

Summer/Fall
2010



Kansas Environmental News

Secretary's Corner

In July, we celebrated our state Green Teams at the Kansas Green Team Assembly and Award Luncheon. In early 2007 there was a directive requiring all state offices to start recycling by the end of 2007 and today, all state agencies and their satellite offices around the state are now participating in the program! This is great news for Kansas! This was our third year for the awards and so many offices and individuals are doing great things to preserve our state. The following list is those entities and individuals who were recognized this year:

- Hutchinson Correctional Facility*
- Lansing Correctional Facility*
- Wichita SRS Recycling Education Program*
- Eric Dyer, Individual Recycler, SRS Wichita*
- Wichita SRS Recycling Program*
- Topeka SRS Records Center Recycling Program*
- Deb Wyant, Individual Recycler, SRS NE Regional*
- Karen Zelznak, Individual Recycler, SRS Topeka Service Center*

In addition to celebrating the “greenness” of Kansas, we’re also getting ready to celebrate the 20th anniversary of the Pollution Prevention Act. The pollution prevention (P2) approach seeks to increase the efficiency of a process, thereby reducing the amount of pollution generated at its source. This in turn helps reduce risks to human health and to the

environment. I encourage you to consider using some of the P2-related ideas below in your work and home environments during P2 week September 20-26, and beyond.

At Work:

- Carpool, bicycle, walk or take mass transportation to work.
- Use reusable lunch containers instead of paper and plastic bags.
- Use a copier that prints on both sides of the paper to reduce paper use.
- Use reusable cups for coffee and other beverages.

At Home:

- Turn down the heat or air conditioning at night. Turn off lights and appliances when not in use; install sensors where appropriate.
- Replace incandescent light bulbs with energy efficient fluorescent ones.
- Minimize water use by purchasing efficient toilets, faucets, and shower heads.
- Buy less toxic cleaning supplies or make your own.
- Reuse grocery bags by taking them with you to the store.

KDHE appreciates your efforts in creating a sustainable environment for the people of Kansas.

Be well,

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Kansas Environmental News to be Discontinued

Due to funding cuts, KDHE will no longer publish the *Kansas Environmental News*. KDHE encourages you to use the following resources to stay up-to-date with environmental compliance issues and pollution prevention information:

KDHE Website	www.kdheks.gov
Bureau of Waste Management	www.kdheks.gov/waste
Bureau of Air	www.kdheks.gov/bar
Bureau of Water	www.kdheks.gov/water
Bureau of Environmental Remediation	www.kdheks.gov/ber
Bureau of Environmental Field Services	www.kdheks.gov/befs
Public Advocate	www.kdheks.gov/sbcs
Small Business Environmental Assistance Program	www.sbeap.org
EPA Region 7	www.epa.gov/region7

Happy Anniversary P2!

by David Carter, K-State Pollution Prevention Institute

Pollution Prevention Week is the third full week in September each year; the dates for 2010 are Sept. 20-26. However, this year's Pollution Prevention Week is extra special – 2010 marks the 20th anniversary of the Federal Pollution Prevention Act, originally signed into law by President George H.W. Bush in 1990.

The Pollution Prevention Act focused industry, government and public attention on reducing the amount of pollution through changes in production, operations, and raw materials use, commonly cited in the pollution prevention (P2) mantra of “Change the material, change the technology, change the process.” P2 includes practices that increase efficiency and conserve energy, materials, water or other natural resources.

The underlying theory behind P2 is that it is economically more sensible to prevent wastes rather than develop expensive environmental controls, treatment, disposal – and even cleanup. One needs to look no further than the oil spill in the Gulf of Mexico to see the cost benefits of preventing a spill, compared to the astronomical cost of clean up when a spill occurs.

In these lean economic times, many businesses see the advantage of making their production processes leaner and more efficient. Energy and water conservation projects have become increasingly popular as businesses seek to trim operational costs by using these resources more efficiently. You do not have to be an environmentalist to embrace P2 principles, because they often make sound business sense as well. P2 practices often result in reduced operating costs and regulatory requirements. They also improve the health and safety of employees through reduced exposure to hazardous substances when you can substitute less toxic materials.

