



Rick Snyder, Governor
Dan Wyant, Director

SUMMER 2014

Michigan Department of Environmental Quality (DEQ)
www.michigan.gov/deq
Office of Environmental Assistance
PO Box 30457
Lansing, MI 48909-7957

Environmental Assistance Center
800-662-9278
deq-assist@michigan.gov
Darlene Harris, Editor
517-284-6862
harrisd@michigan.gov
Circulation Requests: contact Darlene Harris or visit www.michigan.gov/deq, select News & Events, Bulletins & Newsletters, Environmental Listserv Subscriptions and follow the directions.

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DEQ POLLUTION PREVENTION, COST-SAVINGS PROGRAM CELEBRATES 20TH ANNIVERSARY

Submitted by David Herb, Office of Environmental Assistance

An award-winning DEQ pollution prevention program recently celebrated its 20th anniversary of environmental and cost-savings assistance for small businesses.



Initiated in June 1994, the Retired Engineer Technical Assistance Program, or RETAP, utilizes the services of retired engineers, scientists and other professionals to provide free, on-site pollution prevention assessments to small businesses and institutions in Michigan. During the past 20 years, the RETAP has completed nearly 1,900 onsite assessments, helping to reduce waste disposal in Michigan by tens of millions of pounds.



Nearly 75 percent of all assessments conducted by the RETAP were for small companies, a critical part of Michigan’s business community and economy. Companies save an average of \$40,000 or more per assessment through reduced utility and waste disposal costs and related operational improvements.

“We have long encouraged small businesses to take advantage of the free pollution prevention and energy efficiency assistance offered by the RETAP” says Small Business Association of Michigan President and CEO Rob Fowler. “Small businesses can readily access the experience of nearly 50 retired engineers active in the RETAP to identify opportunities for improvement.”

Under Governor Rick Snyder’s direction, DEQ is expanding the RETAP to provide pollution prevention assessments to more than 150 businesses in the coming fiscal year.

For more information about the RETAP, including how to receive a free pollution prevention assessment, visit www.michigan.gov/retap or contact **David Herb** at herbd@michigan.gov or 517-284-6863.



Follow DEQ on Twitter @MichiganDEQ

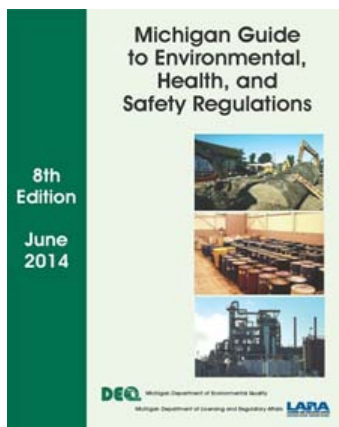


Visit us at www.michigan.gov/deq and click on the red envelope to sign up for email updates.

THE MICHIGAN GUIDE TO ENVIRONMENTAL, HEALTH, AND SAFETY REGULATIONS: UPDATED 8TH EDITION NOW AVAILABLE!

Submitted by Jim Ostrowski, Office of Environmental Assistance

The 8th Edition of the “Michigan Guide to Environmental, Health, and Safety Regulations” is now available for purchase through the Michigan e-store. Manufacturers, suppliers, consultants, and regulators can all benefit from this guide, which steers the reader through the maze of state and federal environmental, health, and safety regulatory programs. The guidebook is subdivided into three main sections: Environmental Regulations, Michigan Occupational Safety and Health Act Standards, and Construction and Fire Codes. Each chapter within each section targets a specific regulatory program.



Get your copy today! The cost of the guidebook is \$25, which includes tax and shipping, payable at the time of purchase with a major credit card. You can also check out the guidebook on-line at www.michigan.gov/ehsguide. Questions? Contact the Environmental Assistance Center at 800-662-9278.

