

# Hazardous Waste Management Commission Report

October through December 2013

Quarterly Report

Missouri Hazardous Subst x

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Missouri Department of  
**Natural Resources**

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Latitude: 42.135351562500006 Longitude: -89.09668012500003

**MAP LAYERS**

- Hazardous Waste Program Cleanup Sites
- Activity & Use Limitation Area
- Site Area

**MAP LEGEND**

- Active** - Sites undergoing investigation or remediation
- Long-Term Stewardship** - Sites with activity and use limitations
- Environmental Notice** - Sites where an environmental advisory may be warranted
- Completed** - Sites suitable for unrestricted use
- Activity & Use Limitation Area** - Area subject to activity and use limitations
- Site Area** - Approximate area that comprises the site or permitted facility

100 km  
50 mi

Missouri Department of Natural Resources

## Hazardous Waste Management Commissioners

Michael Foresman, Chair

Deron Sugg, Vice Chair

Andrew Bracker

James "Jamie" Frakes

Elizabeth Aull

Charles "Eddie" Adams

**"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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Past issues of the Hazardous Waste Management Commission Report are available online at [www.dnr.mo.gov/env/hwp/quarterlyreport.htm](http://www.dnr.mo.gov/env/hwp/quarterlyreport.htm).



**Missouri Department of Natural Resources  
Hazardous Waste Program**

### Program Update Letter from the Director

This report to the Commission covers the time period of October through December 2013. Although the winter months are upon us and field work has slowed, program staff reached milestones on several large projects during this quarter.

With the passage of HB1251 in 2012, an enormous amount of staff time and effort has been directed at working with stakeholders to identify those rules that will need to be revised or rescinded to meet the requirements of that legislation. This quarter saw the culmination of those efforts with our release of the “draft” document that identified the changes that will be needed to meet the statutory requirements. This effort has put us ahead of the timeline set out for the identification portion of the legislative requirement and in a good position to get the rulemaking completed ahead of the Dec. 31, 2015, deadline, established by the law.

This quarter also saw the release of the department’s new Hazardous Waste Substance Locator. This new online map is a one stop resource that allows users to conduct a web-based search for hazardous substances. This interactive website was designed as a resource that allows users to conduct a map-based search for hazardous substance investigations and cleanups. Private citizens, utilities, municipalities, etc., can view or download site summaries and documents and download data layers into their own GIS systems, in order to incorporate review of environmental activity and use limitations into their permitting, planning and development activities. We are very proud of our staff efforts with this project and believe the public will find it to be a very useful tool as well.

Efforts continued during this quarter to fill our open positions, following the retirements and transfers of several staff in the preceding quarters. We have made good progress in this regard and believe we have made some great additions to our staff.

Speaking of our staff, they also amazed everyone this quarter with a food drive designated for donation to the local Samaritan Center. Section staff competed to see which section could collect the most weight of food items, with the Federal Facilities Section being the big winner. Staff collected over three tons of food, with the total weight of 6,097 pounds, or almost 44 pounds per person. This more than doubled the program’s collection of 2,967 pounds last year. The winner of the in-house competition collected almost 92 pounds of food per person, requiring five trucks to carry all the food to the center. We are truly blessed in the Hazardous Waste Program to have generous staff members that care deeply about the citizens we serve.

As this year comes to an end, we look forward to next year and all the challenges that await. With the great staff we have, I am confident we can work through them all. I hope you enjoy reading about their efforts in this edition of the quarterly.

Sincerely,



David J. Lamb

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## Missouri Hazardous Substance Site Locator

The Hazardous Waste Program's new online map, went live on Dec. 2, 2013. The Hazardous Substance Site Locator map is found at <https://www.dnr.mo.gov/molts/gov/> and serves as a central information resource about hazardous substance investigations. This website features an interactive map viewer with individual site status summaries from department's databases for every site with links to important documents. It also includes data layers that local governments or utilities can download and use in their own permitting and planning efforts. The site is designed to ensure property is used safely in Missouri.

Many contaminated sites go through risk-based remediation, which means the site is cleaned up to a level sufficient for its likely future use. Such cleanups may include physical controls like barriers and caps or restrictions on future uses of the property. These sites need long-term stewardship to ensure the property is used appropriately and physical controls are maintained. Making information available to all who may be affected by contamination is a key part of the department's stewardship of such sites. Until now almost all this information was only available by reviewing department paper files and county property records. But we know many property uses that may put people at risk do not involve chain-of-title searches, such as construction and utility work and this website will provide all property users with a direct, central source for accessing information critical to their safety.

The image illustrates the functionality of the Missouri Hazardous Substance Site Locator. A large blue arrow points from three key features to a screenshot of the web application. The features are: 'Site Information Summary' (represented by a laptop and database icons), 'Restricted Property Use Boundaries' (represented by a map icon), and 'Electronic Documents' (represented by a folder icon). The screenshot shows the web application interface with a map of Missouri displaying numerous colored pins representing hazardous sites. The legend on the left side of the map interface includes the following items:

- MAP LAYERS**
  - Hazardous Waste Program Cleanup Sites
  - Activity & Use Limitation Area
  - Site Area
- MAP LEGEND**
  - Active** - Sites undergoing investigation or remediation (represented by a red pin)
  - Long-Term Stewardship** - Sites with activity and use limitations (represented by a yellow pin)
  - Environmental Notice** - Sites where an environmental advisory may be warranted (represented by a purple pin)
  - Completed** - Sites suitable for unrestricted use (represented by a green pin)
  - Activity & Use Limitation Area** - Area subject to activity and use limitations (represented by a red outline)
  - Site Area** - Approximate area that comprises the site or permitted facility (represented by a blue outline)

### Radioactive Transportation Fee

Multiple state agencies met several important milestones in 2013 by utilizing revenues collected by the Radioactive Transportation Fee (RSMo 260.392). The Federal Facilities Section oversaw the shipment of 451 trucks and 899 railcars that transported low level radioactive waste through the state of Missouri. This year there were also 35 highway route controlled quantities of radioactive materials shipped requiring Missouri State Highway Patrol escort and Missouri Department of Health and Senior Services (DHSS) inspection.



Staff demonstrate the equipment purchased for first responders.



A Canberra Unit is a small, rugged, simple to operate radiation monitor that displays both the radiation levels and the total dose that is received. The department purchased 30.

The fee has also allowed DHSS and the department to provide training to over 250 first responders at 15 different classes across the state. The target audience for these trainings is emergency personnel that respond to and support first responder activities at radiological transportation accidents. The training of first responders is focused on communities along the major transportation corridors used by these radioactive shipments including some rail lines and highways such as I-35, I-44, I-55, and I-70. This translates into a training opportunity for up to 206 different municipalities throughout the state.

In 2013 the department also purchased radiation detection equipment, paid for by the transportation fee. Based on the number of first responder staff who attended the training, first response organizations such as fire districts and departments of public safety qualified for radiological detection equipment that will assist in detecting and measuring radioactive contamination at a first responder incident. The Highway Patrol also received pocket radiation alarms that notify the officers if they are near radioactive material. This equipment helps ensure first responders remain safe as they perform their urgent duties. This fee and the activities above will sunset in 2015 unless the statute is renewed.



Ludlum Kits package all the basic radiation measurement tools you're likely to need to handle a radiological emergency. The department purchased 15 kits in 2013.

### Brownfields/Voluntary Cleanup Program Certificates of Completions

Brownfields are real property, the expansion, redevelopment or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant or contaminant. Through this program, private parties agree to clean up a contaminated site and are offered some protection from future state and federal enforcement action at the site in the form of a “no further action” (NFA) letter or “certificate of completion” (COC) from the State.

The Brownfields/Voluntary Cleanup Program (BVCP) issued eight certificates of completion for various sites from October through December 2013. This brings the total number of certificates of completions to 710.

#### Conoco Inc.-Ohmes Road Pipeline - Cottleville

The Conoco Inc.- Ohmes Road Pipeline site is located northwest of the intersection of Ohmes Road and St. Peters-Cottleville Road in Cottleville. Analytical test results of soil samples indicated total petroleum hydrocarbons (TPH) concentrations above the department’s notification levels in soils immediately around the pipeline. The highest TPH concentrations were taken from soil boring 25 (SB-25) at nine feet below ground surface. Those TPH concentrations were 5,700 parts per million (ppm) as gasoline and 3,100 ppm as diesel fuel. Petroleum hydrocarbon-impacted groundwater was identified in the immediate area of the pipelines and extends along the pipelines from immediately north of Ohmes Road to approximately 530 feet north of Ohmes Road. Benzene concentrations ranged from 0.15 to 23 ppm immediately adjacent to the pipeline.

