Montana Solid Waste News

SUMMER 2014 ISSUE

Don't be so Negative!

By Kathy O'Hern

The other day, I was on the phone with a friend from West Yellowstone. We were discussing gardening and the differences in our region's soil conditions and growing seasons. I commented that in Helena, at this time of year, it can rain and rain for days, and turn very, very green. Then, two days after the rain stops, the landscape turns brown again. In reply my friend commented, "Don't be so negative!"

I've been chuckling about her comment ever since. It's like saying the sky was blue and now it's cloudy. "Don't be so negative!" Actually, it's just a fact.

Here are some other facts:

- Requested trainings are planned for this fall. See page 3 of this newsletter for specific topics, location, and dates.
- If it hasn't happened already, someone from the Solid Waste Program will soon be visiting your solid waste facility.
- It's summer! Get out there and enjoy it!

Calling Interested Persons

The DEQ Waste and Underground Tank Management Bureau is building a new ***Interested Persons Database*** to improve the way agency information is delivered to stakeholders and the public. An important piece of this project is the use of email to send rule notices. If you have any updates to your contact information, and/or would like to provide an email address for upcoming rule notices, please contact us at wutbcomments@mt.gov. Thank you for your assistance with this project.

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A Fun Time at the Rodeo!

The "Practical and Effective Solid Waste Equipment Maintenance & Rodeo" was held April 29-30, 2014, in Billings.

The first part of this training was held in a classroom at the Best Western Kelly Inn. Jason Todaro, Blue Ridge Services, provided a morning session on heavy equipment maintenance and there was a fair amount of interaction with the attendees. After lunch, the training continued at the Billings landfill. The rodeo equipment was already on site; the equipment and operators manuals were used for afternoon "hands-on" exercises.

The next day, an equipment rodeo was held at the Billings Regional Landfill. Three courses were constructed; a bulldozer course, a wheel loader course, and a compactor course. The day began with a safety orientation for the contestants, judges, and timekeepers. Thirteen operators competed in the rodeo courses. Two Billings television stations covered the event.

Fuddruckers catered a lunch of burgers, brats, and side dishes on the day of the rodeo. The Billings landfill staff was invited to lunch to thank them for their help with setting up the rodeo and for allowing us to take over for the day.

This was the first rodeo organized in many years. Yes, there were a few glitches and "lessons learned", but it was so much fun that we'll definitely plan another one. Thanks to everyone who participated in the rodeo competition!

And the rodeo WINNERS are…

BULLDOZER COURSE

1st place – Rainier Batt, Missoula Landfill
2nd place – Mitch Davies, Logan Landfill
3rd place – August Aho, Valley County Landfill

COMPACTOR COURSE

1st place – August Aho, Valley County Landfill
2nd place – Brian Austin, Valley County Landfill
3rd place – Rainier Batt, Missoula Landfill

LOADER COURSE

1st place – Jim Lang, Helena Transfer Station
2nd place – Lucas Cutburth, Lewis & Clark County Landfill
3rd place – Mitch Davies, Logan Landfill

BEST OVERALL

Rainier Batt, Missoula Landfill
Runners up were Lucas Cutburth and Mitch Davies






Rick's Corner

It has been a busy early summer for the Solid Waste Program and I expect the workload to increase significantly before the first snowflakes fly later in the year. Inspection season is in full swing and the permitting staff is reviewing several applications for new facilities.

To keep pace with workload demands, Fred Collins was hired as a temporary employee to assist primarily with inspections and drafting environmental assessments. Fred is a recent graduate of Carroll College in Helena with an Environmental Sciences degree. He is enthusiastic and a quick learner. Please welcome Fred, and feel free to share your knowledge of solid waste management when he stops by to visit your facilities.

Before I go, I will make another request for training concepts that you would like the program to develop into worthwhile and relevant training classes. Please submit your ideas to Kathy O'Hern or me by email, snail mail, or by a phone call. Our contact information can be found on page one of this newsletter.

That is all I have for now. Reminder…..The next SWAC meeting is on Thursday, October 9, 2014. Hope to see you then.

