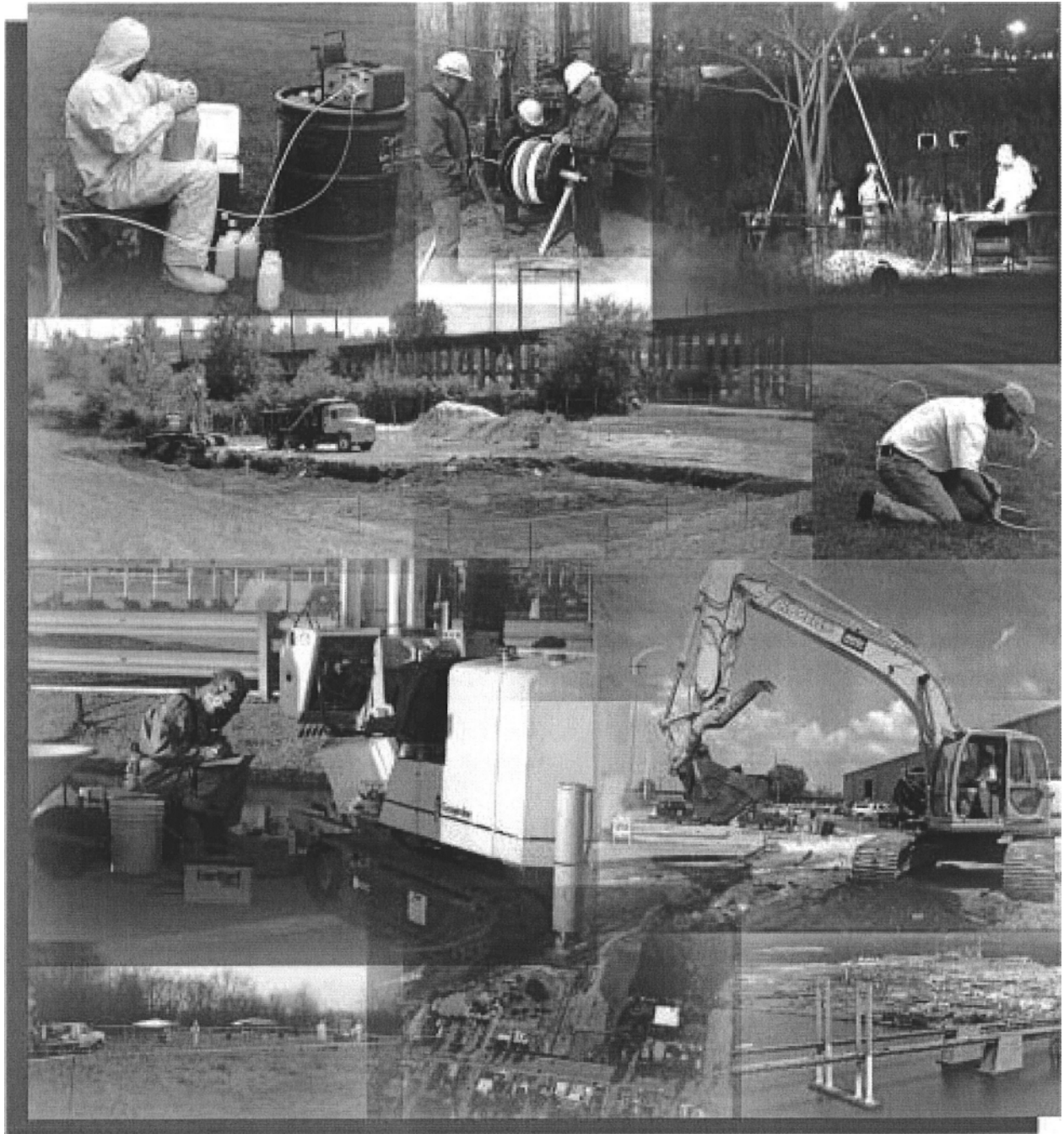


Formerly Utilized Sites Remedial Action Program Update

U.S. Army Corps of Engineers Vol. 2, No. 1 April 2004



Introduction

This is the second edition of *The Formerly Utilized Sites Remedial Action Program Update*. It is published as a way of sharing information about the program and the progress the U.S. Army Corps of Engineers (Corps) is making in cleaning up these sites.

