Summer/Fall
2009

Kansas Environmental News

Secretary's Corner

As we are all well aware, the difficult economic times continue to impact our state. Kansas has seen a reduction in State General Fund (SGF) revenues which has required our agency to make cuts in the fiscal year 2010 budget.

One result of the budget situation was the elimination of the Clandestine Drug Lab Response Program. In the last year, KDHE responded to about 170 illegal drug labs at the request of law enforcement. Unfortunately, the need to keep a balanced state budget made the elimination of this program unavoidable.

In addition to the SGF cuts, there were also reductions in the State Water Plan budget. At KDHE, the bulk of these reductions were to the Local Environmental Protection Program (LEPP), Watershed Restoration and Protection Strategy program (WRAPS), and the remedial programs. The reductions in the LEPP and WRAPS programs will be reflected in decreased aid-to-local funding. The reductions in the Remedial Program will be reflected in decreased contractual services for responding to contaminated orphaned sites.

We realize that the reductions being made will have an impact on our ability to provide needed services to Kansas citizens, but unfortunately these difficult economic times require us to make these changes.

One piece of good news is that communities across Kansas will see the creation of new jobs thanks to projects that will be funded with monies provided by the American Reinvestment and Recovery Act of 2009. This funding will have a major impact on communities in need of some important infrastructure projects that might otherwise have taken years to come to fruition.

The U.S. Environmental Protection Agency (EPA) has awarded $35 million in Recovery Act funding to KDHE to improve wastewater infrastructure across the state. These funds went to the Kansas Clean Water State Revolving Loan Fund Program, which provides low-interest loans for water quality protection projects for wastewater treatment, non-point source pollution control and watershed and estuary management. EPA also awarded $19.5 million in Recovery Act funding to KDHE to improve Kansas' drinking water infrastructure. The funds went to the state Drinking Water State Revolving Fund program, which provides low-interest loans to finance infrastructure improvements for drinking water systems.

EPA has also awarded over $5.5 million in Recovery Act funds to KDHE to support the reduction of diesel emissions in Kansas communities. In addition to the creation of much-needed jobs and the improvement in air quality, these clean diesel projects will have a positive impact on the health of Kansans.

Lastly, I would like to share some information about the H1N1 flu virus. Although not an environmental issue, the potential public health threat posed by H1N1 must be addressed. KDHE is continuing to work with local health departments and other healthcare providers to interrupt the chain of virus transmission wherever it is found, provide education on the disease and prepare for a mass vaccination campaign this fall.

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Secretary's Corner (continued)

Please take the following steps to help reduce the spread of H1N1 and other flu viruses:

- Wash your hands thoroughly with soap and warm water or use an alcohol-based hand sanitizer to get rid of most germs and avoid touching your eyes, nose and mouth.
- Stay home when you are sick to avoid spreading illness to co-workers and friends.
- Cough or sneeze into your elbow or a tissue and properly dispose of used tissues.
- Stay healthy by eating a balanced diet, drinking plenty of water and getting adequate rest and exercise.

Kansans with questions about the virus can call our hotline at 1-877-427-7317 during regular business hours or email **H1N1fluinfo@kdheks.gov**. Information is also available from KDHE at **www.kdheks.gov**.

Thank you for your efforts to promote environmental quality and health in Kansas!

Be well,

Kansas Fleets Choose Clean Diesel Technologies

by Nancy Larson, K-State Pollution Prevention Institute

Diesel engines, considered the workhorse of engines, move goods and services, as well as schoolchildren, across the nation daily. While these engines are highly durable and efficient, their exhaust often billows dark clouds of pollutants harmful to public health and the environment. Diesel engines emit large amounts of nitrogen oxides, particulate matter, and air toxics which contribute to serious public health problems. [1]

Historically, diesel engines have not been associated with the word "clean." But according to the Diesel Technology Forum, "Diesel engines are cleaner than ever before, and in the next few years the diesel industry will virtually eliminate key emissions associated with on- and off-road diesel equipment. This environmental progress is the result of the new clean diesel system – combining clean diesel fuel, advanced engines and effective exhaust-control technology." [2]

Newer engines, those manufactured in 2007 and beyond, operated in combination with new ultra-low sulfur diesel (ULSD) fuel, have significantly reduced harmful diesel emissions. However, more than 11 million diesel engines in operation today do not meet EPA's new clean diesel standards, but will be able to continue to operate for another 20 to 30 years. [1] Many of these older fleets are now being retro-fitted with diesel emission technologies and EPA is providing fleets, as well as states, with financial assistance supporting equipment and technologies. These retrofit technologies include the following:

- ☐ diesel oxidation catalysts (DOC)
- ☐ diesel particulate filters (DPF)
- ☐ crankcase filters (CCF)

Recently, Kansas fleets were awarded 1.5 million dollars under a Clean Diesel Funding Assistance Program. Partners will match the funding with 1.8 million dollars in hard and soft funds. This funding will support retrofits or engine upgrades for nearly 300 vehicles statewide. Watch for more news about these programs, including additional funding opportunities for your fleets, by going to the "What's New" section at http://www.kdheks.gov/bar/.

[1] http://www.epa.gov/diesel/
[2] http://www.dieselforum.org/

KDHE Regulations in Process

The following table depicts the KDHE regulations that are in the process of being developed, amended or revoked. If you have questions on any of the regulations, contact Cathy Colglazier at (800) 357-6087.

Regulation	Division Draft[1]	External Review[2]	Public Hearing	Effective[3]
Waste Management				
Definitions (A)	8/08	*11/09	*2/10	*4/10
Hazardous Waste Update (A)	*8/09	*10/09	*1/10	*3/10
Solid Waste Gas Mitigation & Monitoring at C/D Landfills (N)	*12/09	*2/10	*5/10	*7/10
Uncontaminated Soil Definition	7/09	*8/09	*11/09	*1/10
Air and Radiation				
KC Nitrogen Oxides & Idling (N)	11/08	7/09	*8/09	*10/09
PSD Update (A)	12/08	5/09	7/09	*8/09
NSPS & MACT Update (A) (N)	7/09	*8/09	*9/09	*10/09
Definitions and Permitting Rules (A) (N)	*8/09	*10/09	*12/09	*1/10
Transportation Conformity (A)	*10/09	*11/09	*1/10	*2/10
Acid Rain Nox and Permits (A)	*11/09	*12/09	*1/10	*2/10
Clarification and Consolidation (A)	*2/10	*3/10	*5/10	*6/10
Radiation Updates (A)	*9/09	*12/09	*4/10	*6/10
Water				
PWS Groundwater Rule	*9/09	*10/09	*3/10	*6/10
Long Term 2 Enhanced SW Treatment Rule	*9/09	*10/09	*3/10	*6/10
Stage 2 Disinfection Byproduct Rule	*9/09	*10/09	*3/10	*6/10
WQS Clarification & Update	*3/10	*7/10	*9/10	*12/10
Storage of Crude Oil in Salt Caverns	10/08	12/08	4/09	7/09
Environmental Field Services				
Surface WQS/Register Annual Update	12/08	1/09	5/09	*9/09

[1] The Division Draft date is the date the regulations are sent to External Review.
[2] External Review includes reviews by EPA (if applicable), Department of Administration, & Attorney General
[3] Effective Date is the date the regulations become effective.

New (N), Amended (A), Revoked (R)
* Denotes projected date.

Updated 7/09

What In The World Is A RATA?

by Javier Ahumada, KDHE Bureau of Air and Radiation

Before learning what a RATA is, it is important to understand what a RATA is for. A number of different industries in Kansas are subject to continuous emissions monitoring requirements found in the New Source Performance Standards (NSPS, 40 CFR 60), National Emission Standards For Hazardous Air Pollutants For Source Categories (MACT, 40 CFR 63) and Acid Rain Program (40 CFR 75). To satisfy these monitoring requirements, the affected source is required to install continuous emissions monitors (CEMs) to monitor various pollutants to determine continual compliance or to determine exceedances of the standard. A few examples of pollutants currently monitored in Kansas by CEMs include oxides of nitrogen (NOx), carbon monoxide (CO) and sulfur dioxide (SO_2).

The CEM is a gas analyzer and can be very accurate when properly calibrated. However, as sophisticated as the CEMs are, they can and probably will lose calibration over time, which then introduces bias into the results. This could skew the data below what is really being emitted from the source, thereby defeating its regulating purpose. Or, it can give false readings that are higher than reality and potentially open the source to enforcement action. CEM accuracy is not only important to demonstrate compliance with an emission limit, but also to reliably track SO_2 and NOx emissions for the Acid Rain Program's cap and trade mechanism. Millions of dollars are traded based on the emissions of power plants across the country.

