



MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

DRAFT

NOTICE OF OPEN MEETING

The meeting will also be streamed live from the Department's website at:
dnr.mo.gov/videos/live.htm.

**DEPARTMENT OF NATURAL RESOURCES
HAZARDOUS WASTE PROGRAM
HAZARDOUS WASTE MANAGEMENT COMMISSION
AGENDA**

August 21, 2014

**Department of Natural Resources
Bennett Springs/Roaring River Conference Rooms
1730 E. Elm Street
Jefferson City, MO 65102**

Note: Persons with disabilities requiring special services or accommodations to attend the meeting can make arrangements by calling the commission assistant at (573) 751-2747, or writing to the Hazardous Waste Program, P.O. Box 176, Jefferson City, MO 65102. Hearing impaired persons may contact the Hazardous Waste Program through Relay Missouri at 1-800-735-2966.

9:45 A.M. EXECUTIVE (CLOSED) SESSION

In accordance with Section 610.022 RSMo, this portion of the meeting may be closed by an affirmative vote of the Commission to discuss legal matters, causes of action or litigation as provided by Subsection 610.021(1). RSMo.

10:00 A.M. GENERAL (OPEN) SESSION

The General (Open) Session will begin promptly at 10:00 a.m., unless an Executive (Closed) Session has been requested; after which, the General Session will start as specified by the Commission's chairman.

Commissioner Roll Call

1. Pledge of Allegiance – Commissioners
2. Approval of Minutes – General (Open) Session, June 19, 2014 – Commissioners

Information Only

3. New Commissioner Introduction – David J. Lamb, Director, HWP
4. Rulemaking Update – Tim Eiken, Director's Office, HWP

**MISSOURI DEPARTMENT OF NATURAL RESOURCES
HAZARDOUS WASTE MANAGEMENT COMMISSION**

Meeting Date: August 21, 2014

ROLL CALL ROSTER

	In Person:	By Phone:	Absent
Chairman Deron Sugg	_____	_____	_____
Vice-Chairman Charles Adams	_____	_____	_____
Commissioner Elizabeth Aull	_____	_____	_____
Commissioner Jamie Frakes	_____	_____	_____
Commissioner Michael Foresman	_____	_____	_____
Commissioner Andrew Bracker	_____	_____	_____
Commissioner Mark Jordan	_____	_____	_____

Page Two

5. Common Hazardous Waste Violations and Responses – Kathy Flippin, Chief, Compliance and Enforcement Section, HWP
6. Tanks Closure Update – Chris Veit, Tanks Section, HWP
7. RCRA Corrective Action Update – Rich Nussbaum, Chief, Permits Section, HWP
8. Tanks Financial Responsibility – Mike Martin, Compliance and Enforcement Section, HWP
9. Quarterly Report – Dee Goss – Public Information Officer, HWP
10. Legal update – Kara Valentine, Missouri Attorney General’s Office
11. Public Inquiries or Issues – David J. Lamb, Director, HWP
12. Other Business – David J. Lamb, Director, HWP
13. Future Meetings
 - Thursday, October 16, 2014 – to be held at the Bennett Springs/Roaring River Conference Rooms, 1730 E. Elm Street Conference Center, Jefferson City, MO

Adjournment

Missouri Hazardous Waste Management Commission Meeting

August 21, 2014

Agenda Item # 1

Pledge of Allegiance

Missouri Hazardous Waste Management Commission Meeting

**August 21, 2014
Agenda Item # 2**

Approval of Minutes

Issue:

Commission to review the General Session minutes from the June 19, 2014, Hazardous Waste Management Commission meeting.

Recommended Action:

Commission to approve the General Session minutes from the June 19, 2014, Hazardous Waste Management Commission meeting.

GENERAL

SESSION

MEETING

MINUTES

GENERAL SESSION
HAZARDOUS WASTE MANAGEMENT COMMISSION
June 19, 2014; 10:00 A.M.
1730 E. Elm Street
Bennett Springs/Roaring River Conference Rooms
Jefferson City, MO 65102

(Note: *The minutes taken at Hazardous Waste Management Commission proceedings are just that, minutes, and are not verbatim records of the meeting. Consequently, the minutes are not intended to be and are not a word-for-word transcription.*)

The meeting was streamed live from the Department's website at: dnr.mo.gov/videos/live.htm.

COMMISSIONERS PRESENT IN PERSON

Chairman Deron Sugg
Commissioner Michael Foresman

The phone line was opened at approximately 9:36 a.m. for Commissioners calling in to today's meeting.

COMMISSIONERS PRESENT BY PHONE

Commissioner Elizabeth Aull

*Commissioner Andrew Bracker: Commissioner Bracker was present on the phone but had to leave the conference call at 10 a.m. for a personal emergency.

**Commissioner Jamie Frakes joined the meeting at 10:52 a.m.

It was noted that there was not a quorum at this time.

Chairman Sugg called the General Session to order at approximately 10:04 a.m.

A roll call was taken with Chairman Sugg, Commissioner Aull and Commissioner Foresman acknowledging their presence at today's meeting.

1. PLEDGE OF ALLEGIANCE

Chairman Sugg led the Pledge of Allegiance, and it was recited by the Hazardous Waste Management Commission (Commission) and guests.

2. APPROVAL OF MINUTES

A quorum had not been established; voting on the approval of minutes was delayed until later in the meeting when a quorum was present. **

3. RULEMAKING UPDATE

Mr. David J. Lamb, Director, Hazardous Waste Program, addressed the Commission and noted he would be presenting the update today, in place of Mr. Tim Chibnall, who had been scheduled to make the presentation. Mr. Lamb noted that the main focus of the Program's efforts was still on the "No Stricter Than" rule package. He advised that with the Commission's recent approval of the Finding of Necessity on this rule package, staff has been primarily working on the Regulatory Impact Report (RIR) associated with the rule. He noted that the RIR was currently undergoing management review and was expected to be out for the 60 day public comment soon. He also advised that the Interagency Review would run concurrent with the RIR public comment period and that the draft rule text would be published with the RIR for public review.

Mr. Lamb did advise that there was one significant change that he wanted the Commission to be aware of regarding the "No Stricter Than" rule package. He stated that Chapter 12, which is our fee rules, was being held out of the rule package at this time; as including it in the package would limit the ability to work with stakeholders on the fee structure. He noted that the Department was looking at the potential of holding stakeholder meetings on the fees, this fall. He went on to advise that if it was included in the package that the Department would not be able to do anything to change the fee structure until 2018; but, if it was pulled out, changes could be implemented in 2017. He also noted that any changes needed to the references in Chapter 12 could be made when the rule is opened.

Mr. Lamb went on to advise that the only other rulemaking that was close to being brought before the Commission for consideration was the operational tank rules, which would be covered by Heather Peters in her presentation later in the meeting.

No questions or comments were posed by the Commission. This was provided as information only and required no other action on the part of the Commission.

4. LEGISLATIVE UPDATE

Mr. David J. Lamb, Director, Hazardous Waste Program, then provided a PowerPoint presentation on recent legislative activity. He noted that this year was a light session for the Hazardous Waste Program (HWP) as there were no major bills like the "No Stricter Than," or permit streamlining proposed this year, and no fees with sunsets to address during this legislative session.

Mr. Lamb advised that there were three bills that had passed that the Department had been following during this session. Those bills included HB2006, SB642 and SB504. He went on to note that HB2006, the Appropriations bill, included appropriations for the Departments of Natural Resources, Agriculture and Conservation. He advised that the HWP was included under Section 6.225, within the Division of Environmental Quality, and that the bill was passed by the Legislature and is currently pending the Governor's signature. Mr. Lamb went

on to describe that the HWP receives budget authority under the Hazardous Waste Program Core, which included \$11.1 million and 134.42 FTE; under the Petroleum Related Activities Core, which included \$775,549 and 16.2 FTE; and under the Environmental Damages Core, which included \$6,157,971. He advised that the new budget items affecting the HWP included a core transfer of 2 FTE and related appropriations from other areas of the Department's budget; a new General Revenue decision item of \$22,000 for Superfund Operation and Maintenance obligations; a 1% Cost of Living Adjustment (COLA) for staff, beginning in January 2015; and appropriations for a Department Integrated Data System.

The second bill that Mr. Lamb outlined, SB 642, was the Department Omnibus Bill. He noted that it contained numerous provisions affecting the Department, and that it contained provisions of other bills introduced, such as SB968, SB664, and HB1302, which did not advance. He advised that the final version of the bill was passed by the Legislature in the final days, and that the Governor had until July 14, 2014, to act on the bill.

Mr. Lamb then discussed some of the highlights of the bill. He stated that provisions affecting the Program included an extension to the sunset date of the Radioactive Waste Transport statute; and revisions to the statutory language allowing the Hazardous Waste Management, Mining, Air Conservation, and Clean Water Commissions to make changes to their fee structures. Mr. Lamb advised that the Radioactive Waste Transportation statute sunset date had been extended nine years from August 28, 2015, to August 28, 2024. He noted that Legislative Oversight was scheduled to review this program but that the review would likely be dropped if the bill was signed into law. He then advised, with regards to the hazardous waste fee structure, that minor changes were made to the process established last year by HB28/650 for implementing changes to the fee structure by rule. He noted that this bill affects fees found in Sections 260.380 and 260.475 RSMo (Generator Registration and Renewal, In-state and Out-State Generator, and Land Disposal Fees), and that the language changes clarify that the Department may conduct a comprehensive review and propose changes to the fee structure. He advised that it also clarifies that a 2/3 majority, or 5 of 7 Commissioners must approve the proposed change to move forward with filing the proposed rule; it extends the sunset date one year from August 28, 2023, to August 28, 2024; and, it changes language allowing fee changes to go into effect on the next calendar year, as opposed to the next odd-numbered year.

Mr. Lamb then explained the process to be followed to change the fee structure. He noted that the process included provisions for a comprehensive review that included a stakeholder process; that the Department must submit the fee structure with stakeholder agreement to the Commission; that the Commission must review the proposal at their next meeting, but shall not vote on the proposal until a subsequent meeting; and that if the Commission approves by a 2/3 majority, the Department can proceed to file the proposed rule. With this, Mr. Lamb advised, the order of rulemaking would need to be filed by December 1st of the same year with the Joint Committee on Administrative Rules; and the General Assembly would then have 60 calendar days from the start of the legislative session to disapprove of the rule; and if not disapproved, the fees would go in effect the following January 1st.

The final bill that Mr. Lamb discussed was SB504, which concerned the electronic posting of proposed rules. Mr. Lamb noted that this bill requires agencies to place a “proposed rule” hyperlink on the home page of its official internet website, and that the proposed rule webpage shall include, within one business day of the rules publishing in the state register, a rule summary, full text of the rule, and the fiscal note. The webpage must also have a hyperlink to the rule in the Missouri Register and all material incorporated by reference. He noted that the bill was delivered to Governor on May 30th, but that the status of the bill was unknown at this time.

Mr. Lamb finished his presentation with information on other bills of interest which did not pass, noting that HB 2212 and SB 571 would have repealed the existing e-scrap program and established a program implemented by solid waste management districts; that HB 1946 would have made changes limiting the use of local ordinances to prohibit well construction when otherwise allowed; and that HB 1884 & SB 507 would have established limits on Department Director’s serving in acting capacities and Commission members serving in expired terms.

No questions or comments were posed by the Commission. This was provided as information only and required no other action on the part of the Commission.

5. DEPARTMENTAL RISK BASED TARGET LEVELS

Mr. David J. Lamb, Director, then provided the Commission with an update on the Department’s efforts towards updating the Departmental risk based target levels (RBTLs). He noted that the HWP previously informed the Commission that, with the assistance of the Missouri Department of Health and Senior Services (DHSS), the HWP would be updating the Risk-Based Target Levels (RBTLs) found in the 2006 Missouri Risk-Based Corrective Action (MRBCA) guidance document.

Mr. Lamb noted that the RBTLs will be updated using the same methodology, equations, and input values (e.g., toxicity factors, exposure factors, etc.) that are used by the Environmental Protection Agency (EPA) to develop their Regional Screening Levels (RSLs). He noted that the updated RBTLs will be the same as the RSLs except that, for carcinogenic chemicals, the updated RBTLs will be calculated to meet a 1 in 100,000 Incremental Excess Lifetime Cancer Risk (IELCR) rather than the 1 in 1,000,000 IELCR used by EPA. The RBTLs for non-carcinogenic chemicals will be equivalent to the corresponding RSLs.

Mr. Lamb noted that the DHSS had provided the Program with a draft version of the RBTLs in December, and that during the course of the Program working through comments and concerns on the draft with the DHSS, the EPA changed many of the exposure factors that were used by the DHSS to develop the RBTLs. He advised that, as a result of these changes, the DHSS had to go back and redo most of their work on this effort, which has caused the project to be delayed. He noted that staff were also working through a number of technical issues with the implementation of the RSLs, and stated that some of the issues were causing the Program to evaluate whether there is a need to do the update as a rulemaking.

Chairman Sugg requested that Mr. Lamb explain further regarding the RBTLs in regard to the IELCR being 1 in 100,000. Mr. Lamb responded that with regards to screening levels to determine if there is a risk, the Department looks at a level a little more lax than the EPA. He noted that this was implemented based upon stakeholder input in 2006. But, he advised, although the screening level to determine exposure may be less, the cleanup levels are not necessarily any less protective.

No other questions/comments were posed by the Commission. This was provided as information only and required no other action on the part of the Commission.

**At 10:37 AM, Commissioner Jamie Frakes joined the meeting by phone.

6. TANKS SECTION UPDATE

Mr. Ken Koon, Chief, Tanks Section, addressed the Commission and provided a PowerPoint presentation regarding current Tanks staff efforts. Mr. Koon provided information on the Tanks cleanup statistics and progress, abandoned release projects, staff efforts to engage stalled cleanups, and staff involvement in training for staff and consultants.

