

**FY2015**

**ST LOUIS ORDNANCE PLANT**  
**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 action (RA).

In an effort to coordinate planning information between the restoration manager, the US Army Environmental Command (USAEC), the St. Louis Ordnance Plant, the Installation Management Command-Army Reserve Office (IMCOM-ARO), regulatory agencies, executing 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

AEDB-R	Army Environmental Database - Restoration
AOC	Area of Concern
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CIP	Community Involvement Plan
DD	Decision Document
DoD	Department of Defense
FRA	Final Remedial Action
FS	Feasibility Study
FY	Fiscal Year
IAP	Installation Action Plan
IMCOM-ARO	Installation Management Command-Army Reserve Office
IRA	Interim Remedial Action
IRP	Installation Restoration Program
K	thousand
LTM	Long-Term Management
LUC	Land Use Control
MCL	Maximum Contaminant Levels
MW	Monitoring Well
N/A	Not Applicable
NASA	National Aeronautics and Space Administration
NPL	National Priorities List
OU	Operable Unit
PA	Preliminary Assessment
PBA	Performance-Based Acquisition
PP	Proposed Plan
QA	Quality Assurance
QC	Quality Control
RA	Remedial Action
RA(C)	Remedial Action (Construction)
RAB	Restoration Advisory Board
RC	Response Complete
RD	Remedial Design
RI	Remedial Investigation
RIP	Remedy-in-Place
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
RSC	Regional Support Command
SI	Site Inspection
SLOP	AEDB-R Site Designation for St. Louis Ordnance Plant
TAPP	Technical Assistance for Public Participation
TBD	To Be Determined
TRC	Technical Review Committee
USACE	United States Army Corps of Engineers
USAEC	US Army Environmental Command
USATHAMA	United States Army Toxic and Hazardous Materials Agency

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## Acronyms

USEPA US Environmental Protection Agency

VI Vapor Intrusion

VOC Volatile Organic Compound

## Installation Information

### Installation Locale

**Installation Size (Acreage):** 11

**City:** St. Louis

**County:** St. Louis

**State:** Missouri

### Other Locale Information

The St. Louis Ordnance Plant is located at the northwestern border of the city of St. Louis, Missouri in St. Louis County. It is near the intersection of Goodfellow Boulevard and Stratford Avenue.

### Installation Mission

Currently the St. Louis Ordnance Plant is excess to the needs of the 88th Regional Support Command (RSC). A few buildings on the site are used for storage.

### Lead Organization

US Army Reserve

### Lead Executing Agencies for Installation

88th RSC

US Army Corps of Engineers (USACE), Kansas City District

### Regulator Participation

**Federal**

US Environmental Protection Agency (USEPA), Region 7

**State**

Missouri Department of Natural Resources

### National Priorities List (NPL) Status

ST LOUIS ORDNANCE PLANT is not on the NPL

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

The community has expressed no sufficient, sustained interest in a RAB.

### Installation Program Summaries

#### IRP

**Primary Contaminants of Concern:** Metals, Polychlorinated Biphenyls (PCB), Volatiles (VOC)

**Affected Media of Concern:** Groundwater, Soil

# 5-Year / Periodic Review Summary

## 5-Year / Periodic Review Summary

Status	Start Date	End Date	End FY
Planned	201609	201609	2016

## 5-Year / Periodic Review Details

Associated ROD/DD Name	Sites
Final SLOP-01 ROD	SLOP-01

# Cleanup Program Summary

## Installation Historic Activity

From 1941 to 1945, the St. Louis Ordnance Plant was operated solely as a small arms ammunition facility. The property where the St. Louis Ordnance Plant is located produced the primer and tracer components used in the assembly of the final product.

From 1945 to 1959, the facility was used for administrative and record-keeping purposes. From 1959 to 1979 Hanley Industries Inc. leased the property to produce specialized devices for the Department of Defense (DoD) and the National Aeronautics and Space Administration (NASA). The property was unused from 1979 to 1998, when the 88th RSC assumed responsibility for the St. Louis Ordnance Plant.

