



# Montana Solid Waste News

Winter 2013



## THE END OF THE WORLD

The world was supposed to end on December 21, 2012 – remember? Various news articles and stories described people who were freaked out, unable to eat or sleep, nervous wrecks, even suicidal as they thought about December 21, 2012. People spent their life savings, stopped paying bills, and did other things they normally wouldn't do – because the world was going to end, so why not!

But, apparently, the Mayan calendar simply ran out on December 21, 2012. Kind of like our calendar ran out on December 31, 2012. Yes, we made it to 2013.

Now that we're still here in 2013 – what to do? For many of us it's time to continue with our chosen career path in the solid waste field. And working in solid waste means that, while doing our jobs, we are also protecting Montana's environment. Let's keep Montana a great place to live and raise our families, in!

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## **THAT BIG BOOM? MISSOULA LANDFILL DETONATES DYNAMITE FOUND IN GARBAGE**

November 24, 2012, Gwen Florio, *The Missoulian*

A loud blast that rattled windows and nerves across Missoula mid-Saturday morning was due to the detonation of some dynamite found Friday night at the Allied Waste landfill. Landfill operations manager Jim Keeney said workers spotted “a few sticks” of dynamite when garbage was being pushed out of one of the trucks Friday evening.

“They just happened to see it,” he said.

The landfill notified the Missoula County Sheriff’s Office, which dealt with the dynamite, Sheriff’s Detective Jason Johnson said in a telephone interview Saturday. “We do it fairly routinely when people find dynamite in various places, such as old barns,” he said. “We come out and safely collect it and take it to our site and detonate it safely.”

This time, though, explosives experts determined it was safer to blow it up at the landfill, Johnson said. “Some explosions are louder than others and many go unnoticed,” he wrote in a note on the incident posted Saturday on the Sheriff’s Department Facebook page.

That wasn’t the case Saturday morning.

As soon as the 9:50 a.m. blast sounded, Missoula residents lit up social media sites, reporting that

they’d felt or heard it in the Rattlesnake, the University District, up Pattee Canyon and on Mullan Road, among others. People speculated about earthquakes and sonic booms. “Felt like a boulder hit the side of my house,” one posted. “Everything in my house was shaking!!! Home alone and terrified!” another wrote.

Dogs went nuts, people reported. “Mine won’t go outside,” one person posted.

The blast probably sounded extra loud because the sound ricocheted off the North Hills back toward town, said Keeney, who has experience working with dynamite. Residents requested some notice the next time a detonation is planned. “It would have been no big deal if there had been advance warning,” a woman wrote.

But Johnson said such notice carries its own risk. “The concern is that this will draw people to the location, placing them in danger,” he wrote in the Facebook post. Johnson noted that it’s illegal to throw away dynamite and other explosives with the regular trash.

Anyone needing to get rid of explosives should call the Sheriff’s Department at 258-4810, or 9-1-1, and the explosives team will be dispatched, he said.

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## **PHOTOS TAKEN AT THE SHAMMATTAWA DUMP IN MANITOBA, CANADA**



**Hmmm, looks like a comfortable place to sit! Now where’s the TV?**

*Photos submitted by Sherrel Rhys, Lewis & Clark County Landfill*

**SOLID WASTE TRAINING****Coping with Personnel, the Public, and the Generation Gap in the Workplace****March 13-14, 2013****Comfort Suites of Helena****AGENDA:****March 13, 2013**

8:00am – noon

**Coping with the Angry Public***Jane Rhodes and Chance Eaton*

Learn strategies to evaluate the situation, deal with anger, communicate through the conflict, and think on your feet.

***Lunch on your own***

1:00pm – 5:00pm

**Managing Conflict***Jane Rhodes and Chance Eaton*

Conflict is inevitable. Learn skills to identify and resolve conflict.

