



State Cleaning Up Green

Surrounded by state officials and green cleaning products, Governor M. Jodi Rell recently signed into law *"An Act Concerning the Use of Cleaning Products in State Buildings"*. The new law requires Connecticut state agencies to buy and use environmentally preferable cleaning products. These products, ranging from glass cleaners and degreasers to floor polishes and bathroom cleaners, must meet national or international environmental certification standards approved by the Department of Administrative Services (DAS) in consultation with the Department of Environmental Protection (DEP). The new state law is effective October 1, 2007 and it was preceded by Executive Order 14 issued by Governor Rell in 2006.



photo: Tony Calabrese

"This law will protect our employees and visitors in state buildings from the ill effects of toxic chemicals", said Governor Rell. "The bottom line is we want to preserve a healthy indoor environment by mandating the use of environmentally preferable cleaning products in all our state government buildings."

According to U.S. Environmental Protection Agency (EPA) estimates, people spend up to 90% of their time indoors. Conventional cleaning products impact indoor air and may contain ingredients that cause cancer or affect the respiratory system, central nervous system, development and reproduction.

Municipalities are joining the green cleaning revolution, too. Strong cleaning products used in schools pose more of a risk to children of all ages, especially those with asthma or other health issues. In addition, the National Institute for Occupational Safety and Health (NIOSH) reports that 12% of work-related asthma is the result of exposure to cleaning chemicals.

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Why be Idle?

True or False, a car left running for more than ten seconds burns more gas than shutting it off and restarting it? It's true. And, in Connecticut, there are state laws and regulations that prohibit vehicles from idling for more than three minutes when not at a traffic signal, with some exceptions. This applies to every vehicle in Connecticut, not just diesel buses and trucks, but to our cars as well.

Anti-idling laws and regulations were developed as a way to improve air quality and immediately reduce our exposure to potential health impacts of exhaust. Idling vehicles create emissions that contribute toward smog and ground-level ozone, and produce carbon dioxide (a greenhouse gas). Engine exhaust contains toxic air pollutants and fine particles, which can cause lung damage and aggravate respiratory conditions including asthma and bronchitis.

Some of the more publicized actions taken to reduce vehicle exhaust in Connecticut involve prohibiting the idling of buses on school grounds, since this impacts so many children. Children are more sensitive to air pollution because they breathe 50 percent more air per pound of body weight than adults. The CT DEP offers free anti-idling signs to Connecticut schools to remind people to turn off their vehicle while waiting in school zones. These signs which read: "Idling of Vehicles Prohibited", are

offered free by request. (See box – Stop Idling at Your School)

While buses are important to target, other vehicles such as pick-up trucks, SUV's, and cars operated by the average motorist, also contribute significantly to the problem. Despite the anti-idling legislation in the State, non-bus idling still remains a problem, probably because many of us are unaware that leaving our car engines running creates air pollution. In fact, if left running for the same amount of time, an idling car causes more pollution than a car traveling at standard speed.

In addition to helping reduce air pollution, reducing engine idling also saves money by conserving fuel and reducing wear and tear on engine parts. Because an idling engine is not operating at its optimal temperature, incomplete combustion occurs, allowing fuel residue to condense on engine parts like spark plugs and can even contaminate engine oil.

So, next time you're stuck waiting in your car and you're not at a stop sign or traffic light, simply turn off your engine. Need an additional reminder? Cut out the attached "Spare Our Air" reminder and place in a visible spot in your vehicle, such as your dashboard. If everyone does his or her part, it will help us all breathe easier.

Need a reminder to turn off your engine while waiting? Cut out this reminder and place it in your car. Make a copy and give it to a friend or family member.

Stop Idling At Your School

Teachers and Students: Talk to your principal or administrator. There are anti-idling signs available from the DEP by request to be posted on school grounds. Contact: Teraesa Milardo at (860) 424-3352 or teraesa.milardo@po.state.ct.us. For more information on DEP's anti-idling efforts, go to www.ct.gov/dep. Have students design a poster contest and/or create a slogan for anti-idling. The winners can be used in a letter home to parents encouraging them to turn off their engines.