Mr. Koon provided graphs and numbers for remediations added and cleanups completed, by state fiscal year, and for remediation document review times by state fiscal year. Mr. Koon also provided tank cleanup statistics for underground storage tanks (USTs'), noting there were 9,116 active tanks, 31,603 closed tanks, 6,887 confirmed releases, 5,959 cleanups completed and 928 cleanups remaining. With regards to aboveground storage tanks (AST's), Mr. Koon noted that there were 467 confirmed releases, 281 cleanups completed and 186 cleanups remaining.

He went on to note that efforts were being focused to engage on stalled cleanups and that 52 sites were identified that potentially have a Responsible Party or a party willing to proceed. He noted that these sites were all PSTIF eligible, and that most had reached the \$10,000 dollar deductible. He noted that all sites have been reviewed by DNR and that DNR has initiated contact on most of the sites.

Mr. Koon then advised that staff had been or would be participating in several remediation trainings. He discussed recent Department attendance at the ITRC's LNAPL (Free Product) Training in April. He then discussed future training and webinar opportunities that his staff would be involved in, including a webinar on the Bos 200 remediation technology in June/July; the webinar on Risk Assessment Report Writing in July/August; and transmissivity testing training, which will be scheduled at a later date. He also noted that EPA Region 7 has some funding for state joint training that is being reviewed.

Mr. Koon then advised that staff had attended and presented at the 2014 Missouri Waste Control Coalition Conference, providing information on the Hazardous Substance Site Locator, and participating in demonstrations with the GeoSTRAT web based tool and the Bos 200 remediation technology.

He noted that staff also participated in the Enhanced Fluid Recovery Session, in the Evaluation of Groundwater Use in Greene County Session and in the Risk Assessment discussions.

Commissioner Frakes inquired as to whether the Department had a list of companies that had participated in the conference, to which Mr. Koon responded that the MWCC would have the list and he would try to get the commissioners a copy.

No other questions/comments were posed by the Commission. This was provided as information only and required no other action on the part of the Commission.

Chairman Sugg returned to Agenda Item #2: It was noted that a quorum was now present and a vote could be taken on the minutes from the last meeting.

A motion was made by Commissioner Aull to approve the minutes from the June 19, 2014, General Session, which was seconded by Commissioner Foresman.

A vote was taken; all were in favor, none opposed. Motion carried. Minutes were approved.

7. ENERGY POLICY ACT UPDATE

Ms. Heather Peters, Compliance and Enforcement Section, provided the Commission with PowerPoint slides and a presentation on the 2005 Energy Policy Act impact on underground storage tanks. She noted that the EPA's 2005 Energy Policy Act included changes to the UST Program and advised that Missouri has already implemented many of these new requirements. She advised that a few outstanding issues remain for the State to address. She noted that the Act's changes required the State to establish new procedures on a variety of components, including delivery prohibition ("red tag"), which the EPA has approved; State reporting, tracking, and public records, which the EPA has approved; UST inspection frequency, which the EPA has approved; Operator training, which has had a contract awarded and we anticipate being on-line in July; and Secondary containment, which will require double-walled systems for new tanks and/or piping installed after July 1, 2017. Ms. Peters also advised that there will be upcoming rule changes, and that we will begin formal rulemaking as soon as the EPA finalizes their rules, which are expected in the Fall 2014. She noted that this rulemaking will include state specific regulatory changes, will incorporate secondary containment requirements and will include Federal regulation changes. She noted that the state's operator training and secondary containment are two of the components that have yet to receive final approval from the EPA. She also advised that a financial responsibility (FR) component could have replaced the secondary containment provision, but the state's proposed FR program was denied by the EPA in January 2013.

Ms. Peters outlined the efforts that have been made towards developing the operator training program and outlined what secondary containment requirements would mean to stakeholders and operators. Ms. Peters also outlined state specific changes to current requirements and how these would be addressed, what difficulties were foreseen, and the outreach efforts that

have been undertaken to ensure stakeholders and operators have the most current information available regarding the required changes.

She noted that in the future, the Hazardous Waste Program may request the Hazardous Waste Management Commission promulgate rules to resolve any final conflicts.

Chairman Sugg inquired as to whether operators were going to have to install new equipment to meet the new requirements or if they already had the equipment in place. Ms. Peters noted that approximately 80 percent of the operations have double walled tanks in place and that the old tanks are being weeded out. She did note that the monitoring requirements will be difficult until a process is developed and in place.

Commissioner Aull complimented the group who had worked on the Tanks rules publication that had been developed in December and inquired if there would be more of these. Ms. Peters indicated more would be done when the federal rules are proposed and decisions have been made about the state requirements that will be included.

No other questions/comments were posed by the Commission. This was provided as information only and required no other action on the part of the Commission.

8. SCHOOL LAB ACTIVITIES

Mr. Tony Pierce, Compliance and Enforcement Section, addressed the Commission and provided a PowerPoint presentation and information on the Department's efforts to assist school labs with proper disposal and other issues. Mr. Pierce reviewed some recent history with schools, resulting from the 2008 School Chemical Cleanout Project. He noted that these efforts were in partnership with the Environmental Services Program (ESP) and the Center for Safe Schools, and that it was Department of Homeland Security Grant funded with 239 schools participated and over \$400,000 spent.

Mr. Pierce noted that there were current activities being conducted with the Hazelwood School District, in conjunction with an Enforcement case with an Administrative Order on Consent (AOC), which is poised to lay a foundation for other school districts needing assistance. He noted that the Hazelwood AOC terms corrected all hazardous waste violations at schools in the district, would require the development of a management plan to help prevent future violations, and would require the district to develop and provide training for its faculty and staff on hazardous waste recognition and management. He advised that Department staff will coordinate with the District so this can be shared with other schools. He noted that a presentation is planned for the August pre-session with a September 5, 2014, completion deadline.

Mr. Pierce also advised that compliance questions at North Callaway High School led to a Compliance Assistance Visit (CAV), and that the CAV will result in an updated building inventory/waste policy. Mr. Pierce went on to advise that other issues with school labs

activities had been noted, including a involved a retired teacher from Park Hills who had hoarded school chemicals at his home. He noted that the efforts made with the Hazelwood project will be shared with the Department of Elementary and Secondary Education (DESE), and that the Department will continue with CAVs at schools requesting assistance. He noted that these were unique solutions to problems and efforts to ensure no future violations.

No other questions/comments were posed by the Commission. This was provided as information only and required no action on the part of the Commission.

9. LEGAL UPDATE

Ms. Kara Valentine, Commission Counsel, addressed the Commission and advised she had a couple of updates to share with the Commission. She began by providing additional information on school lab activities. She noted that Doe Run was paying for several school lab cleanups in southeast Missouri as part of an old settlement agreement. She advised that the contractors hired by Doe Run had found that janitorial closets were also sources of potential risk and that they had been cleaning those out at the schools at the same time as the labs.

Ms. Valentine advised that the first update was a federal criminal case where a man from Kansas had been sentenced to 30 months in federal prison for defrauding the Petroleum Storage Tank Insurance Fund (PSTIF). She noted that the man, Robert Fine of Fine Environmental, was a contractor who worked out of his home doing environmental cleanups. She stated that he would subcontract the cleanups and when the subcontractors invoiced him for the work, he would alter the invoices and charge the PSTIF an inflated amount. She noted that it had been estimated that he had charged the PSTIF more than 1.3 million dollars in excess billings. She advised that Mr. Fine was individually charged with mail fraud and money laundering; and that he was sentenced to 30 months in prison and was required to pay 1.5 million dollars in restitution, of which most of that fine had been collected. She also advised that she was unsure if any criminal fine had been ordered, as she had been unable to find any further information on the case.

Ms. Valentine then advised that the second update she wished to provide was a recent lawsuit against Tyson Foods. She noted that the Attorney General's Office had announced the lawsuit in regards to a fish kill in the city of Monett, from their sewage treatment plant. She advised that Tyson had released a food supplement called Alimet into the sewer system and it had traveled to the treatment plant. She noted that this product had a very low PH factor and that the result was that all the microbes had died, causing a large increase in the ammonia levels, which killed all the fish for about four miles downstream. She noted that this would generally be a Water Pollution case but that a hazardous waste violation had been added to the equation. This incident occurred in Barry County. She also advised that Tyson had accepted responsibility and had apologized; but, she also advised that there may be further natural resource damages claims from the incident.

No other questions/comments were posed by the Commission. This was provided as information only and required no action on the part of the Commission.

10. PUBLIC INQUIRIES

Mr. David J. Lamb, Director, Hazardous Waste Program, advised the Commission that he had not received any requests from the public, to address the Commission.

11. OTHER BUSINESS

Mr. David J. Lamb, Director, Hazardous Waste Program, addressed the Commission and advised that he had a few items he wished to bring the Commission's attention. He noted that he had recently sent the Commission a link to the newly released audit report for the Brownfields Tax Credit Program. He noted that although the audit primarily involved the Department of Economic Development, which oversaw the tax credit program, it did involve certain sites in the Brownfield Voluntary Cleanup Program. He also noted that the auditors would be releasing the Hazardous Waste Program Audit soon, and it would also be forwarded out to the Commissioners for review. He advised the Commission that he would be available to answer any questions they may have after they had the opportunity to review the reports.

Mr. Lamb then advised the Commission that the Department was currently undertaking a business process analysis, and as he had discussed during his earlier Legislative Update, this was an initial step towards the new Integrated Data System for the Department. He noted that this process basically was a look at how the Department/Program currently does business, how data is processed, how it is used and how it is stored. He noted that this would help the Department determine which current systems needed to be updated and modernized. Mr. Lamb noted that the state's ITSD program had awarded a contract to Ferguson Consulting, for this review, and that they had been interviewing staff and would be generating a report that should be out by August 22nd. He noted that this information would be shared with the Commission when it was available.

Mr. Lamb then advised that the pesticide collection program had begun again, with the first collection having been held on May 31st, in Perryville, MO. He noted that approximately 30 people had attended the event and that approximately 4,700 pounds had been collected. Mr. Lamb advised that a couple more events had been scheduled; in Washington, MO, on July 26; and in Marshfield, MO, on August 23. He also advised that a fourth event was being considered, to be held in the northeast region of the state, on a yet to be determined date.

Mr. Lamb then discussed vacancies within the Program, noting that the BVCP section chief position was currently a focus to get filled, and that Scott Huckstep had been Acting Chief in the interim until the position was filled. He also noted that Hannah Humphrey, the LTS Unit Chief, had accepted a position at the Division of Environmental Quality as the Community Services Coordinator. Along with this, he advised that there were still four Engineer positions vacant in the Permits Section, and that the Compliance and Enforcement Section also had a

couple of openings. He stated that the Program was continuing to battle turnover and vacancies.

Mr. Lamb advised the Commission that there were a couple of trainings upcoming, which may be of interest to the Commission. He noted that the Brownfields Conference was scheduled for the following week, at the DNR conference center; which allowed cities, realtors and other stakeholders to learn about the brownfields program. He also noted that staff would be attending Vapor Intrusion training July 9-10, as the Program has been able to secure Hartman Geo Science to do the training and had been able to get them to come here, while also arranging for a significant number of Department staff to be able to attend for free.

He then noted that the last item he wished to discuss was the fact that the Hazardous Waste Forum had been originally scheduled to be held following the June Hazardous Waste Management Commission meeting; but, that there was no real pressing business scheduled for discussion so the meeting had been cancelled. He stated that the next meeting would be scheduled for some time in the fall.

No other questions/comments were posed by the Commission. This was provided as information only and required no other action on the part of the Commission.

12. FUTURE MEETINGS

It was noted that the next meeting would be held on August 21, 2014.

Chairman Sugg requested a motion to adjourn if no other business needed to be presented to the Commission at this time.

Commissioner Foresman made the motion to adjourn the meeting at 11:35 p.m. The motion was seconded by Commissioner Aull.

Respectfully Submitted,

Debra D. Dobson, Commission Assistant

APPROVED

Deron Sugg, Chairman

Date

Missouri Hazardous Waste Management Commission Meeting

**August 21, 2014
Agenda Item # 3**

New Commissioner Introduction

Issue

Governor Jay Nixon appointed Mr. Mark Jordan to the Hazardous Waste Management Commission on June 19, 2014. Mr. Jordan was appointed to the Retail Petroleum Industry Representative position created by HB28, which passed during the 2013 legislative session.

Mr. Jordan currently is the Vice President of the Facilities Division for the Wallis Companies in Cuba, Missouri, and maintains a home in Wildwood. We welcome Mr. Jordan to the Commission.

Recommended Action:

Information Only

Presented by:

David J. Lamb, Director, Hazardous Waste Program

Missouri Hazardous Waste Management Commission Meeting

**August 21, 2014
Agenda Item # 4**

Rulemaking Update

Recommended Action:

Information Only

Presented by:

Mr. Tim Eiken – Rule Coordinator, Hazardous Waste Program

Missouri Hazardous Waste Management Commission Meeting

August 21, 2014

Agenda Item # 5

Common Hazardous Waste Violations and Responses

Issue:

Department inspectors and enforcement staff conduct approximately 630 compliance inspections per year to assess the compliance of regulated parties with the Missouri Hazardous Waste Management Law and Regulations. Staff also communicates with the inspected facilities to prompt correction of violations and takes enforcement action according to the Environmental Protection Agency's Civil Enforcement Response Policy. This presentation will highlight some common hazardous waste violations and give examples of how regulated parties and Department of Natural Resources staff respond to assure compliance with applicable laws and regulations.

Information/Outline:

- Basis of action – applicable laws and regulations
- Common hazardous waste violations
- Department communications
- Regulated party response
- Department follow up to assure compliance

Recommended Action:

Information only.