Site investigations revealed hydrocarbon impact to soils and groundwater during an environmental site assessment (ESA) for the sale of the property. In June of 1999, the owner drilled seven soil borings and converted these borings into monitoring wells. The owner also trenched beside and under the pipeline to conduct a visual inspection. In response to the visual inspection, a total of 909 tons of soil was excavated and properly disposed of off-site. In October of 1999 the City of St. Peters installed a new sanitary sewer line east of the existing pipeline. Soils potentially impacted were segregated for laboratory testing and approximately 700 tons were properly disposed of off-site from the sanitary sewer installation.

In 2005 Conoco’s contractor submitted a tier 1 risk assessment after several groundwater monitoring events. In the tier 1 risk assessment, all soil and groundwater concentrations have been delineated to residential risk-based target levels (RBTLs). Representative concentrations were calculated for soil and groundwater samples and are below the soil type 1 tier 1 RBTLs for non-residential use.

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A risk management plan for construction workers, who come into contact with the soils associated with past operations, was developed and approved. An environmental covenant was filed in the property chain of title that contains the risk management plan. The department determined that the site is safe for its intended use.

### **Family Dollar Store Property – St. Louis**

The Family Dollar Store Property - Kingshighway site is located at 721 and 727 Kingshighway Blvd., St. Louis. The site consists of four parcels located at the corner of Kingshighway Blvd. and Enright Avenue. The site historically served as a towing and auto repair shop. Tank removal activities were conducted in 1988 and 2011 and removed a total of seven underground storage tanks (USTs). The shop structure was built in the early 1930's and is estimated to be 83 years old.

Additional investigations conducted assessed any potential impact from former site use as a gas station and auto repair shop. A 2011 UST removal event and phase II assessment found petroleum related contamination above 1 tier 1 RBTL in the subsurface. The concentration and locations were consistent with a previous tank release. Environmental consultants for this site conducted surficial sampling in June of 2013 to address data gaps from previous investigations. Soil borings were placed near previous sub surficial sample locations. No impact was detected in relation to a hydraulic lift system, oil water separator or suspected former dumping pit. The department's Tanks Section concurs that residual contamination found during the investigation is related to the USTs previously located on site and therefore falls under the jurisdiction of department's Tanks Section. Since no additional impact was detected in relation to environmental concerns under the BVCP no site use limitations are necessary. The remaining contamination is addressed in a 2011 no further action letter issued by the department which limits the site to non-residential use.

The oil-water separator and hydraulic lift system remain on site. Suspect asbestos containing roof material also remains on site. The environmental consultant has been notified that the removal of these items could pose an environmental hazard and should therefore be handled according to applicable laws and standards. The department determined that the site is safe for its intended use.

### **Carter-Waters Corporation – Kansas City**

The Carter-Waters Corporation-West Pennway site is located at 2440 West Pennway Avenue in Kansas City. The site is three acres and used primarily for the distribution of construction

material, mainly concrete installation and forming products. The site was developed in the 1800s, and Carter-Waters has operated the site since the 1920s. In addition to the current operations, the site housed a concrete chemical production facility and an asphalt production facility.

Site investigations determined that elevated levels of arsenic, lead and benzo(a)pyrene were present in surface soil and chlorinated solvents were present in groundwater. Additional sampling was conducted to delineate soil contamination at the site and four quarters of groundwater sampling were completed. A tier 1 risk assessment was also completed, the results of which found arsenic, lead and benzo(a)pyrene exceeded tier 1 RBTLs for residential use, but not non-residential use and chlorinated solvents in groundwater exceeded drinking water standards. An environmental covenant is to be placed on the property, prohibiting residential use and domestic use of groundwater. The department determined that the site is safe for its intended use. The property will continue to be used for the distribution of construction material.

### **Analytical Bio-Chemistry Laboratories, Inc. - Columbia**

The Analytical Bio-Chemistry Laboratories, Inc. (ABC Laboratories) site is located at 7200 East ABC Lane in Columbia. ABC Laboratories constructed a single-cell, 13,500 square foot surface lagoon in 1986. The floor of the lagoon is native clay underlying accumulated sediments. The lagoon discharged to an application area and drain field, and served the sanitary needs of the facility until March 2, 2004. The effluent to the lagoon also included aqueous solutions from laboratory operations with trace amounts of radioactive materials and trace amounts of chemical wastes from analytical testing methods. ABC Laboratories enrolled the portion of the property containing the lagoon in BVCP to address the chemical wastes. Concurrently, they applied to the Nuclear Regulatory Commission (NRC) for decommissioning of the lagoon.

As part of the work conducted under BVCP oversight, sampling was conducted of soil, groundwater, creek sediment and surface water at the site. No chemical contaminants were found above the appropriate 2006 MRBCA RBTLs. Lagoon sediments were also sampled. Methylene chloride and 2-Methyl-4-chlorophenoxyacetic acid (MCPA) were found in lagoon sediments above RBTLs. As part of the risk assessment, representative concentrations of MCPA and methylene chloride were calculated. The representative concentration of methylene chloride was below RBTLs, but MCPA exceeded the RBTLs for surface soil and construction worker exposure. Sediment was removed from the lagoon floor, placed on the slopes of the lagoon and allowed to dry and receive exposure to sunlight. Following this, samples were taken of the sediment and levels of MCPA had fallen below RBTLs. Sediment was replaced in the lagoon in thin layers alternating with borrowed fill. MCPA may still be present in the lagoon floor at levels exceeding RBTLs, but at depths lower than the anticipated depth of construction worker exposure and should not pose a risk. Concurrent with enrollment in BVCP, ABC Laboratories applied for a

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license amendment request with the NRC. The NRC issued an environmental assessment with a determination that a finding of no significant impact is appropriate. The department determined this site is safe for its intended use.

This property will remain part of the ABC Laboratories facility, a contract laboratory providing chemical and biological testing services and custom synthesis services to the pharmaceutical and chemical industries.

### **Carondelet Commons Lot 5 Issued – St. Louis**

The Carondelet Commons Lot 5 site is located at 416 East Catalan Street in St. Louis. This parcel is part of the former Carondelet Coke Plant, now known as Carondelet Commons. Carondelet Coke operated to produce coke for various purposes, primarily metallurgical grade coke. Operations at the plant ceased around 1987. In the early 1990s, the City of St. Louis, namely the Land Reutilization Authority (LRA), became the owner of the site through tax default. This parcel, Lot 5, was utilized for some coal and coke storage and the facility parking lot.

Site characterization reports indicate no soil or groundwater contamination exists on this parcel, also known as area of contamination (AEC) #1, at levels exceeding the MRBCA guidance document's residential RBTLs. Three feet of clean fill was placed over the surface soil of this parcel in conjunction with the remainder of the former Carondelet Coke property. However, no remediation was required for AEC#1/Lot 5. This COC applies only to AEC#1/Lot 5.

Site characterization and remediation activities remain ongoing for the remainder of the former Carondelet Coke property, and separate COCs will be issued for the remainder of the site when appropriate. The department determined that the site is safe for its intended use. This site will be redeveloped for commercial or industrial use as part of the future Carondelet Commons.

### **TR Gaines Technical Building - Warrensburg**

The TR Gaines Technical Building site is located at 301 S. Macguire in Warrensburg. The University of Central Missouri's T.R. Gaines School of Technology Building was built in 1980, and is a three story brick building having a total of 66,375 square feet. The first floor has an area of 22,125 square feet, and serves as an automotive repair school. The building has served as the School of Technology since its construction, and was residential property prior to its construction. In early 2013, one of the hydraulic automobile lifts located on the first floor experienced a loss of hydraulic fluid. Soil and groundwater samples showed that a release of hydrocarbons did occur. Subsequently, a spill notification was generated on February 15, 2013. Approximately 80 gallons of hydraulic fluid was reported as potentially released to the subsurface.