Upcoming Trainings

September 16-18, 2014
24-hour HAZWOPER
Great Falls Holiday Inn

Bridget Kelly will return to Montana to teach this OSHA certified class. Course content will include chemical awareness and safety, segregation, and Haz-Cat. Demonstrations include classification of hazardous materials . This class will focus on topics relevant to persons working in the solid waste field. Bridget has an enthusiastic and engaging style of teaching. Join us in Great Falls, and be prepared to learn! Online registration will open on August 1.

http://www.deq.mt.gov/SolidWaste/training.mcpx

October 21-23, 2014
Planning for the Future of your Solid Waste Facility
Lewistown YOGO Inn

- How and why of a Capital Improvement Program
- Elements of a CIP
- Communication and Financing Alternatives
- Financial Impact of Diverting Organics and Recyclable Materials – and how to set tip fees for these
- Large and Small Facility Operations & Maintenance Plans
- Practical Exercises
- Tours

More information will be available on the website.

Check the DEQ Solid Waste Program website for training updates: http://www.deq.mt.gov/SolidWaste/training.mcpx
For more information about trainings contact Kathy O'Hern at kohern@mt.gov or 406-444-9879.

Glass Recycling in Montana

By Fred Collins and Kathy O'Hern

Glass is 100% recyclable. 100%! It can be recycled over and over again without losing any of its quality. The benefits of recycling glass are vast. Recycling just one glass jar saves enough energy to power a computer for 25 minutes. That is about how long it took me to write this article. Why is it, then, that Montana hasn't been able to implement glass recycling on a large scale?

Because of Montana's low population, not only are we not able to generate enough glass to attract glass bottling companies to Montana, we are also unable to yield enough glass on the consumer end to be a relevant foundation for a full-on recycling program. Therefore, Montana must ship collected glass out of the state. Even before gasoline and diesel prices were on the rise, this method was not cost-effective. Glass is heavy. Thus, shipping glass hundreds of miles from Montana to the nearest recycling plant often costs more economically and environmentally than transporting the glass to nearby landfills. And, unfortunately, that's what usually happens in Montana.

Furthermore, glass is very easily contaminated. Glass is contaminated with everything from generic trash, plastic bottles, plastic bags, cans and cardboard boxes. Once glass is contaminated, it can't be recycled. For example, in Montana, there is only one retailer with a glass bottle recycling program. Any guesses? Nope. You're a little off Target! Yes. Target is the one retailer in Montana that has a glass bottle recycling program. Although signs on the containers outline the proper way to recycle the glass, a lot of the public end up using those bins as trash cans. And, as stated before, once trash and other foreign items are introduced to the bin, the glass is contaminated and is no longer recyclable. The contaminated glass is landfilled.

Montana, however, has been creative in finding ways to recycle glass—following are just a few examples:

- There is a movement to ship glass by rail from Montana to Colorado for recycling. Some Montana glass is shipped to Momentum in Utah. Montana glass crosses many borders.
- The Missoula Landfill is using glass as road base at the landfill – not recycling, but better than the alternative of going directly into the landfill as garbage.
- Cement plants are able to use some recycled glass in their process, such as the glass collected at the Helena Transfer Station used at Ash Grove Cement in Montana City.
- Baybern Brewing in Missoula has a return policy for glass bottles.

Bottom line—there are lots of glass bottles generated in Montana, and lots of people are working on ways to get glass recycled!

Sorry—this sign gets a D minus

New Landfill Air Quality Standards Coming

The EPA has proposed updates to its air standards for new municipal solid waste (MSW) landfills and is providing advance notice of proposed rulemaking for its air standards for existing MSW landfills. The proposed updates would require certain landfills to capture additional landfill gas, which would reduce emissions of methane. The EPA is seeking public feedback on how and whether to update emission guidelines for existing MSW landfills.

For more information visit EPA's website - www.epa.gov/ttn/atw/landfill/landflpg.html.

You may also contact Eric Merchant with the DEQ's Air Resources Management Bureau at 406-444-1457 or by email at emerchant@mt.gov.

Who Accepts What Waste

Be on the lookout – a survey will soon show up in your email inbox from the Solid Waste Program. The "Who Accepts What Waste" spreadsheet that was developed from license renewal information has not been updated since 2010. The spreadsheet is posted on the Solid Waste Program webpage and is widely used by individuals and businesses to determine what may or may not be accepted at your licensed facility. We've decided to take advantage of the great technology that we have available to us and will be sending out surveys via Survey Monkey. If we don't hear from you, we may follow-up with a phone call. If you have any questions, please don't hesitate to contact Mary Hendrickson at 406-444-1808, or Rick Thompson at 406-444-5345. Thanks in advance for your participation.

