



IEPA/BOL/01-005

Annual Report

2000



Site Remediation Program

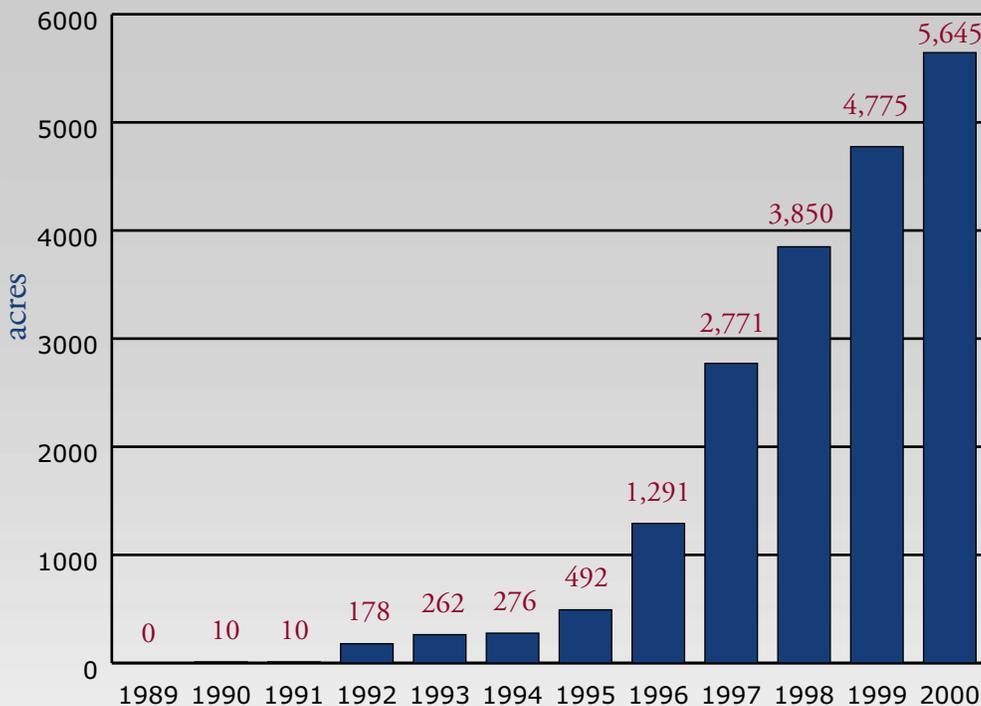
Welcome

Lake Gas Works (Chicago)

Our Site Remediation Program is guiding an increasing number of remediation applicants through the environmental cleanup process, on a voluntary basis. This results in reduced risk to the public. The number of voluntary cleanups earning No Further Remediation letters increased 18 percent from 1999. In that same time period, enrollment to the program increased by five percent. Working at our current pace, I am confident we will reach our goal of 10,500 acres cleaned up by 2004.

Thomas V. Skinner
Director, Illinois EPA

Acres Remediated
(Cumulative)



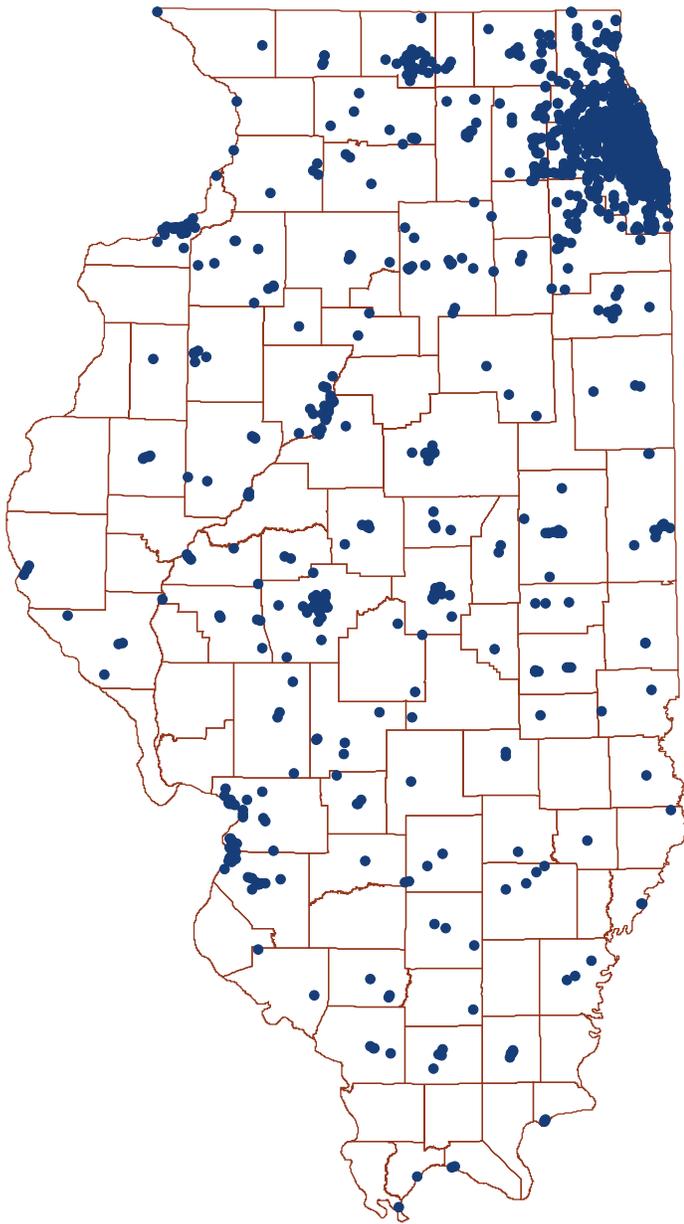
Accomplishments in 2000

249 Enrollments
172 NFR Letters
870 Acres Remediated

[epa.state.il.us/land/
cleanup-programs/
site-remediation.html](http://epa.state.il.us/land/cleanup-programs/site-remediation.html)

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1,461 SRP Sites

Contaminated sites occur throughout Illinois, but are concentrated in industrialized areas. Of the 1,461 Site Remediation Program sites, 748 (about 51%) are located in Cook County. More than 25% of all sites are located in Chicago.

