

Poison Ivy More Poisonous?

by Nan McKenna, Public Affairs Specialist



Add peskier poison ivy to the list of negative effects air pollution has on the environment.

Recent studies from Harvard and Duke Universities have documented the effect of greenhouse gases (particularly carbon dioxide) on the growth rates

and virulence of poison ivy and other allergenic foliage. For those who are allergic to these plants, the results are dismaying.

Excessive amounts of CO2 in the atmosphere increase plants' rates of photosynthesis, which can result in larger and more abundant plant growth. Poison ivy not only thrives on the gas, but its sap can become more allergenic when CO2 concentrations are elevated, according to Duke's Forest-Atmosphere Carbon Transfer and Storage Center.

Poison ivy's sap, called urushiol, causes the rash and itchiness characteristic of an allergic reaction to the plant. Increased CO2 levels can make the sap more

poisonous which in turn triggers severer reactions in humans.

CO2 is a by-product of exhaust from cars, trucks and buses. The U.S. EPA writes that CO2 "does not directly impair human health, but it is a 'greenhouse gas' that traps the earth's heat and contributes to the potential for global warming."

Reducing the amount of CO2 an individual releases unnecessarily begins with changing driving habits. Walk, ride a bike, carpool or use public transportation to get to destinations. These changes will decrease CO2 emissions as well as those of nitrogen oxides, carbon monoxide and particulate matter.

HCES Goes to Prison

by Dawn Mays, Testing & Evaluation Coordinator

HCES recently received its first-ever air quality complaint from a prison. Earlier this year, an inmate at the Lebanon Correctional Institute (LCI) alleged that asbestos had been improperly removed from several areas in the prison grounds. HCES responded by making arrangements to enter the prison on April, 6, 2006, to investigate the areas where the improper removal had supposedly occurred.

Dawn Mays and Bart Wojas inspected the kitchen area (including the prep areas and serving lines), the dining room, gymnasium and work-out room, music room, the basement mailing room and the library. Ken Wilkins and Seth

Cloran inspected Cell Block A, Cell Block C and the underground tunnel beneath these cell blocks to inspect the insulation on the pipes. Samples were taken of any material suspected of being regulated-asbestos-containing-material (RACM), analyzed and found to contain no asbestos fibers.

At the conclusion of the inspection, HCES staff met with LCI staff members to discuss the findings. Wilkins gave a verbal summary of the inspection and told LCI that a written report would be forwarded to the Ohio Environmental Protection Agency for further action; he agreed to send a copy of this report to LCI.

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Acronym Guide

GHG:	Greenhouse Gas
ULSD:	Ultra Low Sulfur Diesel
ppb:	Parts Per Billion
ppm:	Parts Per Million
ECS:	Environmental Compliance Specialist
AQMD:	Air Quality Management Division
HCES:	Hamilton County Environmental Services

Permits & Enforcement

Additional Air Monitoring to Start Near LANXESS

Courtesy of the LANXESS Public Advisory Group

Additional outdoor and indoor air monitoring is expected to be underway in Addyston and surrounding areas by the end of June.

HCES and the Ohio EPA are conducting the air monitoring to address community concerns about local air quality. The LANXESS facility is in full support of the monitoring, which will include:

- ◆ One 24-hour sample with a mobile air monitor from four different locations around the LANXESS plant, including:
 1. Water Tower in Addyston (North)
 2. Post Office in Saylor Park (Northeast)
 3. Fernbank Park picnic shelter in Saylor Park (East)
 4. MSD's Indian Creek Wastewater Treatment Plant (Across from Harrison's Tomb in North Bend)
- ◆ Installation of a "peak pollutant exposure monitor" for one year on the roof of Hitchens Elementary School. This monitor will take an air sample when it detects a short-term spike in chemical emissions.
- ◆ One 24-hour sample a month for six months from inside the Addyston Municipal Building.

The results of the air monitoring will be reviewed by Ohio EPA. Additional air sampling will be conducted if necessary.

For more information on HCES' role in the monitoring in Addyston, please visit www.hcdoes.org.

Ohio Legislators Pass Senate Bill 265

by Tonya Rapley, Air Quality Intern and Brad Miller, P&E Section Supervisor

On May 2, 2006, Governor Taft signed Senate Bill 265, which makes changes to the air pollution regulations in the Ohio Revised Code. These regulations are touted to streamline the current permitting process for minor sources of air pollution.

