

Solid Waste UPDATE



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Get Caught 

Reno County Landfill - Pushing Forward

by Kelly Warren, Bureau of Waste Management

A basic rule of thumb for pushing waste is keep the push trail smooth and well graded, push straight forward, and avoid sharp turns whenever possible. This style typifies the character of the Reno County Landfill staff. The staff takes pride in working safely and efficiently while pushing forward on tasks placed in front of them. One example of this work ethic is the in-house construction of a new construction & demolition (C&D) disposal area while maintaining an accident free record to be proud of. Steve Graves, landfill director, said the county saved \$250,000 by constructing the C&D area themselves. The landfill has historically used its own staff and equipment for heavy construction work in addition to their primary duties of placing, compacting, and covering waste.



Komatsu 275AX dozer pushing waste to compactor

Reno County has been operating a landfill approximately three miles west of Hutchinson since 1976. Waste disposal actually began at site A as an open city dump around 1960, progressing in 1976 to sanitary landfills at sites B and C. Following the implementation of Subtitle D regulations, Reno County submitted an application for a composite lined landfill at site D in 1996. Once construction was complete, sites A,

B and C were closed and the permit was modified to allow disposal of C&D waste at site A. Site A will be filled to permitted elevations in the near future. C&D disposal will then move to site E.

Plans for site E were submitted to Kansas Department of Health and Environment in September 2008 and the existing permit was amended to reflect the new 26.5 acre C&D disposal site on February 2, 2009.

Site E will add 2,379,000 cubic yards of C&D disposal capacity, extending C&D disposal at the facility by an estimated 17 years. Reno County began construction of Phase 1 of the C&D area using in-house equipment and operators as schedules allowed. Typically, a scraper and operator were available one or two days per

(continued on page 7)

Wastes Containing Lead-Based Paint

by Christine Mennicke, Bureau of Waste Management

Homes constructed prior to 1978 are likely to contain lead-based paints. When these properties are renovated or repaired, special care must be taken to protect workers and residents from health problems that could be caused by exposure to the paint chips and dust. The U.S. Environmental Protection Agency (EPA) requires

contractors removing lead-based paint waste to contain the debris, paint chips, and dust in plastic for storage, transport, and disposal. There are different disposal requirements for this waste depending on the nature of the waste and who is generating or disposing of the waste.

Coated Debris - Painted

wood and other debris that is coated with lead-based paint is considered non-hazardous and may be disposed of in a construction and demolition (C&D) or municipal solid waste (MSW) landfill.

Paint Chips and Dust - Paint chips and dust could be hazardous waste, so there are more requirements for

(continued on page 3)

How Recovered Methane Gas is Being Used

by Sam Sunderraj, Bureau of Waste Management

Landfill gas (LFG) is produced as the waste mass decomposes within the landfill in oxygen starved (anaerobic) areas of the landfill.

Methane (typically 45 to 58%) and carbon dioxide (typically 35 to 45%) are the main components. Methane is a colorless, odorless gas that is lighter than air and is explosive in concentrations of 5 to 15% by volume in air. In land-

fills where LFG cannot be efficiently collected because of small quantities being produced, it simply escapes into the atmosphere. In landfills where it can be, or is required to be collected, it is

flared or used beneficially. Beneficial uses are many. The untreated LFG is used as a low BTU energy source for powering boilers and infra-red heaters. With minimal treatment, it is used to run reciprocating engines to produce electricity, and with proper treatment a methane rich LFG is treated into pipeline quality fuel and piped directly into natural gas pipelines.

The 2009 Kansas legislature included "methane from landfills or from wastewater treatment plants" as renewable energy. 2010 saw two Kansas subtitle D landfills installing generators to convert LFG to electricity that was purchased by power utilities.