The **Site Remediation Program Annual Report** is produced by the Illinois Environmental Protection Agency, Thomas V. Skinner, Director, and is published by the Agency's Office of Public Information, Dennis McMurray, Manager. **Editors:** Shirley Baer, Robert O'Hara, Heather Nifong and Maggie Carson. **Photography (unless otherwise noted):** Bob Wiatrolik, Rick Lucas, Tom Miller, Jennifer Seul, Ed Salch and Ron Rogowski.

About the Site Remediation Program

The Illinois Site Remediation Program (SRP) is one of the oldest state voluntary cleanup programs in the nation. Remediation Applicants (RAs) may elect to clean up all contamination at the site (comprehensive remediation) or specific chemicals (focused remediation). Remediation objectives are developed by the RA using a risk-based approach which allows the use of engineered barriers and institutional controls. Successful completion of all SRP requirements results in a completion letter (i.e. No Further Remediation Letter or 4(y) Letter) for the site.



Review and Evaluation Services

Eligibility

Enrollment in the SRP is available to any person or business conducting site investigation or remediation. However, participation in the SRP may not be allowed for activities:

- At Superfund sites;
- Required under state or federal waste permits; or
- Required by a court order or U.S. EPA order.

Available Services

The SRP provides a variety of services for RAs for a wide range of industries (e.g., public utilities, drycleaners, railroads, etc.). Sites vary in size from 0.1 acres to 550 acres. These services include:

- Review and evaluation of site investigation reports, remediation objectives reports, remedial action plans and remedial action completion reports;
- Sample collections and analyses;
- Assistance with community relations;
- Coordination and communication between the RA and other governmental entities; and
- Other activities as requested.



Laboratory Analyses



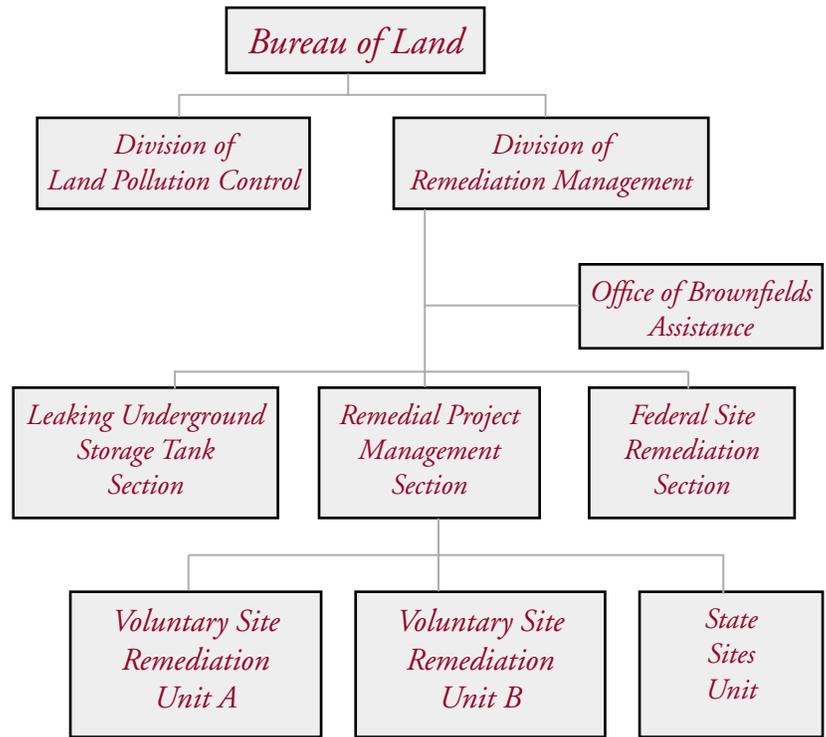
Community Relations

Organizational Chart

The SRP is part of the Illinois EPA's Bureau of Land, which is responsible for the protection and restoration of land and groundwater resources in Illinois. The Bureau is comprised of the Division of Land Pollution Control and the Division of Remediation Management.

The Division of Remediation Management is responsible for the cleanup of abandoned or poorly managed facilities. The investigation, evaluation and remediation of sites with chemical contamination are managed by three sections. Brownfields redevelopment grant and loan programs are administered by the Office of Brownfields Assistance.

The Remedial Project Management Section is responsible for administering the SRP through two Voluntary Site Remediation Program Units.



Statutory and Regulatory Authority

In 1989, the Remedial Project Management Section of the Illinois EPA's Bureau of Land created the Pre-Notice Cleanup Program to provide technical assistance in voluntary cleanups. In 1995, the Illinois General Assembly replaced the Pre-Notice Cleanup Program with the SRP.

The SRP is administered under the authority of 415 Illinois Compiled Statutes 5/58, more commonly known as Title XVII of the Environmental Protection Act. The SRP's regulatory authority comes from 35 Illinois Administrative Code Parts 740 (SRP) and 742 (Tiered Approach to Corrective Action Objectives, or TACO).

SRP Relationship to:

CERCLA

The Illinois EPA was the first state agency in the nation to develop a Memorandum of Agreement with U.S. EPA to provide Federal concurrence on the completion of cleanups conducted through a state voluntary cleanup program.

Brownfields

The SRP is the remediation component of the Illinois Brownfield Initiative. Eligibility for Brownfield Redevelopment Grants and approval of the Illinois Environmental Remediation Tax Credit requires participation in the SRP. Future Brownfield redevelopment incentives also may require participation in the SRP.

Leaking Underground Storage Tanks

U.S. EPA has approved the use of the SRP for leaking underground storage tank sites subject to federal law. Therefore, any site subject to 35 Ill. Adm. Code 731 or 732 may elect to conduct remedial activities under the SRP provided the leaking underground storage tank reporting requirements are satisfied.

Remedial Project Management Section



Managers (left to right): John Sherrill (SSU), Larry Eastep (RPMS), Gary King (DRM), and Rick Lucas (VSRU-A).
*Absent: Greg Dunn (VSRU-B)

The Remedial Project Management Section (RPMS) brings a balance of various qualifications and backgrounds to the environmental projects they direct. With a mix of engineering, biological, geological, and environmental science expertise, RPMS provided technical assistance for 644 SRP projects in 2000.

DRM = Division of Remediation Management
RPMS = Remedial Project Management Section
SSU = State Sites Unit
VSRU = Voluntary Site Remediation Unit



Front Row (left to right): Rhett Rossi (VSRU-A), Scott Hacke (VSRU-A), Larry Eastep (RPMS), Jason Crompton (VSRU-B), James Baldwin (VSRU-A), Joe Dombrowski (SSU), Marc Cummings (VSRU-B), and Gregg Sanders (VSRU-B).

