

October 2008

Recycling Rate of Used Oil Filters and Absorbents a Concern in Wisconsin

Adam Snippen, research assistant, and John Katers

In 2003, the Wisconsin Department of Commerce appointed the Oil Absorbent Materials Committee to gather data, set recycling goals, and set deadlines and measures for achieving such goals regarding the recycling rate of used oil filters and absorbents in Wisconsin.



After conducting a survey of used oil filter and absorbent recyclers in Wisconsin in 2005, the committee found that of the 11.4 million oil filters sold annually in Wisconsin approximately 27% were being recycled after use, resulting in 840,000 to 880,000 gallons of used oil being released annually into Wisconsin landfills with these filters. The committee also concluded that 53.3 million pounds of oil-absorbent materials were disposed of annually in Wisconsin resulting in the release of millions of gallons of used oil into our landfills. Oddly enough, disposal of free flowing oil in Wisconsin landfills has been banned since 1991 under the state recycling law.

The Oil Absorbent Materials Committee recommended that a recycling goal of 60% be established for used oil filters by July 1, 2008, and if that goal was not met, a total landfill ban from both commercial and residential generators of oil filters should be enacted. Similar provisions were also recommended for oil absorbent materials, although at lower recycling goals.

During the summer of 2008, the University of Wisconsin-Green Bay conducted a follow up survey of 26 commercial and municipal collectors of used oil filters and absorbents in Wisconsin. The purpose of the study was to assess whether the recycling goals set by the Oil Absorbent Materials committee had been met. The results show that the recycling rate of used oil filters in 2007 had decreased to approximately 20%. The recycling rate of oil absorbents rose slightly, yet approximately 53 million pounds of absorbents were sent to Wisconsin landfills in 2007. The results of this follow-up survey indicated that recycling rates of these materials has not improved and the Wisconsin state legislature is yet to make a move toward solving this issue.

With the recent increase in oil prices and the subsequent increase in the profitability of reprocessing used oil, some U.S. states are passing legislation to ban used oil filters from their landfills. In April of this year, the Iowa State Legislature unanimously passed H.F. 2668; a bill enacting a statewide landfill ban of used oil filters as of July 1, 2008. North Carolina is also preparing for a state landfill ban of used oil filters set to begin in 2009.

In the absence of state regulation of used oil filters and absorbents in Wisconsin, the US EPA recommendation of voluntary recycling of these materials does not appear to be effective in preventing the disposal of waste oil in our landfills. Even if proper hot draining and crushing or dismantling of the used oil filters and recycling of the free flowing oil is being practiced by some generators, there is a potential loss of resources including oil and steel s from those filters that are not recycled. Similarly, a significant amount of potentially recoverable oil enters landfills from absorbent materials.

Enforcement Advisory on Outdoor Wood Fired Boilers

David S. Liebl

The time of the year is here when outdoor wood-fired boiler (OWB) owners begin preparing their units for the long Wisconsin heating season. Based on previous years, when the cost of natural gas and heating oil goes up, so does the demand for alternative, less expensive ways of heating homes and businesses. By the end of September, many OWBs will begin operating, shutting down again the following April.

Because of the ready availability of wood, OWBs are becoming more common, particularly in rural areas. OWBs have several attractive features compared to indoor wood stoves. For example, they place the fire hazard and wood handling away from the house. However, the smoke emissions from improperly operated OWBs can create a public health nuisance and in many cases a health hazard for downwind neighbors.

With the increasing reliance on OWBs as an alternative heating source, there has been a corresponding increase in the number of smoke exposure complaints, usually associated with an OWB being improperly located and/or operated. The Wisconsin Department of Health Services (DHS) has accumulated historical air monitoring data for smoke particulates (PM_{2.5}) related to OWB emissions. In each case, when a visible smoke plume impacts on a neighboring house/property, US Environmental Protection Agency (EPA) PM 2.5 health standards have been exceeded.

