

Hazardous Waste Management Commission Report

**September through
December 2007**



**Missouri
Department of
Natural Resources**

Quarterly Report



Echo Valley Computer Dump near Rolla, MO

Hazardous Waste Management Commissioners

Ben Kessler

Patrick M. Gleason

Susan Williamson

James T. "Jamie" Frakes

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"The goal of the Hazardous Waste Program is to protect human health and the environment from threats posed by hazardous waste."

For more information

Missouri Department of Natural Resources

Hazardous Waste Program

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Missouri Department of Natural Resources

January 2008 Program Update

It is with great pleasure that the Hazardous Waste Program presents this new report format and style. My staff have been diligently working to improve the overall look and feel of the Hazardous Waste Management Commission Report. The hope is that with input from the Commissioners and the stakeholders we will have a report that is useful and user-friendly. Again, we welcome your suggestions on how to improve this report and we look forward to getting your feedback.

The Hazardous Waste Program, as a whole, has worked hard to include stakeholder support and input in our daily work. This year we made great strides toward this goal with the Hazardous Waste Forum and the e-Cycle Missouri stakeholder workgroup. Thanks to these groups, we have been able to open many lines of communication and really work toward a cooperative effort that includes all those impacted by various hazardous waste issues.

This year marks the first year for the department's Hazardous Waste Forum. Two successful stakeholder meetings were held in 2007. This forum is designed to provide a way for Missouri citizens, industry, organizations and the department's Hazardous Waste Program to discuss hazardous waste laws, regulations, procedures and guidance. The forum is helping to identify areas for environmental improvement in Missouri with consensus among the various parties involved. This forum, the Web site and the face-to-face interaction continue to build a positive working relationship between the regulated community and the department.

In 2007, the e-Cycle Missouri stakeholder workgroup, formed the previous year, continued their efforts to develop a program to manage discarded electronics. e-Cycle Missouri provides electronic equipment recyclers and demanufacturers with best management practices for collecting, processing and transporting electronic waste. This electronic waste is commonly referred to as E-scrap. It also provides individuals and businesses with the information necessary to recycle electronic waste and choose a recycler that best meets their needs. To help raise public awareness about the environmental impacts associated with discarded electronics and the opportunities to address them, Nov. 15 has been designated as e-Cycle Missouri Day.

Sincerely,



Robert Geller, Director
Hazardous Waste Program

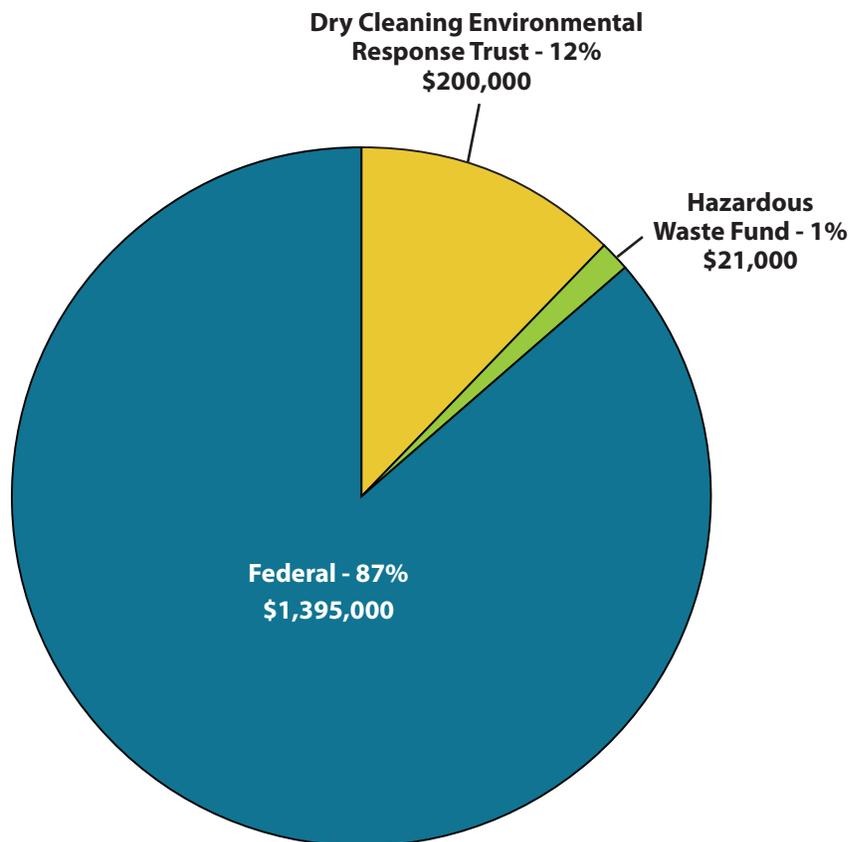
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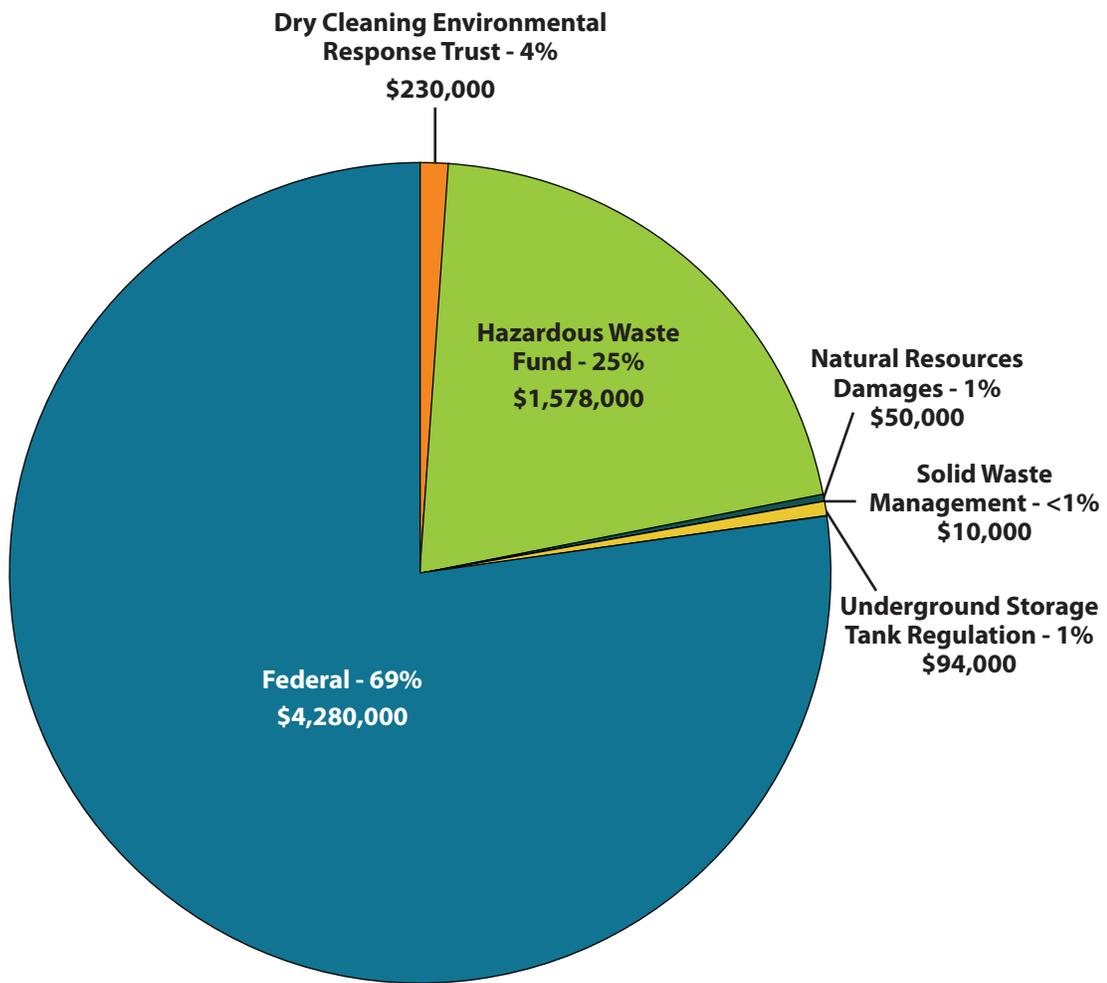
**Hazardous Waste Program FY2008 Program Specific
Distribution Appropriations**

Total: \$1,616,000

- Program Specific Distribution Appropriations fund larger contractual types of expenditures (i.e.. Superfund cleanup obligations, leaking underground storage tank cleanups).
- All program specific distribution appropriations, except the federal leaking underground storage tank appropriation, are estimated and can be adjusted throughout the fiscal year.
- All dollars are rounded to nearest thousand.



