



**NORTH CAROLINA DIVISION OF  
POLLUTION PREVENTION AND  
ENVIRONMENTAL ASSISTANCE**



# FOCUS

**Providing pollution  
prevention  
assistance to North  
Carolina industries  
since 1984**

## Biofuels: A Bumper Crop in North Carolina State Government Leads in Biofuel Use

It took a little more than a decade for the state of North Carolina to become one of the nation's largest users of biofuels—ethanol and biodiesel. In 1994, when the state acquired its first alternative fuel vehicles, North Carolina wasn't using biofuels. Like most fleets covered under the Energy Policy Act of 1992 (EPAAct)\*, North Carolina started its fleet of AVFs with cars powered by propane or natural gas. By the late 1990s, E85 (85 percent ethanol, 15 percent gasoline) was well established as an EPAAct-approved fuel, but it was virtually nonexistent in North Carolina. E85 stations were far more common in the Corn Belt than in the Southeast. But the state would soon change that.



Sparking the state's first big surge in AFV credits, in 1998 North Carolina purchased 90 fuel flexible vehicles and 430 the following year, including minivans and trucks. Between 1999 and 2004 the state had purchased almost 3,000 FFVs. The Department of Administration's fleet consumed nearly all of the 170,954 gallons of E85 sold in the state in 2003. Meanwhile, the Department of Transportation contributed mightily to North Carolina's alternative fueling success story through the use of another biologically-derived fuel—biodiesel.

In the United States, biodiesel is made predominantly from soybean oil. Another increasingly common feedstock is restaurant fryer oil, which is typically made from corn or canola.

North Carolina's most common use of biodiesel is in heavy-duty trucks operated by the state DOT. Roughly half of DOT's 11,500 vehicles are diesel-powered, and approximately 25 percent of those use B20 (blend of 20 percent biodiesel and 80 percent petrodiesel) at least some of the time. The DOT uses approximately 2.5 million gallons of bio-fuel diesel each year. The biggest advantage of biodiesel is that it requires very little modification of tanks, dispensers or vehicles. DOT reports that

use of B20 has caused no problems in the engines or fuel systems of DOT vehicles and they operate with no performance loss.

The Energy Policy Act of 2005 empowers biofuels development over a wide range of applications with a variety of tax incentives for producers. With the requirement that by 2012, at least 7.5 billion gallons per year of renewable fuel be blended into the nation's gasoline supply, this policy establishes the need and importance for making renewable fuels part of our nation's economy.

The state of North Carolina has demonstrated not only significant over-compliance with its EPAAct requirements, but also that its leadership can be used to move non-regulated fleets, such as local governments, toward alternative fuel use. North Carolina maintains this strong commitment to alternative fuels and is currently evaluating innovative approaches for funding future efforts.

Our state has numerous resources dedicated to assisting organizations considering a switch to biofuels. Due to a recent

see *STATE LEADS*, page 3

### INSIDE THIS ISSUE



Excerpt from Shifting Into Biofuels Gear .....	2
N.C. Zoo Receives Biodiesel Grant .....	3
Biodiesel: Does It Meet Your Standards? .....	4
ESI EMS Training Moduels .....	4
Engine Warranties for Biodiesel Users .....	5
Alternative Fuel Station Locator .....	5
Biodiesel Usage Checklist .....	6
EPA Proposes to Modify Reporting Requirements .	6
Asheville's Water Resources ISO 14001 Certified .	7
Stormwater & Runoff Pollution .....	7

## Excerpt from "Shifting Into Biofuels Gear"

By Anne Tazewell, alternative fuels program manager, N.C. Solar Center



The U.S. transportation sector (cars, trucks and buses) is 97 percent reliant on petroleum, a dwindling resource that's largely responsible for our urban air quality problems as well as more far-reaching concerns such as global climate change. We can better serve our economy, environment and our health if we devote just a fraction of this money to developing renewable fuels ~ such as biodiesel and ethanol.

Biodiesel, a diesel replacement fuel, can be made from agricultural products such as soybean oil, animal renderings and waste vegetable oil. Ethanol, a gasoline replacement, is an alcohol fuel that's now primarily made from corn. Novozymes North America,\* based in Franklinton, is leading the way to enzymatic processes that will provide for the commercial production of ethanol from agricultural waste products such as corn stalks.

