



**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](http://dnr.mo.gov/videos/live.htm)*

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

**February 18, 2016**

**Department of Natural Resources, Hazardous Waste Program  
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, October 15, 2015 – Commissioners
3. Introduction of New Commission Counsel: Brook McCarrick – David J. Lamb, Director's Office, HWP

**Information Only:**

4. Rulemaking Update – Tim Eiken, Director’s Office, HWP
5. Missouri Risk Based Corrective Action Update – Tim Chibnall, Director’s Office, HWP
6. Sources and Causes Report – Ken Koon, Tanks Section; Heather Peters, Compliance and Enforcement Section, HWP
7. Financial Responsibility Update – Mike Martin, Compliance and Enforcement Section, HWP
8. “No Stricter Than” Outreach and Implementation Efforts – Nicole Eby, Compliance and Enforcement Section, HWP
9. Pesticide Collection Events for 2016 – C.J. Plassmeyer, Compliance and Enforcement Section, HWP
10. Registry of Confirmed Abandoned or Uncontrolled Hazardous Waste Disposal Sites in Missouri (Registry) Annual Report – Valerie Wilder, Superfund Section, HWP
11. Quarterly Report – Amy Feeler, Public Information, HWP
12. Legal Update – Brook McCarrick, Office of the Attorney General
13. Public Inquiries or Issues – David J. Lamb, Director, HWP
14. Other Business – David J. Lamb, Director, HWP
15. Future Meetings  
Thursday, April 21, 2016 – to be held at the Bennett Springs/Roaring River  
Conference Rooms, 1730 E. Elm Street Conference Center, Jefferson City, MO

Adjournment

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

**Meeting Date: February 18, 2016**

**ROLL CALL ROSTER**

	<b>In Person:</b>	<b>By Phone:</b>	<b>Absent</b>
<b>Chairman Charles Adams</b>	_____	_____	_____
<b>Vice-Chairman Elizabeth Aull</b>	_____	_____	_____
<b>Commissioner Jamie Frakes</b>	_____	_____	_____
<b>Commissioner Michael Foresman</b>	_____	_____	_____
<b>Commissioner Andrew Bracker</b>	_____	_____	_____
<b>Commissioner Mark Jordan</b>	_____	_____	_____

**Missouri Hazardous Waste Management Commission Meeting**

**February 18, 2016**

**Agenda Item # 1**

**Pledge of Allegiance**

**Missouri Hazardous Waste Management Commission Meeting**

**February 18, 2016**

**Agenda Item # 2**

**Approval of Minutes**

**Issue:**

Commission to review the General Session minutes from the October 15, 2015, Hazardous Waste Management Commission meeting.

**Recommended Action:**

Commission to approve the General Session minutes from the October 15, 2015, Hazardous Waste Management Commission meeting.

**GENERAL**

**SESSION**

**MEETING**

**MINUTES**

GENERAL SESSION  
HAZARDOUS WASTE MANAGEMENT COMMISSION  
October 15, 2015; 10:00 A.M.  
1730 E. Elm Street  
Roaring River Conference Room  
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 videoed and will be available on the Commission's web page.

COMMISSIONERS PRESENT IN PERSON

Vice-Chairman Elizabeth Aull  
Commissioner Mark Jordan

The phone line was opened at approximately 9:38 a.m. for Commissioners calling in to today's meeting.

COMMISSIONERS PRESENT BY PHONE

Chairman Charles (Eddie) Adams  
Commissioner James (Jamie) Frakes  
Commissioner Andrew Bracker

*A roll call was taken with Chairman Adams, Vice-Chairman Aull, Commissioner Bracker, Commissioner Frakes and Commissioner Jordan acknowledging their participation in today's meeting.*

1. PLEDGE OF ALLEGIANCE

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

2. APPROVAL OF MINUTES

- General Session minutes from the August 20, 2015, meeting:  
Commissioner Bracker made the motion to approve, seconded by Commissioner Frakes.  
*A vote was taken; all were in favor, none opposed. Motion carried. Minutes approved.*

Note: Vice Chair Aull left the minutes for signature of Chairman Adams at the next meeting, as he was participating in the meeting but was not present in person.

3. ADOPTION OF ORDERS OF RULEMAKING – “HAZARDOUS WASTE FEES AND TAXES”

Mr. Tim Eiken, HWP, addressed the Commission and noted that there was one action item on the agenda, the Adoption of one Order of Rulemaking. He noted that the Order of Rulemaking was for a proposed amendment of 10 CSR 25-12.010, which was published on July 15, 2015. He advised that the Public Hearing was held on August 20, 2015, and that the Amendment involved changes to hazardous waste fee structure.

Mr. Eiken provided an overview of the Hazardous waste generator registration and renewal fee – which increased from \$100 for all generators to \$150 for conditionally-exempt and small quantity generators and \$500 for large quantity generators. He noted that it would also include an exclusion that would allow multiple sites in close proximity operated by a single entity to pay a single large quantity generator registration and renewal fee. He also advised that the In-state fee for hazardous waste generated in Missouri – increased from \$5 per ton to \$6.10 per ton; and that the minimum amount for the in-state fee increased from \$150 to \$200 and that the minimum was to be applied to the first ton of waste.

Mr. Eiken went on to advise that at the August meeting a public hearing was held on the proposed rule and the only testimony other than the Department's was from REGFORM, in support of the proposed amendment and restructure. He also advised that through the end of the public comment period the Department had received no additional comments, although the one change was made subsequent to the publishing of the proposed amendment, as one section of the rule needed some clarification. He stated that the actual text of this was provided to the Commissioners in their packets and noted that it was located at the very end of the Order of Rulemaking. He advised that the one change proposed was to Section 10 CSR 25-12.010(2)(E)1., where it was determined that language was needed regarding collection of new generator registration and renewal fees for calendar years after 2017. He stated that the words “and beyond” were added following “calendar year 2017” to specifically state the new rate is in effect for calendar year 2017 and beyond. He noted that with that change the Department's recommendation was for the Commission to adopt this one order rulemaking with that change and clarification that was recommended.

Mr. Eiken advised that the rulemaking schedule was currently: on October 15, 2015 - Final adoption of rules by HWMC; on October 16, 2015 - Orders of Rulemaking to be filed with the Joint Committee on Administrative Rules; on November 16, 2015 - Orders of Rulemaking to be filed with the Secretary of State; on December 1, 2015 - Orders of Rulemaking to be published in the Missouri Register; on January 4, 2016 - Revised rules to be published in the Code of State Regulations and on January 1, 2017 - Rulemaking would become effective. He noted that this schedule did include a sixty-day period of review by the General Assembly and, if they did not disapprove, the new rate would go into effect the following January 1<sup>st</sup> of 2017.

Mr. Eiken advised the Commission that it was the Department's recommendation for them to adopt the Order of Rulemaking. Mr. Eiken inquired if the Commissioners had any questions.

Commissioner Frakes asked for a clarification as to whether the Department was asking for adoption of a modification of the proposed rulemaking or for adoption of the proposal, as the Department had made a modification of their original proposal. Mr. Eiken advised him that the proposed modification had been made prior to publishing so the modification was included in the proposed rule language; therefore, the Department was requesting adoption of the proposed language, not a modification. The modification option would have only included changes that the Commission or stakeholders had requested, following publication.

Chairman Adams made the following motion: *“I move that the Commission adopt the Order of Rulemaking for the proposed amendment of 10 CSR 25-12.010 published in the July 15, 2015, Missouri Register and that the Department proceed to file the Order with the Joint Committee on Administrative Rules and the Secretary of State.”*

Commissioner Frakes seconded the motion and the floor was open for discussion. Following no discussion on the issue a Roll Call vote was taken. Chairman Adams voted “Yes,” Vice-Chairman Aull voted “Yes,” Commissioner Frakes voted “Yes,” Commissioner Foresman was not present to vote, Commissioner Bracker voted “Yes,” and Commissioner Jordan voted “No.” The motion carried with an affirmative vote by four of the six Commissioners and the Adoption of the Order of Rulemaking was approved.

#### 4. RULEMAKING UPDATE

Mr. Tim Eiken, HWP Director’s Office, addressed the Commission and noted that with the Commission’s adoption of the order on the fee rule, this completed the decision items on the two rules that the Department has been working through at the last couple meetings. He noted that with the Commission’s previous action on the “No Stricter Than” rulemaking, the final Orders of Rulemaking were filed with the Secretary of State. He noted that when we file rulemakings, we usually receive questions; and, sometimes modifications of what we file, based on their review and their own statutory requirements. He advised that we ended up having to make one change to one of the orders of rulemaking that we filed. He noted that it was the one related to used oil, where we had proposed to change the requirement related to the Missouri used oil shipment record to make its use optional. But, he advised, when we filed that final Order of Rulemaking with the Secretary of State, it was determined that we had not included any changes to that specific section of the rule when we proposed the amendment, and that we may change only those sections of the rule that are actually printed in the proposed amendment. He advised that this section had no changes that were not printed in the text of the proposed amendment; so, with that limitation, we could not make that change in the Order of Rulemaking. To respond to this, we added a comment that we will make this change in a future rulemaking. He then stated that the final review of those orders of rulemaking had been completed and that they should be published in the Register in the next couple of weeks.

Mr. Eiken then went on to discuss the rulemaking related to underground storage tanks. He advised that he wished to provide the Commission with some current information, and noted that draft language would be presented to the Petroleum Storage Tank Insurance Fund (PSTIF) Advisory Committee as there’s a statutory requirement in the rules that before they

are proposed they had to be presented to that committee for review and input. He stated that the presentation would be taking place the following week.

Mr. Eiken then advised the Commission that before publishing the proposed rules, the Department would be hosting a series of outreach meetings around the state. He noted that these meetings would be providing information on what's changing and soliciting feedback from the tank community. He also noted that it would be happening in the next couple months. Mr. Eiken also advised that there was a web site dedicated specifically to this rulemaking, where all current information related to these proposed rules will be posted as we go forward.

Mr. Eiken then inquired as to whether the Commission had any questions on the rulemaking he had discussed, to which there were none.

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

## 5. NEW PROPOSED EPA RULES

Mr. Tim Eiken, Director's Office, addressed the Commission to discuss two new rules proposed by the U.S. Environmental Protection Agency. Beginning with the proposed Generator Rule, Mr. Eiken advised that this agenda item relates to two recently proposed federal rules that have been published in the Federal Register and are currently open for public comment. He noted that he would be providing the Commission with information on the first rule related to hazardous waste generators and Kathy Flippin would be providing information on the second rule, related to pharmaceutical waste. He noted that these are common in subject matter and that these rules will make some fairly significant changes. He went on to advise that there have been some longstanding arguments regarding both of these so the Program wanted to provide some general information, as the draft rule text was out for public comment, and will ultimately affect Missouri's regulations once they were adopted and finalized.

Mr. Eiken advised that the first rule relates to hazardous waste generators, which basically covers a lot of the same territory that was just covered with "No Stricter Than" rulemaking. He noted that it involved generators, storage and accumulation, labeling of containers, etc.; a lot of the same subject matter. But, he stated, beyond that, EPA is proposing to reorganize the regulations in the Code of Federal Regulations, moving things around so that they are easier to find, which makes more sense for generator related rules to be in one place. He noted that currently it's very difficult sometimes to determine what you're supposed to do because we have to bounce from regulation to regulation; so, the idea behind the reorganization is to get all requirements in one place for large quantity and small quantity generators that will help clarify the requirements. He advised that the EPA is also looking to provide some flexibility to generators who manage waste; similar to some of the things that were included in our "No Stricter Than" package. He stated that over the years there were certain situations where the regulations don't seem to fit reality; so, giving generators some additional options in terms of

how they manage their waste and then addressing the regulations is what they are proposing to do with these changes.

Mr. Eiken provided a PowerPoint and noted that reorganizing the regulations was designed to make them more user-friendly and thus enable improved compliance by the regulated community. He advised they would also provide greater flexibility for hazardous waste generators to manage waste in a cost-effective manner, strengthen environmental protection by addressing identified gaps in the regulations and clarify certain components of the hazardous waste generator program to address ambiguities and foster improved compliance. He advised that some companies would like to be able to consolidate wastes from multiple conditionally exempt small quantity generators (CESQG) sites for more efficient shipping and hazardous waste management. He noted that this could also reduce liability for a company as a whole to ensure proper management of hazardous waste, and that sending the waste to a RCRA-designated facility is the most environmentally sound option. He went on to state that currently a large quantity generator (LQG) needs a RCRA permit to receive CESQG wastes.

Mr. Eiken directed the Commissions attention to one of the slides which showed the Commission and participants where things currently are in the federal regulations and where they will be. He noted that the proposed amendment would have a major impact for Missouri as when the EPA moves the rules we will have to go back and make sure all our state regulations are correct and are in the correct place. He advised that it would take some work on our part to make sure that all those are updated and correct.

Mr. Eiken noted that there is also a proposal for a LQG to consolidate waste if it is under the control of the same person. He noted the “Person” under RCRA is the one who has power to direct hazardous waste policies at the facility. Other requirements included: for CESQG, they must mark and label waste containers with “VSQG Hazardous Waste;” for LQGs, they must notify the state with a notification of regulated waste form that they are participating in this activity and identify what CESQGs are participating. He advised that there were recordkeeping requirements for each shipment, that LQG consolidated waste must be managed as a hazardous waste and that they would need to report this activity in their Biennial Report.

Mr. Eiken also noted that there would be revised requirements for episodic generation which acknowledges that current RCRA rules lack flexibility to address an “episodic” change in a generator’s regulatory category: examples of situations where flexibility is needed include both planned events, periodic maintenance, tank cleanouts, etc., and unplanned events, spills, acts of nature, shutdown in production lines, etc. When any of these situations occur, a generator often must change their generator status to account for the additional amount of waste being generated from the planned or unplanned event and as a result generators must comply with a more comprehensive set of regulations for that short period of time. He advised that the proposed rule would allow generators to maintain their existing category provided they comply with streamlined set of requirements, if it is limited to once a calendar year with ability to petition for second event; they must notify the EPA or state prior to initiating a planned episodic event; and, they have up to 45 days to complete the “episodic”

event(s) and ship waste off-site; with a 30 day extension possible. He also noted that we keep track of this information to make sure the generator is in compliance with the regulations.

Mr. Eiken advised that this proposed rule would also address emergency preparedness and planning and streamlined requirements for the preparation of contingency plans and for documenting the required arrangements with local emergency responders. For contingency plans, the proposed rule streamlines the requirements for the content of these plans, covering such topics as what to do in the event of a release. He noted that with regards to releases, we dealt with these in our regulations as this is where generators are required to coordinate with their local emergency responders so that those responders know what types of waste they have where, in the event of a situation. It will require that they have that information available, and although it is required, sometimes it doesn't happen. The idea behind the changes are to try to make generators comply with the regulations by making it more and more clear what it is exactly that they're supposed to do.

Another issue addressed in the proposed rule is hazardous waste determinations. He advised that this is a very common compliance problem as generators consistently fail to make a correct hazardous waste determination, leading to the mismanagement of hazardous waste. He noted that non-compliance rates range from 10 to 30 percent and that reasons vary from not understanding RCRA to not even being aware of RCRA. He stated that current regulations clearly require maintaining documentation of determinations that a waste is hazardous, but not the alternative when a generator has determined that their waste is not hazardous. He noted that the rule would now require SQGs and LQGs to keep documentation when a solid waste is determined to not be a hazardous waste. He noted that the proposed requirements would also confirm that a generator's waste must be classified at its point of generation and at any time during the course of management for wastes potentially exhibiting a hazardous characteristic, would explain more fully how generators can use generator knowledge, and explain more completely in the regulations in 40 CFR 262.11 how a generator should evaluate its waste for hazardous characteristics.

Mr. Eiken also noted that the new rule attempts to provide a solution to the labeling requirements for hazardous waste containers. Under the requirements in the proposed rule, container labels must indicate the hazards of the contents of the containers; container labels must have "plain English" words that identify container contents; there would be flexibility in how to comply with this new provision; and generators can indicate the hazards of the contents of the container using any of several established methods. Tanks, drip pads, containment buildings can keep this information in logs or records kept near the accumulation area. He noted that the words "hazardous waste" on a container doesn't tell you a whole lot about the hazards associated with what is contained; what's actually in that container. He noted that one of the reasons for using the chemical name is that words, like "used solvent," do not accurately describe the hazards of what is inside the container. In order to comply with the proposed requirements for labeling containers, generators could choose one of several methods, including DOT labels or symbols established by the Global Harmonization System. Because the rule does not prescribe one specific method, each generator can use the label that best describes the container's content.

Mr. Eiken advised that the next area addressed was Generator Re-notification and Reporting. He stated that the problem was that the EPA and most states have outdated and inaccurate databases of SQG universe information because there is no requirement to re-notify periodically after the initial notification; and that the lack of updated data makes it difficult to make programmatic decisions, or to plan or execute inspections effectively. Mr. Eiken explained the proposed solution was to require SQGs to re-notify every two years, along with the electronic reporting option. He advised that generator re-notification and reporting is an item that we already require in Missouri; where, if any of your generator information changes, you submit your generator notification to tell us what has changed. He advised that if adopted as proposed, this will be part of the federal regulations now as well, in that, every two years you have to re-notify with the current information.

Mr. Eiken stated that satellite accumulation was also addressed in these changes. He noted that again, this same topic was addressed with our own rules. He did note that mostly what they're changing here is not so much the accumulation time, as we did, or different methods of compliance, as we did; but, they were adding or changing other requirements. The proposed changes require that hazardous wastes not be mixed or placed in a container with other hazardous wastes that are incompatible; it allows containers to remain open under limited circumstances, when necessary for safe operations; and it provides for a maximum weight in addition to volume for acute hazardous wastes. It clarifies that "three days" means three calendar days; explains that when maximum weight or volume is exceeded, waste must be moved to a central accumulation area or TSD; and, rescinds the memo allowing reactive hazardous waste to be stored away from the point of generation.

Mr. Eiken noted that the final issue he would be covering pertained to the fifty foot requirement for storage of ignitable or reactive waste. He noted that with current regulations, ignitable and reactive waste has to be stored at least fifty feet away from the property line; whereas with the Missouri rule, we allowed storage closer than 50 feet if you meet a series of conditions that are spelled out in our rules. So, Missouri rules provide for some flexibility, and with these changes, the EPA would allow for storage closer than 50 feet if you obtain a waiver from the local fire department. He noted that this is very similar to what we have used in certain situations, as we recognize that some generators, because of space limitations, cannot get containers more than 50 feet away from the property line.

Mr. Eiken advised that in summary, the items in the proposed rule that will be more stringent are: documenting hazardous waste determinations; SQG re-notification; identifying risks of wastes being accumulated & labelling; notification of closure; biennial reporting for the whole year; and an executive summary for contingency plans. He also advised that those items that will be less stringent included CESQG consolidation; episodic generation; and the waiver from the 50-foot rule.

Mr. Eiken also noted that these changes were tightening down the regulations and sometimes that makes a difference in terms of state adoption to things that are more stringent. He stated that we don't always have the option of adopting things that are less stringent as they do vary with the "No Stricter Than" statute that affects our ability in terms of what we can adopt and can't adopt; so that's another issue for us to consider. He stated that the proposed rule was

signed a couple of months ago and it's currently out for public comment so the HWP has staff looking at this rule and will probably be providing some comments. He noted that staff will need to prepare any Department comments on this proposal within the comment period, so staff is keeping a close eye on this one as it'll make some significant changes to some longstanding rules. He noted that this ended his piece regarding the generator rule and inquired if the Commission had any questions. No questions were posed.

Ms. Kathy Flippin, Chief, Compliance and Enforcement Section, addressed the Commission and noted that she would be presenting information on the second proposed Federal rule, which involves management standards for hazardous waste (HW) pharmaceuticals. Ms. Flippin began by describing the flow of pharmaceuticals and defining what was a "creditable" pharmaceutical and what was a "non-creditable" pharmaceutical, along with reverse distributors. She advised that most unused pharmaceuticals were potentially creditable, whereas items such as floor waste and certain pharmacy drugs were non-creditable. She noted that healthcare facilities and pharmacies can return unused pharmaceuticals to reverse distributors who send the drugs on to other distributors or return to the manufacturer. Drugs that cannot be returned would be disposed at TSDs. She stated EPA's concern that a large portion of "non-creditable" pharmaceuticals are disposed of improperly, including being flushed into sewer systems. Ms. Flippin explained EPA's intentions to address the following problems in the rule: the regulatory status of creditable pharmaceuticals, the manufacturing-oriented framework of the generator regulations, the LQG status due to P-listed waste, the intersection of EPA & DEA regulations, containers with P-listed pharmaceutical residues, and pharmaceuticals being flushed/sewered.

Ms. Flippin explained that the proposed pharmaceutical rule changes included a new subpart P in 40 CFR Part 266, which provided for a tailored, sector-specific regulatory framework for managing HW pharmaceuticals at healthcare facilities and pharmaceutical reverse distributors (PRDs), and required that SQGs and LQGs manage HW pharmaceuticals under subpart P rather than as hazardous waste – and was not optional. She explained the differences between tailored standards for non-creditable pharmaceuticals (i.e., those not expected to be eligible to receive manufacturer's credit), and creditable (those that can be sent to reverse distributors). Ms. Flippin noted that this would apply to healthcare facilities, pharmacies, veterinary clinics, physicians' and dentists' offices, chiropractors, outpatient care centers, hospitals, nursing care facilities, medical examiners and coroners' offices. It would also apply to pharmaceutical reverse distributors, and owners or operators of treatment, storage, and disposal facilities that manage HW pharmaceuticals.

Ms. Flippin provided an overview of the proposed rule, defining some key terms, including standards for healthcare facilities. She noted that this included non-creditable pharmaceuticals and those transported as hazardous waste, and using a manifest to send to an approved TSD. It also included creditable pharmaceuticals that healthcare facilities may send to PRDs for processing manufacturers' credit, and covered the standards for safe/secure delivery, along with the accumulation standards for PRDs.

She advised that these changes provided for a new regulatory category – Pharmaceutical reverse distributors (PRDs). She noted that PRDs were not regulated as generators or TSDs,

but standards are proposed similar to those for LQGs. The changes also provided a prohibition on disposal down a toilet or drain (i.e., flushing or sewerage) and that waste handled under these standards were not counted toward generator status. She also advised that it also covered a conditional exemption for HW pharmaceuticals that are also DEA controlled substances, along with standards for container residues.

Ms. Flippin then discussed the six issues that these changes covered, beginning with the 6<sup>th</sup> issue, sewerage pharmaceuticals, and advised that the proposed language bans sewerage of pharmaceuticals by all health care and PRDs, including CESQGs who not otherwise subject to Subpart P.

She advised that 5<sup>th</sup> issue on the list was containers with residues and these changes no longer require triple-rinsing of acute/P-listed containers or cleaning by other equivalent methods if fully dispensed, which would classify them as RCRA empty. She noted that residues in unit-dose containers and dispensing bottles/vials would be exempt from RCRA (if in quantities of less than 1,000 pills or bottles/vials up to 1 liter), and that the container may be disposed as non-hazardous waste after crushing. She also advised that dispensed syringes were exempt from RCRA standards if the syringe was used to administer the medication to a patient and the syringe is placed in a sharps container that is managed appropriately. She noted that the rule would require that facilities manage all other containers as hazardous waste, such as delivery devices that once held listed or characteristic hazardous waste, including: IV bags, tubing, inhalers, aerosols, nebulizers, tubes of ointment, gels or creams.