"Yard Art" made from recycled propane cylinders and glass bottles.
See "Glass Recycling" page 3.

Let's Get S.M.A.R.T. with Montana's Schools!

(Saving Money And Resources Today)

The Montana SMART Schools Challenges can help Montana Schools. Schools in the United States spend more than $6 billion a year on energy. Many cite their energy bill as being the largest yearly expense. Implementing simple behavioral and operational measures to be smart about energy consumption can shave up to 30 percent off of a school's yearly energy expenses. When we save money on energy use, we shore up money for other things schools need, like computers and technology upgrades.

SMART Recycling Mini-Grants - Schools interested in developing recycling programs or purchasing startup equipment, such as collection bins, are eligible for a one-time mini-grant of $500. It's easy and doesn't take much time to apply. You can apply for a SMART Recycling mini-grant by completing an application and emailing it to Bonnie Rouse at BRouse@mt.gov.

SMART Challenges Prizes - Prizes in the amount of $1,000 are available to up to 12 schools in Montana for winning one of the SMART Schools Challenges. Schools can choose to reinvest this money into additional SMART projects or use it for whatever they need. This money is extra cash, and doesn't include the funds that schools are sure to save by entering the SMART Schools Energy Challenge to promote energy efficiency and conservation.

For more information visit the SMART website - http://governor.mt.gov/Home/SmartSchools.aspx - or contact **Bonnie Rouse, 406-444-6439.**

Sustainable Water Balance Final Cover for Missoula Landfill

By Craig H. Benson
Wisconsin Distinguished Professor and Director of Sustainability Research and Education
University of Wisconsin-Madison

Republic Services Inc. and the University of Wisconsin-Madison have been collaborating on a water balance final cover (also known as an "evapotranspirative" or ET cover) for the Missoula Landfill. The earthen water balance cover for Missoula Landfill is intended to provide equivalent performance as the conventional cover prescribed for the landfill per RCRA Subtitle D without the use of geosynthetics or compacted clay barriers. The intent is to create a cover design that mimics hydrologic processes in the landscape and therefore is harmonious with the natural surroundings. The water balance cover technology takes advantage of the soils, vegetation, and climate in western Montana, which are ideally suited for managing infiltrating precipitation near the surface without deep drainage.

The water balance cover is a more sustainable option, as natural materials are used for construction; energy, transportation costs, and greenhouse gas emissions associated with cover construction are lower than those for a conventional RCRA Subtitle D cover; specialty contractors are not required, allowing the local workforce to construct the cover; and long-term maintenance requirements are lower. Because the cover is intended to fit into the natural surroundings, the performance improves over time until it matches the surroundings. In contrast, a conventional Subtitle D cover is continuously fighting natural processes, and therefore degrades over time with the potential for diminishing performance.

The water balance cover at Missoula Landfill was designed following guidance developed through the US Environmental Protection Agency's Alternative Cover Assessment Program, or ACAP. The project began by benchmarking the climate, soils, and vegetation at Missoula Landfill relative to other past water balance cover demonstrations conducted by ACAP near Polson and Helena, Montana, which were highly successful. Benchmarking showed that the conditions in Missoula are even more favorable than those in Polson and Helena, suggesting that a water balance cover in Missoula will be successful.

The benchmarking exercise was followed by soil and vegetation resource evaluations and water balance cover design following the ACAP methodology. The cover was designed to transmit no more than 3 mm/yr of percolation under the wettest 10-yr period in the existing meteorological record, which resulted in a 1.2-m-thick (4 ft) "storage layer" comprised of silty and clayey sand to store infiltrating precipitation for later evapotranspiration, overlain by a 150-mm-thick (6 inch) top soil layer, and local grasses as vegetation.

Perimeter of Test Section at the Missoula Landfill

A test section, including an ACAP-style lysimeter, was constructed at Missoula Landfill in Fall 2011 to demonstrate the effectiveness of the water balance cover at field scale. The storage layer was constructed from soils on site that would be used for construction of full-scale cover and overlain by topsoil stripped from an area on site. Vegetation was established from the natural seed bank in the topsoil using a "live haul" approach.