We've got to get on the train with them and others like the Grain Growers Cooperative, Blue Ridge Biofuels, Filter Specialty and our own Piedmont Biofuels that are working to build the state's first biodiesel processing plants. In addition to actively supporting these and other researchers and producers of biofuels with grants and production incentives, we need to encourage the use of these cleaner burning fuels in our vehicles.

Biodiesel is having the most success to date in finding its way into the public's tanks. There are cooperatives making their own fuel and there are pumps offering B99 (99 percent biodiesel/1 percent diesel) to members and municipal governments like Carrboro. In addition, three service stations in Garner, Durham and Cary are selling B20 (20 percent biodiesel/80 percent petroleum diesel), with a few others scattered across the state. The most recent addition is an independently owned truck stop just off Exit 146 near Statesville. Homer's has six B20 pumps, with E85 and E10 pumps on the way. We need more!

Biodiesel reduces harmful emissions such as particulate matter, which is being linked to increases in respiratory and heart diseases. Biodiesel also greatly reduces toxic emissions such as polycyclic aromatic hydrocarbons, a probable carcinogen. Ethanol also emits fewer dangerous chemicals such as benzene and carbon

monoxide. Both biofuels will help curb our emissions of carbon dioxide, a primary greenhouse gas and source of global warming. A full life cycle analysis by the U.S. Departments of Energy and Agriculture concluded that biodiesel can reduce carbon dioxide emissions 78 percent as compared to diesel fuel. It also has the greatest energy balance ratio of any fuel ~ every unit of fossil fuel energy that goes into producing biodiesel yields 3.2 units of energy output.

Biofuels help the four E's ~ our energy supply, economy, emissions and environment. Whereas catastrophic hurricanes and spiraling fuel prices are surprisingly linked through global climate change and our fossil fuel dependence, biofuels and other transportation alternatives can serve as a fulcrum to lift our state and nation to a more sustainable future.

To view this article in its entirety contact Anne Tazewell at (919) 513-7831 or [anne\\_tazewell@ncsu.edu](mailto:anne_tazewell@ncsu.edu).

\*Novozymes is an Environmental Steward in N.C. DENR's [Environmental Stewardship Initiative](http://www.p2pays.org/esi) ([www.p2pays.org/esi](http://www.p2pays.org/esi)) program.

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## N.C. ZOO RECEIVES BIODIESEL GRANT

The North Carolina Zoo has been awarded a 2005 Mobile Source Emissions-Reduction Grant for \$23,000 from its parent state agency, the N.C. Department of Environment and Natural Resources. The grant will enable the zoo to continue its project of replacing its current petroleum fuels with biodiesel.

The zoo plans to have a biofuel processor installed capable of converting used vegetable oil from the zoo's food operations into 12,000 gallons per year of clean-burning, renewable B20 biodiesel (20 percent biofuel, 80 percent diesel). The B20 will fuel a majority of the zoo's trams, buses and other equipment.

Normal transportation of zoo visitors and operation of other zoo vehicles and equipment result in the use of about 26,000 gallons of diesel fuel per year. That generates significant mobile-source air emissions. The use of B20 fuel will result in estimated reductions of 12 percent of carbon monoxide, 20 percent of toxic contaminants, 20 percent of sulfur dioxide and 20 percent of hydrocarbons as compared to petroleum diesel.

In addition, the zoo will promote the use of biodiesel through its extensive educational exhibits, graphics and programs. This promotion will include graphics on the trams and buses, a Web page on biofuels ([www.nczoo.org/biofuels](http://www.nczoo.org/biofuels)), teacher workshops and an educational cart on biofuels and other green practices at the zoo.

Once the zoo has successfully processed the used vegetable oil from its restaurants into biofuel and used it to fuel its vehicles and equipment, the zoo plans to expand the project to produce all the biofuels it needs by developing partnerships with local fast-food operations to obtain the necessary used vegetable oil. The zoo is currently purchasing B100 fuel (100 percent biofuel) that is mixed with diesel to produce B20 as part of a grant from the North Carolina Solar Center.

The N.C. Zoo Horticulture Division is the only ISO 14001 (environmental management systems) certified state agency. This Horticulture Division was recognized as a Rising Steward in DENR's Environmental Stewardship Initiative program.