**To Register:**

Go to the Solid Waste Program's Training Page:

<http://www.deq.mt.gov/solidwaste/training.mcpx>

Click on the "Start Registration" link, click on "Start" and

**March 14, 2013**

8:00 am - noon

**Discipline and Documentation***John Moore*

Discipline is often necessary in the workplace. Learn to define "discipline", document behaviors, and skills to carry out a disciplinary process.

***Lunch provided***

1:00pm – 3:00pm

**Generations at Work***Jane Rhodes and Chance Eaton*

There are four generations in the workplace today. Learn the characteristics of each generation, how this affects the workplace, and how to better communicate.

**Manager of Landfill Operations - MOLO****April 23-26, 2013****Butte La Quinta**

The Manager of Landfill Operations course provides a comprehensive study of efficient landfill operations, including site design, compliance with regulations, and issues to consider when planning, operating, and closing landfills.

Registration will be available on March 15, 2013, and will be capped at 20 students.

**Asbestos, Meth, and Debris Management at Solid Waste Facilities****May 15-16, 2013****Missoula Best Western Grant Creek Inn**

Asbestos and Meth residuals present a special challenge to solid waste disposal. Learn strategies to identify these special wastes and dispose of them appropriately.

How do you plan for disposing debris associated with catastrophic disaster? Develop a plan based on your community and potential debris-generating threats, both natural and man-made.

Registration will be available on April 12, 2013.

## PROFITS UNDER THE ADC

*Abridged version of article written by Daniel P. Duffy  
MSW Management, September/October 2012*

Landfills are a unique business that require exceptionally high up front capital costs to begin operations. Then, once its capital infrastructure is in place, the costs associated with the operating of the landfill are relatively small on a per-ton-of-waste-received basis.

### **Minimizing Volume and Saving Costs**

These high capital costs and low operating costs combine to create a unique business model. Overall profitability depends on the ratio of disposal airspace to landfill footprint area. Simply put, the more waste that can be crammed into an acre of landfill, the greater profit the landfill operator will achieve.

There are two ways to increase the amount of waste disposed of in each available cubic yard of airspace. The first is to compact the deposited waste into as small a volume as possible, increasing its in-place density as much as possible.

The second way is to minimize the amount of airspace that is not used by disposed waste. Not every cubic yard of airspace, even in the most efficiently run landfill, is used for waste. All states require the use of daily and intermediate cover to overlay deposited waste. This requirement for daily cover application is rooted in Subtitle D of the Resource Conservation and Recovery Act (RCRA). Specifically, the regulation required by RCRA are given in Title 40 of the Code of Federal regulations, 40 CFR—"Protection of Environment," Chapter I—Environmental Protection Agency, Subchapter I—Solid Wastes, Parts 239 through 282. The regulation mandating the use of daily cover is found in Part 258, Subpart 21: *Part 258.21 Cover Material Requirement*

- *Except as provided in paragraph (b) of this section, the owners or operators of all MSWLF units must cover disposed solid waste with six inches of earthen material at the end of each operating day, or at more frequent intervals if necessary, to control disease vectors, fires, odors, blowing litter, and scavenging.*
- *Alternative materials of an alternative thickness (other than at least 6 inches of earthen material) may be approved by the Director of an approved State if the owner or operator demonstrates that the alternative material and thickness control disease vectors, fires, odors, blowing litter, and scavenging without presenting a threat to human health and the environment.*

(See sidebar for Montana daily cover and ADC rules)

Daily cover must be applied to all exposed waste by the end of the working day. Daily cover material cannot be organic and putrescible, cannot consist of large objects that would interfere with coverage and application, and cannot be municipal solid waste or any other kind of waste unless approval is granted by state regulators.

### **Why Use ADC?**

Over the operational lifetime of a landfill, the amount of airspace given over to standard earthen daily cover can be significant, as high as 10% to 20% of the landfill's overall airspace. By not utilizing the standard daily cover of 6 inches of earthen material spread out over the current workface, the effective disposal volume of the landfill can be increase proportionally. Not using standard earthen daily cover extends the lifetime of the current disposal cell and the landfill as a whole. This can provide an indirect benefit of delaying the additional capital costs of subsequent cell construction and final cover installation.