Strong smoke odors along with the visible plume indicate the presence of a variety of irritating chemicals normally found in wood smoke. Typically, there are one or more individuals experiencing adverse health effects, i.e., respiratory irritation, sinus issues, headaches, etc. DHS believes that a "cause and effect" relationship has been established between OWB emissions and adverse health effects for downwind neighbors, and that air monitoring is not essential to establish exposure and health impact. If there are visible emissions and odors at a neighboring residence(s), there is a completed exposure pathway and the potential for adverse health effects.

Local health officials who are called in on smoke exposure complaints can take several preliminary steps: 1) meeting with the OWB operator to discuss the exposure problem, 2) review wood-burning practices with the operator, 3) check for proper stack height to allow smoke to clear neighboring homes. If additional legal action becomes necessary when efforts at voluntary compliance are not successful, DHS has developed a model enforcement letter. If the community has an existing OWB ordinance, it will be much easier to prepare the enforcement letter by quoting the sections of the ordinance that are being violated in the letter. Additional emphasis can be added by referring to the Wisconsin Environmental Health Statutes, Chapter 254.

More Information on OWBs

The Wisconsin Department of Health Services and Department of Natural Resources (DNR) encourage communities to develop a local ordinance prescribing whether OWBs are allowed and, if allowed, details on location, stack height, operation and other factors to prevent neighbors from being exposed to smoke. Having an ordinance in place is the best way to protect the public from smoke exposure issues related to OWBs. Creating and adopting such an ordinance often requires cooperation between townships, boards of health and city councils or county boards. You can find the DNR model ordinance at <http://dnr.wi.gov/environmentprotect/ob/modelOrdinance.htm> or contact DHS for copies of municipal ordinances that are on file.

US-EPA has a voluntary "Orange Tag" program that OWB manufacturers can join, to "improve air quality through developing and distributing cleaner, more efficient outdoor wood-fired hydronic heaters." Some OWB manufacturers have joined this program and are making more efficient OWBs, though many have not. So, while a few models of next generation OWBs are available that are more efficient and produce less smoke, emissions are still a concern from OWBs already in operation that are not part of any program. You can find more information on EPA's "Orange Tag Program" at <http://www.epa.gov/woodheaters/>



It remains imperative that all OWBs be properly located and operated. OWB installation and operation guidelines are available from the Hearth, Patio and Barbecue Association, and the Outdoor Furnace Manufacturers Caucus. Dealers and installers should be using these guidelines as minimum requirements for the installation and operation of OWBs. See:

http://www.hpba.org/fileadmin/PDFs/Tier_IV_Outdoor_Wood_Furnace_Best_Burn_Practices_-_MH1.pdf

For a copy of the model enforcement letter, or for other questions about OWBs and health, please contact Rob Thiboldeaux at 608-267-6844, Robert.Thiboldeaux@wi.gov; or Bill Otto at 608-266-9337, William.Otto@wi.gov

There is additional information on OWBs at the DHS website:

<http://dhfs.wisconsin.gov/eh/HlthHaz/fs/waterstoves.htm>

Pharmaceutical Waste Update

Steve Brachman

2008 is proving to be a banner year for consumer-based pharmaceutical waste collections. A recent analysis of one-day collections, ongoing collection events, and a mail-back pilot program documents that Wisconsin is one of the leaders around the country in addressing this issue. Here are some of the highlights found from this analysis:

- over 60 events have been held so far this year in Wisconsin, with several more planned through the end of the year;
- although all data is not in, over 6 tons of old medicines have been collected; and
- one event alone in Brown County netted over 1 million pills in a single day.



A number of innovative pilot efforts have sprung up in addition to the typical one-day collection events. For example, Marshfield has established a permanent drop-off at a local police station. La Crosse County is providing disposal services to a number of communities in its geographic area at a very reasonable cost. And Waukesha and Winnebago counties are currently testing a mail-back pilot which has been operating for approximately 5 months in these two counties.

The mail-back pilot is modeled after typical pharmaceuticals recall programs used by many manufacturers. In cooperation with Capital Returns, a reverse distributor located in Milwaukee, the UW Extension, Winnebago County, and Waukesha County collaborated to offer citizens an 800 call-in number and mail back system to safely dispose of unwanted medicines. Nearly 1,600 citizens responded in these two counties so far. Response from participating pharmacies, which supported this effort by posting posters and providing handouts to customers, has been encouraging. Although not every pharmacy chain participated in this program, there is indication that the pharmaceutical industry is taking notice and they may use this model as their initial effort at product stewardship for unused and unwanted consumer medicines.