Johnson County Landfill



Rolling Meadows RDF

Current Landfill Gas Recovery Projects

County	Facility	Process	Amt of Gas
Seward	Seward County	used by National Beef for fuel boilers	48 cfm
Johnson	Johnson County Landfill	high BTU gas and flare	3500 cfm (high BTU)
Shawnee	Rolling Meadows RDF	7 Caterpillar generators produce 6 megawatts of electricity	2000 cfm
Crawford	Oak Grove	1 Caterpillar generator	550 cfm
Sedgwick	Brooks (MSWLF closed)	pumped to ethanol plant to power production	2100 - 2700 cfm
Wyandotte	Forest View (closed)	direct thermal	1040 cfm

Improving Communication Key

by Spencer Duncan, Kansas Organization of Recyclers

Today's technology gives us the impression we are all connected, freely flowing information among one another in ways never before seen. Web sites, blogs, online forums, Facebook, e-mail, Twitter and any other social or business media you can think of have convinced us we are trading information with business partners, customers, vendors or associations with ease and efficiency. It is true that we communicate more often. But that does not mean we are communicating better.

As we enter 2011, the Kansas Organization of Recyclers (KOR) is committed to ensuring everyone involved in recycling communicate better. Whether you are a government entity, business, not-for-profit, school or simply want to recycle, KOR is committed to ensuring communication between everyone improves.

The KOR offices constantly receive communications from members asking how they can start a program, who they can call to haul material, who they can purchase material from, and many other waste reduction and recycling questions. We get calls from Kansans wanting to know how to recycle something or who to recycle with. And a common question asked nearly every day by all members regardless of affiliation is "How did so-and-so get their program or business to operate so effectively?"

For all of our connectedness, effectively communicating what is working in waste reduction and recycling continues to be an area the industry can improve on. KOR wants to help the effort, ensuring in Kansas that everyone working to reduce waste and improve recycling is exchanging ideas, finding new markets and working together to better the industries.

KOR can help, with your assistance. Our organization will continue to find new ways to bring everyone together and provide opportunities through meetings, conferences and strategic planning. We want to hear from you, members and non-members, on ways KOR can help connect everyone. Send your suggestions and ideas to kskor@kskor.org or call our offices at 785.233.3771. Please visit our website often for updates and new information relating to waste reduction and recycling – www.kskor.org.



Proposed Construction & Demolition Landfill Gas Management Regulations Status Report

by Dennis Degner, Bureau of Waste Management

These regulations, which have been under development for three years, are expected to be completed in final draft form in December 2010. The regulations will then be reviewed by the Kansas Department of Administration and the Attorney General's Office. The projected schedule for the remaining major steps in the adoption process is as follows:

- April 2011 – Place on public notice (Kansas Register) and provide additional information to stakeholders
- June 2011 – Hold public hearing
- August 2011 – Review comments and revise as appropriate
- September 2011 – Adopt and publish regulations in Kansas Register
- October 2011 – Regulations take effect 15 days after publication

The regulations will be applicable to eastern Kansas Construction & Demolition (C&D) landfills receiving greater than 25 inches of precipitation per year with a facility capacity of greater than 100,000 cu. yds. that meet one or more of the following criteria: (1) located within a 100-year flood plain; (2) located where the groundwater may rise to within 5 feet of the bottom of the waste; or (3) located within tight clay soils or quarries unless the landfill drains by gravity. For this regulation, eastern Kansas is defined by the vertical grouping of counties from Jewell southward to Mitchell, Lincoln, Ellsworth, Rice, Reno, Kingman, and Harper and all Kansas counties to the east. Of the 74 active C&D landfills in eastern Kansas, Kansas Department of Health and Environment estimates that the proposed regulation will apply to approximately 10-15 facilities.

Landfills which are subject to this regulation will be required to implement several new operating changes including an increase in the frequency of intermediate cover application to weekly.

Where Can I Take My Old Computer - and Other Waste Electronics?

by Rodney Ferguson, Bureau of Waste Management

With technological advancements taking place at an increasing rate, you will at some point probably decide to replace your cell phone, laptop or desktop computer, MP3 or CD player or any number of other electronic items otherwise known as e-waste. Although these items may legally be disposed in municipal solid waste landfills in Kansas, recycling is preferred to conserve landfill space and valuable natural resources. But, you may be wondering: "where can I recycle this material"?

There is a wide array of recycling options available to Kansans to recycle these items. Indeed, with just a little effort nearly everyone should be able to find a place to recycle e-waste. However, as with any other services, such as trash disposal, gas, water, etc. it's important to remember that recycling is also a service that has associated costs.