Middle Row (left to right): Jody Kershaw (SSU), Neelu Reddy (SSU), Julia Pezold (SSU), Sue Doubet (SSU), Ann Cross (SSU), Tammy Smith (VSRU-B), Jennifer Seul (VSRU-B), Shirley Baer (RPMS), and Barbara Landers (VSRU-B).

Back Row (left to right): Chris Nickell (SSU), Steve McCaslin (VSRU-A), Stan Komperda (SSU), Jim Mergen (VSRU-A), John Sherrill (SSU), Andy Friedrich (VSRU-B), Ed Salch (VSRU-A), John Richardson (SSU), and Rick Lucas (VSRU-A).

*Absent: Andrew Catlin (VSRU-A), Greg Dunn (VSRU-B), Todd Gross (VSRU-A), Russ Irwin (VSRU-B), Tim Murphy (VSRU-A), and Robert O'Hara (VSRU-B)

Cleanup Process

The SRP rules (35 Ill. Adm. Code 740) establish procedures and standards for Remediation Applicants (RAs) to investigate and cleanup a site. In addition, the rules establish procedures that the Illinois EPA must follow when reviewing and approving investigative and cleanup activities. Below is a summary of the cleanup process.

- 1. Enroll in the Site Remediation Program:** Completion of the SRP Application and Service Agreement Form is required of persons requesting enrollment into the Program. This form requires information on the remediation site, the RA, the property owner and project objectives. In addition, the RA will be required to make an advance partial payment, generally \$500.
- 2. Conduct a Site Investigation:** The site investigation should be designed to collect information to determine the extent and concentration of contaminants in the soil and groundwater. Site investigation activities include but are not limited to: records review (e.g., review of historical sources to determine past uses of the site and surrounding areas); topographic work (e.g., site base map and legal description); and field work (e.g., soil and groundwater sampling, field and laboratory analyses, etc.).
- 3. Develop Cleanup Levels:** The SRP requires RAs to use the TACO methodology (35 Ill. Adm. Code 742) for developing remediation objectives (i.e., cleanup levels).
- 4. Plan the Cleanup (if necessary):** After the remediation objectives are established using the TACO procedure, the RA may: (1) reduce the contaminant concentrations to meet established objectives through active remediation (e.g., removal of contaminated soil, etc.); (2) restrict exposure to contaminated soil or groundwater or both by using engineered barriers or institutional controls; (3) take no action, if contaminant concentrations are not above the remediation objectives; or (4) use a combination of the options above.
- 5. Perform and Document the Cleanup:** Upon completion of all corrective actions, the RA must submit a report attesting that all remediation objectives, site-specific response actions and SRP data quality objectives have been successfully attained.
- 6. Record the NFR Letter:** Within 45 days of the Illinois EPA's issuance of the NFR Letter to the RA, the Letter must be recorded with the Office of the Recorder of the county in which the site is located. Within 30 days of recording, the RA must obtain and submit to the Illinois EPA a copy of the recorded letter demonstrating that the Letter has been properly recorded.
- 7. Reimburse Illinois EPA for Project Costs *plus* an Additional NFR Assessment Fee:** RAs are required to reimburse the Illinois EPA for the costs of services performed. An RA is *also* required to pay a variable NFR assessment fee equal to Illinois EPA-incurred costs, up to a maximum of \$2,500. Both payments are due within 45 days after receipt of the request for final payment.



Removing Waste from a Tar Well (Beardstown)

Restoring Contaminated Sites

The Illinois EPA promotes the cleanup and return of contaminated properties in Illinois to environmentally safe and productive use. The SRP is integral to our Brownfields efforts (see page 14). Eligibility for brownfields grants and loans and approval for the Illinois Environmental Remediation Tax Credit require participation in the SRP.

Successful completion of the cleanup process under the SRP results in an NFR Letter for the property.

NFR Letters are often necessary to:

- Complete a property sale or transfer
- Resolve potential or actual litigation
- Ensure that a cleanup of a chemical spill protects human health
- Improve marketability
- Obtain insurance coverage
- Secure financing



*Damaged Pipeline Section
(Photo Courtesy of Williams Pipe Line Company)*

Williams Pipeline (Braidwood) 6.2 acres

Environmental Concern: Third party caused a release of 2,685 barrels (112,770 gallons) of gasoline from an underground pipeline.

SRP Enrollment: August 1999

Remedial Action: Removed gasoline and bioremediated contaminated soil

Future Land Use: Agricultural

Status: Focused NFR Letter issued October 2000

SRP Project Manager: Scott Hacke



Excavation at Owens-Brockway Glass Container site

Owens-Brockway Glass Container (Alton) 160 acres

Former Land Use: Glass Manufacturing Facility

Environmental Concern: Underground storage tanks (USTs), lagoon, oil tank farm, landfill and wastes from the former operations. A 10-acre wetland area exists on part of the site.

SRP Enrollment: November 2000

Future Land Use: Business Park

Status: USTs removed and the former lagoon stabilized and covered.

SRP Project Manager: Tim Murphy

Reducing Unacceptable Risk

TACO regulations describe how site-specific remediation objectives can be developed. These remediation objectives are based on risk to humans caused by either exposure to hazardous substances, or the toxicity of those substances, or some combination of the two. In some cases, sites will be remediated by removing all of the contaminants. However, under TACO, sites can be cleaned to protective and acceptable risk levels without removing all of the contaminants by using institutional controls and engineered barriers.

Institutional controls are legal mechanisms for imposing restrictions and conditions on land use. These controls may include specific NFR conditions, environmental land use controls, ordinances adopted by a unit of local government, or agreements between a property owner and a highway authority. The conditions or restrictions found in institutional controls all serve to prevent human exposure to remaining contaminants based on site-specific conditions (e.g., amount of contamination left behind, geology of the site, location of site, etc.).

Since the inception of the SRP, 46% of all NFR Letters issued contain requirements for institutional controls. In 2000, 55% of the NFR Letters issued contained requirements for institutional controls.

Engineered barriers limit exposure to contaminants. A barrier may be natural or human-made, but its effectiveness must be verified by accepted engineering practices. If an engineered barrier is used, it must be accompanied by an institutional control which assures the proper maintenance of the barrier.