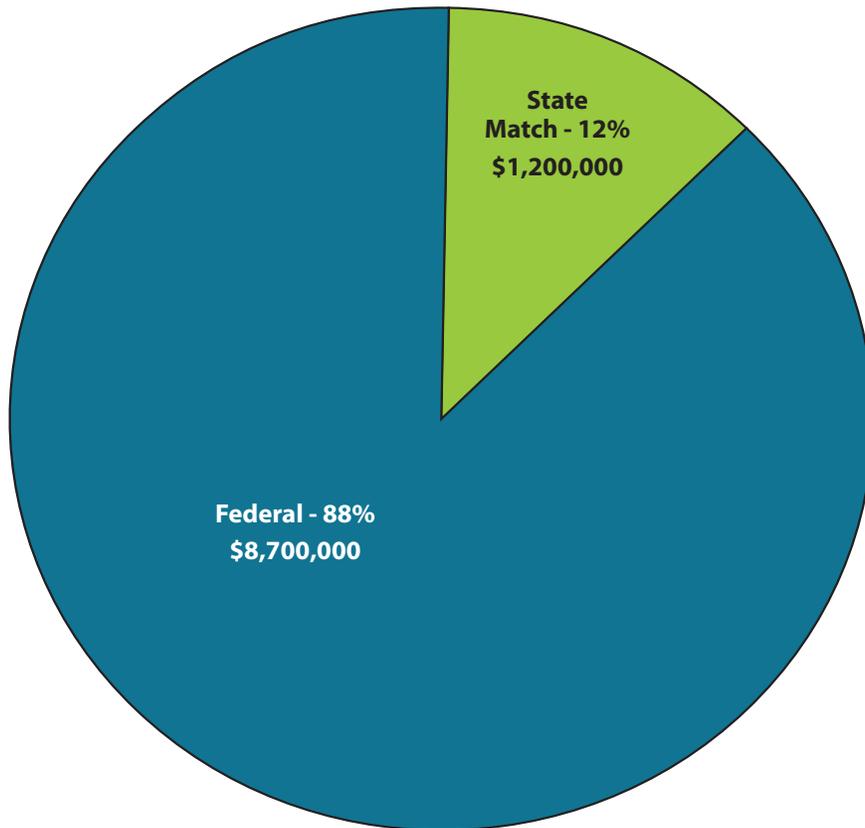
**Hazardous Waste Program FY2008
Operational Appropriations
Total: \$6,242,000***



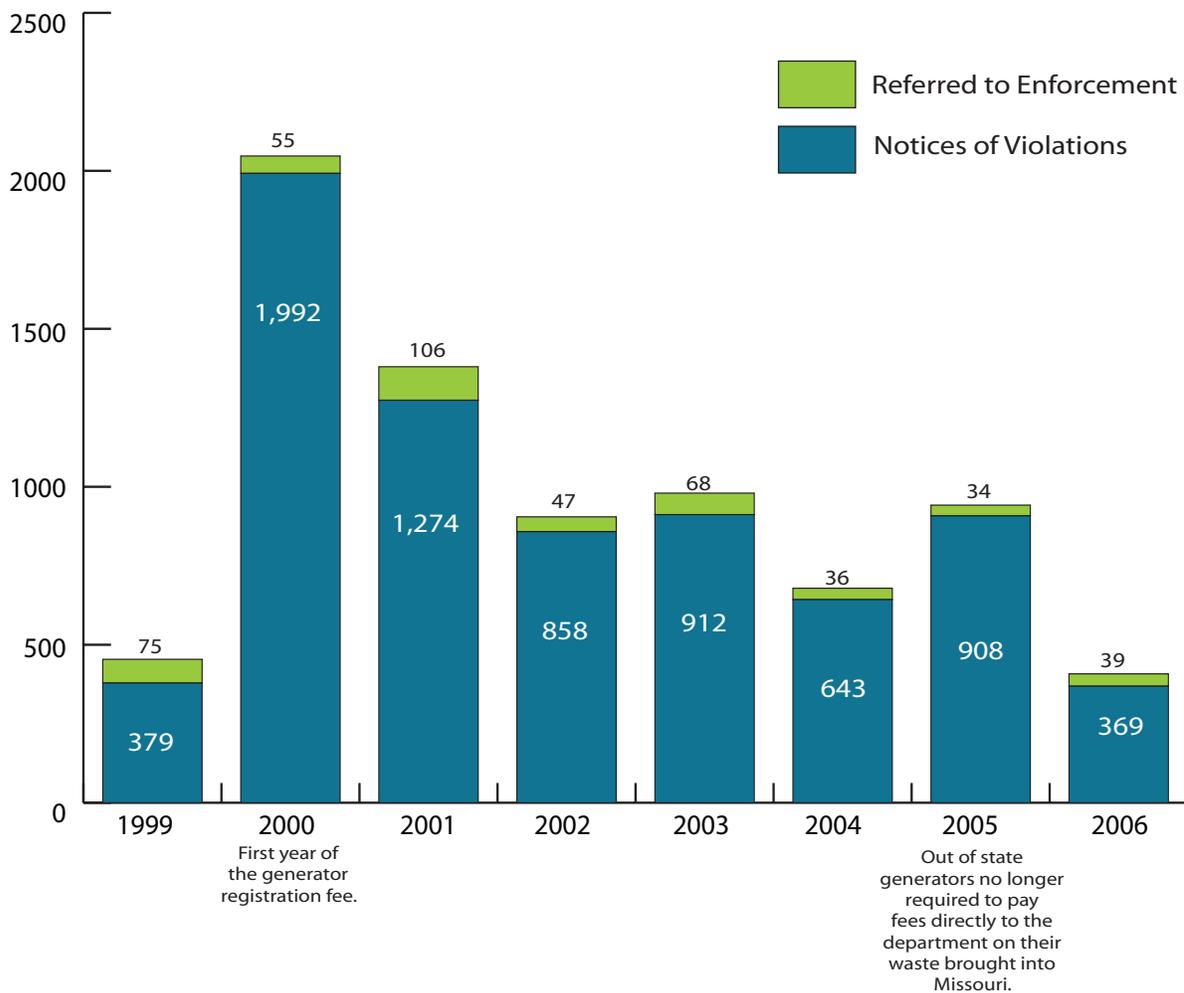
* Includes personal service and expense and equipment appropriations
All dollars are rounded to nearest thousand.

Federal Funds Leveraged by State Funds - Fiscal Year 2007

- Expenditures include personal service, expense and equipment, program specific distribution, fringe and indirect.
- Includes all Hazardous Waste Program managed grants and expenditures for the Hazardous Waste Program, the Environmental Services Program, and the Division of Geology and Land Survey and regions.
- The Hazardous Waste Program requires state funds to operate. Without state funds, the Hazardous Waste Program may not be able to operate fully and all grants, regardless of match requirement, may be at risk. This chart includes 100 percent federally funded grants as well as grants with a match requirement.