#### **Montana daily cover rules are found in ARM Chapter 50, Subchapter 5:**

**17.50.1104 COVER MATERIAL REQUIREMENTS** (1) Except as provided in (2), the owner or operator of a Class II landfill unit shall cover disposed solid waste with six inches of earthen material at the end of each operating day, or at more frequent intervals if necessary, to control disease vectors, fires, odors, blowing litter, and scavenging.

(2) The owner or operator shall submit for departmental approval procedures for use of any alternative daily cover materials and include those procedures in the operation and maintenance plan required in ARM 17.50.508 and 17.50.509. The following criteria also apply:

(a) the procedures for the use of alternative daily cover materials must provide for the application of six inches of approved cover soil at least once per week;

(b) the owner or operator shall demonstrate in the operation and maintenance plan that the material used in, and the thickness of, the alternative daily cover will control disease vectors, fires, odors, blowing litter, and scavenging, and minimize leachate without presenting a threat to human health or the environment; and

(c) the owner or operator of a Class II landfill unit for which some portion will not receive additional waste within 90 days shall place on that portion an intermediate cover of at least one foot of approved cover soil, unless the owner or operator has submitted for department approval a demonstration that there is good cause for not covering.

*Continued - Profits Under the ADC*

It is paragraph 2 of Subpart 21 that allows for the use of alternate forms of daily cover in terms of alternate materials and alternate thicknesses—provided the operator can show the proposed alternate daily cover (ADC) meets the performance requirements of standard earthen cover in terms of controlling “disease vectors, fires, odors, blowing litter, and scavenging” and as long as the proposed ADC poses no threat to human health or the environment. In other words, ADC must provide complete coverage over the workface without allowing waste to protrude to the surface, be nonflammable, adhere to the waste surface so that neither itself nor the waste it is covering could form windblown dust or litter, keep out disease vectors and scavengers (such as rats, birds, insects), and contain odors generated by the waste without generating odors itself.

### **ADC Materials: Types and Standards**

Approval may be granted to inorganic waste such as industrial or residual waste of varying thicknesses, provided the waste meets the performance characteristics of 6 inches of soil cover. Examples of wastes used as ADC include contaminated soil, foundry sand, coal combustion bottom ash, slag, and certain industrial residuals such as filter cakes. Unsuitable alternate daily cover materials include dusty material that can easily become dried out and pose a windblown dust hazard.

Also usually considered unsuitable for alternate daily cover materials are tires or tire chips (due to potential fire hazard), fly ash (which poses a blown dust hazard), automobile recycling fluff (possessing contaminants such as asbestos, polychlorinated biphenyls, and mercury), construction-and-demolition debris fines (blown dust and asbestos fibers).

Unsuitable conditions may also inhibit or hinder the use of ADC. For example, most ADCs have restrictions placed on their use by extreme weather conditions, such as high winds, heavy rain, hail storms, freezing temperatures, or any combination of these. Spray foams can be blown away from the working face, and tarps can be torn by high winds. Such practical limitations may also become part of a permit requirement should the state regulator become involved in the decision to allow the use of ADC.

By definition, ADC only has to last 24 hours. Foams, for example, can last only a few hours depending on their type and application. Heavy (40-mil and thicker) high-density polyethylene (HDPE) geomembranes used as tarps can last for months with constant reuse each day. For these reasons, certain types of ADC may have their use limited both in area and duration. Waste surface exposed for more than 30 days would have to receive intermediate cover (usually defined as 12 inches of soil cover).

### **Commercial Availability**

Far more practical, and usually more easily available, are commercially available products specifically designed for alternate daily cover applications. These include foam, spray-on slurry, reusable geosynthetics, and non-reusable geosynthetics.