The NFR Letter will identify any such controls and barriers. Since the NFR Letter is filed with the property's deed, these controls limit future activities to insure those activities don't increase risk.

Engineered barriers have been used at 40% of all sites receiving NFR Letters. In 2000, 38% of the NFR Letters issued contained requirements for engineered barriers.

Groundwater Ordinances:

As of April 2001, the following local governments have groundwater ordinances prohibiting the use of groundwater as a potable water supply that have been approved by the Illinois EPA for use as institutional controls under 35 Ill. Adm. Code 752.1015.

The use of ordinances may be restricted to a limited area or subject to other conditions.

- Alton
- Bedford Park
- Bellwood
- Bensenville
- Blue Island
- Bridgeview
- Burnham
- Chicago
- Cicero
- East Moline
- East St. Louis
- Elk Grove Village
- Elmwood Park
- Evanston
- Franklin Park
- Galesburg
- Glencoe
- Havana
- Kankakee
- La Grange
- Lincoln
- Lincolnwood
- Lockport
- Logan County
- Marengo
- Markham
- Maywood
- McCook
- Melrose Park
- Mendon
- Moline
- Mt. Carmel
- Naperville
- Oak Lawn
- Oak Park
- Orland Park
- Peoria
- Quincy
- River Forest
- River Grove
- Rockford
- Rock Island
- Rosemont
- Springfield
- Summit
- Venice
- Waukegan
- Willow Springs

[www.epa.state.il.us/land/
groundwater-ordinances/index.html](http://www.epa.state.il.us/land/groundwater-ordinances/index.html)

Completion Letters

The annual rate of completion letters issued continued to grow in 2000, with 172 letters issued (an 18% increase over the previous year) bringing the total letters issued to 703.

The SRP issues two types of completion letters: a 4(y) letter and a No Further Remediation (NFR) Letter. Prior to 1996, the Illinois EPA was authorized only to issue 4(y) letters [415 ILCS 5/4(y)] to persons for completion of voluntary cleanups. Since 1996, the Illinois EPA is authorized to issue NFR Letters [415 ILCS 5/58.10]. The Illinois EPA is still authorized to issue 4(y) letters, but does so on a very limited basis.

A 4(y) Letter is specific to an action performed

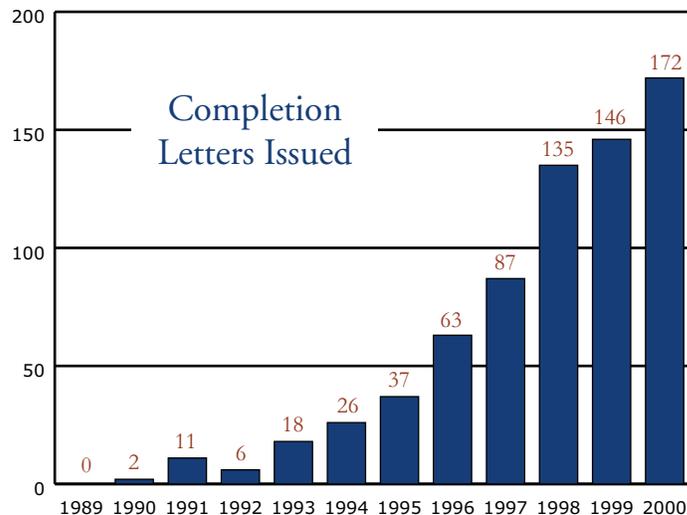
A 4(y) letter merely denotes that a specific action (e.g., tank or drum removal, lagoon or chemical spill cleanup) has been successfully completed. It does **not** denote that all risks to human health and environment at a site have been properly addressed.

An NFR Letter is specific to a defined property

The NFR Letter is *prima facie* evidence that a site does not constitute a threat to human health and the environment for contaminants addressed by the RA and does not require further remediation under the Illinois Environmental Protection Act as long as the site is used in accordance with the terms of the NFR Letter (e.g., future land use).

A “**comprehensive**” NFR Letter affirms that **all** recognized environmental conditions (releases or threatened releases of contaminants) at a site have been addressed and do not constitute a significant risk of harm to human health and the environment, so long as the site is used in accordance with the terms and conditions of the NFR Letter.

A “**focused**” NFR Letter affirms that a **specific** chemical or set of chemicals (e.g., benzene, toluene, xylene) at a site has been addressed and does not constitute a significant risk of harm to human health and the environment, so long as the site is used in accordance with the terms and conditions of the NFR Letter. A focused NFR Letter is more limited than a comprehensive NFR Letter only in terms of contaminants investigated and cleaned up.



Future Land Use

Under TACO, the RA can choose the remediation objectives based on the future use of the land (industrial/commercial or residential), which in turn influences the level of cleanup required.

Residential property is any real property that is used for habitation by individuals or properties where children have the opportunity for exposure to contaminants through ingestion or inhalation at educational facilities, health care facilities, child care facilities or playgrounds.

Industrial/Commercial property is any real property that does not meet the definition of residential property, conservation property or agricultural property.

Through December 2000, the remediation objectives for over 59% of the NFR Letters issued were based on an industrial/commercial land use.

The land use categories in TACO do not necessarily correlate to local planning and zoning codes (i.e., a site may be cleaned up to residential land use standards under TACO, but the property may be zoned for commercial use by the local government).

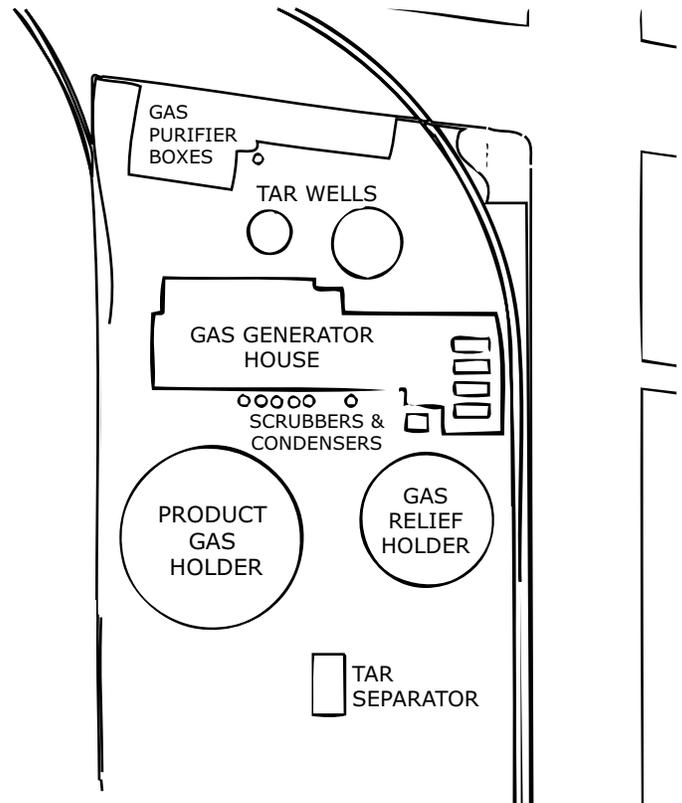
Industry Profile: Manufactured Gas Plants

What are Manufactured Gas Plants?