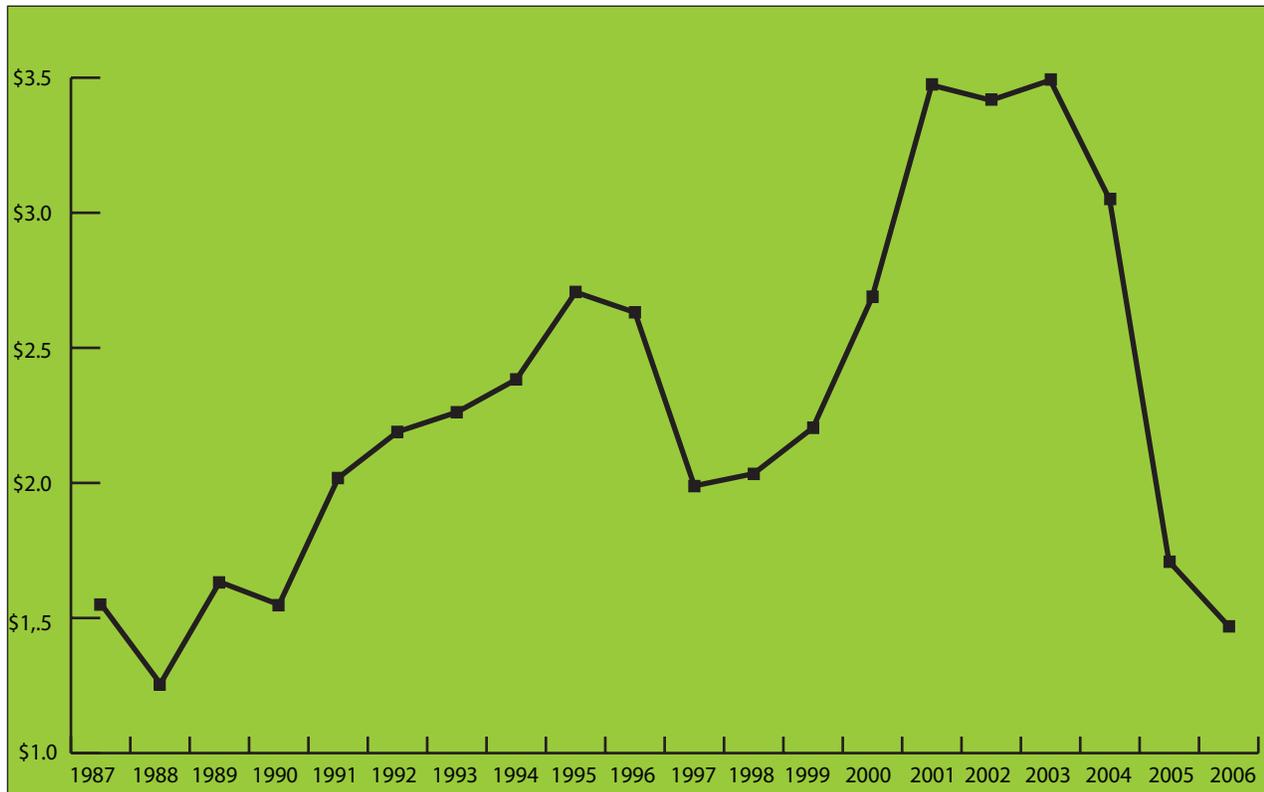


Billing Notices of Violation and Referrals by Billing Year
 July 1 - June 30



- After annual Notices of Violation responses were received from generators, 97.8 percent or more were brought into billing compliance in each year.

Fees Collected on Hazardous Waste Generated by
Billing Year in Millions of Dollars*



* Figures are revenue collected on waste reported as generated in billing year shown.
Figures do not represent the fiscal year in which revenue was collected.

Note: Fees apply to waste generated in Missouri and on waste imported from other states.

1995 - 1999

Starting in 1995, there was a 33 percent fee rate reduction in order to meet a specific revenue target as required by statute.

2000 - 2004

SB577 passed in 2000, establishing a registration fee, increasing fee rates and raising maximum fees; all of which increased revenues.

2005 - 2006

SB225 passed in 2005, restructured waste fees and reduced rates significantly, resulting in lower revenue.

Sites in the Brownfields/Voluntary Cleanup

	Active	Completed	Total
October	341	346	687
November	342	352	694
December	336	358	694

New Sites Received

October

- Suntrup Ford City, St. Louis
- Stein`s Buildings, St. Louis
- St. Louis Public Schools Special Education Building, St. Louis
- Kinder Morgan Pipeline Release, Middletown

November

- A.P. Green 2, Mexico
- Regions Bank, Dexter
- Federow Property, Springfield
- Salas Building, St. Louis
- Razorback Pipeline Mount Vernon Terminal, Mount Vernon
- Sporlan Valve Company, Washington
- Cochran Gardens, St. Louis
- Green Quarries Inc, Lexington
- Shrewsbury Gas Holder Property, Shrewsbury
- Chouteau Crossroads, St. Louis

December

- Alverne Building, St. Louis

Sites Closed

October

- Windsor Townhouse Apartments, Berkeley

November

- Security and Marquette Buildings, St. Louis
- Heege School, St. Louis
- East Village - Cherry Street Inn, Kansas City
- The Grind Redevelopment, St. Louis
- Village School, Kansas City
- Crestwood Corporation, St. Louis

December

- Bakers Auto Salvage (former), Macon
- Grand at 18th Devco, Kansas City
- Ely Walker Building, St. Louis
- Switzer Building, St. Louis
- Kemper Storage (Cameron), Cameron
- Suntrup Ford City, St. Louis

Drycleaning Environmental Response Trust Fund (DERT)

- Fund balance as of Dec. 31, 2007 = \$2,556,152
- On Oct. 19, 2007, a Certification of Completion Letter was issued to Westgate Cleaners in St. Louis. This is the first DERT site to receive a completion letter.

Sites Closed

October

- Westgate Cleaners, St. Louis

DERT Sites

	Active	Completed	Total
October	25	1	26
November	25	1	26
December	25	1	26

Compliance and Enforcement

- Liquid Recovery Inc., commonly called LRI, operates a mobile solvent recovery unit. The Enforcement Unit discovered an out-of-state business doing solvent reclamation in Missouri without the required resource recovery certification. After receiving a Notice of Violation, the business stopped operating in Missouri. Liquid Recovery Inc. then began the process of becoming certified, but did not complete the procedure. The department met with representatives of LRI to negotiate a penalty for past violations. An agreement was reached that LRI would pay a civil penalty of \$4,000. An additional \$4,000 is due if the business violates any state or federal hazardous waste laws in Missouri in the next two years. The settlement agreement was signed by the department and became effective on Oct. 17, 2007.
- On Nov. 5, 2007, the Howard County Circuit Court issued a verdict in the case of Boggs Repair and Sales in Franklin, for violating both the Hazardous Waste Management Law and Regulations and the Missouri Air Pollution Control Standards for illegally removing and open burning gasoline and other hazardous liquids from salvaged vehicles. The court issued a permanent injunction forbidding any other future illegal disposal of hazardous waste or any future violation of the air pollution control standards. The judge also penalized Mr. Boggs for illegal disposal of hazardous waste. This penalty is to be paid to the local school district as required by the Missouri Constitution.