The K-State Pollution Prevention Institute (PPI) and the Kansas Small Business Environmental Assistance Program (SBEAP) can assist you in implementing P2 at your facility. The K-State PPI Intern Program provides interns to Kansas businesses and industries during the summer to research and provide cost-benefit analyses of potential P2 projects. Since the inception of this program, the PPI and SBEAP programs have identified potential savings of more than 43 million kWh of electricity, 227 million gallons of water, 8,700 tons of solid waste, and approximately \$5.7 million dollars in operating/disposal costs. Learn more about these projects by visiting our website at www.sbeap.org/content/internships. Help celebrate the 20th anniversary of the Pollution Prevention Act by implementing a P2 project at your facility.

Pollution Prevention Can Aid Compliance with Air Quality Regulations

by David Carter, K-State Pollution Prevention Institute

The United States Environmental Protection Agency (U.S. EPA) has recently promulgated national emission standards for hazardous air pollutants (NESHAP) for two area source categories – Paint Stripping and Miscellaneous Surface Coating Operations (subpart HHHHHH or 6H) and Nine Metal Fabrication and Finishing Source Categories (subpart XXXXXX or 6X). Both of these area source rules have 2011 compliance dates for existing sources. Compliance date for the subpart 6H rule is January 10, 2011, and compliance date for the subpart 6X rule is July 25, 2011.

Both rules target reductions of hazardous air pollutants (HAP) caused by metals like cadmium, chromium, lead, manganese and nickel. These regulations apply, in part, to spray application of coatings to a plastic and/or metal substrate where the coatings contain compounds of chromium, lead, manganese, nickel, or cadmium. Facilities using painting or coating products containing these metals in concentrations above those stated in either the 6H or 6X rule have numerous requirements to meet, including notification, development of management plans, equipment specifications, training programs for employees and emissions monitoring procedures.

The surest way to avoid having these regulations apply to your facility is to use coating products without the targeted HAPs (Note: Your facility may still be subject to 6X requirements if you also conduct dry abrasive blasting, dry machining, dry grinding and dry polishing with machines, or welding.). The Kansas Small Business Environmental Assistance Program (SBEAP) has worked with a number of facilities to eliminate the use of paint products with cadmium, chromium, lead, manganese, and nickel. In these cases, the facilities are not considered an affected source under the definition of the regulation, or in the case of auto repair shops, can file a petition for exemption from the 6H regulation.

To determine whether your coatings contain any of these metals can be accomplished in two easy ways. The first method is to review the material safety data sheet (MSDS) or technical specifications for each coating. Hazardous ingredients are usually shown in section two of the MSDS. You can also obtain technical specifications from the paint manufacturer or distributor. SBEAP is available to help review your MSDS for the presence of regulated HAPs.

Another easy method is to ask your paint supplier or distributor to provide a letter stating the products do not contain any of these HAPs. This method works best if you obtain your products from only one manufacturer. Otherwise, you must ask each manufacturer or supplier of the different products for this statement.

If your facility is an auto body shop, you are automatically covered under the 6H rule and must submit an initial notification. If you can demonstrate your products do not contain the targeted HAPs, you can file a petition for exemption from the rule, instead of or subsequent to submitting the initial notification. If you are not an auto body shop, but you conduct spray painting operations and your products do not contain the targeted metals, then you do not need to submit an initial notification. Simply keep the documentation, regarding the absence of the targeted HAPs, in your files for future reference. Initial notification and petition for exemption forms for Kansas businesses are available on the SBEAP website at <http://www.sbeap.org/aqrules>.

SBEAP has conducted Webinars on both of these area source rules. If you were unable to attend either of these, you can view the archived presentations at <http://www.sbeap.org/aqrules>. Contact SBEAP at 800-578-8898 if you have any questions regarding compliance with these two regulations, or regarding pollution prevention measures that could help you avoid the extra requirements.



