P2VIEW

POLLUTION PREVENTION VIEW

VOLUME 3, ISSUE 4 A Newsletter from the Connecticut Department of Environmental Protection FALL 2003


# Students Breathe Easier in Norwich

**In January of 2002, the Connecticut Department of Environmental Protection (DEP) launched the Clean School Bus Program to address the diesel emissions from school buses. By introducing a program that looks at cleaner fuels and new technology, DEP expects to significantly reduce children's exposure to harmful bus emissions and to improve regional air quality.**

In Connecticut, 387,000 children rely on the transportation of school buses to get them safely to school each day. **However, most school buses run on diesel fuel and emit significant levels of fine particulate matter. Fine particulate matter and other pollutants from diesel emissions are known to aggravate the lungs and even promote the development of asthma with young children.** In general, children are more sensitive to air pollution because they breathe more air per pound of body weight than adults.

DEP partnered with the City of Norwich, the Norwich Public Schools, Northeast States for Coordinated Air Use Management (NESCAUM), First Student Inc., other state and local agencies and the Mohegan Tribal Nation to develop and implement a technology demonstration program to reduce diesel exhaust from the fleet of school buses servicing the Norwich school system. **DEP and project team members of the Clean School Bus Program successfully retrofitted 41 school buses this spring.** The Norwich project represents the first successful retrofit project in the Northeast and will serve as a blueprint for similar projects statewide.

**Along with the Clean School Bus Program, the DEP has an anti-idling agreement with the Connecticut School Transportation Association to eliminate unnecessary school bus idling.** The agreement states that drivers will shut off buses immediately on reaching their locations. Buses may idle only under circumstance to warm up the engine in temperatures colder than 20 degrees Fahrenheit. By raising awareness about the anti-idling regulation that prohibits a bus from idling for more than three minutes, this too will help reduce diesel emissions and reduce the air pollution from residing around the school environment.

To educate the Norwich youth on the Clean School Bus Project and the need to promote clean air, a middle school science curriculum has been created called Connecticut Schools Air Quality Curriculum. **The Connecticut Schools Air Quality Curriculum aims to teach children about sources of air pollution, how it affects people and the environment and what the students themselves can do to be leaders for the environment.** The Connecticut Schools Air Quality Curriculum includes a module on the Clean School Bus Program to educate students about the importance of reducing diesel emissions for air quality and their health.

**For more information on the Connecticut Clean School Bus Project, contact Tracy Babbidge, DEP Air Management Bureau, at (860) 424-3027.** ■

# Idling Away your Time (and Money)

**It's your turn to pick the kids up from school. You arrive a little early and decide to go to the drive-thru at the nearby donut shop for a hot cup of coffee. The line of cars is long, but it's too cold to get out of the car. You arrive at school and sit back with your coffee for a few minutes of peace and quiet. "Why turn the car off?" you think, "They will be out soon." So you sit and wait, along with all the other people thinking the same thing, in their idling cars. By this time, you've probably idled your car for about 15 minutes. So what's the big deal?**

**When you voluntarily idle your car (versus stopping at traffic signals) you probably didn't realize that you could damage engine parts as well as lighten your wallet, cause air pollution and effect climate change.** (See the websites listed below for more information. If you have questions on your particular vehicle, consult a mechanic or your owner's manual.)

**Many of us still operate our cars by "rules" we've followed for years.** But with the fuel-injected engine, many of these rules aren't true anymore. For instance:

- The engine needs to be "warmed-up." Not true. The car only needs about 30 seconds of idling on a cold day before driving. Fuel-injected engines warm up more quickly once the car is operating.
- Frequent restarting uses more gas. Not true again. In fact, letting the vehicle idle for more than 10 seconds burns more gas than shutting it off and restarting.

And then there's your money. If the engine is idling, it's running down the gas tank. **With today's fuel prices, who can afford to be getting zero miles per gallon while the car is going nowhere?** In addition, while the vehicle is idling, it is not operating at its peak temperature. This means combustion is not complete so fuel residue condenses on engine parts like spark plugs and can contaminate engine oil. Also, idling allows water to condense in the exhaust system causing rust and creating more opportunities for you to spend money on repair work.

**Did you ever get a whiff of the emissions coming from the vehicle exhaust of an idling car?** Doesn't smell very good, does it? Idling contributes towards smog and ground level ozone and has a direct effect on health. Think about adults and children around the vicinity of idling cars who are breathing in those fumes. Unhealthy air quality is bad for all of us, but especially dangerous and even life threatening, for those people with cardio-vascular and respiratory illnesses, like asthma.

**Last, but not least, burning fossil fuels like gasoline contributes to climate change by producing emissions of carbon dioxide, the principal greenhouse gas.** You can eliminate these unnecessary releases into the atmosphere by simply not idling.