In his press release, Governor Taft said, "Through a more efficient process for permitting companies, we are taking a very important step to be more competitive especially as we seek to attract more ethanol and biofuel plants to the state."

The new regulations, when enacted, will redefine what is a regulated pollutant.

A regulated pollutant will be one of the following:

- An air contaminant for which a National Ambient Air Quality Standard exists.
- An air contaminant which is regulated under the federal Clean Air Act.
- An air contaminant that can cause adverse health effects.

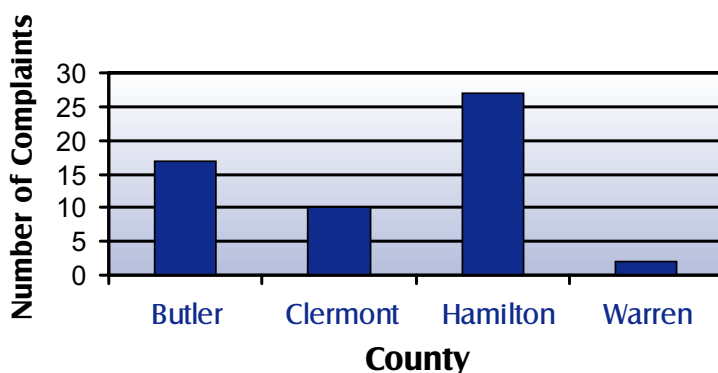
Another change outlined in Senate Bill 265 is that the Ohio EPA Air Toxics Policy has now been made part of the Ohio Revised Code where it previously was a policy enacted through best



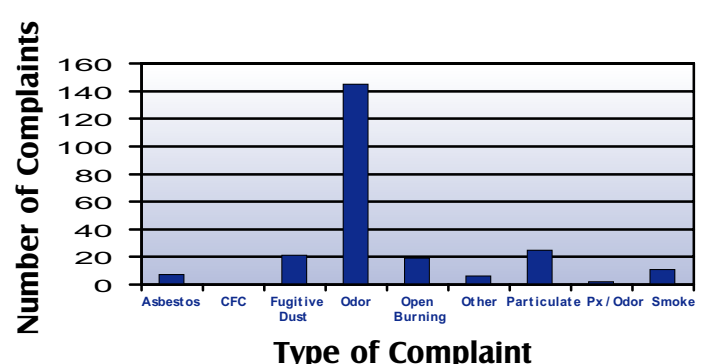
available technology. Based on the level of air toxics, additional record keeping and reporting may be required.

Senate Bill *continued on pg. 6*

January - March 2006



January - March 2006



Biofuels Basics Workshop

by Whitney Ross, Public Affairs Intern

On Wednesday, May 24, 2006, the Tri-State Clean Fuels Network (TSCFN) held its first event in Indiana. Over 20 local government officials and decision-makers gathered in Lawrenceburg, Indiana, to learn about the fundamentals of biofuels. Included in the discussion were the renewable, clean-burning fuels biodiesel and E85, both domestically produced.

The "Biofuels Basics Workshop" was hosted by the TSCFN in partnership with the Purdue Dearborn County Agriculture Extension, the Dearborn County Administrator's Office and the Dearborn County Soil and Water Conservation District. The workshop, which targeted transportation directors and fleet and city managers, covered topics such as storage and handling tips and Indiana's biofuel tax credits and grant programs. Participants also viewed a display of flex fuel vehicles provided by Ande Chevrolet Pontiac Buick GMC. Flex fuel vehicles are designed to run on either gasoline or E85.



Biodiesel is a methyl ester compound that does not contain petroleum, but can be combined with petroleum in any amount to create a biodiesel blend. E85 is a mix of 85 percent ethanol and 15 percent gasoline.

Workshop presenters included Steve Thomas of Countrymark Cooperative, Bob Raffety of the National Ethanol Vehicle Coalition, Cary Aubrey of the Indiana State Department of Agriculture and Fred Henderson of the Indiana Soybean Board. The TSCFN would like to thank its sponsors, partners and presenters for making the event such a success.

To view pictures from the event or to access the PowerPoint presentations, please visit www.cleancitiescincinnati.org.