Monitoring conducted since 2011 has shown that the cover is very effective at controlling percolation, with the percolation rate consistently below the 3-mm/yr target. The vegetation has flourished with the live haul strategy. Nearly complete coverage has been achieved in three years, with annual fall fertilization the only activity undertaken to promote vegetative growth. Plans are currently in place to deploy the water balance cover at the landfill in 2015 or 2016.

Questions regarding the project can be directed to Craig Benson at chbenson@wisc.edu or 608-262-7242.

Asphalt Recycling?

By Fred Collins

When we think of recycling, a list of typical items comes to mind. Soda cans, plastic, glass, paper and metal. However, which do you think is the most recycled product in America? Surprise! None of these products. In fact, the Environmental Protection Agency and the Federal Highway Administration declared ***asphalt*** America's Number 1 recycled product in a report to Congress in years as early as 1993.

Asphalt can contain waste materials ranging from ground tire rubber and glass to pig manure. Reclaimed asphalt pavement (RAP) and reclaimed asphalt shingles (RAS) are the two most widely-used materials when recycling asphalt.

In order for asphalt recycling to be successful and reasonable, three things need to be present:

- Cost-effectiveness,
- Environmental responsibility, and
- Good performance.

Once these three conditions have been met, the process can move forward.

There are many benefits to using RAP and RAS for the production of new asphalt. When RAP and RAS are used to make new asphalt mixtures, the liquid asphalt binders that were present in its original production are then reactivated. This reactivation of the binder alleviates the need for new asphalt binder production. Furthermore, the use of the reclaimed pavement and shingles reduces the demand for aggregate sources, like sand and gravel. Warm-mix asphalt (WMA) technology is a pavement production process that allows for the mixing and placement of asphalt at lower temperatures. This technology reduces paving costs, lowers energy demands, and lowers emissions during production and paving. By utilizing all of these forms of recycling and production, we are able to be more environmentally and economically efficient when constructing and reconstructing our road systems.

In 2012 alone, 68.3 million tons of RAP and 1.86 million tons of RAS were used in pavement production, a 22% and 95% increase respectively from 2009's usage. An impressive 99% of RAP from roads was used to produce new pavement, which means that 99% of RAP was not being put into landfills. That is awesome! RAS is used in 37 states; Montana, unfortunately, is not one of them. However, the usage of RAP and RAS in new pavement production has saved taxpayers upwards of $2.2 billion.

RAP processing and fine and coarse aggregate stockpiles at an asphalt concrete production plant - photo courtesy US DOT website

In Montana specifically, although the use of RAS hasn't been reported, RAP and WMA both have made a presence in pavement production. In 2012, Montana reported 48,221 tons of RAP was used for WMA production. Moreover, there is a reported 506,559 tons of total asphalt that was produced using WMA technology. Of all companies that reported asphalt usage, 75% of them use RAP.

Now, when you are driving through a construction site and see a big pile of asphalt, you no longer have to wonder what they are going to do with it. More than likely, they will put it right back under your tires.

NEW Recycling Collection Facility License Application

There is a new, simplified license application for a recycling facility. The streamlined application will be quicker and easier to complete. The application is available on the DEQ Solid Waste website:
www.deq.mt.gov/solidwaste/recyclingfacility.mcpx

Safelite Recycles 1 Million Windshields

Environmental Leader, March 2014

Safelite AutoGlass recycled more than 1 million windshields in 2013, saving tons of waste from landfills.

Windshields are not easily recycled because they are made from laminated glass. A clear resin interlay of poly-vinyl butyral (PVB) is placed between two sheets of glass, making separation difficult, according to the company. Safelite adds the logistics of returning windshields to a recycling plant are challenging.

Safelite AutoGlass implemented its windshield recycling program in 2012 in a partnership with Shark Glass Recycling North America. The laminated glass from Safelite's customers is processed through the crusher, which separates the glass from PVB. Approximately 90 percent becomes "glass cullet," which can then be recycled into a number of new products including fiberglass insulation, while approximately 7 percent becomes PVB scrap. That is reprocessed into pellets and recycled into a number of new products, such as carpet backing, paint and primer, and other plastic products.