**So, don't idle away your time:** Use driving to "warm-up" the engine, turn your car off when you think your wait will be more than a minute, and as much as practical and you are able, go into an establishment rather than use the drive-thru. Tell your family and friends about the idling problem. These steps will help us all breathe a little easier, save you money and clean-up our air.

**For more information on idling:**

www.prairie.sierraclub.ca/idling/
www.cartalk.com/Columns/Archive/1995/August/10.html
www.caamwo.on.ca/advocacy/idling.jsp
www.climatechangeconnection.org/pages/subpages/dsa_idling.html
www.enn.com/news/enn-stories/2001/02/02082001/caridle_41796.asp
www.mochasofa.ca/work/program/howto/02June03a.asp

*The above list of websites is provided to you as a public service. It is not a comprehensive listing, nor does it constitute an endorsement by the DEP.*

## What's New In P2?

FROM THE CONNECTICUT DEP

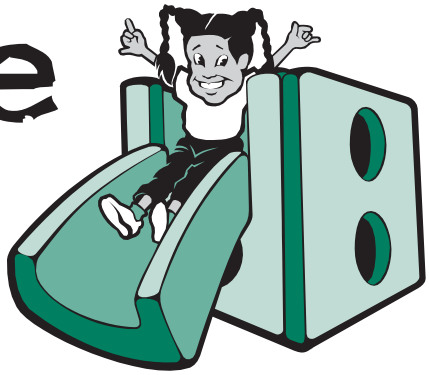
## Dinosaur State Park Fuel Cell Project

**In January 2004, a 25 kW planar solid oxide fuel cell will be up and running at Dinosaur State Park.** Funding was obtained and all agreements have been signed to allow for a 2-year demonstration at the park. The fuel cell will be supplied by Ztek Corporation and funded by the CT Clean Energy Fund and the Office of Policy and Management. The CT Department of Public Works will assist with project management. **The fuel cell will run on natural gas and will supply part of the electric load for the visitor's center, with waste heat used to heat/cool office space.** Educational brochures and signs will provide information on fuel cell technology and the benefits of clean distributed generation.

The idea for this project began over 2½ years ago when DEP submitted an application for funding to perform a feasibility study on a demonstration of clean reliable power at the DEP headquarters in Hartford. While the study concluded that DEP headquarters was not entirely suitable for any of the technologies evaluated, the desire to show DEP leadership in promoting clean energy was not dampened.

**Staff looked for other opportunities to demonstrate a clean on-site power source at a DEP facility, which lead to the fuel cell demonstration at Dinosaur State Park.**

# Play it Safe



**Wash your hands! It's good advice to give children when they come in from playing outside.** Washing hands doesn't just get rid of dirt and germs – it also helps protect your child from the arsenic found on playscapes made with pressure-treated lumber.

**The pressure-treated lumber most commonly in use today is treated with chromated copper arsenate (CCA).** CCA contains arsenic, chromium and copper. Since the 1970's, manufacturers of CCA-treated wood have touted its ability to resist deterioration, therefore prolonging the life of playground equipment, decks, and landscape timbers. More recently, consumer and environmental groups have raised concerns about CCA-treated wood, more specifically the arsenic in it, and its effects on health and the environment.

**Arsenic is a known human carcinogen and can be toxic to the skin or internal organs.** It can be easily taken up onto the hands from simple contact with the surface of CCA-treated wood. Both new (direct from the lumber yard) and older (in use for years) CCA-treated boards have a significant amount of arsenic on the surface. Many young children (under 6 years of age) are frequently exposed to the arsenic since they often play for extended periods on CCA-treated playscapes and decks. Children may then end up ingesting it – directly when they put their hands in their mouths, or indirectly when they touch food or toys that end up their mouths. Older children and adults who spend considerable amounts of time playing on or working with CCA-treated wood may also receive greater exposures.

In March 2003, manufacturers of CCA-treated wood reached a voluntary agreement with the U.S. Environmental Protection Agency (EPA) to end the use of CCA in lumber intended for most residential uses by December 31, 2003. **This will phase out the use of CCA-treated wood for playscapes, decks, picnic tables, landscaping timbers, residential fencing, patios and boardwalks.** EPA has indicated that some of this wood may still be found in retail outlets until mid-2004. The U.S. Consumer Product Safety Commission and U.S. Environmental Protection Agency are working together on exposure issues and will initiate studies to determine the most effective ways to reduce the amount of arsenic released from CCA-treated wood. ■

## How Can I Avoid Arsenic Exposure from CCA Treated Wood?

*Once it weathers, it is hard to tell the difference between CCA-treated wood from non-CCA treated wood. (New CCA-treated wood has a greenish tint.) Testing kits are available (see resources below). But if you're not sure, you should assume it is CCA-treated wood. The following are guidelines to help your and your family limit your exposure to arsenic from CCA-treated wood.*