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 or visit www.sbeap.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
<u>Waste Management</u>				
Hazardous Waste Update (A)	7/10	*9/10	*12/10	*2/11
Solid Waste Gas Mitigation & Monitoring at C/D Landfills (N)	*9/10	*11/10	*1/11	*3/11
<u>Air</u>				
KC Nitrogen Oxides & Idling (N)	11/08	10/09	12/09	6/10
NSPS & MACT Update (A) Mercury Revocation	11/09	3/10	8/10	*11/10
Compressed Air Energy Storage (N)	1/10	7/10	8/10	*11/10
Emission Inventory/Fees (A)	3/10	5/10	8/10	*11/10
<u>Water</u>				
PWS Groundwater Rule	7/10	8/10	*10/10	*12/10
Long Term 2 Enhanced SW Treatment Rule	7/10	8/10	*10/10	*12/10
Stage 2 Disinfection Byproduct Rule	7/10	8/10	*10/10	*12/10
WQS Clarification & Update	*9/10	*11/10	*1/11	*3/11
Salt Solution Mining (A)(N)(R)	8/09	2/10	5/10	8/10
Surface WQS/Register Annual Update 2011	*11/10	*1/11	*3/11	*4/11
<p>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.</p> <p>New (N), Amended (A), Revoked (R) * Denotes projected date.</p> <p style="text-align: right;">Updated 8/10</p>				

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.

New Air Quality Regulations for Kansas City: Idle Reduction of Heavy-Duty Diesel Vehicles and Nitrogen Oxides Reduction

by Keith Weber, KDHE Bureau of Air

Concentrations of ground-level ozone in excess of the National Ambient Air Quality Standards occur periodically in the Kansas City area, and this ongoing air pollution has required the Kansas Department of Health and Environment to implement contingency measures from the Kansas City 8-Hour Ozone Maintenance Plan. The purpose of these measures is to reduce the concentration of nitrogen oxides (NO_x). NO_x reacts with volatile organic compounds in the presence of heat and sunlight to form ozone, sometimes called “smog.” Ground-level ozone concentrations are typically the highest on hot summer days that have little cloud cover and light winds. The contingency measures are new state regulations that establish idling time limits for heavy-duty diesel vehicles, including the places at which they load and unload, and set emissions limits at the three largest stationary sources of NO_x. These new regulations apply only in Johnson and Wyandotte counties and became effective June 25, 2010. The State of Missouri has implemented similar measures in the three Kansas City, Missouri counties of Jackson, Platte and Clay.



Idle Reduction Regulations (K.A.R. 28-19-712 through 28-19-712d)

These regulations apply to owners or operators of commercial, institutional or public vehicles that have a diesel engine and a gross vehicle weight greater than 14,001 pounds. The regulations also apply to locations where freight is loaded or unloaded. The regulations do not apply to personal vehicles.

In general, drivers of heavy-duty diesel vehicles cannot idle for more than five minutes in any 60-minute period, although there are several exemptions. The exemptions from idling time limits apply to: traffic delays, safety/health issues, emergency vehicles, repair work, inspections, mechanical/electrical operation other than propulsion, armored vehicles, agricultural operations, heating and air conditioning for government-mandated rest periods, mechanical difficulties, and passenger comfort on buses. It should be noted that buses may idle for 15 minutes in any 60-minute period to maintain passenger comfort.

At locations where freight is loaded or unloaded, owners or operators of those locations cannot cause commercial heavy-duty diesel vehicles to idle more than 30 minutes in any 60-minute period while waiting to load or unload.

NO_x Reduction Regulations (K.A.R. 28-19-713 through 28-19-713d)

The NO_x reduction regulations apply to owners or operators of stationary sources that annually emit greater than 1,000 tons of NO_x. Two power plants and a flat glass production facility are impacted by this set of regulations. Once the NO_x emissions control equipment is installed and operational, the combined NO_x emissions reductions are anticipated to be well over 3,000 tons per year, or about nine tons per day.

For questions or further information, please contact Keith Weber at (785) 291-3278 or at kweber@kdheks.gov.