### STATE LEADS, from page 1

surge in interest and a growing infrastructure of resources, this issue focuses on implementing biodiesel into fleets or service vehicles. Refer to the following fact sheets for local and state resources on both ethanol and biodiesel:



[Biodiesel FactSheet \(PDF\)](#)  
[Ethanol FactSheet \(PDF\)](#)



**From the fryer, to the tank!**  
**Source: N.C. Zoo**

The zoo is a leader in green practices and sustainability and last year received the State Government Sustainability Award presented by the State Energy Office and North Carolina Project Green for its commitment to environmental stewardship.

Contact Mary Joan Pugh, chief of staff and business officer, at (800) 488-0444 or [MaryJoan.Pugh@ncmail.net](mailto:MaryJoan.Pugh@ncmail.net) for details on the many environmental programs at the N.C. Zoo.

### Environmentally Preferable Purchasing

- What are North Carolina state agencies and universities doing in green procurement?
- Where can local governments, schools and businesses find examples of policies, specifications and studies on recycled content and environmentally preferable products and services?

[www.p2pays.org/epp](http://www.p2pays.org/epp)

**Learn how to green your purchases!**

\*The Energy Policy Act of 1992 (EPAct) was passed by the U.S. Congress to reduce our nation's dependence on imported petroleum by requiring certain fleets to acquire [alternative fuel](#) vehicles, which are capable of operating on non-petroleum fuels <http://www.eere.energy.gov/vehiclesandfuels/epact>.

Information for this article was provided by the EERE Information Center – the U.S. Department of Energy's Energy Efficiency and Renewable Energy. For copies of the entire article or questions please contact EERE at 1-877-337-3463 or visit [www.eere.energy.gov](http://www.eere.energy.gov).

## Biodiesel: Does it Meet Your Standards?

### Availability

The biodiesel industry is continually expanding. In 1996, only two companies were registered as biodiesel suppliers in the United States. In 2005, that figure had climbed to more than 40 registered producers that are members of the National Biodiesel Board ([www.biodiesel.org](http://www.biodiesel.org)). Biodiesel production has increased from 500,000 gallons in 1999 to 30 million gallons in 2004. About 300 service stations in the United States offer the products.

Two major U.S. vehicle manufacturers have affirmed that using B20 in their equipment will not void their warranties (See *Engine Warranties for Biodiesel Users* on p. 5 for manufacturer specifications). Although B100 is also usable in any diesel engine, its use may void warranties. According to the NBB, biodiesel can be made available in every state, even if no fueling stations exist. Suppliers can deliver fuel anywhere in the nation in either pure or blended forms. Farmers often order biodiesel through cooperatives. Go to Department of Energy's [Alternate Fuels Station Locator](#) for a fueling site near you.

### Affordability

Currently, biodiesel costs approximately \$3.50 per gallon. Although biodiesel costs more than petrodiesel, fleet managers can make the switch to alternative fuels without purchasing new vehicles, acquiring new spare parts inventories, rebuilding stations or hiring new mechanics. Additionally, buying in bulk decreases the fuel cost.

### Performance

Biodiesel maintains the same payload capacity and range as conventional diesel and provides similar horsepower, torque and fuel economy. Biodiesel has a higher cetane number than conventional diesel which increases the engine's performance. It also serves as a high quality lubricant and can enhance the life of heavy-duty engines.

Biodiesel vehicles can have cold start problems relative to petrodiesel that is more of an issue with B100 than B20. For example, B20 freezes at temperatures 3 to 5 F higher than petrodiesel. B100 will begin to freeze at 25 F; however, owners can solve cold start problems by using engine block or fuel filter heaters or storing the vehicle in or near a building.

### Safety

Biodiesel is biodegradable, which means it dissipates quickly after a spill. It has a high flashpoint and low volatility so it does not ignite as easily as petrodiesel and, therefore, increases the margin of safety in fuel handling. It degrades four times as fast as petrodiesel and is not particularly soluble in water. It is non-toxic, which makes it safe to handle, transport and store. As with all vehicles, adequate training is recommended to properly and safely operate and maintain biodiesel-fueled vehicles.