- Make sure your children wash their hands after playing on playground equipment.
- Don't allow children to eat on the equipment or directly on any other CCA treated surface. Cover wood picnic tables with plastic-coated tablecloths. Don't let food come in contact with the wood.
- Don't use strong cleaners or chemicals to wash down CCA-treated wood. They may cause more arsenic to be released.
- Consider replacing some parts of your playscape, such as handrails, that are most frequently touched by children.
- Seal any CCA-treated wood with penetrating coatings such as oil-based, semi-transparent stains. The sealant should be reapplied every two years (or sooner if more wear or weathering is evident).
- For new construction or repair, use recycled plastic-composite lumber, rot-resistant woods (e.g. domestic cedar, salvaged redwood) or non-arsenic pressure-treated woods such as ACQ (ammonium copper quaternary) and CBA (copper boron azole).
- Do not burn the CCA-treated wood because it will release arsenic as smoke. Contact your town for disposal information.

**OTHER RESOURCES**

***Answers to commonly asked questions about CCA***
www.epa.gov/pesticides/factsheets/chemicals/cca_qa.htm
www.cpsc.gov/phth/ccafact.html
www.dph.state.ct.us/Publications/BCH/EEOH/pressurtr.pdf
www.ehhi.org/wood/info.html

***Arsenic Testing Kits***
www.healthybuilding.net/arsenic/aindex.html
www.ewg.org/reports/poisonwoodrivals/orderform.php

***Disposal of CCA-treated wood***
www.dep.state.ct.us/wst/recycle/lumber.htm

***Alternatives to CCA-treated wood***
www.americanecoboard.com
www.trex.com
www.choicedek.com
www.plasticlumber.com
www.fscus.org/about_fsc/index.html

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# P 2 C A L E N D A R

## A SELECTION OF P2 RELATED EVENTS

### September 18, 2003
### Free Ride on Hybrid Bus: Hartford, CT

CT Transit will have one of their new hybrid buses in front of the DEP building at 79 Elm Street. Information on the hybrid technology and the environmental benefits of these buses will be presented as well as a short ride. Three sessions are scheduled at 11:45, 12:15 or 12:45. Stop by!

### October 24, 2003
### Safe and Healthy Environments in CT Schools: Hartford, CT

The conference will be relevant to superintendents, Board of Education members, principals, teachers, parents, school nurses, Tools for Schools (TFS) committees, politicians, school architects, buildings and grounds personnel, and local health departments. For more information, contact Mary Beth Dufresne, CT Education Association, at (860) 525-5641 or marybeth@cea.org.

### October 25, 2003
### CONNECT Day 2003: Eastern CT State University, Windham

Information, ideas, hands-on-activities for teaching about energy across the curriculum from kindergarten to college. Co-sponsored by the CONNECTicut Energy Council for Teachers and Institute for Sustainable Energy. For more information: (203) 238-9521 or www.sustainenergy.org.

### October 27-29, 2003
### 2003 Sustainability Conference: Mohegan Sun, Uncasville

Sustainability planning and implementation for professionals responsible for energy and environmental policy. For more information, contact www.sustainenergy.org.

### November 4, 2003
### Meeting the Challenges of Sustainable Buildings at Colleges: University of Hartford

Learn about how college facilities can be built or upgraded to meet sustainable or "green" standards. The conference will include case studies from area colleges.
For more information, contact Kim Trella, CT-DEP, at (860) 424-3234 or kim.trella@po.state.ct.us.

### November 15, 2003
### Green Home Design and Construction: Central CT State University

Hear experts in residential building design science discuss how to build a high-performance, green home or transform an existing home. For more information, contact Kim Trella, CT-DEP, at (860) 424-3234 or kim.trella@po.state.ct.us.


### P2 Lecture Series

DEP sponsors a monthly lecture series on pollution prevention topics. Lectures are free, open to the public, and are held from 11:00 a.m. to noon in the Phoenix Auditorium, DEP Building, 79 Elm St., Hartford. For additional information, contact Lynn Stoddard at (860) 424-3236 or go to www.dep.state.ct.us/calendar/calendar.htm.

SEPTEMBER 16, 2003:
The Impact of Sprawling Development on Connecticut.
Patricia M. Wallace, Office of Urban Affairs, Archdiocese of Hartford and Heather M. Crawford, Coastal Resources Educator, Connecticut Sea Grant Extension Program

OCTOBER 16, 2003:
Green Buildings, Sustainability and Worker Productivity.
Doug Disbrow, Fletcher Thompson Associates.

NOVEMBER 6, 2003:
Mobilizing for Transportation Reform.
Cindy Lemek, All Aboard!

## Celebrate P2 Week – September 15-21, 2003

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