Here is listing of some recycling options:

- As a result of Kansas Department of Health and Environment's (KDHE) e-waste recycling grant project, most of the participants are continuing to offer e-waste recycling at a nominal fee. Most of these providers offer services to several surrounding counties, many of which are predominantly rural: Butler County, Lake Region Solid Waste Authority, NW Kansas Regional Recycling, Solomon Valley, Rice County, Seward County, and SE Kansas Recycling.
- Subsequent to KDHE's initial grant and contract supported e-waste projects, a new initiative was developed to directly address one of the predominate challenges of e-waste recycling, *(continued on page 7)*



Lead-Based Paint

(continued from page 1)

handling and disposing of this waste. Paint chips and dust generated by the homeowner or renter is considered household waste and can be put in plastic bags for disposal with other household trash. Contractors, private businesses, and government units that remove lead-based paint from any structure, may have the waste tested or may assume that it is hazardous if the building was constructed prior to 1978.

If the paint chip/dust waste is hazardous, the generator will need to comply with the applicable Kansas hazardous waste storage, transportation, and disposal regulations.



MSW landfills may accept debris coated with lead-based paint that arrives in bags or wrappers. MSW landfills may also accept paint chips and dust generated by homeowners or generators of less than 55 lbs. of hazardous waste per month. This debris does not need to be inspected or screened and does not require a Solid Waste Disposal Authorization.

C&D landfills may accept debris coated with lead-based paint, but not lead-based paint chips or dust. Therefore, C&D landfills should:

- Accept bagged or wrapped lead abatement project debris **only** if the bags or cleanup sheeting wrappers are transparent; or
- Screen out bagged or wrapped waste without opening it by promptly placing the waste in an onsite container for waste that will be taken to an MSW landfill; or
- Using proper safety precautions, open all bags and wrappers that aren't transparent prior to transfer from the screening area to the disposal area. This is the least desirable option.

For more information, refer to the Bureau of Waste Management's Technical Guidance Document SW-2010-G1 or contact Rebecca Wenner at (785) 296-1604.

Extended Use of Intermediate Cover May Yield Benefits

by Bill Bider, Director, Bureau of Waste Management

Many municipal solid waste (MSW) landfills temporarily utilize intermediate cover when a disposal area will not receive additional waste or final cover for 60 days or longer. Intermediate cover must be applied in accordance with the requirements set forth in K.A.R. 28-29-108(c). Typically, when all phases of a disposal unit are completed, final cover is constructed and the unit can then be certified as closed.

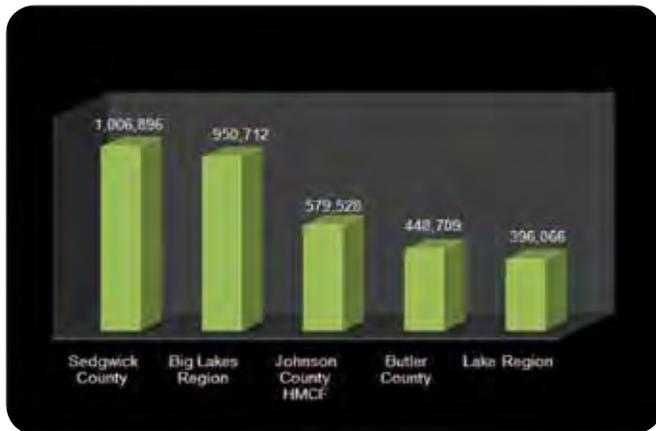
While final certified closure is the ultimate goal for every disposal unit and facility, premature final cover construction may not yield the most desirable long-term results. Also, it may be inconsistent with Kansas Department of Health and Environment's (KDHE) recently stated policy to promote enhanced biodegradation and stabilization of MSW landfills. Under the Research Development & Demonstration (RD&D) rule, the Bureau of Waste Management (BWM) will work with landfill owners to allow liquids additions which should facilitate waste degradation and gas production and recovery. Enhanced biodegradation will result in accelerated settling of the waste mass which will yield additional air space for later disposal. Differential settling could also occur which adversely impacts the final cover if it was prematurely constructed. The extended use of intermediate cover may add another benefit because it may allow the infiltration of more precipitation than a less permeable final cover also increasing waste degradation.