The goals of the Formerly Utilized Sites Remedial Action Program (FUSRAP) are focused on being fully protective of human health, public safety and the environment while conducting radiological cleanups. The program responds to contamination in a way that is safe for the public and the environment while complying with all applicable laws and regulations, and determining that the sites are safe for appropriate future use.

The public is a vital partner in the FUSRAP effort. The Corps, which is responsible for administering and executing FUSRAP, has an active public participation program, with community relations plans designed to meet the communication needs for each community affected by a FUSRAP site. The Corps provides fact sheets, conducts public meetings and training, and ensures that program officials stay in touch with citizens, public officials, and the media.

The Atomic Energy Commission (AEC) created FUSRAP in March 1974 to identify, investigate and take appropriate cleanup action at sites with low concentration radioactive contamination that resulted from the nation's early atomic

weapons and energy program.

Since October 1997, the Corps has continued the cleanups started by the AEC and the Department of Energy (DOE), in accordance with federal laws and under the framework of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (CERCLA). The Corps coordinates with the U.S. Environmental Protection Agency (EPA) and/or state regulators on all sites. Under a Memorandum of Agreement between the Corps and DOE, DOE determines which sites are eligible for FUSRAP. The Corps transfers responsibility for Long-Term Stewardship of FUSRAP sites back to the DOE two years after completing response actions and final closeout activities.

In the past five years, interim removal actions were completed at several sites, and remedial actions substantially completed at four sites. Two of these sites, Bliss and Laughlin in Buffalo, N.Y., and the Madison Site in Madison, Ill., were closed out and transitioned to DOE for Long-Term Stewardship in summer 2002 and are no longer considered to be active sites. All work at the Ashland 2 site has been completed and construction at the final Wayne site vicinity properties was recently completed with closeout activities now in progress. The Wayne site is considered to be active until it is transitioned to DOE because of ongoing ground-water monitoring. Ashland 2 is no longer considered to be active and will be transitioned upon completion of Ashland 1 and Rattlesnake Creek, as all are part of one Record of Decision.



The Delaware Memorial Twin Bridges stand majestically in front of the DuPont Chambers Works Site complex in Deepwater, N.J., as shown in a 2001 aerial photograph. The DuPont site encompasses 700 acres.

As the following site specific updates indicate, FUSRAP work consists of a set of discrete and mostly sequential phases. These include Remedial Investigation (RI), Feasibility Study (FS), and Proposed Plan (PP), followed by Record of Decision (ROD) and subsequent remedial action. Interim removal actions, supported by an Engineering Evaluation/Cost Analysis (EE/CA) and Action Memorandum (AM), may be conducted prior to a final remedial action.

The program currently includes 21 active sites. There may be multiple operable units and thus multiple phases on each site. Since the last *Update* report, three additional Feasibility Studies, three Proposed Plans, and one Record of Decision have been completed. This brings the total number of RI/FS's to 15, PP's to 12 and ROD's to eight.

FUSRAP funding has been relatively level at about \$140 million a year since the Corps assumed responsibility, except in FY 2003 when Congress provided \$145 million. The FY04 FUSRAP budget is \$140 million.

There is a reasonable level of confidence in projecting cost estimates for sites where the final ROD is complete. For other sites, where evaluation and response decisions are in progress, preliminary cost estimates contain much uncertainty. Thus, a total program cost is not provided at this time.

For the six sites for which the Corps has a final ROD (there is more than one ROD on some sites), the agency estimates the total cost for completing work will be \$540 million. The estimated cost for the remaining 18 sites will be provided when the final ROD's are complete.

Working on FUSRAP sites in nine states are seven Corps districts: Philadelphia, Baltimore, St. Louis, Pittsburgh, New England, New York and Buffalo. Kansas City District and the Corps' Hazardous, Toxic and Radioactive Waste Center of Expertise in Omaha, Neb., also provide assistance.

More FUSRAP information can be found at:
<http://hq.environmental.usace.army.mil/programs/fusrap/fusrap.html>.