Read complete article at <http://www.mswmanagement.com/MSW/Articles/18131.aspx?page=1>



## *Did you know...*

That recycling junk vehicles saves an estimated 85 million barrels of oil per year!

*From “Facts about the North American Automotive Recycling Industry”*

## HOUSEHOLD RX WASTE DISPOSAL

Does your landfill and/or community need guidance about the disposal of waste household pharmaceuticals? This includes leftover or out-of-date prescription drugs, and non-prescription medications. This does not address the requirements for doctor offices, medical clinics, veterinary clinics, hospitals or care facilities.

The old recommendation of flushing pharmaceuticals down the toilet is the least desirable alternative for the disposal of leftover or outdated medications. Wastewater treatment plants and septic systems are not designed to treat pharmaceutical waste. Recent research has demonstrated that pharmaceuticals exist in the environment as a result of improper disposal of unused medicines and because they are excreted by the person using the medicines. So, don't flush your waste medications unless the product label or accompanying patient information specifically instructs you to flush the medication down the toilet or drain.

Instead, your community members should follow these guidelines:

- Reduce pharmaceutical waste when possible by purchasing only as much can reasonably expected to be used before the expiration date.
- Ask your health care provider or local pharmacist if they offer disposal or if a drug take-back or collection program is available in your community.
- If a drug take-back or collection program is not available:
  - Take your prescription drugs out of their original containers.
  - Conceal or remove any personal information from the original medicine container, including the prescription number, by covering the label with duct tape, black permanent marker, or by scratching it off.
  - Mix drugs with an undesirable substance, such as used cat litter or used coffee grounds.
  - Put this mixture into a disposable container, such as an empty margarine tub or a sealable plastic bag. Place the sealed container with the mixture and the empty drug container in the trash.

Questions? Contact the DEQ Solid Waste Program at 406-444-5300

## HEAVY EQUIPMENT MAINTENANCE INSPECTIONS

Heavy equipment preventive maintenance inspections are important! A maintenance checklist comes with purchased equipment and should not be ignored.

Each maintenance inspection records the date of the inspection, the time, and the name of the inspector. This is not only required for record keeping purposes, but also to enable the maintenance mechanic or repair person to later ask that specific inspector questions about the faults found during the inspection.

Most inspection checklists are broken up into a variety of sections. The sections might include what should be inspected from the ground, in the engine compartment, in the cab, etc.

A safety equipment section will document the operational readiness of the safety equipment such as fire extinguishers and warning lights/sounds.

Each section is usually broken down further into categories. One category will be a list of parts or items to inspect, another category will list the things to look for when inspecting individual items or parts, and the last category should have a space for additional comments or problems found during the inspection.

These categories clarify exactly what requires attention or repair for the mechanic.

Heavy equipment is a major investment for any solid waste facility. Regular preventive maintenance can extend the life of your equipment, and save your facility money in the long run.

### **Safety DVD Lending Library**

Fourteen Landfill and Transfer Station Safety DVD's, by Neal Bolton of Blue Ridge Services, are available for checkout from the Solid Waste Program. See available topics at this website: <http://www.deq.mt.gov/solidwaste/training.mcp>

DVD's are loaned out for fifteen days. To borrow a DVD, contact Janet Handy – [jhandy@mt.gov](mailto:jhandy@mt.gov) or 406-444-3463

## SOLID WASTE INDUSTRY NEWS

### EPA Supports Residue Plastics Recycling

*Recycling Today Staff  
January 31, 2013*

The U.S. Environmental Protection Agency (EPA) has closed comments on its interpretation of polychlorinated biphenyl (PCB) regulations under the Toxic Substances Control Act (TSCA). After what it calls significant research, the EPA is considering supporting the recycling of plastics separated from automobile shredder residue (ASR).

On Dec. 12, 2012, the EPA announced a public comment period on the agency's interpretation. The agency's position is that recycling material that would otherwise become waste can generate a host of environmental and economic benefits while protecting people's health.