Safelite currently has 70 percent of its locations returning damaged windshields and hopes to reach 100 percent in the near future.

Pacific Steel and Recycling Shredder

By Kirby Farner, Pacific Steel and Recycling

Montana's largest recycling shredder is humming along as it approaches its second year of operation. The 30 million dollar, 3000 horsepower Lockwood, MT facility has been salvaging light gauge, co-mingled metal materials *(less than ½ inch thick)* since its commissioning in October, 2013.

"Materials that were previously landfilled (autos, appliances, metal roofing/siding, lawn mowers, swing sets etc.) can now be recycled," says Pacific Steel and Recycling *(PS&R)* Manager, Tyler Colling. "And, like never before, we're recovering Montana products in Montana."

For example, in the past 30 days, the state-licensed facility has processed over 1,200 tons of junk/abandoned vehicles. A portion of which has been in association with the Montana Department of Environmental Quality Motor Vehicle Graveyard Recycling Project .

PS&R Vice-President of Ferrous Processing and Trading Ken Halko says the facility offers an opportunity to clean up county hillsides and coulees throughout the state. "We appreciate synergetic relationships that have been developed with Montana's solid waste managers in this process."

Consequently, diversion from Montana's county waste collection centers has become significant and sustainable. Remarkably, the facility is running at or near a seventy-five percent reclamation rate for bulky products. The remaining residue (i.e. shredded plastics, textiles, etc.) is properly disposed of at the Billings' Regional Landfill.

PS&R is pleased to provide new service or additional collection bins to Montana solid waste managers where needed. Contact Tom Miller, Accounts Specialist, at 406.670.8229 or visit the following company website for regional contact/support: www.pacific-steel.com

Take Advantage of the Safety Training DVD Loan Program

The Solid Waste Program has a SAFETY TRAINING DVD Library for licensed facilities. These DVD's were developed by Blue Ridge Services. To borrow any of the DVDs for your safety meetings, call 406-444-5300 or e-mail wutbcomments@mt.gov. The DVD(s) will be mailed to you along with a return envelope. The DVDs are loaned out for two weeks at a time.

LF-05	Working in Dusty Conditions
LF-06	Traffic Safety/Road Design
LF-13	Working in Extreme Weather - Hot
LF-14	Preventing Landfill Fires
LF-21	Extreme Conditions - Cold/Rain/Wet
LF-41	Methane Gas Safety
LF-47	Slope Stability - Excavation Slopes
LF-55	Leachate Management & Handling
LF-70	Landfill Odors: Safety Issues
TS-01	The Basics of Transfer Station Safety
TS-03	Equipment Safety - General Issues
TS-06	Bloodborne Pathogens
TS-28	Dealing With Unruly Customers

To borrow a DVD, contact Janet Handy – jhandy@mt.gov or 406-444-3463

Safety Fest Montana

The first SafetyFestMT was held in Helena in March 2010. It was a huge success. Hundreds of Montana workers from a variety of industries attended. They raved about the classes, speakers and quality of information. And, most importantly, they became safety aware.

Now, we're taking SafetyFestMT on the road so that Montanans from east to west and north to south can attend. Sessions are free to any Montana worker and cover a variety of safety topics from broad issues like creating a culture of safety in your company to OSHA-authorized training on confined spaces, fall protection, and much, much more.

We encourage you, whether you work in the trades, on a farm, or at the office, to attend an upcoming event in your area. Upcoming SafetyFestMT:

August 12-14, 2014	Havre
January 12-16, 2015	Kalispell

For more information visit http://www.safetyfestmt.com/

Don't Limit Your Challenges... Challenge Your Limits.

- Anonymous

Newsletter Contact: - Kathy O'Hern

Send your questions or submissions for upcoming issues to: kohern@mt.gov, 406-444-9879

Next SWAC Meeting

The next Solid Waste Advisory Council meeting will be held Thursday, October 9, 2014, in the DEQ Metcalf Building, Room 111. Plan to attend and learn more about what's happening in Montana's solid waste world. If you have agenda items for the fall meeting, let Rick Thompson know.

The first person to correctly identify the location of this dumpster will win a DEQ baseball cap.

Call Kathy at 406-444-9879 with your answer.