Presented by:

Ms. Kathy Flippin - Chief, Compliance and Enforcement Section, Hazardous Waste Program



Common Hazardous Waste Violations and Responses

Kathy Flippin – Chief
Compliance and Enforcement Section, HWP



What is to come...

- Basis of action – applicable laws and regulations
- Common hazardous waste violations
- Department communications
- Regulated party response
- Department follow up to assure compliance



Hazardous waste laws and regulations

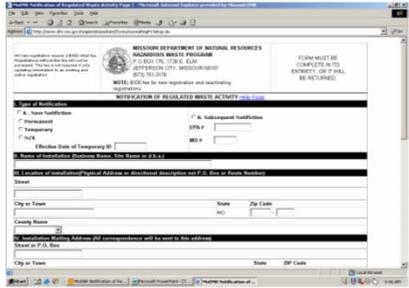
- The Law - Sections 260.350 to 260.430 of the Revised Statutes of Missouri - the "Missouri Hazardous Waste Management Law".
- The Regulations – Title 10 Code of State Regulations, Division 25, Chapters 1-19


MISSOURI
 DEPARTMENT OF
 NATURAL RESOURCES



 Celebrating 40 years of taking care of Missouri's natural resources.

Failure to update notification




MISSOURI
 DEPARTMENT OF
 NATURAL RESOURCES



 Celebrating 40 years of taking care of Missouri's natural resources.

Update NORWA for any change in:

- Contact person*
- Business name
- Mailing address*
- Phone number or area code*
- Ownership
- Waste streams
- Generator status
- Proper street address

** Vital information for contacting the facility*


MISSOURI
 DEPARTMENT OF
 NATURAL RESOURCES



 Celebrating 40 years of taking care of Missouri's natural resources.

Inspector communications:

- Document violation of failure to update notification in report
- Include details in checklist and inspection report on what needs to be updated
- Ask generator to submit updated notification if there are changes

 **MISSOURI**
DEPARTMENT OF
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Celebrating 40 years of taking care of Missouri's natural resources.

40 years

NORWA availability

- At Department website, click on publications, Hazardous Waste drop down box
<http://www.dnr.mo.gov/pubs/index.html#HazardousWaste>
- Electronically at MDNR's Permit Assistant:
<http://www.dnr.mo.gov/mopermitassistant/>.
- Also linked to other generator fact sheets

 **MISSOURI**
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Celebrating 40 years of taking care of Missouri's natural resources.

40 years

Violation prevention help

- [Does Your business Generate Hazardous Wastes?, Fact Sheet--PUB117](#)
- [Facility Summary Report--MO 780-0408](#)
- [Generator's Hazardous Waste Summary Report, Form--MO780-1097](#)
- [Hazardous Waste Generator Registration, Reporting and Waste Fees, Fact Sheet--PUB2254](#)
- [Hazardous Waste Generator Report, Booklet--PUB454](#)
- [Hazardous Waste Generator Status Guidance, Fact Sheet--PUB2224](#)
- [Hazardous Waste Management Handbook For Small-Quantity Generators, Booklet--PUB2174](#)
- [Management of Conditionally Exempt Small Quantities of Hazardous Waste, Fact Sheet--PUB128](#)
- [Notification of Regulated Waste Activity, Form--MO 780-1164](#)
- [Waste or Product Determination Guidance, Fact Sheet--PUB1349](#)

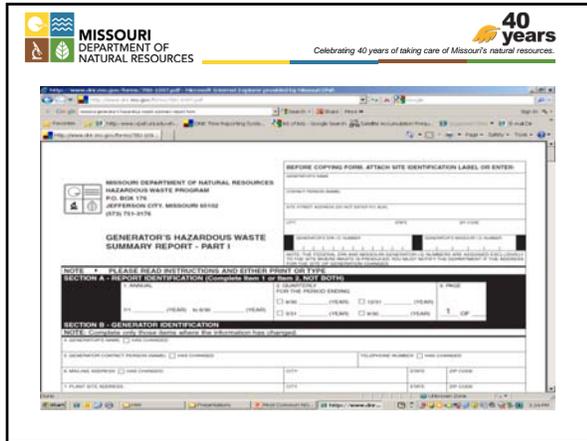
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Failure to report and pay fees

- Facility summary report for TSDs
- Generator summary report for generators
- Generator info links on Department Webpage useful



LQG failure to report

- Large Quantity Generators are required to report quarterly to MDNR
- End of each quarter is:
 - Sept. 30 - Dec. 31
 - March 30 - June 30
- All reporting is due 45 calendar days from the end of the quarter
- Also required to submit EPA's biennial report in odd calendar years

SQG failure to report

- Small Quantity Generators are required to report annually to MDNR
- The year runs July 1 to June 30 and reports are due August 14
- If LQG or SQGs fail to submit reports then:
 - TSDs **cannot** accept their HW
 - Non-reporters are likely to be inspected

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Failure to pay fees

- Generators should receive billing for fees by December for the previous fiscal year
- Fees are due **BEFORE January 1**
- A fifteen percent charge on late fees and a ten percent per year on late land disposal fees

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Department communications

- Budget and Planning Section in Hazardous Waste Program receives and reviews forms and fees
- Issues letters, letters of warning and notices of violation as needed and follows up to resolve
- Inspector does not cite fee or reporting violations
- If an inspection is referred for enforcement, case manager will also pursue outstanding fees and reports

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Helpful guidance

- Fact sheet: "Hazardous Waste Registration, Reporting and Fees"

<http://www.dnr.mo.gov/pubs/pub2254.pdf>

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Universal waste violations

Waste types

- Batteries
- Hazardous lamps
- Mercury-containing equipment
- Pesticides

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Common universal waste violations



- Failure to label "Universal Waste"
- No label
- Failure to close containers
- Stored more than one year
- Failure to containerize

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Several UW lamp storage violations



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Lamps in open, unlabeled container



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Failure to containerize lamps



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Universal waste battery storage violations



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Used oil violations



- “Waste Oil” is incorrect labeling—
“Used oil” is correct term in current regulations
- Failure to label
“Used Oil”

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Used oil disposal into the environment

- Failure to stop, contain and clean up any spills or leaks of used oil and properly manage the waste



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Missouri used oil regulations

- Manage used oil that cannot be or is not intended to be recycled under hazardous waste regulations.
- Designate such used oil on the hazardous waste manifest as D098.
- Do not place used oil as a dust suppressant on a road, parking lot, driveway or other similar surface.



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Satellite accumulation, or SA



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Most common SA violations

- **Open containers**
- Stored more than one year
- Not stored at the point of generation
- Moving waste from satellite container to satellite container
- No label or accumulation start date
- **Drum in poor condition**

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SA bad examples




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Contingency plan common violations - LQG



- Failure to have a plan
- Change in emergency coordinator
- Inadequate notification of and coordination with local authorities


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Contingency plan omissions - LQGs

Plan does not address potential for each =

Fire

Explosion

Release

Or not all steps included:

- Arrangements with responders
- Emergency coordinator designation
- Equipment description/location/capabilities
- Evacuation plan


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Contingency plan violations

Plan not updated:

- When emergency coordinator changes
- When emergency equipment changes
- If plan fails in an emergency
- If the regulations change

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Failure to mark or label hazardous waste



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Marking and labeling



- No marking “Hazardous Waste”
- No accumulation start date
- US DOT hazard class diamonds
– (Staged photo)

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• Inadequate marking and labeling



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Open container violations



- Left open after using
- Improperly operating funnels/lids
- Open when not adding/removing waste
- Not both spill proof and vapor tight

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Open container violation prevention tips

- Training, training, training
- Post reminder signs
- Frequent self-inspections
- Let employees choose the type of compliant closure device that works best for the waste
- Even with easy-close containers, the employees must understand the importance of closing them
- Solid hazardous waste – may get approval to have a step lid can that is secured

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Helpful guidance

- EPA guidance on closed containers, 12-3-09
- EPA Q&A document on closed containers, 11-3-11
- RCRA online 14826, 11-3-11



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Training - SQGs

- Employees must be familiar with waste handling and emergency procedures.
- Establish and review training and procedures.
- Do performance based evaluations.
- No records required but performance must match company policy.

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Training violations - LQGs

- Not documenting training
- Not providing adequate training
- Training records must be kept onsite for three years on former employees (or until closure)
- Not making Contingency Plan a part of annual training

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Training - LQG personnel training plans

- List the name, job title and description of each employee filling a hazardous waste position
- A written description of introductory and continuing training for each position
- Documentation of training completed by each employee
- Must be maintained onsite for three years

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Failure to determine if waste is hazardous



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Failure to determine regulation

- Foundation regulation
40 CFR 262.11
- "...a person who generates a solid waste, as defined in 40 CFR 261.2, must determine if that waste is a hazardous waste, using the following method..."



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Failure to determine examples



Aerosol cans "Forgotten wastes"

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Waste determination process

1. Is it a solid waste?
2. Is the waste excluded?
3. Is the waste listed?
4. Is the waste characteristic?



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Waste determination considerations

- Waste vs. product
- Formal testing
- Generator knowledge of process generating the waste
- Combination of methods



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Determination documentation

- 40 CFR 262.40(c) – The generator must keep records of any test results, waste analyses or other determinations made in accordance with 40 CFR 262.11 for at least three years from the date the waste was last sent to on-site or off-site treatment, storage or disposal.
- If using “documentation” referenced in 40 CFR 262.40(c) the generator must be able to show the documentation.


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Failure to determine – waste vs. product questions for generators

- Can you identify the product?
- Is the product stored according to the recommendations of the SDS?
- Is the container used to store the product in good condition?
- Is the product labeled "Quarantined", "Do Not Use", "Waste", or the like?


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Failure to determine – waste vs. product questions for generators, continued

- Can you currently use the product in your processes?
- Can another company use the product you no longer need?
- Is the product stored and managed as though it has value?
- Is the material speculatively accumulated?


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Failure to determine – formal testing

Analytical results and testing:

- Corrosivity
- Reactivity
- Ignitability
- Toxicity
- Results must be kept for three years
- Testing NOT useful for listed hazardous wastes
- Listed wastes need determinations made based on use of the material and processes that generate the waste, with comparison to the listing definition


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Failure to determine examples

- Obsolete products
- Distilled solvent wastes




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Failure to determine - generator knowledge

- Don't simply trust the company selling you a product or piece of equipment.
- Determinations must be "complete and accurate."
- Keep Safety Data Sheets (SDS') and assure they remain current.
- SDS' and knowledge of process generating the waste must be used for listed hazardous waste.


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Failure to determine and SDS

- Urge caution on using only SDS' for waste determination.
- SDS must only list components that are hazardous materials at 1% (i.e., 10,000 parts per million-ppm) or carcinogenic at 0.1% (1,000 ppm).
- SDS components may be changed and the person responsible for waste determinations may be unaware of this = no longer accurate waste determination.

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Failure to determine violation prevention tips

- Failure to determine is a valid violation even if the waste is later determined to be non-hazardous.
- Obtain and use the Department's "Waste Stream ID Sheet" to help identify wastes and how they are managed and disposed.
- Ultimately waste determination begins at procurement.
- Review all incoming materials.
- Require employees to log all waste containers before placing them in the facility (i.e., empty drums, cans, etc.) for tracking.

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Failure to determine example



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Failure to determine example

- Discharges to sewer without the publicly operated treatment works operator's permission.



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Failure to determine example



- Sand/grit blasting wastes.

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Failure to determine examples



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Waste determination help

- Hazardous Waste Management Handbook for Small Quantity Generators
<http://www.dnr.mo.gov/pubs/pub2174.pdf>
- Does your business generate a hazardous waste? PUB117 <http://www.dnr.mo.gov/pubs/pub117.pdf>
- EPA's List of Lists
<http://www.epa.gov/swercepp/pubs/title3.pdf>
- Waste or Product Determination
<http://www.dnr.mo.gov/pubs/pub1349.pdf>

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Documentation of enforceable violations

- Serious violations warrant a strong, consistent response.
- MDNR/HWP inspectors are provided training on when a Notice of Violation, or NOV, should be issued.
- When issuing an NOV, inspectors include all violations on the NOV (not just the most serious).

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Compliance assistance archives

- Enforcement and Compliance Assistance Archives for Hazardous Waste Generators
 - provides information on regulations
 - provides compliance tips
 - http://www.dnr.mo.gov/env/subscribe_ecahwg.htm

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Mutual goals

- Compliance with laws and regulations
- Early detection and correction of problems
- Safety for citizens
- Protection and preservation of resources

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Letters of warning, or LOWs

- For notifying responsible parties of less serious violations.
- Generator will have thirty (30) days to respond to a LOW. Important to do so.

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Contact information

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Compliance & Enforcement Section
Hazardous Waste Program
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800-361-4827
573-751-3176

Missouri Hazardous Waste Management Commission Meeting

**August 21, 2014
Agenda Item # 6**

Tanks Closure Update

Issue:

The tanks closure process.

Information:

The Commission to be provided an overview of the tanks closure process. This overview will include trends, output, services provided to the regulated community, and the importance of inspections. Presenter will also discuss no further action letters and what criteria are used in determining tank closures.

Recommended Action:

Information only.