Public Affairs News

The 2005 HCES Progress Report is now available! This agency-wide report summarizes the accomplishments in 2005 of both the AQMD and the Solid Waste Management District. If you would like to receive a copy of the Progress Report, please call (513) 946-7754 or download it from www.hcdoes.org.

A stand-alone Data Report for the AQMD is also available. The 2005 report contains data from the M&A and P&E sections of the AQMD. If you would like to receive a copy of the Data Report, please call (513) 946-7754 or download it from www.hcdoes.org.

As your organization or community begins to plan its festival or fair, please keep the AQMD in mind as a possible exhibitor at the event. When scheduling allows, AQMD staff members can set up a table-top display and distribute information about air quality and the AQMD. Contact Nan McKenna at (513) 946-7754 or at nan.mckenna@hamilton-co.org to have the AQMD visit your event.

Ultra-Low Sulfur Diesel: Diesel fuel with 97% less sulfur content than regular diesel.

Precursor Gases: Pollutant gases that contribute to the formation of ozone and particulate matter.



Air Quality Events & Meetings

Public Meetings

Please visit our calendar at www.hcdoes.org or call (513) 946-7777 for more information about public meetings.

Upcoming Events

HAMILTON COUNTY ENVIRONMENTAL ACTION COMMISSION (HCEAC)

Date: Thursday, August 3, 2006
Thursday, September 7, 2006
Thursday, October 5, 2006
Time: 1:30 p.m. - 4:00 p.m.
Location: HCES
250 William Howard Taft Rd.
Cincinnati, OH 45219

AIR QUALITY POLICY ADVISORY COMMITTEE (AQPAC)

Date: Wednesday, August 16, 2006
Time: 1:30 p.m. - 3:00 p.m.
Location: HCES
250 William Howard Taft Rd.
Cincinnati, OH 45219

GREATER CINCINNATI ENVIRONMENTAL EDUCATORS' ULTIMATE EXPO

Date: Thursday, August 24, 2006
Time: 3:00 p.m. - 6:00 p.m.
Location: Cincinnati Zoo
3400 Vine Street
Cincinnati, OH 45220

REGIONAL OZONE COALITION (ROC)

Date: Wed., October 11, 2006
Time: 10:00 a.m. - 12:00 p.m.
Location: TBD - contact Sarah Woller at (513) 621-6300 for details

GREAT MIAMI RIVER DAYS

Date: September 8 - 10, 2006
Time: Check
www.greatmiamiriverdays.org
for schedule
Location: Miami University Hamilton Campus
1601 University Boulevard
Hamilton, OH 45011

Web Updates

Please visit our website at www.hcdoes.org or call (513) 946-7777 for updates!

Monitoring & Analysis

Unpredictable Allergies

by Nan McKenna, Public Affairs Specialist

Sneezing more often this spring and summer? You're not alone. Pollen levels in Southwest Ohio have been higher this year than in previous years.

A contributing factor to these higher levels is the late onset of spring. This year's late spring caused the plants that usually pollinate in early spring to pollinate at the same time as plants that pollinate in the late spring or early summer.

Dr. I. Leonard Bernstein, of the Bernstein Allergy Group in Cincinnati, has noticed an increase in patients' complaints

about seasonal allergies. "Tree pollen this year has been much worse than in previous years," Dr. Bernstein said.

Harry St. Clair, HCES' M&A Section Supervisor, confirms this, saying that pollen levels reached elevated levels during the spring.

For more information about seasonal allergies and local pollen and mold counts, please visit www.hcdoes.org. To request a copy of the "Living With Allergies" brochure, please call (513) 946-7754.

New Precursor Gas Monitoring Program

by Anna Kelley, Quality Assurance & Monitoring Coordinator

As part of the National Ambient Air Monitoring Strategy, the U.S. EPA will implement precursor (low level) gas monitoring of the following pollutants: carbon monoxide, sulfur dioxide, total reactive nitrogen, ammonia and nitric acid. These pollutants are considered to be "precursors" because they contribute to the formation of ozone and particulate matter.



The HCES staff will install analyzers for three of these pollutants precursor

gas pollutants at the following ranges: carbon monoxide (0-20 ppm*), sulfur dioxide (0-200 ppb) and total reactive nitrogen (0-200 ppb). The analyzers will be located in Colerain Township.