A total of 52.22 tons of hydraulic fluid impacted materials were excavated and transported to the Show-Me Regional Landfill in Warrensburg. One water sample and four soil samples were collected for clearance. All samples results showed concentrations of Volatile Organic Compounds, Total Petroleum Hydrocarbons, and Polynuclear Aromatic Hydrocarbons, were either not detectable or below the 2006 MRBCA default target levels (DTLs). A single split sample of soil was collected by the BVCP project manager on June 17, 2013. Chemical analysis of the split sample showed concentrations of contaminants were below detection limits. Once the clearance samples results showed the impacted materials were removed, the site was backfilled with clean materials and capped with cement. The department determined that the site is safe for its intended use.

### **North Central Redevelopment – St. Louis**

The North Central Redevelopment site is located at 1024 North Sarah Street in St. Louis. The site originally consisted of undeveloped lots, a vacant single-family home and a two-story former retail building. As early as 1909 the site was residential with commercial and retail uses along North Sarah Avenue. Non-residential usage included: auto repair, dry cleaners, a fuel yard, an ice and fuel company, retail, a service station and a manufacturing facility. The fuel yard was the only non-residential land use in the center of the property. The structures were progressively demolished or abandoned beginning in the 1950s. Geotechnical test pit activities identified buried demolition debris across the site. A phase II assessment identified elevated levels of lead, mercury and polycyclic aromatic hydrocarbons (PAHs) in surface soils and buried demolition debris. Three USTs were located on the former service station property. ACMs were present in the residence and retail building.

The results of site-wide investigations did not reveal any evidence of groundwater impact, but did show elevated levels of lead and PAHs in surface soil and fill throughout the site and isolated hot spots of lead in four locations and mercury in one location. The results of a risk assessment, in accordance with the 2006 MRBCA Guidance, indicated that the hot spots exceeded the RBTLs for protection of construction workers and site-wide levels exceeded the target levels for protection of residents. Approximately 1,600 cubic yards of soil in the hot spots were removed and properly disposed of off-site. Two areas of broken ACM in fill were excavated and disposed of off-site and ACM was abated from the former structures before demolition. The USTs and associated piping from the former service station were removed and disposed of off-site and no soil contamination above the MRBCA DTLs was found in the UST excavation.

Site-wide surficial soil contamination, consisting primarily of PAHs and lead, was addressed by placing an exposure barrier over the entire site. This barrier consists of either a building slab, parking area, sidewalk, or placing a brightly colored “witness barrier” over contaminated soil and then placing a minimum of one-foot of clean soil over this barrier. A soil operation

and maintenance plan was created that will govern any future disturbance of soils at the site. The department determined that the site is safe for its intended use.

The site has been redeveloped into a multi-family, mixed-used development with residential, community and commercial space. The redevelopment was conducted in accordance with Enterprise Green Community criteria.

### **Better Family Life Cultural Center & Museum - St. Louis**

The Better Family Life Cultural Center & Museum site is located at 5415 Page Blvd in St. Louis. The site is 1.54 acres and comprised of three separate parcels located approximately one mile north of Forest Park in a mixed residential/commercial neighborhood. The main building, which was formerly known as the Ralph Waldo Emerson Elementary School, is a three-story brick structure with an attic, basement and gymnasium. The school was originally built in 1904 and operated until 2000. The other two parcels contain a parking lot, playground and large lawn and landscaped area. Better Family Life, Inc. purchased the property from the St. Louis Board of Education in 2005 and redeveloped it into an educational and cultural resource center including spaces for cultural events, meeting rooms, offices, work force initiatives and a museum.

The site enrolled in BVCP to remediate ACM, lead-based paint (LBP) and miscellaneous janitorial materials, such as solvents, paints, cleaners and etc. All painted surfaces within the building were assumed to contain LBP for the purposes of renovation and were scrapped flush to the substrate and stabilized. In addition, fluorescent bulbs and cleaning solvents and copier fluids were collected and disposed. An operation and maintenance plan, detailing the location and maintenance of remaining contaminants, was filed with the Recorder of Deeds for the City of St. Louis on Nov. 11, 2013. The department determined that the site is safe for its intended use.

With the help of tax credits from the Brownfield Redevelopment Program granted through Missouri Department of Economic Development the property has been redeveloped. The 60,000 square foot Better Family Life Cultural, Educational and Business Center is listed on both the Missouri State and the National Registry of Historic Landmarks. Designed and built by world renowned architect William B. Ittner, the Cultural Center complements the existing local and historic architecture and the redevelopment currently taking place in the surrounding neighborhoods. The Center will serve as national headquarters for Better Family Life operations and provide a one-stop shop for cultural and artistic learning, provide a myriad of needed social services, create and spawn new business development and entrepreneurial opportunities as well as promote community/resident engagement.

**Sites in Brownfields/Voluntary Cleanup Program**

Month	Active	Completed	Total
October 2013	245	703	948
November 2013	245	706	951
December 2013	245	710	955

**New Sites Received**

**Sites Closed**

<p><b>October</b></p> <ul style="list-style-type: none"> <li>• Antioch Crossing, Kansas City</li> </ul> <p><b>November</b></p> <ul style="list-style-type: none"> <li>• Concord Cleaners (former), Jefferson City</li> <li>• Howardville Mulit-Purpose Center, Howardville</li> <li>• Star Transport Highway M Release, Mt. Vernon</li> </ul> <p><b>December</b></p> <ul style="list-style-type: none"> <li>• Loretta Hall Townhomes, St. Louis</li> <li>• Chase Candy Building, St. Joseph</li> <li>• Ennis Paint (former), Cuba</li> <li>• St. Johns Methodist Church, St. Louis</li> <li>• Brown Transfer and Storage (former), Saint Joseph</li> </ul>	<p><b>October</b></p> <ul style="list-style-type: none"> <li>• Carter-Waters Corporation- West Pennway, Kansas City</li> </ul> <p><b>November</b></p> <ul style="list-style-type: none"> <li>• Conoco Inc.- Ohmes Road pipeline, Cottleville</li> <li>• Analytical Bio-Chemistry Laboratories, Columbia</li> <li>• Family Dollar Store Property - Kingshighway, St. Louis</li> </ul> <p><b>December</b></p> <ul style="list-style-type: none"> <li>• Carondelet Commons Lot 5, Saint Louis</li> <li>• Better Family Life Cultural Center &amp; Museum, St.Louis</li> <li>• North Central Redevelopment, Saint Louis</li> <li>• TR Gaines Technical Building, Warrensburg</li> </ul>
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## Missouri Department of Natural Resources - Hazardous Waste Program

### Drycleaning Environmental Response Trust Fund

The department's Drycleaning Environmental Response Trust (DERT) Fund provides funding for the investigation, assessment and cleanup of releases of chlorinated solvents from dry cleaning facilities. The two main sources of revenue for the fund are the dry cleaning facility annual registration surcharge and the quarterly solvent surcharge.

#### Registrations

The registration surcharges are due by April 1 of each calendar year for solvent used during the previous calendar year. The solvent surcharges are due 30 days after each quarterly reporting period.

Calendar Year 2012	Active Dry Cleaning Facilities	Facilities Paid	Facilities in Compliance
January - March 2013	186	71	38.17%
April - June 2013	186	159	85.48%
July - Sept 2013	186	167	89.78%
Oct - Dec 2013	186	175	94.09%

Calendar Year 2013	Active Solvent Suppliers	Suppliers Paid	Suppliers in Compliance
January - March 2013	11	11	100%
April - June 2013	12	12	100%
July - Sept 2013	12	12	100%
Oct - Dec 2013	12	8	66.67%

#### Cleanup Oversight

Calendar Year 2013	Active Sites	Completed Sites	Total
January - March 2013	25	11	36
April - June 2013	23	13	36
July - Sept 2013	22	14	36
Oct - Dec 2013	21	15	36

#### New Sites Received

**October** - None  
**November** - None  
**December** - None

#### Sites Closed

**October** - None  
**November** - None  
**December** - A G Cleaners,  
 Kirkwood

**Reimbursement Claims**

The applicant may submit a reimbursement claim after all work approved in the work plan is complete and the fund project manager has reviewed and approved the final completion report for that work. The fund applicant is liable for the first \$25,000 of corrective action costs incurred.