Parents: Lead by example. When you are waiting to pick up your child turn your engine off. Whenever you are carpooling other students, be sure to let them know why you are turning the engine off. Maybe they will encourage their "drivers" to do likewise!



artwork:
www.airwatchnorthwest.org

Recycling Rundup

Under Deconstruction

When four buildings had to be removed to make way for Trailside Village, LLC in Hamden, Joe DeRisi of urbanminers saw an opportunity. It would be costly for the contractor to demolish and then dispose of the structures, and there were good, usable materials that could be salvaged and re-used or recycled. DeRisi approached the contractor, Dean Fiske of Ravenswood Construction, LLC to see if he would consider “deconstructing” the structures instead of the usual 3 d’s of unwanted buildings — demolition, the dumpster and disposal.

After some discussion, the two decided to try a small pilot project, deconstructing a small kitchen addition, approximately 200 square feet, on one of the structures. The pilot would determine the feasibility of deconstructing more portions of site and would give the crew (volunteers and Ravenwood staff) an opportunity to improve their dismantling techniques. The salvaged materials would be donated to two non-profit organizations that sell the used building materials, Habitat for Humanity’s “Restore” in Stratford and The ReConstruction Center in New Britain. The contractor would also save money on disposal costs and receive a tax deduction for the donated materials.

Deconstruction is done from the opposite direction of the building process – from the roof down. It involves carefully dismantling a structure to salvage good building materials for re-use or recycling. A deconstructionist must have knowledge of how structures are built as well as how to market the recovered materials, and must be trained in how to disassemble and manage the materials. According to DeRisi, “ up to 80 % of the total materials of a typical residential structure can be salvaged for reuse or recycling.”

The pilot project took approximately 90 hours to complete. The recovered materials from this small kitchen addition deconstruction included, dimensional lumber, double glazed windows, solid wood doors, kitchen cabinets, trim and molding with an estimated resale value of over \$2500. DeRisi estimates that a standard demolition project and disposal of a structure of this size may have cost the contractor about \$2400.

Deconstruction is labor-intensive and can be more expensive than demolition, but it can be advantageous for both the contractor and consumer. Contractors can save on disposal costs, promote recycling awareness and market themselves as “ green builders” . Salvaged materials can then be purchased by the public at reuse stores or the job sites at rock-bottom prices. Reusing building materials is a good way to save money and natural resources, reduce waste and energy, and create employment.

For more information, contact:

Joe DeRisi at
joe@urbanminers.com,
(203) 824-1724 or Ravenswood Homes
in Cheshire at (203) 272-3574.

Bridgeport ReStore
1785 Stratford Ave & Honeyspot
Rd, Stratford, CT at (203) 383-4358
www.habitat.org

The ReCONSTRUCTION Center
230 South Street, New Britain, CT
at (860) 597-3390
www.reconstructioncenter.org

Foodshare Sustains More than the Hungry

If you are familiar with Foodshare, you probably associate them with feeding hungry people, their annual turkey drive, or the Walk Against Hunger. You probably don't think of energy efficiency, water conservation, waste reduction or recycling. But, sure enough, all of those things are happening at Foodshare.

Foodshare is a non-profit organization that provides 13 tons of food each day to needy people throughout Hartford and Tolland Counties. When Foodshare outgrew their current space a few years ago, they chose a building site in Bloomfield for a new 30,000 square foot distribution center. The story behind this new facility is a tale worth telling. Initially, the plan was to build a standard, prefabricated steel building that could house food donations and some office space. However, a visit from a member of the Connecticut Green Building Council caused a whole different project to take shape.