Site Updates

CE Site, Windsor, Connecticut

The Corps is preparing a Remedial Investigation/ Feasibility Study (RI/FS), due in summer 2004, for this 600-acre site. There also is non-FUSRAP radiological contamination that the owner must address. The Corps and the site owner are exploring alternative ways of remediating the site to achieve the most cost effective and efficient cleanup.

The Corps anticipates completing the Record of Decision by December 2004.

Iowa Army Ammunition Plant, Middletown, Iowa

This site, added to FUSRAP in 2002, consists of about 1,630 acres within the Iowa Army Ammunition Plant (IAAP), which were potentially impacted by Atomic Energy Commission (AEC) activities. The RI will begin on the site this fiscal year. The Corps, U.S. Environmental Protection Agency, IAAP and the State of Iowa also have begun negotiations on an Interagency Agreement for FUSRAP activities on the site.

W.R. Grace Site, Baltimore, Maryland

The RI/FS addressing contamination in Building 23 was finalized in FY 2003. The Building 23 Proposed Plan was released for public review and the public comment period ends in February 2004. A public meeting on this plan was conducted in January 2004. A Record of Decision is expected in fall 2004. The treatability study for the Radioactive Waste Disposal Area was begun and a report is expected by summer 2004.

Shpack Landfill, Norton, Massachusetts

This site is located along the Norton/Attleboro town boundary. A draft Engineering Evaluation/Cost Analysis (EE/CA) has been prepared that evaluates a removal action of certain radioactive materials from the landfill. The Action Memorandum to approve the EE/CA will be finalized by May 2004 after a public comment period and response to comments is developed. EPA will oversee the final remedial action at this National Priority List site.