Month	Received	Under Review	Paid/Processed
October	3	7	3
November	0	4	1
December	7	3	1

Month	Received	Under Review	Paid/Processed
October	\$46,134.07	\$111,661.61	\$69,221.08
November	\$0.00	\$78,307.43	\$47,671.33
December	\$49,682.02	\$46,134.07	\$19,757.00

**Reimbursement Claims Processed:**

Site Name	Location	Paid
American Cleaners-University City	University City	\$54,041.02
Bright and Free Laundry & Dry Cleaners	St. Louis	\$3,105.00
Busy Bee Laundry	Rolla	\$47,671.33
Fenton Plaza 48	Fenton	\$19,757.00
Regal Cleaners	University City	\$12,075.06

**Total reimbursements as of December 31, 2013: \$2,421,731.95**

**DETR Fund Balance as of December 31, 2013: \$659,219.17**

### 2013 - A Year in Review

Each year, the Permits Section coordinates with the U.S. Environmental Protection Agency to prioritize activities at hazardous waste facilities subject to the section's oversight. The section and EPA jointly negotiate general activity goals for the section. The Performance Partnership Grant Work Plan, an overarching plan that covers the department's air, water and hazardous waste programs, list our sections general activity. The Permits Section and EPA's hazardous waste staff also negotiated specific current and future goals, which are contained in a related document called the Multi-Year Facility Planning Strategy. Together these documents guide the section in planning resources and performing activities for the current and future federal fiscal years (FFY).

The Multi-Year Facility Planning Strategy includes goals the section and EPA anticipate accomplishing if all of the section's staff positions are filled and all projects go relatively smoothly. The Multi-Year Facility Planning Strategy is a "living" document. The section and EPA routinely update projected tasks and project completion dates for a variety of reasons, such as staff turnover and resources, facility bankruptcy, permit appeals, corrective action dispute resolution, investigation findings leading to additional work, public comments and intervening short-term priorities. The section routinely updates EPA about the status of the section's goals based on the most recent information available and coordinates new projected completion dates with EPA for any delayed goals.

At the end of each FFY, the section prepares a report for EPA, documenting progress on all planned and unplanned activities during that fiscal year. The report focuses mainly on permitting, corrective action and groundwater inspection and evaluation activities. The following summary information is taken from the 2013 FFY report, which includes Oct. 1, 2012 through Sept. 30, 2013.

#### **Federal Fiscal Year 2013 Hazardous Waste Permitting Activities**

The section coordinated, both internally and with EPA, on the priority of individual projects and tasks as dictated by the National Corrective Action Prioritization System and Overall Priority Ranking System ranking for each facility, as well as goals established by the federal Government Performance and Results Act of 1993. Facility rankings are periodically revised to reflect current environmental and section/EPA project priorities. During 2013, the section did not adjust any facility rankings, but did adjust certain priorities in response to the Government Performance and Results Act goals and the needs of the regulated facilities.

During FFY 2013, the section completed the following permitting-related activities:

- Two permit renewals: one to International Paper Co. (post-closure/corrective action) and one to Mallinckrodt LLC (corrective action)
- Two class 3 permit modifications: one to EBV Explosives Environmental Co. and one to Green America Recycling LLC. Both modifications substantially updated many conditions in these previously-issued permits
- Two class 2 permit modifications: one to Lone Star Industries Inc. and one to Euticals Inc
- 10 class 1 permit modifications with prior director approval
- 17 class 1 permit modifications without prior director approval

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- One temporary authorization: The Doe Run Co. submitted a class 2 permit modification that the section evaluated and determined to be a class 3 permit modification. The section issued a temporary authorization for this modification while the section processes the permit modification.

During FFY 2013, the section made progress on the reissuance of 15 hazardous waste management facility permits and completion of three closures. Though not complete, the section is also working on the following permitting-related activities:

- Three class 3 permit modification requests (Doe Run, EBV Explosives and HazMat)
- Five class 2 permit modification requests.
- 34 class 1 permit modifications with prior director approval
- Seven class 1 permit modifications without prior director approval.

### **Federal Fiscal Year 2013 Corrective Action Activities**

During FFY 2013, the section made progress on many corrective action activities related to site investigation, monitoring and remediation. These activities are too numerous to list here in their entirety, but following are some of the highlights.

EPA and the states developed the Environmental Indicator evaluation process jointly as a way to demonstrate progress in protecting human health and the environment and meet the performance and results objectives. The two environmental indicators are called “Current Human Exposures Under Control” and “Migration of Contaminated Groundwater Under Control.” These measures evaluate current environmental conditions and assess whether people are currently being exposed to environmental contamination at unacceptable levels and whether any existing plumes of contaminated groundwater are expanding, stable or shrinking.

The section completed Environmental Indicator evaluations for the Chemical Recovery facility and determined human exposures to contamination and contaminated groundwater migration were under control. More information concerning the overall nature and scope of the environmental indicator evaluations is available in the September 2007 Hazardous Waste Management Commission Report, located online at [www.dnr.mo.gov/env/hwp/commission/docs/hwmc-qt-rpt-2007-4th.pdf](http://www.dnr.mo.gov/env/hwp/commission/docs/hwmc-qt-rpt-2007-4th.pdf).

During FFY 2013, the department did not impose any new agency-mandated interim measures on facilities; however, the facilities BFI and Holcim did implement interim measures to control releases to the environment at their sites. The section also approved other work plans and reports for incremental/phased work done in support of longer-term corrective action investigation and cleanup goals at several facilities. Alcolac Inc., Nestle Purina PetCare Co. and River Cement Co. completed final remedy construction, a high-priority national performance and results goal. The section also completed one final remedy decision, another performance and results goal, for Alcolac Inc.

EPA, in coordination with the states, previously developed a format for facility Ready for Anticipated Use (RAU) determination to demonstrate environmental progress at facilities. EPA requested the section incorporate RAU documentation preparation goals in the current Performance Partnership Grant Agreement. The commitment to prepare RAU documentation at appropriate times was included

in the Performance Partnership Grant Work Plan but not the Multi-Year Facility Planning Strategy. The section continues to track RAU status and prepare RAU documentation for facilities during the corrective action process. The RAU determinations are one of a continuum of ongoing EPA initiatives that are essentially unfunded federal mandates.

### **Federal Fiscal Year 2013 Groundwater Activities**

As part of the Performance Partnership Grant Work Plan, the state's EPA hazardous waste program authorization obligates the state to conduct periodic groundwater evaluations at selected hazardous waste facilities. The section conducts these evaluations at corrective action facilities with active groundwater monitoring programs and facilities with active and closed land disposal units such as landfills and surface impoundments, where groundwater contamination is present or needs monitoring to detect releases. These evaluations come in two forms, the comprehensive groundwater monitoring evaluation and the operation & maintenance (O&M) inspection. The comprehensive groundwater monitoring evaluation is an overarching evaluation of the facility's groundwater monitoring systems and programs. The O&M inspection is more focused on the examination of groundwater sampling plans, procedures and monitoring well maintenance issues. In each case, the section assesses compliance with the applicable groundwater monitoring regulations and permit conditions. The section continues to coordinate these evaluations with the department's Missouri Geological Survey and Environmental Services Program. Each evaluation includes the collection of split groundwater samples to compare and verify the results of samples collected and analyzed by the facility.

The section typically schedules five O&M reports for each FFY. During FFY 2013, no comprehensive groundwater monitoring evaluations were scheduled. All fieldwork for the five O&M reports scheduled for FFY 2013 were completed; however, the associated reports were not completed during the FFY. The section completed the 2012 TRW O&M report during FFY 2013 and the 2012 Solutia Queeny O&M report Oct. 2, 2013. The section anticipates completing the five 2013 O&M reports by the end of the third quarter of FFY 2014. The section also expects to complete four other O&M reports that were carryovers from 2010 and 2011, KCI, Safety Kleen Springfield, Safety Kleen St. Charles and Univar KC, and the 2012 GETS Global Signal O&M report by the end of the second quarter of FFY 2014. The 2012 BASF and Expert Management O&M reports are awaiting final management review. The delays in report finalization are mainly the result of management and staff turnover and competing priorities.

In FFY 2013, the section carried out advanced planning for O&M reports scheduled for completion in FFY 2014. The section reviewed and selected the facilities and appropriate wells for sampling and developed work plans with the department's Environmental Services Program and the Missouri Geological Survey. The fieldwork for one of the FFY 2014 O&M reports was completed during the fourth quarter of FFY 2013. The section anticipates being on-schedule for all FFY 2014 O&M reports.