Drug Collection Grants Offered

Counties and municipalities interested in state financial assistance for collections of unwanted drugs may go to the Wisconsin Department of Agriculture, Trade and Consumer Protection website at <http://cleansweep.wi.gov/> to download application materials. **Completed applications for 2009 grants must be returned electronically on or before Friday, October 24, 2008.**

Both traditional, on-site collection methods involving law enforcement and demonstration or innovative methods are eligible for funding. The maximum grant in a single application for individual governmental units has been set at \$4,500 and for multiple units at \$13,000. All traditional method applicants are required to use a shared witness burn program for controlled substance disposal.

Unwanted drug or medicine collection programs have become extremely popular over the past 18 months and the Department expects keen competition for available funds. Applicants with questions are encouraged to contact Roger Springman, Clean Sweep Program Manager, at 608-224-4545.

WH2E Takes Off

Steve Brachman

Strong turnout and innovative programming were the highlights of the September meeting of the Wisconsin Healthcare for a Healthy Environment (WH2E) network. With just one year under their belt, this fledgling organization is proving itself effective dealing with environmental issues facing the healthcare industry. Over 60 attendees attended the meeting at St. Mary's Hospital in Green Bay Wisconsin. Topics included the following:

- Amy Unrath, St. Mary's assistant administrator in charge of support services, welcomed the group and described the Saint Franciscan Sisters' efforts to provide a healthy environment for their patients. Holding a reverence for the earth is critical to the mission of St. Mary's and as a result, they are proven champions for a healthy environment in their facility. St. Mary's has not only improved the environmental performance of the hospital, but is working with the community to encourage adoption of healthy lifestyles.
- Joni Burns, section chief for the Wisconsin DNR hazardous waste section, described a new healthcare initiative being organized by the Wisconsin DNR. This effort focuses on improving both the hospitals' environmental compliance and their waste reduction activities. The DNR's healthcare initiative will include a number of new efforts including an expanded website with answers on issues important to healthcare providers; fact sheets with more detailed information on best management practices; and the development of a self audit tool, a user-friendly checklist which will help facility managers meet environmental compliance standards.
- Corrine Vercauteren, environmental manager for St. Mary's, provided an overview to the hospital's environmental initiatives. "Healing the Earth - One Hospital's Journey," described how St. Mary has implemented its award-winning environmental programs. This effort included a unique storm water management plan, mercury elimination, recycling seminars, donations of used equipment, and a variety of water and energy conservation approaches.
- SHWEC's summer student interns reported the results of their efforts in a Wisline web presentation. As described in last month's newsletter, the results were quite impressive in both waste reduced and money saved. The summer program will continue another year in 2009.
- Finally, Dean Kroll, director of plant operations at St. Mary's, explained how St. Mary's used The Leadership in Energy and Environmental Design (LEED) Green Building Rating System certification for their new atrium and construction projects. LEED strategies included such things as maximizing daylighting and views, native landscaping, use of recycled materials, and extensive on-site recycling and waste diversion.

Solar Decade Conference

Sherrie Gruder

Wisconsin's use of solar power has been growing by 80% per year since 2002. Between 2007 and 2008 installations are expected to grow by almost 400%. Solar market experts forecast that the price of solar power will equal the price of conventional power in about seven years in Wisconsin. And that is without subsidies. Solar power has truly explosive growth potential.



Join renowned industry experts as they discuss the benefits of solar energy for your home, business and career at the fourth annual Solar Decade Conference. The

Conference and expo will be held Thursday, October 23, 2008, 8:00AM -5:00 PM at the Midwest Airline Center in Milwaukee (400 W. Wisconsin Avenue, Milwaukee, WI 53202). There are optional workshops at the MATC Downtown Campus on Friday, October 24 for those interested in being trained to work in the field.