From the mid-1800s to the mid-1900s, most combustible gas used for heating, cooking and lighting came from manufactured gas plants (MGPs). MGPs manufactured combustible gas from coke, coal and oil. Two manufacturing gas processes accounted for nearly all gas production in Illinois: the coal carbonization process and the carbureted water gas process. In both processes, the purified gas was held in gas holders awaiting distribution through the mains to the customers.

Several key structures at a typical MGP include the gas generator house, the gas purifier boxes, the gas relief holder, the product gas holder, the tar separator, the tar well, and extensive arrays of above- and below-ground piping. These structures were central to the production, purification and storage of the manufactured gas and to the management of the by-product coal tar and process cooling water. The by-product coal tar was often sold as a feedstock chemical for many industrial chemical processes and as a fuel or construction material for domestic and industrial activities.

When the interstate pipeline network was built in the late 1940s, natural gas became more readily available and cheaper to use than gas produced from MGPs. By the 1950s, most MGPs were decommissioned and many of the buildings and structures were razed. Underground structures (e.g., subsurface portions of tar separators, tar wells, or gas relief holders) were often filled in with demolition debris and covered with soil.

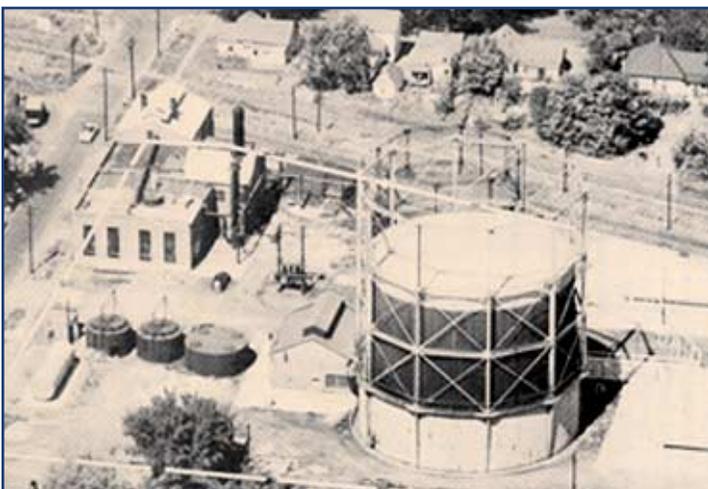


Plan View of a Typical Manufactured Gas Plant During Facility Operation

Environmental Issues and Problems

Many MGPs are being investigated and cleaned up. Frequently, the same owner may be responsible for numerous MGP sites in a region. Contaminants often occur at the same locations (e.g., former gas holders, tar separators, tar wells) where wastes or by-products were stored or disposed. Typical MGP process wastes included tars, light and heavy oils, sludges and ash as well as ammonia and lime wastes from the purifier boxes and gas scrubbers. These wastes contain a number of known or suspected carcinogens and other hazardous substances.

The process of investigating and cleaning up an MGP site or sites involves first determining what contamination is present and where. Once the nature and extent of contamination has been identified, a remedy can be selected.



*Champaign Water Gas and Propane Plant (1953)
Photo Courtesy of Illinois Power*

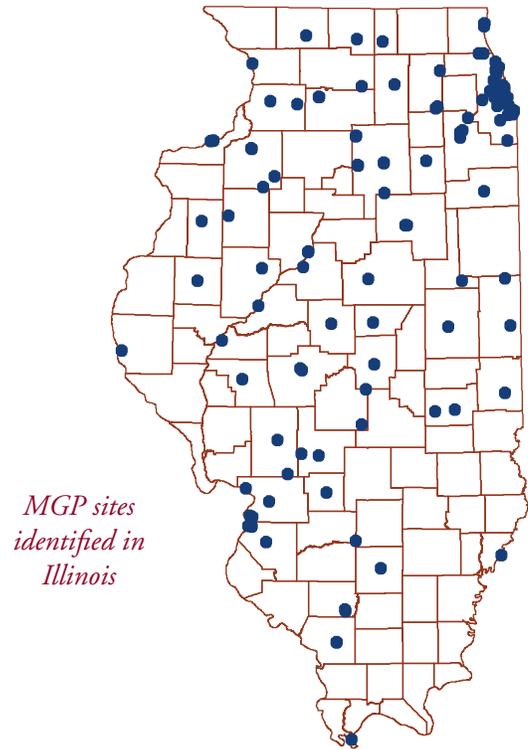
Quick Illinois Facts:

*Over 130 manufactured gas plant (MGP) sites have been identified in Illinois.

*Over 80% of these sites are enrolled in the SRP.

*Completion letters have been issued for 12 MGP sites:

1. Peoples Gas & Light (Chicago)
2. New Frontier Development Company (Deerfield)
3. Commonwealth Edison Company (DuQuoin)
4. Illinois Power Town Gas Plant (Greenville)
5. Nicor Gas (LaGrange)
6. CILCO Energy Control Center (Peoria)
7. CILCO Gas Plant (Peoria)
8. Iowa-Illinois Gas & Electric (Rock Island)
9. ComEd TSS 85 (Skokie)
10. CILCO Gas Plant (Springfield)
11. Vector-Springfield, Limited (Springfield)
12. Illinois Power Town Gas Plant (Staunton)



AmerenCIPS Manufactured Gas Plant (Beardstown) 2.5 acres

In 2000, AmerenCIPS began preparing a former manufactured gas plant facility for cleanup with the construction of a temporary air containment dome. A ventilation system in the dome maintains the internal air at a lower pressure than the outside air and filters dust, vapors and odors resulting from the excavation of six underground structures containing tar and oil and contaminated soils. Air monitoring stations are located around the site to detect any airborne emissions that escape the dome.