Enforcement Unit Correspondence

Memos	9
Action Needed Letters	8
Negotiations	1
Notice of Violation	1
Return to Compliance	1
Compliance Assistance	2
Dry Cleaner Surveys	25
Dry Cleaner Failure to Comply	30

Compliance and Enforcement Inspections

	Special Facilities	Regional Offices	Total Inspections
July	6	57	63
August	8	64	72
September	5	58	63
October	6	75	81
November	6	41	47
December	2	21	23
Total	33	316	349

Compliance Actions

	Letters of Warning	Notices of Violation	Administrative Orders	Referrals to Attorney General's Office	Court Settlements	Out-of-Court Settlements
July	1	2	0	0	0	0
August	4	3	0	0	0	0
September	4	1	0	0	0	0
October	6	0	0	0	0	1
November	10	0	0	0	0	1
December	7	1	0	0	0	0
Total	32	7	0	0	0	2

Missouri Department of Natural Resources - Hazardous Waste Program Special Facilities Unit

Compliance and Enforcement

The following Commercial Treatment/Storage/Disposal facilities were inspected by the Special Facilities Unit during the period of September through December 2007.

September:

Amerex, Kansas City
Buick Resource Recycling Facility, Boss

October:

Continental Cement Company, Hannibal
Holcim/Energis, Clarksville
Lone Star Industries, Cape Girardeau
Safety-Kleen Systems, Independence
Safety-Kleen Systems, St. Charles
Safety-Kleen Systems, Cape Girardeau

November:

Amerex, Kansas City
EBV Explosives Environmental Co., Joplin
HTR, Kaiser
Heritage Environmental Services, Kansas City
Safety-Kleen Systems, Columbia
Solvent Recovery Corporation, Kansas City

December:

Buick Resource Recycling, Boss
Safety-Kleen Systems, Springfield

Three Letters of Warning were sent to request correction of violations found during Commercial Treatment/Storage/Disposal facility inspections. Six return-to-compliance letters were sent to facilities after violations noted during inspections were corrected. One extension letter was issued for a railcar offloading operation.

On Dec. 15, 2007, the section sent invoices for the department's inspection of Commercial Treatment/Storage/Disposal facilities for 2008. Payment was due by Jan. 15, 2008.

Polychlorinated Biphenyls Compliance and Enforcement Activities

During September through December 2007, 24 inspections and two complaint investigations were conducted. Three facilities were found to be out of compliance. Staff prepared a federal fiscal year 2007 end-of-year report, an inspection list and a quarterly accomplishments report for the U.S. Environmental Protection Agency.

Hazardous Waste Transportation Compliance and Enforcement Activities

Three letters transmitting Notices of Violation were sent to companies for transporting hazardous waste without a Missouri Hazardous Waste Transporter License.

Seventeen transporter vehicle inspections were conducted during September through December 2007. Five vehicles were placed out of service until violations were corrected.

Missouri-Licensed Hazardous Waste Transporters

September	207
October	213
November	216
December	212

Missouri Department of Natural Resources - Hazardous Waste Program

Underground Storage Tanks Compliance and Enforcement Unit

During the months of September through December 2007, the Underground Storage Tanks Compliance and Enforcement Unit referred 13 cases to the Attorney General's office to compel compliance and pursue an appropriate civil penalty. Seven of these cases were referred through the department director because of the seriousness of the violations and the imminent danger to the environment and human health. The unit sent three requests to the Attorney General's office for assistance in finalizing settlement agreements. The unit transmitted one signed Settlement Agreement to the Attorney General's office. Two enforcement cases at the Attorney General's office were closed; seven cases that had not been referred were closed.

Underground Storage Tanks Compliance and Enforcement Activities

	Inspections Reports*	Notices of Violation	Referrals to AGO	Settlements
July	55	5	0	1
August	28	12	2	0
September	38	10	0	1
October	24	13	1	0
November	28	13	1	0
December	23	2	3	0
Total	196	42	13	2

During September 2007, Underground Storage Tanks Compliance and Enforcement staff completed initial review of the remaining 142 EPA contract inspections. Contract inspection by the department and the Petroleum Storage Tanks Insurance Fund began Oct. 1, 2007. Staff are reviewing these reports and conducting appropriate follow-up to compel or verify compliance.

Underground Storage Tanks Compliance and Enforcement Unit Correspondence

Memos	15
Action Needed Letters	21
Letters of Warning	21
Notice of Violation	1
Letter to Assure Correction of Violation	86

Federal Facilities Section

The Federal Facilities Section is currently working on publishing its entire Geographical Information System dataset of sites for release on the department’s Web site. The public will be able to view the location and status of all section sites using any Web browser except for those sites determined to include “sensitive” locational data. The section is also working to track total acreage of all sites within Missouri and acreage that is being remediated. This information will be useful to report the progress of section sites to other state and federal agencies such as the U.S. Environmental Protection Agency.

Site Status Definitions

Pre-Investigation - Sites in the preliminary assessment or preliminary investigation stages, also known as a Phase I. This may include desktop reviews and site visits. These sites may or may not exhibit contamination above unrestricted use criteria. This includes idle sites the department determines are in need of further investigation.

Investigation - Majority of the site is currently under further investigation as a result of information collected during the preliminary assessment phase. A few examples include sites in the site investigation, Phase II, remedial investigation, feasibility study, proposed plan and engineering evaluation/cost analysis. These sites exhibit some level of contamination or threat of contamination. The goal is to characterize the nature and extent of contamination, provide estimates of the associated risk to human health and the environment, and develop, evaluate, and select potential remedial options as prescribed in the National Contingency Plan. Sites in this category may also be undergoing short-term removal actions to address known immediate risks.

Remediation - Majority of the site is undergoing cleanup. This may include such activities as soil removal or treatment, groundwater treatment, structure decontamination or removal, construction of engineering controls or restoration work. Activities during this phase follow guidelines set up in a remedial design/remedial action or removal workplans.

Note: It will be at the discretion of the project manager to determine when the site enters the remediation phase.

Long-Term Stewardship - Sites with restricted use due to the presence of contamination. Activity at these sites may include the operation and maintenance of engineering controls, long-term groundwater remedies, institutional controls or other mechanisms necessary to restrict site use. This ensures conditions remain protective of human health and the environment. These sites require periodic review and inspection of selected controls and performance monitoring of long-term remedies.

Completed - These sites have been cleaned up to allow unrestricted use.

Federal Facilities Site Status

Site Status	Number of Sites
Pre-Investigation	39
Investigation	30
Remediation	13
Long-term Stewardship	171
Completed	28
Total	281

Updates from the Federal Facilities Section

Westlake Landfill/Bridgeton Landfill, St. Louis County

The U.S. Environmental Protection Agency has been working on drafting concurrent Records of Decision for the remediation of the West Lake Landfill in St. Louis County. This site, originally a quarry and then a "pre-law" municipal and demolition solid waste landfill, was added to the National Priority List in 1990.

The site is divided into two operable units. Operable Unit 1 contains the portions of the landfill that has hazardous waste as well as radiological waste originating from the initial development of nuclear weapons during the Manhattan Project. Operable Unit 2 contains the remaining non-radiological landfill areas. The Department of Natural Resources is assisting with the development of the Operable Unit 1 and Operable Unit 2 Record of Decision.

The department has submitted its position to EPA as part of the public comment period. The position of the department, in general, supports the preferred remedy of isolating the contamination in place, with the caveat that rigorous groundwater monitoring along with robust and durable institutional controls are part of the remedial action. The finalization of the record of decision by EPA is pending in order to fully address and consider concerns regarding characterization and protection of groundwater.

Aerial Data Acquisition Coordination with Civil Air Patrol

The Federal Facilities Section is coordinating with the Civil Air Patrol for aerial data acquisition during upcoming training missions. The department is currently working on a Memorandum of Understanding that will allow state agencies to task Civil Air Patrol and reimburse them for expenses incurred for data collection using hand-held cameras and hyperspectral/high resolution imagery sensors.

This data allows for general site orientation. The data will also provide advanced imagery analysis using spectral signatures to identify minerals, vegetation, contamination and other substances of interest. The airborne collection will be particularly useful for wide area coverage and for sites with difficult terrain or where access is limited. The department is teaming with the University of Missouri – Columbia to conduct the hyperspectral imagery analysis.