“This [Guidebook] is the greatest thing ever. Michigan should be proud to have such an amazing tool. Few other states have anything like this or that compares in quality and ease of use.”
 - Michigan Environmental Compliance Conference Attendee

“Fantastic reference guide. All Environmental/Health and Safety Professionals in Michigan need a copy of this publication.”
 - Michigan Environmental Compliance Conference Attendee

O’KEEFE PUBLISHING FIRST PRINTER RECOGNIZED AS MICHIGAN CLEAN CORPORATE CITIZEN

Submitted by Jeff Spencer, Office of Environmental Assistance

Michigan’s **Clean Corporate Citizen Program** welcomed its first printer, O’Keefe Publishing, last month during an award ceremony. O’Keefe Publishing has always made its impact on the environment a key focus and has emerged as a leader in the printing industry through its creative approach to environmental stewardship.

A member of the Great Printers Project before selling AmeriKal Printing to J.B. Printing in 1999, O’Keefe Publishing renewed its focus on sustainability after reacquiring J.B. Printing in June 2013. One of the company’s initial projects after acquisition was an employee incentive program to promote recycling in the facility. It uses the money received from recycling to create a better working environment for employees.



Additionally, the company partnered with Western Michigan University in February 2014 to hire intern Jordan Barnett-Drummer to focus on ways the company could become more eco-friendly. This relationship proved to be mutually beneficial – the company received certification from the Clean Corporate Citizen Program, and Barnett-Drummer gained real-world environmental management experience by developing the company’s environmental management system (ISO 14001 compliant) as well as analyzing and interpreting environmental data effectively. Working closely with management and the DEQ, Barnett-Drummer provided the company with a strong foundation for future environmental success.

This internship model has the potential to aid small businesses in developing their own environmental management system in-house with minimal resources. Environmental management systems have typically been reserved for large manufacturing firms, but now small businesses across Michigan have a viable tool at their disposal to attain their environmental goals.

For more information on DEQ’s Clean Corporate Citizen Program, contact **Jeff Spencer**, Office of Environmental Assistance, at spencerj3@michigan.gov or **517-284-6879**.

STAY UPDATED ON NEWS FROM THE DEQ

The DEQ offers email services to keep you updated on news and information that is valuable to you. Have you signed up to receive email updates from the DEQ? If not, you should check out the current topics we have available.



Agency-wide Information

- DEQ Environmental Calendar
- Press Releases

Air Quality Division

- AQ News and Info
- Michigan Air Emissions Reporting System (MAERS)

Environmental Assistance

- Environmental Assistance Bulletin
- Environmental Leaders Network
- Green Chemistry
- Michigan Manufacturing News
- Pollution Prevention
- Training and Outreach

Great Lakes

- Great Lakes Notes

Remediation and Redevelopment Division

- RRD News and Info

Water Resources Division

- Aquatic Invasive Species
- Green Infrastructure
- Soil Erosion & Construction Storm Water
- Water WoRDs

You can choose which lists to subscribe to and unsubscribe at any time. To get started, go to www.michigan.gov/deq and click on the red envelope.

PROTECTING PUBLIC HEALTH BY ENSURING SAFE WATER SUPPLIES

Submitted by Kathleen Gardner, Office of Drinking Water and Municipal Assistance (ODWMA)

A noncommunity public water supply, or NCPWS, is a public water supply that is not a community supply but does have at least 15 service connections, or serves at least 25 individuals on an average daily basis for no less than 60 days per year. That sounds complicated, but most people encounter an NCPWS daily at the office, at restaurants, at church or at school. The state’s 9,664 NCPWS are found in every county.