In February 2001, Ameren CIPS began the excavation and removal of an anticipated 7,000 cubic yards of coal tar wastes and soils. Excavated material is hauled from the site in trucks with covered and lined trailers to a permitted treatment or disposal facility. The trucks are washed before leaving the site to prevent spreading contamination off-site. The excavated areas will be backfilled and paved.

AmerenCIPS expects to complete the removal of waste and contaminated soil in 2001. AmerenCIPS will continue to operate the site as an equipment and materials storage yard employing 23 people.



Excavated Material in Lined Containers Located Inside Containment Dome Awaiting Off-site Disposal

SRP Project Manager: Ed Salch

SRP Case Studies

Illinois Power Town Gas Plant (Greenville)

This former manufactured gas plant (MGP) operated from 1907 to 1911. The property is zoned for industrial/commercial use and is leased for general storage.

Source areas and areas of impacted soils were identified through assessments and investigations conducted at the site between 1986 and 1998. Prior to remedial actions, test pits were excavated at selected locations to characterize the waste for disposal and to verify locations of buried structures. More than 1,500 tons of tar-impacted soils and structural material were removed in the fall of 1997. An additional 178 tons of soil was excavated and removed in 1998. The excavation was backfilled with lime aggregate and limestone aggregate gravel. As a final protective measure, Illinois Power applied clean soil to serve as an engineered barrier.

In 2000, the Illinois EPA issued a focused NFR Letter for the cleanup of the MGP-related contaminants at the site. The NFR Letter imposed restrictions on how the land could be used in order to assure long-term protection of human health (i.e., industrial/commercial property use, maintenance of surface elevations, prohibition of basement constructions in any new buildings, and groundwater use restrictions).

SRP Project Manager: Andy Frierdich



Photos courtesy of Illinois Power



Typical MGP-related Chemicals

INORGANICS: cyanide and sulfide.

METALS: barium, cadmium, chromium, lead, mercury and silver.

VOLATILE AROMATICS: benzene, ethyl benzene, toluene and total xylenes.

POLYCYCLIC AROMATIC HYDROCARBONS: acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, dibenzofuran, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene and pyrene.

Source: Adapted from Management of Manufactured Gas Plant Sites: Thomas G. Hayes, editor, GRI, p. 88. Amherst Scientific Publishers, 1996

Lonza HOF (Glasford)

In the fall of 1995, Lonza, Inc. excavated and disposed of more than 5,400 drums buried by a previous owner. More than 6,220 cubic yards of contaminated soil were also disposed. In 1996, the Illinois EPA determined that no further soil remediation was required at the site, but additional groundwater monitoring would be necessary to confirm that remediation objectives had been met for the site.

In 2000, the Illinois EPA issued a focused NFR Letter to Lonza for the 1/2-acre parcel, after they adequately demonstrated that the Class I groundwater remediation objectives for nickel, arsenic, chloride and nitrate were met.

SRP Project Manager: Andy Frierdich



*Removal of drums and contaminated soils
(Photo Courtesy of Lonza, Inc.)*

76th Street and Albany Avenue (Chicago)

This location at 76th Street and Albany Avenue in Chicago served as a drive-in movie theater from 1949 until 1996 and as an illegal dump site for construction and demolition debris, fill material and other wastes. Ownership of the site is currently divided between a 24-acre City of Chicago parcel and a 33-acre Regent Gateway, LLC parcel. The City of Chicago is cleaning up both parcels under the Chicago Brownfields Initiative and will redevelop the site as a manufacturing and distribution center for a plastics processor employing 450 people.

In 2000, the City of Chicago completed cleanup of the 33-acre parcel by removing over 108,000 cubic yards of contaminated soil. The Illinois EPA has issued an NFR Letter for this parcel. Cleanup of the remaining 24-acre parcel is anticipated in 2001.

SRP Project Manager: John Richardson



*Future manufacturing and distribution center at
76th Street and Albany Avenue (Chicago)*

For More Information:

Chicago Brownfields Initiative

Visit their Web Site at:

[http://www.ci.chi.il.us/Environment/
Brownfields/Index.htm](http://www.ci.chi.il.us/Environment/Brownfields/Index.htm)

Brownfield Initiative

Brownfields are vacant and abandoned properties that are contaminated or perceived to have contamination. Vacant property refers to land that is currently on the tax roll but not productive, while abandoned property refers to land that can no longer claim an active owner and no longer brings in tax revenue for a community. These properties can quickly become eyesores with potential threats to health and safety.

Brownfield sites vary in size, location, age and past use. These properties can range from a closed gas station to a former multi-acre manufacturing facility. The **Illinois EPA's Office of Brownfields Assistance** offers financial help for brownfields investigations and cleanups.

The **Illinois Brownfields Redevelopment Grant Program** offers grants worth a maximum of \$120,000 per municipality to investigate abandoned commercial and industrial properties. These grants may also be used to develop remediation objectives and prepare cleanup plans, but cannot fund actual cleanup activities.

The **Illinois Brownfields Redevelopment Loan Program**, funded by Governor Ryan's Illinois FIRST program, offers low interest loans to private parties and any unit of local government to clean up brownfields sites. The maximum loan amount per application is \$500,000. Borrowers may use the loan to pay for remediation and for limited investigation and demolition activities.

As of April 2001, the Office of Brownfields Assistance has issued 30 grants. No loans have been issued.

For More Information:

To request the services of a Brownfields Representative, please call:

217-785-9407

www.epa.state.il.us/land/brownfields



East Moline Brownfields Site

The City of East Moline partnered with a nonprofit corporation, Revitalize and Develop East Moline (REDEEM), to prepare a redevelopment plan for the central business district and sites along the Mississippi River.

The City enrolled a 14.5 acre parcel of land within the redevelopment project area, located between the river and the John Deere Harvester Plant Works. With financial support from the Office of Brownfields Assistance, the City enrolled the site in the SRP, conducted a site investigation, and submitted a Remedial Objectives Report and Remedial Action Plan. The cleanup is being paid for by REDEEM.

As represented in the drawing, future use of the property will include a public waterfront, a waterfront restaurant, 54 units of residential condominiums, and 60,000 square feet of office space.