After hearing about the benefits of a building system known as LEED, Leadership in Energy and Environmental Design, the Foodshare board was convinced they should build a high-performance, energy efficient building that would benefit the environment as well as being a healthy place for the employees and volunteers. Although construction costs would be higher than originally estimated, they would save money on energy costs for years to come and would be eligible for additional grant funding.

The new building has been up and running since December 2005, and Foodshare has applied to the US Green Buildings Council for LEED certification. Looking back, the only thing they would have done differently would be to have known earlier on, from the get-go, that they would end up building "green" so that everyone involved in the process would have been knowledgeable about LEED requirements.



Skylights provide plenty of natural light in Foodshare's facility

Energy Efficiency:

In a food warehouse of this size, the freezer and cooler are very big, and are the largest users of electricity. Here's where Foodshare really got creative. Typically, the freezer doors get opened and can remain open for a long time while food items are gathered. Instead, these doors have a pull cord allowing easy opening, then quickly close automatically. When all the food is gathered, the door can be opened from the inside. The freezer also uses four compressors of stepped sizing that are staged, so that only the compressors that are needed to maintain the correct temperature are utilized. The large freezer is kept at zero degrees, while a smaller freezer located within the larger one holds ice cream and is kept at 10 degrees below zero. In the past, the entire freezer had to be kept at the lower temperature. Computer software controls freezer temperatures and compressor usage to maximize efficiency.

The building was designed with several skylights and windows that utilize natural daylight. On sunny days they don't even need to turn on the lights. All of the lighting throughout the facility, including the warehouse space, stairwells and

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offices is connected to occupancy sensors and timers to ensure that lights are on only when absolutely necessary. The heating, ventilating and air conditioning system (HVAC) is a high efficiency Pur-on system that uses a non-ozone depleting refrigerant. There is no air conditioning in the warehouse space, and none is needed due to the highly reflective roofing, increased insulation, and superior ventilation.

The Connecticut Energy Efficiency Fund provided over \$100,000 for installing the efficient lighting and HVAC equipment, refrigeration, occupancy sensors and high-speed doors. Foodshare is expected to save over 320,000 kilowatt-hours (kWh) over the next year, and nearly 5.8 million kWh over 18 years, the expected lifetime of the improvements. The dollar savings are approximately \$38,000 per year and \$685,000 over the lifetime.

Environmentally Friendly Materials:
“From the first day that we moved in to the building, it never had that chemical smell that new buildings usually have, the smell that gives everyone a headache by the end of the day” is how Christine O’Rourke, the Executive Vice President, describes it. “The windows actually open, and there is so much day light that enters through the windows and skylights, it’s amazing.” The “green” materials chosen for the building included water-based paint, linoleum flooring and non-toxic carpeting and carpeting adhesives. All of the furniture is either re-furnished or was donated, including the office cubicles, file cabinets, tables and chairs. The building structure also contains 80% recycled steel.

Recycling, Waste Reduction and Food Composting:
Food donations come packed in cardboard boxes. Previously Foodshare filled a large dumpster with cardboard that needed to be hauled three times a week at their expense. Now, with a donated bailer, the cardboard is processed into bales and Foodshare gets paid for this material. This has resulted in a reduction in waste disposal and a significant cost savings.

In addition to recycling bottles and cans, and re-using office paper, Foodshare also has a unique food waste recycling program. The organization receives large amounts of fresh fruits and vegetables, and needless-to-say, there is some spoilage. Foodshare’s innovative solution is to recycle this food waste using a large chopper pump that pulverizes the spoiled produce into liquid slurry. The slurry is removed periodically from a 6,000-gallon holding tank and then taken to local farmers for composting. DEP provided \$47,000 towards the start-up of this program. Over the first 3 years of operation, 750,000 pounds (91,000 gallons) of spoiled produce was recycled at a savings of over \$32,000.