Presented by:

Chris Veit

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TANKS CLOSURE

Chris Veit

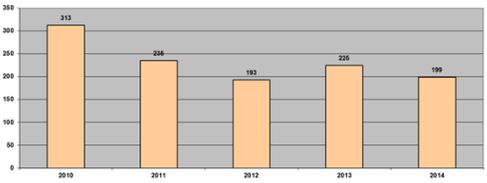
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Closure Mail

Closure Mail Received



Year	Count
2010	313
2011	236
2012	193
2013	225
2014	199

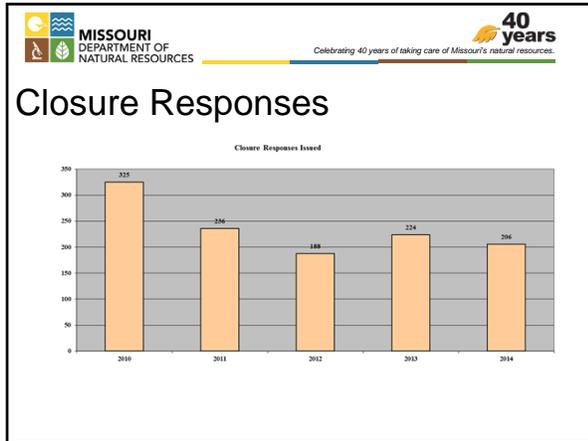
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Closure Mail

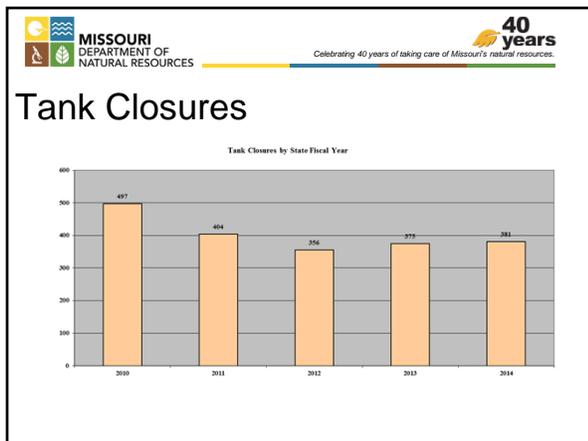
Year	Report	Response	Total
2010	183	130	313
2011	124	111	235
2012	122	71	193
2013	152	73	225
2014	140	59	199



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Closure Responses

Year	Report	Response	Total
2010	187	138	325
2011	123	113	236
2012	120	68	188
2013	149	75	224
2014	145	61	206



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Closure No Further Action's

- Tanks receiving NFA's
43% Closed at DTL's (Default Target Levels)

- 31% Closed in Remediation

- 26% Closure R's (Remediation's)

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Closure Inspections

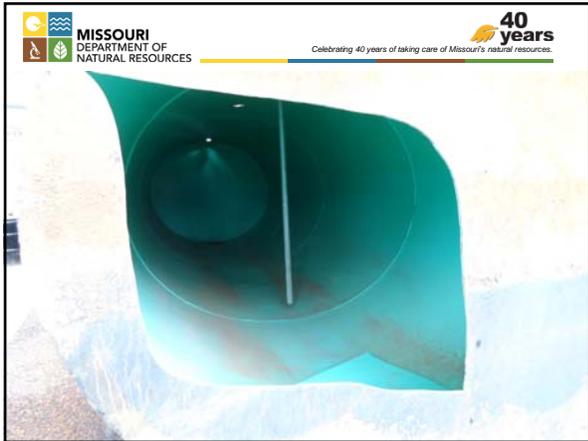
- Average 30 a year

- Provide compliance assistance

- Document findings

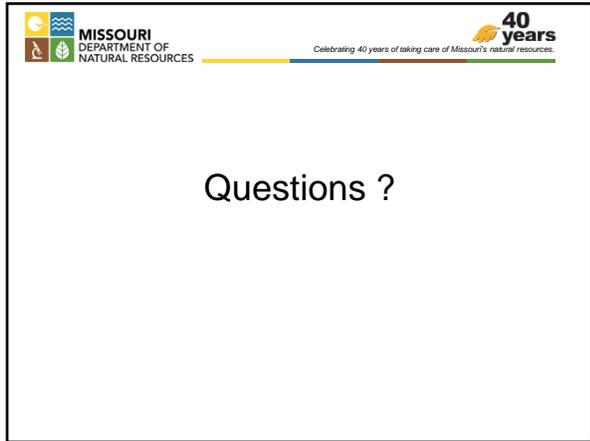












Missouri Hazardous Waste Management Commission Meeting

**August 21, 2014
Agenda Item # 7**

Corrective Action Update

Issue:

Corrective action activities at Missouri's Resource Conservation and Recovery Act (RCRA) Hazardous Waste Treatment Storage and Disposal (TSD) facilities.

Information:

This presentation is a follow up to the previous commission presentation regarding Corrective Action Project LEAN. Information to be presented includes background information related to the universe of corrective action facilities, national corrective action goals, current and historical activities bearing on the progress of RCRA facility site investigations and clean-up, and an update on Missouri's Corrective Action Project LEAN Pilot projects.

Recommended Action:

Information only.

Presented by:

Rich Nussbaum – Chief, Permits Section, Hazardous Waste Program


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Corrective Action: LEANing in a New Direction

HAZARDOUS WASTE MANAGEMENT COMMISSION

AUGUST 21, 2014

Richard Nussbaum, P.E., R.G.
 MDNR – Hazardous Waste Program
rich.nussbaum@dnr.mo.gov
 (573) 751-3553


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US General Accounting Office Report - July 2011

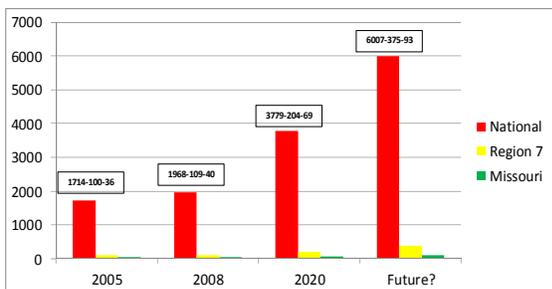
“Early Goals Have Been Met in EPA's Corrective Action Program, but Resource and Technical Challenges Will Constrain Future Progress.”

“To sustain progress in the RCRA corrective action program and better align the 2020 program goals with resources it will take to attain them, the EPA Administrator should direct cognizant officials to assess the agency's remaining corrective action workload, determine the extent to which the program has the resources it needs to meet these goals, and take steps to either reallocate its resources to the program or revise the goals.”


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Corrective Action Baseline Evolution



Year	National	Region 7	Missouri
2005	1714-100-36		
2008	1968-109-40		
2020	3779-204-69		
Future?	6007-375-93		

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National GPRA Goals for 2020 CA Baseline Facilities by End of FFY 2018*

Human Exposures Controlled - 92%
Contaminated Groundwater Migration Controlled - 76%
Final Remedy Implementation - 73%
Corrective Action Complete - 25%

*Source: EPA FFY14-18 Strategic Plan
http://www2.epa.gov/sites/production/files/2014-04/documents/epa_strategic_plan_ffy14-18.pdf

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2020 CA Goals - Current Missouri Status

National RCRA Corrective Action Performance Measures in Missouri
(Based on 69 Baseline Facilities and the Federal Fiscal Year)

Metric	Current Status (%)
Final Remedy Implemented	35
Human Exposures to Contamination Controlled	53
Contaminated Groundwater Migration Controlled	50
Corrective Action Complete	13

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Despite Our Successes, Why is Corrective Action Taking So Long?

- Regulatory/Guidance and Corrective Action Process Development and Implementation
 - Technical Disagreements
 - Inflexible Work Plans
- Human and Financial Resources
- New/Changing Environmental Standards
 - Toxicology/Exposure Assumptions
 - Vapor Intrusion
- Changing Technology


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Corrective Action LEAN Events

- RCRA Facility Investigation (RFI) – Feb. 2013
 - EPA Regions 3, 7 and Headquarters
 - States: Missouri, Virginia
 - Regulated Industry & Consultants
- Corrective Measures Study (CMS) – May 2014
 - EPA Regions 3, 7 and Headquarters
 - States: Kansas, Connecticut, California
 - Regulated Industry & Consultants


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Key RFI “Pain Points” Identified

1. **No agreement upfront on objectives with respect to site clean up**
2. Lack of initiative to elevate issues to determine streamline options
3. Multiple phases require approval for permit requirements
4. No proactive investigation strategy due to unclear objectives up front
5. Takes a long time to get up to speed (new people), revisiting decisions, etc. before proceeding
6. **Lack of accountability to achieve quality product**
7. No documentation/historical documents
8. Poorly defined data quality objectives
9. Insufficient knowledge of site conceptual model
10. Competing objectives across parties
11. **Varying perspectives around uncertainty tolerance**
12. Lack of defined product standards

➤ Primary “root” causes in the process resulting in delay


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RFI LEAN Event Recommendations

- Shift work to the front of the process by conducting a standardized strategic forum with the key stakeholders/decision-makers. In Missouri, this would be the facility and their consultants, EPA, HWP, MDHSS and MGS.
- Ensure intended purpose of the strategic forum is upheld by adhering to the newly-developed meeting format and agenda designed to:
 - Exchange information and standard objectives
 - Exchange and address concerns
 - Discuss criteria and expectations
 - Hold open, candid discussions
 - Debate variations in viewpoints
 - Build trust
 - Reach agreement





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LEAN Initiative: Key Differences in RFI Process

Current/Traditional	Future/Ideal
<ul style="list-style-type: none"> First document is the RFI Work Plan No upfront decisions on sampling and analysis, conceptual site model, interim measures, etc. No standard process for resolving technical disagreements 	<ul style="list-style-type: none"> First document is the Corrective Action Framework (CAF) Decisions on sampling and analysis, conceptual site model, interim measures, etc. required prior to submission of the RFI Work Plan Process to elevate technical disagreements





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What Have We Learned?

Shifting 15 years of downstream activity in the current process to 3-5 months of strategic, preventative upstream activity in the future process is the difference between a 5 year completion and a 20 year completion.

RCRA RFI Process		
Process Stats	Current Process	Future Process
# of Hand-offs - <i>Internal to Agency</i>	44	11
# of Reviews / Approvals	33	7
# of Loopbacks / Re-dos	24	2
# of Documents generated	94	15
Total Avg. wait time in process	4.6 yrs	0.4 yrs
Total Avg. work time per process steps	14.8 yrs	4.7 yrs
TOTAL Avg. Cycle time in Process	19.4 yrs	5.1 yrs
% Value Add activity in process*	10%	51%





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Missouri RFI LEAN Pilot Status

Zenith – Springfield, MO

- Interim Status (IS) post-closure (TSD) facility
- Initial kick-off CAF meeting - May 15, 2014
- Teleconference to discuss CAF comments - July 24, 2014
- On-site meeting to finalize CAF pending

Omnium (former Farmland) – St. Joseph, MO

- State Corrective Action Consent Order – IS CA Facility
- Initial Kick-off Site Visit/Meeting – June 4, 2014
- Internal Stakeholder (MDHSS) Meeting – June 27, 2014
- Initial well redevelopment/sampling proposal submittal and CAF development kick-off meeting pending

Missouri Hazardous Waste Management Commission Meeting

**August 21, 2014
Agenda Item # 8**

Tanks Financial Responsibility – Quarterly Update

Issue:

This is an update of the Hazardous Waste Program's (HWP's) progress on sites without a financial responsibility (FR) mechanism to cleanup releases from underground storage tanks (USTs) utilizing the expedited enforcement procedure.

Information:

- Missouri law and regulation requires tank owners and operators to maintain FR so that they will have funds to take corrective action and compensate third parties for bodily injury and property damage if they have petroleum releases from their USTs.
- Recognizing the importance of this, the Hazardous Waste Management Commission approved the usage of an expedited enforcement procedure to address these facilities in August 2008.
- At that time, of the 3,374 facilities required to have financial responsibility, 184 facilities lacked coverage. A 95% compliance rate.
- As of July 15, 2014, of the 3,167 facilities required to have financial responsibility, only 32 are currently without verified coverage. This equates to a 99% compliance rate.
- The expedited enforcement process is a valuable tool, allowing the Compliance and Enforcement Section (CES) to keep pace with the tasks and responsibilities of ensuring compliance with FR.
- As of July 15, 2014, 12 of those sites have been referred to the Attorney General's Office for legal action and 14 of those 32 have submitted applications to the Petroleum Storage Tank Insurance Fund and are pending approval for coverage. Staff is currently in the process of issuing letters and Notices of Violations, working to resolve the violation.

Recommended Action:

Information Only.

Presented by:

Mike Martin - Chief, UST Compliance and Technology Unit, CES, Hazardous Waste Program

 **MISSOURI**
DEPARTMENT OF
NATURAL RESOURCES

Celebrating 40 years of taking care of Missouri's natural resources.

40 years

Financial Responsibility (FR) Update

Michael Martin

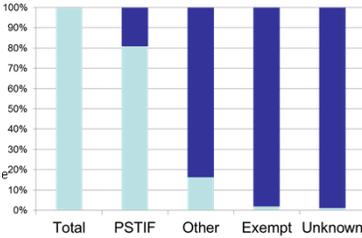
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NATURAL RESOURCES

Celebrating 40 years of taking care of Missouri's natural resources.