SRP Manager: Jennifer Seul

*Vandewalle and Associates
Courtesy of REDEEM and the City of Moline*

2000 by the Numbers

Enrollments

In 2000, the SRP experienced a record year for enrollments, with 249 new sites, a 5.5% increase over the previous year. Increased enrollments may be due to:

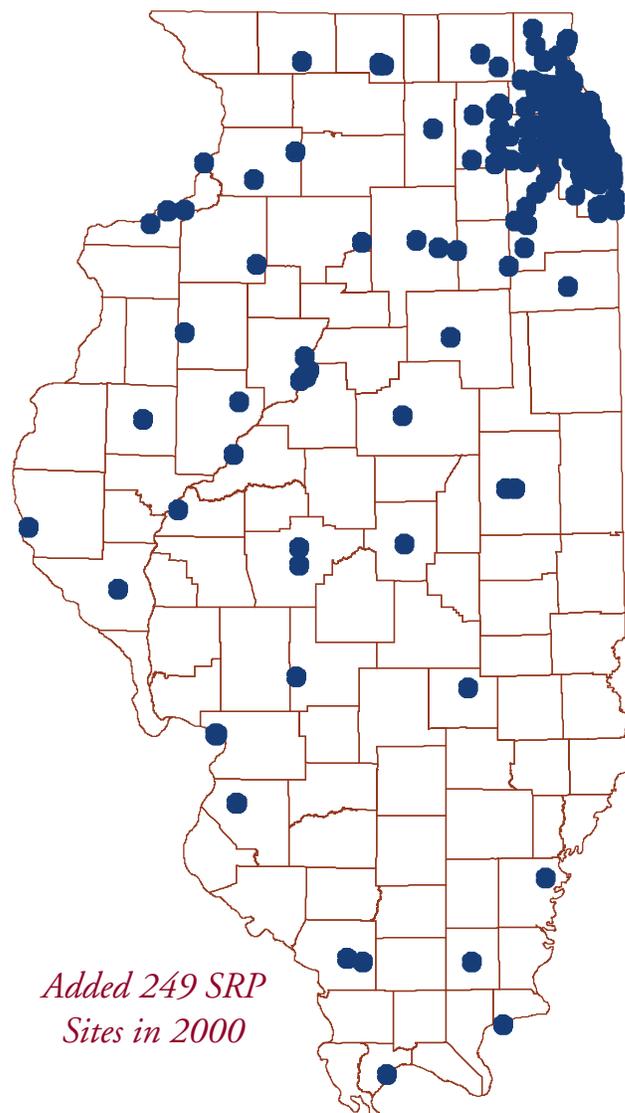
- Greater awareness of the SRP
- Endorsements from RAs and consultants participating in the SRP
- Brownfield redevelopment incentives and other sector-specific cleanup incentives (e.g., Dry Cleaner Environmental Response Trust Fund)
- More lenders or developers requiring NFR Letters for real estate transactions

Types of Sites

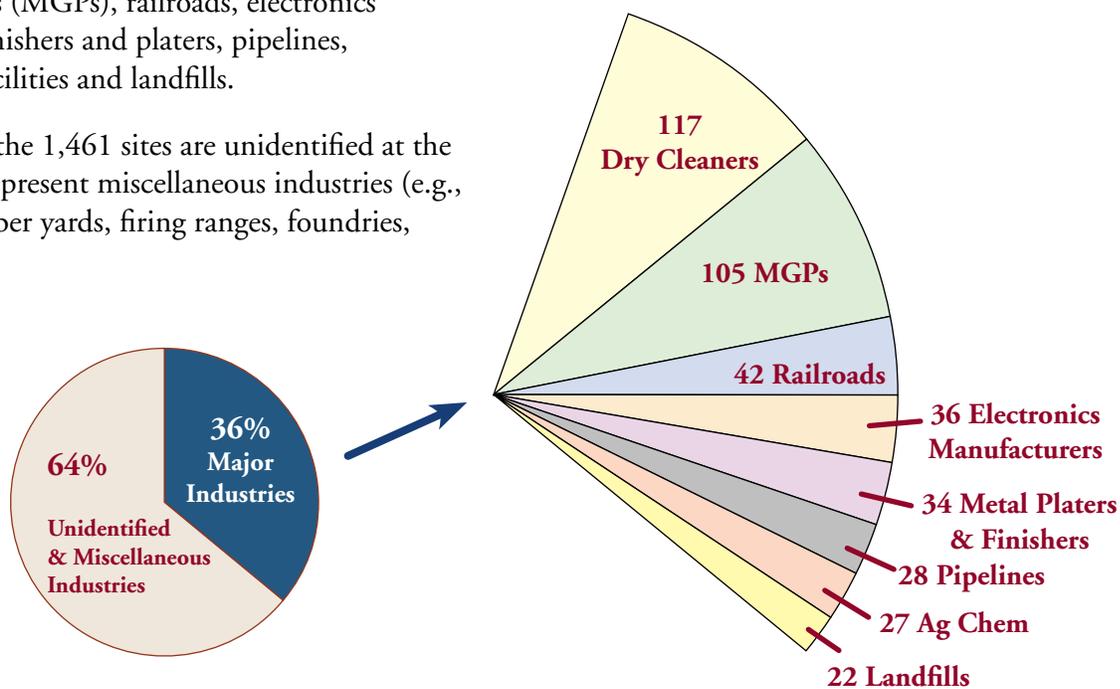
A wide variety of industries have operated throughout Illinois history. Some, such as the manufactured gas plant industry, ceased operation many years ago and no longer exist. However their environmental legacy lives on. Other types of industries, such as drycleaners, have continued to operate, but owners and operators are now addressing the contamination they have caused.

Over 36% of the 1,461 sites enrolled in the SRP are represented in eight major industry categories: dry cleaners, manufactured gas plants (MGPs), railroads, electronics manufacturers, metal finishers and platers, pipelines, agricultural chemical facilities and landfills.

The remaining 64% of the 1,461 sites are unidentified at the time of enrollment or represent miscellaneous industries (e.g., petroleum releases, lumber yards, firing ranges, foundries, etc.).