Wetlands and Water Conservation:
Foodshare has given the Town of Bloomfield a Conservation Easement for 2.43 acres of land surrounding the facility that consists of wetlands, to preserve it permanently. To protect the wetlands from contaminants, an underground system has been installed that collects storm water run-off, and separates out sediment and oil.

Even the toilets at Foodshare are distinctive. “*The Toilets From Weird*” is posted above the tank with an amusing poem starts off with, “Why two buttons you may ask, for such a very simple task?” It concludes with, “in a small but significant way you’ll have saved some water for another day.” These toilets are ultra-low flow units that have a dual flush system with two separate buttons – one provides a full flush at 6 liters, the other provides a 3-liter flush.

Foodshare should be very proud of both their distribution facility in Bloomfield and the work they do for the community. They are an agency that exemplifies sustainability.



Additional information about Foodshare is available at www.foodshare.org or by contacting Christine O’Rourke at (860) 286-9999.

For more information about LEED and green buildings, visit www.ctgbc.org
For more details on the composting program, visit www.ct.gov/dep/recycle and click on the links to “composting” and “food waste pilot projects”.



WHAT'S NEW IN P2?

from the Connecticut DEP

Got Leaky Windows or Doors? Is Your Furnace an Energy Hog?

A significant law concerning electrical generation and energy efficiency (PA 07-242) was passed this legislative session. A rebate program has been included in the law for the purchase of Energy Star furnaces. The new law also permanently exempts these furnaces from Connecticut sales tax, along with compact florescent light bulbs and home weatherization products (Energy Star windows and doors, caulking, insulation, etc.). For more information on the incentives and many other ways you can cut energy use and costs, visit www.ctclimatechange.com/WhatCanIDo.html



left to right: Bob Kalisewski and Judy Prill, DEP Planning & Program Development; DEP Commissioner Gina McCarthy; Lloyd Langevin and Dan Nocera, Middlesex Community College

Organic Land Care DVD Wins a Telly

The Connecticut Department of Environmental Protection (DEP) has won a national award for a DVD it produced to encourage organic land care of municipal playing fields and parks. *Organic Land Care* received a bronze Telly Award in the national competition which honors outstanding local, regional, and cable television commercials and programs, as well as video and film productions. The DVD was produced in cooperation with Middlesex Community College's Corporate Media Services.

DEP Commissioner Gina McCarthy said, "It's terrific that DEP has received a Telly Award. This DVD has been a successful tool to help municipalities get started with organic land care and avoid the use of pesticides and conventional fertilizers. Many Connecticut towns and cities are looking to organic land care as the way to manage their playgrounds and athletic fields and to best protect both the environment and the health of everyone who comes in contact with the land. The DVD shows local officials how this can be done and the success some towns in our state, like Cheshire and Granby, have already had with the organic approach."

To download DEP's Organic Land Care DVD, visit www.ct.gov/dep/p2 and click on "organic land care" or call (860) 424-3297 for a copy.

State Cleaning Up Green

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The CT Foundation for Environmentally Safe Schools (ConnFESS) features nine school districts that have switched to green cleaners including Amity Regional School District #5, Fairfield, Farmington, Lyme-Old Lyme Regional School District #18, Montville, Ridgefield, Simsbury, Stratford and Torrington. The Town of Mansfield, which also switched to green cleaning, found that they are using less water and both the students and teachers say they have cleaner rooms and a nicer atmosphere.



For information on CT's environmentally preferable purchasing requirements, visit www.das.state.ct.us/busopp.asp or contact Cynthia Shea, DAS, at (860) 713-5278 or cynthia.shea@ct.gov.



Ask Eartha



Note: This feature offers answers to select environmental questions. Send your question to the editor's address -- judith.pritt@po.state.ct.us and watch future issues for an answer.

Dear Eartha:

I was coating my driveway with a sealant that comes in a 5-gallon pail. After noticing how awful it smelled, I started wondering if it is harmful to the environment. Is there a better alternative?