40 years

Status As Of March 18, 2014

Total DNR Regulated Facilities
3,167
Facilities with PSTIF coverage
2,562 = 81%
Facilities other FR coverage
516 = 16%
Facilities State/Federal Exempt
57 = 2%
Facilities with Unknown Coverage
32 = 1%



Category	Light Blue (%)	Dark Blue (%)
Total	100	0
PSTIF	81	19
Other	16	84
Exempt	2	98
Unknown	1	99

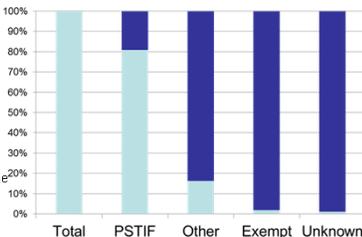
 **MISSOURI**
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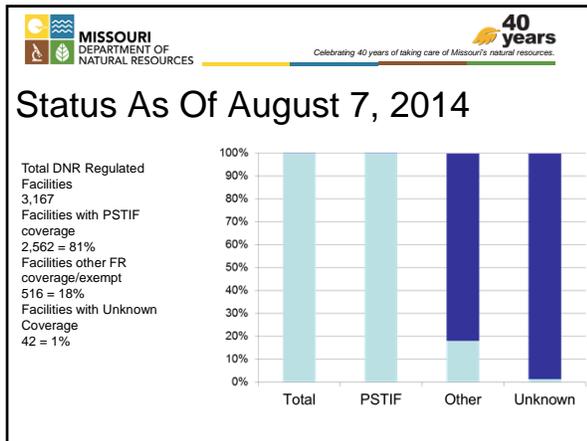
40 years

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MISSOURI DEPARTMENT OF NATURAL RESOURCES Celebrating 40 years of taking care of Missouri's natural resources. **40 years**

Status Of Unknown Coverage Sites

Total DNR Regulated Facilities	3,167
Facilities with Unknown Coverage	42
Facilities Referred to the Attorney General's Office	13
Facilities in Enforcement, not yet Referred	6

MISSOURI DEPARTMENT OF NATURAL RESOURCES Celebrating 40 years of taking care of Missouri's natural resources. **40 years**

Questions?

Missouri Hazardous Waste Management Commission Meeting

**August 21, 2014
Agenda Item # 9**

Quarterly Report

Recommended Action:

Information Only

Presented by:

Dee Goss – Public Information Officer, Division of Environmental Quality

Hazardous Waste Management Commission Report

January through March 2014

Quarterly Report



Hazardous Waste Management Commissioners

Deron Sugg, Chair
Charles Adams, Vice Chair
Andrew Bracker
James "Jamie" Frakes
Elizabeth Aull
Michael Foresman

"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

P.O. Box 176, Jefferson City, MO 65102-0176

www.dnr.mo.gov/env/hwp/index.html

Phone: 573-751-3176

Fax: 573-751-7869

Past issues of the Hazardous Waste Management Commission Report are available online at www.dnr.mo.gov/env/hwp/quarterlyreport.htm.



Missouri Department of Natural Resources
Hazardous Waste Program

Cover Photo: Treatment pump pilot study at Richards-Gebaur Air Force Base.

Letter from the Director

This report to the Hazardous Waste Management Commission covers the time period of January through March 2014. This time of the year marks the first half of the legislative session, which is a time where we begin to see a lot of requests for fiscal notes and other information related to proposed bills. Department and program staff devote a lot of time to these requests, as it is important to ensure that legislators have the best information available to them, in order to make informed decisions on any potential new laws.

While our program staff gear up to work on information requests related to the current legislative session, they are also continuing to work on several issues related to bills that were passed into law in previous years. The program continues to make good progress on meeting the requirements of HB1251 or the “No Stricter Than” legislation enacted during the 2012 legislative session. This quarter finds staff continuing to work on the text of the rules to ensure references are correct and the incorporation of new federal rules is complete. The program also held a Hazardous Waste Forum meeting during this quarter to discuss the proposed rule language and other issues with stakeholders, which resulted in general agreement of those in attendance with the draft documents presented. Subsequently, with the commission’s approval of the Finding of Necessity for the “No Stricter Than” rule package at the February 2014 meeting, staff are working on preparing the Regulatory Impact Report (RIR) for this rulemaking package. The RIR is expected to be completed and released for public comment later this summer.

Last year’s legislative session also brought new requirements for the department’s fact sheets and guidance documents. These requirements were included as one of the provisions in HB650 and HB28. This legislation requires the review of all fact sheets and guidance documents produced by the department for external dissemination, and requires the addition of the appropriate division director’s name, the production date of the fact sheet or guidance document and a statement that the fact sheets or guidance documents could not be used for enforcement action unless they were adopted as a rule. The department has a multitude of fact sheets and guidance documents targeted to many types of users, with the program alone having just fewer than 100 requiring this review. These documents were reviewed individually for applicability, and updated as necessary to ensure they were current. The program uses these fact sheets and guidance documents to assist the regulated community and the public in understanding the requirements of our rules and regulations. These “easy to read” reference materials are available on the department’s website, providing easy to understand answers to real-life situations that may be faced by the regulated community or the public, helping them to better understand how to comply with Missouri’s laws and regulations.

In addition to the efforts related to recently passed laws, staff are ramping up for a new round of pesticide collections for 2014. While this quarter finds us still in the planning stage, the first collection event was set for May 31st, in Perryville. With lessons learned from our initial collection events last year, we anticipate good results from this year’s events.

These are some of the many efforts undertaken by the program during this quarter. In addition to these activities, this report will provide an update on the remediation efforts of our different sections, permitting accomplishments, enforcement activities and an update on our tanks program. We hope you enjoy reading about these activities and the program’s many accomplishments.

Sincerely,



David J. Lamb

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Pilot Studies Pave the Way for the Federal Facilities Section

Current Pilot Studies

According to the dictionary a “pilot study” is a small-scale experiment or set of observations undertaken to decide how and whether to launch a full-scale project. This preliminary study is conducted in order to evaluate feasibility, time, cost and adverse events in an attempt to predict an appropriate sample size and improve upon the study design prior to performing a full-blown research project. Pilot study experiments are frequently carried out before large-scale studies, in an attempt to avoid time and money being wasted on projects that may not work due to unforeseen environmental factors. There are numerous sites within the Federal Facilities Section where pilot studies are currently taking place or where they are being considered.

One site currently heading up a pilot study on neutralizing explosives is the Lake City Army Ammunition Plant, in Independence. Lake City is the only government-owned, contractor-operated small arms manufacturer for the Army. The plant is the single largest producer of small arms ammunition for the United States military; producing nearly 1.4 billion rounds of ammunition per year. Because of these activities, chemicals that have explosive characteristics may potentially be in production buildings which are no longer being used. These buildings have also been identified to potentially contain a variety of mixed wastes including asbestos and heavy metals. Missouri asbestos abatement regulations require asbestos to be removed prior to building demolition. However, known explosive material has penetrated the concrete and wooden structures of the abandoned buildings, causing removal of the asbestos prior to abating the other materials to be an extreme risk to construction workers. The U.S. Army Corps of Engineers is managing the laboratory trials of the neutralization pilot study and preliminary results are quite positive. This pilot study, once completed, should be applicable to any abandoned, mixed waste, Army ammunition structures across the United States.

Another site conducting a pilot study is a former grain bin in Montgomery City. From 1949 to 1966, the U.S. Department of Agriculture operated a grain storage facility on property leased from the Montgomery County Fair Society. During this time, commercial grain fumigants containing carbon tetrachloride were commonly used to preserve grain in storage. Because of its harmful effects, carbon tetrachloride is now banned in pesticide use and it is only used in some industrial applications. In 2012, the Department of Agriculture conducted a pilot study using in situ chemical reduction technology for the treatment of carbon tetrachloride contamination found in soils and groundwater at the site. 34 shallow wells and 68 deep wells were installed and injected with a material developed to stimulate reduction of the contamination through physical, chemical and microbiological processes. They have been monitoring the site for a year and will have results out this summer to see if it can be considered a remedy for the site.

One more site with active pilot project is the former Richards-Gebaur Air Force Base, located near Kansas City. The base was deactivated as an active military facility and in 1980, 80 percent of the base was declared surplus property. At the base, low-levels of solvent contamination are still in the groundwater. Currently, the Air Force is conducting the Treatment Sump Pilot Study. This involves excavating soil to bedrock and backfilling with a lactose compound and rock. This will make the area more conducive to solvent breakdown. The expectation is that the contaminated water will pool in the area and treat the contamination when they come in contact with each other. Another ongoing pilot study is bedrock injections, where again a lactose compound is injected into bedrock to help break down the solvent.

The Air Force is also planning another pilot study at the former Richards-Gebaur Air Force Base that will create a trench so the lactose compound will flow into the weathered bedrock, where the solvent contamination is located. As you can see various delivery methods for the lactose compound are being tested to find the most effective way to remediate the site based on contamination location.

Upcoming Pilot Studies on Vapor Intrusion

According to the Environmental Protection Agency (EPA) “vapor intrusion” is defined as vapor-phase migration of volatile organic compounds or volatile inorganic compounds into occupied buildings from underlying contaminated groundwater or soil. Until recently, this transport pathway was not routinely considered under the Resource Conservation and Recovery Act (RCRA); the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); or underground storage tank investigations. Therefore, the number of buildings or homes where vapor intrusion has occurred is undefined.

The former Kirksville Air Force Station, located just outside of Kirksville, has a solvent plume that is migrating directly towards a privately owned residence. The U.S. Army Corps of Engineers has discovered contamination just 50 feet from the house. As vapor intrusion studies and technologies have evolved and the possible risk vapor intrusion can pose to the public the more there is a need for additional investigation. In order to answer that call the Missouri Department of Natural Resources and the U.S. Army Corps of Engineers have decided to conduct a vapor intrusion study in the basement of the residence. The study should begin this fall.

A former dry cleaning facility at Fort Leonard Wood used “perc” or PCE, a common dry cleaning solvent. Reportedly, when spills occurred, workers mopped the PCE down the drain, which led to a losing stream next to the property. The Army has stated that their preference for the future use of the site is for industrial purposes however, they realize the need to prevent future workers from exposure to harmful contaminants. Because of this, the department has stated that the Army must fully investigate this site, including a vapor intrusion investigation. The department expects the investigation to take place in the fall of 2014.

As seen by these examples, pilot studies are being conducted all over the state at both active and inactive federal facility sites. Because of the large size of these sites, often covering hundreds of acres, pilot studies are more efficient and save money in the long run. They also provide opportunities to try out new ideas on a small scale. If a pilot study works, it benefits the overall cleanup. If it does not work, it still supplies valuable information. In either case there are many lessons learned and applied to future studies.



Staff performing a treatment pump pilot study at Richards-Gebaur Air Force Base

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” letter or “certificate of completion” from the state.

The Brownfields/Voluntary Cleanup Program (BVCP) issued 16 certificates of completion for various sites from January through March 2014. This brings the total number of certificates of completions to 726.

Community Development Block Grant Awarded to the City of Canton

The state of Missouri awarded a Community Development Block Grant of \$1,990,000 to the city of Canton to purchase, clear and prepare ten blighted properties for the site of a new grain elevator. The Pulse Family Property Sites were assessed by the department as part of the Brownfield Assessment Program. As part of the BVCP remediation process, the ten properties were cleared of environmental issues and contamination. This project will have a positive impact on the local agricultural community including local farmers and businesses.

There were numerous stakeholders involved in this process including the Governor’s office, the Lewis County Industrial Development Authority (LCIDA), the city of Canton, Ursa Farmer’s Cooperative, Missouri Department of Economic Development and the Missouri Department of Natural Resources. The Ursa Farmer’s Cooperative (UFC) and the 400 Missouri farm families who belong to the cooperative have invested \$6 million to construct a new state of the art grain elevator facility. Missouri farmers provide UFC with 4 million bushels of corn and beans annually. This is an excellent example of community and business working together for the benefit of everyone.



Example property, Pulse Family Properties Train Depot - Canton

Pulse Family Properties Train Depot - Canton

The Train Depot site, 101 Lewis St., Canton, is gravel and grass covered and contains a one-story brick building. It has been used as train depot, office space, bulk oil station, fish market and a salting/pickling manufacturer. Based on a historical review it was found that gasoline and oil tanks were in use on the southern end of the property from approximately 1917 to 1940.

Site investigations indicated suspect lead-based paint (LBP) and asbestos-containing materials (ACM) may have been present. Soil samples indicated petroleum hydrocarbons and lead were detected; however, the concentrations did not exceed the Missouri Risk-Based Corrective Action (MRBCA) residential risk based target levels (RBTLs). Groundwater samples indicated concentrations of petroleum hydrocarbons were detected; however the concentrations did not exceed the MRBCA residential RBTLs. The department determined that the site is safe for its intended use.

Pulse Family Properties Steel Frame and Wood Frame Building - Canton

The Steel Frame and Wood Frame Building, 102 S.Second St., Canton, originally had two structures. The frame structure was torn down by the previous owner, while the remaining building, built in 1970, was constructed as a fertilizer plant for the production of agricultural fertilizer until 1985.

The previous owner left 55-gallon drums of unknown material behind when he sold the property. Investigation activities consisted of characterizing the material in the drums as hazardous waste for disposal purposes. These drums, and other raw materials on the property, were part of the fertilizer business and were taken off-site for proper disposal.

Solid waste was also present on the site and was properly disposed off-site. Hazardous waste was carefully containerized and disposed of off-site by a licensed contractor. Asbestos abatement was performed on the building prior to demolition. The building's concrete foundation was removed and the site graded with clean soil. The department determined that the site is safe for its intended use.

Pulse Family Properties Bailey Property – Canton

The Bailey Property site, 101 First St., Canton, was historically used for car restoration, a hay and grain warehouse, a boathouse and an ice manufacturing facility.

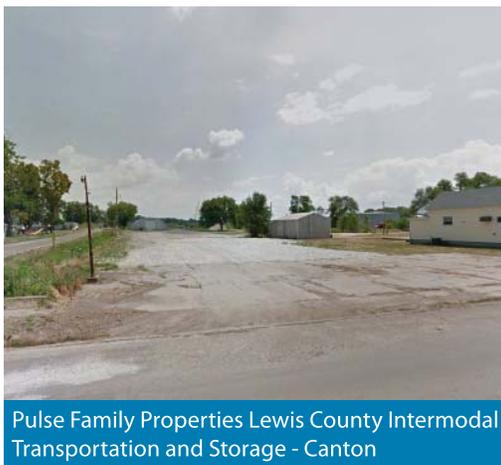
Two aboveground storage tanks (ASTs) and several 55-gallon drums and used tires were removed from the site. An old concrete foundation and cinderblock structure were also removed and the site was graded with soil. The department determined that the site is safe for its intended use.