Ms. Flippin advised that the 4<sup>th</sup> issue involved the intersection of DEA & EPA rules and that the few RCRA hazardous wastes that are also DEA controlled substances will have conditional exemptions. She advised they would be exempt from RCRA if they were managed in accordance with all DEA regulations and were combusted at a permitted municipal solid waste or hazardous waste combustor. She noted that also, authorized collectors of DEA controlled substances that co-mingle them with pharmaceuticals that are exempt household hazardous waste would be exempt from RCRA regulation.

Ms. Flippin noted that the 3<sup>rd</sup> issue was in regards to the effects on the status of a LQG if they manage acute pharmaceutical hazardous waste and that HW pharmaceuticals do not have to be counted toward the healthcare facility's generator status when managed under subpart P.

The 2<sup>nd</sup> issue included the manufacturing framework, accumulation on-site at healthcare facilities, and shipments off-site from a healthcare facility. Ms. Flippin noted that manufacturing standards in the Part 262 generator regulations are replaced by sector-specific management standards for management of HW pharmaceuticals at healthcare facilities and PRDs. She said that this will not include SQG and LQG generator categories, satellite or central accumulation area regulations. On the accumulation topic, Ms. Flippin advised that there would be a requirement of a one-time notification as a healthcare facility, it would require performance-based training for healthcare workers and there would be no Biennial Report for HW pharmaceuticals. She also advised that for potentially creditable HW pharmaceuticals there would be no specific labeling or accumulation limits proposed. But, she noted, for non-creditable HW pharmaceuticals, the requirements would be similar to UW

standards, with 1 year accumulation, requirements for closed containers to be secured to prevent access to contents, requirements that wastes that can't be incinerated must be accumulated separately, and that although HW codes are not required on accumulation containers, they need to be labeled as "Hazardous Waste Pharmaceuticals." She went on to explain that with regards to shipment off-site from a health care facility, that potentially creditable HW pharmaceuticals would require written, advance notice of shipments to a PRD a shipment receipt confirmation by the PRD; recordkeeping of shipments to a PRD; that a common carrier was okay and that HW codes were not required during shipment. She explained that non-creditable HW pharmaceuticals must go to a TSD, and that it requires a licensed HW transporter, applicable manifesting; and that although HW codes are not required on manifests, "hazardous waste pharmaceuticals" must be in box 14 of manifest.

The 1<sup>st</sup> and final issue Ms. Flippin described was the status of creditable pharmaceuticals, and that one issue was the point of generation. She advised that under current guidance, the point of generation of creditable pharmaceuticals is at the PRD, with an assumption that some will be redistributed. She advised that some of these are not regulated as wastes even though discarded, after the manufacturing credit is processed by the PRD. She advised that EPA was attempting to address concerns about the lack of tracking and potential for theft, and that to remove certain uncertainties for the PRDs and the healthcare facilities that use them. She also noted that the EPA is finding that there was little to no redistribution of pharmaceuticals occurring during reverse distribution, so they are revising the rule to reflect the process of making a decision to send to a PRD, or a decision to discard. She noted that the point of generation for pharmaceuticals sent to a PRD is at the healthcare facility, not the PRD and that it was hoped that these changes would result in better tracking of shipments of creditable pharmaceuticals to PRDs, as there should be better oversight of PRDs through the notification requirements.

Ms. Flippin outlined the reverse distributor standards and noted that a PRD is a new type of HW management facility that can only accept "potentially creditable HW pharmaceuticals;" that there is no RCRA storage permit required; that all PRDs are regulated the same for HW pharmaceuticals (no generator thresholds); and that there are standards similar to LQGs with the following additions: there is a requirement for a one time notification as a PRD, one for an inventory of HW pharmaceuticals, and one for facility security. She noted that potentially creditable pharmaceuticals are HW pharmaceuticals that have the potential to receive manufacturer's credit, which includes pharmaceuticals that are unused or un-administered, unexpired or less than one year past the expiration date. She advised that the "potentially creditable" term does not include evaluated HW pharmaceuticals, residues of pharmaceuticals remaining in containers, contaminated personal protective equipment, and clean-up material from pharmaceutical spills. She defined "not potentially creditable" as pharmaceuticals that have no reasonable expectation of credit, and the pharmaceutical cannot go to a PRD if it is a sample, a generic, is more than 1 year past expiration, has been removed from original container and repackaged for dispensing, or was generated during patient care or was refused by a patient.

Ms. Flippin also advised that as long as a manufacturer's credit is being determined or verified and pharmaceuticals are destined for an RD they are still "Potentially Creditable HW

Pharmaceuticals.” She also advised that once a manufacturer’s credit has been determined or verified and pharmaceuticals are re-destined for a TSD, they are “Evaluated Pharmaceuticals.” She outlined the flow of HW pharmaceuticals and noted the maximum number of transfers allowed, and that there was a limitation of 90-days maximum allowed at each PRD. She advised that the PRD was responsible for evaluating each potentially creditable HW pharmaceutical within 21 calendar days of arrival to determine whether it is destined for another PRD for further evaluation/verification of manufacturer’s credit, or destined for a permitted TSD. She explained that if a PRD receives HW other than potentially creditable HW pharmaceuticals, it must prepare an unauthorized waste report, ship it to the shipper and state and manage the waste appropriately. She also explained that there was a 90 day total accumulation time restriction on potentially creditable HW pharmaceuticals; that there are no specific labeling or container standards and that for evaluated HW pharmaceuticals there must be a designated on-site accumulation area and the facility must conduct and keep a log of weekly inspections. She noted that other requirements include LQG training for personnel handling evaluated HW pharmaceuticals, requirements for closed containers if holding liquids or gels and that wastes that can’t be incinerated must be accumulated separately (e.g., P012). The assignment of HW codes is required prior to transport off-site and there must be a label designating the shipment as “Hazardous Waste Pharmaceuticals,” and submission of a Biennial Report.

Ms. Flippin also outlined the standards for off-site shipments from a PRD and advised that for shipments off-site from an reverse distributor, potentially creditable HW pharmaceuticals can go to another Pharmaceutical Reverse Distributor; but, there must be written, advance notice of shipments to the next RD, confirmation of receipt of shipment by the next RD, and recordkeeping of shipments to the RD. She noted that a common carrier was allowed, that HW codes were not required during shipment; but that evaluated HW pharmaceuticals must go to a TSD and that a licensed HW transporter was required, that manifesting was required and that HW codes were required on the manifest.

Ms. Flippin ended her presentation by advising that on the whole, this proposed rule is more stringent than current policy and regulation. She stated that States will be required to adopt the final rule, regulated parties will be required to use the final rule, and that the sewer ban is effective in all states upon the effective date of the rule, even before the state adopts it. She advised that the schedule for this rule was the publication in the Federal Register on September 25, 2015, with a 60-day public comment period; then the EPA reviews public comments and commences work on the final rule, and they will then decide whether to proceed on additional proposed or final rules related to expanding which pharmaceuticals are hazardous, and the issues regarding Nicotine.

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

## 6. PLANNED OUTREACH – “NO STRICTER THAN”

Ms. Kathy Flippin, Chief, Compliance and Enforcement Section, addressed the Commission noting that the Program had several planned outreach events with regards to the recent

passage of the “No Stricter Than” rule. She advised that several of the outreach efforts have already been undertaken and outlined events that were planned for the future. She noted that the legislation will have an impact on how we address Missouri generator facilities. She advised that a Regional Office workshop was held on October 16th and that a large part of that was discussing the new rules with our inspectors and EPA staff. She also noted that discussions were held on what the different factors were and what changes needed to be made on the inspection checklists. Ms. Flippin noted that program staff would be presenting at the REGFORM conference in November as well, in separate presentations that will cover several different topics. She advised that webinars were also planned for late November, about an hour and a half in length, with the first one being a walk-through of our proposed changes directly related to the “No Stricter Than” in Chapters 3, 4 and 5, and the second part addressing Chapter 7 and other federal rule incorporations and updates. She noted that the Program was also trying to get the word out on these changes in mailings, and that information would be included in the annual invoices to generators and treatment, storage and disposal facilities. She also advised that staff are developing a newsletter that will include the information on the changes, will be making it available on the web and also tell folks about it in our mail out. She stated that people who want a paper copy can do that too; but, that we definitely want to make everything available electronically and the web pages provide a link to where people can see copies of the new inspector checklist as well. She went on to report that during the workshop staff identified a couple of things where some additional guidance would be beneficial, and noted that the guidance should be in a very short format for people so they can better understand the rules. Staff is working on these items.

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

## 7. DEVELOPING POST CLOSURE GUIDANCE

Mr. Rich Nussbaum, Chief, Permits Section, HWP, greeted the Commissioners and advised them he wished to share some information on a post closure care guidance that the EPA had recently released. He noted that this was an issue that the Permits Section deals with routinely and that there were a number of facilities that fall in this category. He advised that the EPA, at the urging of states, has developed some guidance on the issue, in coordination with input from the states. He stated that he wanted to walk through the aspects of this as it affected the HWP so he would like to provide some background. He began by explaining that at a site that has a regulated unit that is permitted or under interim status, and it goes to close and waste is in still in place, “closes dirty,” or there is groundwater contamination related to that particular unit, then there are post closure care requirements that are triggered for that particular unit. He advised that in doing so the regulations indicate that a period of thirty years is required for post closure care. Mr. Nussbaum advised that he was not sure where the “Fed’s” ultimately came up with that thirty year timeframe to begin with, and whether that was an appropriate timeframe or not; but, it was developed for long-term management of units that close “dirty” and so ultimately the regulations allowed for that to be shorted or extended.

He stated that the problem is there really weren't any criteria to apply to figure out whether we should shorten or lengthen the post closure period. Mr. Nussbaum advised that an example of

this, which could apply to a lot of different types of facilities, is the BFI Missouri City landfill. He noted that it was an engineered hazardous waste landfill, where there were a multitude of disposal cells in the area that have been closed and were capped collectively. He stated that there is an ongoing groundwater monitoring and cap maintenance requirement and there was some leachate management going on as well. He noted that this condition could apply to these kinds of facilities where there's a large amount of stabilized waste in place, and described several scenarios that would require post closure care. He also advised that there are reporting aspects imposed for closure care and maintaining waste containment and remedial systems. He stated that at the BFI Missouri City facility there are acres and acres of cap that has to be maintained, that they've got a big facility and a lot of ongoing maintenance where there is a need for these requirements.

Mr. Nussbaum noted that these facilities are governed by the federal regulations that are incorporated by reference in the state regulations under 40 CFR 264 for permanent facilities and 265 for interim status facilities; and that there are also additional requirements that can be found in those sections. He stated that to the extent that anything above and beyond what's in the regulations is needed, there was the potential to include those requirements in the permits for those facilities. He went on to state that the problem we're running into is a lot of our sites now have gone through closure and they're getting to the end of that thirty-year period and that he thought the premise originally was that industry thought that at the end of thirty years, "we're done, we don't have a continuing obligation at that point to do anything more." He stated that unfortunately in the case of a lot of facilities where there's contamination in groundwater, contamination is not going away and so ultimately there needs to be some means to continue to monitor; and, if necessary, remediate, as in the case of facility like BFI Missouri City, where there's waste in place.

Mr. Nussbaum advised that it has always been the premise that any engineered structure over time is going to have its problems, and that problems have been discovered at that particular facility, along with others. He advised that some others have ongoing issues with releases from what was an engineered structure so we don't really get in to the factors of whether to shorten or lengthen the timeframe. He advised that flatly, these questions have risen and now we have the question of how do we address it now that we're getting to that point with many of our facilities.

Mr. Nussbaum advised that he had been a member of the corrective action permitting task force and that this is one of the issues that had been raised within the context of the group. He noted that after some preliminary discussions with EPA regarding developing guidance on this topic, the EPA had embraced the idea as they knew the regions were facing challenges. He went on to report that following preliminary discussions with EPA headquarters they had also engaged those that were involved in post closure care at subtitle D solid waste management facilities. He advised that should give some idea as to what the length and breadth that guidance might be looking like. He stated that ultimately, through those discussions, it was decided that subtitle C hazardous waste facilities were not fundamentally different but different enough from subtitle D facilities that EPA decided to separate the two. He advised that he was unsure as to what extent they're working on guidance for subtitle D; but, he thought this guidance, under separate subtitles, was going to be a springboard to

looking at post closure care guidance for solid waste landfills as well. So, he noted, this sort of evolved into a larger collaborative effort between EPA and the States.

Mr. Nussbaum noted that the objectives of the guidance was to assist regulators as they wanted to know what factors need to be considered in making the determinations whether to shorten or lengthen the post-closure care period; and also, to let facility owners and operators know what kind of documentation was going to be needed to make those decisions. He also advised that with that information out there it will hopefully provide greater transparency and consistency in that decision making process across the United States: so, again, focuses on subtitles C facilities and technical criteria in the draft guidance really assists the process for preparing to evaluate the post closure care period. He also advised that there is a summary of applicable requirements, but it really doesn't replace any existing guidance. He noted that it's out there, but it really doesn't get into the issue of financial assurance, which is very important in the post closure contracts because for as long as post closure care is required, those facilities have to provide financial assurance to make sure that those post closure care obligations are satisfied and that these sites don't turn into Superfund sites because they ran out of money.

Mr. Nussbaum stated that the first criteria to be looked at are the presence of hazardous wastes and any residual contamination. He noted that if you've got a closed hazardous waste landfill that has large quantities of waste in place, that's one thing; but, if you've got a closed container storage area where there is residual contamination that's really from a release, but there are not large amounts of source material there, that's certainly a consideration in the decision-making process. He also advised that the nature of the waste in the residual contamination is a factor; what is still there, is it going to naturally degrade or is it very persistent in the environment? He noted that those are questions we need to ask ourselves, and in looking at this issue, also what type of unit it is. He noted that at a landfill, is it the result of a former container storage area and was there a good operational history in terms of waste containment and monitoring; or are there persistent problems or other things?

He advised that other questions that will need to be addressed, if there's waste in place, are related to whether there is groundwater contamination, and if so, at what levels? Is it relatively stable in terms of its extent or are there ongoing releases that are causing further work to be done in order to assess and characterize, and perhaps even capture that groundwater. As an example, citing a geology hydrogeology plan in northern Missouri; although we don't really have any closed landfills and glacial settings, if you've got a tight clay then you've got a likelihood that you're not going to have a lot of mobility with that contamination. He advised that the example represented one possibility, versus being in the southern half of the state where you have karst and you've got the potential if something gets away from you, it could get into springs and creeks. He noted that those factors are another consideration that goes into determining whether to lengthen or shorten the period. He also noted that there is a facility history component, based on their performance history; considerations with whether they've had ongoing operational problems or not.

Mr. Nussbaum noted that if we were to terminate post closure care, questions to be answered include if there are other controls that might be in place or other options that could be used to

continue to manage the site's factors that should be considered in the recommendation. He noted that obviously it is logical to look at this issue before you hit that thirty-year period and see what the information is telling you about the need to lengthen or shorten the period. Other considerations include the ongoing monitoring results at these facilities, as he advised that we typically get and have long term monitoring, and we would want to take a look at that in addition to any inspection information regarding the cover and containment systems. Also considered would be information regarding land use controls and whether there are covenants or restricted use of property that might enter into that discussion.

He noted that this document has been out for public review and comment; and that the EPA had used a shotgun approach and got it out there to the actual regulated facilities and permit writers, the trade associations and environmental groups. He noted that the comment period ended July 31, 2015, and they did receive a multitude of comments across the board from these various groups. He noted that the EPA had planned to engage those of us who had been involved in developing this guidance in responding to those comments; but, we were later informed, similar to their rulemaking, that once they got the comments it was now EPA's responsibility since it was their guidance and they were actually obligated to respond. So, those of us who were closely involved in this have been cut out of the loop until the EPA makes its decisions. Ultimately, he noted, the EPA hoped have this guidance issued final by the end of the calendar year, although that deadline is quickly upon us and he advised he was unsure if they would meet that deadline. But, he advised, ultimately this will help us give us some guidance when making these decisions, regarding issues that aren't currently in the regulations themselves.

Commissioner Aull inquired as to how many facilities like this are across the state?

Mr. Nussbaum advised that he couldn't give an exact number but that we basically have a couple of dozen of these out there.

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

#### 8. DRYCLEANING ENVIRONMENTAL RESPONSE TRUST (DERT) ANNUAL REPORT

Mr. Scott Huckstep, Chief, Brownfields/Voluntary Cleanup Section, HWP, addressed the Commission and advised that it's within that section where the dry cleaner fund resides. He noted that he was here to provide a report regarding the Drycleaning Environmental Response Trust (DERT) Fund Annual Report and, as required by law, the balances were distributed in a report for the previous calendar year to the governor and legislature. And, he advised, the four basic elements the report was to include were receipts to the DERT fund, disbursements, the extent of corrective action, and the prioritization of reimbursements for those sites. Mr. Huckstep provided a PowerPoint presentation for the Commission and meeting participants, which outlined the following information.

Mr. Huckstep outlined the two sources of revenue that come in to the fund, with the first being the dry cleaner registration surcharge which is paid by dry cleaners and is based on the

amount of chlorinated solvents that are used during the calendar year. He noted that the fees fall in to three categories, at a \$500, \$1,000 or \$1,500 surcharge. And, he noted, the other surcharge is paid by the suppliers of the chlorinated solvents and that's an \$8 per gallon surcharge. He went on to note that when the fund first started back in 2000, there was 375 dry cleaners that use chlorinated solvents that were required to register with the Department. And, he advised, as of September of this year, this number was down to 130 dry cleaners that meet that requirement. Mr. Huckstep directed the Commissions attention to the chart and showed that over the years there has been a continual decrease in dry cleaners that are required to register with us, as there has been a decrease in dry cleaners that use chlorinated solvents. He advised that as we see a decrease in the total gallons of chlorinated solvents that are purchased by the dry cleaners, there is a sharp decline in revenues in to the fund.

Mr. Huckstep went on to note that some facilities decided to switch over to non-chlorinated solvents thereby they're not required to register with us. He also advised that the shift really began in 2008 when the economy went bad, that it affected a lot of dry cleaners. He noted that many of them ended up going out of business. He also advised that with some dry cleaners, they may have had multiple locations and have consolidated their cleaning operations, so they would only have to pay the surcharge for that location. He also noted that with the newer generations of dry cleaning machines, the fourth and fifth generations of that type of equipment, they are much more efficient than they were ten or fifteen years ago so they use quite a bit less amount of solvents in their dry cleaning and with the decrease in dry cleaners solvent usage, there is a decrease in the revenues that are coming in into the dry cleaning fund.

Mr. Huckstep reviewed the revenues that had been received over the last few years and noted that in 2012 the Program had completed a financial assessment and analysis of the fund, and had determined that with the decrease in revenues coming in, the Fund could no longer sustain any new sites coming in to the program.

Mr. Huckstep advised that as of September 2012, sites submitting work plans were notified that we couldn't guarantee there would be funds to complete their projects. He went on to advise that there were currently 19 active sites in the program and that a lot of them are idle right now because of the structure of the revenues. He noted that many of these dry cleaners would do the work plan, get those costs reimbursed and then apply those costs to continue the clean-up and we have some that are doing some monitoring in active clean up. But, he advised, the majority are at idle status. Mr. Huckstep advised that as of the current date, the Fund has issued 16 completion letters, and has reimbursed over 2.7 million dollars in eligible costs back to dry cleaners and fund balance was currently at \$331,062. Mr. Huckstep advised the Commission that this was the current status and inquired if there were any questions.

Commissioner Jordan referred to one of the pages in the report that reflected the revenues collected over the life of the fund, and inquired as to whether the difference between what was collected and what was dispersed, was it administrative costs? Mr. Huckstep responded that it was; that those costs were for project managers' work, billings, notices and costs involved in collecting and maintaining the fund account.

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

11:29 a.m. – Commissioner Bracker left the meeting.

9. MISSOURI PESTICIDE COLLECTION PROGRAM UPDATE AND OUTREACH EFFORTS

Mr. C.J. Plassmeyer, Compliance and Enforcement Section, addressed the Commission and advised that he would be providing a quick update on the pesticide collection program and outreach efforts. He began with an overview of the 2015 collection efforts and noted that the Department had coordinated with the MU Research Centers for first two events. He advised that the first event was held in Portageville, at the Fisher Delta Research Center on May 30<sup>th</sup>, and had collected 29,693 pounds of waste pesticide, with 37 participants. Mr. Plassmeyer provided a PowerPoint presentation and displayed photographs of different participants at this event. He went on to advise that the second event took place in Mount Vernon, at the Southwest Research Center, on June 20<sup>th</sup>. He advised that at that event they had collected 2,293 pounds of waste pesticide, and had 22 participants. Photographs were also provided of this event.

The third event that Mr. Plassmeyer discussed took place in Higginsville, at the Lafayette County Road and Bridge building on July 18<sup>th</sup> and he advised that they had collected 11,752 pounds of waste pesticide, with 32 participants. The 4<sup>th</sup> event took place in Owensville, at the City Police Station, on August 15<sup>th</sup> with 1,795 pounds of waste pesticide collected, with 15 participants. On September 19<sup>th</sup>, an event was held in Kirksville, at the Public Works Complex, and 3,616 pounds of waste pesticide was collected with 38 participants. He noted that this event was combined with a City sponsored Household Hazardous Waste collection event.

Mr. Plassmeyer provided a breakdown of the types of participants, households, farmers, etc., and how participants had advised they had heard about the program. He also provided an overview of a comparison between the 2014 and 2015 events; noting that in 2014 there had been four events, collecting 21,513 pounds of waste, with 129 participants. And, he advised, in 2015, there have been five events, collecting 49,149 pounds of waste, with 144 participants. He noted that 2014 had more participants per event (32 vs 29), but that 2015 averaged more weight per participant (341 lbs. vs 167 lbs.).

Mr. Plassmeyer noted that with regards to outreach for future events, they were anticipating teaming up with MU Research Farms again; placing ads in local papers in, within a 30 mile radius, placing ads on radio if the proposed areas have a farm station; E-mailing flyers to government agencies in the area; distributing flyers by hand to local Ag facilities; and updating information on the Department's website.

Commissioner Jordan inquired as to where the funding came from. Mr. Plassmeyer explained that these efforts were funded by a Department of Justice settlement with Walmart. He then

inquired as to how much has been spent and how much was left. Mr. Plassmeyer advised that there was still \$2.7 million remaining from the \$3 settlement. Mr. Jordan noted that businesses were interested in this, although they were not eligible to participate, and inquired if some farmers weren't businesses? Mr. David J. Lamb, Director, HWP, responded that Missouri statutes hold farmers exempt from HW laws, but if they are using these as a business, they would be classified as a business.