Work is currently in progress to adapt this technology to characterization of mine waste, to support continued remediation efforts in the state. Information obtained will not only be beneficial to the department, but also other state and federal agencies, including EPA. Missouri is one of only a few government agencies currently taking advantage of the patrol's new hyperspectral/high resolution imagery capability.

Kansas City Plant, Kansas City

The Department of Energy's National Nuclear Security Administration is proposing to reconfigure its non-nuclear production facility from the present footprint. The preferred alternative is to relocate the Kansas City Plant from its current location in the Bannister Federal Complex at Troost and Bannister Roads in Kansas City to an undeveloped site at Hwy. 150 and Botts Rd. several miles south of the current site. The General Services Administration, which would manage contracts for the construction of the new facility, hosted an Environmental Assessment Scoping Meeting in May 2007. The draft assessment for the new facility was published Dec. 10, 2007, in the Federal Register. The deadline for comments on the assessment was Jan. 30, 2008.

The Kansas City Plant produces or procures 85 percent of the non-nuclear components for the nation's nuclear weapons complex and has operated in its current location since 1949. The new facility would be smaller, more efficient and less expensive to operate. A new location, the preferred alternative, was proposed in the assessment. Other alternatives for a new facility within the current Bannister Federal Complex were also considered. In comments during a scoping meeting, the Department of Natural Resources offered several options to use the restructured facility within the Bannister Federal Complex. By remaining in the Bannister Federal Complex, the Department of Energy would be redeveloping a brownfields area rather than building a new facility on undeveloped land. In the comment letter, the Department of Natural Resources noted that wherever the new plant is located, the main concern for the department is the proper stewardship of hazardous waste and reutilization of the current location.

Department of Natural Resources' staff sit on committees with the Department of Energy's National Nuclear Security Administration and General Services Administration as members of the Agreement in Principle program. The committees address issues for both the new site and the disposition options for the current site. The Department of Natural Resources has commented on the draft environmental assessment. Positive collaboration with all parties continues as progress is made.

Safety-Kleen Permit Reissuance

The Permits Section reissued five Missouri Hazardous Waste Management Facility Part I Permits to Safety-Kleen Inc. during the reporting period. These permits were issued to facilities located in Cape Girardeau, Columbia, Independence, Springfield and St. Charles. Concurrent issuance of the five permits was done at Safety-Kleen's request to help streamline their operational, inspection and reporting efforts. All of the Part I permits include requirements governing Safety-Kleen's active hazardous waste management operations. The Springfield and St. Charles Part I Permits include requirements for active, ongoing corrective action to address releases to the environment. The Cape Girardeau, Columbia and Independence Part I Permits contain contingent corrective action provisions triggered in the event corrective action is needed in the future at these facilities.

Resource Recovery Certification

Missouri Resource Recovery facilities reclaim, reuse or transform hazardous wastes into products that are not hazardous wastes. A resource recovery certificate is a type of formal approval resembling a permit. The department reviews a certificate application to make sure it follows all hazardous waste regulations. The department then classifies the facility as a U, R1 or R2 facility based on the type of wastes accepted and the method of management.

- **U facilities** use, reuse, reclaim or recycle more than 1,000 kilograms of on-site hazardous waste in a calendar month.
- **R1 facilities** are mobile recycling processes that recycle hazardous wastes from reuse at the generator's site and do not involve reuse off-site.
- **R2 facilities** accept hazardous waste from off-site.

The department must issue a resource recovery certificate if the application meets all legal requirements. The certificate may contain site specific conditions the facility must follow in order to protect human health and the environment. The certificate is valid for a period of two calendar years from the date it was issued.

Certified Facilities from September through December 2007

R2 Facility

H.T.R. Inc.

U Facilities

EFCO Corporation

Elantas PDG Inc.

The Loxscreen Company

Printpack Inc.

Remediation

Corrective Action Overview

Past and present activities at facilities subject to the Resource Conservation and Recovery Act have resulted in releases of hazardous waste and hazardous constituents into soil, groundwater, surface water, sediments and air. The Resource Conservation and Recovery Act generally mandates that EPA require the investigation and cleanup or remediation of these hazardous releases at facilities subject to the Resource Conservation and Recovery Act. This is known as corrective action. EPA is allowed to address any release of hazardous waste or hazardous constituent to any media, soil, ground water, surface water, sediments and air, at both permitted and non-permitted facilities. EPA may authorize states to administer this program. Missouri is an authorized state.

The term “cleanup” is often used in association with corrective action activities. Cleanup or the phrase cleaning up refers to the range of activities that could occur in the context of addressing environmental contamination at facilities subject to the Resource Conservation and Recovery Act.

Cleanup activities could include:

- Removing waste or contaminated media.
 - Excavation.
 - Pumping groundwater.
- In-place treatment of the waste or contaminated media.
 - Bioremediation.
- Containment of the waste or contaminated media.
 - Barrier walls.
 - Low-permeable covers and liners.
- Various combinations of these approaches.

The term “cleanup” is often used interchangeable with the term remediation. For the purposes of this report and future reports we will use the term remediation.

Performance Measures – Short Term

The 1993 Government Performance and Results Act holds federal agencies accountable for using resources wisely and achieving program results. The Government Performance and Results Act requires federal agencies to develop plans for what they intend to accomplish, measure how well they are doing, make appropriate decisions based on the information they have gathered and communicate information about their performance to Congress and the public.

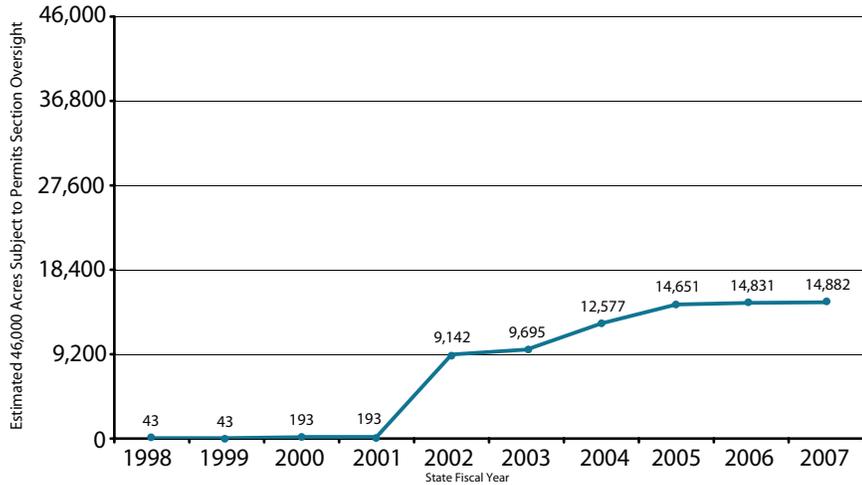
In response to this legislation, EPA’s Resource Conservation and Recovery Act Corrective Action program developed two environmental indicators to measure short term progress in protecting human health and the environment and to meet the objectives of the Government Performance and Results Act. The two environmental indicators are called “Current Human Exposures Under Control” and “Migration of Contaminated Groundwater Under Control.” In general terms, these measures indicate current “environmental conditions”- whether people are currently being exposed to environmental contamination at unacceptable levels, and whether any existing plumes of contaminated groundwater are getting larger or adversely affecting surface water bodies.

These charts show that Missouri has around 46,000 acres that are subject to corrective actions overseen by the Permits Section. Currently, around 15,000 acres achieved the Human Exposures Controlled environmental indicator goal and around 14,000 acres achieved the Ground Water Migration Controlled environmental indicator.

The Groundwater Migration environmental indicator is strictly a resource protection measure and not a direct measure of human risk. It may include the assessment of the impacts of groundwater discharges to surface waters and surface water ecosystems.