Pulse Family Properties Vacant Lot and Quonset Building - Canton

The Vacant Lot and Quonset Building, 201 Lewis St., Canton, contained a one-story Quonset-style hut. There were also two reinforced concrete support saddles that are typically associated with ASTs; these are located immediately east of the Quonset-style hut. The site was historically used as a livery stable, residential properties, hotel properties and a lumber yard.

Site investigations indicated there were several labeled and unlabeled containers of various hazardous materials in the Quonset hut on the property. In addition, there were several pallets of various pesticides inside the hut. Soil sample results indicated concentrations of arsenic and lead exceeded the MRBCA lowest default target levels (DTLs); however the concentrations were below the generally accepted background values for arsenic and lead. Groundwater samples results indicated arsenic was detected but the concentrations did not exceed the MRBCA RBTLs. Lead was also detected in the groundwater samples but a temporary piezometer was utilized so suspended sediments could interfere with the test results. LCIDA performed a current and future groundwater use evaluation as outlined in Section 6.6 of the MRBCA Guidance Document (2006) so the domestic use of the groundwater pathway could be eliminated. The department determined that the site is safe for its intended use.

Pulse Family Properties Lewis County Intermodal Transportation and Storage - Canton



Pulse Family Properties Lewis County Intermodal Transportation and Storage - Canton

The Lewis County Intermodal Transportation and Storage site, 700 S. Fourth St., Canton, was built in the early 1970s and used first as a restaurant and truck stop, then later as an office building. Even though historical resources indicate ASTs were in operation in the 1950s, when the site was a truck stop, no evidence of ASTs could be found.

Site investigations identified asbestos in the flooring and window caulk in the old truck stop and restaurant building. These materials were removed and properly disposed off-site prior to building demolition. A truck scale was removed from the parking lot behind the building. Soil samples did not indicate contamination associated with the scale. The department determined that the site is safe for its intended use.

Pulse Family Properties Tri-State Fertilizer - Canton

The Tri-State Fertilizer site, 100 First St., Canton, was used for light industrial use from 1952 to 2005. The buildings were used for storage and blending fertilizers with other unknown chemicals. The buildings were dilapidated and abandoned by the owner, who left several barrels on-site. It was unknown what materials, if any, were stored in the barrels. LCIDA hoped to develop an attractive and useable light-industrial site to promote grain handling and barge loading facilities.

Site investigations revealed several unknown materials, used to make fertilizers, spilled on the building floor. These materials were properly characterized and contained prior to shipping off-site for disposal in a permitted landfill. Soil and groundwater samples indicated concentrations of arsenic, lead and ammonia exceeded the MRBCA lowest DTLs. The additional phase II environmental report indicated concentrations of arsenic in the near surface soils exceeded the MRBCA levels; however, the concentrations are below the background levels for arsenic in Lewis County, reported as 8.7 mg/kg. In addition, lead and ammonia did not exceed the MRBCA RBTLs in surface soils. Since the June 2011 phase II report, the building was demolished and the site was graded with additional soil, added to improve drainage around the building foundation. The near-to-surface soils were covered with clean soil preventing the dermal contact exposure pathway. Groundwater results indicate arsenic and lead were detected but arsenic did not exceed the MRBCA residential RBTLs. Lead concentrations exceeded the residential RBTLs based on domestic use standard. LCIDA performed a current and future groundwater use evaluation as outlined in Section 6.6 of the MRBCA document (2006) so the domestic use of groundwater pathway could be eliminated. The department determined that the site is safe for its intended use.

The Former F. Christen & Sons – St. Louis

The former F. Christen & Sons site, 121 Dock St., St. Louis, was a former salvage yard. Past site use included bellows manufacturing (1909-1965), box manufacturing (1930-1975) and a recycling/junk yard (1980-2001). The site was abandoned and is tax-reverted land. Site investigations revealed the presence of total petroleum hydrocarbons-diesel range organics (TPH-DRO), polynuclear aromatic hydrocarbons (PAHs), lead and polychlorinated biphenyls (PCBs) in soils. Exposed surface soil was impacted by historic surface releases. Remediation activities consisted of tire removal and surface soil excavation of TPH-DRO, PAHs, lead and PCBs with proper off-site disposal. Based on these remedial activities, the site currently meets the non-residential use contingent upon a restrictive covenant being placed on the property prohibiting residential use and requiring maintenance of an applicable engineered barrier. The department determined that the site is safe for its intended use.

The Former Heritage/AT&T Building Site – St. Louis

The former Heritage/AT&T Building site, 4240 Duncan Ave., St. Louis, was previously occupied by Western Electric Company, Southwestern Bell Telephone Co., Midwest Distribution Co., Travco Distribution Inc., Heritage Communications, Heritage Exposition Services and Easy Business Mailers Inc.

This site contained an underground heating oil storage tank with a capacity of approximately 25,000 gallons. Site activities were conducted in accordance to MRBCA Tanks guidelines. The tank was vacuumed of all liquid and cleaned before it was removed. Staining and contamination were observed during the excavation. Overburden was disposed of as hazardous waste. The pit was over excavated to remove any contamination. Closure sampling indicated that contamination is below tier 1 residential levels for soil type 1. The department determined that the site is safe for its intended use.

Boonville Track 104 Fertilizer - Boonville

The Boonville Track 104 Fertilizer site, Fourth Street and East Water Street, Boonville, was occupied by ASTs and a metal scrap yard prior to the installation of conveyor equipment and occupation by Interstate Marine Terminal (IMT) in 2001. IMT used the site to off-load ammonium nitrate from approximately 2001 to 2006. ConAgra took over the IMT operation in 2006 and used the site to conduct transfers of solid ammonium nitrate, liquid nitrogen and potash from 2006 to 2008. ConAgra then sold this division, along with other non-food related divisions, that were formed into Gavilon Fertilizer LLC in July of 2008. Gavilon currently conducts transfers of liquid nitrogen and potash.

During environmental investigations conducted in 2007, ammonia as NH₃, benzene, naphthalene, total petroleum hydrocarbons-gasoline range organics (TPH-GRO), and lead were detected in soil and groundwater. Subsequently, groundwater monitoring was conducted from 2010 to 2012 to determine the extent of contamination. Chemical analysis indicates concentrations of contaminants do not exceed 2006 MRBCA tier 1 RBTLs for residential soil Type 1. The contaminate plumes are not expanding beyond the site and the site is not likely to be developed for resident use; therefore the site meets the requirements for unrestricted use. The department determined that the site is safe for its intended use.

Family Dollar Store Property - Natural Bridge – St. Louis

The Family Dollar Store Property - Natural Bridge site, 4475 and 4487 Natural Bridge Ave., St. Louis, consists of two parcels of land located at the intersection of Natural Bridge Avenue and North Taylor Avenue. The site has historically served as residential property, a curtain cleaner, a fast food restaurant, an automotive repair shop and a gasoline station. Currently, the site is occupied by a 25,000 square foot convenience store surrounded by paved parking lot with an 8,000 square foot garage used for storage space.

A 2012 phase II subsurface investigation identified the presence of petroleum hydrocarbons and chlorinated solvents, primarily tetrachloroethylene (PCE), in soil and groundwater. Only PCE and trichloroethylene (TCE) in groundwater were found to exceed levels of concern. The detection was limited to one sample location on the south corner of the property (an asphalt parking lot area) and was not associated with any known source of release at the site. Additional sampling of surficial soil conducted in July of 2013 at the request of the BVCP did not reveal the presence of contamination above levels of concern. A tier 1 risk assessment was performed in accordance with the 2006 MRBCA guidance to evaluate risk posed by PCE and TCE in groundwater. The assessment determined cumulative risk to be acceptable for residential vapor intrusion, but concentrations exceeded risk standards for residential domestic use of groundwater. Since the site is within the City of St. Louis, city ordinance 6677 prohibits installation and use of private wells rendering potential domestic use pathways incomplete. The site therefore qualifies for unrestricted use. The department determined that the site is safe for its intended use.

Carousel Building - Eldon

The Carousel Building site, 619 E. Eighth St., Eldon, is a 65,000 square foot building on 4.5 acres. It was formerly used as a shoe company from 1940 into the 1960s and a carousel manufacturing facility from 1960-2003. The building is composed of brick and steel and is in fair condition. Potential contaminants are asbestos and hazardous materials.

Site investigations revealed the presence of ACM, LBP and metals-containing residue and soil associated with a sand blasting booth and baghouse filtering unit at the former Carousel Building site. Remedial actions included the removal and proper disposal of ACM and LBP from the building. Metals containing residue and soil were also removed and properly disposed off-site in an approved landfill. The department determined that the site is safe for its intended use. This site was assessed under the Missouri Brownfield Assessment Program.

Input Technology, Inc. – St. Louis

The Input Technology Inc. site, 1470 S. Vandeventer, St. Louis, is a one acre site with a two-story, 30,000 square foot building. This site is occupied by a company that produces mass mailings via digital printing. From 1940 until 1991 the site was used as a chemical lab, manufacturing and supply facility. A phase II assessment on the site indicated the soil and groundwater were contaminated with PCE, TCE, vinyl chlorides and cis-1,2- dichloroethylene (DCE). It appeared the contamination was from a historical release and not a result of current site activities.

Based on the results of a September 2009 site characterization and groundwater monitoring report and previous investigations, riverfront delineated the extent of impact to the east, south and west of the site. All other contaminants of concern for soil and groundwater were below DTLs. Results of the December 2009 and March 2010 (3rd and 4th quarter) groundwater monitoring events indicated the groundwater plume was stable. The April 2011 revised tier 1 and tier 2 risk assessment indicated the calculated individual excess lifetime cancer risk (IELCR) for each contaminant of concern and the cumulative site-wide IELCR were below the acceptable risk levels for non-residential use. The department determined that the site is safe for its intended use.

The Former Van Brunt Street Car Barn – Kansas City

The former Van Brunt Street Car Barn, East Ninth Street and Van Brunt Boulevard, Kansas City, was previously enrolled in the BVCP and received a certificate of completion in September of 2010. During concrete removal and site grading for redevelopment activities, a black granular material was encountered in the shallow subsurface and needed to be removed. Thus, the city reentered the site in the BVCP for additional cleanup. Former uses for the site include: electric street car maintenance, Area Transportation Authority bus maintenance, a public works body shop and vehicle fueling facility.

Excavation of material was spread just below the ground surface across a large portion of the site. At the request of the city, the material was sampled and lab results indicated samples did exceed the MRBCA, 2006 DTLs for arsenic, lead, selenium and naphthalene. However, only the lead concentration, which was 1,600 milligrams per kilogram, exceeded the tier 1 screening level.

The proposed remedial plan was approved for the management of the lead-impacted material. The lead-impacted material was excavated using track excavators and transported to the southwest portion of the site to be placed into the lower portion of the proposed all weather soccer field. After placement of lead-impacted material into the excavation, a minimum two-foot thick layer of clean clay fill was used to provide a protective cap. An approximately one-foot thick layer of crushed concrete was placed above the clay cap, followed by the drainage system and turf for the all-weather soccer field. A youth soccer field and an amphitheater were constructed as part of the park development. The department determined that the site is safe for its intended use.

The Former Hannibal Auto Salvage - Hannibal

The former Hannibal Auto Salvage site, 322 S. Eighth St., Hannibal, has included several past businesses operating at the site: Duffy Trowbridge Coal Co., Cash Coal Company, Higgins Janitorial Service, Burke Printing, Yellow Cab Company and International Tool Corporation.

Site investigations indicated volatile organic compounds (VOCs), particularly PCE and TCE, were detected in groundwater samples at concentrations above the DTLs. A site characterization report and risk management plan, according to the MRBCA technical guidance of 2006, were prepared and submitted to the BVCP. After several quarterly groundwater monitoring events, PCE and TCE representative concentrations were below the non-residential and construction worker tier 1 RBTLs. The department determined that the site is safe for its intended use.

Hannibal Machine - Hannibal

The Hannibal Machine site, 400 S. 11th St., Hannibal, was the past location of several businesses: a shoe company, rubber factory, International Shoe Company, warehouse for International Shoe Company, and machine and welding shop. Contaminants found in groundwater included acrolein and lead above the MRBCA DTLs.

Previous site investigations revealed the presence of lead and acrolein in the groundwater at the property. Further site investigation and characterization were performed to determine the extent of these contaminants in the groundwater; however, they were not detected at or above the detection limits in the site characterization groundwater samples. However, polycyclic aromatic hydrocarbons (PAHs) were identified in the site groundwater above the MRBCA 2006 DTLs. After several quarters of groundwater monitoring, the plume stability analysis indicated that PAHs in groundwater appeared to be decreasing. A risk management plan was prepared to ensure the contaminants of concern are acceptable under the MRBCA guidance. The department determined that the site is safe for its intended use.



Joe Ogden's Garage - Hannibal

Joe Ogden's Garage - Hannibal

The Joe Ogden's Garage site, 700-02 S. Main St., Hannibal, has several past site uses: auto repair, battery and electric shop and a furnace company. A phase II environmental site assessment indicates lead in soil above MRBCA DTLs.

Site investigations indicated lead in soil at concentrations above the MRBCA 2006 DTLs and area background levels. The site formerly operated as an auto repair shop and has been developed since at least 1885. Based on the results of the site characterization and tier 1 risk assessment, the representative

concentrations of lead contamination in the surface and subsurface soil were below the MRBCA non-residential target land use level. The department determined that the site is safe for its intended use.

The City of Hannibal is engaged in a commercial flood buyout program. The program originated in the aftermath of the 2008 flood and will include the acquisition, demolition and natural restoration of certain commercial properties located in the floodplain. The goal of the project is to remove life and property from future harms' way.