Mr. Plassmeyer mentioned that a trifold was being developed to promote the pesticide collection program. Vice-Chair Aull asked if consideration had been made regarding putting the handout on line with Mr. Plassmeyer responding that it would be done.

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

#### 10. QUARTERLY REPORT

Mr. Larry Archer, Public Information office, addressed the Commission and advised that the new Public Information Officer had started work with the Hazardous Waste and Solid Waste Programs, and that the Commission would be meeting Ms. Amy Feeler at the next meeting. He went on to outline what information was contained in the current quarterly report and to note the different topics that were covered in this edition. An opportunity was provided for the Commission to ask any questions they may have regarding the publication.

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

#### 11. LEGAL UPDATE

Ms. Kara Valentine, Commission Counsel, addressed the Commission and advised that she felt that most everyone should have heard about EPA's clean power plan that offered to promulgate a rule that will reduce carbon emissions from coal-fired power plants in each of the states. She noted that over twenty states had already filed a lawsuit against the EPA rule and that last week Attorney General Koster announced that Missouri too will be joining that lawsuit. She noted that the rule was promulgated under the Clean Air Act, but it does have a problem here in Missouri. She advised that a federal court of appeals last week granted a request by several states to stay the rule and that Missouri had joined a lawsuit filed by North Dakota, and that a North Dakota court had stayed the water rule. She stated that 40 states had challenged it and that it was the US Appeals Court role is to clarify which waters fall under the jurisdiction of the Clean Water Act. She noted that it had a huge impact here.

Ms. Valentine then noted that the Missouri Attorney General's office had filed criminal charges for illegal dumping of antibiotic contaminated food waste in Grundy County. She noted that the name of the company is Rapid Removal Disposal, that they're based in Trenton and that there are also two officials of that company who are facing criminal charges. She stated that the company apparently was illegally dumping and the charges alleged the company had been dumping this contaminated feed in 2012 and 2013. She noted that then the

company forged landfill receipts, submitted those receipts to the companies that were customers, for claims, and in those receipts falsely indicated that the wastes have been taken to a landfill for disposal. So, she advised, that case is being handled by the Attorney General's Criminal Division. She also stated that she understood they got a search warrant and they seized the company's computers and did forensic analysis of those computers. She noted that this is something the AGO routinely does in an environmental investigation, and that the criminal charges included illegal disposal and forgery.

She then advised that the AGO's office has asked for a preliminary injunction to force a Kansas City gas station to clean up gasoline contamination. She noted that the gas station is called Inner-City Oil Company, in Kansas City, and concerns have been raised with this facility as the gas has been a nuisance to some of the neighboring homes. She advised that the attorney general made a personal visit to that site a few weeks ago and had filed a lawsuit. She noted that there has been a hearing on a request for a preliminary injunction and are asking the company to either clean up the gasoline release or shut down the business. He noted that she though the attorneys in the case are back in court the following day for an update.

She also advised that the court had recently settled a hazardous waste case with UMKC for violating federal regulations involving the storage and handling of hazardous waste at the Midtown campus in the School of Dentistry. She advised that apparently the University didn't properly determine it to be solid waste or if it contained hazardous waste. She noted that there was a penalty assessed and that the school agreed to pay. She noted that the penalty paid to the EPA is \$23,679.00, and in addition, UMKC agreed to undertake a project to upgrade its hazardous material inventory to come up with a system to better track its hazardous waste. She advised that the system had apparently cost about \$32,000; so, she advised, they had a penalty in the \$24,000 range, then this project for \$32,000. She advised that it was an EPA settlement based on an EPA inspection. She noted that these were the only issues that she had legal updates on at this time

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

## 12. PUBLIC INQUIRIES OR ISSUES

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

This was provided as information only and required no action on the part of the Commission.

## 13. OTHER BUSINESS

Mr. David J. Lamb, Director, HWP, addressed the Commission and began with thanking them for their approval earlier in the meeting on the Order of Rulemaking for the fee rule. He went on to note that funding continues to be an issue the Program is working on, especially related

to our RCRA grant. He stated that funding cutbacks to that grant were a result of a reallocation of the funding, and that since the last Commission meeting, a conference call had been held with the EPA and the other states in the region. He stated that he believed there had been some success achieved with getting them to agree to have a face-to-face meeting to look at the details of the reallocation formula and try to determine if there is a better way to distribute the funds at the regional level. He advised that a meeting would be scheduled sometime in the next couple of weeks. He indicated that he would keep the Commission updated on this issue as more details become available.

Mr. Lamb then advised that he wished to provide an update on the plans to revise the Risk-Based Target Levels for Missouri's Risk-Based Corrective Action Guidance that we utilize in our Brownfields Section. He noted that staff did hold a webinar to start that project on September 9th, and that it was well received. He stated that there were over a hundred people who signed up to participate on that call. He advised that the basic purpose of the webinar was to let stakeholders know what we're looking to do and see who would be interested in participating on a work group as we start to work through that process. He stated that following the webinar, there were approximately 30 people who had signed up to be a part of group. He advised that the first meeting was scheduled for December 9th and that we were optimistic that having stakeholders involved would help us move the process forward.

Mr. Lamb went on to note that, as mentioned earlier by Mr. Eiken, Heather Peters will be making a presentation to the PSTIF Advisory Committee the following week as we move forward with the revisions to the underground storage tank rules. He noted that she's also planning to go to other meetings around the state and that staff have been doing a lot of other outreach efforts as well. He noted that staff would be participating in the REGFORM seminar where there will be a lot of discussion on the "No Stricter Than" rules and on many other hazardous waste issues. He also advised that there would be speakers talking about the two rules that were mentioned earlier in the meeting; the EPA's new generator rule and the pharmaceutical rule. He stated that staff and stakeholders will also be talking about things like the underground storage tank rules, the new process for electronic reporting and other things of that nature. He stated that it really is a good opportunity to provide outreach, as there's usually several hundred people that attend this event. So, he noted, that gives staff a chance to get information out to a lot of people who do not come to our normal stakeholder meetings, and never get to hear about some of these new things that are going on. He advised the Commission that the seminar was scheduled for November 5th, in Columbia, at the Stoney Creek Inn, and the Commission had received invitations to attend should they be interested in doing so. Mr. Lamb had no other issues to discuss with the Commission and ended his portion of the agenda.

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

#### 14. FUTURE MEETINGS

The next regular meeting of the Hazardous Waste Management Commission will be held on Thursday, December 17, 2015, at the 1730 E. Elm Street Conference Center.

*Commissioner Jordan made the motion to adjourn the meeting at 11:52 a.m. The motion was seconded by Vice-Chairman Aull. Meeting adjourned.*

Respectfully Submitted,

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Debra D. Dobson, Commission Assistant

APPROVED

\_\_\_\_\_  
Charles Adams, Chairman

\_\_\_\_\_  
Date

**Missouri Hazardous Waste Management Commission Meeting**

**February 18, 2016**

**Agenda Item # 3**

**Introduction of New Commission Counsel**

**Information:**

The Hazardous Waste Management Commission to be provided a short bio and a formal introduction to Brook McCarrick, who has assumed the duties of Commission Counsel following the departure of Kara Valentine.

**Recommended Action:**

Information Only.

**Presented by:**

Mr. David J. Lamb, Director, HWP

**Missouri Hazardous Waste Management Commission Meeting**

**February 18, 2016**

**Agenda Item # 4**

**Rulemaking Update**

**Information:**

The Hazardous Waste Management Commission to be provided an update on recent rulemaking activities.

**Recommended Action:**

Information Only.

**Presented by:**

Mr. Tim Eiken – Rule Coordinator, HWP

**Missouri Hazardous Waste Management Commission Meeting**

**February 18, 2016**

**Agenda Item # 5**

**Missouri Risk Based Corrective Action Update**

**Information:**

The Hazardous Waste Management Commission to be provided an update on the Hazardous Waste Program's efforts to revise the Missouri Risk-Based Corrective Action (MRBCA) guidance document and update the risk-based target levels in that document. The program is working with a stakeholder group and the Department of Health and Senior Services to make the changes.

**Recommended Action:**

Information Only.

**Presented by:**

Mr. Tim Chibnall – Director's Office, HWP

**Missouri Hazardous Waste Management Commission Meeting**

**February 18, 2016  
Agenda Item # 6**

**Sources and Causes Report Update**

**Issue:**

Tanks Update

**Information:**

The Tanks Section will provide a review of the 2015 Department's Sources and Causes Report. This report is required to be submitted to the U.S. Environmental Protection Agency (EPA) on an annual basis. The report covers the federal fiscal year of October 1, 2014, to September 30, 2015.

**Recommended Action:**

Information only.

**Presented by:**

Ken Koon – Chief, Tanks Section HWP  
Heather Peters, Inspection Coordinator, Compliance and Enforcement Section, HWP



## Sources and Causes of Leaks

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Ken Koon  
Tanks Section Chief

Heather Peters  
Inspection Coordinator



## Sources and Causes Underground Storage Tanks (UST)

- Report due to the Environmental Protection Agency (EPA) each December
- Sources – Tank, Piping, Dispenser, Submersible Turbine Pump, Delivery Problem, Other, Unknown
- Causes – Spill, Overfill, Physical or Mechanical Damage, Corrosion, Installation Problem, Other, Unknown



## Sources and Causes (UST)

- Found 90 UST releases
- 13 “new” releases from operational issues/inspections
- Two inspection/complaint findings of historic contamination
- 75 from historical contamination found during Phase II or tank closure



## Sterling Enterprise ST2488/ R9005

- Source – Piping
- Cause – Physical or mechanical damage
- Quantity – Approximately 100 gallons
- Site characterization activities ongoing



## Sterling Enterprise ST2488/ R9005 (cont.)

- Environmental Emergency Response (EER) notified of strong vapors in sewer
  - Some manways pegged the air monitor
- Electronic monitoring system alarms
- Premium line tightness test fail
- Helium test confirm premium fail
- Line excavated- failure at fiberglass elbow





## Flying J ST3838/ R9000

- Source – Dispenser
- Cause – Physical or mechanical damage
- Quantity – Approx. 1200 gallons according to inventory records
- Truck hit dispenser
- Site characterization
- Free product recovery





## Lambert International Airport- ST10020/ R9004

- Product sheen in nearby creek
- Airport responded
- Booms at creek
- Started testing lines
- Active remediation
- Site characterization



## Lambert International Airport- ST10020/ R9004 (cont.)

- Fuel hydrant system
- Flange rusted - corrosion





## Chambers Conoco ST4501/ R8990

- EER contacted- vapors in sewer
- Nearby station investigated
- Product found in wells
- Tank and line tightness testing conducted
- Piping on unleaded system failed test
- Free product recovery, site characterization ongoing





## Loves-Neosho ST22029/ R9016

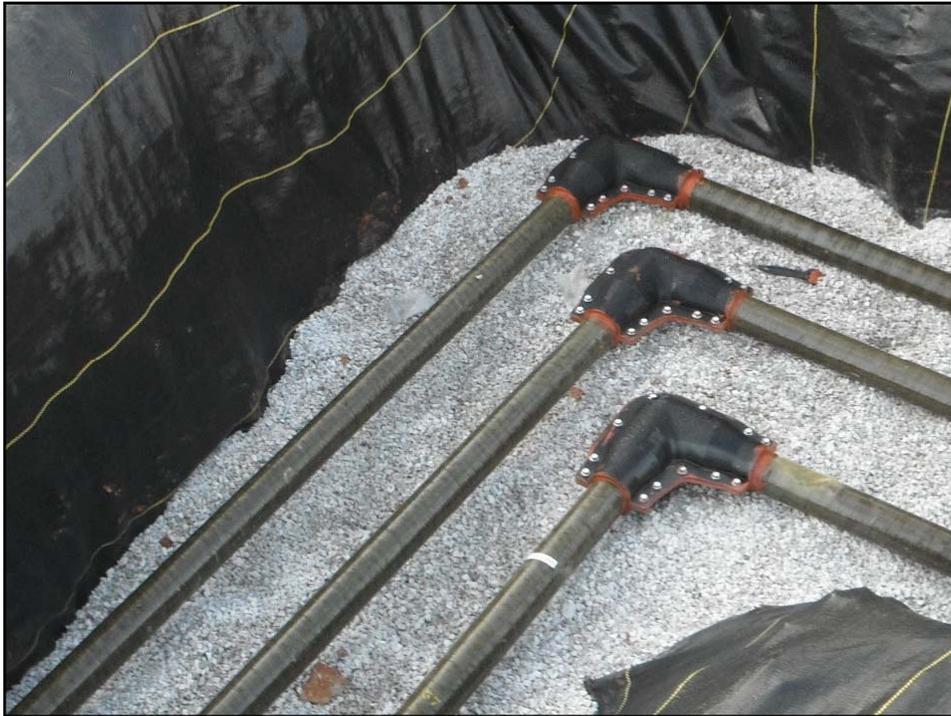
- New installation- July 2014
- New installation inspections:
  - July 20, Sept. 9, Sept. 22
  - Tank and piping passing tests
- March 2015- Line tests failing, product in sewers
- EER was notified



## Loves-Neosho ST22029/ R9016 (cont.)

- Newly installed piping
- Damaged by backhoe
- Damage not reported
- Line pressurized- damage unknown
- Approx. 6000 gallons of product released
- NFA issued in June 2015



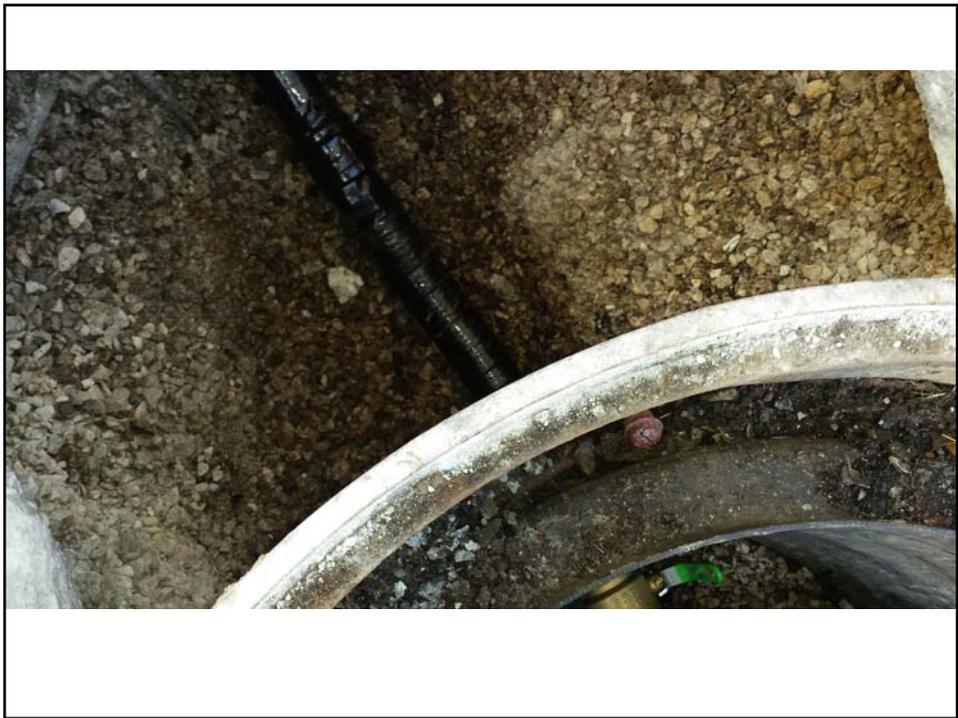




## Wildcat Corner-Neosho ST4609/ R8994

- Owner called in failing line tightness test
- Found leak- replaced flexible connector leaking threads
- Conducted sampling
- Results submitted
- Site characterization
- Free product recovery







## MPC 51-Rolla ST8306/ R9055

- Product noted in two tank top areas during Oct. 29, 2014, inspection
- Feb. 4, 2015, re-inspection to check areas
  - Product again found
- The department requested investigation





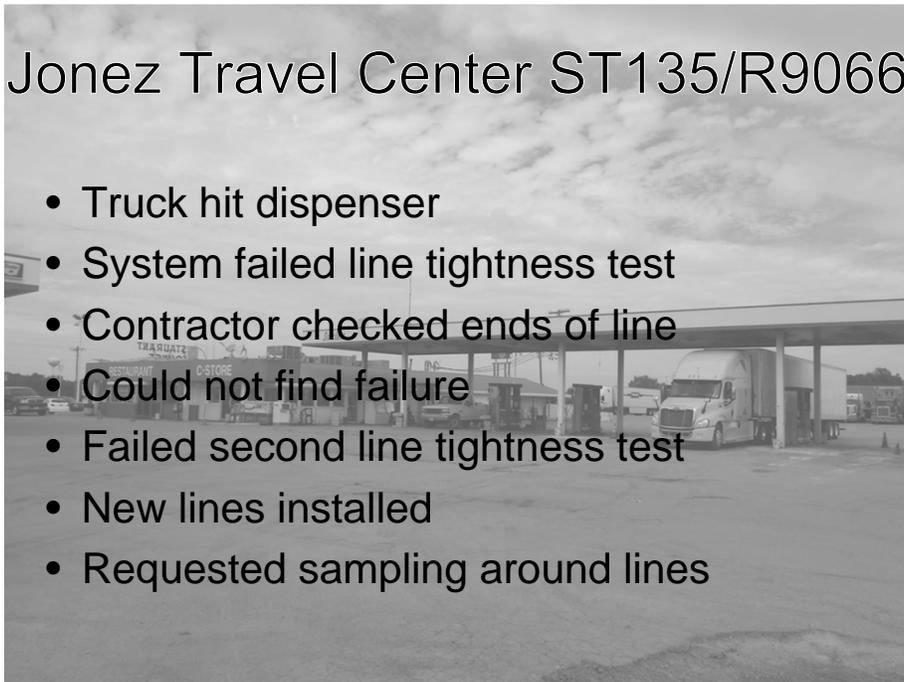
## MPC 51-Rolla ST8306/ R9055 (cont.)

- Feb. 12, 2015- The department, contractor and owner on-site
- Small leak found at FRP coupling
- Repairs made
- Sampling conducted
  - Above DTLs
- Site characterization needed



## Jonez Travel Center ST135/R9066

- Truck hit dispenser
- System failed line tightness test
- Contractor checked ends of line
- Could not find failure
- Failed second line tightness test
- New lines installed
- Requested sampling around lines





## Jonez Travel Center ST135/ R9066 (cont.)

- Piping in contamination
- Delamination/deterioration
- Site characterization needed



## Circle K #1628 ST3450/ R9006

- Leak found during Oct. 9, 2014, inspection (video provided)
- Product in well
- Pumped well
- Sheen in well
- Sampling required
- Site characterization ongoing





## Main Street Shell ST3090/ R9051- Part 1

- May 1, 2015- EER report gas vapors in sewer
- Continued to receive complaints
- Found fresh product
- Investigated nearby station
- Reviewed site's monitoring records
- "Complications"



## Main Street Shell - Part 1 (cont.)

- ATG- old, outdated, may not be functioning?
- Losses after delivery?
- Tank tightness test conducted- FAIL
- Found holes in bottom of Tank #3 (4k)
- Tank emptied
- *New ATG not installed until October 2015*



## Main Street Shell - Part 1 (cont.)

- Sampling required
- Active remediation
- EER involvement
- Residences in area still impacted
- Mitigation of vapor issues and site characterization ongoing



## Main Street Shell ST3090- Part 2

- Tank #3 – Tank with holes in bottom
- Was not locked
- Received a load of fuel
- Leaked... again



## C Store #2- ST13523/ R9060

- Inspection Sept. 4, 2015 - found product bubbling up through water filled sump



## C Store #2- ST13523/ R9060 (cont.)

- Owner immediately contacted contractor
- Pumped out sump
- Found pinhole leak in flex connector
- Replaced within hours of inspection
- Sampling requested
- Free product recovery and site characterization work plan needed



## MOGA Stop- 20298/ R9039

- Spill/overflow of approx. 700 gallons
- Sampling conducted
- Contamination found
- Site characterization risk assessment underway



## Ozark Oil Company ST4651/ R9058

- Complaint called in
- Dead vegetation
- Pipe from tank pit to back of property
- Owner will conduct sampling





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## Ozark Oil Company ST4651/ R9058 (cont.)



- Some staining
- Uncertain if it was the source
- Excavation of soils approved



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## Pump N Pete's - ST986/ R9015

- Small weeps in 2009- fixed
  - Vent tube at line leak detector
- Jan. 27, 2012, inspection noted small leak at line leak detector
  - Feb. 23, 2012, re-inspection found clear water in area and no signs of a leak





## Pump N Pete's - ST986/ R9015 (cont.)

- Oct. 20, 2014, inspection
  - Product in tank top area
  - Absorbent pads in tank top area
- Oct. 21, 2014, the department's re-inspection
  - 12 inch product (weathered) in well
  - Absorbent materials in a well
  - Did not observe off-site impacts
- Required sampling



## Pump N Pete's - ST986/ R9015 (cont.)

- Passing tank and line tightness tests
- Passing release detection
- Not requiring additional system check *at this time*
- Required sampling
- Site characterization, free product recovery





## What is causing our new leaks?

- Five metal components
  - Two flex connectors, two fittings, one tank
  - Corrosion? Wear and Tear? Install?
- Three fiberglass piping couplings
  - Installation?
- Three “accidents”- vehicle/construction
  - One involved weakened piping
- One spill/overflow



## So what about aboveground storage tanks (ASTs)?

- 11 total AST releases
- One overflow
- 2 physical of mechanical damage
- 8 historical releases from Phase II assessments/investigations



## Questions?

- [http://www.dnr.mo.gov/env/hwp/tanks/epa\\_sourceandcause.htm](http://www.dnr.mo.gov/env/hwp/tanks/epa_sourceandcause.htm)



Missouri DNR, Tanks Section  
Summary Information  
FFY 2015

General Information

Total Number of Active UST Sites: 3,441  
 Total Number of Active USTs: 8,945  
 Public Record Posted Date: 11/20/2015

Summary Information For On-Site Inspections

Inspection Timeframe: 10/1/14 to 9/30/15  
 Number of UST Facilities Inspected: 1,629  
 Percent Compliance (Combined Measure): 76.52%

\*Tank, facility, and on-site inspection data is based on active underground storage tanks inspected during Federal Fiscal Year 2015. The on-site inspections Percent Compliance measure is based on the combined performance measure of the significant operational compliance (SOC) requirements.

Summary Information for Releases

Remediation Case Dates Added Timeframe: 10/1/14 to 9/30/15  
 Number of Remediation Cases Opened: 90

Source	Cause													
	Overfill		Spill		Phys/Mech Damage		Corrosion		Install Problem		Other		Unknown	
#	%	#	%	#	%	#	%	#	%	#	%	#	%	
<b>Totals</b>	<b>0</b>	<b>0.00%</b>	<b>1</b>	<b>1.11%</b>	<b>5</b>	<b>5.56%</b>	<b>3</b>	<b>3.33%</b>	<b>2</b>	<b>2.22%</b>	<b>2</b>	<b>2.22%</b>	<b>77</b>	<b>85.56%</b>
Tank	2	2.22%												
Piping	8	8.89%			3	3.33%	1	1.11%	2	2.22%	2	2.22%		
Dispenser	1	1.11%			1	1.11%								
STP	1	1.11%			1	1.11%								
Delivery Problem	1	1.11%	1	1.11%										
Other	0	0.00%												
<b>Unknown</b>	<b>77</b>	<b>85.56%</b>											<b>77</b>	<b>85.56%</b>

\*Release, source, and cause information is based on releases from leaking underground storage tank sites. Source and cause data were collected from release reports submitted to the department.