The issue of recycling plastics from ASR began when the EPA was approached by the Institute of Scrap Recycling Industries Inc. (ISRI), Washington, regarding the separation, recycling, use and distribution of recycled plastics from shredder residue recovered from metals recycling facilities.

In a February 24, 2011, letter, ISRI requested "written confirmation that separating plastics from ASR aggregate for use and distribution in commerce, using processes that reduce any PCBs that may be present to a level at or below which there is no unreasonable risk, is authorized" under regulations promulgated pursuant to TSCA analysis shows that the separation, recycling, distribution in commerce, and reuse of plastics from shredder aggregate is consistent with existing authorizations that allow the use and distribution in commerce of products that contain low levels of PCBs, including provisions for "excluded PCB products" and "excluded PCB manufacturing processes."

According to ISRI, of the 1 to 2 million tons of plastic that are generated annually in ASR, most could be separated and recycled rather than disposed using novel technologies. ISRI further delineates that the most common automotive plastic resin categories

are polypropylene (PP), polyethylene (PET), polyurethane and polyvinyl chloride (PVC). ISRI also mentions acrylonitrile butadiene styrene (ABS) and high-impact polystyrene (HIPS) as additional types of automotive plastics found in ASR.



Typically, the burden of demonstrating that a regulatory exclusion applies rests with the party seeking that exclusion. EPA believes that, for shredders and their suppliers that follow the Voluntary Procedures document, it is appropriate to generally treat the feedstock as consisting of excluded PCB products unless there is information specifically indicating that the feedstock does not qualify. If shredders and suppliers do not follow the voluntary procedures, they will need to be able to otherwise demonstrate that the feedstock and residue meet the exclusion.

EPA has concluded that the costs associated with the strict prohibition on PCB activities are large and outweigh the risks posed by these activities.



## STRANDED 25 FEET UP -- IN A GARBAGE TRUCK

*John Campanelli, Waste & Recycling News*

It's not exactly a kitten in an oak tree, but firefighters in D.C. were called to a unique high-elevation rescue on Dec. 28.

Engine Company 22 and Truck Company 11 were summoned to D.C.'s Fort Totten Transfer Station after a garbage truck tipped on its rear, leaving the driver stranded 25 feet in the air. A series of photos showed how the firefighters were able to carefully stabilize the truck and rescue the driver.

They couldn't rescue him from the abuse he surely faced back at the garage.

## TAMPA, FLORIDA, METAL THEFTS DOWN 58% SINCE STRICTER LAWS ENACTED

*Kerri Jansen, Waste & Recycling News, January 2013*

Metal thefts in Tampa, Fla., have dropped significantly since July, when new, stricter scrap metal laws went into effect, ABC Action News reported.

In the nine months since the laws took effect, scrap metal thefts in the area have dropped from 406 to 169 compared to the same period last year, Det. Dan Hinsz from the Tampa Police Department told the news agency.

The new laws include proof of ownership requirements and allow police to charge suspected metal thieves and changes the way scrap dealers can pay sellers. Florida is one of several states to recently tighten scrap metal recycling rules.

## WALMART WORKS TO REDUCE LANDFILL USE

*Allan Gerlat, Waste Age, April 2012*

Wal-Mart Stores Inc. prevented 80.9 percent of the waste its operations generated in the United States from going to landfills, the retailer said in its latest sustainability report.

The Bentonville, Ark.-based Wal-Mart said in a news release that it achieved the reduction by implementing its Zero Waste Program, composed of recycling, donating and repurposing waste. The company said the energy saved through the program is the equivalent of taking more than two million cars off the road annually.

The company is making similar efforts globally. Wal-Mart's United Kingdom operator sends zero food waste to landfills, and Wal-Mart stores in China and Brazil diverted 52 percent of operational waste from disposal.

