

Conservation Committee Report

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Jack Walters—Conservation Chairman

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EPA to Allow 15 Percent Renewable Fuel in Gasoline

Agency approves first applications for registration of ethanol to make E15

The U.S. Environmental Protection Agency (EPA) approved the first applications for registration of ethanol for use in making gasoline that contains up to 15 percent ethanol – known as E15. Ethanol is a renewable fuel that can

be mixed with gasoline. For over 30 years ethanol has been blended into gasoline, but the law limited it to 10 percent by volume for use in gasoline-fueled vehicles. Registration of ethanol to make E15 is a significant step toward its production, sale, and use in model year 2001 and newer gasoline-fueled cars and light trucks.

To enable widespread

use of E15, the Obama Administration has set a goal to help fueling station owners install 10,000 blender pumps over the next 5 years. In addition, both through the Recovery Act and the 2008 Farm Bill, the U.S. Department of Energy (DOE) and U.S. Department of Agriculture have provided grants, loans and loan guarantees to

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The Conservation Pledge

I give my pledge as an American to save and faithfully defend from waste, the natural resources of my country; the soil, the water, the air, the minerals, the plant life and the wildlife.

This is my Pledge!

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EPA Recognizes the Borough of State College for

Curbside Food Recycling

Borough and Centre County Recycling and Refuse Authority Join EPA's Food Recovery Challenge

The U.S. Environmental Protection Agency marked the beginning of Earth Week by recognizing State College Borough

for its curbside food recycling program.

State College is the only town in the Commonwealth of Pennsylvania that is conducting curbside food waste collection for composting. The program began as a pilot and is slated to go borough-wide in 2013.

During the ceremony today at State College's composting facility, EPA Regional Administrator Shawn M. Garvin also welcomed the borough and Centre County Recycling and Refuse Authority as the newest members to join

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EPA to Allow 15 Percent Renewable Fuel in Gasoline

spur American ingenuity on the next generation of biofuels.

Today's action follows an extensive technical review required by law. Registration is a prerequisite to introducing E15 into the marketplace. Before it can be sold, manufacturers must first take additional measures to help ensure retail stations and other gasoline distributors understand and implement labeling rules and other E15-related requirements. EPA is not requiring the use or sale of E15.

Ethanol is considered a renewable fuel because it is generally produced from plant products or wastes and not from fossil fuels. Ethanol is blended with gasoline for use in most areas across the country. After extensive vehicle testing by DOE and other organizations, EPA issued two partial waivers raising the allowable ethanol volume to 15 percent for use in model year 2001 and newer cars and light trucks..

E15 is not permitted for use in motor vehicles built prior to 2001 model year and in off-road vehicles and equipment such as boats and lawn and garden equipment. Gas pumps dispensing E15 will be clearly labeled so consumers can make the right choice.

More information:

<http://www.epa.gov/otaq/regs/fuels/additive/e15/>

Source: The U.S. Environmental Protection Agency (EPA)

EPA Fines Violators of the Lead Renovation, Repair and Painting Rule

The U.S. Environmental Protection Agency (EPA) announced three enforcement actions for violations of the Lead Renovation, Repair and Painting Rule (RRP) and other lead rules. The RRP rule requires the use of lead-safe work practices to ensure that common renovation activities like sanding, cutting and demolition, which can create hazardous lead dust, are conducted properly by trained and certified contractors or individuals. EPA finalized the RRP rule in 2008 and the rule took effect on April 22, 2010.

“Exposure to lead can cause serious health problems and affects our most vulnerable population, our children,” said Cynthia Giles, assistant administrator for EPA’s Office of Enforcement and Compliance Assurance. “By taking action to enforce lead rules we are protecting people’s health and ensuring that businesses that follow the rules have a level playing field.”

On March 21, 2012, Colin Wentworth, a rental property owner who

was responsible for building operation and maintenance, agreed to pay \$10,000 to resolve violations of the RRP rule. The complaint alleged that Mr. Wentworth’s workers violated the rule by improperly using power equipment to remove paint from the exterior surface of an 1850’s apartment building he owns in Rockland, Maine. The complaint also alleged that the workers had not received any training under the rule and that Mr. Wentworth had failed to apply for firm certification with the EPA. Because the lead dust had not been properly contained, residents were potentially exposed and the dust could have also contaminated the ground surrounding the apartment building. Two of the four units in the building were rented to recipients of U.S. Department of Housing and Urban Development Section 8 vouchers and there were at least four children under the age of 18, including one under the age of six, living in the units. The Maine Department of Environmental Protection and the Occupational Safety and Health Administration (OSHA) also responded to the alleged violations.

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EPA Recognizes the Borough of State College for Curbside Food Recycling

EPA's Food Recovery Challenge.