\*Site-specific information can be reviewed by downloading and searching the Missouri Department of Natural Resources Underground Storage Tanks Database (online version) at: <http://www.dnr.mo.gov/env/hwp/downloads/hwpet.htm>  
 If you are unable to download and/or print this document and would like a copy, please contact Adam Coon at Adam.Coon@dnr.mo.gov or (573) 526-6730.

**Missouri DNR, Tanks Section  
FFY 2015 LUST Releases**

FACILITYID	REMID	ACTIVE REMID	PROJECT MANAGER	DATEADDED	SOURCE	CAUSE	Cause/Specify Other
ST0020298	R009039	Yes	TERESA BULLOCK	6/23/2015 0:00	Delivery Problem	Spill	
ST0003838	R009000	Yes	VICKIE OLIVE	12/15/2014 0:00	Dispenser	Physical or Mechanical Damage	
ST0010020	R009004	Yes	DAVE WALCHSHAUSER	1/2/2015 0:00	Piping	Corrosion	
ST0002488	R009005	Yes	TERESA BULLOCK	1/2/2015 0:00	Piping	Install Problem	
ST0004501	R008990	Yes	JUSTIN BUCKLER	11/21/2014 0:00	Piping	Install Problem	
ST0000135	R009066	Yes	TERESA BULLOCK	9/25/2015 0:00	Piping	Other(specify)	Accidental Damage
ST0022029	R009016	No	VINCE HENRY	3/5/2015 0:00	Piping	Other(specify)	Accidental Damage
ST0004609	R008994	Yes	VINCE HENRY	12/4/2014 0:00	Piping	Physical or Mechanical Damage	
ST0008306	R009055	Yes	TERESA BULLOCK	8/14/2015 0:00	Piping	Physical or Mechanical Damage	
ST0013523	R009060	Yes	TERESA BULLOCK	9/9/2015 0:00	Piping	Physical or Mechanical Damage	
ST0003450	R009006	Yes	VINCE HENRY	1/2/2015 0:00	Submersible Turbine Pump Area	Physical or Mechanical Damage	
ST0003090	R009051	Yes	VALERIE GARRETT	8/7/2015 0:00	Tank	Corrosion	Corrosion
ST0003090	R009052	Yes	VALERIE GARRETT	8/7/2015 0:00	Tank	Corrosion	Dropped fuel in known LUST
ST0000318	R009002	Yes	TERESA BULLOCK	12/19/2014 0:00	Unknown	Unknown	Historical Release
ST0000418	R009017	Yes	TERESA BULLOCK	3/12/2015 0:00	Unknown	Unknown	Historical Release
ST0000519	R008989	Yes	TERESA BULLOCK	11/20/2014 0:00	Unknown	Unknown	Historical Release
ST0000691	R008970	No	MICHAEL DAVIS	10/9/2014 0:00	Unknown	Unknown	Historical Release
ST0000986	R009015	Yes	MATT ALHALABI	2/27/2015 0:00	Unknown	Unknown	Historical Release
ST0000996	R008991	Yes	HASHIM MUKHTAR	11/21/2014 0:00	Unknown	Unknown	Historical Release
ST0001434	R009021	No	RICK BROWN	3/20/2015 0:00	Unknown	Unknown	Historical Release
ST0001814	R009057	No	RICK BROWN	8/27/2015 0:00	Unknown	Unknown	Historical Release
ST0001830	R008968	Yes	TERESA BULLOCK	10/8/2014 0:00	Unknown	Unknown	Historical release
ST0001844	R008971	Yes	VALERIE GARRETT	10/16/2014 0:00	Unknown	Unknown	Historical Release
ST0002272	R009022	No	RICK BROWN	3/25/2015 0:00	Unknown	Unknown	Historical Release
ST0002442	R009020	No	RICK BROWN	3/13/2015 0:00	Unknown	Unknown	Historical Release
ST0002472	R009056	Yes	TERESA BULLOCK	8/20/2015 0:00	Unknown	Unknown	Historical Release
ST0002652	R009065	No	RICK BROWN	9/24/2015 0:00	Unknown	Unknown	Historical Release
ST0003179	R009003	No	RICK BROWN	12/19/2014 0:00	Unknown	Unknown	Historical Release
ST0003456	R008974	Yes	MATT ALHALABI	10/23/2014 0:00	Unknown	Unknown	Historical Release
ST0003611	R009018	Yes	TERESA BULLOCK	3/12/2015 0:00	Unknown	Unknown	Historical release
ST0003746	R009010	Yes	DANIEL SCOLLAN	1/28/2015 0:00	Unknown	Unknown	Historical release
ST0004413	R009036	Yes	TERESA BULLOCK	6/12/2015 0:00	Unknown	Unknown	Historical release
ST0004534	R008976	No	RICK BROWN	10/23/2014 0:00	Unknown	Unknown	Historical release
ST0004651	R009058	Yes	TERESA BULLOCK	9/3/2015 0:00	Unknown	Unknown	Historical Release
ST0004817	R008993	No	RICK BROWN	11/26/2014 0:00	Unknown	Unknown	Historical Release
ST0005194	R009040	Yes	RICK BROWN	6/25/2015 0:00	Unknown	Unknown	Historical release
ST0005208	R008977	Yes	TERESA BULLOCK	10/24/2014 0:00	Unknown	Unknown	Historical release
ST0005312	R009028	No	RICK BROWN	4/20/2015 0:00	Unknown	Unknown	Historical release
ST0005340	R009008	Yes	RICK BROWN	1/20/2015 0:00	Unknown	Unknown	Historical Release
ST0005583	R009029	Yes	JEFF KUTTENKULER	4/20/2015 0:00	Unknown	Unknown	Historical Release
ST0005607	R008995	Yes	STEVE LANG	12/4/2014 0:00	Unknown	Unknown	Historical release
ST0005968	R009001	Yes	TERESA BULLOCK	12/18/2014 0:00	Unknown	Unknown	Historical Release
ST0006204	R009067	Yes	RICK BROWN	9/30/2015 0:00	Unknown	Unknown	Historical Release
ST0006445	R009035	Yes	MATT ALHALABI	5/21/2015 0:00	Unknown	Unknown	Historical Release
ST0006584	R008996	Yes	STEVE LANG	12/4/2014 0:00	Unknown	Unknown	Historical release

**Missouri DNR, Tanks Section  
FFY 2015 LUST Releases**

ST0006911	R009047	Yes	RICK BROWN	7/17/2015 0:00	Unknown	Unknown	Historical Release
ST0006974	R009046	Yes	TERESA BULLOCK	7/17/2015 0:00	Unknown	Unknown	Historical Release
ST0007046	R008967	Yes	TERESA BULLOCK	10/1/2014 0:00	Unknown	Unknown	Historic Release
ST0007326	R009043	No	RICK BROWN	7/1/2015 0:00	Unknown	Unknown	Historical Release
ST0007487	R008979	Yes	DAVE WALCHSHAUSER	10/30/2014 0:00	Unknown	Unknown	Historical Release
ST0007895	R008978	No	TERESA BULLOCK	10/30/2014 0:00	Unknown	Unknown	Historical release
ST0008055	R009014	Yes	TERESA BULLOCK	2/24/2015 0:00	Unknown	Unknown	Historical Release
ST0008310	R009048	Yes	VALERIE GARRETT	7/28/2015 0:00	Unknown	Unknown	Historical Release
ST0008332	R009050	No	RICK BROWN	8/4/2015 0:00	Unknown	Unknown	Historical Release
ST0008492	R008972	Yes	MATT ALHALABI	10/16/2014 0:00	Unknown	Unknown	
ST0008657	R009038	Yes	TERESA BULLOCK	6/22/2015 0:00	Unknown	Unknown	Historical Release
ST0008900	R009024	Yes	TERESA BULLOCK	4/9/2015 0:00	Unknown	Unknown	Historical Release
ST0008942	R009009	Yes	RICK BROWN	1/21/2015 0:00	Unknown	Unknown	Historical Release
ST0009301	R009031	Yes	TERESA BULLOCK	4/24/2015 0:00	Unknown	Unknown	Historical release
ST0009878	R009027	No	RICK BROWN	4/15/2015 0:00	Unknown	Unknown	Historical release
ST0009927	R009049	Yes	RICK BROWN	8/4/2015 0:00	Unknown	Unknown	Historical Release
ST0010048	R009061	Yes	TERESA BULLOCK	9/17/2015 0:00	Unknown	Unknown	Historical Release
ST0010383	R008999	No	VALERIE GARRETT	12/15/2014 0:00	Unknown	Unknown	Historical Release
ST0010505	R009041	No	RICK BROWN	6/26/2015 0:00	Unknown	Unknown	Historical Release
ST0010617	R009037	Yes	VALERIE GARRETT	6/12/2015 0:00	Unknown	Unknown	Historical Release
ST0010750	R009064	Yes	RICK BROWN	9/24/2015 0:00	Unknown	Unknown	Historical Release
ST0011106	R009054	Yes	RICK BROWN	8/12/2015 0:00	Unknown	Unknown	Historical Release
ST0011246	R009026	Yes	TERESA BULLOCK	4/13/2015 0:00	Unknown	Unknown	Historical Release
ST0011750	R009062	No	RICK BROWN	9/17/2015 0:00	Unknown	Unknown	Historical Release
ST0012445	R008969	Yes	MATT ALHALABI	10/9/2014 0:00	Unknown	Unknown	Historical Release
ST0012735	R009034	No	RICK BROWN	5/21/2015 0:00	Unknown	Unknown	Historical release
ST0013083	R008988	Yes	DAVE WALCHSHAUSER	11/18/2014 0:00	Unknown	Unknown	Historical Release
ST0013231	R009030	Yes	VALERIE GARRETT	4/23/2015 0:00	Unknown	Unknown	Historical release
ST0013278	R009042	No	RICK BROWN	7/1/2015 0:00	Unknown	Unknown	Historical Release
ST0013346	R008981	Yes	HASHIM MUKHTAR	10/31/2014 0:00	Unknown	Unknown	Historical Release
ST0013633	R009011	Yes	TERESA BULLOCK	2/5/2015 0:00	Unknown	Unknown	Historical Release
ST0013642	R009032	No	RICK BROWN	5/6/2015 0:00	Unknown	Unknown	Historical Release
ST0013936	R009013	Yes	TERESA BULLOCK	2/17/2015 0:00	Unknown	Unknown	Historical Release
ST0013972	R008975	Yes	TERESA BULLOCK	10/23/2014 0:00	Unknown	Unknown	Historical release
ST0019458	R009044	Yes	RICK BROWN	7/6/2015 0:00	Unknown	Unknown	Historical Release
ST0019872	R009063	No	RICK BROWN	9/22/2015 0:00	Unknown	Unknown	Historical Release
ST0020738	R009012	No	RICK BROWN	2/17/2015 0:00	Unknown	Unknown	Historical Release
ST0020777	R009059	Yes	TERESA BULLOCK	9/9/2015 0:00	Unknown	Unknown	Historical Release
ST0021172	R008987	No	TERESA BULLOCK	11/13/2014 0:00	Unknown	Unknown	Historical Release
ST0021981	R008998	Yes	JUSTIN BUCKLER	12/10/2014 0:00	Unknown	Unknown	Historical release
ST0022023	R009007	Yes	TERESA BULLOCK	1/15/2015 0:00	Unknown	Unknown	Historical Release
ST0022037	R009053	No	RICK BROWN	8/7/2015 0:00	Unknown	Unknown	Historical Release
ST5017073	R008980	No	RICK BROWN	10/31/2014 0:00	Unknown	Unknown	Historical Release
ST5017789	R009033	Yes	VALERIE GARRETT	5/7/2015 0:00	Unknown	Unknown	Historical Release
ST5800011	R008982	No	RICK BROWN	11/3/2014 0:00	Unknown	Unknown	Historical Release

## **Missouri Hazardous Waste Management Commission Meeting**

**February 18, 2016  
Agenda Item # 7**

### **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 February 2, 2016, of the 3,438 facilities required to have financial responsibility, 43 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 February 2, 2016, of those 43 sites, 13 were at the Attorney General's Office for legal action and 15 were in the Enforcement Unit. Of those 15 in the Enforcement Unit, 4 were in the process of referral to the Attorney General's Office, 15 have had initial letters or Notices of Violation concerning their compliance. Of those 13 at the Attorney General's Office, 6 had pending applications with the Petroleum Storage Tank Insurance Fund and 7 of those currently in the Enforcement Unit had pending applications with the Petroleum Storage Tank Insurance Fund.

#### **Recommended Action:**

Information Only

#### **Presented by:**

Mike Martin, Chief, UST Compliance and Technology Unit, CES, HWP

## **Missouri Hazardous Waste Management Commission Meeting**

**February 18, 2016**

**Agenda Item # 8**

### **“No Stricter Than” Outreach and Implementation**

#### **Issue:**

New Missouri Regulations resulting from “No Stricter Than” legislation (NST) were effective December 30, 2015. The Hazardous Waste Compliance and Enforcement Section, along with others, have been working to ensure the regulated community and our inspectors are prepared for these changes.

#### **Information:**

- NST may result in changes for generators of hazardous waste.
- NST will change some inspection procedures.
- NST results in the need to update fact sheets, inspection checklists and other materials to insure their accuracy.
- Other NST outreach and education efforts are underway.
- This presentation will update the Commission on these efforts.

#### **Recommended Action:**

Information only.

#### **Presented by:**

Nicole Eby - Hazardous Waste Enforcement Unit Chief, Compliance and Enforcement Section

# **Hazardous Waste Rule Amendment Outreach & Implementation**

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Feb. 18, 2016

## **Background**

- Regulation changes were prompted by passage of Section 260.373.1 Revised Statutes of the State of Missouri
- Affected the Code of State Regulations, Title 10, Division 25 (10 CSR 25)
- Incorporated updated Code of Federal Regulations (CFR)
- New rules became effective Dec. 30, 2015

## Outreach efforts

- Conducted two webinars in December
  - First webinar (Dec. 2, 2015) covered 10 CSR 10-25 chapters 3,4,5
  - Second webinar (Dec. 9, 2015) covered other chapters and adoptions of the CFR
- Rule update webpage available with newsletter and other guidance  
<http://dnr.mo.gov/env/hwp/enf/ruleupdate.htm>

## Outreach efforts

- GovDelivery- sign up for e-mail notifications
- Frequently Asked Questions (FAQ)  
<http://dnr.mo.gov/env/hwp/enf/hwruleupdatefaq.htm>
- Inspectors discussing changes with facility managers during inspections



## Publications and Checklists

- Checklists-have final, published versions of some, drafts of others
  - <http://dnr.mo.gov/forms/#HazardousWaste>
- Publications-
  - Updated some
    - <http://dnr.mo.gov/pubs/index.html#HazardousWaste>
  - Some still in draft – check publication date
  - Removed others in lieu of Environmental Protection Agency equivalent
    - <http://dnr.mo.gov/env/hwp/enf/hwruleupdateinfo.htm>

## **Missouri Hazardous Waste Management Commission Meeting**

**February 18, 2016  
Agenda Item # 9**

### **Missouri Pesticide Collection Program Update**

#### **Issue:**

An update on Pesticide Collection Program's current activities will be presented. These include ongoing education and outreach efforts and a brief update on the status of the 2016 collection events.

#### **Information:**

- Schedule and locations for 2016 collection events
- Pesticide container recycling
- Other efforts and activities
  - Contract finalization
  - Web page updates and new publications
  - Applicator training
  - Farmer/household definitions and exemption

#### **Recommended Action:**

Information only.

#### **Presented by:**

C.J. Plassmeyer, Pesticide Collection Program Coordinator, Compliance and Enforcement Section



## Pesticide Collection Events for 2016

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C.J. Plassmeyer



## Pesticide Program Updates

- Upcoming 2016 pesticide collection events
  - Pesticide collection program webpage
- New fact sheets/publications
- Pesticide Collection Program funding
- Farmer exemption
- Commercial pesticide applicator training



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The department's Pesticide Collection Program provides free collection events for farmers and households throughout the state of Missouri to properly dispose of unwanted waste pesticides. From 2012 to 2015, the Missouri Pesticide Collection Program conducted 26 events, collecting more than 193,700 pounds of waste pesticide. In 2016, the department will again provide Missouri residents with a convenient, **free** opportunity to properly dispose of pesticides, herbicides, rodenticides and fungicides.

**New for 2016: Collecting empty triple-rinsed plastic pesticide containers-up to 30 gallons in size (must be dry and residue free)**

**2016 Pesticide Collection Event Schedule**

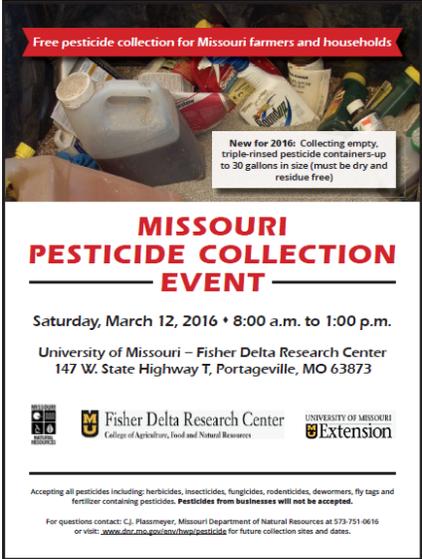
1. Portageville, March 12, 2016, 8 a.m.-1 p.m., University of Missouri – Fisher Delta Research Center, 147 W. State Highway T, Portageville, Mo
2. Poplar Bluff, March 26, 2016, 8 a.m.-1 p.m., Baker Implement Company, 1443 State Highway B, Poplar Bluff, Mo
3. Fairfax, April 9, 2016, 8 a.m.-1 p.m., University of Missouri, Graves-Chapple Research Center, 29955 Outer Road, Fairfax, Mo
4. Canton, May 21, 2016, 8 a.m.-1 p.m., Canton Recycling Center, 509 N. 4th St., Canton, Mo
5. Montgomery City, June 4, 2016, 8 a.m.-1 p.m., Montgomery County Road and Bridge Facility, 480 Benton St., Montgomery City, Mo
6. Bolivar, June 25, 2016, 8 a.m.-1 p.m., C & C Farm & Home, 3260 S. Springfield Ave., Bolivar, Mo

**2016 Pesticide Collection Event Fliers**

- Portageville 
- Poplar Bluff 
- Fairfax 
- Canton 
- Montgomery City 
- Bolivar 



**MISSOURI**  
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**Free pesticide collection for Missouri farmers and households**

**New for 2016: Collecting empty, triple-rinsed pesticide containers-up to 30 gallons in size (must be dry and residue free)**

**MISSOURI PESTICIDE COLLECTION EVENT**

Saturday, March 12, 2016 • 8:00 a.m. to 1:00 p.m.

University of Missouri – Fisher Delta Research Center  
147 W. State Highway T, Portageville, MO 63873

Accepting all pesticides including: herbicides, insecticides, fungicides, rodenticides, dewormers, fly tags and fertilizer containing pesticides. Pesticides from businesses will not be accepted.

For questions contact: C.J. Plasmeyer, Missouri Department of Natural Resources at 573-751-0616 or visit: [www.dnr.mo.gov/mo/pesticide](http://www.dnr.mo.gov/mo/pesticide) for future collection sites and dates.



**MISSOURI**  
DEPARTMENT OF  
NATURAL RESOURCES

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**What is accepted?**

- Fungicides
- Herbicides
- Insecticides
- Pesticides
- Rodenticides
- Fertilizers containing herbicides or pesticides
- De-wormers and fly-tags

**What is NOT accepted?**

- Paint
- Explosives
- Fire Extinguishers
- Smoke Detectors
- Cylinders
- Asbestos
- Trash
- Yard Waste
- Electronics
- Pesticides from businesses, pesticide production facilities, pesticide distributors or pesticide retailers

✱ [Missouri Pesticide Collection Program Brochure \(PUB 2603\)](#)

**Recommendations for safe transport**

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All materials collected were managed as pesticide and herbicide waste and were field characterized, sampled (if necessary), segregated and placed into proper Department of Transportation shipping containers with approved labels and markings. The waste was transported and managed at an approved licensed disposal facility. Any materials brought to the collection events that were not clearly identifiable as pesticides or herbicides were not accepted.

**Photos from events**

Collection services will be overseen by the department's **Environmental Services Program** and **Hazardous Waste Program** staff. For more information or questions on the pesticide collection program, contact **C.J. Plassmeyer** at 573-751-0616.



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NATURAL RESOURCES

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Missouri Department of Natural Resources

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**MANAGING PESTICIDE WASTE**

Hazardous Waste Program fact sheet 01/2016  
 Division of Environmental Quality Director: Leanne Tippett Mosby PUB2596

This fact sheet provides general information to help pesticide applicators determine whether their leftover, un-wanted pesticide is solid waste or hazardous waste and how to properly dispose of each type. Disposal is an important part of responsible pesticide use, as improperly disposed pesticide wastes can create serious hazards for human health and the environment. Businesses should refer to this fact sheet and [Make the Decision to Discard a Pesticide Decision Tree](#) as general guidance only and should review appropriate state and federal laws and regulations before making the ultimate decision of how to manage waste pesticides.

**Keep these tips in mind to reduce the need for waste pesticide disposal:**

- Use an integrated pest management (IPM) program to manage pests, therefore reducing the need to use pesticide.
- Always read the label carefully before you buy a product and make sure the product is intended for your specific use.
- Use the appropriate amount of pesticide for your job. Applying more pesticide than the label directions indicate is a violation of federal law can waste money and may harm people, pets or the environment. It may even be less effective at controlling the pest.
- Do not assume a pesticide purchased for one type of treatment can be used in another setting without first checking the label; many pesticides have similar names and ingredients despite being intended for very different uses.
- Always purchase the least toxic pesticide to get the job done.
- Buy only what you need. Storing and disposing of leftover pesticide can lead to unnecessary risks.
- Review the storage and disposal section of the label for information on how the product should be stored and disposed of, including the empty container. Store all pesticides safely out of reach of children and pets.
- Re-read the label before using or re-using a pesticide, do not rely on your memory.
- It is against the law to use pesticides in any manner other than those specifically listed on the label.
- Never remove a pesticide label from the container, or use unlabeled pesticides.



## Pesticide Collection Program Funding

- As part of the agreement with the federal government, Walmart made a “Community Service Payment” of \$3,000,000 to the department in 2013
- The department inquired if the money could be spent for pesticide collections
  - based on the success of the past pesticide collection events from 2012 – 2013
  - Hazardous Waste Management Commission encouraged spending money on additional pesticide collection events
- Department of Justice approved use of these funds for pesticide collection events for farmers and households



## Farmer Exemption

### RSMO 260.380.1 – Duties of hazardous waste generators

- Individual householders and farmers who generate only small quantities of hazardous waste on an infrequent basis are exempt from hazardous waste generator requirements.