### Maintenance

Maintenance requirements for B20 vehicles and petrodiesel vehicles are the same. B100 does pose a few concerns. Biodiesel acts as a solvent to some fuel component systems and concrete lined tanks. This effect can release deposits accumulated on tank walls and pipes from previous diesel fuel storage initially causing fuel filter clogs. As a result, owners should change the fuel filter after using the first tank of biodiesel.

Additionally, biodiesel may soften and degrade certain types of elastomers and natural rubber parts over time. This is less of a concern with biodiesel blends than with pure B100. Manufacturers recommend replacing these parts with compatible elastomers. Some newer vehicles have biodiesel compatible components; however, contact the manufacturer for confirmation.

*These use descriptions as well as other pertinent information on biodiesel were provided by EPA and available at [www.p2pays.org/ref/08/07820.pdf](http://www.p2pays.org/ref/08/07820.pdf).*

## ESI EMS TRAINING MODULES

Beginning in fall 2005, the N.C. Department of Environment and Natural Resources is offering a series of free workshops designed to assist with environmental management system design and implementation based on the ISO 14001 model. An EMS is a tool that provides organizations with a method to systematically manage their environmental activities, products and services and helps an organization achieve its environmental obligations and performance goals. The workshops will provide guidance on some of the core elements of an EMS and elements that require significant input from a facility's EMS team.

Commitment to develop an EMS is a requirement to become a participant in DENR's Environmental Stewardship Initiative. The ESI is a voluntary program designed to promote and encourage superior environmental

performance by North Carolina's regulated community. This program establishes incentives to stimulate the development and implementation of programs that use pollution prevention and innovative approaches to meet

and go beyond regulatory requirements. More information on ESI and information on how to apply may be found at [www.p2pays.org/esi](http://www.p2pays.org/esi).

The workshops will feature training, resource materials and technical assistance on specific EMS training modules. Workshop

see *ESI*, page 8



## Engine Warranties For Biodiesel Users



All diesel engine companies warranty the product they make - engines. They warranty their engines for "materials and workmanship." If there is a problem with an engine part or with engine operation due to an error in manufacturing or

assembly within the prescribed warranty period, the problem will be covered by the engine company. Typically, an engine company will define what fuel the engine was designed for and will recommend the use of that fuel to their customers in their owner's manuals.

Engine companies do not manufacture fuel or fuel components. Therefore, engine companies do not warranty fuel - whether that fuel is biodiesel or petrodiesel fuel. Since engine manufacturers warranty the materials and workmanship of their engines, they do not warranty fuel of any kind. If there are engine problems caused by a fuel (again, whether that fuel is petrodiesel fuel or biodiesel fuel) these problems are not related to the materials or workmanship of the engine, but are the responsibility of the fuel supplier and not the engine manufacturer. Any reputable fuel supplier (biodiesel, petrodiesel or a blend of both) should stand behind its products and cover any fuel quality problems if they occur.

Therefore, the most important aspect regarding engine warranties and biodiesel is whether an engine manufacturer will void its parts and workmanship warranty when biodiesel is used, and whether the fuel producer or marketer will stand behind its fuels should problems occur.

Most major engine companies have stated formally that the use of blends up to B20 will not void their parts and workmanship warranties. This includes blends below 20 percent biodiesel, such as the two percent biodiesel blends that are becoming more common. It is anticipated that the entire industry will incorporate the American Society for Testing and Materials biodiesel standard into their owner's manuals over time.

The National Biodiesel Board, the trade association for the biodiesel industry, has formed the National Biodiesel Accreditation Commission to audit fuel producers and marketers in order to enforce fuel quality standards in the United States. NBAC issues a 'Certified Biodiesel Marketer' seal of approval for biodiesel marketers that have met all requirements of fuel accreditation audits. This seal of approval will provide added assurance to customers, as well as engine manufacturers, that the biodiesel marketed by these companies meets the ASTM standards for biodiesel and that the fuel supplier will stand behind its products. The following are warranty statements from a variety of engine manufacturers.

### Engine Manufacturer Statements

- [Caterpillar - PDF \(54 pages\)](#)
- [Cummins - PDF \(6 pages\)](#)
- [Detroit Diesel - PDF \(48 pages\)](#)
- [Ford - PDF \(1 page\)](#)
- [GM Motors - PDF \(4 pages\)](#)
- [International - PDF \(3 pages\)](#)
- [John Deere - PDF \(3 pages\)](#)
- [Volkswagen - PDF \(2 pages\)](#)

Information provided by the National Biodiesel Board at [www.biodiesel.org](http://www.biodiesel.org).