A contract was awarded in 2007 to prepare a feasibility study (FS), proposed plan (PP), and decision document (DD) for site SLOP-01, as well as the remedial design (RD), RA, and long-term management (LTM).

Because volatile organic compounds (VOC) groundwater contamination had moved beyond the St. Louis Ordnance Plant property and because of the proximity of residences to the installation, a vapor intrusion (VI) study was conducted at off-post residences that permitted the US Army to conduct the study. Two rounds of sampling were conducted in 2008, and the conclusion of the study, which received regulatory concurrence, was that VI into the off-post residences was not a current issue of concern; however, an increase in VOC levels above the maximum contaminant levels (MCL) in MW107 sampled in August 2010 has resulted in additional evaluation of potential for VI at off-post residences. Site CC SLOP-18 was established in order to assess the potential for VI from contaminated groundwater into nearby residences.

## Installation Program Cleanup Progress

### IRP

**Prior Year Progress:** LTM continued at SLOP-01. Remedial investigation (RI) fieldwork completed at CC-SLOP-18.

**Future Plan of Action:** LTM continues at the SLOP-01 site. RI/FS work will continue at the CC-SLOP-18 site. Costs for the CC-SLOP-18 PP and DD will be determined upon completion of the FS. There is currently insufficient data to determine if further remediation will be required at the site.



**ST LOUIS ORDNANCE PLANT**  
**Army Defense Environmental Restoration Program**  
**Installation Restoration Program**

# IRP Summary

**Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count:** 18/16

**Installation Site Types with Future and/or Underway Phases**

- 1 Contaminated Ground Water  
(CC-SLOP-18)
- 1 Spill Site Area  
(SLOP-01)

**Most Widespread Contaminants of Concern**

Metals, Polychlorinated Biphenyls (PCB), 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
SLOP-01	Former Hanley Area SLOP	IRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	1979
SLOP-02	FORMER BUILDING 227T	IRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	1979
SLOP-03	Sewer Lines	IRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	1979
SLOP-04	FMR MAGAZINE SERIES 227	IRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	1979
SLOP-05	POWDER WELLS(#218C & 227/228 SER. MAGS)	IRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	1979
SLOP-06	BUILDING 236	IRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	1979
SLOP-07	FMR BUILDING SERIES 218(A-C)	IRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	1979
SLOP-08	CONTAMINATED POWDER WELLS(2),BLDG 218A,B	IRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	1979
SLOP-09	FMR PROCESS BDLG(219A,D,G)	IRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	1979
SLOP-10	FMR MAGAZINES(219 FAND 219J)	IRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	1979
SLOP-11	FMR MAGAZINES(219 B,C,&H)	IRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	1979
SLOP-12	FMR MAGAZINES(219E)	IRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	1979
SLOP-13	FMR BLDG. 220 LAB BUILDING	IRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	1979
SLOP-14	FMR 226 SERIES MAGAZINES	IRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	1979
SLOP-15	FMR 228 SERIES MAGAZINES	IRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	1979
SLOP-16	FMR 229 SERIES MAGAZINES	IRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	1979
SLOP-17	FMR POWDER WELL(6,FMR.226&228 SER MAGS	IRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	1979
SLOP-06	BUILDING 236	FRA	OTHER	1990
SLOP-09	FMR PROCESS BDLG(219A,D,G)	FRA	OTHER	1990
SLOP-07	FMR BUILDING SERIES 218(A-C)	FRA	OTHER	2005
SLOP-02	FORMER BUILDING 227T	FRA	OTHER	2007