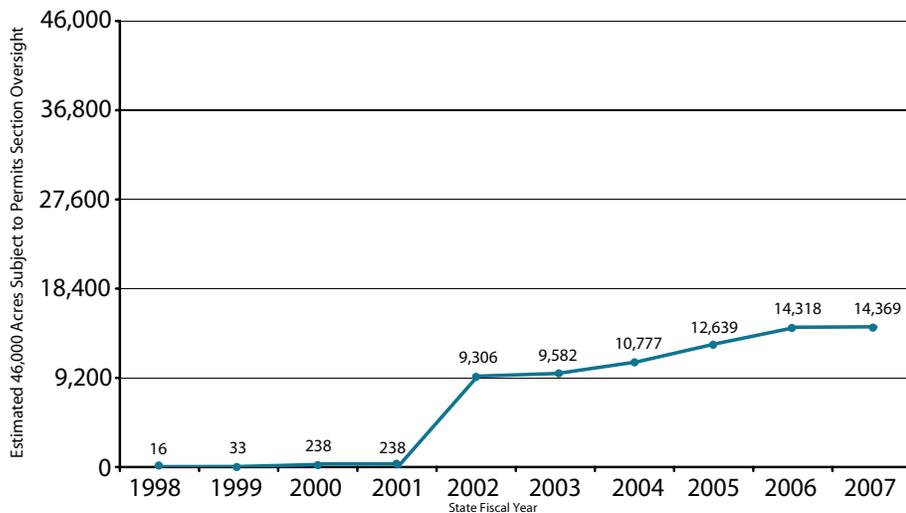
The lead regulators for the site, the department or EPA, make the final environmental indicator determinations. However, facilities or their consultants may assist the regulators in the evaluation by providing information on current environmental conditions, filling out the Environmental Indicator forms and making recommendations for the determination.

Acres of Hazardous Waste Oversight Where Human Exposures Are Determined to be Controlled
Total Acreage Subject to Permits Section Oversight Estimated to be 46,000 Acres



For the Current Human Exposures Under Control environmental indicator, a facility should be able to demonstrate that there are no unacceptable human exposures to contamination that can be reasonably expected under current land and groundwater use conditions.

Acres of Hazardous Waste Oversight Where Groundwater Migration Is Determined to be Controlled
Total Acreage Subject to Permits Section Oversight Estimated to be 46,000 Acres



For the Migration of Contaminated Groundwater Under Control environmental indicator, a facility should be able to demonstrate that contaminant plumes throughout the entire facility are not continuing to get larger or negatively impacting adjacent surface water bodies, and that the facility will monitor groundwater to verify whether the environmental indicator determination remains valid.

Performance Measures – Long Term

The Remedy Selected and Construction Complete performance measures were also established pursuant to the federal Government Performance and Results Act of 1993. With regard to facilities subject to Resource Conservation and Recovery Act corrective action requirements, the Remedy Selected performance measure documents the selection of a final remedy designed to achieve long-term protection of human health and the environment. It is achieved when the department or EPA notifies the facility that a remedy designed to meet the long-term corrective action goals of protecting human health and the environment has been selected. It also applies when no further action is required because stabilization measures have been implemented or because site characterization demonstrates that corrective action goals have been achieved.

The Construction Complete performance measure documents when the department or EPA determines that a facility subject to corrective action requirements has completed construction of a final remedy and that the final remedy is fully functional as designed (whether or not final cleanup levels or other requirements have been achieved). This performance measure may also acknowledge instances where no remedy is constructed-based on the acceptability of human health and environmental risks associated with current site conditions.

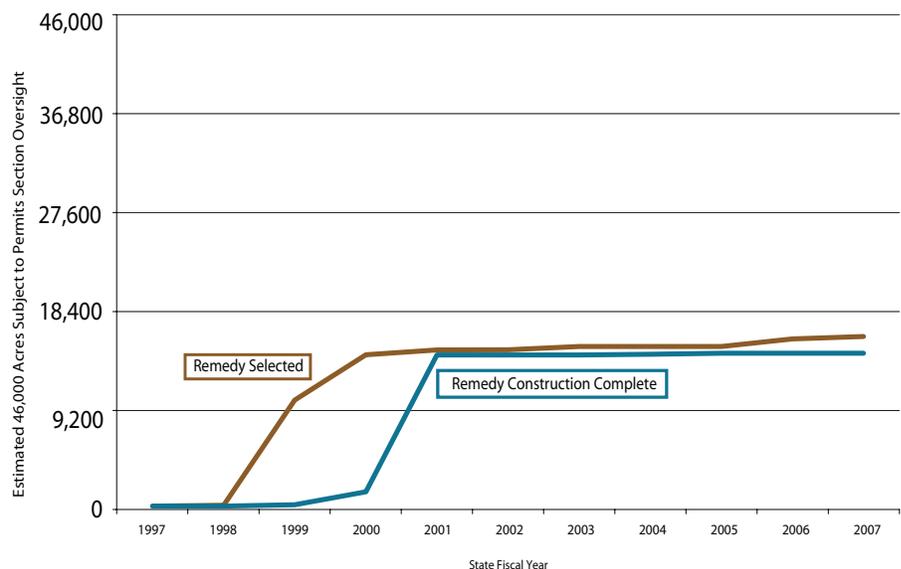
The Construction Complete performance measure is achieved when:

- 1) Construction of the final remedies have been completed.
- 2) The Remedy Decision and Response to Public Comments or other appropriate decision document indicates:
 - No physical construction of a final remedy is needed since site characterization activities began.
 - No construction is necessary beyond what has been implemented prior to the final remedy decision.

Once final remedies have been constructed, department oversight of operation, maintenance and monitoring of such remedies may continue for decades at many facilities.

This chart estimates Missouri has around 46,000 acres subject to corrective actions overseen by the Permits Section. Currently around 16,000 acres have achieved the Remedy Selected goal and around 14,500 have achieved the Construction Complete goal. Construction complete determinations can be linked to a specific area(s) at a facility or to the entire facility. For purposes of this report, the acres shown are where construction is complete across the entire facility.

Missouri Corrective Action Process Progress
Total Acreage Subject to Permits Section Oversight Estimated to be 46,000 Acres



Registry Activities

The Registry is a list of sites that contain hazardous waste. More than that, however, by law and regulation, it provides a variety of institutional controls that allow for residual contamination to be left on site after remediation is completed while still protecting human health and the environment.

These institutional controls include:

- Deed notification of contamination.
- Annual inspection.
- Notice to buyer.
- Change of use review.
- Notice to the state if property is sold.
- Cleanup and removal from the Registry.
- Public information about:
 - Site location.
 - Classification of threat.
 - Contaminants.
 - Health concerns.
 - Public and private drinking water wells.
 - Geology.

Registry Updates

- Dora Post, a former woodtreater site was taken off of the Registry this fiscal year. It underwent a cleanup in the State Cooperative Program.
- No new sites have been proposed for the Registry this fiscal year.
- No change in land use requests for sites on the Registry were received this quarter.

The Fiscal Year 2007 Missouri Registry Annual Report - Registry of Confirmed Abandoned or Uncontrolled Hazardous Waste Disposal Sites in Missouri was completed and published this quarter. For the first time, the annual report is also available for purchase in a CD format at a cost of \$3. There are a total of 69 sites listed on the Registry.

Superfund Site Assessment Activities

Site assessment activities help identify and evaluate the most serious hazardous substance sites. The Comprehensive Environmental Response, Compensation, and Liability Act, known as CERCLA or Superfund, is a process for assessment and inspection of sites involving a sequence detailed studies to determine what hazards, if any, the site may pose. In Missouri, the site assessment process generally starts with a Desk Top Review site screening or Phase I, of known information of any previous investigations conducted at the site. It may proceed to a pre-Comprehensive Environmental Response, Compensation and Liability Information System Site Screening, or Phase II. Phase II usually involves sampling of environmental media.

