AEDB-R	Army Environmental Database - Restoration
AOC	Area of Concern
ARO	Army Reserve Office
CERCLA	Comprehensive Environmental, Restoration, Compensation, and Liability Act
CR	Compliance Related
DD	Decision Document
FRA	Final Remedial Action
FY	Fiscal Year
IAP	Installation Action Plan
IEPA	Illinois Environmental Protection Agency
IMCOM	Installation Management Command
IRA	Interim Remedial Action
LTM	Long-Term Management
MSL	Mean Sea Level
NA	Not Applicable
NFA	No Further Action
NPL	National Priority List
OMS	Organizational Maintenance Shop
PA	Preliminary Assessment
PAH	Polycyclic Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyl
POL	Petroleum, Oil and Lubricants
RA	Remedial Action
RA-C	Remedial Action - Construction
RAB	Restoration Advisory Board
RC	Restoration Complete
RI	Remedial Investigation
RIP	Remedy In-Place
ROD	Record of Decision
RSC	Regional Support Command
SI	Site Investigation
SVOC	Semi-volatile Organic Compound
TAPP	Technical Assistance for Public Participation
TRC	Technical Review Committee
UDMH	Unsymmetrical Dimethylhydrazine
USACE	US Corps of Engineers
USAEC	US Army Environmental Command
USARC	United States Army Reserve Center
USEPA	US Environmental Protection Agency
VOC	Volatile Organic Compound

Installation Information

Installation Locale

Installation Size (Acreage): 15.7

City: Homewood

County: Cook

State: Illinois

Other Locale Information

The Vietnam Veterans Memorial US Army Reserve Center (USARC) is located at 18960 South Halsted Street Homewood, Cook County, Illinois. The site is bordered by a park to the north and west; a sewage treatment plant and dog park to the south; and a retirement home to the east and to the south of the entrance road. The nearest residence is approximately 65 feet to the north of the site. The site elevation gently slopes from 630 feet MSL on the western end of the site to 625 feet MSL on eastern end of the site.

Installation Mission

The Vietnam Veterans Memorial USARC is currently occupied by the 88th RSC and consists of a main administration/training facility and an Organizational Maintenance Shop (OMS).

Lead Organization

US Army Reserve

Lead Executing Agencies for Installation

USAEC

88th Regional Support Command (RSC)

Regulator Participation

Federal

United States Environmental Protection Agency - Region V

State

Illinois Environmental Protection Agency

National Priorities List (NPL) Status

VIETNAM VET MEM USARC (SOUTH) is not on the NPL

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

Installation has no sites in RI phase.

Installation Program Summaries

CR

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

Affected Media of Concern: Groundwater, Soil

5-Year / Periodic Review Summary

No 5-Year / Periodic Reviews have been scheduled

Cleanup Program Summary

Installation Historic Activity

The Vietnam Veterans Memorial USARC is located on a part of the former C-49 Nike Missile Launch Area. Portions of the Launch Area are also within Apollo Park, Butterfield Park, and a sewage treatment plant. All of the Nike site structures have been demolished.

Nike Site C-49 operated from 1957 to April 1974 and was reported excess in 1974 by the US Department of the Army to the General Services Administration. The 1972 signing of the Strategic Arms Limitation Talks (SALT I) treaty limited the number of missiles with anti-ballistic missile capabilities, including the Nike Hercules. In 1974, the remaining US sites in the Nike air defense system were inactivated. Shortly thereafter, the Army Air Defense Command, which administered the system, was dissolved.

The Nike site consists of two geographically separated areas: the Control Area and the Launch Area. The Control Area was located at 1300 West 187th Street, Homewood, Cook County, Illinois. The Launch Area was located at 18960 South Halsted Street, Homewood, Cook County, Illinois.

In 1983 the Army Reserve constructed an administration/training building and OMS. A paved parking lot is located on top of the underground magazines. The unpaved portions of the former Nike Site Launch Area are well vegetated with no evidence of the facility.

Nike missiles provided the last line of defense for the U.S. population and its industrial centers against advancing technology in air warfare. The U.S. Army built the first Nike missile batteries in 1953. This effort produced three generations of Nike missiles: Nike Ajax, Nike Hercules, and Nike Zeus. Former Nike Site C-49 housed both Nike Ajax and Hercules missiles.

The Launch Area contained a Launch Control Trailer, a Missile Test and Assembly Building, a Warheading Building, Underground Storage Magazines and Launcher-Loader Assemblies, a Generator Building, and a Canine Kennel Area. The missiles were stored horizontally in heavily fortified underground magazines. An elevator brought the missiles to the surface where site personnel would manually push the missiles along rails to the launchers. The missiles were then attached to the launchers, which were erected to a near-vertical position for firing. The near-vertical firing position was used to ensure that the missile's booster would not land on the missile site when spent, but instead would land within a predetermined "impact area".