## IRP Summary

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

Site ID	Site Name	Action	Remedy	FY
SLOP-04	FMR MAGAZINE SERIES 227	FRA	OTHER	2007
SLOP-10	FMR MAGAZINES(219 FAND 219J)	FRA	OTHER	2007
SLOP-11	FMR MAGAZINES(219 B,C,&H)	FRA	OTHER	2007
SLOP-12	FMR MAGAZINES(219E)	FRA	OTHER	2007
SLOP-13	FMR BLDG. 220 LAB BUILDING	FRA	OTHER	2007
SLOP-15	FMR 228 SERIES MAGAZINES	FRA	OTHER	2007
SLOP-01	Former Hanley Area SLOP	FRA	REMOVAL	2012
SLOP-01	Former Hanley Area SLOP	FRA	IN-SITU SOIL TREATMENT	2012
SLOP-05	POWDER WELLS(#218C & 227/228 SER. MAGS)	FRA	OTHER	2012
SLOP-08	CONTAMINATED POWDER WELLS(2),BLDG 218A,B	FRA	OTHER	2012
SLOP-17	FMR POWDER WELL(6,FMR.226&228 SER MAGS)	FRA	OTHER	2012

### Duration of IRP

**Date of IRP Inception:** 197901

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

**Date of IRP completion including Long Term Management (LTM):** 204509

# IRP Contamination Assessment

## **Contamination Assessment Overview**

Metal-contaminated soils located around former Building Series 218 and 219 and a small area of soil contaminated with PCB were removed from the site. VOC-contaminated soils and groundwater are located northeast of former Building 220. In addition, soil mixing was performed in the contaminated groundwater area. The groundwater contamination extends onto St. Louis city property and is being monitored. Potential VI from groundwater contamination is being assessed as operable unit 2 (OU2).

## **Cleanup Exit Strategy**

Excavation and disposal of metals and PCB-contaminated soils, and soil-mixing and treatment in the area of contaminated groundwater at the St. Louis Ordnance Plant were conducted through a contract awarded in 2007. LTM and an exit strategy have been developed as part of the cleanup design and remediation of VOC-contaminated soils and groundwater.

## IRP Previous Studies

Year	Title	Author	Date
1981	Survey of Hazardous/Chemical Area No.2 of the Former St. Louis Ordnance Plant	Installation	JAN-1981
1989	Waste Site Characterization Study	Roy F. Weston, Inc	JUN-1989
1991	St. Louis Ordnance Plant Environmental Study	USATHAMA	JAN-1991
1998	Site Investigation Report, Former St. Louis Ordnance Plant (SLOP), St. Louis, Missouri	Harza Environmental Services	DEC-1998
2001	Preliminary Assessment/Site Investigation Report	Tapan Am Associates, Inc	JUN-2001
2003	Limited Phase II Environmental Assessment Report for the Investigation of Impacted Groundwater	Installation	MAR-2003
	Phase I Environmental Site Assessment, Former St. Louis Ordnance Plant	Pangea, Inc	SEP-2003
2004	Pre-Demolition Environmental Site Investigation Report	SCS Engineers	FEB-2004
2005	Technical Memorandum - Final Hanley Area Phase I Remedial Investigation Former St. Louis Ordnance Plant (SLOP), St. Louis, Missouri	Kansas City District, US Army Corps of Engineers	MAY-2005
2006	Final Supplemental Groundwater Remedial Investigation Technical Memorandum Hanley Area, Former St. Louis Ordnance Plant, St. Louis, Missouri	Kansas City District, US Army Corps of Engineers	OCT-2006
2007	Final Supplemental Soil and Groundwater Phase II Remedial Investigation Technical Memorandum Hanley Areas, Former St. Louis Ordnance Plant, St. Louis, Missouri	Kansas City District, US Army Corps of Engineers	JUN-2007
2008	Vapor Intrusion Technical Memorandum	CH2MHill	JUN-2008
2009	Final Remedial Investigation Report Hanley Areas, Former St. Louis Ordnance Plant, St. Louis, Missouri	CH2M Hill	NOV-2009
2010	Final Feasibility Study Report, St. Louis Ordnance Plant, Former Hanley Area, St. Louis, Missouri	CH2M Hill	JUL-2010
2011	May 2011 PP-1 VI Assessment Technical Memorandum, OU-2	CH2MHill	JUL-2011
	Final Decision Document (OU-1), St. Louis Ordnance Plant, Former Hanley Area, St. Louis, Missouri	CH2M Hill	SEP-2011
	Final Remedial Design/Remedial Action Work plan (OU-1), St. Louis Ordnance Plant, Former Hanley Area, St. Louis, Missouri	CH2M Hill	SEP-2011