### 10 CSR 25-3.260 – Defines “Farmer”

- Farmer means a person primarily engaged in the production of crops or livestock for agricultural purposes, or both.

### RSMO 260.360 – Defines “Person”

- “Person”, an individual, partnership, copartnership, firm, company, public or private corporation, association, joint stock company, trust, estate, political subdivision or any agency, board, department or bureau of the state or federal government or any other legal entity whatever which is recognized by law as the subject of rights and duties;



## Commercial Pesticide Applicator Training

- 1950 commercial applicators attended the training
- Topic covered – Pesticide Waste Disposal and Emergencies
  - Programs within the department having potential to be involved with pesticide use
  - Pesticide waste disposal
  - Difference between hazardous and non-hazardous waste disposal
  - Pesticide emergency planning
  - 2015 emergencies (pics)
  - Pesticide Collection Program





Thank You

Free pesticide collection for Missouri farmers and households

New for 2016: Collecting empty, triple-rinsed pesticide containers-up to 30 gallons in size (must be dry and residue free)

## MISSOURI PESTICIDE COLLECTION EVENT

Saturday, March 12, 2016 • 8:00 a.m. to 1:00 p.m.

University of Missouri – Fisher Delta Research Center  
147 W. State Highway T, Portageville, MO 63873



Fisher Delta Research Center  
College of Agriculture, Food and Natural Resources

UNIVERSITY OF MISSOURI  
Extension

Accepting all pesticides including: herbicides, insecticides, fungicides, rodenticides, dewormers, fly tags and fertilizer containing pesticides. **Pesticides from businesses will not be accepted.**

For questions contact: C.J. Plassmeyer, Missouri Department of Natural Resources at 573-751-0616 or visit: [www.dnr.mo.gov/env/hwp/pesticide](http://www.dnr.mo.gov/env/hwp/pesticide) for future collection sites and dates.

Free pesticide collection for Missouri farmers and households

New for 2016: Collecting empty, triple-rinsed pesticide containers-up to 30 gallons in size (must be dry and residue free)

## MISSOURI PESTICIDE COLLECTION EVENT

Saturday, March 26, 2016 • 8:00 a.m. to 1:00 p.m.

Baker Implement Company  
1443 State Highway B, Poplar Bluff, MO 63901



MISSOURI  
DEPARTMENT OF  
NATURAL RESOURCES

Accepting all pesticides including: herbicides, insecticides, fungicides, rodenticides, dewormers, fly tags and fertilizer containing pesticides. **Pesticides from businesses will not be accepted.**

For questions contact: C.J. Plassmeyer, Missouri Department of Natural Resources at 573-751-0616 or visit: [www.dnr.mo.gov/env/hwp/pesticide](http://www.dnr.mo.gov/env/hwp/pesticide) for future collection sites and dates.

Free pesticide collection for Missouri farmers and households

New for 2016: Collecting empty, triple-rinsed pesticide containers-up to 30 gallons in size (must be dry and residue free)

## MISSOURI PESTICIDE COLLECTION EVENT

Saturday, April 9, 2016 • 8:00 a.m. to 1:00 p.m.

University of Missouri – Graves-Chapple Research Center  
29955 Outer Road, Fairfax, MO 64446



MISSOURI  
DEPARTMENT OF  
NATURAL RESOURCES



Graves-Chapple  
Research Center  
University of Missouri

UNIVERSITY OF MISSOURI  
Extension

Accepting all pesticides including: herbicides, insecticides, fungicides, rodenticides, dewormers, fly tags and fertilizer containing pesticides. **Pesticides from businesses will not be accepted.**

For questions contact: C.J. Plassmeyer, Missouri Department of Natural Resources at 573-751-0616 or visit: [www.dnr.mo.gov/env/hwp/pesticide](http://www.dnr.mo.gov/env/hwp/pesticide) for future collection sites and dates.

Free pesticide collection for Missouri farmers and households

New for 2016: Collecting empty, triple-rinsed pesticide containers-up to 30 gallons in size (must be dry and residue free)

## MISSOURI PESTICIDE COLLECTION EVENT

Saturday, May 21, 2016 • 8:00 a.m. to 1:00 p.m.

Canton Recycling Center  
509 N. 4th St., Canton, MO 63435



MISSOURI  
DEPARTMENT OF  
NATURAL RESOURCES

Accepting all pesticides including: herbicides, insecticides, fungicides, rodenticides, dewormers, fly tags and fertilizer containing pesticides. **Pesticides from businesses will not be accepted.**

For questions contact: C.J. Plassmeyer, Missouri Department of Natural Resources at 573-751-0616 or visit: [www.dnr.mo.gov/env/hwp/pesticide](http://www.dnr.mo.gov/env/hwp/pesticide) for future collection sites and dates.

Free pesticide collection for Missouri farmers and households

New for 2016: Collecting empty, triple-rinsed pesticide containers-up to 30 gallons in size (must be dry and residue free)

## MISSOURI PESTICIDE COLLECTION EVENT

Saturday, June 4, 2016 • 8:00 a.m. to 1:00 p.m.

Montgomery County Road & Bridge Facility  
480 Benton St., Montgomery City, MO 63361



Accepting all pesticides including: herbicides, insecticides, fungicides, rodenticides, dewormers, fly tags and fertilizer containing pesticides. **Pesticides from businesses will not be accepted.**

For questions contact: C.J. Plassmeyer, Missouri Department of Natural Resources at 573-751-0616 or visit: [www.dnr.mo.gov/env/hwp/pesticide](http://www.dnr.mo.gov/env/hwp/pesticide) for future collection sites and dates.

Free pesticide collection for Missouri farmers and households

New for 2016: Collecting empty, triple-rinsed pesticide containers-up to 30 gallons in size (must be dry and residue free)

## MISSOURI PESTICIDE COLLECTION EVENT

Saturday, June 25, 2016 • 8:00 a.m. to 1:00 p.m.

C & C Farm & Home  
3260 S. Springfield Ave., Bolivar, MO 65613



Accepting all pesticides including: herbicides, insecticides, fungicides, rodenticides, dewormers, fly tags and fertilizer containing pesticides. **Pesticides from businesses will not be accepted.**

For questions contact: C.J. Plassmeyer, Missouri Department of Natural Resources at 573-751-0616 or visit: [www.dnr.mo.gov/env/hwp/pesticide](http://www.dnr.mo.gov/env/hwp/pesticide) for future collection sites and dates.



# MANAGING PESTICIDE WASTE

Hazardous Waste Program fact sheet

01/2016

Division of Environmental Quality Director: Leanne Tippet Mosby

PUB2596

This fact sheet provides general information to help pesticide applicators determine whether their leftover, un-wanted pesticide is solid waste or hazardous waste and how to properly dispose of each type. Disposal is an important part of responsible pesticide use, as improperly disposed pesticide wastes can create serious hazards for human health and the environment. Businesses should refer to this fact sheet and [Making the Decision to Discard a Pesticide Decision Tree](#) as general guidance only and should review appropriate state and federal laws and regulations before making the ultimate decision of how to manage waste pesticides.

## Keep these tips in mind to reduce the need for waste pesticide disposal:

- Use an integrated pest management (IPM) program to manage pests, therefore reducing the need to use pesticide.
- Always read the label carefully before you buy a product and make sure the product is intended for your specific use.
- Use the appropriate amount of pesticide for your job. Applying more pesticide than the label directions indicate is a violation of federal law can waste money and may harm people, pets or the environment. It may even be less effective at controlling the pest.
- Do not assume a pesticide purchased for one type of treatment can be used in another setting without first checking the label; many pesticides have similar names and ingredients despite being intended for very different uses.
- Always purchase the least toxic pesticide to get the job done.
- Buy only what you need. Storing and disposing of leftover pesticide can lead to unnecessary risks.
- Review the storage and disposal section of the label for information on how the product should be stored and disposed of, including the empty container. Store all pesticides safely out of reach of children and pets.
- Re-read the label before using or re-using a pesticide, do not rely on your memory.
- It is against the law to use pesticides in any manner other than those specifically listed on the label.
- Never remove a pesticide label from the container, or use unlabeled pesticides.

## Regulatory Citations

The federal hazardous waste regulations are in the Code of Federal Regulations, Title 40, Part 260 through Part 280 (40 CFR 260-280). The Missouri Hazardous Waste Law is in the Revised Statutes of Missouri (RSMo), Sections 260.350-260.575. The hazardous waste rules are in the Code of State Regulations, Title 10, Division 25 (10 CSR 25).

## What is a pesticide waste?

Pesticide waste is any material which contains any concentration of pesticide which has been declared a waste or can no longer be used for its intended purpose. This includes such things as: rinse material from containers and spray equipment, left over spray solutions, excess pesticides, empty containers and banned, canceled or suspended pesticides.

## Are all pesticide wastes considered hazardous wastes?

Under federal regulations, commercial chemical products such as pesticides become "solid wastes" and thus, potentially hazardous wastes, at the point when the pesticide's holder (i.e., end-user, dealer, distributor, or registrant) decides to discard them. If a pesticide product or the active ingredient of the product is listed in 40 CFR 261.31 or 261.33 (Table 1) or exhibits a hazardous waste characteristic identified in 40 CFR 261.21 through 261.24, it then becomes a hazardous waste at the point when its holder decides to discard it. Parts 261.21 through 261.24 identify the following criteria: ignitability, corrosivity, reactivity or toxicity characteristic. Most hazardous waste pesticides fall into the toxicity criteria due to the toxic organic properties.

An environmental consultant or licensed hazardous waste disposal contractor can help in making the determination if a waste is hazardous and can help dispose of the unwanted pesticide. The Missouri Department of Natural Resources maintains a list of Missouri licensed hazardous waste transporters. The department also provides a [Missouri Commercial Hazardous Waste Facilities list](#) (PUB 968) of companies with permits to accept hazardous waste. It is always recommended to call several consultants/contractors when obtaining bids for disposal.

More ways to help determine if a pesticide is a hazardous waste include:

- Checking the Material Safety Data Sheet for the pesticide
- Talking to the product supplier and/or manufacturer
- Reading the product labels—this should be done prior to purchasing any pesticide product

### **How to dispose of pesticide classified as hazardous waste?**

Businesses generating hazardous waste must follow federal and state laws and regulations, depending on the type and amount of hazardous waste generated. Publications summarizing hazardous waste regulations include [Handbook for Small-Quantity Generators](#) (PUB 2174) and [EPA's guidance document, Typical Wastes Generated By Industry Sectors](#).

Determining how much hazardous waste pesticide is generated in any one month and accumulated at any one time is necessary information for determining generator requirements. Hazardous waste generator requirements can be found at 10 CSR 25-5.262 and a summary of the regulations can be found in a fact sheet titled [Hazardous Waste Generator Status Guidance](#) (PUB 2224).

Disposal of a pesticide should be the last option remaining when dealing with unused pesticide. To avoid the problem of dealing with unused pesticide products, purchase only what can be used in one year. Also, before disposing of a pesticide try to give it to someone, provided the pesticide is in its original, fully labeled container, who can use it for its intended purpose or use up the product per label requirements – if the product is still legal to use. If you cannot find someone who can use the pesticide and you no longer have a use for the product, below are options for disposing of an unwanted hazardous waste pesticide.

- Registering as a large quantity generator (LQG) or small quantity generator (SQG) if 100 kg (220 pounds) or more of non-acute hazardous waste and 1 kg (2.2 pounds) or more of acute (P-listed) hazardous waste is generated in one month or accumulated at any one time. Table 1 below lists some acute and non-acute hazardous waste pesticides with their specific hazardous waste identification under the “RCRA #” column. [Hazardous Waste Generator Registration, Reporting and Waste Fees](#) (PUB 2254) summarizes registration requirements.
- If you have less than the above mentioned weight of hazardous waste pesticide you may be able to dispose of it as a conditionally exempt small quantity generator (CESQG). A fact sheet titled [Managing Conditionally Exempt Small Quantities of Hazardous Waste](#) (PUB 128). CESQGs may transport their own hazardous waste within Missouri. Under this standard a manifest or a licensed hazardous waste transporter is not required if you do not exceed the regulated amounts of waste. However, you will need to follow applicable U.S. Department of Transportation requirements for the waste being shipped.
- Disposing of the hazardous waste pesticide under the universal waste rule in Missouri is an option that can reduce the regulatory burden on businesses allowing less stringent disposal requirements versus disposal under the more stringent hazardous waste regulations. [The Universal Waste Rule in Missouri](#) (PUB 2058) summarizes the requirements of the rule.

### **Pesticide Container Disposal**

In addition to label requirements, some pesticide containers must meet the requirements set forth in 40 CFR 261.7, *Residues of Hazardous Wastes in Empty Containers*, to be considered empty. Empty containers that once stored pesticide classified as hazardous waste versus containers that stored pesticide not classified as hazardous waste may require different treatment methods for declaring the container empty. After the container is made empty according to 40 CFR 261.7 standards, the container can be punctured and then disposed of in a permitted solid waste landfill.

A viable option to disposing of empty pesticide containers (per 40 CFR 261.7) in a landfill is to recycle them. Some pesticide manufacturers may take back empty pesticide containers. Furthermore, some non-profit organizations receive

money from pesticide manufacturers to provide free pesticide container recycling programs throughout the United States.

### Disposal of Pesticides Not Classified As Hazardous Waste

If you are absolutely certain the pesticide is not classified as a hazardous waste the pesticide may be solidified and placed into the sanitary landfill if the landfill chooses to accept it. However, because all pesticides are made to destroy insects or other organisms harmful to cultivated plants or to animals, disposal should be done in a professional manner preferably following the hazardous waste or universal waste laws and regulations.

A listing of the pesticides from 40 CFR 261.31 through 40 CFR 261.33 is provided below in Table 1. Please note the table may not include all hazardous waste pesticides. Table 1 includes various Hazardous Waste Codes (RCRA #) that have special meanings and are defined as follows:

F-List hazardous wastes from nonspecific sources (40 CFR 261.31)

P-List acutely toxic hazardous wastes from specific sources (40 CFR 261.33(e))

U-List toxic hazardous wastes and other commercial chemical products (40 CFR 261.33(f))

Toxicity characteristic hazardous wastes that meet or exceed the regulatory level listed in the table (as shown by laboratory analysis)

**Table 1. Pesticides in parts 261.31 and 261.33**

Pesticide/Chemical	CAS #	RCRA #	Toxicity Characteristic #	Regulatory Level (mg/L)
1,1,1-Trichloroethane	71-55-6	U226		
2,4-D, Salts, Esters and Acids	Various	U240	D016	200.00
2,4,5-T, Salts, Esters and Acids	Various	F027		
A-Naphthylthiourea (ANTU)	86-88-4	P072		
Acrolein	107-02-8	P003		
Aldicarb	116-06-3	P070		
Aldrin	309-00-2	P004		
Allyl Alcohol	107-18-6	P005		
Aluminum Phosphide	1302-45-0	P006		
Aluminum Phosphide	20859-73-8	P006		
Aluminum Phosphide	1302-45-0	P006		
Amitrole	61-82-5	U011		
Arsenic Trioxide	1327-53-3	P012		
Arsenic Acid	7778-39-4	P010		
Arsenic Pentoxide	1303-28-2	P011		
Avitrol	504-24-5	P008		
Cacodylic Acid	75-60-5	U136		
Calcium Cyanide	592-01-8	P021		
Carbon Tetrachloride	56-23-5	U211		
Carbon Disulfide	75-15-0	P022		
Chlordane	57-74-9	U036	D020	0.03
Chlordecone	143-50-0	U142		
Chlorobenzene	108-90-7	U037	D021	100.00
Chlorobenzilate	510-15-6	U038		
D-D (1,2-Dichloropropane)	8003-19-8	U083		
DDD	72-54-8	U060		
DDT	50-29-3	U061		
Diallate	2303-16-4	U062		
Dibromochloropropane (DBCP)	96-12-8	U066		
Diieldrin	60-57-1	P037		
Dimethoate	60-51-5	P044		
Dinoseb	88-85-7	P020		

Disulfoton	298-04-4	P039		
Endosulfan	115-29-7	P050		
Endothall Disodium	129-67-9	P088		
Endrin	72-20-8	P051	D012	0.02
Erbon	136-25-4	F027		
Ethylene Dibromide	106-93-4	U067		
Famphur	52-85-7	P097		
Fluoracetamide/1081	640-19-7	P057		
Fluoracetamide	640-19-7	P057		
Formaldehyde	50-00-0	U122		
Furfural	98-01-1	U125		
Heptachlor	76-48-8	P059	D031	0.008
Hexachlorobenzene	118-74-1	U127		
Isodrin	465-73-6	P069		
Kepone	143-50-0	U142		
Lead Acetate	301-04-2	U144		
Lindane	58-89-9	U129	D013	0.4
Maleic Hydrazide	123-33-1	U148		
Methomyl	16752-77-5	P066		
Methoxychlor	72-43-5	U247	D014	10.0
Methyl Bromide	74-83-9	U029		
Methyl Parathion	298-00-0	P071		
Nicotine	54-11-5	P075		
Nitrobenzene	98-95-3	U169		
OMPA, Schradan	152-16-9	P085		
Orthodichlorobenzene	95-50-1	U070		
Paradichlorobenzene	106-46-7	U072		
Parathion	56-38-2	P089		
Pentachlorophenol, Salts	7778-73-6	F027		
Pentachlorophenol	87-86-5	U242	D037	100.00
Phenylmercuric Acetate (PMA)	62-38-4	P092		
Phorate	298-02-2	P094		
PMA	62-38-4	P092		
Potassium Cyanide	151-50-8	P098		
Procytox	50-18-0	U058		
Pronamide	23950-58-5	U192		
Safrole	94-59-7	U203		
Silvex, Salts, Acids and Esters	Various	F027		
Sodium Cyanide	143-33-9	P106		
Sodium Pentachlorophenate	131-52-2	F027		
Sodium Fluoroacetate	62-74-8	P058		
Strychnine And Salts	60-41-3	P108		
Strychnine Alkaloid	57-24-9	P108		
Sulfotepp	3689-24-5	P109		
Thallium Sulfate	7446-18-6	P115		
Thiofanox	39196-18-4	P045		
Thiram	137-26-8	U244		
Toxaphene	8001-35-2	P123	D015	0.5
Warfarin	81-81-2	U248		
Wood Creosote	8021-39-4	U051		
Zinc Phosphide (<10%)	1314-84-7	U249		

Zinc Pentachlorophenate	2917-32-0	F027		
Zinophos	297-97-2	P040		

### **Additional Information**

EPA Guidance document, Typical Wastes Generated by Industry Sectors <http://www2.epa.gov/hwgenerators/typical-wastes-generated-industry-sectors>

Handbook for Small-Quantity Generatory\* (PUB 2174) <http://dnr.mo.gov/pubs/pub2174.pdf>

Hazardous Waste Generator Registration, Reporting and Waste Fees\* (PUB 2254) <http://dnr.mo.gov/pubs/pub2254.htm>

Hazardous Waste Generator Status Guidance\* (PUB 2224) <http://dnr.mo.gov/pubs/pub2224.htm>

Licensed Hazardous and Infectious Waste Transporter List\* <http://dnr.mo.gov/env/hwp/transporters.php>

Make the Decision to Discard a Pesticide Decision Tree <Z:\env\hwp\docs\16.01 HWP - Decision Tree 3.pdf>

Making a Hazardous Waste Determination (PUB 919) <http://dnr.mo.gov/pubs/pub919.htm>

Managing Conditionally Exempt Small Quantities of Hazardous Waste\* (PUB 128) <http://dnr.mo.gov/pubs/pub128.htm>

Missouri Commercial Hazardous Waste Facilities List\* (PUB 968) <http://dnr.mo.gov/pubs/pub968.htm>

The Universal Waste Rule in Missouri\* (PUB 2058) <http://dnr.mo.gov/pubs/pub2058.htm>

Pesticide Collection Web page <http://dnr.mo.gov/env/hwp/pesticide/index.html>

Code of Federal Regulations <http://www.ecfr.gov/cgi-bin/ECFR?page=browse>

Missouri Code of State Regulations for Department of Natural Resources

<http://www.sos.mo.gov/adrules/csr/current/10csr/10csr>

Missouri Revised Statutes <http://www.moga.mo.gov/mostatutes/statutesAna.html>

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**Nothing in this document may be used to implement any enforcement action or levy any penalty unless promulgated by rule under chapter 536 or authorized by statute.**

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### **For more information**

Missouri Department of Natural Resources

Hazardous Waste Program

P.O. Box 176

Jefferson City, MO 65102-0176

800-361-4827 or 573-751-3176 office

573-751-7869 fax

<http://dnr.mo.gov/env/hwp>

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## Pesticide Use

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- Identify the problem
- Take time to read the label
- Violation of Federal Laws if label is not followed
- Purchase only amount needed to complete the job
- Leftover pesticide can be given away to someone who can use it, if not restricted use and still usable

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## Use Integrated Pest Management When Possible to Keep Pests Out

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- Attract beneficial animals
- Seal cracks in buildings
- Apply mulch to keep weeds out



**Contact the Pesticide Collection Program for more information.**

**Address:**

1730 E Elm Street  
Jefferson City, MO 65102

**Phone:**

573-751-0616

**Email:**

[chris.plassmeyer@dnr.mo.gov](mailto:chris.plassmeyer@dnr.mo.gov)

**Website:**

[dnr.mo.gov/env/hwp/pesticide.htm](http://dnr.mo.gov/env/hwp/pesticide.htm)

PUB2603

01/2016



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# MISSOURI PESTICIDE COLLECTION PROGRAM



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**A free program for  
farmers and households**

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## Summary

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The Missouri Department of Natural Resources offers an opportunity for safe, free disposal of unwanted or unusable pesticides for Missouri farmers and households. The program conducted 26 events from 2012 to 2015, collecting approximately 193,700 pounds of unwanted or unusable pesticide.



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## FAQs

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### What is a pesticide?

Pesticides include, but are not limited to, herbicides, insecticides, rodenticides and fungicides.

### What if the label is missing?

Write down what pesticide you believe is in the container and the program will likely accept it, depending on basic on-site test results.

### Will the program accept paint or any waste other than pesticide?

No, the program is limited to pesticides.

### Will the program accept empty pesticide containers?

It depends, call 573-751-0616 to verify before bringing to collection.

### Is business waste accepted?

No.

### Is there a schedule available?

Call 573-751-0616 or visit:  
[dnr.mo.gov/env/hwp/pesticide.htm](http://dnr.mo.gov/env/hwp/pesticide.htm)



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## Safe Handling of Pesticide

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- Leave pesticide in original container and make sure container is securely closed
- If container is leaking, over-pack it in a larger container with material such as kitty litter
- Handle containers with pesticide resistant gloves
- Avoid transporting pesticide in an air-tight vehicle
- Secure container during transport

## **Missouri Hazardous Waste Management Commission Meeting**

**February 18, 2016**

**Agenda Item # 10**

### **Registry of Confirmed Abandoned or Uncontrolled Hazardous Waste Disposal Sites in Missouri (Registry) Annual Report**

#### **Issue:**

The Registry of Confirmed Abandoned or Uncontrolled Hazardous Waste Disposal Sites in Missouri (Registry) is maintained by the Missouri Department of Natural Resources pursuant to the Missouri Hazardous Waste Management Law, Section 260.440, RSMo. The Department publishes the “Missouri Registry Annual Report: Confirmed Abandoned or Uncontrolled Hazardous Waste Disposal Sites” and makes it available January 1 of each calendar year.