In order to ensure that the CEM remains calibrated and accurate, CEM-equipped sources are required throughout the year, by 40 CFR 60 Appendix F, to undergo a series of audits to verify accuracy of the data and also checks to improve quality of the data. The first and most rigorous audit is the RATA, which stands for relative accuracy test audit. RATAs are required within 180 days of the startup of a new CEM unit and at least once every four calendar quarters after that.

The RATA is performed by a third-party testing firm which is contracted by the source. The tester submits a test protocol outlining the proposed test information, including the Reference Methods (40 CFR 60, App A) and Performance Specifications (40 CFR 60, App B) to be used for the RATA at least 30 days prior to the test. The tester brings a trailer outfitted with a rack of analyzers that will be used via a long probe in the stack to analyze the stack gas concurrently with the source CEM. The source must operate at the minimum load required by their applicable regulation; usually normal load.

Once the tester finishes calibration of his analyzers and performs a stratification check to determine traverse points required and to rule out cyclonic flow in the stack, the test begins. The tester analyzes a minimum of nine 21-minute test runs, with the ability to analyze twelve runs total and discard three runs. The nine runs are then compared to the data produced by the CEM over the same, minute-by-minute, readings to determine the relative accuracy (RA). Different regulations have different requirements for the RA. For instance, NSPS requires the RA to be less than or equal to 20 percent, while the Acid Rain Program requires the RA to be less than or equal to 7.5 percent for annual testing.

Once the RATA has been performed and the results have been approved by KDHE, the CEM is considered certified. The source is then required to perform self audits utilizing quarterly relative accuracy audits (RAA) or cylinder gas audits (CGA) every quarter a RATA is not performed. Additionally, calibration drifts (CD) must be performed every 24 hours to fine tune the analyzer.

CEMs are invaluable tools used in the regulated community for their ability to analyze and log actual, real-time emissions throughout Kansas and the rest of the country. Environmentally or financially, CEMs have a massive amount of responsibility relying on their accuracy. Therefore, the RATA is the little known, but incredibly crucial tool used to maintain trust in their accuracy.

As the state's environmental protection and public health agency, KDHE promotes responsible choices to protect the health and environment for all Kansans.

Through education, direct services and the assessment of data and trends, coupled with policy development and enforcement, KDHE will improve health and quality of life. We prevent illness, injuries and foster a safe and sustainable environment for the people of Kansas.

KDHE Recognizes Businesses for Pollution Prevention Efforts

by Cathy Colglazier, KDHE Bureau of Environmental Field Services

The 2009 Pollution Prevention (P2) Awards were presented during the Kansas Environmental Conference held August 18 - 20 at the Hyatt Regency in Wichita. The Kansas Department of Health and Environment (KDHE) sponsors the yearly awards for businesses, industries, municipalities, and individuals who make significant contributions to the prevention of pollution. Award applications are screened by agency staff, and submitted to an independent awards election committee who recommends final awards to KDHE. The following organizations were selected to receive awards this year:

Frito-Lay, Inc., Topeka
Via Christi Regional Medical Center, Wichita
Schwan's Global Supply Chain, Inc., Salina
LSI Corporation, Wichita
Hallmark Cards, Inc., Leavenworth
Congregation of St. Joseph - Wichita Center, Wichita
Owens Corning Insulating Systems, LLC, Kansas City
Florence Manufacturing Company, Manhattan
Waste Management, Inc., Wichita
Walgreens, Wichita
Sedgwick County Environmental Resources, Wichita
K-State Pollution Prevention Institute, Wichita

For information on the projects implemented by these award-winning facilities and the P2 awards program, visit the KDHE Web site at *http://www.kdheks.gov/sbcs/p2_pollution_prevention_awards.html* or call Cathy Colglazier at 800-357-6087.

Remediation Opportunities in Greensburg

by Emily McGuire, KDHE Bureau of Environmental Remediation

The City of Greensburg was nearly destroyed on May 4, 2007 when an EF-5 tornado bore down on the city, destroying nearly every structure on and west of Main Street. This event, although tragic, offered a unique opportunity to initiate a comprehensive remedial response to a large and persistent groundwater contamination plume located in an area that was previously difficult to access.

The tornado destroyed nearly all the buildings within a three-block area along Kansas Avenue - Highway 54. Prior to the tornado, the extent of the plume was not clearly defined. The operating remedial systems addressed only a portion of the contamination. The Storage Tank Section developed a plan and worked with the City of Greensburg to fully delineate the gasoline contamination plume and install numerous remedial systems to address the entire plume before widespread reconstruction began.