In addition to O&M reports and comprehensive groundwater monitoring evaluations, the section routinely performs a detailed review of groundwater reports submitted by the facilities, using comprehensive internal checklists. These reviews identify both minor and potentially significant shortcomings with report content or project issues. Since there has been a long history of these

reviews and feedback to facilities, any shortcomings from current reviews are usually minor and the section usually includes the findings in the facility's next O&M report or comprehensive groundwater monitoring evaluation. The section sends significant issues that might influence the representative nature of groundwater samples or data, regulatory compliance or otherwise affect project progress, to the facility when discovered, rather than waiting until the next O&M report or comprehensive groundwater monitoring evaluation. The section handles regulatory compliance issues of major concern promptly through appropriate enforcement actions. During FFY 2013, the section completed 27 groundwater report reviews.

### **Financial Assurance Activities**

Owners and operators of facilities actively handling hazardous waste as an interim status or permitted treatment, storage or disposal facility and facilities with post-closure care or corrective action obligations under other regulatory instruments (e.g., consent orders) are required to meet certain financial assurance and third party liability requirements. This ensures they will have enough funds set aside to close their facility, cleanup any releases of hazardous wastes or hazardous constituents and compensate third parties for bodily injury or property damage resulting from the release of those wastes or constituents, even if the facility declares bankruptcy.

The facility owners and operators submit closure, post-closure or corrective action plans, as applicable, cost estimates based on those plans and financial assurance instrument documents to the department. The section monitors the facility's financial health and conducts annual financial assurance reviews to make sure enough funding is available to cover the cost estimates for their activities. During FFY 2013, the section conducted 93 Resource Conservation and Recovery Act (RCRA) financial reviews. This number includes six Resource Recovery financial assurance reviews, three of which are also TSD facilities. The section does not enter Resource Recovery financial assurance inspections into EPS's Resource Conservation and Recovery Act Information (RCRAInfo) database since this is a state program. More information concerning financial assurance requirements is available in the March 2009 Hazardous Waste Management Commission Report, located online at [www.dnr.mo.gov/env/hwp/commission/docs/hwmc-qt-rpt-2009-1st.pdf](http://www.dnr.mo.gov/env/hwp/commission/docs/hwmc-qt-rpt-2009-1st.pdf).

### **Data Management Activities**

The section tracks, both internally and externally, all section activities and accomplishments. The section uses its Master Task List database and the Division of Environmental Quality's Permit Action Management System database for all internal tracking. The section and EPA use EPA's RCRAInfo database for external tracking. EPA relies almost exclusively on the information entered into RCRAInfo to assess project progress and achievement of regional and national Government Performance and Results Act goals. The section enters permitting, corrective action, financial assurance, inspection, enforcement, institutional control and geographic information system (GIS) information into RCRAInfo for all state- and joint-lead activities. The section negotiates additional data entry obligations with EPA and outlines them in the Performance Partnership Grant Work Plan.

The section typically enters data in RCRAInfo as soon as a milestone or goal is achieved, but in no case more than 30 days after the event has occurred or documentation regarding the event

is received. The section assesses the accuracy of historical state and EPA data as it makes new entries. The section corrects errors for State and joint database entries and forwards potential corrections to EPA's database entries to EPA's Missouri State Coordinator for reconciliation by EPA.

#### **Other Activities**

The section uses the Multi-Year Facility Planning Strategy process to identify and prioritize major tasks associated with individual projects. The Multi-Year Facility Planning Strategy document does not capture the many "unplanned" activities that come about during the year, including facility-proposed permit modifications and incremental/phased work done in support of the listed Multi-Year Facility Planning Strategy goals. The section can substitute completion of some of the unplanned work for equivalent planned work, to address federal grant requirements for formal Multi-Year Facility Planning Strategy goals that the section could not complete as planned.

In addition to facility-proposed permit modifications and incremental/phased work, unplanned activities include such things as facility-proposed interim measures, newly-identified Solid Waste Management Unit and area of concern investigations, ongoing involvement in national permitting and corrective action initiatives, permit modifications and state resource recovery certification and modification activities. The section reports all completed planned and unplanned activities to EPA in attachments to the section's comprehensive annual report.

During FFY 2013, the section spent considerable time and resources on several activities related to the DOE/GSA-Bannister Federal Complex. Activities included weekly issues reports, weekly EPA/State technical staff teleconferences and numerous website updates to make various documents available to the public. Since the entire federal complex was brought under the permit, the section has spent additional time reviewing documents required by the permit modification compliance schedule, including a revised community involvement plan; revised sampling and analysis plan; updated long-term operation, maintenance and monitoring plan; updated spill control/emergency plan and a Polychlorinated Biphenyl (PCB) fate and transport study work plan.

The section also spent considerable time and resources following up on facility bankruptcy issues including review, approval and reconciliation of proposed expenditures of trust fund monies recovered during bankruptcy proceedings to perform facility maintenance and monitoring. Section staff also provided post-bankruptcy information and technical support to department managers, legal staff and the Missouri Attorney General's office regarding bankruptcy-related issues.

The section spent considerable time and resources on bankruptcy issues related to the following companies:

- Exide Technologies - Forest City
- Greenfield Environmental Trust LLC (formerly Tronox) - Kansas City
- Greenfield Environmental Trust LLC (formerly Tronox) - Springfield

## Missouri Department of Natural Resources - Hazardous Waste Program

The section provided substantial technical support to the program's Natural Resources Damages (NRD) staff. There are two staff members jointly assigned to NRD and the Permits Section and were assigned to several sites. Tasks included reviewing reports, participating in scoping meetings, monthly technical conference calls, and public meetings and creating GIS based maps and multiple habitat equivalency analyses. Staff completed these tasks to evaluate potential NRD claims. Staff supported presentations, attended NRD Counsel meetings and reviewed the Southeast Missouri Regional Restoration Plan.

The section provided support for development of the Hazardous Waste Program's new interactive mapping system, available online at [www.dnr.mo.gov/molts](http://www.dnr.mo.gov/molts). This interactive website was designed as a resource that allows users to conduct a map-based search for hazardous substance investigations and cleanups, view or download site summaries and documents and download data layers to local government, utilities, etc. internal GIS in order to incorporate review of environmental activity and use limitations into permitting, planning and development activities. The Permits Section performed in-depth reviews of files, documents, location specifics and other information related to each project/site in our site universe. History and corrective action activity summaries for each site became part of the online information system. To make the Permits Section information available, Permits Section staff created a database to upload information for our site universe on a monthly basis.

Section staff continue to routinely participate in monthly national EPA/State teleconferences including:

- EPA Groundwater Forum
- State Hazardous Waste Forum
- National Enforcement Strategy for Corrective Action Workgroup
- National Corrective Action Project Lean
- RCRA Financial Assurance Workgroup
- RCRA Permit Writers Workgroup
- RCRA Reuse and Brownfields Prevention Workgroup
- RCRA/TSCA Remediation Workgroup
- RCRAInfo Change Management Process Financial Assurance Expert and Permitting/Closure groups
- RCRAInfo Data Workgroup.

Section staff also participate in two Association of State and Territorial Solid Waste Management Officials, or ASTSWMO, Hazardous Waste subcommittees:

- Program Operations Task Force
- Hazardous Waste Recycling Task Force

## Permit Modifications List Available Online

Facilities or businesses that actively treat, store - for longer than 90 days - or dispose of hazardous waste in Missouri must get a hazardous waste permit, which lists how and what kinds of hazardous waste the facility is allowed to managed. It also contains the facility's operating conditions and closure, corrective action and financial assurance requirements.

The department or the facility can make changes to the hazardous waste permit throughout its life. The regulations label facility-initiated permit modifications as Class 1, 2 or 3, depending on how much they change the original permit conditions. The regulations do not break down department-initiated permit modifications by class. The department is inviting the public to review the list of all approved hazardous waste permit modifications for calendar year 2013. The permit modifications list is online at [www.dnr.mo.gov/env/hwp/permits/publications.htm](http://www.dnr.mo.gov/env/hwp/permits/publications.htm).