Four operations were carried out in the Launch Area that potentially resulted in contamination. These included missile assembly and disassembly, missile warheading, missile maintenance and testing, and general launcher and magazine maintenance. Based on previous studies at Nike facilities, solvents, diesel fuel, hydraulic fluid, oils, lubricants and metals were used onsite. Solvents were used for cleaning and degreasing. Solvents may have been used in the magazines and in the missile assembly building. Washout from maintenance activities may have been collected in sumps and pumped to seepage pits or leach fields. Some sites had seepage systems that consisted of drainage tiles and/or seepage pits. The construction of the seepage system varied from site to site depending on local conditions; in some cases, sump discharges were directed to surface water drainages. Fuels were stored for electric power generation and heating. Fuel tanks were typically buried underground. Lead and chromium may also be present onsite from paints. Drainage ditches, which surrounded the Launch Area, may be another potential location of possible contamination at the site.

Installation Program Cleanup Progress

CR

Prior Year Progress: The USARC construction has been completed, and the site investigation will be performed in FY16 through the Louisville US Army Corps of Engineers (USACE).

Future Plan of Action: Based on assumption that no contamination will be found during the site investigation (SI) that requires remediation, site will be closed out.

**VIETNAM VET MEM USARC (SOUTH)
Army Defense Environmental Restoration Program
Compliance Restoration**

CR Summary

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count: 1/0

Installation Site Types with Future and/or Underway Phases

1 Surface Disposal Area
(CC Site 05)

Most Widespread Contaminants of Concern

Metals, Petroleum, Oil and Lubricants (POL), Polychlorinated Biphenyls (PCB), Polycyclic Aromatic Hydrocarbons (PAH), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern

Groundwater, Soil

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

Site ID	Site Name	Action	Remedy	FY
N/A				

Duration of CR

Date of CR Inception: 201309

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 201609/201609

Date of CR completion including Long Term Management (LTM): 201609

CR Contamination Assessment

Contamination Assessment Overview

On August 29, 2013 during construction of an expansion at the Army Reserve Center in Homewood, IL, 15 canisters of unsymmetrical dimethylhydrazine (UDMH) were discovered during earthmoving operations. An emergency response was initiated to address the canisters and surrounding soils. Emergency response actions were completed in September 2013. A subsequent geophysical investigation was conducted at the site at the request of the Illinois Environmental Protection Agency (IEPA) in December 2013. This investigation was done to determine if additional UDMH canisters were present in future excavation areas. The IEPA has requested that an additional be performed to determine if contaminants associated with former Nike Missile launch areas have impacted soils and groundwater at the facility. The completion date of USARC construction was July 2015. The SI will be performed after construction is complete.

Cleanup Exit Strategy

The installation will complete the site investigation in FY16 after USARC construction is complete. The investigation will target sampling of soils and groundwater to address potential contaminants associated with the former NIKE Missile Launch Area. The need for any cleanup will be determined after analysis of site investigation findings.

CR Previous Studies

	Title	Author	Date
2002	Preliminary Assessment, Former Nike Site C-49/50, Homewood, IL	Plexus Scientific Corporation	NOV-2002
2009	Final Site Investigation Report - Former Nike Site C-49	EA Engineering Science and Technology, Inc.	APR-2009
2014	UDMH Canister Project - Final Report	Shaw Environmental & Infrastructure, Inc.	JAN-2014

VIETNAM VET MEM USARC (SOUTH)

Compliance Restoration

Site Descriptions

Site ID: CC Site 05
Site Name: Launch Area

STATUS

Regulatory Driver: CERCLA

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

Media of Concern: Groundwater, Soil

Phases	Start	End
PA.....	201309.....	201309
SI.....	201509.....	201609
RIP Date:	N/A	
RC Date:	201609	

SITE DESCRIPTION

On August 29, 2013 during construction of an expansion at the Army Reserve Center in Homewood, IL, 15 canisters of UDMH were discovered during earthmoving operations. An emergency response was initiated to address the canisters and surrounding soils. Emergency response actions were completed in September 2013. A subsequent geophysical investigation was conducted at the site at the request of the IEPA in December 2013. This investigation was done to determine if additional UDMH canisters were present in future excavation areas. The IEPA has requested that additional site investigation be performed to determine if contaminants associated with former Nike Missile launch areas have impacted soils and groundwater at the facility. The USARC construction has been completed, and the SI will be performed in FY16 through the Louisville USACE.

CLEANUP/EXIT STRATEGY

Information from an SI will be evaluated to determine if any additional action is required.

Site Closeout (No Further Action) Summary

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

CR Schedule

Date of CR Inception: 201309

Past Phase Completion Milestones

2013

PA (CC Site 05 - Launch Area)

Projected Phase Completion Milestones

See attached schedule

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

To Be Determined

Final RA(C) Completion Date:

Schedule for Next Five-Year Review: N/A

Estimated Completion Date of CR at Installation (including LTM phase): 201609

Community Involvement

Technical Review Committee (TRC): None

Community Involvement Plan (Date Published): TBD

Restoration Advisory Board (RAB): No

Reason Not Established: Installation has no sites in RI phase.

Additional Community Involvement Information

The 88th worked with local officials during the initial UDMH canister emergency response. An information repository and administrative record file will be established if the findings from the SI indicate that a remedial investigation (RI) is necessary.

Administrative Record is located at

Environmental records are currently maintained on the 88th RSC server.

Information Repository is located at

TBD

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

TAPP Title: N/A

Potential TAPP: N/A