## Alternative Fuel Station Locator

This U.S. Department of Energy's [Station Locator](http://www.afdcmapp.nrel.gov/locator/LocatePane.asp) ([www.afdcmapp.nrel.gov/locator/LocatePane.asp](http://www.afdcmapp.nrel.gov/locator/LocatePane.asp)) displays public and private fueling stations. The Station Locator can search the database of fueling stations for the entire country to find alternative fuel stations that offer compressed natural gas, liquefied petroleum gas, 85 percent ethanol (E85), electric, biodiesel, hydrogen and liquefied natural gas. The results are displayed in a map with details for each station.

Please note that some stations in the database have addresses that cannot be located by the mapping application; this may result in

a station appearing in the wrong map location. Call any station you plan to visit to verify its location, hours of operation and type of access.



If you have difficulty understanding the page content, please contact the National Alternative Fuels Hotline at (800) 423-1363. The operator can assist you by providing a verbal or written description. The U.S. Department of Energy's site has other helpful information and can be found at [www.eere.energy.gov](http://www.eere.energy.gov).

## Biodiesel Usage Checklist



**Ensure the biodiesel meets the ASTM specification for pure biodiesel (ASTM D 6751) before blending with petrodiesel.**

The specification for biodiesel is designed so consumers will not experience operational problems. Ensure that biodiesel meets this specification and that the fuel supplier will warrant this fact. Purchase fuel only from reputable sources, such as companies that are “certified marketers” or “accredited producers” under the BQ-9000 biodiesel quality program at [www.bq-9000.org](http://www.bq-9000.org).



**Check fuel filters on the vehicles and in the delivery system frequently upon initial biodiesel use and change as necessary.**

Biodiesel and biodiesel blends have excellent solvent properties. In some cases the use of petrodiesel, especially #2 petrodiesel, leaves a deposit in the bottom of fuel lines, tanks and delivery systems over time. The use of biodiesel can dissolve this sediment and result in the need to change filters more frequently when first using biodiesel until the whole system has been cleaned of the deposits left by the petrodiesel.



**Be aware of biodiesel's cold weather properties and take precautions as with #2 petrodiesel use in cold weather.**

A 20 percent blend of biodiesel with petrodiesel usually raises the cold weather properties two to 10 F (pour point, cloud point, cold filter plugging point). In most cases, this has not been an issue. Twenty percent biodiesel blends have been used in the upper midwest during -25 F weather without issues. Solutions to biodiesel winter operability problems are the same solutions used with conventional #2 petrodiesel (use a pour point depressant, blend with #1diesel, use engine block or fuel filter heaters on the engine, store the vehicles near or in a building, etc.).



**Be aware of biodiesel's compatibility with engine components.**

The switch to low sulfur diesel fuel has caused most original equipment manufacturers to switch to components suitable for use with biodiesel, but users should contact their OEM for specific information. Usually,

pure biodiesel will soften and degrade certain types of elastomers and natural rubber compounds over time. Using high percent blends can impact fuel system components (primarily fuel hoses and fuel pump seals) that contain elastomer compounds incompatible with biodiesel. Manufacturers recommend that natural or butyl rubbers not be allowed to come in contact with pure biodiesel. Blends of B20 or lower have not exhibited elastomer degradation and need no changes. If a fuel system does contain these materials and users want to fuel with blends over B20, replacement with compatible elastomers is suggested.



**Wipe painted surfaces immediately when using biodiesel.**

Biodiesel is a good solvent and if left on a painted surface long enough will dissolve certain types of paints. Therefore, it is recommended to wipe any biodiesel or biodiesel blend spills from painted surfaces immediately.



**Store biodiesel or biodiesel blend-soaked rags in a safety can to avoid spontaneous combustion.**

Biodiesel soaked rags should be stored in a safety can or dried individually to avoid the potential for spontaneous combustion. Biodiesel is made from vegetable oils or animal fats that can oxidize and degrade over time. This oxidizing process can produce heat. In some environments a pile of oil-soaked rags can develop enough heat to result in a spontaneous fire.