Throughout the 1990s, several monitoring wells were installed and site investigations completed, partially outlining the extensive groundwater contamination plume. The widespread destruction allowed for installation of an extensive network of monitoring wells. This network clearly defined the lateral extent of the contamination and identified a northeastern migration. Previously, the groundwater migration was considered to be to the east.

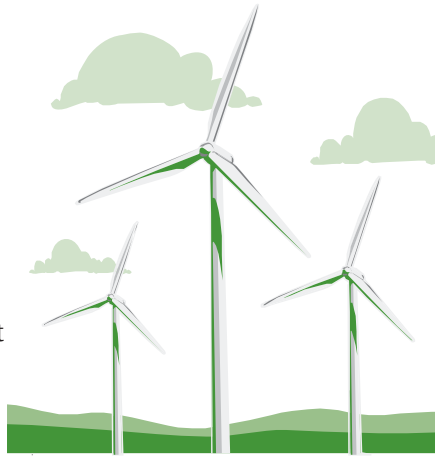
Once the contamination and path had been identified, the task was to replace remedial systems at sites that had been in the clean up phase prior to the tornado, and install remedial systems at several additional locations. KDHE's goal has been to have significant coverage of the entire plume, focusing on the worst portions of the plume and source areas (areas where the contamination originated). In order to reduce time and expense, existing idle trailers from other sites were staged, retrofitted and installed. Installation was completed on the first remedial systems in spring 2008.

The tornado was a terrible tragedy for the town of Greensburg and all who were affected. In spite of the devastation, a unique opportunity to attack a large, persistent groundwater contamination plume was offered. Several remedial systems were installed to clean up previously inaccessible areas. Two sites removed their underground storage tanks and excavated contaminated soils. As the result of this remedial activity, post tornado groundwater contamination levels have been reduced by over 90 percent in most wells. KDHE expects that the three-block-long Kansas Avenue plume, which has persisted for over 17 years, will be remediated within two and a half years of the tornado.

KDHE Bureau of Environmental Remediation Key in Bringing Siemens Wind Turbine Factory to Kansas

by Aspen Junge, KDHE Bureau of Environmental Remediation

Background



The Siemens property is a 109-acre lot located in the Salt City Business Park in Hutchinson that has traditionally been used for agricultural purposes. Siemens evaluated this property, as well as several other properties across the United States, as a potential future location of their new $50 million wind turbine manufacturing facility. The Bureau of Environmental Remediation (BER) became closely involved in the evaluation process, helping Hutchinson land this economically important facility.

Siemens contracted for a Phase I Environmental Site Assessment in order to evaluate potential environmental issues. The investigation noted that two upgradient sites, IMC Salt and Garvey Elevator, could have impacted the groundwater at the Siemens property. IMC Salt is currently addressing a chloride groundwater plume through BER's State Cooperative Program. Garvey Elevator is addressing volatile organic compound (VOC) contamination, namely carbon tetrachloride and chloroform, also through the State Cooperative Program. A subsequent Phase II investigation confirmed that chlorides, carbon tetrachloride, and chloroform impacted the groundwater at the property.

Siemens entered the property into BER's Voluntary Cleanup and Property Redevelopment Program (VCPRP) in February 2009 for a Class I "No Further Action" determination. K. S. A. 65-34, 169(b)(1) allows issuing a "No Further Action" letter for property that has been impacted by contamination originating from a site already participating in a KDHE state response program.

Solution

BER's file review of the IMC Salt site indicated an extensive chloride groundwater plume extending across the Siemens property and farther downgradient. A review of the 4th & Carey site, which includes the Garvey Elevator VOC plume, indicated an extraction well, installed at the northern Siemens property boundary, had apparently drawn the VOC plume onto the property.

No potential onsite sources of VOC or chloride contamination were identified during a site visit in April 2009. BER determined the impacts reported during the Phase II investigation were the result of the migration of offsite contamination. A Class I "No Further Action" determination was issued for the Siemens property. Siemens subsequently selected Hutchinson as the site for their new facility.

Benefits:

- The "No Further Action" determination facilitated Siemens' selection of this property.
- 400 new permanent jobs will be created in Hutchinson.