New Organic Waste-to-Energy Trends in Kansas

by Ken Powell, KDHE Bureau of Waste Management

Kansas has not banned organics from landfills, yet there are many innovative programs springing up for the management of the organics produced here. For the organics that have already been disposed in landfills and those yet to be disposed in landfills, capturing the methane released during decomposition and using it for energy should be encouraged. Tires, which contain a portion of natural rubber, have been used for energy for many years in the cement kilns in southeast Kansas.

New to the energy mix in the last couple of years is the wood waste industry. We are beginning to develop a market for ground wood to be used as fuel. In the Abilene area, Bert and Wetta Alfalfa Mills is using wood waste from Custom Wood Products in St. Marys to dry the alfalfa before making pellets. ICM is working on a gasifier using wood waste from Harvey County and Wichita. The City of Topeka has contracted with Garick to operate their wood waste and composting facility. Garick has contracted with Frito Lay to supply ground wood for their biomass boiler currently being installed. At least four other facilities grind wood and send the wood to out of state biomass boilers.

In Southeast Kansas, at least one sawmill is exploring the possibility of using anaerobic digestion (AD) to process the sawdust and then using the biogas produced to power an electric generator. Sawmills create large amounts of sawdust and this might be a way of using the sawdust to reduce their operating costs. If the trend of finding alternative uses for wood waste continues, we may be able to develop a market for most of the wood waste (resource) generated in Kansas.

AD also has applications in agriculture. The manure from large livestock operations, especially the large dairies and swine facilities, is a good source of biogas production. The biogas can be used for electricity production, as a fuel for heating, or cleaned and added to natural gas pipelines. Solids from the AD process still contain almost all of their nutrient value and are a valuable fertilizer for crop production. The U.S. Environmental Protection Agency, U.S. Department of Agriculture and the U.S. Department of Energy, through the AgStar program, have just announced a coordinated effort to work with producers to increase the use of AD at livestock operations.

The next big step for solid waste systems will be developing a system for handling the very putrescible wastes generated by grocery stores, food manufacturers, restaurants, homeowners and pet food manufacturers. While composting can handle these types of materials, more energy can be recovered by using AD for energy recovery and then composting the resulting solids to preserve the organic material. Currently these systems are very large and expensive, but new research is being done on smaller AD units and the corresponding energy recovery units. Europe has a large number of these facilities and the manufacturers are just beginning to look at the United States as a market.

With a well planned and coordinated promotional effort, Kansas has the opportunity to become a leader in the use of AD technology.

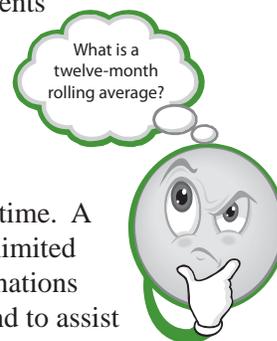
Calculating the Twelve-Month Rolling Average Emissions for an Air Emissions Source

by Ralph Kieffer, KDHE Bureau of Air

The Bureau of Air (BOA) Compliance and Enforcement Section is charged, in part, with applying permit and regulatory requirements to air emission sources (“sources”) to monitor their compliance status, to assist them in staying in compliance, and, where necessary, to take enforcement actions. Requirements include those contained in Kansas Department of Health and Environment (KDHE) statutes, KDHE regulations, and the permits issued to sources. Among the various requirements that may apply is that of calculating and recording either air pollutant emissions or inputs used in production as a means of assuring that the source is not emitting air pollutants in excess of the permit limits. Sources are required to be in continuous compliance.

Typically, the emissions or inputs are measured in units of mass over a specified period of time. A source may, for example, be limited to emissions of 95 tons per year (tpy) of sulfur oxides, or limited to emitting less than 50 pounds per hour (lb/hr). The “year” as a basis for compliance determinations has caused some confusion among sources and this guidance is intended to clarify the issue, and to assist staff in helping sources to understand this requirement. Because the source is required to be in continuous compliance, it is important to help them understand the time basis for calculating emissions.