"Earth Week is an excellent time to raise awareness about the importance of recycling food waste. By diverting food waste away from landfills, the borough is saving money on disposal fees, reducing harmful air emissions and producing a valuable soil product when it is composted. EPA is pleased to recognize State College Borough and Centre County and welcome them into our Food Recovery Challenge," said EPA Regional Administrator Shawn M. Garvin.

EPA's Food Recovery Challenge encourages organizations to reduce waste, donate, and recycle as much of their unspoiled food waste as possible. This saves money, feeds the needy and helps protect the environment.

State College Borough has a well-established yard and garden waste collection and now collects food waste as part of a pilot program which will become borough-wide next year. The food and garden waste is turned into compost, which is used throughout the borough and is also available for purchase. The borough uses and sells approximately 3,000 cubic yards of compost per year.

Food waste is the largest waste category in the U.S. In 2010, 34 million tons of food waste was generated. Of that, 97 percent was sent to landfills or incinerators.

When excess food, leftover food, and food scraps are disposed of in a landfill, they decompose rapidly and become a significant source of methane, an extremely potent greenhouse gas which contributes to climate change. Landfills and the food waste in them account for more than 20 percent of all methane emissions in the U.S.

In addition to composting, food that is not spoiled can help to feed the hungry because much of it is not waste at all but actually safe, wholesome food that could potentially feed millions of Americans. Food donations from supermarkets and restaurants are now redirecting these valuable resources to food cupboards and other hunger relief organizations.

For more information on the Food Recovery Challenge go to: www.epa.gov/foodrecoverychallenge.

Source: The U.S. Environmental Protection Agency



EPA Fines Violators of the Lead Renovation, Repair and Painting Rule (continued)

On March 20, 2012, Valiant Home Remodelers, a New Jersey window and siding company, agreed to pay \$1,500 to resolve violations from failing to follow the RRP rule during a window and siding replacement project at a home in Edison, N.J. Valiant Home Remodelers failed to contain renovation dust, contain waste, and train workers on lead-safe work practices.

On February 21, 2012, Johnson Sash and Door, a home repair company located in Omaha, Neb., agreed to pay a \$5,558 penalty for failing to provide the owners or occupants of housing built prior to 1978 with an EPA-approved lead hazard information pamphlet or to obtain a written acknowledgement prior to commencement of renovation activities at five homes. The complaint also alleged that Johnson failed to obtain initial certification prior to performing renovations at these residences.

As required by the law, a company or individual's ability to pay a penalty is evaluated and penalties are adjusted accordingly.

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EPA Fines Violators of the Lead Renovation, Repair and Painting Rule (continued)

These recent actions are part of EPA's effort to ensure that contractors and individuals follow the RRP

requirements and other lead rules to protect people's health from exposure to lead. Lead exposure can cause a range of health effects, from behavioral problems and learning disabilities to seizures and death, putting young children at the greatest risk because their nervous systems are still developing.

More on the settlement:
<http://www.epa.gov/compliance/civil/tsca/tscaenfstatreq.html>

More about lead:
<http://www.epa.gov/lead>

Source: The U.S. Environmental Protection Agency (EPA)



DEP Invites Schools, Students to Join Fight Against Litter

The Department of Environmental Protection and Keep Pennsylvania Beautiful invite all Pennsylvania schools and school districts to join the Pennsylvania Litter-Free School Zone Program.

"Learning during childhood how to keep schools and neighborhoods clean and litter-free is a lifelong skill and value," DEP Secretary Mike Krancer said. "Participating schools provide an example everyone can follow in making Pennsylvania a more beautiful place to live, work, play and learn."

The program encourages students to keep their campuses and neighborhoods free of litter while boosting public awareness by displaying a Litter-Free School Zone sign outside the school. Participating schools will be eligible for a random drawing for one of two \$250 cash prizes from the Pennsylvania Food Merchants Association.

The program aims to prevent littering by teaching children about environmental stewardship.

Keep Pennsylvania Beautiful encourages schools to register their litter pickup or cleanup

events with the Great American Cleanup of PA, online at www.gacofpa.org. Participants in the Great American Cleanup of PA are eligible for free supplies, such as bags, gloves and vests. Participating schools are required to report their results to the Great American Cleanup of PA and the Litter-Free School Zone program.

For more information about Keep Pennsylvania Beautiful and to register a school and get educational materials, visit www.keppabeautiful.org or call 877-772-3673.

For more information about DEP's Waste Management program, visit www.dep.state.pa.us or call 717-783-9258.

Source: PA Department of Environmental Protection

Governor Corbett Announces 2012 Environmental Excellence Awards Winners

Governor Tom Corbett announced that 17 environmental projects from across the state will receive the 2012 Environmental Excellence Award.