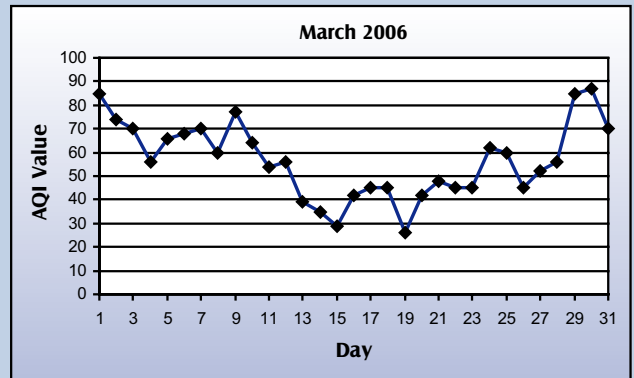
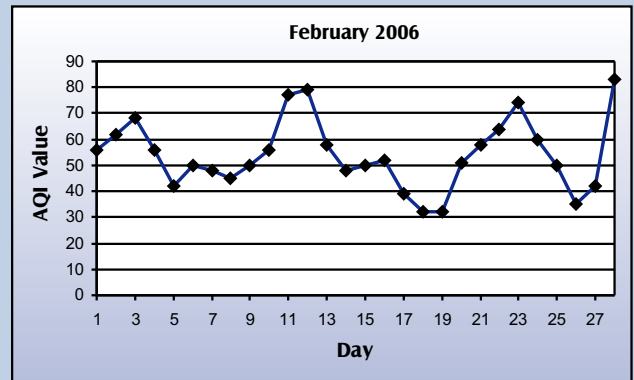
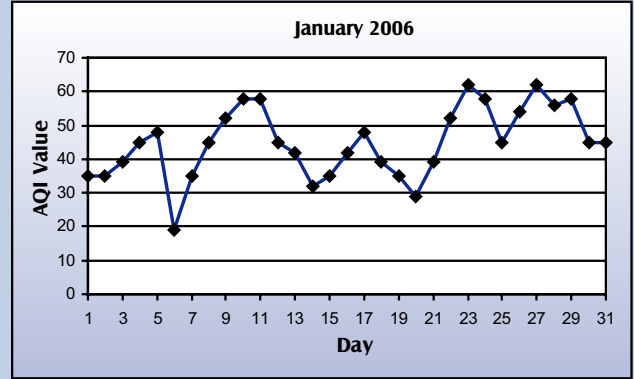
Precursor Gas *continued on pg. 6*

Programs & Resources Available

The AQMD has free air quality programs and resources available for all ages and groups. Be sure to remind your community groups, schools and libraries that they can request free resources or schedule presentations by calling (513) 946-7754. More information is always available on our website! Visit www.hcdoes.org for resources available online.

Air Quality Index

The AQI uses numbers from 0 to 500. A higher AQI number corresponds with more air pollution in the air. 0-50 is good, 51-100 is moderate and a number of 101-150 is classified as unhealthy for sensitive groups such as children or the elderly. See www.hcdoes.org for more details.



Stack Test Data

January	9
February	2
March	7
1st Quarter Total for 2006:	18

HCES Continues School Bus Retrofits

by Ken Edgell, Environmental Administrative Coordinator



Through a \$24,000 grant from the Ohio • Kentucky • Indiana Regional Council of Governments, Hamilton County Environmental Services will continue to retrofit school buses with diesel oxidation catalysts (DOCs) this summer.

According to the U.S. EPA, DOCs can reduce particulate matter emissions by 20 percent, hydrocarbon emissions by 50 percent and carbon monoxide emissions by approximately 40 percent.

Three school districts were selected from a pool of seven applicants. The school districts were selected based on the

number of buses in their fleets, the model years of the buses and anti-idling policies used by the school bus drivers. Mason City Schools will retrofit 16 buses, Northwest Local Schools will retrofit 12 buses and Franklin City Schools will retrofit 6 buses.

This grant adds to a continuing effort by HCES to obtain grant monies to retrofit school buses in the Greater Cincinnati area. At the completion of this grant, a total of 266 school buses will have been retrofitted with DOCs providing cleaner, healthier rides to school children in the area.