## IRP Previous Studies

2012

Title	Author	Date
Soil Removal Excavation Limits, Technical Memorandum, OU-1	CH2MHill	FEB-2012
December 2011 PP-1 VI Assessment Technical Memorandum, OU-2	CH2MHill	APR-2012
December 2011 PP-17 VI Assessment Technical Memorandum, OU-2	CH2MHill	APR-2012
February 2012 PP-2 VI Assessment Technical Memorandum, OU-2	CH2MHill	MAY-2012
February 2012 PP-3 VI Assessment Technical Memorandum, OU-2	CH2MHill	MAY-2012
Interim Remedial Action Completion Report - Operable Unit 1	Conti and CH2MHill	SEP-2012
Long-Term Management/Land Use Control Implementation Plan - Operable Unit 1	Conti and CH2MHill	SEP-2012
June 2012 PP-1 VI Assessment Technical Memorandum, OU-2	CH2MHill	SEP-2012

2014

OU-1 Site-specific Work Plan, LTM	HydroGeologic, Inc.	JAN-2014
OU-2 Round 1 Results and Path Forward	Conti & CH2MHill	FEB-2014
January 2014 PP-2 VI Assessment Technical Memorandum, OU-2	CH2MHill	MAR-2014
January 2014 PP-3 VI Assessment Technical Memorandum, OU-2	CH2MHill	MAR-2014
January 2014 PP-5 VI Assessment Technical Memorandum, OU-2	CH2MHill	MAR-2014
OU-1 Quarterly Groundwater Monitoring Report, Oct. 2013 Sampling Event	HydroGeologic, Inc.	JUN-2014
OU-1 Quarterly Groundwater Monitoring Report, Jan. 2014 Sampling Event	HydroGeologic, Inc.	JUN-2014
April 2014 Job Corps VI Assessment Technical Memorandum, OU-2	CH2MHill	JUL-2014
March 2014 PP-2 VI Assessment Technical Memorandum, OU-2	CH2MHill	JUL-2014
April 2014 PP-3 VI Assessment Technical Memorandum, OU-2	CH2MHill	JUL-2014
March-April 2014 PP-9 VI Assessment Technical Memorandum, OU-2	CH2MHill	JUL-2014

**ST LOUIS ORDNANCE PLANT**  
**Installation Restoration Program**  
**Site Descriptions**

**Site ID: CC-SLOP-18**  
**Site Name: OU-2, Vapor Intrusion Pathway**

**STATUS**

**Regulatory Driver:** CERCLA

**RRSE:** LOW

Contaminants of Concern: Volatiles (VOC)

Media of Concern: Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
PA.....	200809.....	201109
SI.....	200809.....	201109
RI/FS.....	201202.....	201609

**RIP Date:** N/A

**RC Date:** 201609

**SITE DESCRIPTION**

This project will assess the potential for VI in residential properties adjacent to the northern portion of site SLOP-01 (OU-1). Groundwater contaminated with VOCs has migrated off-site. The VI assessment is being managed as a separate OU (OU-2). It is not known at this time if additional remediation/mitigation measures will be required after the RI is completed.

A contract to address OU-2 was awarded in fiscal year (FY)12 through the Kansas City District, USACE. FY12 deliverables consisted of the project management plan and quality assurance/quality control (QA/QC) plan. The RI was awarded in FY13, and the FS was awarded in FY15. Costs for the PP and DD will be determined upon completion of the FS. There is currently insufficient data to determine if further remediation will be required at the site.

**CLEANUP/EXIT STRATEGY**

A contract for the RI was awarded in FY13. The VI pathway will be assessed during the RI and will help determine a path forward.