Among the means of tracking emissions for compliance purposes is that of the **twelve-month rolling average**. This requirement is also embodied in some permits as follows: “emissions shall be less than X tons during each consecutive month period, calculated and updated monthly,” or similar language. This requirement to calculate each



month for the prior 12 months, although not using the term “twelve-month rolling average,” is identical to the 12-month rolling average concept. Although this is a simple enough idea, it is often misunderstood and applied incorrectly. To start with, this is not based on a calendar year, *i.e.*, January 1 to December 31 of a year, such as income taxes are often based. Sources do report their annual emissions on the basis of the calendar year. Currently, the Section is finding that some sources that are required by their permits to track emissions on a twelve-month rolling average are instead starting their records on January 1, and continuing through to the end of the calendar year. This practice does not provide the information that the twelve-month rolling average is intended to capture, that is the full prior twelve months’ worth of emissions or product usage data.

The twelve-month rolling emissions average is based on - as the name states - a full twelve month period, but it requires that a source look back each month at the previous twelve full months and determine the emissions during that period. For each such determination the emissions must meet the permit limits. The “rolling” part of the name is derived from the fact that in each month a new determination is made, or “rolls” into a new time frame. The key is that this approach helps to assure that the source is continuously in compliance with its emissions limitations.

For instance, once the calendar turned and we entered October, 2009 a source under the rolling average limitation would determine its emissions for the prior month, September, and add that to the emissions for the eleven months prior to September, *i.e.*, October, 2008 through August, 2009. Once the calendar rolls into November, the source would again make the determination, but this would be for October, and then add that to the emissions for the prior eleven months. The new twelve month period would be November, 2008 through October, 2009. In other words, as the compliance demonstration period “rolls through” the calendar, a new month is added, and an old one drops off. There are still twelve months to account for, and the emissions for all twelve months must be in the calculation. This allows for a full year’s worth of emissions data to assure continuous compliance by the source.

If a source owner or operator has questions about how to make this determination, they may contact the BOA at 785-296-6024, or, for those that qualify as small businesses, the Small Business Environmental Assistance Program (SBEAP) at 800-578-8898 or www.sbeap.org.

WasteWise

Preserving Resources, Preventing Waste

WasteWise is a free, voluntary partnership program sponsored by the U.S. Environmental Protection Agency (EPA) through which organizations reduce municipal solid waste and select industrial wastes, benefitting their bottom line and the environment. WasteWise is flexible, allowing partners to design waste reduction programs tailored to meet their needs. Any organization, including large and small businesses; nonprofits organizations; and federal, state, local, and tribal governments, is encouraged to join.

Waste reduction makes good business sense because it saves your organization money through reduced purchasing and disposal costs and improved operating efficiency. Waste prevention, recycling, and buying and/or manufacturing recycled-content products form the cornerstones of a waste reduction program.

Waste prevention, also known as source reduction, is the most effective way to control municipal solid waste and is the main focus of WasteWise. When waste cannot be prevented, recycling is the next best option. Recycling saves energy and helps keep valuable materials out of landfills and incinerators. Buying and/or manufacturing recycled-content products helps to close the “recycling loop” and creates a market for recycled materials.

Through waste prevention and recycling, WasteWise partners can greatly reduce the emission of greenhouse gases by conserving raw materials, which reduces the energy needed to retrieve, process, and manufacture those materials.

The concept of environmental stewardship is becoming increasingly prominent as consumers are becoming more interested in organizations’ environmental records. By joining WasteWise, your organization can show employees, stockholders, customers, and communities that you care about preserving resources and preventing waste. For more information on WasteWise, visit www.epa.gov/wastewise.



Kansas Department of Health and Environment
Bureau of Environmental Field Services
1000 SW Jackson, Suite 430
Topeka, Kansas 66612-1367

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Kansas Environmental News
1000 SW Jackson, Ste. 430
Topeka, KS 66612-1367

For subscription information call:
(785) 296-6603
Fax: (785) 291-3266
e-mail: ccolglazier@kdheks.gov

KDHE on the Web
www.kdheks.gov