It is KDHE's opinion that the extended use of intermediate cover is desirable as long as the intermediate cover is properly maintained. Landfill owners may submit permit applications or modifications to establish longer time frames for the use of intermediate cover only with delayed final cover application to allow more time for waste degradation and settling. Special permit conditions may need to be established in some cases. This approach will allow delayed construction of final cover and it will potentially add air space for additional waste disposal.

Delayed construction of final cover may have some site-specific implications with respect to "air" regulations and gas collection systems. Another possible downside to delaying final cover construction and certified closure is that financial assurance for closure must be maintained through the extension time. This only impacts privately owned landfills since governments may utilize taxing authority as their financial assurance mechanism.

If any facility owner would like to pursue this long-term intermediate cover option, please work with your BWM permit manager.

Top Five HHW Facilities SFY 2010



Kansas Department of Health and Environment - Bureau of Waste Management

www.kdheks.gov/waste www.getcaughtrecycling.org
www.kansasdontspoilit.com www.kansasgreenteams.org

BWM Announces Grants

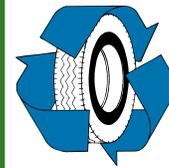
Green School Grants provide K-12 schools with the opportunity to implement recycling projects and teach students valuable environmental lessons. The Waste Tire Grant Program helps communities improve their playgrounds and parks by purchasing products made from waste tires.

Waste Tire Grants – Applications for these grants must be postmarked by January 15, 2011. A major goal of this grant program is to stimulate the production and sale of commercial products made from recycled Kansas waste tires including playground cover, park benches, and picnic tables. When waste tires are recycled, landfill space and natural resources are conserved, playground safety is enhanced, and the small businesses that manufacture these products benefit.

Local units of government and school districts are eligible to apply for funding which will provide up to 50% of the total cost to purchase and install eligible products made from waste tires. Waste tire grant application guidelines and forms can be found at kdheks.gov/waste

Green School Grants – Applications for these grants must be postmarked by February 15, 2011. Eligible grant projects must be consistent with a pre-approved list found in the grant criteria. Maximum grant awards are \$4,500. Grant recipients will be notified before the end of May 2011. Schools may visit www.kansasgreenschools.org to view the grant criteria and complete the on-line grant application.

For more information on these grant opportunities and application procedures, contact the Bureau of Waste Management at (785) 296-1600, or visit the grant program page at http://www.kdheks.gov/waste/forms_grants.html.



Who is this BWM Staff Member ?



Hint: He's pushing completion of "plot plans"

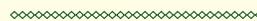
*Look for the answer
in this issue !*

Get to Know KDHE Solid Waste Staff

Bob Medina

Environmental Scientist

Compliance Assistance
& Enforcement Section



Position in KDHE/BWM:	Coordinator of the Illegal Dump Clean Up Program since 2002
Birthplace:	Hugoton, Kansas in 1956
Professional/Academic:	BS - Friends University Worked as Civil Design Draftsman and Senior Land & Geological Draftsman in Colorado and Arizona before coming to KDHE in 1993.
Favorite pastime activities:	Traveling, playing golf and fishing
Favorite food:	Mexican and Italian
Authors I recommend:	John Steinbeck, Dylan Thomas, Ralph Ellison, Albert Camus, and John Grissom
Favorite Quote:	Originality is the fine art of remembering what you heard but forgetting where you heard it.

Get Caught  **!**

Kansas Environmental Steward Award

New at the WORKS! Conference this spring will be the recognition of individuals who have demonstrated personal commitment and sacrifice towards preserving our Kansas environment. The Kansas Environmental Steward Award is designed to identify and recognize dedicated volunteers that donate their valuable time and personal resources outside of the work place to make their local program successful or those that consistently have gone well beyond the normal 40 hour work week to make their program work. This is a highly prestigious award and will act as encouragement to others because of their efforts and dedication.

To nominate an individual for the inaugural Kansas Environmental Steward Award please contact Rodney Ferguson for nomination details at (785) 291-3746 or rferguson@kdheks.gov.

New Publication

Kansas Solid Waste Management Responsibilities

This document will be sent to all newly elected county commissioners in January 2011.