Sites in Brownfields/Voluntary Cleanup Program

Month	Active	Completed	Total
January 2014	237	717	954
February 2014	236	720	956
March 2014	236	726	962

New Sites Received: 10

January

Post Office Redevelopment, St. Charles

February

Dollar Genral Troost Ave, Kansas City
Coves Plaza, Kansas City

March

Alva Allen Industries, Clinton
Park & Thoman, Stingfield
Colonial Baking Company (former), Springfield
West Pine Lofts, St. Louis
HCI Properties LLC, Kansas City
St. Lucas Church, St. Louis
Residential Apartment Building, St. Louis

Sites Closed: 16

January

F. Christen & Sons (former), St. Louis
Bailey Property, Canton
Lewis County Intermodal Trasportation and Storage, Canton
Steel Frame and Wood Frame Building, Canton
Train Dopot, Canton
Tri-State Fertilizer, Canton
Vacant Lot and Quonset Building, Canton

February

Booneville Track 104 Fertilizer, Booneville
Heritage/AT&T Building (former), St. Louis
Family Dollar Store Property - Natural Bridge, St. Louis

March

Input Technology, Inc., St. Louis
Van Brunt Street Car Barn (former), Kansas City
Carousel Building, Eldon
Joe Ogden's Garage, Hannibal
Hannibal Machine, Hannibal
Hannibal Auto Salvage (former), Hannibal

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
January	0	5	3
February	0	5	1
March	6	0	0

Month	Received	Under Review	Paid/Processed
January	\$0.00	\$57,016.69	\$26,884.66
February	\$0.00	\$40,880.12	\$7,460.20
March	\$331,674.02	\$0.00	\$0.00

Reimbursement Claims Processed

Site Name	Location	Paid
AG Cleaners	Kirkwood	\$14,093.04
Charter Dry Cleaning	Ellisville	\$4,970.50
First Capitol Cleaners	St Charles	\$15,281.32

Total reimbursements as of March 31, 2014: \$2,448,616.61

DETR Fund Balance as of March 31, 2014: \$621,243.20

Drycleaning Environmental Response Trust Fund

The Department of Natural Resources' 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 2014	Active Dry Cleaning Facilities	Facilities Paid	Facilities in Compliance
January - March 2014	150	76	50.67%

Calendar Year 2014	Active Solvent Suppliers	Suppliers Paid	Suppliers in Compliance
January - March 2014	11	10	90.91%

Cleanup Oversight

Calendar Year 2014	Active Sites	Completed Sites	Total
January - March 2014	26	15	41

New Sites Received: 0

Sites Closed: 0

The Largest Environmental Settlement in U.S. History

The proposed \$5.1 billion cash settlement, announced April 3, stems from a legal battle between Kerr-McGee Corp. and Tronox Inc. This is the largest environmental enforcement recovery by the U.S. Department of Justice, breaking the record-setting \$4.5 billion settlement between British Petroleum and the U.S. Department of Justice for the 2010 Deepwater Horizon oil spill in the Gulf of Mexico.

The proposed settlement agreement between the United States and Anadarko Petroleum Corp., the parent company of Kerr-McGee, is the result of a fraudulent conveyance lawsuit filed by Tronox and pursued by the United States and co-plaintiff Anadarko Litigation Trust. The lawsuit grew out of bankruptcy proceedings in U.S. Bankruptcy Court regarding Tronox Inc., who was a subsidiary of Kerr-McGee before being spun off as an independent company.

The U.S. Department of Justice lodged the proposed settlement agreement, which can be found online at www.justice.gov/enrd/6377.htm, with the U.S. Bankruptcy Court for the Southern District of New York. The public was invited to review and submit comments on the proposed settlement agreement until May 14, 2014. After the 30-day public comment period, the proposed settlement agreement was submitted for the court's approval.

The Fraudulent Conveyance

Kerr-McGee operated numerous chemical, energy and manufacturing businesses for over 85 years across the United States, including oil and gas exploration and production facilities, uranium and other mines, radioactive thorium processing plants, creosote wood treating facilities, chemical plants, fertilizer/pesticide facilities, nuclear fuel processing facilities and facilities that manufactured perchlorate, a component of rocket fuel. These operations left about 2,800 sites contaminated with hazardous waste in 47 states, including two former Missouri wood treating facilities owned by Kerr McGee's Forest Products Division. Kerr-McGee had accumulated massive environmental liabilities.

Starting in 1990, the oil and gas exploration and production industry was undergoing significant consolidation. Kerr-McGee had attracted potential buyers during this time; however, selling the company was unsuccessful due to Kerr-McGee's environmental liabilities. In 2001, Kerr-McGee began to isolate their oil and gas exploration assets from the environmental liabilities. Kerr-McGee transferred the contaminated sites and environmental liabilities to their Chemical Division. Kerr-McGee created a new "clean" corporate entity, New Kerr-McGee, and transferred its oil and gas exploration assets and all other businesses except the Chemical Division to New Kerr-McGee. Old Kerr-McGee then formed a new wholly-owned subsidiary, Kerr-McGee Chemical Worldwide LLC, and merged into it. As a result of this restructuring, the environmental liabilities were only partially separated, since New Kerr-McGee was still the parent company of Kerr-McGee Chemical.

On Sept. 12, 2005, after an unsuccessful attempt to sell Kerr-McGee Chemical, New Kerr-McGee renamed the Chemical Division to Tronox Inc. On Nov. 21, 2005, Tronox became a publicly traded company when New Kerr-McGee sold a minority stake in Tronox through an initial public offering, but maintained controlling interest in Tronox by retaining a majority of the Tronox shares. New Kerr-McGee spun Tronox off as an independent company by distributing its remaining shares of Tronox to the New Kerr-McGee stockholders. Tronox became an independent company on April 1, 2006. Less than three months after the completion of the Tronox spin-off, New Kerr McGee changed its name back to Kerr-McGee. Anadarko Petroleum Corp. offered \$16.4 billion, plus the assumption of \$1.6 billion in debt, to acquire Kerr-McGee, which shareholders approved in August 2006.

The Bankruptcy

Tronox began to struggle almost immediately after the March 2006 spinoff. Tronox was rendered insolvent, undercapitalized and unable to pay its environmental and other liabilities when they came due. Tronox had at least \$1 billion in environmental claims. On Jan. 12, 2009, Tronox filed for relief under Chapter 11 bankruptcy.

The Department of Justice, representing EPA, and several state Attorney Generals, including the Missouri Attorney General's Office, worked with Tronox on its joint plan of reorganization. As part of the bankruptcy settlement agreement, in exchange for release from the environmental liabilities, Tronox funded several trust accounts with an estimated five years of funding for the environmental claimants for corrective action and oversight of the contaminated facilities. This was accepted by the tort and environmental claimants because failure to do so would likely cause Tronox to liquidate and, as unsecured claimants, recovery of any funds would be unlikely. The bankruptcy settlement agreement provided the environmental claimants a total of approximately \$270 million for cleanup costs incurred or to be incurred. Included in the total was \$3.8 million for estimated site care maintenance costs for five years for the two Missouri facilities.

On Feb. 14, 2011, all rights, titles, and interests in the Tronox contaminated sites were transferred to several trust funds established for that purpose; the Multistate Trust, Savannah Trust, Henderson Trust, Cimarron Trust and West Chicago Trust. The trusts were funded with the five years of site care maintenance costs in specific amounts as specified in the bankruptcy settlement agreement. Tronox transferred 24 of its facilities, including the two former Missouri wood treating facilities, to the Greenfield Environmental Multistate Trust LLC. Greenfield took ownership and operational control on Feb. 14, 2011. The environmental trust administers cash funds from the settlement for site care and monitoring.

The bankruptcy settlement agreement also established the Anadarko Litigation Trust to pursue the interests of the environmental and tort claimants in the lawsuit against Anadarko and Kerr-McGee. As part of the settlement agreement, Tronox also agreed that any money resulting from a lawsuit against Kerr-McGee Corp. and Anadarko Petroleum Corp. would be divided between the bankruptcy tort and environmental claimants.

The Lawsuit

On May 12, 2009, Tronox filed a \$15.5 billion fraudulent conveyance lawsuit against Kerr-McGee and Anadarko, claiming violations of the Exchange Act. Tronox claimed Kerr-McGee burdened the company with environmental liabilities through the 2006 spinoff, which doomed Tronox to fail. These environmental liabilities were unrelated to its chemical business. The federal government later entered the lawsuit as an intervener on June 15, 2009. Tronox creditors and the government argued the companies should pay billions of dollars to clean up thousands of contaminated sites around the U.S. and compensate people who claim they were harmed by Kerr-McGee's pollution. Tronox was also seeking the full value of assets it says were fraudulently transferred into Anadarko.

On Dec. 13, 2013, the court found Old Kerr-McGee Corp. and Anadarko fraudulently conveyed assets to New Kerr-McGee in order to separate Kerr-McGee's oil and gas assets from its legacy environmental liabilities and transferred those assets for less than their fair value. The court found the companies responsible for substantial damages resulting from this fraud. Kerr-McGee and Anadarko agreed to pay \$5.1 billion under the lawsuit settlement agreement.

Missouri Facilities

Kerr McGee previously owned two former wood treating facilities in Missouri. One facility is 114-acres, located at 2300 Oakland in Kansas City. The other facility is 68-acres located at 2800 W. High St. in Springfield. American Creosote Corp. built both facilities in 1907 to manufacture railroad cross-ties and switch ties, using creosote as a preservative. Kerr-McGee Corp., Forest Products Division, acquired the facilities in 1964 and 1965, respectively, and continued the same operations. The creosote-treating operations at the Kansas City facility went inactive in April 1983; however, Kerr-McGee continued to use the site as a distribution center for treated wood products. The Springfield facility closed in December 2003.

Kerr-McGee used hazardous waste surface impoundments at both facilities for long-term storage of sludge produced by the treatment of wastewaters from the creosote wood preserving processes. Creosote bottom sediment sludge is classified as hazardous waste and is regulated under the Resource Conservation and Recovery Act, or RCRA. Kerr McGee operated the surface impoundments under the interim status portions of the federal and state hazardous waste laws. When Congress passed the hazardous waste federal law in 1980, all existing facilities that treated, stored or disposed of hazardous waste were allowed to operate temporarily under “interim status” until they either received a hazardous waste permit or closed the regulated hazardous waste units. According to applicable state and federal hazardous waste laws and regulations, all hazardous waste treatment, storage and disposal facilities are also required to investigate and clean up releases of hazardous waste and hazardous constituents to the environment at their facility resulting from present and past hazardous waste handling practices.

Kansas City Facility Cleanup

Kerr McGee operated one clay-lined surface impoundment at the Kansas City location. Active use of the surface impoundment stopped in 1983 when wood treating operations went inactive. The surface impoundment was closed in 1988; however, the surface impoundment is required to go through a period of post-closure care because hazardous waste remained in place after closure. As part of the post-closure care, the facility is required to operate and maintain a groundwater monitoring system and the cover over the closed impoundment.

Several investigations confirmed past operations impacted soil and groundwater in several areas at the facility, with creosote as the main contaminant. In order to reduce or prevent unacceptable risks to human health and the environment, Kerr-McGee installed groundwater recovery wells to remove free phase creosote product. The recovered groundwater is treated in an on-site wastewater pre-treatment facility. Kerr-McGee, later Tronox, was conducting post-closure and corrective action activities under two hazardous waste permits, one issued by the department and one issued by the EPA.

Springfield Facility Cleanup

Kerr McGee operated four surface impoundments at their Springfield location. One of the surface impoundments was closed in 1973, before the RCRA regulations existed. In 1979, Kerr McGee built an experimental landfarm at the facility, to treat sludge produced from closing the impoundment. The sludge was applied in three yearly applications from 1979 to 1981. The remaining three impoundments were built between 1973 and 1976. All three impoundments were closed in 1988. In 1990, the landfarm also went through closure since the creosote did not completely degrade to non-hazardous levels. All four units are required to go through a period of post-closure care because hazardous waste remained in place after closure. As part of the post-closure care, the facility is required to operate and maintain a groundwater monitoring system and the cover over the closed impoundments and landfarm.

Initial investigations identified soil and groundwater contamination, with contaminated groundwater extending off-site, northeast of the facility. In 1985, Kerr-McGee installed six sumps in a recovery

trench used to recover impacted groundwater and accumulated creosote product. Three additional trenches were installed between 1994 and 1996. Kerr-McGee, later Tronox, was conducting postclosure and corrective action activities under two hazardous waste permits, one issued by the department and one issued by the EPA.

Settlement Funds

The Tronox Bankruptcy Settlement Agreement set aside approximately \$3.8 million for the department for the two Missouri facilities, of which \$1,743,398 was for the Kansas City facility and \$2,025,323 was for the Springfield facility. The bankruptcy settlement agreement also stipulated that approximately 12 percent of the proceeds from the lawsuit against Kerr-McGee and Anadarko would pay the tort claims of people who have health effects from the pollution and approximately 88 percent would pay for federal, state, local and tribal environmental cleanups.

The bankruptcy settlement agreement specified a certain percentage of this funding to be made available to each site.

If the court approves the proposed settlement agreement, approximately \$4.4 billion of the \$5.15 billion proceeds will fund environmental cleanup and pay for environmental claims. Approximately 25 percent of the proceeds will be deposited into the Multistate Trust to cover remediation of contamination caused by 24 facilities formerly owned by Kerr-McGee in numerous states. The department will receive 0.5 percent for each Missouri site. These funds never become “monies of the state,” but will be spent with oversight and budget approval by the department. The State of Missouri will also receive 0.15 percent of the \$4.4 billion in cash payments for Natural Resource Damage claims, 0.033 percent for the Kansas City facility and 0.117 percent for the Springfield facility. These payments will be deposited in the state’s Natural Resource Protection Fund.