“These businesses, schools and organizations have demonstrated a commitment to reducing our impact on the environment, and I commend them for their efforts,” Corbett said. “The winning projects raise the bar for all of us to be more environmentally conscious.”

Department of Environmental Protection Secretary Mike Krancer will be the keynote speaker at tonight’s Pennsylvania Environmental Council award event at the Hilton in downtown Harrisburg.

“Innovation is paramount to our ability to craft sensible environmental policy,” Krancer said. “We applaud all the award winners for their spirit of innovation and their passion for improving the environment.”

Governor Corbett and DEP urged any Pennsylvania business, school, government agency, trade organization, non-profit organization or agribusiness involved in efforts to promote environmental stewardship and economic development to apply for the

award. DEP and the non-profit Pennsylvania Environmental Council then reviewed the applications and made selections.

The winning projects include those focused on abandoned mine reclamation, alternative energy, energy management and the creation of a public compressed natural gas refueling station.

For more information, visit www.dep.state.pa.us or www.pecpa.org.

Media contact: Katy Gresh, 717-787-1323

Editor’s note: The 17 winners of the 2012 Governor’s Environmental Excellence Awards are listed below, by county:

Allegheny County

Giant Eagle – Giant Eagle Delivering a Clean Future, CNG Project

Propel Schools – Sunflower Fields Forever

Southwestern Pennsylvania Commission – Regional Traffic Signal Program

Berks County

Anthony Rymar – UGI-PNG former Water Street Manufactured Gas Plant

Butler County

Connoquenessing Watershed Alliance Inc. – Thorn Creek Habitat Improvement Project

Centre County

Bald Eagle Area School District – Wingate Complex Renovation with Solar, Geothermal and Environmental Center

Clinton County

Trout Unlimited – West Branch Recovery Benchmark Project

Franklin County

Chambersburg Area School District – CASD Energy Management, Conservation and Energy Star Partnership

Lancaster County

ElectroCell Technologies Inc. – ElectroCell Technologies/Snavely Farms Green Cycle Nutrient Trading and Odor Reduction Project

Mount Joy Borough Authority – Nutrient Credit Trade and Class A Implementation Program

Luzerne County

Earth Conservancy – Espy Run Wetlands Enhancement Project

Montgomery County

Greener Partners – Longview Center for Agriculture

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Philadelphia County

ARCA Advanced Processing LLC – First URT Refrigerator Recycling Plant in the United States

PECO, in partnership with the Franklin Institute and the National Energy Education Development Project – PECO Energizing Education Program

Zoological Society of Philadelphia – Bird Lake Wetland

York County

PA Apiculture Inc. – PennApic Learning Center and Public Outreach Program

Sunnyside Farm – Farming without Petroleum

Source: PA DEP



Opening New Avenues for High-Efficiency, Low-Emission Coal Gasification

Adoption of Advanced Dry-Solids Feed Pump Would Benefit Power, Chemical Production at Home and Abroad

Gasification. It's a versatile technology that uses coal to produce power, chemicals, and fuels. Inherently low in air emissions, solid byproducts, and wastewater, commercial gasification plants have proven capable of exceeding the most stringent regulations for air- and solids-emissions. However, capital and operational costs have prohibited the widespread adoption of gasification, especially for power

production—a major source of anthropogenic carbon dioxide (CO₂) emissions.

Now, in a project funded by the U.S. Department of Energy's Office of Fossil Energy, Pratt & Whitney Rocketdyne has developed a high-pressure dry-solids feed pump that could make gasification economically competitive by improving efficiencies and introducing low-rank Western coal as a viable feedstock option. The project is a collaborative effort among Pratt & Whitney Rocketdyne, the Office of Fossil Energy's National Energy Technology Laboratory (NETL), ExxonMobil Research

and Engineering Company, Alberta Innovates – Energy and Environment Solutions, and the Environmental and Engineering Research Center at the University of North Dakota.

Today's commercial dry-feed gasification systems are limited to processing pressures of about 450 psi. Pratt & Whitney Rocketdyne's feed pump more than doubles those pressures to 1,000 psi. Higher system pressures mean higher system efficiencies; higher efficiencies translate into less coal used to produce power and other products.

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Opening New Avenues for High-Efficiency, Low-Emission Coal Gasification (continued)

Capital, operations, and maintenance costs are lower and resources are extended.

Add in the ability of the Pratt & Whitney Rocketdyne system to feed low-rank coal into gasifiers, and costs are further reduced. Low-rank coal contains less energy per pound than higher-ranked bituminous coal, so it is typically considered too low in energy density for current slurry-fed gasification systems. However, approximately 50 percent of the coal produced in the United States is low-rank sub-bituminous coal and lignite, mined predominantly in the western states. The ability of the system to use these lower-cost feedstocks can further enhance the option of gasification and provide an economic boon to low-rank-coal-producing states like North Dakota, Wyoming, and Texas.