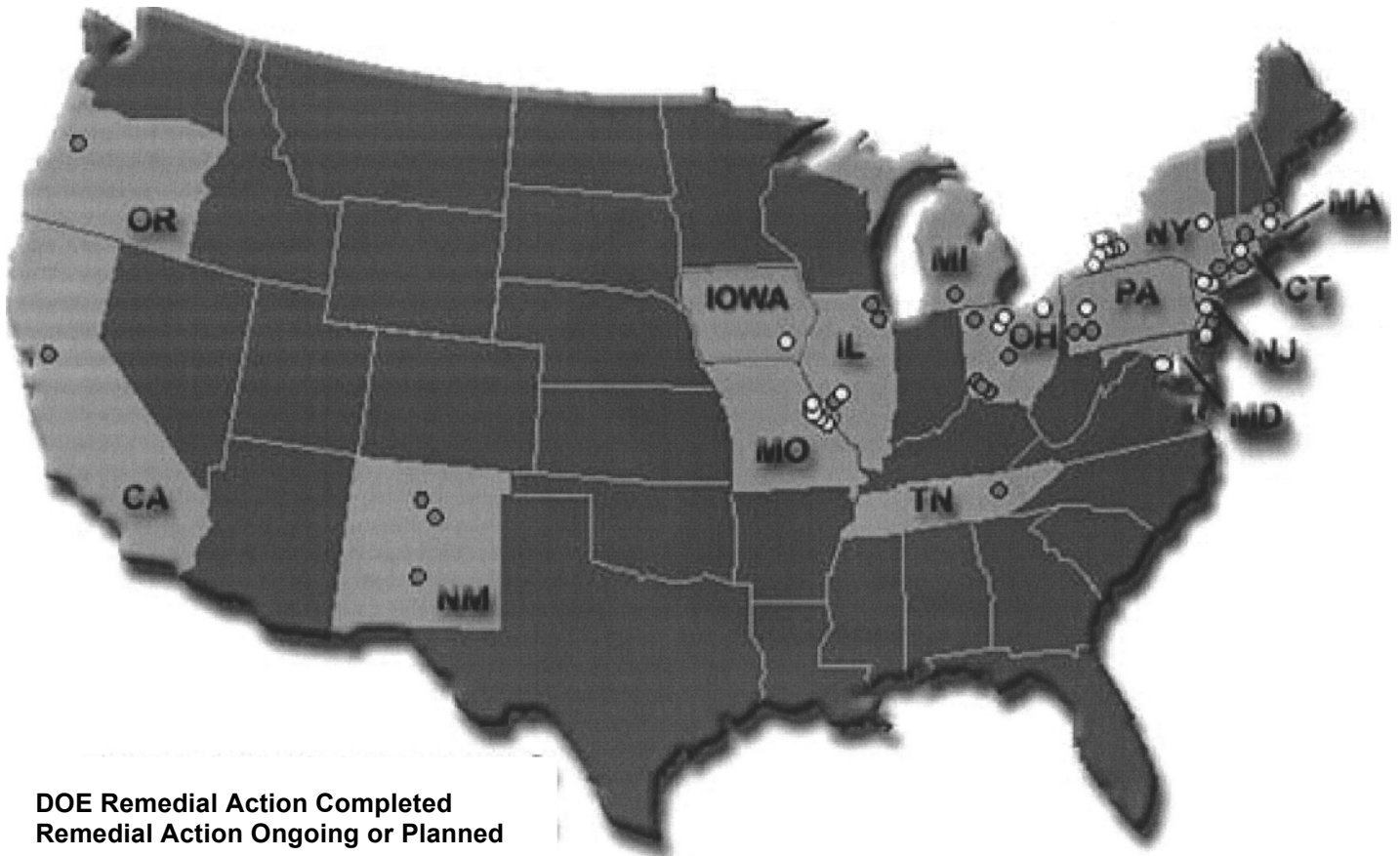


Crews remove material from the Plant 7 East site in St. Louis.

North County Sites, St. Louis, Missouri

The Feasibility Study (FS) and Proposed Plan (PP) for the North St. Louis County Sites, St. Louis, Mo., were released May 1, 2003, for public review. The North County FS presented remedial alternatives to address FUSRAP contamination at the North St. Louis County Sites, which include the **Latty Avenue Properties, the St. Louis Airport Site, and the St. Louis Airport Site Vicinity Properties.**

The North County PP identified the remedial alternative preferred by the Corps. The final remedy will be selected based upon the public comments received and identified in the Record of Decision for the North St. Louis County sites. The ROD is scheduled for release this year. The



**DOE Remedial Action Completed
Remedial Action Ongoing or Planned**

Corps is working with EPA and the Missouri Department of Natural Resources to draft the Record of Decision and address comments received on the alternatives. Responses to public comments will appear in the Responsiveness Summary section of the Record of Decision. Work being conducted under the AM will continue under the ROD when it is finalized.

Characterization of four **Latty Avenue Properties** is scheduled for this year.

At the **St Louis Airport Site (SLAPS)**, comprising approximately 22 acres north of Lambert International Airport, the Corps has made significant progress in removing contaminated soils from the site. Under the 1998 AM, the Corps has removed more than 315,000 cubic yards of contaminated soil from the northeastern and central areas of SLAPS. This year the St. Louis District plans to excavate and dispose of approximately 75,000 cubic yards in the western end of the site adjacent to Coldwater Creek.

The **St. Louis Airport Site Vicinity Properties (VPs)** include land located along haul routes between the SLAPS and HISS sites contaminated when materials were moved from SLAPS to HISS during the 1960's. Cleanup has been completed or substantially completed at more than one-third of these properties. Investigations, characterizations and remedial designs for more of these

properties were completed in 2003 and are continuing into 2004. As part of the St. Louis Utility Response Plan, the Corps continues to support utility companies working in contaminated areas.

The St. Louis Downtown Site (SLDS), St. Louis, Missouri
This site, which encompasses nearly 45 acres, most of which is presently owned and operated by Mallinckrodt Inc., is being remediated under a Record of Decision for accessible soils signed in August 1998. As of September 2003, more than 50,300 cubic yards of contaminated materials had been removed from the site.

In 2004, the St. Louis District plans to initiate excavation activities within Mallinckrodt's Plant 6 West and substantially complete remedial activities on two vicinity properties. About 13,000 cubic yards of contaminated soil are scheduled for removal from SLDS this year. A FS for the currently inaccessible soils on the site will be initiated this year.

Maywood Chemical Superfund Site, Maywood, NJ
The Corps released the Record of Decision (ROD) for contaminated soil and buildings at the Maywood site on Oct. 1 with an onsite news conference conducted by Rep. Steven R. Rothman (NJ).