For more information and to register, visit: www.solardecade.com. To reach a person, contact Sue Loomans at Phone: 414-224-9422, Email: sueloomans@wgba.org. The conference is sponsored by WI Focus on Energy, Wisconsin Green Building Alliance and We Energies. Register by October 16 to receive the lowest registration fee.

Zero Energy Homes Grants in WPPI Territory

Wisconsin Public Power Inc. www.wppisys.org is soliciting competitive proposals for grants to help fund the construction of up to three net zero energy homes within their member electric utilities' service areas. WPPI has dubbed this initiative GreenMax Home and will use this term as a synonym for net zero energy home throughout this RFP.

A GreenMax Home is a home that has the potential to produce as much energy as it uses in a year. As part of WPPI's overall efforts to encourage public and community support for renewable energy, energy conservation and energy efficiency, the GreenMax Home program will help customers build highly efficient, environmentally friendly homes. Grants will be awarded to cover part of the incremental cost of designing and building a GreenMax Home over the cost of constructing a conventional Upper Midwest house. Incremental costs will include the design elements and technologies directly related to reducing energy use or producing energy through renewable resources. To the greatest extent possible, the energy consumption (heating, cooling and electrical) of the home will be provided by renewable energy sources.

The home designs and occupant lifestyles required to achieve net zero energy use must be replicable and appropriate for a mass market, community-based setting. The first WPPI GreenMax Home is now under construction in Black River Falls, WI. The home is anticipated to be the first practical production of a net zero energy home in the region that can be reasonably and affordably replicated in a cold climate region.

Proposals are due December 30, 2008 and require homes to be completed and occupied by December 30, 2009. For more information, visit www.greenmaxhome.com or contact WPPI Program Coordinator **Kurt Pulvermacher**.

Will Allen Named a MacArthur Fellow

John Katers



New Mexico Governor Bill Richardson, Mark Heffernan of CBT WearParts, Will Allen of Growing Power and Wisconsin Governor Doyle, as Will and Mark accept a grant from DATCP for research on anaerobic digestion of high solids food waste done in conjunction with UW-Green Bay.

produces vast amounts of food year-round at its main farming site, two acres of land located within Milwaukee's city limits.

Will Allen received a B.A. (1971) from the University of Miami. After a brief career in professional basketball and a number of years in corporate marketing at Proctor and Gamble, he returned to his roots as a farmer. He has served as the founder and CEO of Growing Power, in Milwaukee, Wisconsin, and has taught workshops to aspiring urban farmers across the United States and abroad.

More information on the MacArthur Foundation and the other MacArthur Fellows for 2008 can be found at www.macfound.org.

The MacArthur Foundation recently announced that Will Allen of Growing Power in Milwaukee, Wisconsin, was named as one of the 25 new MacArthur Fellows for 2008, which includes a "no strings attached" award of \$500,000 over the next five years. "The MacArthur Fellows Program celebrates extraordinarily creative individuals who inspire new heights in human achievement," said MacArthur President Jonathon Fanton.

In 1995, while assisting neighborhood children with a gardening project, Will Allen began developing the farming methods and educational programs that are now the hallmark of the non-profit organization Growing Power, which he directs and co-founded.

Allen's holistic farming model incorporates both cultivating foodstuffs and designing food distribution networks in an urban setting. Through a novel synthesis of a variety of low-cost farming technologies – including the use of raised beds, aquaculture, vermiculture, and heating greenhouses through composting – Growing Power

Building Communities: Focus on Sustainability Webinar Series

Please join UW-Extension for a webinar series on sustainability. You can access it from the convenience of your office or home, or save money and build community by viewing it with others at various County UW-Extension offices across the state. The 2008-09 Series is being co-sponsored by the UW-Extension Sustainability and Energy Teams and the Center for Community & Economic Development. Register for single programs or for the entire series at

http://www.uwex.edu/ces/cced/communities/Building_Community.cfm#Registration

October 21, 2008, 11:30-12:30PM, CT—***Setting the Stage: Sustainability and Sustainable Community Development***

While a growing number of community initiatives are emerging to address sustainability, there is often no clear understanding of how they can or should relate to each other. How does a community make the most strategic use of its limited resources? Where should it start? How does it compare the alternatives? What are the appropriate roles for the private and not-for-profit sectors? Communities need to build the capacity to understand and move toward sustainability on their own. This session will help frame these questions, offer a variety of approaches for communities to consider, and provide examples.