#### **Information:**

Detailed site information regarding Missouri hazardous waste sites is found in the Missouri Registry Annual Report. The Registry Annual Report is available to the public through the Department’s Hazardous Waste Program’s web site. Information about the sites is also found on the HWP’s Interactive Mapping System that was created as part of the Department’s Long-Term Stewardship efforts. Additionally, the Department is required to send the Registry to the governing body of each county containing a site listed on the Registry. To minimize cost, only a CD copy of the Registry was sent to the Presiding Commissioner or County Executive of each applicable county. The Registry describes each listed waste site in detail, including: the location; public drinking water concerns; health advisory; geology/geohydrology; and remedial actions. As sites contained in the Registry were listed, an environmental notice was filed with the Recorder of Deeds that documents the hazardous waste contamination at the site. The use of a property listed on the Registry may not change substantially without the written approval of the Department.

The purpose of the Registry was to investigate and assess environmental and health conditions at sites where hazardous waste was either spilled or dumped prior to hazardous waste regulations. The Registry also set up a process that provided for the tracking of these sites to inform counties and future buyers of these properties of the environmental and health issues found at these sites.

According to state law, each site listed on the Registry is placed in one of the following categories:

- Class 1: Sites that are causing or presenting an imminent danger of causing irreversible or irreparable damage to the public health or environment. Immediate action is required.
- Class 2: Sites that are a significant threat to the environment. Action is required.
- Class 3: Sites that do not present a significant threat to the public health or to the environment. Action may be deferred.
- Class 4: Sites that have been properly closed and require continued management.

#### **Recommended Action:**

Information Only

#### **Presented by:**

Valerie Wilder – Site Assessment Unit Chief, Superfund Section



# 2015 Registry Annual Report

---

Valerie Wilder, Chief  
Site Assessment Unit  
February 18, 2016



## Registry History

- Law - June 1983.
- Authorized the department to investigate and assess HW sites.
- Responsible parties or site owners could complete a cleanup or be placed on the Registry.
- Last site to be placed on the Registry was Amereco Environmental Services on September 10, 2003.



## Institutional Control Mechanisms

- Deed notification
- Annual inspection
- Notice to prospective buyers
- Change of Use notification
- Notification to the department if sold
- Public information



## Registry Site Information

- Location & site description
- Site contaminants
- Public drinking water concerns
- Health advisory
- Geology & Geohydrology
- Remedial actions



## Registry Classifications

- **Class 1:** Sites that are causing or presenting an imminent threat to public health or the environment - **1 site**
- **Class 2:** Sites that are a significant threat to the environment - **12 sites**
- **Class 3:** Sites that do not present a significant threat to public health or the environment - **25 sites**
- **Class 4:** Sites that have been properly closed but require continued management - **26 sites**
- **Class 5:** Sites that have been properly closed with no evidence required. ***Any site classified as a Class 5 is removed from the Registry.***



## Site Assessment Committee

- Approves classification changes
- Composed of representatives from:
  1. MO Department of Health and Senior Svcs
  2. MDNR Water Protection Program
  3. MDNR Hazardous Waste Program
  4. MDNR Environmental Services Program
  5. MDNR Missouri Geological Survey Division



## 2015 Update

- Sac River LF – City of Springfield petitioned the department to delete the site from the Registry in 2012. The department and EPA worked with the city on an environmental covenant for the Sac River site. An environmental covenant was signed in December and recorded on Jan 11, 2016. The site will be removed from the Registry in FY16.



## Registry Availability

- Registry is provided to Governor and legislature
- Registry CD is sent to County Commissioners or County Executives
- Registry is available on MDNR HWP website
- Location and site information on the Registry sites is available on the HWP's Interactive Mapping System that was created as part of the Department's Long-Term Stewardship efforts.



## Registry Additional Information

- List of NPL Sites
- List of Registry Consent Agreement Sites
- List of Registry Sites Removed or Action Suspended



## Questions?

Contact :

Valerie Wilder, Chief  
Site Assessment Unit

573-751-4187

**Missouri Hazardous Waste Management Commission Meeting**

**February 18, 2016**

**Agenda Item # 11**

**Quarterly Report**

**Issue:**

Presentation of the July through September 2015, Quarterly Report.

**Recommended Action:**

Information Only.

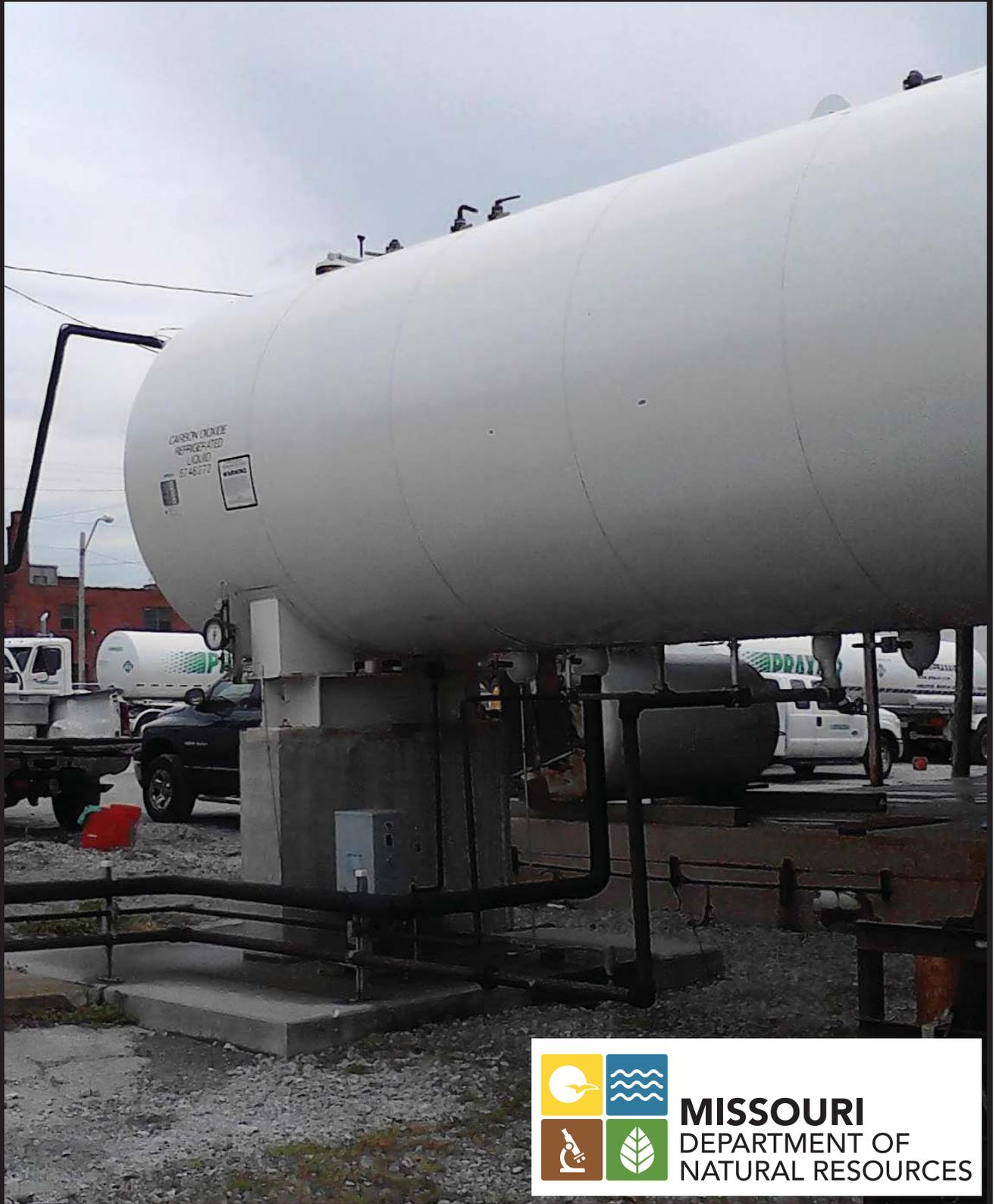
**Presented by:**

Larry Archer – Public Information, Division of Environmental Quality

# Hazardous Waste Management Commission Report

July through September 2015

Quarterly Report



## Hazardous Waste Management Commissioners

Charles "Eddie" Adams, Chair

Elizabeth Aull, Vice Chair

Andrew Bracker

James "Jamie" Frakes

Michael Foresman

Mark E. Jordan

*"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](http://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/commission/quarterlyreport.htm](http://www.dnr.mo.gov/env/hwp/commission/quarterlyreport.htm).



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

Cover Photo: Kirk Welding Supply

### Letter from the Director

Dear Commissioners:

During this quarter, the Hazardous Waste Program has reached a significant milestone with the completion of the “No Stricter Than” rulemaking package. As you are aware, this has been a huge undertaking for the program over the past few years. Your adoption of the orders of rulemaking at your August meeting put the rulemaking on schedule to be effective by the end of the 2015 calendar year, as required by HB1251, which was enacted into law in 2012.

While the “No Stricter Than” rulemaking process is nearly complete, there is still much work to do with regard to the new regulations. The process for staff will now turn from the rulemaking effort to the implementation phase. Staff has been very busy updating our checklists to reflect the changes in the requirements in addition to updating our Web pages, fact sheets and guidance documents to remove outdated information and update them with the current requirements. This has been a significant effort in light of the fact many of the regulations rescinded were in place for more than 30 years, and were the basis of many regulatory interpretations that have been made over that time.

In addition to updating our many guidance documents and fact sheets, program staff is also working to train our regional office inspectors on these new requirements as well as develop outreach efforts such as mailings and webinars for the regulated community to ensure they are informed of these upcoming changes as well. As you are aware, there are many changes to the rules and it will take some time for staff as well as the regulated community to adjust to the new requirements. We are certainly doing our best to help make the transition for the regulated community as smooth as possible.

Part of the language in HB1251 also required the department to develop an electronic reporting system to allow large quantity generators to submit hazardous waste summary report information on an annual basis rather than quarterly. The system went live on July 1, 2015. This web-based system was created to allow all generators, both large and small, and facilities to report annually, and was designed to help prevent the submittal of incomplete or invalid data, which reduces the amount of time spent completing and processing the reports. We believe this will be a big efficiency gain for us once generators are familiar with the system and begin using it on a regular basis.

While “No Stricter Than” has been a significant focus for our program the past several years, and while it will continue to be an issue for us in the foreseeable future as we work through the implementation of these new rules, it is only one of the many focus areas for the program. There are many other efforts, as you can see in this report, being undertaken by the program. I hope you enjoy reading about them in this edition of the Quarterly Report.

Sincerely,



David J. Lamb

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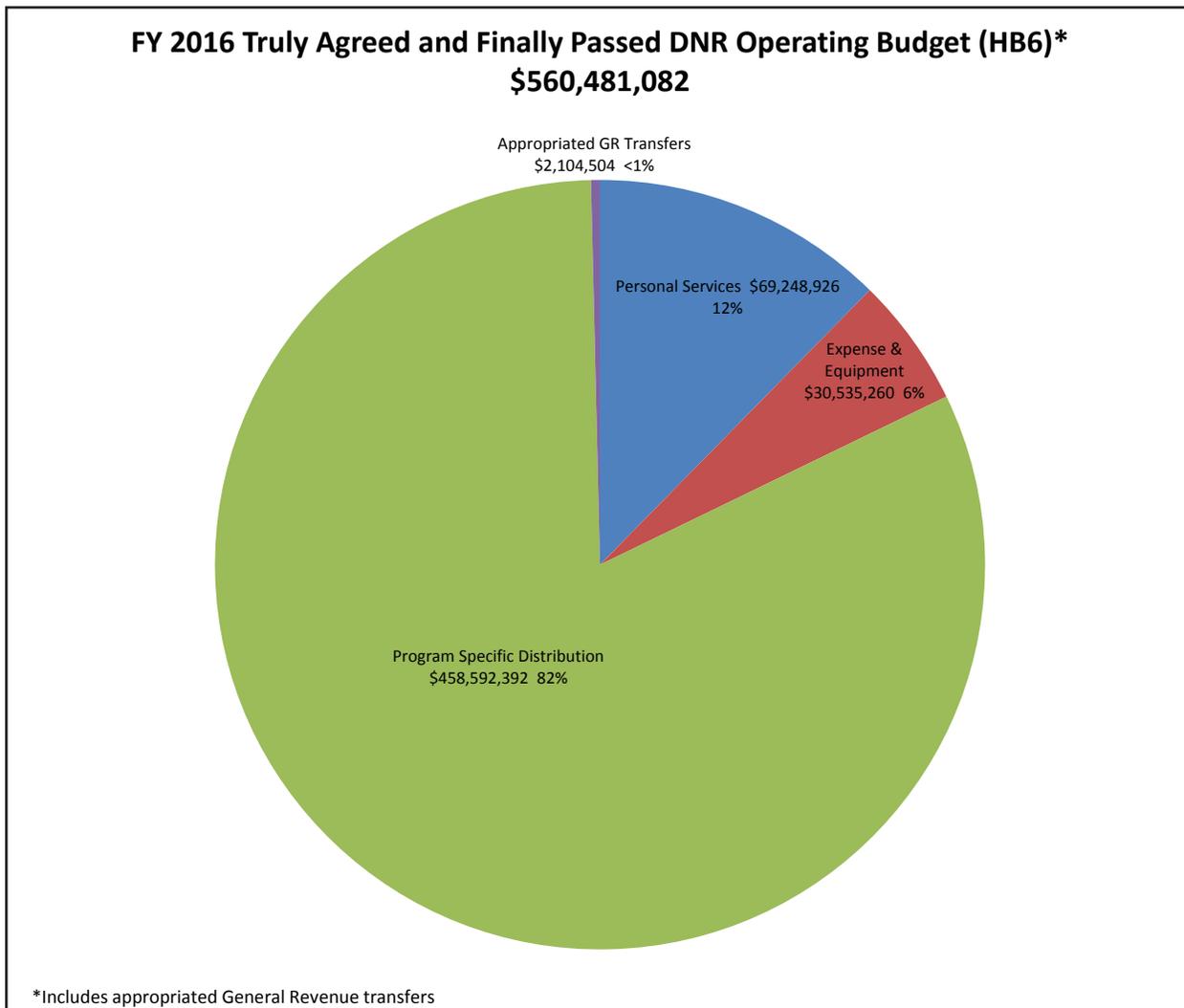
### Fiscal Year 2015 Budget

The Budget and Planning Section is responsible for financial management of the Hazardous Waste Program. It is this section's responsibility to coordinate the program's budget requests each fiscal year (FY). The state is currently operating in FY 2016, which began on July 1, 2015, and runs through June 30, 2016.

The process to establish the FY 2016 budget began in July 2014 when the state budget director issued budget preparation instructions. The Budget Program, within the Division of Administrative Support, coordinates the department's overall operating, real estate and capital improvements budgets. The Missouri Department of Natural Resources' operating budget (HB 6) is available online at [www.oa.mo.gov/budget-planning/budget-information/2016-budget-information/2016-department-budget-requests-governor](http://www.oa.mo.gov/budget-planning/budget-information/2016-budget-information/2016-department-budget-requests-governor).

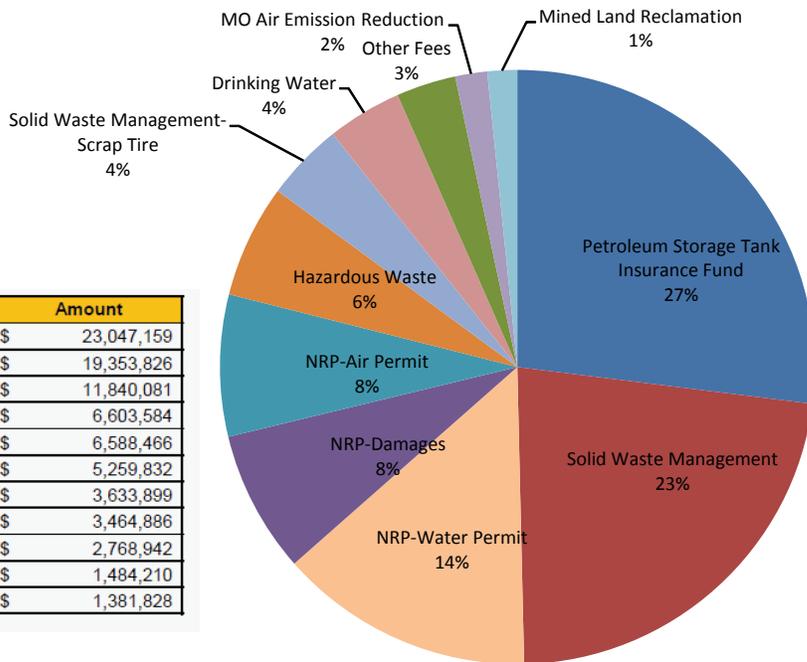
Each state agency is required to submit its completed budget request to the state budget director annually by Oct. 1. The governor may make changes to these department budget requests and releases the governor's recommended budget in conjunction with the governor's State of the State address in January.

The department's FY 2016 operating budget is in House Bill 6, which was signed by the governor on May 8, 2015. The department's FY 2017 budget request was submitted by Oct. 1, 2015.

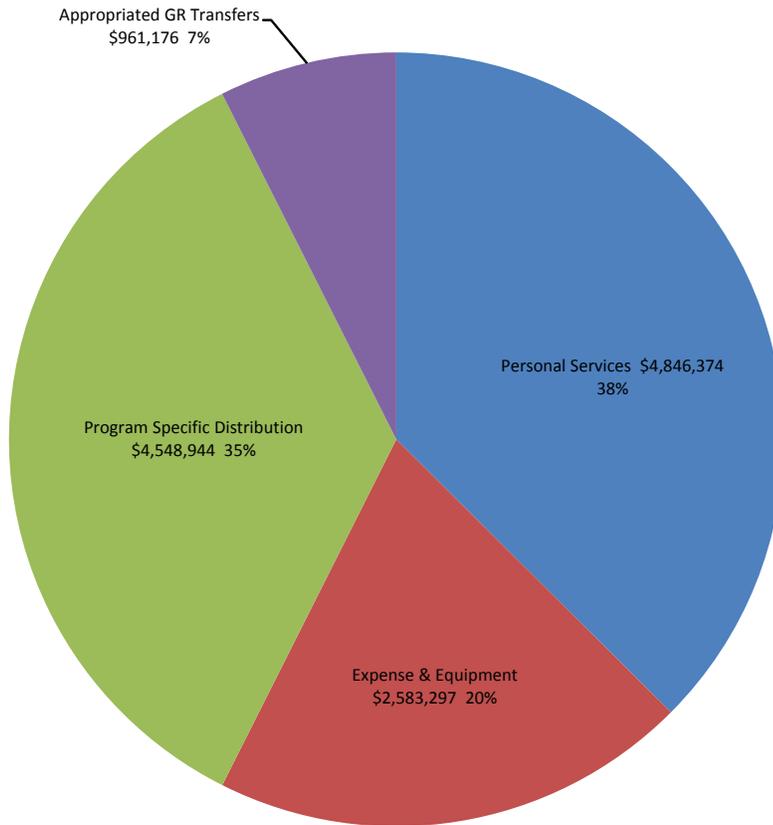


FY 2016 Truly Agreed and Finally Passed DNR Budget - Environmental Fee Fund  
 Appropriations \$85,426,713

Fund	Amount
Petroleum Storage Tank Insurance Fund	\$ 23,047,159
Solid Waste Management	\$ 19,353,826
NRP-Water Permit	\$ 11,840,081
NRP-Damages	\$ 6,603,584
NRP-Air Permit	\$ 6,588,466
Hazardous Waste	\$ 5,259,832
Solid Waste Management-Scrap Tire	\$ 3,633,899
Drinking Water	\$ 3,464,886
Other Fees	\$ 2,768,942
MO Air Emission Reduction	\$ 1,484,210
Mined Land Reclamation	\$ 1,381,828

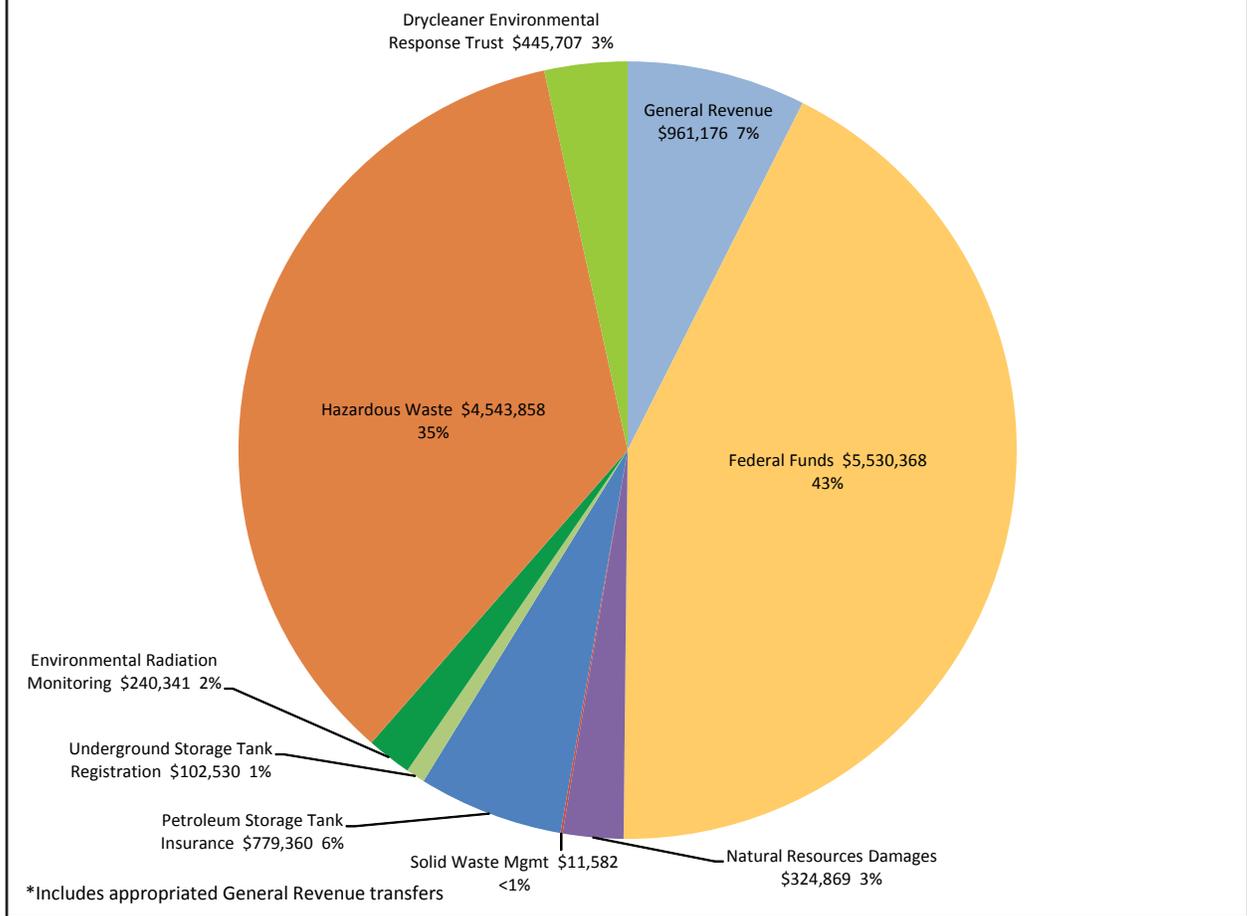


**FY 2016 DNR Hazardous Waste Program and Petroleum Related Activities Truly Agreed and Finally Passed Operating Budget (HB6)\*  
TOTAL: \$12,939,791**



\*Includes appropriated General Revenue transfers

FY 2016 DNR Hazardous Waste Program and Petroleum Related Activities  
 Truly Agreed and Finally Passed Operating Budget (HB6)\* by Fund  
 TOTAL: \$12,939,791



## Brownfields/Voluntary Cleanup Program Certificates of Completion

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. Cleaning up and reinvesting in these properties protects the environment, reduces blight and takes development pressures off greenspaces and working lands. 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 four certificates of completion for various sites from July through September 2015. This brings the total number of certificates of completion issued to 769.