The plan, developed by the Corps in consultation with EPA Region 2 and the New Jersey Department of

FUSRAP

Active Sites

New England District Sites

CE Site, Windsor, CT Shpark
Landfill, Norton, MA

Buffalo District Sites

Niagara Falls Storage Site Lewiston, NY
Ashland 1, Tonawanda, NY
Linde Air Products, Tonawanda, NY Seaway
Industrial Park, Tonawanda, NY Former Harshaw
Chemical Co., Cleveland, OH Luckey, OH
Painesville, OH

Philadelphia District Sites

DuPont Chamber Works. Deepwater, NJ

Pittsburgh District Sites

Shallow Land Disposal Area, Parks Township,
PA

New York District Sites

Maywood Site, Maywood, NJ
Wayne Site, Wayne, NJ
Middlesex Sampling Plant, Middlesex.. NJ
Colonie Site, Colonie, NY

Baltimore District. Sites

W R. Grace & Company, Baltimore. MD

St. Louis District Sites

Hazelwood Interim Storage Site/Latty Avenue
Vicinity Properties, St. Louis, MO
St. Louis Airport Site, St Louis, MO
St. Louis Airport Vicinity Properties, St., Louis, MO
St Louis Downtown Site, St. Louis, MO
Iowa Army Ammunrlon Pant. Middleton, Iowa

Environmental Protection, officially documents how various cleanup options were considered and why the final remedy (excavation and offsite disposal) was selected. The ROD is available online at www.fusrapmaywood.com.

The ROD addresses 24 properties, most of which house commercial operations. Major components of the ROD include:

- Excavation and removal of contaminated soils and buried bulk wastes that exceed cleanup goals established for the site. Bulk wastes include buried drums, building materials and miscellaneous debris.
- Physical separation of soil requiring offsite disposal as radioactive waste from other materials requiring offsite disposal in other types of disposal facilities. Cleaning up 17 site properties to unrestricted future use standards; implementing institutional controls at those properties where contaminants will remain in place after cleanup at levels exceeding unrestricted use standards
- Decontamination and demolition of buildings on two site properties
- Offsite disposal at authorized facilities of all waste materials removed
- Environmental monitoring to ensure the effectiveness of the cleanup

- Inaccessible soils currently under buildings and roadways would be excavated and disposed of as they become accessible due to renovation or demolition activities undertaken by property owners.

The cleanup plan is estimated to cost \$254 million and will take at least five years to complete. The Corps is finalizing detailed engineering designs for cleanups at each site property. Concurrent coordination with individual property owners is under way to address logistical considerations such as construction safety, parking and traffic. Resolving these issues will allow businesses to operate with a minimum of disturbance throughout the cleanup process.

Middlesex Sampling Plant, Middlesex, New Jersey

This site consists of nearly 10 acres where uranium, thorium and beryllium ore were analyzed before being shipped to other sites for processing. A draft Soils RI report concerning the soils investigation is being finalized. A draft FS/PP for soils is being reviewed and should be available to the public this spring. A ground-water RI report will be issued to the public within the next four months.

Wayne Interim Storage Site, Wayne, New Jersey

The Final Remedial Response was conducted under a Record of Decision and an Explanation of Significant



Workers conduct night-time sampling at the Central Drainage Ditch at DuPont Chambers Works Site.

Difference (ESD). The ESD was necessary to cover additional soil contamination not included in the ROD. This remediation was completed in 2003. The site was restored and closeout documentation is under development. In September 2003, EPA Region 2 certified the project as "construction complete." The five-year ground-water monitoring program, to evaluate the post-remediation ground-water quality, is continuing.

DuPont Chambers Works, Deepwater, New Jersey This is a 700-acre active chemical plant near Deepwater, owned and operated by the E.I. duPont de Nemours & Company. Field work for the FUSRAP remedial investigation was completed in September 2003 for Building 845 and the F-Corral area. The RI report for Building 845 and F-Corral areas was completed in March. The site characterization for the Central Drainage Ditch and Building J-26 areas was completed in December 2003.

Ashland 1, Tonawanda, New York

This nearly 11-acre industrialized area adjacent to the Seaway Landfill, is being remediated under a Record of Decision, which also includes the **Ashland 2** site, where construction was completed in April 1999, and the Area "D" portion of the **Seaway Landfill site**. In addition, **Rattlesnake Creek** is being addressed with this action.