Preliminary Assessment/ Site Inspection Projects and Completion Dates SFY 2008

Name and Type of Project	Assessment Stage	Completion Date
First Quarter		
Woomer Well	Site Inspection	9/28/07
Carterville Former Manufactured Gas Plant	Site Screening	9/28/07
Kansas City Former Manufactured Gas Plant #4	Site Screening	9/28/07
Probst Road Lead Site	Site Screening	9/30/07
Koshkonong School	Desk Top Review	9/28/07
Hill Plating	Abbreviated Preliminary Assessment	9/28/07
Second Quarter		
Washington County USFS Trails	Site Screening	10/10/07
Franklin Co. Wildlife Club Shooting Range	Site Inspection	11/20/07

The Desk Top Review and the Site Screening provide initial data and evaluations necessary to decide whether a site warrants initial or further assessment under the CERCLA process. At the conclusion of the Desk Top Review or the Site Screening, the site will be recommended for one of the following:

- Entry onto CERCLIS or further evaluation.
- Deferral to another state or federal agency.
- No further action. If it is determined that a site does not require further action at this stage, the site will not be entered onto CERCLIS.

Once a site has been screened and recommended for evaluation under CERCLA, an Abbreviated Preliminary Assessment, Preliminary Assessment, Site Inspection or an integrated assessment will be conducted to determine if the site warrants remedial or removal actions. At the conclusion of the initial report, the site will be assigned to one of four categories:

- 1) No further remedial action planned.
- 2) Low priority for further action.
- 3) High priority for further action.
- 4) Hazard Ranking System scoring.
- 5) Deferral to another state or federal agency. High priority sites will receive additional investigation before low priority sites. No further remedial action planned sites will be dropped from the assessment process.

During the quarter, two Pre-CERCLIS Site Screenings were completed and a Site Reassessment was initiated. Work continues on two desk top reviews, 16 site screenings, one preliminary assessment, one Site Inspection and one integrated assessment. Potentially responsible party negotiations and follow up activities continue for five sites.

Superfund Remedial And Removal Activities

Sites where hazardous substance releases have been identified and characterized for Superfund response decisions, generally move into the federal EPA's Superfund remedial and removal programs. The EPA is the lead agency and the Hazardous Waste Program is the supporting program at most federal Superfund sites. The state may become the lead agency in some instances. Superfund sites vary widely in size, hazardous substances, quantities and extent of contamination. They also vary in environmental media impacted, human health risks, ecological risks and natural resource injuries. All non-federal Superfund cleanup sites are overseen by the Superfund Section, Remedial Project Management Unit.

The EPA and the Superfund Section work to identify potentially responsible parties at hazardous substance release sites. It is the agencies' preference that potentially responsible parties fund and conduct cleanup work, when possible. The EPA may fund Superfund cleanup actions using federal funding at sites without viable or willing parties. This is often the case at sites that have been contaminated, abandoned or uncontrolled for many years. The EPA and the Hazardous Waste Program may enter into negotiations with potentially responsible parties and complete legal agreements. Administrative Orders on Consent, Consent Decrees and other legal agreements are made so potentially responsible parties agree to perform the cleanup work and reimburse the department for oversight costs.

Sites with extensive contamination and significant risks to public health and the environment may be scored using site data and the Hazard Ranking System. Sites with a score of 28.5 or higher may, with state concurrence, be added to the federal Superfund National Priorities List. These sites are cleaned up through the Superfund remedial process. Extensive site characterization and planning are conducted in these instances. There are currently 26 sites on the National Priorities List in Missouri. Three new sites in Missouri are currently proposed for addition to the list. Missouri has five sites that have been deleted from the list. When there are parties willing to conduct site characterization and cleanup under a legal agreement with the EPA, the agency may decide not to list the sites in exchange for remediation of the site. The remedial process is used for characterization and cleanup of these sites but they are not placed on the list. There are currently three EPA-lead Superfund Alternative sites in Missouri.

Hazardous substance release sites with less extensive contamination and risks that do not score for inclusion on the list, but require cleanup to mitigate risks, may be cleaned up through the Superfund removal program. Removal actions may be conducted at any site to address immediate or short-term risks. Removal actions include emergency, time-critical and non-time-critical removal actions. The type of removal action conducted depends on the extent of contamination. It also depends on risks present and relative amount of time available to plan the removal action. Removal actions may be conducted at sites on the National Priorities List to address contamination and risks that need to be cleaned up within a shorter time frame than the remedial process provides. The Superfund Section currently has 49 EPA-lead removal sites.

The Hazardous Waste Program also has the ability to work directly with potentially responsible parties to conduct cleanups on various sites. The state has entered into Consent Agreements with these parties to clean up sites that qualify for state registry listing. Under these agreements, the parties agree to conduct cleanup work to acceptable standards in order to prevent registry listing. The Hazardous Waste Program also offers the opportunity for parties to clean up sites through the State Cooperative Program. Sites that have documented hazardous substance releases and would normally be referred to the EPA for Superfund response actions, may be cleaned up under state oversight if the parties are willing to enter into a legal agreement with the state. In both Registry Consent Agreement and cooperative program cleanups, the potentially responsible parties must agree to reimburse the state for its oversight costs. The Superfund Section is currently overseeing cleanup activities at 14 Registry Consent Agreement sites and approximately 16 final and proposed cooperative program sites at various stages in the process.

The Superfund Section is currently overseeing activities on three Brownfields projects involving site cleanup and land reuse activities. Below is a list of Superfund cleanup sites.

EPA-Lead

Annapolis Lead Mine, Annapolis, Iron County

EPA completed "no action" Records of Decision for Operable Unit 02 (Big Creek) and Operable Unit 03 (Town of Annapolis) in June 2007 with state concurrence. The EPA and the state completed a Superfund State Contract in July 2007, allowing for remedial design and remedial action to be completed by the EPA at Operable Unit 01 (Mining Area). Construction site completion were achieved with completion of the Operable Unit 01 remedial action, the joint EPA and state final inspection, and the Final Close Out Report in September 2007. This began the one-year operational and functional period. A number of activities, including several deferred from remedial action will be completed by the EPA. The section will continue to oversee progress toward completion and the continuing biological monitoring.

Conservation Chemical Company, Kansas City, Jackson County

The EPA completed the second five-year review report in September 2007. The Superfund Section worked closely with the EPA during the report drafting, and concurred with the second five-year review report by letter in September 2007.

Findett Corp. (Superfund Alternative, SA site), St. Charles, St. Charles County

The state, the EPA, and the settling potentially responsible parties completed negotiations and a Consent Decree for remedial design and remedial action for Operable Unit 03 (Hayford Bridge Road Groundwater) during FY 2007. The Consent Decree was finalized in August 2007 and allowed for the start of the Potentially Responsible Party-lead remedial design.

Oak Grove Village Well, Oak Grove Village/Sullivan, Franklin County

The record of decision for interim action for Operable Unit 01 (Oak Grove Village Well) was completed by the state as the lead agency in September 2007. The EPA has notified the state it will assume the lead on future remedial response activities at the Operable Unit 1 and Operable Unit 02 (Closed Sullivan Landfill). The state will assume the support agency role.

Oronogo-Duenweg Mining Belt, Joplin, Jasper County

The EPA completed a five-year review report in August 2007. The EPA also completed a remedial action report for Operable Unit 4 for groundwater in September 2007 corresponding to the EPA fund-lead remedial action completion. The Hazardous Waste Program concurred with the finalized reports with comments by letter in September 2007. The EPA fund-lead remedial design for Operable Unit 01 (Mine and Mill Waste) started in February 2007. The state and EPA completed a state Superfund contract in September 2007. This allowed for the start of the Operable Unit 01 remedial action, which was a significant milestone. The EPA initiated negotiations with potentially responsible parties in fiscal year 2007. The state initiated activities to complete yard soil replacements in the remaining yards in Operable Unit 02 (Residential Yards) and Operable Unit 03 (Mine Waste Yard Soils) not addressed by the EPA during removal or remedial actions.