### **Amber Lakes (Lot 371, 372, 405, 406 and 413) - Kansas City**

The Amber Lakes Site is located in Kansas City. Amber Lakes is the site of a buried pipeline that ruptured on March 11, 2008, releasing 7,100 gallons of gasoline. The site is part of a residential subdivision that has been developed for new home construction. During the initial response action, 3,200 tons of impacted soil were removed and 30,000 gallons of impacted groundwater was collected from two recovery trenches. An initial investigation showed there was some residual impact to soil and groundwater from the gasoline release.



**Amber Lakes Lot 371 and 372:** After the initial emergency response, a permanent monitoring well and an interceptor trench to capture contaminated groundwater were installed on this property. The well had no detections of contaminants. The trench initially had some detections, but over time they declined to undetected levels. The trench was removed and soil excavated. The soil at the bottom of the excavation was sampled, and no contaminants were detected. The department determined these sites are safe for their intended use.

**Amber Lakes Lot 405:** Initial soil and groundwater samples showed that elevated levels of petroleum constituents were present in soil and groundwater at the site. To further assess groundwater, permanent groundwater monitoring wells were installed on the property. The result of sampling these wells showed there were no contaminants in groundwater above the risk-based target levels (RBTLs) for residential use, according to the 2006 Missouri-Risk Based Corrective Action (MRBCA) guidance. One area of the lot had soil with contaminants above the residential use RBTLs. This soil was excavated, disposed of and the area was backfilled with clean soil. The department determined the site is safe for its intended use.

**Amber Lakes Lot 406:** The Amber Lakes Lot 406 site is located at 10122 N. Ash Ave., Kansas City. Initial soil and groundwater samples showed elevated levels of petroleum constituents were present in soil and groundwater at the site. None of the soil samples were above the RBTLs for residential use,

according to MRBCA guidance. To further assess groundwater, permanent groundwater monitoring wells were installed on the property. One well had persistently high levels of contaminants due to residual petroleum product that was the conduit for gasoline to flow away from the original spill site. The area of petroleum product was excavated, and all soil, product and contaminated groundwater removed were disposed of. Some soil contamination remained at the bottom of the excavation and could not be excavated, but it was below the previously measured depths to groundwater, so groundwater was sampled to determine if any risk from petroleum contamination remained. A well was reinstalled in this location and was monitored for five quarters. This monitoring showed contaminant levels in groundwater met the RBTLs for residential use. The department determined the site is safe for its intended use.

**Amber Lakes Lot 413:** The Amber Lakes Lot 413 site is located at 10119 N. Maywood Ave., Kansas City. None of the soil samples were above the RBTLs for residential use, according to the MRBCA guidance. One groundwater sample was, so a permanent groundwater monitoring well was installed in this location. Samples taken from this well were non-detect for contaminants. Vapor monitoring wells were also installed on the property. Samples from these wells were also below the RBTLs for residential use. The department determined that the site is safe for its intended use.



### West Meadows - Springfield

Site investigations revealed the presence of heavy metals (lead, arsenic and cadmium) and polycyclic aromatic hydrocarbons (PAHs) in historic rail yard fill at the site, which consisted of coal cinders and other debris and waste. Shallow bedrock wells installed adjacent to the east and other sites to the east suggested the groundwater beneath the site may be contaminated with hydrocarbons from offsite sources at concentrations exceeding domestic use (drinking water) target levels. Risk Assessment for the site was performed using the MRBCA.

**West Meadows Site 2:** The West Meadows-Site 2 is located north of College St. between Olive St. and Fort St. in Springfield. The 1.92-acre property is a portion of the 14-acre West Meadows rail yard donated by Burlington Northern Santa Fe (BNSF) Railroad to the City of Springfield as part of Jordan Valley Park.

Fill material was excavated to the depth of native soil. Approximately 15,000 tons of low-level contaminated fill (exceeding MRBCA unrestricted/residential target levels) was consolidated and capped on West Meadows Site 7. 290 tons of higher-level contaminated fill was disposed of at a permitted landfill. Soil at the site met target levels appropriate for non-residential use with the exception of certain areas requiring ongoing management.

Groundwater contamination from off-site sources did not require active remediation in order to safely reuse the site, provided the groundwater is not used. The department determined the site is safe for its intended use.

**West Meadows Site 3:** The West Meadows-Site 3 is also located north of College St. between Olive St. and Fort St. in Springfield. The 2.36-acre property is a portion of the 14-acre West Meadows property.



Approximately 52,300 tons of low-level contaminated fill (exceeding MRBCA unrestricted/residential and/or non-residential target levels) was consolidated and capped on West Meadows Site 6. Two hundred tons of higher-level contaminated fill was disposed of at a permitted landfill. Soil at the site met target levels appropriate for non-residential use with the exception of certain areas requiring ongoing management. Groundwater contamination from off-site sources did not require active remediation in order to safely reuse the site, provided the groundwater is not used. The department determined the site is safe for its intended use.

## **Kirk Welding Supply, Inc. - Fremont-Kansas City**

The Kirk Welding Supply, Inc.-Fremont site is located at 3820 Fremont Ave. in Kansas City. The 2.5-acre site was first developed from residential use to industrial use by Kirk Welding Supplies in 1975 and was used for the production of acetylene from 1975 through the early 1980s. Contaminants of concern for the site include total petroleum hydrocarbons (TPH)-gasoline range organics (GRO), TPH- diesel range organics/oil range organics (DRO/ORO) and metals (aluminum, arsenic, beryllium, copper, lead, manganese, nickel and vanadium). The comparison of analytical results showed TPH was either not detected or detected in concentrations below MRBCA default target levels (DTLs) in soil or groundwater. All metal concentrations in soil and groundwater were below the MRBCA Tier 1 RBTLs for residential land use in soil type 3 (clay soils) with the exception of arsenic in subsurface soil. The only exposure pathway for arsenic in subsurface soil is through dermal contact for construction workers; however concentrations are below the Construction Worker RBTLs. The department determined the site is safe for its intended use.



## **Kirk Welding Supply, Inc. - Holmes**

The Kirk Welding Supply Inc., Holmes site, is located at 1608 Holmes in Kansas City. The property was developed into commercial/ industrial use including a radiator and auto repair facility between 1909 and 1963. Preliminary investigation indicated soil and groundwater on-site was contaminated with heavy metals, trichloroethylene (TCE), benzo(a) pyrene and methylene chloride.

Groundwater TCE was delineated to appropriate levels onsite, and was at concentrations sufficiently below the Tier 1. Soil Type 2 non-residential level that plume stability was

readily determined. Arsenic, lead and benzo(a)pyrene discovered in the surficial soil in the middle of the site above non-residential levels will be addressed through a soil management plan and through the maintenance of the in-place asphalt barrier. The department determined the site is safe for its intended use.

## **Carondelet Commons Lot 1 - St. Louis**

The Carondelet Commons Lot 1 site is located at 8718 S. Broadway and 316 E. Catalan St. in St. Louis. This property was formerly the location of Laclede Gas Company and forms the western boundary of the former Carondelet Coke Corporation site. Approximately 61 butane and propane aboveground storage tanks (ASTs) were formerly located on the property.

Concentrations of PAHs were detected in surface soils at this site at levels exceeding the MRBCA guidance residential RBTLs. No contamination exceeding RBTLs was detected in either subsurface soil or groundwater. Areas of excessive surface soil contamination were excavated and properly disposed. The site meets the RBTLs for unrestricted land use. The department determined the site is safe for its intended use. The site will be redeveloped for commercial use.



## Drycleaning Environmental Response Fund Issued Certificate of Completion

### U.S. Cleaners (Lindbergh Blvd.)

The department's Drycleaning Environmental Response Trust (DERT) Fund issued a certificate of completion for the former U.S. Cleaners site, 15 Ronnie's Plaza (5300 S. Lindbergh Blvd., Suite 15), St. Louis. Operation of cleaning businesses ran from 1999 to September 2011. A Phase II Environmental Site Assessment identified soil inside the building and at the back of the building contaminated with chlorinated solvent at levels higher than the default target levels.

Tetrachloroethylene (PCE) was detected in soil at levels exceeding the MRBCA residential RBTLs, and in groundwater at levels exceeding residential and non-residential RBTLs. The contamination was successfully delineated and a Tier 1 risk assessment showed soil representative concentrations did not exceed the RBTLs. Regensis 3D Microemulsion® and Bio-Dechlor INOCULUM Plus® was injected into the groundwater in accordance with an approved remedial action plan. After injection, the PCE levels dropped to below residential RBTLs. Subsequent quarterly monitoring and BIOCHLOR analysis showed all contaminant concentrations in all monitoring wells to be stable and/or shrinking. The department determined the site is safe for its intended use.

The site will be redeveloped for commercial use.

Through the DERT Fund, private parties agree to investigate and, if necessary, clean up a contaminated site, and are offered some protection from future state enforcement action at the site in the form of a "certificate of completion" from the state. Participants in the DERT Fund process are also eligible for reimbursement of eligible investigative and/or cleanup expenses.

## Brownfields Conference

The annual Missouri Brownfields Conference was held at the Tan-Tar-A resort in partnership with the Missouri Waste Control Coalition Conference (MWCC) on July 13, 2015. The MWCC conference hosted more than 500 environmental professionals from across the state. The Brownfields conference portion hosted approximately 100 people who received information on environmental assessments, how to identify potential brownfields, financial assistance and many more related brownfield topics. Since this conference, the number of applications received monthly for our Brownfield Assessment Program has doubled. The BVCP received many positive responses from local community leaders and environmental professionals stating the conference was beneficial in learning the path to brownfield redevelopment.

### Joplin Bus Tour

On Aug. 26, 2015, the Missouri Brownfields Program held our first mobile workshop. Approximately 40 community representatives from southwest Missouri toured different brownfield sites from Joplin to Springfield. This mobile workshop allowed participants to see brownfield properties in different stages of redevelopment. These sites ranged from non-environmentally assessed brownfields to brownfields where remediation has been completed and the site redeveloped.

This tour started out at the Gryphon Building in Joplin, a Voluntary Cleanup Program site, which has been completely remediated and redeveloped. After touring the Gryphon Building, the group traveled to Springfield, via charter bus, to see other sites that were or are currently enrolled in our Voluntary Cleanup Program or Brownfield Assessment Program. While in Springfield, the mobile workshop had lunch at one of the first sites to receive national brownfield cleanup funding, Hammons Field, home of the Springfield Cardinals. After lunch, the tour continued to different brownfield sites with assistance from the Springfield's brownfields coordinator, Olivia Hough. This conference was a success, and the feedback received tells us the mobile workshop is a good way to help people understand the brownfield process because they get to see the remediation and redevelopment of these sites first hand.

Sites in Brownfields/Voluntary Cleanup Program

Month	Active	Completed	Total
July 2015	237	766	1,003
August 2015	236	768	1,004
September 2015	240	769	1,009

**New Sites Received: 18**

**July**

Fiddle Creek Road, Labadie  
 Springfield FMGP - Subsite #3, Springfield  
 Brookfield Building, Kansas City  
 Hopkins Seed and Chemical  
 Company (former), Qulin  
 Frankel, Frank & Co. Building, Kansas City  
 Shaw Neighborhood Housing Corporation - Auto  
 Repair Shop, St. Louis  
 One Hour Cleaners, Joplin  
 200 Block Commons, Joplin

**August**

Fenton Logistics Park, Fenton  
 Mary Mart Shopping Center - Outlot, Maryville  
 Explorer Pipeline-Owensville, Owensville  
 Central Meat Packing (former), Cape Girardeau  
 National Geospatial Intelligence  
 Agency, St. Louis

**September**

East Ellis Hall - UCM, Warrensburg  
 Cornerstone Church (former), Springfield  
 North Sarah Phase III, St. Louis  
 Two Light Luxury Apartments, Kansas City  
 Nu Look Car Care, Independence

**Certificates Issued: 10**

**July**

West Meadows-Site 2, Springfield  
 West Meadows-Site 3, Springfield  
 Amber Lakes Lot 371, Kansas City  
 Amber Lakes Lot 372, Kansas City  
 Amber Lakes Lot 405, Kansas City  
 Amber Lakes Lot 406, Kansas City  
 Amber Lakes Lot 413, Kansas City

**August**

Kirk Welding Supply, Inc.-Fremont, Kansas City  
 Carondelet Commons Lot 1, St. Louis

**September**

Kirk Welding Supply, Inc.-Holmes, Kansas City

## Drycleaning Environmental Response Trust Fund

The department’s DERT Fund provides funding for the investigation, assessment and cleanup of releases of chlorinated solvents from drycleaning facilities. The two main sources of revenue for the fund are the drycleaning 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 Drycleaning Facilities	Facilities Paid	Facilities in Compliance
January - March 2015	134	60	44.78%
April - June 2015	134	111	82.84%
July - September 2015	134	116	86.57%

Calendar Year 2015	Active Solvent Suppliers	Suppliers Paid	Suppliers in Compliance
January - March 2015	11	9	81.82%
April - June 2015	11	8	72.73%
July - September 2015	11	9	81.82%

### Cleanup Oversight

Calendar Year 2015	Active Sites	Completed Sites	Total
January - March 2015	20	15	35
April - June 2015	20	15	35
July - September 2015	19	16	35

**New Sites Received: 0**

**Sites Closed: 1**

U.S. Cleaners (Lindbergh Blvd.)  
Closed August 2015

## Reimbursement Claims

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

During this quarter, no claims were received, reviewed or processed.

Total reimbursements as of Sept. 30, 2015: \$2,784,107.05

DERT Fund Balance as of Sept. 30, 2015: \$329,861.49

## The Five-Year Review

The Federal Facilities and Superfund sections of the department participate in a process known as the Five-Year Review (FYR). FYRs are conducted by the lead agency for the site, either the U.S. Environmental Protection Agency (EPA) or the department, with input from the support agency (again, either EPA or the department) and other experts assembled as part of the FYR team. FYRs are conducted at sites on EPA's Superfund National Priorities List (NPL) and sites deleted from the NPL with hazardous substances still remaining in place to evaluate the implementation and performance of a remedy at a site. The review will determine if the remedy is, or when complete, will be, protective of human health and the environment. FYRs are most often implemented at sites where waste is left onsite at concentrations not allowing unlimited use and unrestricted exposure (UU/UE), which means there are no restrictions placed on the potential use of land or other natural resources. If, however, the selected remedy relies on restrictions of land, groundwater or surface water by humans or if an engineered barrier is part of the remedy, then the use has been limited and a FYR should be conducted. As needed, FYRs identify issues and recommendations that must be addressed for site remedies according to specified schedules. Written reports of FYR's are prepared by the reviewer with input from the review team. Some FYRs are also reviewed, commented on and approved by EPA staff and support agency review team staff.

### What is a Five-Year Review?

There are two types of FYR's: statutory and policy. Statutory reviews are required by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) at post-Superfund Amendments and Reauthorization Act of 1986 (SARA) remedial actions that upon completion of the action, leave hazardous substances, pollutants or contaminants on site. Policy reviews are compelled for pre-SARA remedial actions leaving hazardous substances, pollutants or contaminants on site, and at removal-only National Priorities List (NPL) sites where hazardous substances, pollutants or contaminants were left on site at levels that do not permit UU/UE. FYR's continue throughout the life of the site until hazardous substances, pollutants or contaminants no longer remain on site at levels that do not allow for UU/UE.

### How Does the Five-Year Review Work?

To assess the protectiveness of the remedy, human health risks, ecological risks and the general performance of the selected remedy must be evaluated. To facilitate the FYR evaluation, six components have been established: 1) community involvement and notification, 2) document review, 3) data review and analysis, 4) site inspection, 5) interviews and 6) protectiveness determination. The reviewer and others on the review team use these collective components to assess the remedy's performance, to arrive at a determination of the remedy's protectiveness and to identify any issues and recommendations needing to be addressed whether or not the remedy is determined to be protective.

The FYR begins with the community involvement component. In the initial planning, the appropriate level of community involvement is determined and all potentially interested parties are notified the FYR will be conducted. Public notices are usually issued when a FYR is initiated to allow for public participation and comment in the process. Likewise, at the conclusion of the FYR, interested parties are notified, usually through public notice, when the FYR has been completed and are provided with the results of the FYR.

Next, FYR team conducts a review of site documents; including records of decision, explanations of significant differences, consent decrees, administrative orders on consent, site investigations, remedial design and construction, and remedy performance to obtain information to assess performance and protectiveness of the response action and identify any issues and recommendations needing to be addressed.

A review of sampling and monitoring plans and results from monitoring activities, operation and maintenance reports or other documentation of remedy performance, including previous FYR reports and follow up on previously identified issues and recommendations is performed. The data obtained from this review will aid in the technical analyses and will help form the protectiveness statement included in the FYR report. Data obtained will have a significant impact on findings and conclusions, the protectiveness statement, and any issues and recommendations identified.

To clarify and further assess the protectiveness of a remedy, EPA’s Office of Solid Waste and Emergency (OSWER) “Comprehensive FYR Guidance” defines five protectiveness categories for use in assessments: protective, short-term protective, will be protective, protectiveness deferred and not protective.

**OSWER Categories for Evaluating the Protectiveness of a Remedy**

Protective	Short-term Protective	Will be Protective	Protectiveness Deferred	Not Protective
<i>Answers to all questions (questions 1, 2 and 3) provide sufficient data and documentation to conclude the remedy is functioning as intended.</i>	<i>Answers to all questions provide sufficient data and documentation to conclude the human and ecological exposures are currently under control and no unacceptable risks are occurring.</i>	<i>Answers to all questions provide sufficient data and documentation to conclude the human and ecological exposures are under control, no unacceptable risks are occurring and the remedy under construction is anticipated to be protective.</i>	<i>Answers to all questions do not provide sufficient data and documentation to conclude all human and ecological risks are currently under control and no unacceptable exposures are occurring.</i>	<i>Answers to all questions provide adequate data and documentation to conclude the human and/or ecological risks are not currently under control.</i>

Site inspections are another important component of the FYR. On a site inspection, the reviewer can learn information about a site’s current status and visually confirm and document the conditions of the remedy and the site. Sampling and analyses may be conducted as part of a site inspection, if needed.

Interviews with site managers, personnel, local, state and federal regulators and technical experts familiar with the site and people who live or work near the site can provide valuable information about its status and can help identify issues with a remedy.

The final component of the FYR is the assessment of the protectiveness of the remedy. To assess the protectiveness of the remedy, human health risks, ecological risks and the general performance of the selected remedy (with respect to the design) must be evaluated. To facilitate the evaluation, a technical assessment of a remedy is conducted to answer the following three questions:

1. Is the remedy functioning as intended?
2. Are the exposure assumptions, toxicity data, cleanup levels and remedial action objectives still valid?
3. Has any other information come to light which could call into question the protectiveness of the remedy?

After the reviewer answers questions A, B and C, a protectiveness determination is made and a protectiveness statement is formulated for the FYR report. The determination of whether the remedy is

or remains protective of human health and the environment will usually be based on answers to these questions. Although protectiveness generally is defined by the risk range and hazard index, the answers to questions A, B and C may identify other factors and issues that may impact the protectiveness of a remedy. If the answers to A, B and C are yes, yes, and no, in that order, then the remedy will usually be deemed protective. However, if answers are different or are given in any other order, the remedy may be determined to be one of the five different protectiveness categories. If a remedy is determined to be less than protective or not protective, work will need to be conducted to render the existing remedy protective. This may include identification of specific issues and recommendations to be implemented at the existing remedy, conducting a remedy optimization study or may even involve conducting additional or new remedial investigations and feasibility studies, and possibly implementing a new or significantly modified remedy.

Once a protectiveness determination is made, the FYR is signed and placed in a local repository. Community members are notified that the report is available. The signature date is the date that will trigger the next FYR, unless events at the site or regulatory changes necessitate conducting a FYR earlier in the cycle. Addendums may also be completed between FYR's as issues and recommendations are implemented affecting the protectiveness statement.

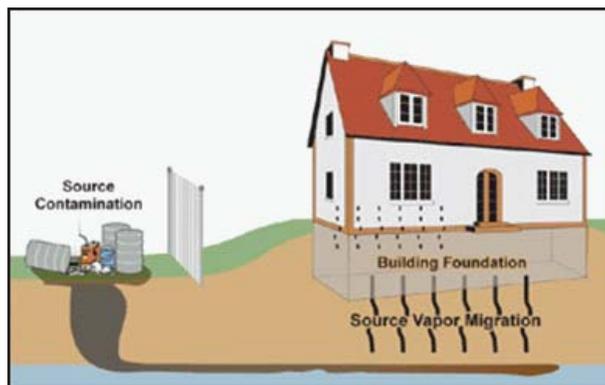
### What is Vapor Intrusion; why include it in the Five-Year Review Process?

Vapor intrusion is the general term given to migration of hazardous vapors from a volatile subsurface contaminant source, such as contaminated soil or groundwater. Through openings in the structures' foundation such as cracks in the slab, gaps around utility lines or elevator shafts. Contaminants that may result in vapor intrusion include volatile organic compounds (VOCs), some semi-volatile organic compounds and some inorganic analytes such as elemental mercury, radon and hydrogen sulfide. Radon is the most common naturally occurring vapor intrusion concern and manufactured VOCs typically pose the most common man-made vapor intrusion concern at Superfund and other contaminated sites. Having a complete vapor intrusion pathway (vapor migrating from subsurface to indoor air) means humans are exposed to vapors originating from site contamination. Indoor vapors can be mitigated using building ventilation systems similar to those commonly used for radon. For new buildings, vapor barriers, in lieu of or in combination with mitigation systems, can be installed as part of building construction.