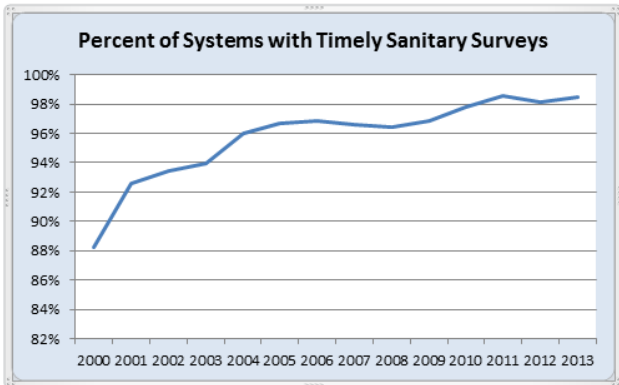
In Michigan, local health departments are the primary regulatory contact for owners and operators of NCPWS. The locals provide compliance assistance, perform sanitary surveys, and review water sample results for compliance determination with the Safe Drinking Water Act, 1976 PA 399, as amended. The ODWMA’s role includes providing technical assistance to local health departments and conducting annual reviews of contractual requirements.

Michigan NCPWS Breakdown		
Supply Use	Count	% of Total
Restaurant	1966	20%
Church	1382	14%
Campground	1146	12%
Park	773	8%
School	541	6%
Daycare, Adult Foster Care, Medical Care	411	4%
Highway Rest Area, Roadside Park, Marina, Public Beach, Children’s Camp	408	4%
Golf Course, Motel, Grocery, Caterer, Meat Processing, Service Station	1103	12%
Industry, Agricultural, Water Bottler, Private Clubs, Business, Office, Garage, Other	1934	20%

(continued on next page)

Many NCPWS systems receive an annual visit from the local health department as part of a compliance assistance visit or routine environmental health inspection. Additionally, comprehensive sanitary surveys – a review of past records and an on-site inspection of the operation and maintenance of the water system – are required for all systems at least once every five years. Sanitary surveys focus on finding well construction deficiencies and distributions problems. A focus by DEQ staff on sanitary surveys during local health department annual program assessments has increased compliance with this five-year time frame.

Currently, 93 percent of completed sanitary surveys are satisfactory, down from 97 percent in 2012. The downward trend is likely the result of more careful oversight and recording of problems by local health departments.



Coming by 2016, Safe Drinking Water Act rule changes will increase focus on seasonal systems, or water supplies that start up and shut down during certain times of the year. DEQ estimates that more than 2,000 of Michigan’s NCPWS systems are seasonal, including water supplies at many campgrounds, marinas, children’s summer camps, ski resorts, and migrant labor camps. DEQ built a workgroup of local health departments’ staff and other stakeholders to help the transition to the new rules by the 2016 deadline. Transition to the new rules will be aided by ongoing planning and collaboration with stakeholders.

Michigan has a long history of oversight of public water supplies. NCPWS staff at the DEQ and at LHDs offers technical assistance

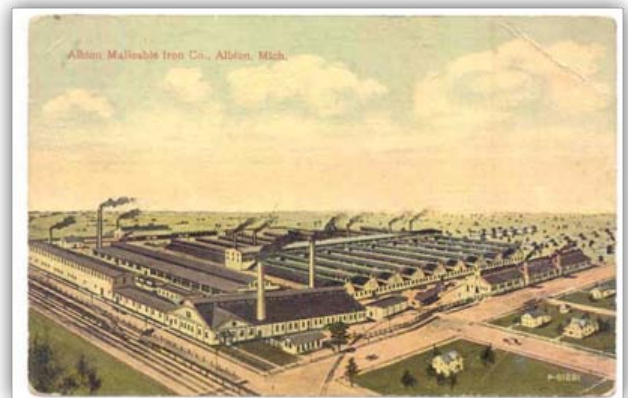
and compliance evaluations to the various types of water systems and are committed to keeping people safe. The availability of safe drinking water is a basic principle of public health.

ALBION MALLEABLE/HARVARD INDUSTRIES: A STORY OF INDUSTRY, IMMIGRATION AND (ENVIRONMENTAL) INVESTIGATION

Submitted by Steve Beukema, Remediation and Redevelopment Division

On the west side of Albion sits a large, abandoned industrial property. Trees grow from cracks within the concrete—what used to be the floor of one of Albion’s major economic powerhouses. The Albion Malleable Iron Company was established in the City of Albion in 1888. In the early 20th Century, the company actively recruited workers from Italy, Russia, Eastern Europe and the southern U.S., giving Albion a large and diverse ethnic population. The company established worker housing, known as the “foreign settlement” in the town, and the local schools offered classes in English as a second language and U.S. citizenship.