The Permits Section spent considerable time and resources coordinating with the EPA and the U.S. Department of Justice during the bankruptcy proceedings, including preparing cost estimates in support of bankruptcy claims and providing technical support to department legal and Missouri Attorney General’s staff regarding bankruptcy-related issues. The permits section also participated in discussions with the Department of Justice regarding development of the bankruptcy settlement agreement and trust fund language development. Without the hard work of department staff, these funds may not have been possible.

Regional Office Hazardous Waste Compliance Efforts

- Conducted 111 hazardous waste generator compliance inspections:
 - 24 at large quantity generators
 - 57 at small quantity generators
 - 17 at conditionally exempt small quantity generators
 - Three resource recovery inspections
 - Nine at E-waste recycling facilities
 - One targeted re-inspection
- Conducted eight compliance assistance visits at hazardous waste generators
- Issued 42 letters of warning and five notices of violation requiring actions to correct violations cited during the 92 inspections conducted.
- Received and investigated a total of 48 citizen concerns regarding hazardous waste generators.

Underground Storage Tank (UST) Compliance and Technology Unit (CTU)

New regulation changes are progressing. To comply with the Environmental Protection Agency Energy Policy Act requirements, the department will require all new UST systems installed after July 1, 2017, to be double-walled with improved monitoring. The new regulation proposals will also include Missouri-specific improvements, as well any “new” federal regulation changes. Staff have participated in meetings/outreach efforts to update and provide opportunity for the regulated community to have input on the regulations. In addition, the contract has been awarded to conduct Missouri’s Operator Training Program. Stay tuned as this program develops and training begins.

Tank Inspection Efforts – This fiscal year’s contracted inspections have now been completed. As we have seen in previous years, 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. The efforts by our regulated community have allowed the department to maintain compliance with the EPA requirement of inspecting all regulated facilities at least every three years. Furthermore, the department must demonstrate that 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 all work together to address problems at facilities.

Out-of-use Tank Efforts – 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. To date, these efforts have resulted in approximately 20 percent of the out-of-use sites moving toward permanent closure.

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. Because of these efforts, the 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), two of which resulted in the issuance of notices of violation.

Polychlorinated Biphenyl (PCB) Inspector - The inspector conducted 14 compliance inspections at various types of facilities throughout the state. 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 - The inspector conducted a focused review of the 2013 Conditionally Exempt Small Quantity (CESQG) Uniform Hazardous Waste Manifests and Hazardous Material Manifests at a Missouri TSD facility and transporter transfer terminal.

As of March 31, there was a total of 271 licensed hazardous waste, used oil and infectious waste transporters in Missouri.

Hazardous Waste Enforcement Unit

Enforcement Efforts

- Resolved and closed five hazardous waste enforcement cases
- Received six new enforcement cases
- Sent three penalty negotiation offer letters

Walter Wurdack Incorporated

Walter Wurdack Incorporated is a specialty paint manufacturer located in St. Louis. The facility failed to keep containers closed in storage; store ignitable waste more than 50 feet from the property line; package, label and mark containers per Department of Transportation (DOT) requirements during the entire on-site storage period; mark "Hazardous Waste" on hazardous waste containers; inspect and maintain the facility weekly; conduct daily inspections of areas subject to spills; provide adequate aisle space; have placards available for transporters; have "No Smoking" signs posted near ignitable or reactive waste; keep satellite containers closed; mark containers identifying contents and accumulation start date; store satellite containers at or near the point of generation; operate and maintain the facility to minimize the possibility of an emergency; have adequate and proper spill control available; post the emergency coordinator's name and telephone number near the telephone; make employees familiar with waste handling and emergency procedures; have a device in the hazardous waste operation area capable of summoning emergency assistance; meet the operating conditions of the certification; submit a timely written request and receive the associated approval from the department for all changes in operations including closure; store hazardous waste destined for resource recovery in accordance with all applicable state hazardous waste regulations; use a manifest system or ensure waste was reclaimed under contractual agreement; characterize waste to determine if it was restricted from land disposal; and ensure that the "Land Ban" notification includes the correct uniform hazardous waste manifest number.

As a result of the department's actions, the facility disposed of hundreds of pounds of expired raw materials that were also hazardous; reconfigured waste handling procedures to ensure hazardous waste was not stored within 50 feet of the property line; purchased new lids for ignitable waste; and developed and implemented a new and much more extensive training program in hazardous waste management for employees.

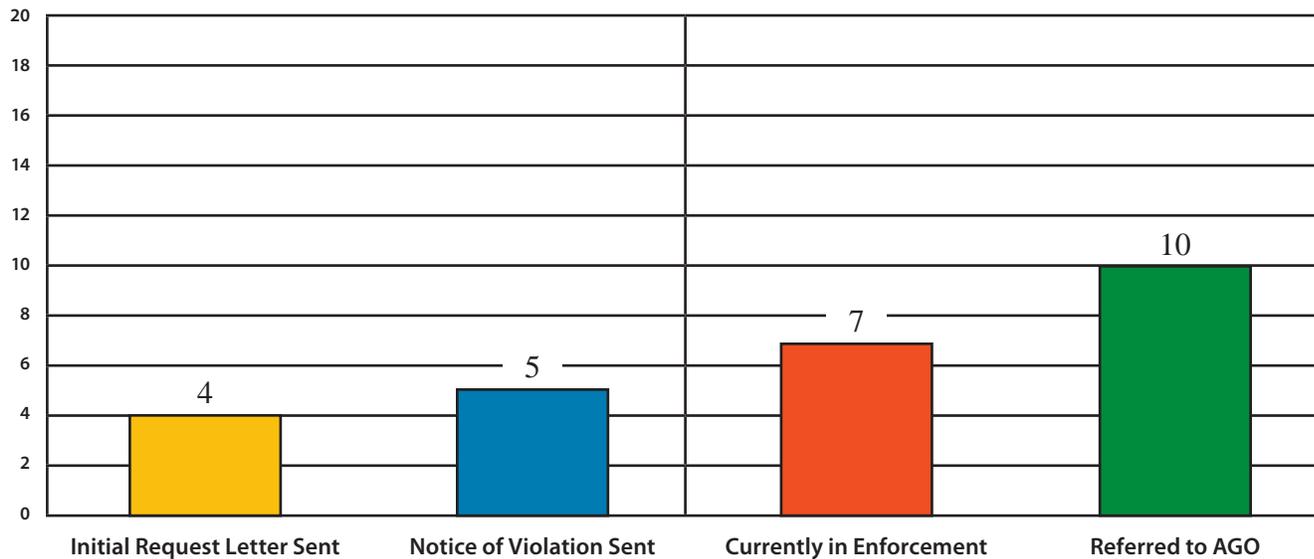
The penalty is \$30,000, of which \$10,000 is suspended contingent on the facility not committing any repeat or class I violations for two years following the effective date of the settlement agreement. The remaining penalty of \$20,000 shall be paid in 11 monthly payments of \$1,700 each and one payment of \$1,300 to the St. Louis City School Fund.

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

Underground Storage Tank Facilities with Unknown Financial Responsibility Status Report

Financial Responsibility Status	Number of Facilities
Initial Request Letter Sent	4
Notice of Violation Sent	5
Currently in Enforcement	7
Referred to Attorney General's Office	10
Total Number of Facilities with Unknown Financial Responsibility	26

Number of Facilities in Each Financial Responsibility Step



*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.

Department Attends the Annual Petroleum and Convenience Store Association Exposition

Staff from the tanks compliance and enforcement section recently attended the Petroleum and Convenience-Store Exposition of Mid-America (PACE) held at the Kansas City Convention Center, Bartle Hall, on Feb. 28 and March 1. PACE is the premier Midwest tradeshow with more than 4,000 attendees from Missouri, Kansas, Iowa and Nebraska. This regional tradeshow attracts many key industry leaders and features the latest in petroleum and convenience store products such as tank system equipment, hardware, soft goods, technology and the hottest new trends and services.

Staff had a chance to meet and share information with members of the industry in an informal setting. Materials displayed included the Missouri Resources magazine, a variety of the department's technical bulletins on underground storage tank management and other underground storage tank publications. Many questions were answered, policies discussed and even a few compliments were received.

Staffing the booth from the tanks closure unit included Chris Veit from the closure, release and investigations unit and Heather Peters from the compliance and enforcement section, compliance and technology unit. Several members of the tanks section, the compliance and enforcement section and the tanks section chief also attended the exposition.

Tanks Section Planning Workshop at the Missouri Waste Coalition Conference

Laura Luther and Ken Koon from the tanks section are participating on the Missouri Waste Control Coalition to help plan the 2014 Missouri Waste Coalition Conference (MWCC) at the Tan-Tar-A Resort at the Lake of the Ozarks on June 29th through July 1st. This will be the sixth annual workshop in conjunction with the MWCC conference. The conference is comprised of participants who are citizens, government staff, various business and industry stakeholders. Participants come together annually to discuss the rapidly changing field of waste management and other environmental issues.

The tanks session is targeted toward environmental consultants who provide services to tank owners and operators. The session will provide consultants with information and training regarding the Missouri Risk-Based Corrective Action for petroleum tanks and included presentations and discussions on a couple of remediation technologies.

The workshop consists of departmental staff, along with private consultants, private laboratories and others. The Environmental Protection Agency may also participate in the conference as an exhibitor and in a support role.

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	181	203	168	152	0	0	0	1,653
Remediation documents processed	146	158	168	174	119	142	169	120	159	0	0	0	1,355
Closure reports processed	14	5	12	13	7	8	27	13	9	0	0	0	108
Closure notices approved	11	18	16	10	16	7	27	13	7	0	0	0	125
Tank installation notices received	4	6	6	5	5	3	3	1	11	0	0	0	44
New site registrations	5	4	4	2	3	5	1	4	0	0	0	0	28
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	40,691	40,702	40,707	0	0	0	
Total permanently closed USTs	31,392	31,406	31,424	31,453	31,475	31,495	31,533	31,571	31,596	0	0	0	
In use and out of use USTs	9,202	9,204	9,200	9,188	9,181	9,168	9,131	9,111	9,111	0	0	0	
Out of use USTs	853	870	867	853	845	824	799	791	771	0	0	0	
Total hazardous substance USTs	399	399	399	399	400	400	400	404	404	0	0	0	
Facilities with in use and out of use USTs	3,525	3,527	3,525	3,516	3,517	3,517	3,503	3,501	3,491	0	0	0	
Facilities with one or more tank in use	3,233	3,229	3,226	3,223	3,225	3,232	3,224	3,224	3,224	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	7	8	27	13	9	0	0	0	108	
Closure Notices Approved	11	18	16	10	16	7	27	13	7	0	0	0	125	
Number of Tanks Closed (Closure NFA)	17	30	42	11	28	8	51	47	21	0	0	0	255	

Cleanup

Underground Storage Tanks													TOTAL	All Yrs
UST release files opened this month	9	6	8	5	8	4	14	7	8	0	0	0	69	6,583
UST cleanups completed this month	7	6	13	3	9	2	12	8	4	0	0	0	64	5,699
Ongoing UST cleanups	879	879	873	874	874	878	881	880	881	0	0	0		
Aboveground Storage Tanks														
AST release files opened this month	0	1	0	1	1	3	1	0	0	0	0	0	7	467
AST cleanups completed this month	1	1	3	1	2	0	4	0	2	0	0	0	14	281
Ongoing AST cleanups	192	192	187	190	189	192	190	188	186	0	0	0		
Both UST and AST														
Total release files-both UST & AST	0	0	0	0	0	0	0	0	0	0	0	0	0	78
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	31	31	31	0	0	0		
Unknown Source														
Total release files-unknown source	1	0	7	2	0	3	0	0	1	0	0	0	14	226
Cleanups completed-unknown source	1	0	4	1	0	1	1	0	0	0	0	0	8	182
Ongoing cleanups-unknown source	20	20	24	22	21	20	19	18	19	0	0	0		
Documents Processed	146	158	168	174	119	142	169	120	159	0	0	0	1,355	
*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.

Missouri Hazardous Waste Management Commission Meeting

**August 21, 2014
Agenda Item # 10**

Legal Update

Issue:

Routine update to the Commission on legal issues, appeals, etc.

Information:

Information Only

Presented by:

Kara Valentine, Commission Counsel

Missouri Hazardous Waste Management Commission Meeting

**August 21, 2014
Agenda Item # 11**

Public Inquiries or Issues

Recommended Action:

Information Only

Presented by:

David J. Lamb, Director, HWP

Missouri Hazardous Waste Management Commission Meeting

**August 21, 2014
Agenda Item # 12**

Other Business

Recommended Action:

Information Only

Presented by:

David J. Lamb, Director, HWP

Missouri Hazardous Waste Management Commission Meeting

**August 21, 2014
Agenda Item # 13**

Future Meetings

Information:

Meeting Dates:

Date	Time	Location
Thursday, October 16, 2014	9:45 A.M.	Bennett Spring / Roaring River Room 1730 East Elm Jefferson City, Missouri 65101
Thursday, December 18, 2014	9:45 A.M.	Bennett Spring / Roaring River Room 1730 East Elm Jefferson City, Missouri 65101
Thursday, February 19, 2015	9:45 A.M.	Bennett Spring / Roaring River Room 1730 East Elm Jefferson City, Missouri 65101
Thursday, April 16, 2015	9:45 A.M.	Bennett Spring / Roaring River Room 1730 East Elm Jefferson City, Missouri 65101
Thursday, June 18, 2015	9:45 A.M.	Bennett Spring / Roaring River Room 1730 East Elm Jefferson City, Missouri 65101
Thursday, August 20, 2015	9:45 A.M.	Bennett Spring / Roaring River Room 1730 East Elm Jefferson City, Missouri 65101

Recommended Action:

Information Only