Over the last ten years, the topic of vapor intrusion from environmental media (mainly soil, unsaturated and/or fractured bedrock and groundwater) into residential and other buildings has become a larger focus for EPA and in turn, the department. A combination of the commutative characteristics of

potentially hazardous vapors and progressively more conservative vapor screening levels established by EPA have brought about an increased awareness of the importance of assessing this pathway for potential harmful effects on human health and the environment.

EPA published Comprehensive Five-Year Review Guidance in 2001. In 2012, a supplemental guidance was published by OSWER, recognizing the need for the assessment of protectiveness of remedies for vapor intrusion at Superfund NPL sites during the FYR process. It also provided recommendations for assessing protectiveness at sites where a vapor intrusion remedy had not



*Some preferential pathways are: window wells, tie rods, mortar joints, top of wall, foundation wall cracks, floor and wall joints, water lines, sump pumps, floor cracks and floor drains.*



*Pictured above: conducting helium test of sample port prior to split sample collection. Vapor intrusion is a whole new pathway we need to examine. Previously, unless there was exposure to vapors by bringing the vapor indoors through showering or washing clothes or dishes, vapor intrusion simply did not exist.*

been implemented and: 1) the vapor intrusion pathway was never characterized or adequately characterized; or 2) changes in site conditions since the last FYR have potentially led to a complete vapor intrusion pathway. EPA has been working to finalize vapor intrusion guidance documents, and is considering adding assessment of vapor intrusion risk to the criteria for adding sites to the NPL.

Vapor intrusion was added to the FYR process because sites with remedies implemented prior to 2004 likely did not evaluate the potential for an indoor contamination pathway. Sites with remedies implemented after 2004 may have evaluated vapor intrusion, but due to the continual evolution of science and risk screening levels, the FYR provides the vigilance needed to ensure the

sites remain protected. Including the vapor intrusion pathway as part of the FYR allows the FYR team to consider whether there is adequate, appropriate data to evaluate the pathway prior to beginning the FYR or, if no or inadequate data are available, recommendations for gathering appropriate data relevant to potential vapor intrusion and response action if needed can be included in the FYR.

### **Why is Vapor Intrusion a Problem and What are the Assessment Challenges?**

Vapor intrusion is a problem because VOC contamination is abundant in subsurface media at many Superfund, petroleum and other contaminated sites and may be harmful to humans when present above screening levels and inhaled. Soil, groundwater and other subsurface environmental media become contaminated with VOCs when hazardous chemicals such as gasoline, diesel fuel, dry cleaning solvents and other chemicals leach into the soil from purposeful dumping and accidental spillage (such as gasoline leaking out of an old car). Additionally, vapor plumes are gaseous and vapors can move and shift along preferential pathways making assessment difficult. Vapor migration from the subsurface to indoor air is often influenced by things that cannot be controlled, such as the soil type, geology and hydrology of the site, building characteristics and seasonal changes in temperature and groundwater levels. Due to these variables and the challenges they present, in 2015 EPA issued updated recommendations from the 2002 draft guidance, titled Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air, and now recommends using multiple lines of evidence to adequately evaluate the vapor intrusion pathway and associated potential risks to human health.

Currently, vapor intrusion is examined in a bottom to top model. Groundwater is examined for VOCs, semi-volatile VOCs and other vapor-forming chemical contamination. If contamination is found, soil gas is measured. If VOCs are found in soil gas above protective levels, the sub-slab is tested first, then, if needed, indoor air is tested. Future impacts to vapor intrusion measurement include the transition to consideration of multiple lines of evidence. For instance, if highly volatile compounds are found in lower concentrations, this evidence may indicate a smaller chance of vapor intrusion, although it is generally recommended to conduct multiple rounds of sampling to determine actual exposure risks. Other categories of consideration in a multiple line of evidence model will be the density and direction of layers of media, moisture content, depth of water table and contaminant concentration in soil or groundwater.

### Changes for Department Staff

Changes to the way the FYR is conducted have affected department project management staff:

- Instead of relying solely on the potentially responsible party (PRP) to sample for vapor intrusion, project managers are now splitting samples with them or collecting duplicate samples. Examples of PRPs are private industries for non-Federal Facilities sites and the U.S. Army, Department of Energy, General Services Administration, the U.S. Department of Agriculture and others for Federal Facilities sites.
- Screening levels have been lowered for some contaminants, but have been raised for others, with resulting effects.
- The attenuation factor was recently increased, reducing the estimate of the amount of contaminant migrating from the sub-slab into a building interior. The attenuation factor was 0.1 in the past, and now it is 0.3. As a result, previous studies may have identified excess risk, but now, due to the increased attenuation of contaminants, excess risk may no longer be present.

Changes in the screening level (toxicity), attenuation factor, multiple lines of evidence, and other factors in current guidance can have a significant effect on risk calculations and must be carefully evaluated during a FYR. Due to the dynamic nature of the science of vapor intrusion and the toxicity of the chemicals involved, project managers may be uncertain if decisions made regarding vapor intrusion are final. They must remember sites that were closed as they may need to be reevaluated later due to these changes. Site managers must also consider how long-term stewardship conducted at sites where buildings have had vapor intrusion mitigation systems installed will be addressed. Institutional controls such as environmental covenants containing site-specific property activity and use limitations may be required, as well as ongoing environmental monitoring and operation, monitoring and maintenance of engineering controls. Sites with groundwater and other subsurface contamination remaining in place must always be evaluated as the science continues to evolve.

Assessing vapor intrusion is now a constantly evolving process. Screening levels fluctuate, which leads to outdated vapor intrusion guidance and FYRs, and the necessity for updating them to assess the protectiveness of the remedy. Previously closed sites may not meet new screening levels. Project managers are learning to adapt and change with current guidance and new screening levels. Adding the vapor intrusion pathway to the FYR is helping project managers protect our state, our resources and our people.

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Jim Harris and Jennifer Lamons of the Federal Facilities Section, and Bob Hinkson and Dennis Stinson of the Superfund Section contributed to this article. The following guidance documents were consulted in the drafting of this report:

OSWER Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway From Subsurface Vapor Sources to Indoor Air. OSWER Publication 9200.2-154 United States Environmental Protection Agency. Retrieved from: <http://www2.epa.gov/sites/production/files/2015-09/documents/oswer-vapor-intrusion-technical-guide-final.pdf>

Woolford, James E. and Cheatham, Reggie (2012). Clarifying the Use of Protectiveness Determinations for Comprehensive Environmental Response, Compensation, and Liability Act FYR's. OSWER Directive 9200.2-111 United States Environmental Protection Agency. Retrieved from: <http://semspub.epa.gov/src/collection/HQ/SC31220>

Dawson, Helen (2015), Vapor Intrusion (VI), What is it? Why is it a Problem? Regulatory Status? American Bar Association. Retrieved from: [http://www.americanbar.org/content/dam/aba/administrative/environment\\_energy\\_resources/committees\\_dch/SNRDL\\_vapor\\_intrusion\\_042715.authcheckdam.pdf](http://www.americanbar.org/content/dam/aba/administrative/environment_energy_resources/committees_dch/SNRDL_vapor_intrusion_042715.authcheckdam.pdf)

Five-Year Review Process in the Superfund Program. OSWER 9355.7-08FS United States Environmental Protection Agency. Retrieved from: <http://www2.epa.gov/superfund/superfund-fyr-memoranda-and-fact-sheets>

### Regional Office Hazardous Waste Compliance Efforts

- Conducted 92 hazardous waste generator compliance inspections:
  - *14 at large quantity generators*
  - *38 at small quantity generators*
  - *26 at conditionally exempt small quantity generators*
  - *11 at E-waste recycling facilities*
  - *Three at resource recovery facilities*
- Conducted three compliance assistance visits at hazardous waste generators
- Issued 34 letters of warning and four notices of violation requiring actions to correct violations cited during the 92 inspections conducted
- Received and investigated a total of 50 citizen concerns regarding hazardous waste issues

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

**Tank Inspection Contract:** During the reporting period, the new tank inspection contract was awarded to Rounds and Associates. The inspection contractor conducts inspections of active underground and aboveground storage tanks for the department and the Missouri Petroleum Storage Tank Insurance Fund (PSTIF).

**Operator Training:** Operator training is now available online. Class A/B operator training and Class C operator training are both available, as well as a “test only” option. The draft rule is also available online, which includes a compliance deadline of July 1, 2016. The department and PSTIF will also be accepting reciprocity from some of our neighboring states. Stay tuned! The training program and draft rule may be found on the PSTIF webpage: <http://optraining.pstif.org/intro/>.

**Federal Rule Changes:** In 2011, EPA proposed significant changes to the UST regulations. The final version of those rules was published in July and will become effective Oct. 13, 2015. Please note, these rules are not yet effective in Missouri; they will not be effective in Missouri until we promulgate our own regulations or until EPA follows its procedures for withdrawal of our state program approval. The rule includes new testing requirements for release detection equipment, overfill prevention equipment (e.g. flapper valves, ball float valves and alarms), spill buckets and containment sumps. Previously deferred airport fuel hydrant systems and field constructed tanks will now be regulated. Missouri must also include a new requirement for all new systems installed after July 1, 2017, to be double walled with enhanced leak monitoring. For updates and information on these upcoming rule changes, please visit our webpage: <http://dnr.mo.gov/env/hwp/ustchanges.htm>.

**Tank Inspections:** State Fiscal Year 2016 contract inspections have started. Department inspections continue. As we have seen in previous years, Missouri owners, operators and contractors continue to demonstrate their proactive compliance by being responsive to issues when found, demonstrating a willingness to be a partner in ensuring all Missouri USTs are in compliance. The department is maintaining compliance with the EPA requirement of inspecting all regulated facilities at least every three years. The department must also demonstrate all facilities are either in compliance or are moving to gain compliance. This goal is much easier to accomplish when owners, operators, contractors and regulators are all working together.

**Financial Responsibility:** Efforts continue to resolve violations with facilities that did not maintain a financial responsibility (FR) mechanism to address releases and to protect third parties. Because of these efforts by UST CTU staff and the Attorney General’s Office, the number of facilities without a verified financial responsibility mechanism continues to remain less than 1.5 percent.

## Special Facilities Unit

**Commercial Facility Inspectors:** Special facilities inspectors conducted six inspections of commercial hazardous waste treatment/storage/disposal facilities (TSDs).

**Polychlorinated Biphenyl (PCB) Inspector:** The PCB inspector conducted 27 compliance inspections at various types of facilities throughout the state. The inspector's reports are forwarded to the 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 13 commercial vehicle inspections. Two violation were cited and one commercial motor vehicle was put out of service. Also, 90 Hazardous Waste Transporter License background checks were completed.

## Hazardous Waste Enforcement Unit

### Enforcement Efforts

- Resolved two hazardous waste enforcement cases
- Received eight new enforcement cases

### Greif Fenton

Greif Fenton manufactures 55-gallon steel drums and is registered as a large quantity generator of hazardous waste. Hazardous waste streams include waste fluorescent bulbs, waste solvent rags, waste silk screen solvent, waste paint related material, liquid from waste aerosol cans and used oil.

On May 7, 2013, and March 25, 2014, the department's St. Louis Regional Office (SLRO) conducted hazardous waste compliance evaluation inspections at Greif Fenton. A total of 25 violations were observed during the first inspection and 14 hazardous waste violations were observed during the March 25, 2014, inspection. A notice of violation was issued as a result of the inspection documenting the failure to determine if waste is hazardous, failure to use a licensed hazardous waste transporter, failure to use authorized hazardous waste treatment, storage, or disposal facility or resource recovery facility, and failure to update Notification of Regulated Waste Activity form.

The department conducted a targeted re-inspection on Oct. 8, 2014, and determined Greif Fenton had taken actions to resolve all of the violations observed during the previous inspections.

The facility and the department negotiated terms for a consent order effective May 8, 2015. Greif Fenton agreed to pay the sum of \$14,700 as a penalty, of which \$7,350 was paid to the St. Louis County School Fund and \$7,350 will remain suspended on the condition that there are no violations of the order or the Missouri Hazardous Waste Management Law and/or Regulations for a period of one year from the effective date of the order. Due to the fact that Greif Fenton planned to close the facility, part of the order includes a stipulation for proper closure, clean-up and waste removal and a verification that the facility has been properly closed after ceasing operations.

### Donovan Auto Body and Sales

On Aug. 9, 2011, March 28, 2012, and March 19, 2013, SLRO conducted hazardous waste inspections at Donovan Auto Body and Sales. On May 15, 2013, the department issued a NOV for violations including failure to determine if waste is hazardous, failure to use a licensed hazardous waste transporter, operating as an unauthorized TSD facility, failure to use an authorized TSD facility, storage

requirements, safety and emergency requirements, used oil requirements and generator notification requirements. On Sept. 18, 2013, the department inspected the facility and no violations were observed.

On March 12, 2014, and Aug. 5, 2014, the department sent penalty negotiation offer letters to the facility and never received an adequate response. On Feb. 19, 2015, the department issued an administrative penalty order to the facility. The facility appealed the order with the Administrative Hearing Commission (AHC). With legal assistance, the department and the facility agreed to a consent agreement outside of the AHC and it was executed on May 21, 2015. The facility has agreed to pay the sum of \$16,400 as a penalty to the St. Louis County School Fund, of which \$11,600 will remain suspended on the condition that there are no further violations of the order or the Missouri Hazardous Waste Law and/or Regulations for a period of three years of the effective date. The remaining amount of \$4,800 shall be paid in monthly installments of \$200 for a period of two years.

### **Pesticide Collection Events in the July-Sept. 2015 Quarter**

The Pesticide Collection Program conducted three collections during the quarter. The events were a huge success, bringing in many toxic, banned pesticides. Many of the participants expressed gratitude for the service.

The pesticide collection event in Higginsville was on July 18. It was the third event for calendar year 2015 and collected approximately 11,750 pounds of waste pesticides from 32 participants. A couple of the participants delivered large amounts of pesticide resulting from recent land purchases in which they acquired unneeded pesticide along with the property.

The event in Owensville was on Aug. 15, 2015, collecting approximately 1,800 pounds of waste pesticide with 15 people participating.

The last event of calendar year 2015 was conducted on Sept. 19, during which approximately 3,600 pounds of waste pesticide was collected from 38 people. This collection event was combined with Kirksville's household hazardous waste collection event. City officials were thrilled the pesticide collection program helped with collecting and disposing of all pesticides that entered the site.

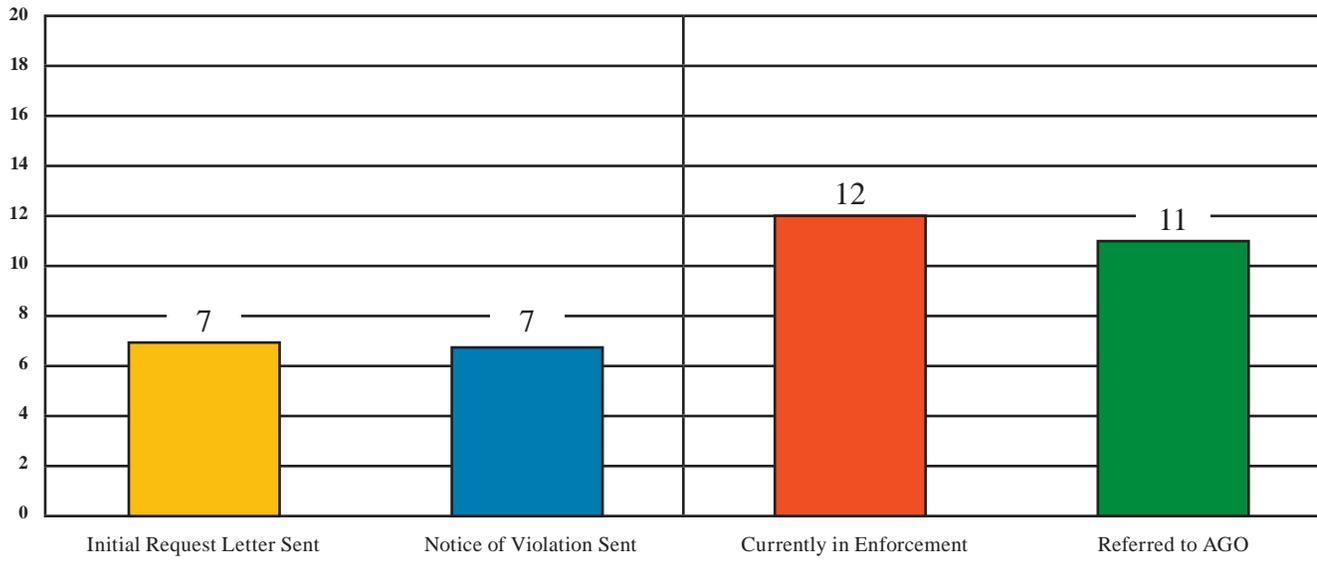
The pesticide collection event schedule for calendar year 2016 is being developed, targeting minimally funded solid waste districts and areas the pesticide program has not yet conducted an event. The program is planning to conduct six events for calendar year 2016.

In addition to the collection events, staff also promoted the Pesticide Collection Program by participating in the Cole County Fair and the Missouri State Fair. Two displays were constructed with the message focusing on integrated pest management versus the more toxic approach of applying pesticides to ward off pests. At the State Fair, staff from the University of Missouri – Fisher Delta Research Center also assisted in helping to promote the program. A PowerPoint presentation highlighting the successful pesticide collection event in Portageville and handouts were provided during this outreach event. In addition to these outreach efforts, staff are also preparing for the upcoming commercial pesticide applicator training in January 2016. Staff will provide information at this training on pesticide waste disposal, container cleaning and disposal and spill reporting.

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

Financial Responsibility Status	Number of Facilities
Initial Request Letter Sent	7
Notice of Violation Sent	7
Currently in Enforcement	12
Referred to Attorney General's Office	11
<b>Total Number of Facilities with Unknown Financial Responsibility</b>	<b>37</b>

### 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.

### 25th National Tanks Conference

In September, two staff members from the Tanks Section attended the 25th National Tanks Conference. The conference provided a multitude of learning and networking opportunities. The 36 individual sessions had a wide range of topics, which included alternative fuels, remediation technologies and vital financial issues. With today's tank universe ever changing, information on these subjects is vital to the continued success of cleaning up contamination at tank sites in Missouri. Laura Luther, chief of the Risk-Based Corrective Action Unit, presented at a session titled "Long Term Stewardship & Institutional Controls." She discussed the department's development of an interactive map allowing users to conduct a search for investigations and cleanups, and other site information within a specific community or area of the state. Training sessions like these are instrumental in getting information out to all the states what is working in their state. With this knowledge in hand, hopefully, they can make improvements to their programs.

### Tanks Section holds workshop at the Missouri Waste Control Coalition Conference

The Tanks Section held a Tanks Workshop on July 14, 2015, as part of the MWCC at the Tan-Tar-A Resort at Lake of the Ozarks. This was the eighth annual workshop in conjunction with the MWCC events. This conference was targeted toward environmental consultants who provide services to tank owners and operators. The conference provided consultants with information and training regarding free product recovery and light non-aqueous phase liquid (LNAPL) conceptual site models.

The workshop included departmental staff, along with private consultants, private laboratories and others. The conference was well attended.

# Missouri Department of Natural Resources - Hazardous Waste Program

## Petroleum Storage Tanks Regulation June 2015

Staff Productivity	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	TOTAL
Documents received for review	197	213	213										623
Remediation documents processed	154	145	147										446
Closure reports processed	16	7	14										37
Closure notices approved	12	13	14										39
Tank installation notices received	6	6	10										22
New site registrations	3	2	6										11
Facility Data	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	TOTAL
Total in use, out of use and closed USTs	40,929	40,950	40,963										
Total permanently closed USTs	31,970	31,979	32,014										
In use and out of use USTs	8,955	8,967	8,945										
Out of use USTs	664	668	681										
Total hazardous substance USTs	403	403	405										
Facilities with in use and out of use USTs	3,441	3,444	3,441										
Facilities with one or more tank in use	3,209	3,210	3,203										

## Closures

Underground Storage Tanks	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	TOTAL	All Yrs
Closure Reports Reviewed	16	7	14										37	
Closure Notices Approved	12	13	14										39	
Number of Tanks Closed (Closure NFA)	32	23	33										88	

## Cleanup

Underground Storage Tanks	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	TOTAL	All Yrs
UST release files opened this month	4	9	10										23	6,713
UST cleanups completed this month	9	6	13										28	5,880
Ongoing UST cleanups	831	833	833											
Aboveground Storage Tanks	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	TOTAL	All Yrs
AST release files opened this month	0	0	0										0	475
AST cleanups completed this month	2	0	1										3	301
Ongoing AST cleanups	175	175	174											
Both UST and AST	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	TOTAL	All Yrs
Total release files-both UST & AST	0	0	0										0	79
Cleanups completed-both UST & AST	0	0	0										0	52
Ongoing cleanups-both UST & AST	27	27	27											
Unknown Source	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	TOTAL	All Yrs
Total release files-unknown source	2	0	0										2	228
Cleanups completed-unknown source	1	0	0										1	211
Ongoing cleanups-unknown source	18	18	17											
Documents Processed	154	145	147										446	
*Reopened Remediation Cases	0	0	0										0	79

\* 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.

Note: 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**

**February 18, 2016**

**Agenda Item # 12**

**Legal Update**

**Issue:**

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

**Information:**

Information Only.

**Presented by:**

Ms. Brook McCarrick, Office of the Attorney General

**Missouri Hazardous Waste Management Commission Meeting**

**February 18, 2016**

**Agenda Item # 13**

**Public Inquiries or Issues**

**Issue:**

Opportunity for participants to speak to the Commission on relevant issues or matters before them.

**Information:**

Information Only.

**Presented by:**

Mr. David J. Lamb – Director, HWP

**Missouri Hazardous Waste Management Commission Meeting**

**February 18, 2016**

**Agenda Item # 14**

**Other Business**

**Issue:**

Update to the Commission on Program matters and other relevant issues.

**Information:**

Information Only.

**Presented by:**

Mr. David J. Lamb – Director, HWP

**Missouri Hazardous Waste Management Commission Meeting**

**February 18, 2016**

**Agenda Item # 15**

**Future Meetings**

**Information:**

**Meeting Dates:**

Date	Time	Location
Thursday, April 21, 2016	9:45 A.M.	Bennett Spring / Roaring River Room 1730 East Elm Jefferson City, Missouri 65101
Thursday, June 16, 2016	9:45 A.M.	Bennett Spring / Roaring River Room 1730 East Elm Jefferson City, Missouri 65101
Thursday, August 18, 2016	9:45 A.M.	Bennett Spring / Roaring River Room 1730 East Elm Jefferson City, Missouri 65101
Thursday, October 20, 2016	9:45 A.M.	Bennett Spring / Roaring River Room 1730 East Elm Jefferson City, Missouri 65101
Thursday, December 15, 2016	9:45 A.M.	Bennett Spring / Roaring River Room 1730 East Elm Jefferson City, Missouri 65101
Thursday, February 16, 2017	9:45 A.M.	Bennett Spring / Roaring River Room 1730 East Elm Jefferson City, Missouri 65101

**Recommended Action:**

Information Only.