Pools Prairie, Neosho, Newton County

Field work on the Operable Unit 03 (900 Building and Quince Road Area) removal action was completed during the reporting period, and final verification sampling was conducted. The EPA and the Superfund Section are awaiting submittal of the removal action report for review and approval.

Riverfront, New Haven, Franklin County

A record of decision was completed for Riverfront Operable Unit 05 (Hat Factory) in December 2006 with state concurrence. The EPA fund-lead remedial design was started and completed in August 2007. The state and EPA completed a contract in September 2007 allowing the start of the EPA fund-lead remedial action at Operable Unit 05. A consent decree for Operable Unit 03 (Old City Dump) was completed in September 2007, which provided for cost recovery.

Syntex Facility, Verona, Lawrence County

The EPA completed the third five-year review in September 2007. The Superfund Section worked with the EPA during the drafting stage and concurred.

Valley Park TCE, Valley Park, St. Louis County

The operational and functional period for site remedial actions following construction completion was scheduled to be completed no later than August 31, 2007. Missouri has determined the remedial action is not operational and functional because of the failure of the soil vapor extraction system constructed as part of the Operable Unit 02 (Valley Park Proper) remedy to operate as designed. The Superfund Section communicated this to the EPA on Aug. 31, 2007. The section requested and received an extension to the operational and functional period. The EPA will be taking actions to justify and document abandoning the soil vapor extraction system at Operable Unit 02. The EPA will also be looking into how the remainder of the existing remedy or other remedies will achieve the remedial action objectives.

Washington County Lead District (Potosi, Old Mines, Richwoods), Washington County

The three Washington County Lead District sites were proposed individually for addition to the National Priorities List in September 2007, with which the state of Missouri has concurred. The EPA has initiated removal actions to provide drinking water for residences with contaminated wells, and is conducting residential yard soil cleanups.

State-Lead National Priorities List Sites

Solid State Circuits, Republic, Greene County

The EPA completed the third five-year review report at this state-lead NPL site in September 2007. The HWP worked closely with the EPA during the drafting stage, and concurred with the third five-year review report by letter in September 2007.

State-Lead Cleanup Sites

Folk Avenue, Maplewood, St. Louis County

The department, the Attorney General's Office and THF Maplewood Outparcel Development, L.L.C. completed a second amendment to the 2003 Consent Agreement on July 19, 2007. The second amendment acknowledges cleanup work completed under the original 2003 Consent Agreement and the first amendment according to the Registry law and regulations. It also provides for ongoing work to be conducted in operating and monitoring of the remedial action system.

In February 1984, the department proposed the Folk Avenue Property for the addition to *Missouri's Registry of Confirmed Abandoned or Uncontrolled Hazardous Waste Sites*. The department determined that following the cleanup, the site no longer needs to be listed on the registry. On the Dec. 13, 2007 meeting, the Missouri Hazardous Waste Management Commission signed an order dismissing an appeal of the Folk Avenue Property as moot.

Natural Resource Damages Program

Activities

The Natural Resource Damages program allows natural resource trustees to seek restoration of natural resources injured by a discharge of oil or releases of hazardous substances. The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 requires that the governor of each state designate the state official who may act on behalf of the public as trustee for natural resources. The director of the Department of Natural Resources is the designated trustee for Missouri.

Natural resource damages actions can be initiated under federal and state authorities. Restoration can be in the form of:

- A commitment from the potentially responsible parties to perform actual restoration projects with oversight.
- Monetary payments to be used by the trustees to restore injured natural resources.
- A combination of both.

The program identifies potential sites where natural resources have been injured and works cooperatively with co-trustees, response agencies and potentially responsible parties to integrate natural resource damages restoration into remedial actions. In the absence of cooperative assessments, natural resource damage assessments can be conducted to support damage claims. These claims can be pursued by the trustees to compensate the public for those losses experienced when a public resource is injured.

Weldon Spring Site and Weldon Spring Ordnance Works

In 2007, the Missouri Department of Natural Resources and Department of Justice, on behalf of the Departments of Energy and Defense, entered into a natural resources damages tolling agreement for the Weldon Spring Site and Weldon Spring Ordnance Works. The tolling agreement suspends the statute of limitations for filing a natural resource damages claim, allowing the parties to work cooperatively to address any potential natural resources injuries at the sites.

Activities

- The Tanks Section held a conference for tank consultants on Oct. 16-17, 2007. This conference was well attended by consultants. The focus of the meeting was training on the Tanks Risk-Based Corrective Action Document.
- This past quarter, the Tanks Section began database enhancements to improved efficiency in tracking of registration, fees, financial responsibility and other tank related activities.
- Tanks is beginning an initiative to ensure that all tank sites that have been in temporary closure are properly addressed. This is being done by either permanently closing them, upgrading them or making sure they are being properly monitored.

Underground Storage Tank Facility Data*

	Total Active and Closed	Total Permanently Closed	Active and Temporarily Closed	Temporary Closure	Total Hazardous Substance	Facilities With Active
July	38,865	28,777	10,088	967	389	3,772
August	38,912	28,832	10,080	1,004	389	3,772
September	38,946	28,867	10,079	1,009	389	3,772
October	38,962	28,884	10,078	1,027	389	3,782
November	38,997	28,892	10,105	1,054	389	3,784
December	39,007	28,907	10,100	1,082	392	3,786

* Some measures are re-calculated each month for all previous months to reflect items added or edited after the end of the previous reporting period.

Staff Productivity

	Documents Received for Review	Remediation Documents Processed	Closure Reports Processed	Closure Notice Approved	Tank Installation Notices Received	New Site Registrations
July	236	207	10	17	4	11
August	266	228	18	15	5	13
September	216	157	13	16	9	14
October	247	198	9	12	4	8
November	167	94	3	14	4	9
December	165	107	6	16	3	7
Total	1,297	991	59	90	29	62

Missouri Department of Natural Resources - Hazardous Waste Program Tanks Section

Underground Storage Tanks Closure Activities*

	Closure Reports Reviewed	Closure Reports Approved	Number of Tanks Closed
July	10	17	20
August	18	15	14
September	13	16	21
October	9	12	18
November	3	14	4
December	6	16	1
Total	59	90	78

Underground Storage Tanks Cleanup Activities*

	Release Files Opened	Cleanups Completed	Ongoing Cleanups
July	6	8	1,055
August	5	5	1,051
September	2	0	1,055
October	6	6	1,058
November	0	2	1,055
December	4	2	1,059
Total	23 (5,968)	23 (4,909)	

Above Ground Storage Tanks Cleanup Activities*

	Release Files Opened	Cleanups Completed	Ongoing Cleanups
July	1	0	194
August	4	3	195
September	2	0	198
October	1	2	200
November	0	0	198
December	0	1	197
Total	8 (397)	6 (198)	

Both Underground Storage Tanks and Above Ground Storage Closure Activities*

	Total Release Files	Cleanups Completed	Ongoing Cleanups
July	0	0	29
August	0	0	29
September	0	0	29
October	0	0	29
November	0	0	31
December	0	0	31
Total (All)	0 (60)	0 (31)	

Unknown Source Closure Activities*

	Total Release Files	Cleanups Completed	Ongoing Cleanups
July	5	0	161
August	3	0	162
September	2	0	161
October	0	1	156
November	2	1	156
December	1	0	154
Total	13 (277)	2 (121)	

* Some measures are re-calculated each month for all previous months to reflect items added or edited after the end of the previous reporting period.