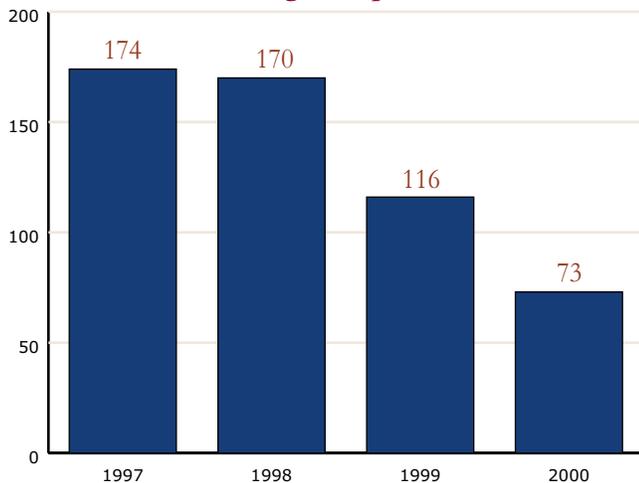
Added 249 SRP Sites in 2000



Review Times and Costs

Projects can enter the SRP at various stages of the investigation and corrective action process, ranging from an environmental assessment to the completion of the cleanup. The Illinois EPA spent more than 27,000 hours providing services on 644 SRP projects in 2000. The average time spent by Illinois EPA personnel for reviewing and evaluating SRP projects resulting in an NFR Letter has decreased over the last four years.

Average hours spent on SRP projects by Illinois EPA through completion



Note: reflects only those projects issued an NFR Letter in each year

The decrease in review times is a result of increasing experience by Illinois EPA staff in evaluating SRP projects and increasing experience by RA's consultants in conducting SRP site investigations, developing remediation objectives, performing remedial actions and preparing SRP plans and reports.

The time and cost figures presented here are for information only. A cost estimate for a typical SRP project is impossible to predict, because of (1) the many variables that can influence the level of cleanup necessary (e.g., site size, extent of contamination, future use of the site, comprehensive or focused site investigation conducted, etc.) and (2) the project costs not incurred by the Illinois EPA (e.g., RA's consultant fees, RA's attorney fees, waste disposal costs, etc.) are not available.

Eighty-eight of the 172 projects receiving NFR Letters in 2000 were completed within one year after enrollment into the SRP, with 20 projects completed within 90 days of enrollment. The Illinois EPA collected over \$830,000 at 434 sites for the first six months of 2000. This figure does not include prepayments made nor NFR assessment fees which are collected in *addition* to other project-incurred costs.

Tips to Hold Down Costs

Establish a realistic, achievable goal.

Enroll early into the SRP to reduce unnecessary work, expense and project delays.

Include all the required elements described in the SRP regulations. Use chapter headings identical to those outlined in the SRP rules to organize the report or plan.

Evaluate all exposure pathways and develop remediation objectives that meet TACO. For Tier 2, identify equations and methods used to determine site-specific remediation objectives. Present all input parameters and calculated values. Flag any institutional controls or engineered barriers being relied upon. If a Tier 3 evaluation is conducted, provide sufficient documentation to support your request.

Maintain consistency between all information presented in the main body of the report and appendices.

Ensure laboratory analytical summary sheets are signed by the laboratory manager or analyst.

Include sufficient detail in figures and tables presented. For example, the site map should show the land use surrounding the site as well as adjacent utilities. All analytical data (including "non-detects") should be presented clearly and logically.

Attach the completed DRM-2 form as part of the cover letter when submitting a report or plan. Illinois EPA relies on the DRM-2 form to route reports quickly to Illinois EPA project managers.

If relying on previous studies, analyze and summarize the activities and findings in the main body of the text and explain how these findings support the current site investigation.

Review draft NFR Letter to ensure all information is correct (i.e., RA, property owner, names, addresses, legal description, type of NFR Letter, etc.).

The Future

The SRP will continue to assist communities, municipalities and the private sector in various stages of the cleanup process. Dry cleaning facilities, metal finishing shops and manufactured gas plants have initiated sector-specific strategies (e.g., financial incentives, marketing programs, task forces, etc.) to deal with their environmental cleanup issues.

The following regulatory amendments are expected to be adopted in 2001 to increase flexibility of voluntary cleanups:

- Allowing the use of soil management zones during a voluntary cleanup. The purpose of these zones is to facilitate the handling and reuse of contaminated soils within the property and reduce the cost and time for remediation.
- Allowing alternatives to the recording of the NFR Letter for certain federal facility sites and certain roadways controlled by Illinois Department of Transportation.
- Recognizing a role in remediation site activities for licensed professional geologists.
- Requiring chemical analyses of soil and groundwater samples be performed by accredited laboratories.

From 1989 through 2000,
the SRP has remediated 5,645 acres.
The goal is to remediate a total of
10,500 acres by 2005.



Demolition of Structures at the Danly Machine site

Danly Machine (Cicero) 16 acres

Former Land Use: Metal Fabrication, Metal Preparation, and Metal Finishing

Environmental Concern: Underground storage tanks and wastes from the former operations.

SRP Enrollment: February 2000

Future Land Use: Junior High School Complex

Status: Structures are being removed to permit remediation of impacted areas.

SRP Project Manager: Jennifer Seul

Where to Go for More Information

For questions about the SRP:

Illinois EPA

Remedial Project Management Section
1021 North Grand Avenue East
Springfield, Illinois 62794-9276
Phone: 217-782-6762
Fax: 217-782-3258
Internet Address: www.epa.state.il.us/land/site-remediation/index.html

To obtain copies of records on specific SRP sites:

Illinois EPA Freedom of Information Act Unit

Phone: 217-782-9878
Fax: 217-782-9290
e-mail: FOIA@epa.state.il.us

To obtain copies of environmental regulations for SRP and TACO:

Illinois Pollution Control Board

Phone: 217-524-8500 Internet Address:
www.ipcb.state.il.us.

For guidance on selecting a Licensed Professional Engineer:

Illinois EPA Office of Small Business

Phone: 1-888-372-1996

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SRP forms and fact sheets can be downloaded from our web site:

<http://www.epa.state.il.us/land/site-remediation/index.html>

In addition, the SRP database, containing information on over 1,200 voluntary projects, is also published at the following web site:

<http://srp.epa.state.il.us/search.asp>

The database can be searched by the 10-digit Illinois EPA identification number (LPC#), the site name, address, city, ZIP code, or any combination of these. The information entered does not have to be exact or complete, though users may want to enter as much information as possible to narrow their search.

This database identifies the status of all voluntary cleanup projects administered through the Illinois EPA.

This database also may be downloaded as a self-extracting Zip file in dbf format. This file also contains the site longitude and latitude in decimal degrees for use in Geographic Information System applications.



Lake Gas Works (Chicago)