**Site ID: SLOP-01**  
**Site Name: Former Hanley Area SLOP**

**STATUS**

**Regulatory Driver:** CERCLA

**RRSE:** LOW

Contaminants of Concern: Metals, Polychlorinated Biphenyls (PCB), Volatiles (VOC)

Media of Concern: Groundwater, Soil

Phases	Start	End
PA.....	197901.....	198106
SI.....	199802.....	200110
RI/FS.....	200110.....	201007
RD.....	200910.....	201109
IRA.....	197901.....	197908
RA(C).....	201202.....	201207
LTM.....	201207.....	204509

**RIP Date:** N/A

**RC Date:** 201207

**SITE DESCRIPTION**

In October 2001, a preliminary assessment (PA)/site inspection (SI) was completed. In fiscal year FY03, the St. Louis Ordnance Plant was included in the Reserve Sites performance-based acquisition (PBA), but it was taken out of the PBA in FY04 after bids were received.

A Phase I RI was completed by the Kansas City District of the USACE in anticipation of an FY05 modification to the Reserve Sites PBA; however, the findings of the RI precluded inclusion in the Reserve Sites PBA.

Between FY05 and FY07, the Kansas City District USACE conducted additional soil and groundwater sampling to delineate a plume in the northeast corner of the property around Building 220. This study was completed in FY07. The findings of the study indicated significantly more soil and groundwater contamination than had been estimated.

In 2007, a PBA was awarded to prepare an RI/FS, PP and DD for the installation, as well as the RD and RA. The final RI was completed in November 2009, and the final FS was completed in July 2010. The final DD was completed in September 2011, and the associated public meeting was held in December 2010. The final RD/RA work plan was completed in September 2011. The long-term management /land use control implementation plan and interim remedial action completion report were completed in 2012. RAs chosen for OU-1 consist of in situ groundwater treatment using chemical processes, soil mixing and soil removal.

LTM began in July 2012 since remedial action (construction) [RA(C)] was completed and both RIP and RC were achieved prior to the PBA incentive date of Sept. 30, 2012. Post PBA LTM requirements began in FY13.

Quarterly sampling of 12 groundwater monitoring wells occurred during LTM in FY14. Annual sampling of 12 groundwater monitoring wells will begin in FY15.

Five-year reviews are scheduled to occur in FY16, FY21, and every subsequent fifth year.

**CLEANUP/EXIT STRATEGY**

LTM and five-year reviews will continue.

## Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
SLOP-02	FORMER BUILDING 227T	200612	Building demolished in 2006.
SLOP-03	Sewer Lines	200009	Sanitary and storm sewers are combined and remain in-place. Some lines around former building 220 were removed during the 2007 demolition.
SLOP-04	FMR MAGAZINE SERIES 227	200612	Structures demolished in 2006.
SLOP-05	POWDER WELLS(#218C & 227/228 SER. MAGS)	201209	Structures cleaned and left in-place during 2012 OU-1 remediation.
SLOP-06	BUILDING 236	198912	Building 236 currently used by Army. Heavy metals on interior walls and asbestos removed in 1989.
SLOP-07	FMR BUILDING SERIES 218(A-C)	200412	Buildings demolished in 2004.
SLOP-08	CONTAMINATED POWDER WELLS(2),BLDG 218A,B	201207	Structures cleaned and left in-place during 2012 OU-1 remediation.
SLOP-09	FMR PROCESS BDLG(219A,D,G)	198912	Buildings currently used by the Army. Heavy metals on interior surfaces and asbestos removed in 1989.
SLOP-10	FMR MAGAZINES(219 FAND 219J)	200612	Structures demolished in 2006.
SLOP-11	FMR MAGAZINES(219 B,C,&H)	200612	Structures demolished in 2006.
SLOP-12	FMR MAGAZINES(219E)	200612	Structures demolished in 2006
SLOP-13	FMR BLDG. 220 LAB BUILDING	200703	Building demolished in 2007.
SLOP-14	FMR 226 SERIES MAGAZINES	199303	Located on Job Corps property that was transferred from Ft. Leonard Wood in 1993. Structures have been demolished.
SLOP-15	FMR 228 SERIES MAGAZINES	200612	Structures demolished in 2006.
SLOP-16	FMR 229 SERIES MAGAZINES	199803	Located on Job Corps property transferred from Ft. Leonard Wood in March 1998. Structures have been demolished.
SLOP-17	FMR POWDER WELL(6,FMR.226&228 SER MAGS)	201207	228 Series Magazine powder wells cleaned and left in-place during 2012 OU-1 remediation. 226 Series Magazine powder wells located on Job Corps property transferred from Ft. Leonard Wood in March 1993.