For more information or a hard copy of the list, contact the department's Hazardous Waste Program, Permits Section, at 800-361-4827. Hearing and speech impaired individuals may reach the department through Relay Missouri at 800-735-2966.

## Compliance and Enforcement Section Quarterly Report October - December 2013

### Regional Office Hazardous Waste Compliance Efforts

- Conducted 116 hazardous waste generator compliance inspections:
  - o 12 at large quantity generators
  - o 50 at small quantity generators
  - o 28 at conditionally exempt small quantity generators
  - o Six at E-waste recycling facilities
  - o One targeted re-inspection
- Conducted nine compliance assistance visits at hazardous waste generators
- Issued 31 letters of warning and five notices of violation requiring actions to correct violations cited during the 116 inspections conducted.
- Received and investigated a total of 42 citizen concerns.

### Underground Storage Tank Compliance and Technology Unit

New regulation changes are underway. To comply with the Environmental Protection Agency (EPA) requirements, the department will require all new underground storage tank (UST) systems installed after July 1, 2017, to be double-walled with improved monitoring. The new regulations will also include Missouri specific improvements, as well as the “new” federal regulation changes which are expected to be published this spring. UST Compliance and Technology Unit (CTU) staff has already begun outreach efforts through the Missouri Petroleum Storage Tank Insurance Fund (PSTIF) and the Missouri Petroleum Marketers and Convenience Store Association. In December, staff from the department, Missouri Department of Agriculture and PSTIF conducted outreach meetings in Cape Girardeau, St. Louis, Springfield and Kansas City to discuss equipment concerns with manufacturers and contractors, as well as the proposed regulation changes. The department requested input on all of the proposed changes. Stay tuned for news about Missouri’s Operator Training Program in the next report!

### Tank Inspection Efforts

This year’s inspection cycle is more than half over and Missouri owners, operators and contractors continue to demonstrate their proactive compliance, responsiveness to issues when found and willingness to be a partner in ensuring all Missouri USTs are in compliance. To comply with EPA requirements, all facilities must be inspected at least every three years. Furthermore, the department must demonstrate all facilities are either in compliance or are moving to gain compliance. This goal is much easier to accomplish when owners, operators, contractors and regulators are all working together to address problems at facilities.

### Out-of-use Tank Efforts

The UST CTU staff continue to make tremendous efforts and are achieving good results in prompting responsible parties to close out-of-use tanks or take other appropriate site specific actions. During October through December 2013, CTU staff communicated with approximately 218 owners and operators of these facilities to encourage permanent closure of the tanks. To date, these efforts have resulted in the submittal of 49 closure notices from facilities planning to permanently close their out-of-use tanks.

### **Tank Enforcement Efforts**

In addition to work on the out-of-use tank sites noted above, efforts continue to resolve violations with facilities that did not maintain financial responsibility (FR) to address releases and to protect third parties. During this second quarter of State Fiscal Year 2014, the UST CTU staff completed eight administrative orders on consent for UST facilities with financial responsibility (FR) violations. Through these, UST CTU staff and the Attorney General's Office continue to keep the number of facilities without a verified financial responsibility mechanism to less than 30.

### **Special Facilities Unit**

**Commercial Facility Inspectors** - Special facilities inspectors conducted 13 inspections of commercial hazardous waste treatment/storage/ disposal facilities (TSDs), one of which resulted in the issuance of a notice of violation.

**Polychlorinated Biphenyl (PCB) Inspector** - The inspector conducted 19 compliance inspections at various types of facilities throughout the state. Two samples were taken and no violations were observed. The inspector's reports are forwarded to the U.S. EPA Region 7 which has authority for taking any necessary enforcement action regarding PCBs according to the Toxic Substances Control Act.

**Hazardous Waste Transporters** - As of Dec. 31, 2013, there were 275 licensed hazardous waste transporters in Missouri.

### **Hazardous Waste Enforcement Unit Enforcement Efforts**

- Resolved and closed two hazardous waste enforcement cases.
- Received five new enforcement cases.
- Sent one penalty negotiation offer letter.

### **Ranken Technical College – St. Louis**

Ranken Technical College is a private trade school located in St. Louis. The facility failed to: register as a hazardous waste generator; determine if waste was hazardous; use a licensed hazardous waste transporter; use a permitted treatment, storage or disposal facility; update notification as required; keep containers closed in storage; store containers of ignitable waste greater than 50 feet from the property line; mark the start date of accumulation on containers; mark "Hazardous Waste" on hazardous waste containers; inspect and maintain the facility weekly; conduct daily inspections of areas subject to spills; have placards available for the transporter; post "No Smoking" signs near ignitable or reactive waste; keep satellite containers closed; place satellite containers in storage within three days of filling; mark the container with identifying contents and beginning date of accumulation; store satellite containers at or near the point of generation and under the control of the operator; operate and maintain the facility to minimize the possibility of emergency; have adequate spill control, decontamination and safety equipment available; have the emergency coordinator's name posted near the telephone; post the location of fire extinguishers near the telephone; have employees familiar with waste handling and emergency procedures; have a device in the hazardous waste operation area capable of summoning

## Missouri Department of Natural Resources - Hazardous Waste Program

emergency assistance; use manifest system; determine if the waste is restricted from land disposal; include on manifest the proper DOT shipping name, hazard class and waste identification number; include on manifest the type of container and quantity; include in the notification/certification of the land disposal restriction notice the correct Environmental Protection Agency hazardous waste number; notify the department of exempt resource recovery activities; mark or label containers as “Used Oil” and clean up any spills or leaks of used oil.

As a result of the department’s actions, the facility made proper hazardous waste determinations on all their waste streams, properly shipped off all their hazardous waste and developed and implemented a new and much more extensive training program in hazardous waste management for employees and students.

The penalty is \$33,444, of which \$13,444 is suspended contingent on the facility not committing any repeat or Class I violations for two years following the effective date of the settlement agreement. The remaining penalty of \$20,000 shall be paid in four payments of \$5,000 each to the St. Louis City Fund.

The actions taken by the company will result in better or increased protection of the environment and adjoining property and persons and safer working conditions for employees.

### **Heritage Environmental Services – Kansas City**

Heritage Environmental Services is a permitted treatment, storage and disposal facility located in Kansas City. The facility failed to operate and maintain the facility in a manner to minimize the possibility of an emergency, resulting in a fire.

As a result of the department’s actions, the facility installed new fire detection equipment and established better waste segregation/identification procedures.

The penalty of \$6,000 was paid to the Clay County School Fund. The actions taken by the company will result in better or increased protection of the environment and adjoining property and persons and safer working conditions for employees.