If you would like a copy, let us know or go to www.kdheks.gov/waste

Single Stream Recycling is Increasing in Kansas

by Kris Hicks, Bureau of Waste Management

More Kansas communities are continuing to move toward single stream curbside collection of recyclables. Single stream recycling is where customers put all of their recyclables into one container without sorting them for pick-up at the curb. (Single stream recycling does not mean placing trash and recyclables into the same cart -- consumers still have to separate recyclables from trash.) This is a very easy way to recycle and usually results in more participation.

The reasons for this trend depend on where you live. In Johnson County, landfill space is filling up and the landfill run by Deffenbaugh that serves most of the Kansas City area has a planned closure date of 2027. So, the County has implemented a plan to reduce trash and save resources. New county rules implemented in October require trash haulers to offer curb side recycling to every resident and to charge extra for any garbage that exceeds the 96 gallon threshold effective Jan 1, 2012. This is a clear incentive to increase recycling and single stream has been the preferred method.

Deffenbaugh Industries began a single stream residential recycling collection program on March 16, 2010 in Lawrence. Each subscriber receives a 65-gallon cart for paper, plastic, aluminum, and other acceptable ma-

terials. Voluntary, weekly service will be provided to subscribers on their regular residential trash day at a cost of \$4.95 per month.

Stutzman Refuse Disposal Inc., (Stutzman) located in Hutchinson KS recently installed automated equipment in their material recycling facility which allows the company to pick up single stream containers and have the plastics, paper, aluminum and glass sorted at the facility. Stutzman has residential contracts in 25 cities in Kansas.

In October, Stutzman was sold to Waste Connections Inc. which may lead to an expansion of recycling services in southcentral Kansas. Sedgwick County has written into their Solid Waste Management plan that all cities in the County are expected to have a solid waste collection contract or franchise in place by January 1, 2011. The franchise or contract agreement must include at a minimum: curbside recycling and volume-based trash rates.

The City of Hutchinson recently awarded Stutzman the 10 year fran-

chise agreement for residential and single stream recycling city wide. This year, Halstead (Harvey County) voted 5-0 to negotiate with Stutzman for single stream. Darrel Stutzman reports they also provide curbside services to the cities of South Hutchinson, Nickerson, Pretty Prairie (Reno), Rice County (Sterling and Lyons) Chase, Little River, Geneseo, Harvey County (Peabody), Sedgwick County (Andover, Park City and Bel Aire), and starting January 1, 2011, Hesston.

RecycleBank is a single stream program operated by Waste Connections that rewards households for recycling. The company uses semi-automated trucks and RFID labels to track weight of recyclables per customer cart. Households earn RecycleBank Points that can be used to shop at over 1,500 local and national businesses.

RecycleBank is active in Andale, Atlanta, Bentley, Benton, Cambridge, Clearwater, Conway Springs, Derby, Dexter, Douglas, Eastborough, Kechi, Kingman, Mount Hope, Park City, Sedgwick, Towanda, Udall, Viola, and Wichita.

Overall, single stream is growing in Kansas and the result is more recycling.



**2011
WORKS!**

March 22 - 24, 2011



The 17th annual WORKS! Conference will be held March 22 – 24 at the Wichita Hyatt Regency. The key session topics will include Recycling/Waste Reduction, Energy from Waste, Composting, HHW and more. New this year will be a WORKS! Golf Tournament hosted by the Kansas Organization of Recyclers on Monday, March 21 at Simms Municipal Golf Course. Attendees and vendors are encouraged to register soon as this year's conference is expected to reach capacity quickly. For more information, go to www.kdheks.gov/waste.

Who is this BWM Staff Member? Answer: Mike Selm, P.E.E.
Solid Waste Landfill Unit



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Kansas Department of
Health & Environment

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Reno County *(continued from page 1)*

week. Above average precipitation in 2009 limited the number of construction days available and construction continued through 2010. Concerned that air space in site A would be depleted before completion of site E, Steve Graves diverted one of the landfills BoMag compacters to the C&D site. He has been pleased with the increased density of compaction and plans to continue the use of the steel wheeled compactor in site E.