For more than 100 years, the City of Albion had a seemingly stable, large employer able to provide hundreds of jobs and give the city a strong and dependable tax base.



Albion Malleable/Harvard Industries, CIRCA 1950

But economic times changed. In 2002, the plant shut its doors. Scrappers entered, removed valuable metal and left piles of debris. The U.S EPA entered, removed drums and surface soils contaminated with PCBs, and left soil and groundwater contaminated with gasoline, quench oil, metals, and anybody’s guess as to what else. A Google search for the former company yields information about the company’s glory days, but also about unemployment compensation and attorneys who promise big payoffs to potential clients afflicted with mesothelioma.



Albion Malleable/Harvard Industries, 2014

When Albion Malleable, later known as Harvard Industries, shut its doors, it took away jobs and tax money from the city. Clues to its existence remain: the oldest Russian Orthodox Church in the state outside of Detroit; a city characterized by ethnic diversity; and a large, vacant parcel of petroleum-stained concrete, flooded surficial pits of unknown depth and unknown content. The various wetland habitats that have developed on the abandoned property during the past 10 years are a haven for birds because of water from an unknown source that constantly runs along the surface at the northern part of the property.

As part of the 2014 statewide Expanded Triage project funded by the Refined Petroleum Fund, the RRD was able to gain a snapshot of environmental conditions related to the releases from gasoline and quench oil underground storage tanks. The results of the triage investigation indicate significant contamination remains at the site, threatening the Kalamazoo River. The DEQ will use state funds beginning in fiscal year 2015 to address risks at the site, as the RRD continues to work together with the Calhoun County Landbank Authority (the property owner), the City of Albion, and the Albion Economic Development Corporation to make the site suitable and desirable for redevelopment.

BOILERS AND PROCESS HEATERS HAVE NEW FEDERAL AIR QUALITY STANDARDS

Submitted by Christine Grossman, Office of Environmental Assistance

In 2013, the U.S. EPA finalized two expansive federal air quality standards limiting toxic emissions from boilers and process heaters across the United States. These standards require all boiler owners and operators to review whether their equipment is subject. The U.S. EPA has projected that of the 1.3 million boilers nationally, approximately 200,000 are subject to these new standards with approximately 13 percent or 26,000 being subject to new emission limits. The standards require routine tune ups for new and existing sources and a one-time energy assessment for existing sources. The standards also established new emission limits for toxic contaminants like lead, cadmium, chromium, mercury, acid gases, dioxins, furans, and volatile toxic organic compounds like benzene and xylene.



To simplify the compliance process, the DEQ has created a host of new tools, including one for evaluating applicability. If you have equipment that may be subject, go to the **DEQ Boiler NESHAP Web page** and review whether your equipment is subject to these new requirements. Key details on the new standards are provided below and questions can be directed to **infoBOILERNESHAP@michigan.gov**.

	Major Source	Area (Non-Major) Source
Typical Source Examples	wood treatment, petroleum refining, and chemical manufacture facilities; major painting operations and wood products industries	medical centers, small manufacturing, hotels, municipal offices, schools, laundries and laboratories
Affected Source ¹	boilers and process heaters	boilers
Initial Compliance Date	January 31, 2016	March 21, 2014
Emission Limit Trigger	Capacity ≥ 10 MM BTU/hr	
Principal Exemptions ¹	<ul style="list-style-type: none"> Residential serving ≤ 4 households Temporary/mobile and used for ≤ 12 consecutive months and not seasonal Limited use with federally enforceable average annual capacity factor of ≤ 10% Hot water heaters 	<ul style="list-style-type: none"> Gas fired - No solid fuel and liquid only ≤ 48 hours per calendar year except during emergency curtailment or interruption Residential serving ≤ 4 households Temporary/mobile and used for ≤ 12 consecutive months and not seasonal Limited use with federally enforceable average annual capacity factor of ≤ 10% Hot water heaters

¹ See ALL definitions in standard

COMPLIANCE ASSISTANCE CORNER: NEW WASTE CHARACTERIZATION RESOURCES

Submitted by Christine Grossman, Office of Environmental Assistance



In June, the DEQ hosted its first ever **Waste Characterization Workshop Series**.