KANSAS SBEAP
Small Business Environmental Assistance Program

Are you a small business that has questions regarding compliance with environmental regulations or permits? Don't hesitate to call Kansas State University's Small Business Environmental Assistance Program for free, confidential, technical assistance! Simply call (800) 578-8898.

Energy Assessments: Today's Modern Treasure Hunt

by David Carter, K-State Pollution Prevention Institute

Who doesn't enjoy a treasure hunt? Fans of the movies *National Treasure* and, of course, *The Goonies*, can testify to the allure of searching for and finding hidden treasure. Conducting an energy assessment at your industrial facility may not result in Hollywood-scale riches, but it can produce the same thrill of finding previously hidden profits for your company.

Energy assessments can come in any size. They can be conducted by your own employees—GE employees have conducted more than 200 such energy treasure hunts, identifying more than $3 million in energy savings.[1] In its simplest form, an energy assessment requires only an inquisitive mind and a fresh way of looking at your operations. Why are the lights left on in this section of the building when it is unoccupied? Can we use heated water from this process instead of sending it to the sanitary sewer? Do we really need to have all of these motors operating at the same time?

More detailed assessments come in the form of audits conducted by qualified energy specialists or certified energy auditors, but even these do not have to be expensive. Small businesses and institutes (less than 100 employees) can request a free energy assessment from the Kansas Small Business Environmental Assistance Program (SBEAP). Industrial facilities with $100,000 to $2 million per year in energy costs can apply for a free energy audit from one of the U.S. Department of Energy's Industrial Assessment Centers (IAC). Public agencies (state, municipalities, counties, and schools) with sizable energy costs can have an energy assessment conducted by a private energy service company under the Kansas Energy Office Facility Conservation Improvement Program (FCIP), and pay for the projects through energy savings identified and implemented.

Regardless of how they are conducted, energy assessments usually have one thing in common – impressive energy savings. SBEAP has identified more than 33 million kWh in energy savings at Kansas businesses and institutions by asking the simple questions above. These savings translate to $2.3 million annually. In 2008, the IAC at Oklahoma State University identified savings of more than 900,000 kWh, 58,000 MMBTUs, and $395,000 in just two energy assessments at Kansas facilities.[2] The FCIP program has completed more than 50 projects worth $150 million, saving more than $12 million annually.

Start your own treasure hunt. For more information on energy assessments and the programs mentioned above, contact the K-State SBEAP at 800-578-8898.

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1 GEreports, "The Treasure Hunt" team in action, http://www.youtube.com/watch?v=TUbb5BX0SLs, April 14, 2009.

2 Department of Energy, Energy Efficiency and Renewable Energy, Industrial Technologies Program, IAC Database, http://www.iac.rutgers.edu/database/assessments.php?year_limit=%3E%3D&year=2008&sic=&naics=&energy_cost_limit=%3E%3D&energy_cost=0&state=KS&products=&ctr_selected=0&display_total=25.

Beneficial Use Diverts Waste

by Joe Cronin, KDHE Bureau of Waste Management

KDHE's Bureau of Waste Management (BWM) recently had a success story by diverting a waste from disposal to a beneficial use. BWM staff was contacted by a dairy in Hutchinson that had 60,000 gallons of out-of-spec soy milk concentrate. The dairy had contacted a liquid waste hauling company about transporting the soy milk to a landfill. However, bulk liquids are restricted from disposal at permitted landfills. The liquid waste hauling company has a BWM-permitted industrial waste water treatment facility in Wichita, so they proposed processing the soy milk to remove solids and discharging the remaining liquid to the City of Wichita sanitary sewer system.

BWM staff then considered the possibility of using the soy milk as a beneficial item due to the protein (nitrogen) content of the liquid. Staff contacted a large composting facility in Wichita and facilitated a program with the transport company delivering the soy milk to the compost facility and pumping it into the compost windrows.

This resulted in the dairy having an approved disposal option, the transport company providing a service, and the compost facility receiving a beneficial material for enhancing composting.

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SBEAP To Host Free Webinars

The Kansas State University Small Business Environmental Assistance Program (SBEAP) will host eight to 10 one-hour, free Webinars (Web-based trainings) in late 2009 and early 2010. Subject matter will include the following:

- NESHAP requirements for specific sources of hazardous air pollutants
- Kansas air permitting requirements
- Technologies and practices for better stormwater management

Specific dates and topics will be posted at www.sbeap.org as they are determined. Have a related area you would like to learn more about? Give your suggestions to SBEAP by e-mailing sbeap@ksu.edu.

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