Zero waste is one of Wal-Mart's three primary sustainability goals. The other two are to use 100-percent renewable energy, and to sell products that sustain people and the environment.

## CHARLOTTE, N.C., AIRPORT ADDS WORM COMPOSTING TO RECYCLING EFFORTS

*Kerri Jansen, Waste & Recycling News, April 2012*

The Charlotte (N.C.) Douglas International Airport has added a vermicomposting system to its recycling center, the Charlotte Observer reported.

About 1.5 million red wiggler worms were brought in from Georgia and installed in the facility, which has reduced the trash sent to landfills by about 70% since it was conceived three years ago, according to officials. The worms chow down on travelers' food scraps as well as plant matter and other trash, and excrete nutrient-rich "castings," which the airport will use as fertilizer, the article indicates.

Aviation Director Jerry Orr told the news agency he expects the recycling center to generate enough money to cover its costs within five years.



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## TWO SOLID WASTE WORKERS KILLED IN SEPARATE INCIDENTS IN TEXAS

*Waste & Recycling News, February 11, 2013*

Two waste workers in Texas were killed on the job in separate incidents late last week.

On the afternoon of Feb. 7 at the North Texas Municipal Water District's landfill in Melissa, 20-year-old Shawn Roe was ejected from equipment he was operating and was killed. There are conflicting reports from local media: KXII-TV in Sherman, Texas, reported that Roe was driving a dump truck; the Herald Democrat newspaper reported that he was operating an excavator.

"There's nothing suspicious here at all. The case right now is basically being investigated as an industrial accident," Melissa Police Capt. Kyle Babcock told KXII-TV. "We don't have any reason to believe that there was any type of foul play involved

and this was anything other at this point than a tragic accident."

Roe was working as a sub-contractor at the landfill and was employed by Hammett Excavation, according to the Herald Democrat.

Also on Feb. 7, in La Marque, Texas, a driver for Republic Services Inc. was run over by his own vehicle after officials believe he suffered a medical problem.

A local coroner said the man -- who was not identified -- exited his vehicle while holding his chest, The Associated Press reported. The man was then run over by his truck.



# Work Safely in 2013!

## SOUTH DAKOTA BILL WOULD MAKE DUMPING MEDICAL WASTE A CRIME

*Bob Mercer, Rapid City Journal, January 2013*

The House Health and Human Services Committee approved legislation Thursday that would impose a criminal penalty for negligently releasing medical waste to a recycling disposal destination. A violation would be a Class 2 misdemeanor punishable by up to 30 days in jail and a \$500 fine, or both.

Supporters testified that the danger occurs when workers are hand-sorting at a single-stream recycling center.

Shaun Feilmeier of Millennium Recycling in Sioux Falls testified by telephone and said that he has contacted local, state and federal authorities but no agency seems to be able to respond to his concerns about worker safety. "We found there's nothing we can do to protect our employees from potentially fatal injury," he said.

Sometimes the amounts have been large enough to link to a specific hauler and are traced back to the source, he said.

The legislation, HB1131, targets disposable equipment, instruments, utensils, human tissue, laboratory waste and blood specimens or other substances that could carry pathogenic organisms. The House panel voted 12-1 in favor and sent the measure to the full House of Representatives for consideration.

Rep. G. Mark Mickelson is the bill's prime sponsor. Mickelson, R-Sioux Falls, was supported by Tom Martinec, state deputy secretary of health, and by the South Dakota Association of Healthcare Organizations. Mickelson said state laws already regulate how medical waste should be disposed, but recycling centers aren't covered. "This needs to be clarified as we become more of a recycling society," Rep. Melissa Magstadt, R-Watertown, said. "I think most people do this (correctly), but obviously some people don't."



**MOUNT TRUCKMORE – highlighting 4 of the most respected hauling trucks to date.**

*Courtesy Waste & Recycling News, February 12, 2013*

**Most of the shadows of this life are caused by our standing in our own sunshine.**

- Ralph Waldo Emerson

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