

**FY2016**

**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
LUCIP	Land Use Control Implementation Plan
N/A	Not Applicable
NPL	National Priorities List
OU	Operable Unit
PA	Preliminary Assessment
PBA	Performance-Based Acquisition
PP	Proposed Plan
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
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

<b>Federal</b>	US Environmental Protection Agency (USEPA), Region 7
<b>State</b>	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

Installation is in the process of determining interest in establishing 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
Underway	201510	201609	2016

## 5-Year / Periodic Review Details

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

## Land Use Control (LUC) Summary

**LUC Title:** LUCs for Plume C

**Site(s):** SLOP-01

**ROD/DD Title:** Final SLOP-01 ROD

**Location of LUC**

Plume C footprint at SLOP

**Land Use Restriction:** Media specific restriction - Prohibit, or otherwise manage excavation, Media specific restriction - Prohibit, or otherwise manage excavation below a specified depth

**Types of Engineering Controls:** Fences, Signs

**Types of Institutional Controls:** Construction Permit

**Date in Place:** 201209

**Modification Date:** N/A

**Date Terminated:** N/A

**Inspecting Organization:** State

**Record of LUC:** Master Plan or Equivalent

**Documentation Date:** 201209

**LUC Enforcement:** Annual Inspections, 5 Year Reviews, Markers, Transferee Reporting

**Contaminants:** VOC

**Additional Information**

N/A

# Cleanup Program Summary

## Installation Historic Activity

For SLOP-01 (OU-1) A preliminary assessment (PA)/site investigation (SI) was completed in October 2001. Between fiscal year (FY)05 and FY07 the Kansas City District USACE performed additional soil and groundwater sampling for metals, polychlorinated biphenyls (PCB), and volatile-organic compounds (VOC) to fill data gaps at the site.

A performance-based acquisition (PBA) was awarded in September 2007 to prepare a remedial investigation/feasibility study (RI/FS), proposed plan (PP) and decision document (DD) for the installation, as well as the remedial design (RD), RA, and long-term management (LTM). The RI was completed in September 2009, the FS completed in July 2010, the PP was completed in November 2010, and the DD was completed in September 2011.

RAs occurred at the site in early 2011, and consisted of removing about 324 tons of soils contaminated with arsenic, lead, thallium and PCBs, and conducting soil mixing at the northern end of the site to reduce tetrachloroethylene (PCE) concentrations in groundwater at Plume A. Groundwater monitoring and land use controls (LUC) are the remedial alternatives that will be used at Plume C, where groundwater at the north end of the site is contaminated with carbon tetrachloride. The LTM /land use control implementation plan (LUCIP) and interim remedial action completion report were completed in 2012.

At CC-SLOP-18 (OU-2), a PA/SI was performed under a PBA. Subslab soil gas, indoor air, and ambient air samples were collected from select residential properties north of the St. Louis Ordnance Plant, former Hanley Area. Technical memorandums presented tables comparing analytical results against the screening levels and addressed discussion regarding the differences in the screening levels. The technical memorandums discussed chemical concentrations exceeding screening levels and identified possible sources of those chemicals based on the following lines of evidence. In addition to evaluating possible sources of VOCs measured above screening levels, technical memorandums assessed the potential for vapors in the subslab to migrate into a residence. The technical memorandums assessed whether the former Hanley Area (OU-1) was the primary source of contamination in the subslab soil gas and indoor air. This was done by determining if there is a correlation between results from subslab soil gas, indoor/ambient air, and onsite and offsite groundwater samples collected during and subsequent to the RI. Since the results were inconclusive regarding whether the former Hanley Area (OU-1) was the contributing source, the technical memorandum provided recommendations for further investigation.

A PBA was awarded in August 2012 to prepare an RI/FS. The RI was completed in FY16, with the FS report to be completed in FY17. 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.

## Installation Program Cleanup Progress

### IRP

**Prior Year Progress:** LTM continued at SLOP-01. An RI was completed at CC-SLOP-18.

**Future Plan of Action:** LTM continues at the SLOP-01 site. 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):** 201709/201709

**Date of IRP completion including Long Term Management (LTM):** 204609

# 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 vapor intrusion (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
SLOP OU-1 Quarterly GWM Report	HGL	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
SLOP OU-1 Quarterly GWM Report	HGL	APR-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
SLOP OU-1 Quarterly GWM Report	HGL	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
SLOP OU-1 Quarterly GWM Report	HGL	OCT-2014

2016

SLOP OU-2 RI	CH2MHill	FEB-2016
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**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.....	201709
<b>RIP Date:</b>	N/A	
<b>RC Date:</b>	201709	

**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 FY12 through the Kansas City District, USACE. FY12 deliverables consisted of the project management plan and quality assurance/quality control 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**

The RI was completed in FY16. The FS will be completed in FY17. It is not known if any remedial actions will be required until the FS is completed.



**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.....	204609

**RIP Date:** N/A

**RC Date:** 201207

## SITE DESCRIPTION

In October 2001, PA/SI was completed. In FY03, the St. Louis Ordnance Plant was included in the Reserve Sites 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 LTM/LUCIP and interim remedial action completion report were completed in 2012. RAs chosen for OU-1 consist of insitu 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 remedy-in-place and response complete 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.

A five-year review for FY16 is currently underway, and future reviews are scheduled to occur in FY21, and every subsequent fifth year until concentrations of groundwater contaminants of concern fall below remediation goals.

## 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

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))

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

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

# 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):** 204609

## ST LOUIS ORDNANCE PLANT IRP Schedule

= phase underway

SITE ID	SITE NAME	PHASE	FY17	FY18	FY19	FY20	FY21	FY22+
CC-SLOP-18	OU-2, Vapor Intrusion Pathway	RI/FS						
SITE ID	SITE NAME	PHASE	FY17	FY18	FY19	FY20	FY21	FY22+
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:** Installation is in the process of determining interest in establishing a RAB.

### **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 availability session for OU-2 was held near the site in November 2013. St Louis Ordnance Plant information sheets were sent to nearby residences in 2013 and 2016. Community involvement plans were completed in 2008 and 2013.

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