With the workshop came new compliance assistance resources helpful to anyone responsible for

characterizing waste. The workshop expanded upon the basic waste characterization concepts delivered in the DEQ's Introduction to Hazardous Waste Regulations recorded Webinar series (see **Webinar** and **Webinar**

notes) and provided new, practical tools for characterizing waste including:

- **Waste Characterization Reference Book**
- **Waste Characterization Example Exercises**
- **Optional Waste Characterization Recordkeeping Form**
- **Online Waste Resource Guide**

If you are responsible for managing waste generated at your facility, you should review these new resources. If you are interested in learning more about this or other DEQ topics, consider subscribing to our **GovDelivery Training and Outreach list** to receive notification of upcoming DEQ training or see www.michigan.gov/deqworkshops.



2014 GREENUP MICHIGAN GREEN CHEMISTRY AND ENGINEERING CONFERENCE: CULTIVATING NEXT GENERATION SOLUTIONS

Submitted by Chris Affeldt, Office of Environmental Assistance

November 12, 2014 - Michigan State University

Join us at this year's GreenUp Conference which will be at Michigan State University's Kellogg Center. The Conference provides excellent opportunities for sharing information, networking, and learning. This year's theme is Cultivating Next Generation Solutions, and presenters will be talking about designing, innovating, and manufacturing what's next by developing less hazardous, more effective materials, processes, and products. Green chemistry and engineering can help businesses create new markets, reduce costs, increase safety, and gain a competitive edge to meet customer needs.

Designed for anyone interested in innovation and sustainability in Michigan, attendees will have the opportunity to hear from leading experts and share solutions to "green up" Michigan through green chemistry and engineering.

Event highlights include:

- 6th Annual Michigan Green Chemistry Governor's Award Ceremony
- Keynote speakers:
 - Eric Beckman, University of Pittsburgh, Co-Director of the Mascaro Center for Sustainable Innovation and a Presidential Green Chemistry Challenge award winner. His research group examines the use of molecular design to solve problems in green product formulation and in the design of materials for use in tissue engineering.

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- Bruce Dale, Michigan State University, Professor of Chemical Engineering, University Distinguished Professor; MSUAgBioResearch. He is the associate director of the University's Office of Bio-based Technologies and the principal investigator at the Biomass Conversion Research Laboratory.
- Deanna Cullen, chemistry teacher at Whitehall High School in Whitehall, Michigan. Ms. Cullen has received green chemistry education training from Beyond Benign Foundation, and she blogs on the Journal of Chemistry Education Web site.
- Breakout sessions and panels.
- Poster presentations, including a student poster contest with prize money.



How can YOU participate?

- **Submit a poster presentation abstract** (pdf)
- **Become a sponsor** (link)

Visit www.michigan.gov/greenchemistry for more information.

FREE ITRC INTERNET TRAINING COURSES



INTERSTATE TECHNOLOGY & REGULATORY COUNCIL

Advancing Environmental Solutions

The Interstate Technology & Regulatory Council (ITRC) offers a wide variety of guidance documents and FREE internet-based training courses on innovative environmental technologies and approaches specific to the areas of site characterization, monitoring and remediation as well as other environmental topics. Summarized below is the August, September, October 2014 schedule of upcoming FREE Internet-based training courses provided by the ITRC. Archived training events from additional topics are also available for viewing and/or download. A complete list of course offerings can be found at www.itrcweb.org/ibt.asp

Upcoming Course Dates (registration opens 4 - 6 weeks in advance):