November 18, 2008, 11:30-12:30PM, CT—***Energy Efficiency***

In this time of record-high energy prices, recognition of the ties between national security and energy independence, and concerns about utility system reliability and global climate change, energy efficiency is a key approach among the remedies. But how does a local government or business act strategically to make the most of every Btu? This session will describe how to measure current energy use and to create an energy plan with the technologies, practices, programs and policies that maximize energy efficiency and cost savings.

December 16, 2008, 11:30-12:30PM, CT—***Renewable Energy***

Renewable energy is part of a strategic approach to energy that, in conjunction with energy efficiency and conservation, improves local resiliency. Renewable energy reduces carbon emissions, improves energy reliability, health and the environment, and may protect against escalating fuel costs. This webinar examines the renewable energy technologies available and how to choose the options best for your community or your site. Questions to be considered by the presenters include: Is it affordable? Who are the service providers in my area? How do I proceed? What renewable installations are already operating?

January 20, 2009, 11:30-12:30PM, CT—***Sustainability and Comprehensive Planning***

This webinar will focus on infusing sustainability concepts (the three E's of Economy, Environment and Equity and The Natural Step principles) into the elements of the comprehensive plan. How to create goals, objectives and policies that reflect sustainability will be discussed along with resources to assist with sustainability planning efforts.

February 17, 2009, 11:30-12:30PM, CT—***Sustainable Business Practices and Strategies***

Some businesses have embraced the idea of sustainability while others still reject it. Why have some companies resisted sustainability strategies? How can business leaders be persuaded to go further? What is the business case for sustainability? This session looks at how businesses can capture the opportunities associated with sustainability. It quantifies the benefits of business sustainability strategies and offers insights into how these advantages can be communicated to business leaders. Specific examples are used throughout the presentation.

March 17, 2009, 11:30-12:30PM, CT—***Green Collar Jobs: Sustainable Work in a Low Carbon World***

Will future jobs be increasingly "green?" If so, what makes a job or an industry green? Is a green job a good job? What constitutes this "green economy" that we hear so much about these days? This session explores the nature of green collar jobs and their implications for business and community development. It looks at links with environmental concerns, efficiency considerations, and workforce (and employment) development in terms of education and skills requirements.

April 21, 2009, 11:30-12:30PM, CT—***Local Food Networks: Food Localization as a Sustainability Strategy***

Localization strategies often characterize sustainability efforts. And nothing is more central to our lives than the food that we eat. Building a local sustainable food economy has implications related to local spending choices, nutrition and health, developing strong linkages between rural and urban areas, creating local jobs, land use patterns, and regenerating community. Learn about this rapidly growing sustainability strategy—through examples and best practices—and how it is helping to reshape our food system and our communities.

May 19, 2009, 11:30-12:30PM, CT—***Sustainability Indicators and Measurement***

It's one thing to pass a resolution to become a sustainable community or adopt a corporate sustainability policy and another to make steady progress toward that end. How do you gauge overall health and long-term sustainability? Sustainability indicators use data to measure that progress. The resulting information can be used to raise awareness about community health, the environment, social well being and economic development. Learn about an array of indicator models across the country and how they are used as a basis for further policy development, funding targets, and improved activities and strategies to promote sustainability.

June 16, 2009, 11:30-12:30PM, CT—**Community Organizing for Sustainability**

Where does a community start if it is interested in organizing for sustainability? Who takes the lead? What are the roles of local governments, local businesses, and local organizations? Do we need a “fire soul” to lead the effort? Why do some communities seem to move forward while others don’t? Is it easier to pursue sustainability in urban versus rural areas? This session explores these questions and offers examples that include study circles, early adopter projects, comprehensive planning, and local sustainability alliances.

Environmental News Briefs of Interest

Alternatives to Burning this Fall

Check out Wisconsin’s DNR website page “Do a Little ... Save a Lot!” for seven simple alternatives to open burning this fall, from mulching to making a home for wildlife.