- Kevin F.,
Southbury, CT

Sealants can provide a protective coating from weather and chemicals (such as gasoline and oil) and enhance the appearance of driveways and parking lots. Unfortunately, some sealants contain coal tar, a source of extremely high levels of Polycyclic Aromatic Hydrocarbons (PAHs). PAHs are an environmental concern because they are toxic to fish and other aquatic life and are also suspected of causing cancer in humans.

Since most sealants are only surface finishes, they wear off pavement and storm water washes the surface particles into local streams and rivers. The U. S. Geological Survey (USGS) issued a 2006 report in cooperation with the City of Austin, Texas, which showed that particles in runoff from parking lots coated with coal-tar based sealants had concentration of PAHs about 65 times higher than those from

uncoated parking lots. Biological studies in the field indicated that the PAH levels in the sediment contaminated with abraded sealant were toxic to aquatic life and were degrading aquatic communities, including loss of species.

After the issuance of the USGS report, the City of Austin banned the use of coal-tar sealants to help prevent further contamination of their waterways. In 2007, the National League of Cities passed a resolution urging the U.S. Environmental Protection Agency (EPA) to conduct a national study on coal-tar sealant use and to strengthen regulation of these products.

There are alternative asphalt-based sealants that do not contain coal tar. Several major retailers (including Home Depot and Lowe's) have opted to only carry these alternatives and will no longer sell coal-tar sealants. When shopping for a driveway sealant, read the label to be sure that the product does not contain coal tar. If hiring a firm, request that they use a sealant without coal tar and have them verify it by showing you the label or the Material Safety Data Sheet (MSDS).

- Eartha

For more information on the City of Austin's ban and links to alternative products: www.ci.austin.tx.us/watershed/coal_tar_main.htm
For the USGS report on the environment impact of coal-tar sealant: <http://pubs.usgs.gov/fs/2005/3147/pdf/fs2005-3147.pdf>



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For a free subscription, please contact Judy Prill at (860) 424-3694 or e-mail your request to judith.prill@po.state.ct.us. If you want to save paper and postage by reading the P2 View electronically, you can either subscribe to the listserv or view it on-line (see www.ct.gov/dep/p2).

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P 2 C A L E N D A R

A S E L E C T I O N O F E N V I R O N M E N T A L E V E N T S

October 16, 2007
 Sacred Trust Forum

St. John's Episcopal Church, West Hartford
 Featured Speaker will be the Rev. Sally Bingham, Founder of Interfaith Power and Light.
 For more information, visit www.irejn.org.

October 17, 2007

Our Health, Our Environment: Nurses Making the Connection at Work and at Home
 Connecticut Children's Medical Center, Hartford, CT

Nurses will learn about environmental factors that are impacting health, solutions for creating a healthier environment at home, work and in the community. To register, call Nan Peckham or Connie Mendolia, (860) 424-3297.

November 14, 2007
 Smart Growth Conference

Southern CT State University, New Haven
 The 1st Annual Statewide Conference on Smart Growth is sponsored by 1000 Friends of Connecticut. For more information, www.1000friends-ct.org/

October 27, 2007

3rd Annual Environmental Justice Conference
 UConn School of Business, Hartford

Featuring workshops on global climate justice, asthma, brownfields, urban rivers, household hazardous waste and more. For more information, contact the Connecticut Coalition for Environmental Justice at (860) 548-1133 or dawn.simonsen@environmental-justice.org.

November 8, 2007

Green Building Tour

Bank of America, New York City

Join the CT Green Building Council as they visit a green building under construction in NYC. More information at www.CTGBC.org.

November 14, 2007

CT Climate Change Meeting: Transportation
 Fairfield, CT

Participate in one of a series of public stakeholder meetings to develop new ideas to reduce greenhouse gas emissions. For more information, <http://ctclimatechange.com/stakeholder.html> or DEP Climate/Energy at (860) 424-3236.

Do "one thing" to save energy - www.onethingct.com