**Use stored biodiesel within six months.**

All fuels, including #2 and #1 petrodiesel, have a shelf life that is also true with biodiesel and biodiesel blends. Industry experts recommend biodiesel be used within six months of purchase to ensure quality of the fuel is maintained. Storage time does not impact biodiesel distribution given biodiesel's production logistics. Biodiesel is generally not stored for long periods of time. Production levels and rates are established to meet demand.

*This guidance was provided by the National Biodiesel Board at (800) 841-5849, or email at [info@nbb.org](mailto:info@nbb.org), or through its Web site [www.biodiesel.org](http://www.biodiesel.org).*

## EPA Proposes to Modify Toxics Release Inventory Reporting Requirements

EPA has announced two proposed rules intended to reduce the time and resources needed to submit annual reports to the U.S. EPA Toxics Release Inventory Program. The data and information are currently provided to EPA by nearly 23,000 industrial and federal facilities nationwide. The proposal sets forth various options that aim to reduce the amount of time that affected facility owners and operators collectively spend responding to TRI reporting requirements each year by an estimated 45,000 hours. These changes are not anticipated to affect human health

or environmental quality. At the same time, EPA will continue to provide valuable TRI information to the public regarding toxic chemical releases and other waste management activities in their communities.



## City of Asheville – North Carolina’s First ISO 14001 Certified Water Utility



In December 2004, the City of Asheville’s Water Resources Department became North Carolina’s first water utility to implement a department-wide management system for environmental affairs. The system, ISO 14001, is an international standard for environmental management systems.

“The ISO program has allowed our department to systematically manage and continually improve every aspect of our environmental performance,” states David Hanks, Asheville’s water resources director.

Since no other water resources department in North Carolina has implemented this program, Audran Stephens, the department’s ISO coordinator, needed help. For management systems to be truly effective, they often must be generated from within their own management and staff. The department staff implemented the ISO standard on its own without paid consultants, but in exploring uncharted territory, sought guidance from a knowledgeable source.

Stephens contacted Waste Reduction Partners, a program of the Land-of-Sky Regional Council, for assistance. Doug Stimson, a WRP volunteer and recent retiree with ISO auditing experience, worked with Stephens and the ISO 14001 Certification Team. Stimson’s knowledge of ISO 14001 assisted in guiding the team through the implementation process. Stimson has previously helped two large industries implement the ISO 14001 management system and has extensive quality system auditing experience.

“Doug was the driving force behind our team’s motivation,” said Stephens. “With all the preparation, training and paperwork involved in becoming ISO 14001 registered, he kept us on the right path toward meeting our goal. It was a pleasure to work with him, and I would recommend his services to anyone seeking ISO 14001 registration.”

The Water Resources Department was third-party certified on Dec. 9, 2004, making it the first ISO 14001 registered water utility in the state. The implementation team has noticed a dramatic difference in employees taking pride in the program and contributing to environmental protection on and off the job. As a result of this program, erosion control measures (i.e. silt fencing) are used on construction job sites, water meters older than 15 years are being replaced, a new water tank is being installed in south Asheville and employees are continuously updated on improvements to the environmental management system. Many other beneficial projects have occurred as a result of this program. The department hopes to be an encouragement to other water utilities, government agencies and businesses who are seeking ISO 14001 registration.

Audran Stephens can be reached at (828) 259-5960 and Doug Stimson is available at (828) 251-6622.



Knowing how to comply with new stormwater regulations just got a whole lot easier. Because stormwater can impact so many different businesses, just tracking down the regulations can be a task in itself. Information on technical or financial assistance, the right permits and the latest news about stormwater issues can now be found in one location ~ [www.ncstormwater.org](http://www.ncstormwater.org) ~ brought to you by the N.C. Department of Environment and Natural Resources.

Divided into three different portals: local government, business and public, the site is designed to get you to the data you need

without wading through any excess. Since you don’t have time to reinvent the wheel, the stormwater Web site is full of manuals, best practices, case studies and economic analyses to help choose the solutions that work best for your business.