# IRP Schedule

Date of IRP Inception: 197901

## Past Phase Completion Milestones

### 1979

IRA (SLOP-01 - Former Hanley Area SLOP, SLOP-02 - FORMER BUILDING 227T, SLOP-03 - Sewer Lines, SLOP-04 - FMR MAGAZINE SERIES 227, SLOP-05 - POWDER WELLS(#218C & 227/228 SER. MAGS), SLOP-06 - BUILDING 236, SLOP-07 - FMR BUILDING SERIES 218(A-C), SLOP-08 - CONTAMINATED POWDER WELLS(2),BLDG 218A,B, SLOP-09 - FMR PROCESS BDLG(219A,D,G), SLOP-10 - FMR MAGAZINES(219 FAND 219J), SLOP-11 - FMR MAGAZINES(219 B,C,&H), SLOP-12 - FMR MAGAZINES(219E), SLOP-13 - FMR BLDG. 220 LAB BUILDING, SLOP-14 - FMR 226 SERIES MAGAZINES, SLOP-15 - FMR 228 SERIES MAGAZINES, SLOP-16 - FMR 229 SERIES MAGAZINES, SLOP-17 - FMR POWDER WELL(6,FMR.226&228 SER MAGS))

### 1981

PA (SLOP-01 - Former Hanley Area SLOP, SLOP-02 - FORMER BUILDING 227T, SLOP-03 - Sewer Lines, SLOP-04 - FMR MAGAZINE SERIES 227, SLOP-05 - POWDER WELLS(#218C & 227/228 SER. MAGS), SLOP-06 - BUILDING 236, SLOP-07 - FMR BUILDING SERIES 218(A-C), SLOP-08 - CONTAMINATED POWDER WELLS(2),BLDG 218A,B, SLOP-09 - FMR PROCESS BDLG(219A,D,G), SLOP-10 - FMR MAGAZINES(219 FAND 219J), SLOP-11 - FMR MAGAZINES(219 B,C,&H), SLOP-12 - FMR MAGAZINES(219E), SLOP-13 - FMR BLDG. 220 LAB BUILDING, SLOP-14 - FMR 226 SERIES MAGAZINES, SLOP-15 - FMR 228 SERIES MAGAZINES, SLOP-16 - FMR 229 SERIES MAGAZINES, SLOP-17 - FMR POWDER WELL(6,FMR.226&228 SER MAGS))

### 1990

RA(C) (SLOP-06 - BUILDING 236, SLOP-09 - FMR PROCESS BDLG(219A,D,G))

### 1991

SI (SLOP-02 - FORMER BUILDING 227T, SLOP-14 - FMR 226 SERIES MAGAZINES, SLOP-15 - FMR 228 SERIES MAGAZINES, SLOP-16 - FMR 229 SERIES MAGAZINES, SLOP-17 - FMR POWDER WELL(6,FMR.226&228 SER MAGS))

### 1998

SI (SLOP-03 - Sewer Lines, SLOP-04 - FMR MAGAZINE SERIES 227, SLOP-05 - POWDER WELLS(#218C & 227/228 SER. MAGS), SLOP-07 - FMR BUILDING SERIES 218(A-C), SLOP-08 - CONTAMINATED POWDER WELLS(2),BLDG 218A,B, SLOP-10 - FMR MAGAZINES(219 FAND 219J), SLOP-11 - FMR MAGAZINES(219 B,C,&H), SLOP-12 - FMR MAGAZINES(219E), SLOP-13 - FMR BLDG. 220 LAB BUILDING)