### **Second Annual Missouri Hazardous Waste Seminar**

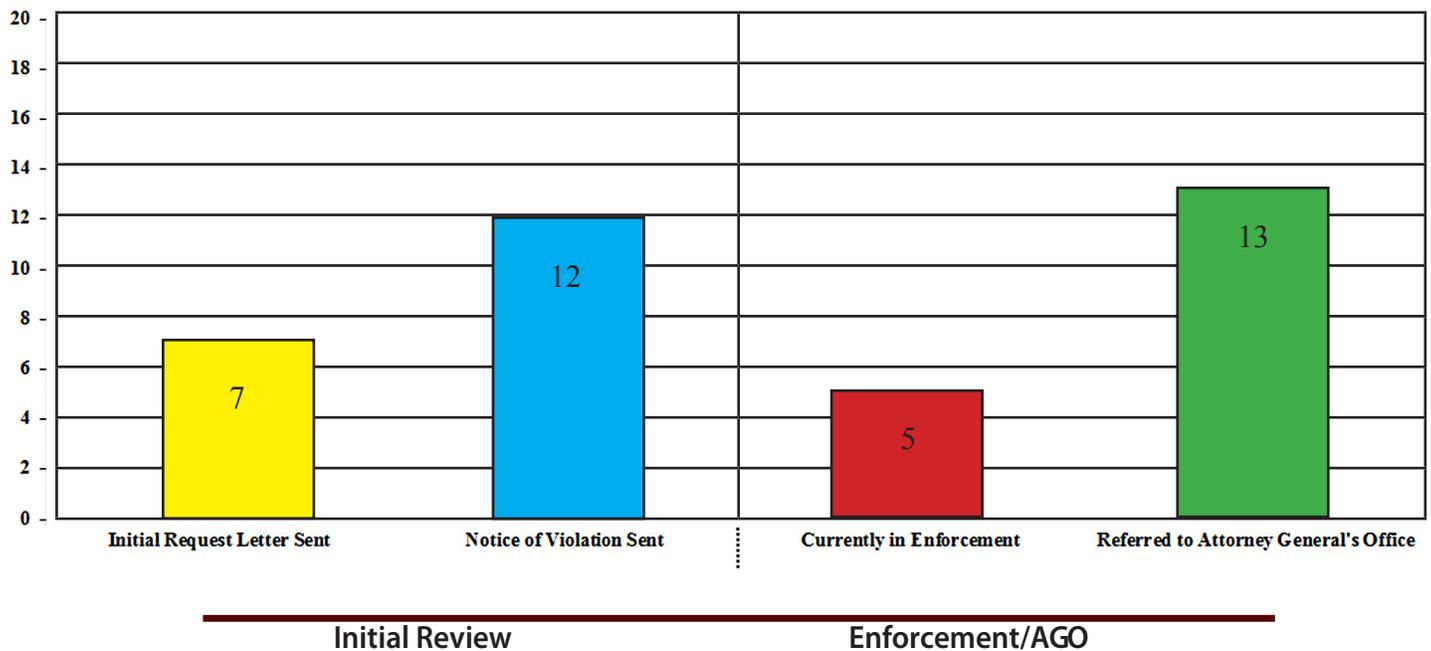
On Nov. 5, 2013, staff from the Hazardous Waste Enforcement Unit attended the Second Annual 2013 Missouri Hazardous Waste Seminar hosted by REGFORM in conjunction with the department’s Hazardous Waste Program. It provided a unique opportunity to gain and provide first-hand knowledge regarding a wide range of issues facing permitted generators in Missouri. Experts from the department, who administer the Hazardous Waste Program, EPA staff and those who advise Missouri facilities on regulatory and compliance matters were the featured speakers. Topics discussed included: a brief re-cap of the most important hazardous waste issues of the last year; a Hazardous Waste Program overview and update; the new federal solvent wipes rule; the coal combustion residuals federal rulemaking; eManifesting; RCRA empty pill bottles that contained pharmaceuticals on the P List of commercial chemical products and Top Ten “Not So Obvious” compliance issues.

# Missouri Department of Natural Resources - Hazardous Waste Program

## ENFORCEMENT

### Underground Storage Tank Facilities with Unknown Financial Responsibility Status Report

Financial Responsibility Status	Number of Facilities
Initial Request Letter Sent	7
Notice of Violation Sent	12
Currently in Enforcement	5
Referred to Attorney General's Office	13
<b>Total Number of Facilities with Unknown Financial Responsibility</b>	<b>37</b>



*\*This semi-monthly report is derived directly from a copy of the UST Database and provides a "snapshot" of the status for each active underground storage tank facility not covered by a proper Financial Responsibility Mechanism.*

## Annual Underground Storage Tank Sources and Causes Report

The department's Tanks Sections Annual Public Record Report for the period of Oct. 1, 2012, through Sept. 30, 2013 was completed in December 2013. The department has placed this report on the Tanks section website at [dnr.mo.gov/env/hwp/tanks/tanks.htm](http://dnr.mo.gov/env/hwp/tanks/tanks.htm). The report is located under the quick links. This report will also be made available by request to those that do not have Internet access.

Subsection (c) of Section 1526 of the Energy Policy Act amended Section 9002 in Subtitle I of the Solid Waste Disposal Act to add requirements for states to maintain, update and make available to the public a record of underground storage tanks (USTs) regulated under Subtitle I. The Environmental Protection Agency (EPA) requires each state receiving funding under Subtitle I to meet the public record requirements. Subsection (d) of Section 9002 in Subtitle I requires EPA to prescribe the manner and form of the public record and says the public record of a state must include:

1. The number, sources and causes of UST releases in the state.
2. The record of compliance by UST in the state with Subtitle I or a state program approved under Section 9004 of Subtitle I.
3. Data on the number of UST equipment failures in the state.

The first section of the report describes the number of UST facilities, individual regulated tanks, compliance rates in Missouri and an individual breakdown of the sources and causes of releases opened in Federal Fiscal Year 2013. A total of 97 releases were opened at underground storage tanks in Federal Fiscal Year 2013. This included two instances physical or mechanical damage to piping, one instance of physical or mechanical damage to a dispenser, two delivery problems (overfill or other), one installation problem at the piping and ninety one historical releases (unknown source). The unknown releases were discovered during tank closure, phase II investigations during property transactions, or other investigations but a definitive source or cause of release was not able to be determined.

The website also includes reports on the sources and causes of UST leaks for previous years. The first report was completed in December of 2008.

## Tanks Accomplishments for 2013

- Held the 6th Annual UST workshop as part of the Missouri Waste Coalition Conference in June. The topics included changes to the Missouri Risk-Based Corrective Action (MRBCA) for petroleum tanks, new monitoring well regulations, training on the Ricker Plume Stability method and other remediation topics.
- Compliance and Enforcement staff co-hosted an outreach program with visits to four major cities in Missouri. The program outlined equipment issues, common violations, alternative fuel issues and potential upcoming regulatory changes.
- The Tanks Section and Compliance and Enforcement Section participated in the Planning Team for the National Tanks Conference held in Denver in September 2013.
- Compliance and Enforcement staff gave two presentations at the National Tanks Conference.
- Tanks Staff are participating on a workgroup for the International Technology and Regulatory Council on Petroleum Vapor Intrusion.

## Missouri Department of Natural Resources - Hazardous Waste Program

### TANKS

- The Compliance and Enforcement Section continues to provide a staff member to the National Work Group on Leak Detection Evaluations, including reviewing the Battelle research project on alternative fuels and release detection equipment.
- The Tanks Section continued participation on the UST ASTSWMO Federal Rulemaking Group. This group is tasked with providing regulatory and state input into rulemaking involving federal UST regulations.
- The Tanks Section continued participation on the ASTSWMO Core Report Work Group. This work group was tasked with production of a report on the cost to run a UST Program. This report is scheduled for release in 2014.
- Compliance and Enforcement and Tanks staff presented at the National Institute for Storage Tank Management's 4th annual Missouri Storage Tanks Conference.
- The Tanks and Compliance and Enforcement Section provided technical assistance at the annual PACE convention in Kansas City in February. This is an annual trade show that Missouri owned marketers and convenience store officials participate in.
- Continued an expedited review process ensuring that remediation reviews of high priority sites are completed in a timely manner.
- Continued an initiative on closing tank remediation sites that have been open for more than 20 years. The goal is to help provide additional information to the consultant to facilitate completion of these projects and help to achieve no further action status for these sites.
- The Compliance and Enforcement Section began discussions on rulemaking for secondary containment.
- The Tanks Section continues to investigate drinking water contamination in Portageville and is conducting additional investigation to determine the source of contamination.
- In Buffalo, the Tanks Section has placed a filter on a private well. And received grant funding to perform source removal and well replacement.
- In Potosi, the Tanks Section is currently determining the source of a private drinking water well contamination. Public water has recently been made available to the residents, so no further use of filters on drinking water wells is necessary.
- In Gravois Mills, the Tanks Section installed a carbon filtration system on a private drinking water well based on complaints. The property owner has drilled a new well.
- The Tanks Section completed work on a grant of \$43,000 to conduct cleanup activities at several former gasoline stations previously investigated with American Recovery and Reinvestment Act (ARRA) funds for which a responsible party does not exist. At these sites, actions by the department are necessary to mitigate unacceptable human health and environmental risks posed by petroleum USTs on the sites. This project would look to fund work by the department and contractors hired by the department to reduce risks associated with these sites. A report on these activities was submitted to EPA in 2013.

