



U.S. Army Corps of Engineers  
St. Louis District

## Summary of FUSRAP Activities at the

# IOWA ARMY AMMUNITION PLANT FEASIBILITY STUDY



The U.S. Army Corps of Engineers (USACE), St. Louis District, is conducting a cleanup program at areas formerly used by the Atomic Energy Commission at the Iowa Army Ammunition Plant (IAAAP). This program is being carried out under the Formerly Utilized Sites Remedial Action Program (FUSRAP) which authorizes USACE to address contamination resulting from the Nation's early atomic weapons program. The IAAAP site contains soils and structures primarily contaminated with depleted uranium as a result of activities performed by the Atomic Energy Commission from 1947 until 1975s.

In April 2011, the USACE issued a Feasibility Study identifying and evaluating four cleanup alternatives for soil and three for structures at IAAAP FUSRAP areas.

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The USACE encourages private citizens to participate fully in the cleanup program.

To learn more about the IAAAP FUSRAP areas or to inquire about public involvement opportunities, call

314.260.3905

or write

FUSRAP Project Office, St. Louis  
District, Corps of Engineers Office  
8945 Latty Avenue  
Berkeley, MO 63134

## BACKGROUND

The Iowa Army Ammunition Plant (IAAAP) is an active, government-owned, contractor-operated facility that occupies approximately 19,000 acres in Des Moines County near Middletown, Iowa. Less than one-third of the IAAAP property is occupied by active or formerly active munitions production or storage facilities. The current and expected future land use of the IAAAP property is industrial/military.

From 1947 to 1975, portions of the IAAAP facility were under Atomic Energy Commission (AEC) control for weapon-assembly operations. These portions of the IAAAP are now called Formerly Utilized Sites Remedial Action Program (FUSRAP) areas. In March 2000, after performing historical research regarding AEC activities at the IAAAP, investigators determined that some of the FUSRAP areas may contain contamination resulting from AEC activities and warranted additional investigation. These areas were the structures at Line 1, the Firing Sites area, Yard C, Yard G, Yard L areas surrounding Warehouses L-37-1, L-37-2, and L-37-3. That year, the USACE began investigation and characterization of soil, sediment, and building contamination in the FUSRAP areas.

A Remedial Investigation Report, which was issued in October 2008, identified the existence of unacceptable risk at the structures at Line 1, the Firing Sites Area, Yard C, and Yard G. These areas were subsequently addressed by the Feasibility Study.

The purpose of the Feasibility Study is to develop and evaluate cleanup alternatives for these FUSRAP areas.

## CONTAMINANTS OF CONCERN

Depleted uranium that is present on the FUSRAP areas will be addressed by the USACE. Based on continued industrial/military land use, the only contaminant of concern to be addressed by USACE is depleted uranium.

## SUMMARY OF ALTERNATIVES

### Soil Alternative 1 – No Action

This alternative involves no action for the FUSRAP areas. It is required by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) to act as a baseline alternative for comparison with other alternatives. The total cost is \$0.

### Soil Alternative 2 – Land Use Controls

Alternative 2 includes providing additional land use controls to reduce the potential for exposure to contaminated soil. Land use controls would include fencing, warning signs, and other restrictions. The total estimated cost is \$2.3 million.

### Remedial Alternatives for Soil:

- Alternative 1: No Action for Soil (Cost: \$0)
- Alternative 2: Land Use Controls for Soil (Cost: \$2.3 million)
- Alternative 3: Excavation of DU-Contaminated Soil with Off-Site Disposal (Cost: \$50.4 million)
- **Alternative 4: Excavation of DU-Contaminated Soil with Physical Treatment and Off-Site Disposal (Cost: \$45.2 million)**

### Remedial Alternatives for Structures:

- Alternative S1: No Action for Structures (Cost: \$0)
- Alternative S2: Land Use Controls for Structures (Cost: \$286 thousand)
- **Alternative S3: Decontamination/Replacement of Structures (Cost: \$103 thousand)**

### Soil Alternative 3 – Excavation of Depleted Uranium Contaminated Soil with Off Site Disposal

This alternative includes excavation of depleted uranium contaminated soil where the remediation goal was exceeded. There is no treatment of soil under this alternative. All excavated soil would be transported to a properly permitted off-site disposal facility. The total estimated cost is \$50.4 million.

### Soil Alternative 4 – Excavation of Depleted Uranium Contaminated Soil with Physical Treatment and Off Site Disposal

Alternative 4 consists of the same excavation routine as Soil Alternative 3 with the addition of soil treatment onsite. Soil treatment is designed to reduce the volume of soil requiring off-site disposal and would include soil sorting and scanning for depleted uranium. Soil exceeding remedial goals for depleted uranium would be transported to a properly permitted off-site disposal facility. The total estimated cost is \$45.2 million.

### Structure Alternative S1 – No Action

Alternative S1 proposes no cleanup actions at contaminated structures at FUSRAP areas. It is required by CERCLA to act as a baseline alternative for comparison with other alternatives. The total cost is \$0.

### Structure Alternative S2 – Land Use Controls

Alternative S2 includes land use controls for structures and is protective as long as the controls are in place. This alternative involves leaving contamination in place. Land use controls would include fencing, warning signs, and other restrictions. The total estimated cost is \$286,000.

### Structure Alternative S3 – Decontamination/Replacement of Structures

Alternative S3 includes cleaning with high pressure washing or grit blasting to remove contamination from structural surfaces or replacing the structural components. This alternative includes the decontamination of a steel grate and the replacement of air filters at Line 1. The total estimated cost is \$103,000.

## PUBLIC PARTICIPATION

This fact sheet is being issued as part of the public involvement in development of the Record of Decision. The USACE encourages public input to select one cleanup alternative each for soil and structures in the FUSRAP areas. Public input is needed to ensure the remedy selected meets the needs of the local community and is an effective solution to the problem. The final remedy will be documented in a Record of Decision for the FUSRAP areas at the IAAAP. The public is encouraged to review documents contained in the Administrative Record File for the FUSRAP areas of the IAAAP.

Written comments may be submitted to the USACE, at any time during the 30-day period. Oral comments will be recorded during the May 17, 2011, public meeting. The USACE will respond to all significant comments and will consider these comments when working with the EPA to select a final remedy.

The entire Feasibility Study may be read at  
Burlington Public Library, 210 Court St, Burlington, IA  
or online at [www.mvs.usace.army.mil/eng-con/expertise/fusrap-IAAAP.html](http://www.mvs.usace.army.mil/eng-con/expertise/fusrap-IAAAP.html)