<http://dnr.wi.gov/air/pubinfo/educ/italladdsup.htm>

EPA OK's Self-audit Agreement with Wisconsin colleges

U.S. Environmental Protection Agency Region 5 signed an agreement with 16 independent Wisconsin colleges and universities that allow the schools to perform their own compliance audits for seven major environmental laws.

The audit agreement calls for 16 members of the Wisconsin Association of Independent Colleges and Universities to work with a consultant in screening classroom buildings, laboratories and dining, athletic and maintenance facilities for compliance. As long as the schools correct violations and meet the conditions of the agreement, all or most penalties will be eliminated.

EPA Tests Hydrogen Fuel Cell Vehicle under Real World Conditions

U.S. Environmental Protection Agency Administrator Stephen L. Johnson showcased the fourth generation of Chevrolet's Equinox Fuel Cell Car, the newest addition to the agency's vehicle fleet. The new car underscores EPA's support for national efforts to develop clean energy technologies and help move the United States toward energy independence.

The vehicle, the fourth generation Chevrolet Equinox Fuel Cell, is an electric car enabled by General Motors' advanced fuel cell propulsion system and is tested and engineered for 50,000 miles of driving life. With hydrogen as its only fuel, this vehicle emits no greenhouse gases and serves as an alternative to traditional, petroleum-dependent vehicles that emit carbon dioxide, nitrous oxide, and other air pollutants. Featuring the latest advancements in fuel cell technology, the vehicle can travel up to 150 miles per fill-up, and is expected to meet all applicable 2008 federal motor vehicle safety standards.

EPA has a six-month lease on the fuel cell vehicle, made possible with a grant provided by U.S. Department of Energy (DOE). Through their cooperation, the agencies hope to demonstrate the viability of fuel cell vehicles and encourage a shift in the American marketplace toward alternative fuels.

Events, Training, Workshop and Tour Opportunities

Oct. 3 & 4, 2008 **Wisconsin Solar Tour**. Homes and business all across Wisconsin. Owners throw open their doors to let people see how renewable energy is practical, reliable and affordable in today's economy. Although it is officially called the Wisconsin Solar Tour, sites include all sorts of renewable energy technologies and other innovative features. Sponsored by the Midwest Renewable Energy Association. More information at <http://www.the-mrea.org>.

October 7-8, 2008, **Certified Green: Credible Green Building and Remodeling Projects**, Middleton, WI (also in Green Bay, Oct. 28 & 29 and in Wauwatosa, Nov. 5 & 6.) Includes training for both Green Built Home and NAHB Verifiers program. Contact Sherry Benzmilller at 608-238-8276 x121 or sbenzmilller@ecw.org.

October 6-8, 2008, **Renewable Energy from Organics Recycling**, Madison Marriott West, Madison, WI. For preliminary agenda or to register, go to <http://www.biocycle.net> or call 610-967-4135 x 21.

October 10, 2008, **Second Yahara Lakes Conference**, "A Clean Future for the Yahara Lakes: Solutions for Tomorrow, Starting Today," Monona Terrace, Madison. For more information and to register visit <http://www.nelson.wisc.edu/outreach/yahara>.

October 28-30, 2008, **Mechanical System Design for Green Buildings**, Pyle Center, Madison, WI. For information or to register call Joy Altwies, 1-800-462-0876.
<http://epdweb.engr.wisc.edu/Courses/webJ937>

October 27-31, 2008, **The Commissioning Process for Delivering Quality Constructed Projects**, Pyle Center, Madison, WI. For information or to register call Joy Altwies, 1-800-462-0876.
<http://epdweb.engr.wisc.edu/Courses/webK410>

October 30, 2008, **Sustainable Real Estate Development Conference**, Fluno Center, Madison, WI. Hosted by UW-Madison Graaskamp Center for Real Estate. Register at <http://www.bus.wisc.edu/wcre/sustainableconference/registration.asp>. Call 608-265-2032 or email lgottschlak@bus.wisc.edu with questions.

November 19-21, 2008, **Green Build International Conference and Expo**, Boston. For information go to <http://www.greenbuildexpo.org/>