Getting staff trained can be a bear with new regulations; so don’t miss the News & Events page. On this page, along with the week’s news about the latest stormwater developments, are workshops, conferences and Webinars on low impact development,

see *STORMWATER*, page 8

*FOCUS: Waste Minimization* is published by the divisions of Pollution Prevention and Environmental Assistance, Waste Management, Air Quality and Water Quality of the N.C. Department of Environment and Natural Resources (DENR). It is intended to provide North Carolina industries and other interested parties with current information concerning proper waste management and waste reduction. The information contained in this publication is believed to be accurate and reliable. However, the application of this information is at the reader's own risk. Mention of products and services in the publication does not constitute an endorsement by the state of North Carolina. The information contained in this publication may be cited freely.

If you have comments, waste minimization case summaries, resource information or questions for the next issue of the *FOCUS* newsletter, call Norma Murphy at (919) 715-6513, fax (919) 715-6794, e-mail [Norma.Murphy@ncmail.net](mailto:Norma.Murphy@ncmail.net), or write the N.C. Division of Pollution Prevention and Environmental Assistance (DPPEA), 1639 MAIL SERVICE CENTER, RALEIGH NC 27699-1639.

State of North Carolina: Michael F. Easley, Governor; William G. Ross Jr., DENR Secretary; Gary Hunt, DPPEA Director.



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online:

[www.p2pays.org](http://www.p2pays.org)

## CALENDAR OF EVENTS

EVENT	DATE	LOCATION	CONTACT
ESI Annual Meeting	March 2, 2006	Research Triangle Park, N.C. EPA	<a href="#">John Burke</a> (336) 249-1480
National Environmental Partnership Summit	May 8-11, 2006	Atlanta, Ga.	<a href="#">Summit Web site</a>

*ESI, from page 4*

participants will be asked to complete some work outside of class as part of the EMS development. The EMS training modules to be offered and tentative schedule for the workshops are:

**Operational Controls and Monitoring and Measurement** Nov. 17, 2005

**Setting Objectives and Targets and Environmental Management Programs to Achieve Them** Dec. 15, 2005

**Corrective and Preventive Action, Internal EMS Audits and Compliance with Legal and Other Requirements** February 2006

Workshop participants should have applied to the program or already be members of the ESI. As a member of the ESI program, participants will receive assistance related to these and other elements of the EMS as needed. Workshop attendees should include staff developing an EMS or new employees from facilities that already have an EMS. It is recommended that participants be familiar with the EMS "Plan, Do, Check, Act" model prior to attending training. Workshops will be held in the Raleigh area.

Participants must pre-register for the workshops. For more information on the training or to register, please contact John Burke, N.C. DENR's Division of Pollution Prevention and Environmental Assistance, (336) 249-1480 or [John.Burke@ncmail.net](mailto:John.Burke@ncmail.net).

*EPA, from page 6*

The change would eliminate redundant or seldom-used data elements and modify others that can be shortened, simplified or otherwise improved to reduce the time and costs involved in completing and submitting some annual TRI forms. EPA will obtain important data elements, such as facility identification codes for other EPA programs, from existing EPA databases that already collect the information. The proposed rule describes how these data would be obtained from EPA's Facility Registry System (<http://www.epa.gov/enviro/html/facility.html>).

The proposal also includes a number of other minor changes relating to waste management information, a change to ease reporting of pollution prevention activities and improved access to information about source reduction and pollution control activities undertaken by some facilities.

EPA believes that these changes will enhance the efficiency and effectiveness of the TRI program, while continuing to provide communities and other data users with the same high level of information about toxic chemical releases and waste management. The changes proposed in this rulemaking effort provide several relatively simple ways to reduce the time, cost and complexity of reporting requirements imposed on covered facilities. They are thus expected to result in a modest, but important, amount of cost and time savings.

For further information on this proposed rulemaking or ways to submit comments on EPA's proposal, please visit the TRI Web site: [www.epa.gov/tri](http://www.epa.gov/tri).

*STORMWATER, from page 6*

stormwater certification and erosion controls. You'll also find newsletters from coastal, forestry and water quality divisions, among others.

Stormwater is North Carolina's largest source of water pollution and it's not going away without everyone-business, government, and people-working together. Instead of wondering where to find all the stormwater information you need, visit [www.ncstormwater.org](http://www.ncstormwater.org) and you'll be ready to get down to business.



Contact Chrystal Bartlett at (919) 733-7015 or [Chrystal.Bartlett@ncmail.net](mailto:Chrystal.Bartlett@ncmail.net) for further details on DENR's stormwater program.