## Missouri Department of Natural Resources - Hazardous Waste Program

### TANKS

- The Tanks Section completed work on a grant of \$94,000 to assess and clean up contamination released from federally regulated UST's. This money was received to address former sites on Old Route 66.
- The Tanks Section received a grant of \$125,000 that will be used to replace funding for some previous federal budget cuts and should allow us to provide some overtime to staff to reduce turn-around times on document reviews. We may also be able to assign additional state personnel or to hire one or more private contractors and provide state oversight of work on tanks sites. With these additional funds, we estimate that we can increase the number of cleanups using the MRBCA guidance and decrease turnaround times.
- The Tanks Section received a grant of \$175,000 to conduct investigation, cleanup or well replacement at abandoned drinking water impacted sites. The department will use the funding to provide alternative sources of drinking water at several sites where private drinking water wells have been impacted by petroleum releases. Priority will be given to impacted sites that there is no viable responsible party for the cleanup or funding available from other sources to provide safe drinking water.
- The Budget and Planning Section continued to refine the system for tracking financial responsibility (FR) to identify all sites without FR. The Compliance and Enforcement Section continued to take actions to assure sites without FR would obtain coverage and to pursue penalties for sites that had not maintained FR. These actions helped maintain a high compliance rate of over 99% for facilities with acceptable FR.
- The Budget and Planning Section Generated, processed and mailed fee cycle invoices for 2013 - 2018. Extra effort was made to reach the facilities/owners. Out of 969 invoices, only 31 facilities still have a balance due, resulting in a success rate of revenue collection of 97%.
- Remediation Mail Tracking was further developed in 2013. Tanks Section staff continued to add sites to the tracking system in 2013. This system helps to ensure correspondence is dealt with in a prompt and consistent manner. This tracking system is directly linked to the mail log so as soon as the mail is received and entered the project manager is immediately notified.
- The Hazardous Waste Program (HWP) continued an "out of use" tank initiative aimed at ensuring that tanks are not out of use beyond the 12 months without conducting a site assessment. In addition, the initiative is requiring tanks that have been out of use for more than five years to be permanently closed. This has led to permanent closure at many of these sites and a reduction of out of use tanks.
- The Tanks Section continues to participate in a historic highways revitalization project and has identified several opportunities in Missouri for EPA Targeted Brownfields Assessments (TBA). This effort led to a project with St. Louis Development Corporation in the St. Louis area, and resulted in meeting with the City of Kansas City, MO on development of a proposal for Brownfields planning and potential TBA work in 2014.
- The Tanks Section produced the 6th annual Public Record Report to the EPA in December 2013. This report includes the sources and causes of releases of tanks in Missouri.
- The Tanks Section completed a new fact sheet clarifying which documents require a professional seal
- The HWP completed revisions to the Tanks RBCA guidance and implemented rulemaking that will be effective in February 2014.

## Missouri Department of Natural Resources - Hazardous Waste Program

### TANKS

- The Tanks section continued to maintain an average turn-around time of 41.84 days that meets section goals.
- The Tanks Section was able to maintain a reduced turn-around time on closures of less than 13 days throughout much of 2013.
- The Compliance and Enforcement staff continue to try to help resolve problems associated with vapor recovery equipment and its effect on release detection equipment.
- The Compliance and Enforcement Inspection team conducted 140 new installation inspections. The inspection team also continues to maintain their training, often direct from the manufacturers, on proper installation of tanks, piping and other equipment.
- During calendar year 2013, the department accomplished the following work related to petroleum storage tanks:
  - o Properly closed 331 tanks
  - o Reviewed 128 closure reports
  - o Approved 144 closure notices
  - o Conducted 33 closure inspections
  - o Conducted 5 site investigations
  - o Responded to 14 emergencies involving petroleum releases.
  - o Oversaw completion of 116 remediation sites
  - o Issued 963 certificates of registration.
  - o A total of 104 new releases were reported during calendar year 2013.
  - o Remediation staff received 2,101 remediation documents and generated 1,647 response letters.
  - o Department staff were notified of 63 new installations at tank sites and received 59 new site registrations
  - o Compliance and Enforcement Section staff resolved 71 cases involving violations
  - o At the end of the 2013 calendar year, there were 161 active enforcement cases
  - o Financial responsibility compliance was at 98.6 percent. This number reflects insurance coverage from both PSTIF and other private policies and statements.
  - o The department currently regulates 3,517 facilities with 9,168 active underground storage tanks.
- The Tanks Section finalized, routed for review and signature, copied and mailed 2,153 documents.
- The Tanks Section continued to review and modify existing procedures to ensure accuracy and efficiency.
- The Compliance and Enforcement Inspection review team conducted and/or reviewed 1,144 inspections (including new installations, re-inspections, site visits, complaint and other investigations as well as standard compliance inspections) and sent more than 1,400 letters (including letters of warning and notices of violation) on UST inspections. This team also answers many equipment and operational site questions via telephone and e-mail. The team also regularly provides technical assistance, public outreach, regulatory interpretations and equipment explanation to other department staff, other agencies, the regulated community, contractors, manufacturers and the general public.

Missouri Department of Natural Resources - Hazardous Waste Program

Petroleum Storage Tanks Regulation  
December 2013

Staff Productivity	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	TOTAL
Documents received for review	185	220	179	198	167	172	0	0	0	0	0	0	1,121
Remediation documents processed	146	158	166	171	118	138	0	0	0	0	0	0	897
Closure reports processed	14	5	12	13	6	4	0	0	0	0	0	0	54
Closure notices approved	11	18	15	10	16	7	0	0	0	0	0	0	77
Tank installation notices received	4	6	6	5	5	3	0	0	0	0	0	0	29
New site registrations	5	3	4	1	3	4	0	0	0	0	0	0	20
Facility Data	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	TOTAL
Total in use, out of use and closed USTs	40,594	40,610	40,624	40,641	40,656	40,663	0	0	0	0	0	0	
Total permanently closed USTs	31,392	31,406	31,424	31,453	31,475	31,495	0	0	0	0	0	0	
In use and out of use USTs	9,202	9,204	9,200	9,188	9,181	9,168	0	0	0	0	0	0	
Out of use USTs	853	870	867	853	845	824	0	0	0	0	0	0	
Total hazardous substance USTs	399	399	399	399	400	400	0	0	0	0	0	0	
Facilities with in use and out of use USTs	3,525	3,527	3,525	3,516	3,517	3,517	0	0	0	0	0	0	
Facilities with one or more tank in use	3,233	3,229	3,226	3,223	3,225	3,232	0	0	0	0	0	0	

Closures

Underground Storage Tanks	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	TOTAL	All Yrs
Closure Reports Reviewed	14	5	12	13	6	4	0	0	0	0	0	0	54	
Closure Notices Approved	11	18	15	10	16	7	0	0	0	0	0	0	77	
Number of Tanks Closed (Closure NFA)	17	30	42	11	28	8	0	0	0	0	0	0	136	

Cleanup

Underground Storage Tanks	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	TOTAL	All Yrs
UST release files opened this month	9	6	8	5	7	4	0	0	0	0	0	0	39	6,553
UST cleanups completed this month	7	6	13	3	9	2	0	0	0	0	0	0	40	5,675
Ongoing UST cleanups	879	879	873	874	874	878	0	0	0	0	0	0		
Aboveground Storage Tanks	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	TOTAL	All Yrs
AST release files opened this month	0	1	0	1	1	3	0	0	0	0	0	0	6	468
AST cleanups completed this month	1	1	3	1	2	0	0	0	0	0	0	0	8	276
Ongoing AST cleanups	192	192	187	190	189	192	0	0	0	0	0	0		
Both UST and AST	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	TOTAL	All Yrs
Total release files-both UST & AST	0	0	0	0	0	0	0	0	0	0	0	0	0	76
Cleanups completed-both UST & AST	0	0	0	0	1	0	0	0	0	0	0	0	1	47
Ongoing cleanups-both UST & AST	29	29	29	29	29	29	0	0	0	0	0	0		
Unknown Source	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	TOTAL	All Yrs
Total release files-unknown source	1	0	7	2	1	3	0	0	0	0	0	0	14	226
Cleanups completed-unknown source	1	0	4	1	0	1	0	0	0	0	0	0	7	181
Ongoing cleanups-unknown source	20	20	24	22	21	20	0	0	0	0	0	0		
Documents Processed	146	158	166	171	118	138	0	0	0	0	0	0	897	
*Reopened Remediation Cases	0	0	0	0	1	0	0	0	0	0	0	0	1	77

\*Reopened Remediation Cases was added Nov. 18, 2009 - the cumulative total has been queried and a running total will be tracked/reported with the FY 2010 Tanks Section Monthly Reports.

Effective December 2008 tanks with unknown substance will be included in total figures. 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.