- August 26 – Groundwater Statistics for Environmental Project Managers 2:00 p.m. - 4:15 p.m. EASTERN TIME
- September 9 – ISM Part 1: Soil Sampling and Decision Making Using Incremental Sampling Methodology 2:00 p.m. - 4:15 p.m. EASTERN TIME
- September 16 – ISM Part 2: Soil Sampling and Decision Making Using Incremental Sampling Methodology 2:00 p.m. - 4:15 p.m. EASTERN TIME

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- September 23 – Biochemical Reactors for Mining-Influenced Water 2:00 p.m. - 4:15 p.m. EASTERN TIME
- September 25 – Environmental Molecular Diagnostics: New Tools for Better Decisions 11:00 a.m. - 1:15 p.m. EASTERN TIME
- September 30 – Biofuels: Release Prevention, Environmental Behavior, and Remediation 2:00 p.m. - 4:15 p.m. EASTERN TIME
- October 2 – Green and Sustainable Remediation 11:00 a.m. - 1:15 p.m. EASTERN TIME
- October 7 – Groundwater Statistics for Environmental Project Managers 2:00 p.m. - 4:15 p.m. EASTERN TIME
- October 9 – Contaminated Sediments – Incorporating Bioavailability Considerations into the Evaluation of Contaminated Sediment Sites 11:00 a.m. - 1:15 p.m. EASTERN TIME
- October 16 – Remedy Selection for Contaminated Sediments 11:00 p.m. - 1:15 p.m. EASTERN TIME
- October 21 – Use and Measurement of Mass Flux and Mass Discharge 2:00 p.m. - 4:15 p.m. EASTERN TIME

ITRC also offers classroom training:

- 2-DAY CLASSROOM TRAINING: Light Nonaqueous-Phase Liquids: Science, Management, and Technology

October 29-30, 2014 in Richmond, VA - hosted by the Virginia Department of Environmental Quality. Register at <https://www.regonline.com/ITRC-LNAPL-VA>.

Note: All dates and times are subject to change – check www.itrcweb.org for the most up-to-date information.

Registration: <http://clu-in.org/studio/seminar.cfm> or at www.itrcweb.org - click on “Internet-based Training”. Course registration opens four to six weeks prior to each course offering.

Associated Guidance Documents: Available from www.itrcweb.org. You can download the ITRC guidance documents that are the basis for the training materials - click on “Guidance Documents”.

For additional information, please contact Michigan’s ITRC State Point of Contact (POC) **Sara Pearson** at pearsons@michigan.gov or **517-284-5138**.

EVENTS

2014 MONTHLY CONSTRUCTION STORM WATER OPERATOR/SOIL EROSION INSPECTOR TRAINING, VARIOUS LOCATIONS, MICHIGAN. The DEQ Water Resources Division will be hosting training and exams for Certification as a Construction Storm Water Operator. These half-day sessions will include a training video outlining inspector/certified operator requirements, best practices for soil erosion and sedimentation control, and common compliance problems found on construction sites. Not all information on the test is included in the training, so participants are expected to have read and understand the information presented in the “Certified Storm Water Operator and Soil Erosion and Sedimentation Control Inspector/Comprehensive Manual” chapters 1-5. The training will be followed by a fifty question, multiple choice exam. A score of 70% is required to pass and become certified. Complete Training and Exam schedules can be found on the Web at www.michigan.gov/soilerosion and by clicking on the first link under the training header. Cost: \$95. Information Contact: **Sarah Ehinger**, WRD, **269-567-3515**, or ehingers1@michigan.gov. To register, determine the training date and location you would like to attend and contact the district staff person for that location.