The landfill accepts approximately 300 tons of C&D per day mostly from Reno County but also some from surrounding counties. Reno County also takes in an average 500 tons per day of Municipal Solid Waste generated in Reno, Kingman, Stafford, Rice, McPherson, and Harvey counties. The landfill is open from 8-5 Monday thru Saturday, closed Sundays and county holidays.

Municipal Solid Waste continues to be disposed in site D, a Subtitle D facility consisting of 160 permitted acres, with 77 acres for disposal. Seven composite lined cells have been constructed and 4.2 million cubic yards of waste have been placed in site D. Disposal is expected to continue for 12 more years with capacity remaining for 3.5 million cubic yards of waste. The scale house is located at the landfill entrance and all loads are weighed.

Reno County residents are assessed a landfill fee on their property tax statement and not charged a tipping fee. Residents are encouraged to participate in a new mattress recycling program by unloading mattresses in a new steel storage building specifically constructed for this purpose. The mattresses are picked up and processed by Hutchinson Correctional Facility staff and inmates. In addition to mattresses, the landfill accepts white goods, scrap metal, and tires for recycling. Residents also have the convenience of a Household Hazardous Waste drop off facility located at the landfill.

Reno County recently doubled the storage capacity for leachate in 2009 with the construction of a third, composite lined, evaporative lagoon. Another recent development is the closure of Clark Road in anticipation of the opening of site E. Safety and management concerns prompted Director Graves to request the closure of this east-west public road dividing the landfill disposal areas.

Careful professional planning by landfill management has ensured a smooth path forward without sharp turns. This, combined with the determination of staff and good support from local elected officials, points to a positive outlook for the Reno County Landfill.

Waste Electronics

(continued from page 3)

the cathode ray tube or CRT. The program reimburses the cost that collectors incur for CRT recycling. Thus far, Seward County, Lake Region SWA, Clay County, Butler County, Jackson County, and Rice County have asked to participate.

- Outside of any KDHE program, several cities and counties have offered e-waste recycling events. This includes: Louisburg, Iola, Coffeyville, Chanute, Altamont, Hutchinson, Cowley County, Overland Park, Johnson County, Independence, Salina, Sterling, Sedgwick County, Shawnee County, Lawrence, Winfield, Wellington, and probably others.
- An individual can opt for any one of a number of recycling programs offered by retailers and manufacturers including Best Buy, Dell, Sony, Staples, Office Depot, HP, Toshiba and others. Specific to TVs, the list includes Panasonic, Sharp, Toshiba, Sony and LG. Other programs are offered by Recycle Bank, Waste Management, and Costco. A simple internet search will reveal many other available options including a new service called EcoSquid.com that offers a wide variety of options that range from free to fee recycling services.

To find out more details on where you can recycle e-waste, contact your local city or county to see if they have a collection event planned or an ongoing collection. You can also call the KDHE's Bureau of Waste Management or search one of many websites including <http://www.kansasrecycles.org>, <http://www.ksewaste.org>, <http://www.epa.gov/epawaste/partnerships/plugin/index.htm>, or perhaps simplest of all, just ask the salesperson where you plan to purchase your new electronic item.



First Greenhouse Gas Report for 2010 due to EPA on March 31, 2011

If your landfill is subject to this new federal air rule, don't miss this deadline!

EPA Region 7 Contact

Ward Burns (913) 551-7960

Helpful Web Sites

<http://www.epa.gov/climatechange/emissions/ghgrulemaking.html>

<http://www.epa.gov/climatechange/emissions/help.html>

<http://www.epa.gov/climatechange/emissions/data-reporting-system.html>

<http://www.epa.gov/climatechange/emissions/GHG-calculator/index.html>



Kansas Department of Health and Environment - Bureau of Waste Management

www.kdheks.gov/waste
www.kansasdontspoilit.com

www.getcaughtrecycling.org
www.kansasgreenteams.org



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Calendar Items

- | | |
|-----------------|---|
| January 26 - 27 | 24 Hour Initial HHW Course
Grandview Plaza |
| March 23 | 8 Hour HHW Annual Refresher
at WORKS!
Wichita Hyatt Regency |
| March 22 - 24 | WORKS! Conference
Wichita Hyatt Regency |



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