Why is the adoption of gasification so important? Because environmental gains could be considerable. Coal gasification holds the promise of making industrial carbon management a reality by producing a CO₂ stream that is ready for capture, utilization, and storage. Widespread adoption of gasification for power-

production could significantly reduce CO₂ emissions and mitigate climate change. Gasification-based power generation also uses about half the water consumed by combustion-based coal power production. Compared to conventional slurry-feed systems, the Pratt & Whitney Rocketdyne feed pump further reduces water use by cutting or eliminating its addition.

With broad commercialization of gasification in the United States, especially with the option of using low-rank coal, adoption of gasification technology could be realized around the world. India, China, Turkey, Australia, and Eastern Europe, in particular, have considerable reserves of low-rank coal. Their ability to gasify these resources would not only benefit the U.S. gasification technology industry through technology transfer, but it would result in a global environmental benefit by enabling these countries to more actively participate in carbon capture, utilization, and storage initiatives.

The first Pratt & Whitney Rocketdyne commercial-scale high-pressure dry-solids feed pump was commissioned at the Environmental and Engineering Re-

search Center on April 10, 2012. There it will undergo 9–12 months of demonstration-scale testing to determine the pump's flexibility in handling feed types, particle sizes, and pressure ranges. If successful, Pratt & Whitney Rocketdyne will make the pump available to industry for commercial use, and gasification will have an opportunity to make a difference in the economic and energy security of the United States and the world.

Source: U.S. Department of Energy



Lyme Disease Surge Predicted for Northeastern US

Due to Acorns and Mice, Not Mild Winter

The northeastern U.S. should prepare for a surge in Lyme disease this spring. And we can blame fluctuations in acorns and mouse populations, not the mild winter. So reports Dr. Richard S. Ostfeld, a disease ecologist at the Cary Institute of Ecosystem Studies in Millbrook, NY.

What do acorns have to do with illness? Acorn crops vary from year-to-year, with boom-and-bust cycles influencing the winter survival and breeding success of white-footed mice. These small mammals pack a one-two punch: they are preferred hosts for black-legged ticks and they are very effective at transmitting *Borrelia burgdorferi*, the bacterium that causes Lyme disease.

"We had a boom in acorns, followed by a boom in mice. And now, on the heels of one of the smallest acorn crops we've ever seen, the mouse population is crashing," Ostfeld explains. Adding, "This spring, there will be a lot of *Borrelia burgdorferi*-infected black-legged ticks in our forests looking for a blood meal. And instead of finding a white-footed mouse, they are going to find other mammals -- like us."

For more than two decades, Ostfeld, Cary Institute forest ecologist Dr. Charles D. Canham, and

their research team have been investigating connections among acorn abundance, white-footed mice, black-legged ticks, and Lyme disease. In 2010, acorn crops were the heaviest recorded at their Millbrook-based research site. And in 2011, mouse populations followed suit, peaking in the summer months. The scarcity of acorns in the fall of 2011 set up a perfect storm for human Lyme disease risk.

Black-legged ticks take three bloodmeals -- as larvae, as nymphs, and as adults. Larval ticks that fed on 2011's booming mouse population will soon be in need of a nymphal meal. These tiny ticks -- as small as poppy seeds -- are very effective at transmitting Lyme to people. The last time Ostfeld's research site experienced a heavy acorn crop (2006) followed by a sparse acorn crop (2007), nymphal black-legged ticks reached a 20-year high.

The May-July nymph season will be dangerous, and Ostfeld urges people to be aware when outdoors. Unlike white-footed mice, who can be infected with Lyme with minimal cost, the disease is debilitating to humans. Left undiagnosed, it can cause chronic fatigue, joint pain, and neurological problems. It is the most prevalent vector-borne illness in the U.S., with the major-

ity of cases occurring in the Northeast.

Ostfeld says that mild winter weather does not cause a rise in tick populations, although it can change tick behavior. Adult ticks, which are slightly larger than a sesame seed, are normally dormant in winter but can seek a host whenever temperatures rise several degrees above freezing. The warm winter of 2011-2012 induced earlier than normal activity. While adult ticks can transmit Lyme, they are responsible for a small fraction of tick-borne disease, with spring-summer nymphs posing more of a human health threat.

Past research by Ostfeld and colleagues has highlighted the role that intact forest habitat and animal diversity play in buffering Lyme disease risks. He is currently working with health departments in impacted areas to educate citizens and physicians about the impending surge in Lyme disease.

Source: Dr. Richard S. Ostfeld, a disease ecologist at the Cary Institute of Ecosystem Studies in Millbrook, NY