Date	Location
August 20	DEQ Kalamazoo District Office, Kalamazoo
September 11	DEQ Lansing District Office, Constitution Hall, Lansing
September 17	DEQ Gaylord District Office, Gaylord

(continued on next page)

September 17 DEQ Jackson District Office, Jackson
September 17 DEQ Southeast Michigan District Office, Warren
September 24 DEQ Grand Rapids District Office, Grand Rapids

AUGUST 27-29, 2014

2014 MWA WETLANDS CONFERENCE: NEW DIRECTIONS IN WETLAND PROTECTION AND MANAGEMENT, AMWAY GRAND PLAZA HOTEL, GRAND RAPIDS, MICHIGAN. The Michigan Wetlands Association invites you to attend the 2014 Wetlands Conference, open to both members and non-members; we expect participation from state, federal, and local agencies; private consulting firms; colleges and universities; conservation and environmental organizations; and other interested citizens. The DEQ will have speakers at this event. More information is available on the Web at www.miwetlands.org/index.php/events/2014-mwa-wetlands-conference. For additional information, contact **Peg Bostwick** at peg.bostwick@aswm.org.

2014 PTI SERIES

SEPTEMBER 3, NOVEMBER 6

AIR PERMIT-TO-INSTALL APPLICATION TRAINING, CONSTITUTION HALL, LANSING, MICHIGAN. Attend this workshop to learn more about how to complete the air Permit-to-Install Application. The workshop includes a general question & answer session, and for those who are "project ready," the opportunity to meet with a permit engineer for individual assistance on your specific application. Registration fee is \$45 and includes workshop materials. Updated workshop information and registration is available on the Web at www.michigan.gov/deqworkshops, click on "DEQ Workshops". Information Contact: **James Ostrowski**, Office of Environmental Assistance, 517-284-6870, or e-mail ostrowskij2@michigan.gov. Registration Information: **Environmental Assistance Center**, 800-662-9278, or e-mail at deq-assist@michigan.gov.

SEPTEMBER 10-11, 2014

UPPER PENINSULA SOLID WASTE LANDFILL OPERATOR TRAINING, TERRACE BAY INN & SUITES, GLADSTONE, MICHIGAN. The DEQ is hosting a workshop in the Escanaba area for solid waste landfill operators. The morning session of the training will include information on topics such as handling asbestos, leachate management, tipping floor safety, low-level nuclear waste, alternative daily cover (ADC) and minimizing a working face in the active area of a landfill. The afternoon session includes a tour of the active area, composting and recycling at a landfill. The registration fee is \$45 and includes lunch and a tour of the Delta County Landfill. Updated event information is available on the Web at www.michigan.gov/deqworkshops, click on "DEQ Workshops." Information Contact: **Carolyn St. Cyr**, Office of Waste Management and Radiological Protection, 906-250-1448, or e-mail StCyrC1@michigan.gov. Registration Information: **Environmental Assistance Center**, 800-662-9278, or e-mail deq-assist@michigan.gov.

SEPTEMBER 11-12, 2014

DEQ COMPREHENSIVE SOIL EROSION TRAINING AND EXAMS, WARREN, MICHIGAN. The DEQ Water Resources Division will be conducting a training and exam for individuals who have valid Construction Storm Water Operator Certificates and work for Part 91 Agencies where the individual may have soil erosion and sedimentation control plan review and design responsibilities. The training will cover the required components of a soil erosion and sedimentation control plan, the soil erosion and sedimentation control law, an overview of common best management practices for soil erosion and sedimentation control, and an exercise in plan review in design. Not all information in the exam is covered in the training, so participants are expected to have read and understand the information presented in the "Certified Storm Water Operator and Soil Erosion and Sedimentation Control Inspector/Comprehensive Manual." The exam consists of a forty question, multiple choice exam. A score of 70% is required to pass and receive a certificate of training. The Comprehensive Training and Exam schedules can be found on the Web at www.michigan.gov/soilerosion and by clicking on the first link under the training header. Cost: \$225. Information Contact: **Cheryl Petroski**, WRD, 586-753-3718, or petroskic@michigan.gov. Registration Information Contact: **Cheryl Petroski**, 586-753-3718 or petroskic@michigan.gov. Be prepared to provide your Construction Storm Water Operator certification number.