As of the end of October 2003, almost 173,000 tons of contaminated soils from Ashland 1 and Seaway "D" have been excavated and shipped out of state to a licensed facility for disposal. The backfill operations at Ashland 1 began in July 2003 and were completed in December 2003. Backfill/stabilization activities at Seaway D were completed earlier.

This completes the field activities associated with these two areas of the site. The Ashland 1 Project Construction

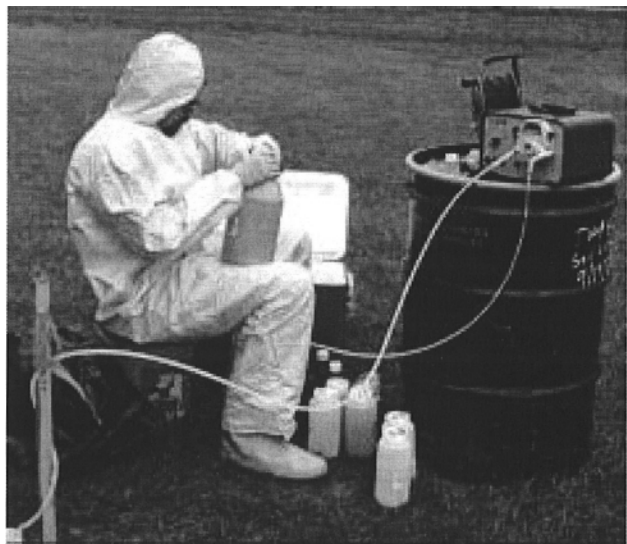
Report was completed at the end of 2003. The scope of the work needed at Rattlesnake Creek will be determined during the next several months.

Former Linde Air Products, Tonawanda, New York

A Record of Decision was signed in March 2000 to remediate contaminated soils at the former Linde Air Products site. The Corps removed more than 150,000 tons of contaminated materials through September 2003. Contaminated soils are being disposed of at out-of-state licensed facilities. Contaminated soil removal activities are continuing. Demolition of the former Linde Building 14 is set to begin in April under the April 2003 Record of Decision, with debris removal expected to be completed in 2005. Linde ground water also is being evaluated. The Corps has completed three rounds of sampling and plans to release the Ground-water Feasibility Study and Proposed Plan this year.

Niagara Falls Storage Site (NFSS), New York

The Corps is performing a RI/FS for this federally owned FUSRAP site that includes an interim disposal cell for radioactive residues and waste, several buildings, and several vicinity properties. The remedial investigation is 95 percent complete, including all soil, sediment, surface water and ground-water sampling. Assessments of major geophysical studies across the entire site, including the interim waste containment structure, were completed. Reports of the site geophysical studies and the site gamma walkover were made available to the public in May 2003. A supplementary geophysical study of the containment cell's southern cap cutoff wall to verify the integrity of that structural barrier was completed and a draft report is being reviewed for public release. The FS, about 74 percent complete, will continue throughout this year. The Corps is evaluating a number of options in the FS, including alternatives for removal and remote disposals of the wastes/residues and for leaving the containment structure intact for transfer to DOE for long-term stewardship under the memorandum of understanding between the Corps and DOE.



A worker takes a low-flow ground-water sample at a temporary well point at Niagara Falls Storage Site.



The Colonie site in Colonie, N.Y., is best viewed from the air.

Colonie site, Colonie, New York

During FY03 New York State Department of Environmental Conservation (NYSDEC) approved the final status of 14 one-half acre parcels at the Colonie site. More than 95,000 cubic yards of clean backfill were placed at the site. The Corps finalized the ground-water remedial investigation report in July 2003, and is preparing a draft FS. The final FS and PP will be released in summer 2004. An initial soils investigation on the final vicinity property has been performed and the Corps is preparing an EE/CA to conduct removal activities necessary at the site. The Corps prepared an investigation of depleted uranium in the 3 Mile reservoir and Patroon Creek in October 2003. The results will be available this spring. Current activities include an operating water treatment plant, a soil stabilization treatment plant, standard civil engineering excavation and backfill efforts, waste shipment and disposal. Soil remediation on the main part of the site will continue into fiscal year 2005 due to greater than anticipated volumes of lead-contaminated soils.