### 2000

RI/FS (SLOP-03 - Sewer Lines, SLOP-04 - FMR MAGAZINE SERIES 227, SLOP-07 - FMR BUILDING SERIES 218(A-C), SLOP-10 - FMR MAGAZINES(219 FAND 219J), SLOP-11 - FMR MAGAZINES(219 B,C,&H), SLOP-12 - FMR MAGAZINES(219E), SLOP-13 - FMR BLDG. 220 LAB BUILDING)

### 2002

SI (SLOP-01 - Former Hanley Area SLOP)

### 2005

RA(C) (SLOP-07 - FMR BUILDING SERIES 218(A-C))

### 2007

RA(C) (SLOP-02 - FORMER BUILDING 227T, SLOP-04 - FMR MAGAZINE SERIES 227, SLOP-10 - FMR MAGAZINES(219 FAND 219J), SLOP-11 - FMR MAGAZINES(219 B,C,&H), SLOP-12 - FMR MAGAZINES(219E), SLOP-13 - FMR BLDG. 220 LAB BUILDING, SLOP-15 - FMR 228 SERIES MAGAZINES)

### 2010

RI/FS (SLOP-01 - Former Hanley Area SLOP, SLOP-05 - POWDER WELLS(#218C & 227/228 SER. MAGS), SLOP-08 - CONTAMINATED POWDER WELLS(2),BLDG 218A,B, SLOP-17 - FMR POWDER WELL(6,FMR.226&228 SER MAGS))

### 2011

PA (CC-SLOP-18 - OU-2, Vapor Intrusion Pathway)

SI (CC-SLOP-18 - OU-2, Vapor Intrusion Pathway)

RD (SLOP-01 - Former Hanley Area SLOP, SLOP-05 - POWDER WELLS(#218C & 227/228 SER. MAGS), SLOP-08 - CONTAMINATED POWDER WELLS(2),BLDG 218A,B, SLOP-17 - FMR POWDER WELL(6,FMR.226&228 SER MAGS))

# IRP Schedule

**2012**

RA(C) (SLOP-01 - Former Hanley Area SLOP, SLOP-05 - POWDER WELLS(#218C & 227/228 SER. MAGS), SLOP-08 - CONTAMINATED POWDER WELLS(2),BLDG 218A,B, SLOP-17 - FMR POWDER WELL(6,FMR.226&228 SER MAGS)

**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:** 201207

**Schedule for Next Five-Year Review:** 2016

**Estimated Completion Date of IRP at Installation (including LTM phase):** 204509

## ST LOUIS ORDNANCE PLANT IRP Schedule

= phase underway

SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CC-SLOP-18	OU-2, Vapor Intrusion Pathway	RI/FS						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
SLOP-01	Former Hanley Area SLOP	LTM						

## Community Involvement

**Technical Review Committee (TRC):** None

**Community Involvement Plan (Date Published):** 201306

**Restoration Advisory Board (RAB):** No

**Reason Not Established:** The community has expressed no sufficient, sustained interest in a RAB.

**Community Interest Solicited on:** 201304

### **Efforts Taken to Determine Interest**

In April 2013, a questionnaire associated with the community involvement plan was distributed throughout the community with follow-up interviews to determine interest in a RAB.

### **Results**

Response to the questionnaire and follow-up interviews was not significant enough to warrant establishing a RAB.

### **Follow-up Procedures**

A community involvement survey was completed in spring FY13 to improve community planning. A new community involvement plan (CIP) that supplements the existing 2008 CIP was completed in 2013. A solicitation for potential community interest in forming a RAB will also be published in local newspapers in FY15.

### **Additional Community Involvement Information**

In May 2006, the 89th RSC met with the local alderman to discuss investigative findings to date. The US Army agreed to provide additional information as it becomes available.

A public meeting was held to discuss the PP in December 2010. Formal solicitation of RAB interest was not conducted during the meeting.

A public availability session to discuss progress at the site and potential VI issues was held near the site in November 2013.

### **Administrative Record is located at**

St. Louis Public Library  
1301 Olive Street  
St. Louis, MO 63103-2325

### **Information Repository is located at**

St. Louis Public Library  
1301 Olive Street  
St. Louis, MO 63103-2325

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

**TAPP Title:** N/A

**Potential TAPP:** N/A