SEPTEMBER 17, 2014

SUSTAINABLE MANUFACTURING SEMINAR: LEADING THE WAY TO PREVENTION, PROFIT AND THE FUTURE, FETZER CENTER, WMU CAMPUS, KALAMAZOO, MICHIGAN. The DEQ is hosting a workshop during Pollution Prevention Week 2014 to bring opportunity to Michigan businesses and organizations interested in learning about increasing the value-add strategy in their business plans through energy and environmental improvements. The seminar will focus on sharing techniques to implement zero waste, energy optimization, supply chain collaboration, material efficiency, product design, and lean and clean. Successful Michigan companies will share their experiences working with the U.S. EPA Economy, Energy, Environment (E3) www.e3.gov and other DEQ Partners. Updated seminar information is available on the Web at www.michigan.gov/deqworkshops, click on "DEQ Workshops". Information Contact: **Laura Rauwerda**, Office of Environmental Assistance, **616-356-0034**, or e-mail rauwerdal@michigan.gov. Registration Information: **Environmental Assistance Center, 800-662-9278**, or e-mail deq-assist@michigan.gov.

OCTOBER 9, 2014

7TH ANNUAL MICHIGAN GREEN HEALTH CARE CONFERENCE, GVSU EBERHARD CENTER, GRAND RAPIDS, MICHIGAN. This conference is intended for individuals and organizations interested in promoting sustainability practices within the health care industry. We encourage sustainability officers, dietitians, clinicians, engineers, architects, pharmacists, environmental services, food and nutrition, and maintenance managers, energy coordinators, business partners, governmental agencies, public health professionals, non-profits, and anyone else with a passion for reducing the ecological footprint of the health care industry to attend the conference. Featured conference speakers include Christina Vernon, AVP for a Healthy Environment for Carolinas HealthCare and Dr. Cindy Parker, Associate Director and Faculty at Johns Hopkins University and National Board of Directors for Physicians for Social Responsibility. Preconference activities on October 8th include an ArtPrize Walking Tour and View & Brew Reception featuring Grand Rapids Mayor George Heartwell. More information, including sponsorship and exhibitor opportunities, and registration will be available online this summer at www.michigan.gov/deqworkshops, click on "DEQ Workshops". Information Contact: **Mike Young**, Office of Environmental Assistance, **989-894-6238**, or e-mail youngm1@michigan.gov. Registration Information Contact: **Environmental Assistance Center, 800-662-9278**, or e-mail deq-assist@michigan.gov.

NOVEMBER 12, 2014

2014 MICHIGAN GREEN CHEMISTRY AND ENGINEERING CONFERENCE: CULTIVATING NEXT GENERATION SOLUTIONS, MSU KELLOGG CONFERENCE CENTER, EAST LANSING, MICHIGAN. This year will mark the sixth Michigan "GreenUp" Conference, designed to be a valuable experience for sharing information, networking, and learning. Green chemistry and engineering are about designing, innovating, and manufacturing what's next and developing less hazardous, more effective materials, processes, and products. Green chemistry and engineering can help businesses create new markets, reduce costs, increase safety, and gain a competitive edge. For chemists, engineers, industry CEOs, educators, students, entrepreneurs, decision makers, policymakers – anyone interested in Michigan's march toward smart, sustainable growth – this conference is the opportunity to hear from leading experts and share innovative ideas on how we can best "green up" Michigan through green chemistry and engineering. Updated conference information, including the Call for Presentations and sponsor/exhibitor information, will be available on the Web this summer at www.michigan.gov/greenup. Information Contact: **Chris Affeldt**, Office of Environmental Assistance, **517-284-6851** or e-mail affeldtc@michigan.gov. Registration Information: **Environmental Assistance Center, 800-662-9278**, or e-mail deq-assist@michigan.gov.

*If you are interested in participating in the development of or exhibiting at any Office of Environmental Assistance event, please contact **Matt Tomlinson** at **800-662-9278** or tomlinsonm@michigan.gov.*