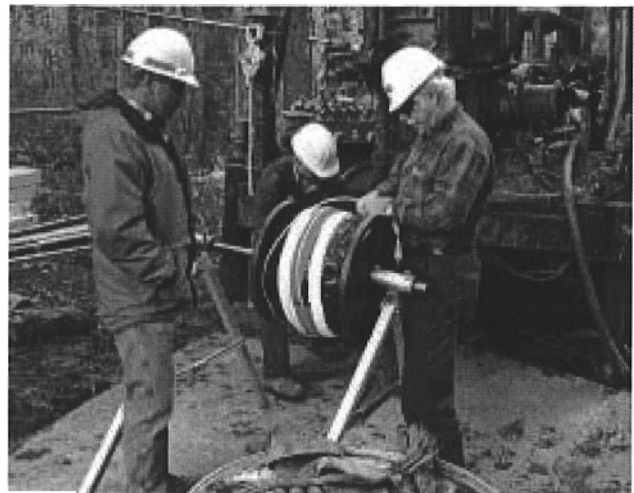
Seaway Landfill, Tonawanda, New York

A closed and partially capped landfill, this site includes four areas with FUSRAP material that have been designated as Areas A, B, C, and D. The revised Seaway Feasibility Study Addendum, currently under Corps review, includes results from additional field sampling at Areas A, B and C, and the addition of any soil volume left from remedial action at Ashland 1 in the vicinity of Seaway Area D (The area has been named "Seaway Southside"). In October 2002, Corps and the stakeholders met to discuss incorporating Seaway Southside. A compact disc

containing data and reports used to evaluate Seaway Southside was distributed to project stakeholders. Stakeholder review of the Feasibility Study Addendum is expected to take several months.

Shallow Land Disposal Area (SLDA), Parks Township, Pennsylvania

Rights-of-entry were obtained and fieldwork was started for the remedial investigation at this 44-acre site in Armstrong County, PA. Phase 1 sampling will be completed in April 2004 and Phase 2 sampling will begin during summer 2004.



Workers install an innovative ground-water monitoring system at the Shallow Land Disposal Area site.

Former Harshaw Chemical Co., Cleveland, Ohio Phase I site characterization was completed in August 2003, and Phase 2 sampling is scheduled for completion in the summer of 2004. Coordination with the regulatory agencies and stakeholders has begun and partnering will continue throughout the CERCLA process. A public information session was conducted last spring, which successfully initiated a two-day dialogue with the community. More public communication-oriented events are planned throughout the process. A Feasibility Study to identify remedial alternatives will begin in summer 2004.

Luckey, Ohio

A Feasibility Study, completed in May 2003, evaluated alternatives to address the contamination in the soil and ground water. The Proposed Plan, completed in June 2003, identified excavation and offsite disposal with monitored natural attenuation as the Preferred Alternative for soils and ground water, respectively. Public comment on the Preferred Alternative was solicited, and a Responsiveness Summary is being prepared to address comments. The Responsiveness Summary will be included in the Record of Decision, set for this spring.

Painesville, Ohio

A Remedial Investigation/Feasibility Study was completed for this 29-acre former industrial site in May 2003. The RI delineated the extent of soil contamination, and the potential risk to site users. The FS developed and evaluated alternatives to address the soil contamination, including capping in place and excavation and offsite disposal. A Proposed Plan, which identifies the preferred alternative, will be released for public comment this winter. After a public review of the PP, the Record of Decision will document the final remedial solution.

Potential New Sites

The Preliminary Assessment for the Scioto Laboratory Complex in Marion, Ohio, is being finalized and will be released in late winter. The studies for the four Dayton, Ohio, sites will be finalized and released later in FY04. A recommendation is currently being finalized regarding the Guterl Site in Lockport, N.Y. The Corps will propose that sites exceeding current screening standards where the Federal Government is a potentially responsible party be added to the program.

The *Formerly Utilized Sites Remedial Action Program Update* is published by the U.S. Army Corps of Engineers in accordance with the U.S. House of Representatives Report 107-112, dated 26 June 01, to accompany the Energy and Water Development Appropriations Act 2002, P.L. 107-66. For more information, call 202-528-4285, or e-mail: candice.s.walters@usace.army.mil.

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