Cleaner Diesel on the Way

by Ken Edgell, Environmental Administrative Coordinator

On June 1, 2006, the nation's refineries began producing ultra-low sulfur diesel (ULSD) containing 15 parts-per-million (ppm) sulfur for use in heavy-duty trucks and buses. Prior to this, diesel fuel for on-road vehicles contained 500 ppm sulfur. This 97% reduction of sulfur is required to avoid clogging the new generation of clean diesel technology on 2007 model year trucks.

To meet new EPA diesel-powered emissions standards, the trucking industry developed a three-pronged approach to reduce emissions: cleaner burning fuel, state-of-the-art engines and new effective exhaust-control technology.

The combination of ULSD and advanced pollution control technology for trucks and buses enables engine manufacturers to meet the 2007 emissions standards. New pollution control technology, new

engines and ULSD will prevent:

- the release of 2.6 million tons per year of smog-causing nitrogen oxide emissions;
- 110,000 tons of particulate matter emissions;
- an estimated 8,300 premature deaths; 5,500 cases of chronic bronchitis; and 17,600 cases of acute bronchitis in children;
- approximately 360,000 asthma attacks and 386,000 cases of respiratory symptoms in asthmatic children; and
- an estimated 1.5 million lost work days; 7,100 hospital visits; and 2,400 emergency room visits for asthma.

For more information on ULSD, please visit www.epa.gov/otaq/highway-diesel/.

Staff Updates

Amy Kesterman has joined the P&E staff as an environmental compliance specialist. Amy has a degree in environmental studies from the University of Cincinnati, and has previously worked for the Cincinnati Zoo, Salmon-Challis National Forest in Salmon, Idaho, and the Foothill Horizons Outdoor School in Sonora, California.

Tonya Rapley is the new air quality intern for P&E. Tonya will graduate in the fall from Florida International University with a bachelor's degree in public administration. Previously, Tonya worked as a research assistant and urban development consultant in Miami, Florida.

Jared Knecht has joined HCES as the administrative intern. Jared studies accounting at the University of Cincinnati and plans to graduate in June of 2007.

Kim Lahman has resigned as the coordinator of the Tri-State Clean Fuels Network. Kim has accepted a position as a communications specialist at a local environmental consulting firm. Best of luck in your new position, Kim!

Jeff Aluotto, previously the solid waste program manager, was appointed the assistant county administrator in charge of the Public Services Department in April. Jeff will oversee Hamilton County's Public Services Department which includes Environmental Services. Holly Christmann is the new program manager for Hamilton County's Solid Waste Management District. Congratulations, Holly and Jeff!

Ken Wilkins will mark his fifteenth year at HCES in September. Congratulations, Ken, and thanks for all your hard work!

Precursor Gas *continued from pg. 4*

Monitoring these pollutants at low level concentrations will contribute to long-term epidemiological studies, reduce uncertainties in data when modeling air pollution episodes and support source apportionment and observational analysis.

The HCES team has targeted August 1, 2006, as the deadline to have the analyzers installed and collecting data. The nationwide precursor gas monitoring network is scheduled to be fully implemented on January 1, 2011. The data collected and information learned in the time period of August, 2006, to January, 2011, will assist the U.S. EPA and other monitoring organizations throughout the country in the full implementation of the network and its associated objectives.

*This analyzer has the capability to auto-range, meaning it will have the capability to switch to a higher detectable range should the concentration of that pollutant necessitate it. The other carbon monoxide analyzers currently available for use in the program monitor in the range 0-5 ppm.

Senate Bill *continued from pg. 2*

As part of the rule making, Ohio EPA will now define which start of construction activities can take place prior to receiving a final permit to install. A draft of the start of construction rule can be viewed at www.epa.state.oh.us/dapc/.

This bill requires that any monitoring, record keeping and reporting cannot be more stringent than existing state or federal regulations.

The bill also states that the best available technology can only be one of the following:

- Work practice
- Design efficiency of an air contaminant control device
- Throughput limitation based on a rolling, 12-month average
- Monthly emissions based on a rolling, 12-month average

The above requirements have various implementation dates, some up to three years from the signing of the bill.

HAMILTON COUNTY ENVIRONMENTAL SERVICES

250 William Howard Taft Rd.
Cincinnati, Ohio 45219-2660
www.hcdoes.org



The Breeze is published quarterly. Subscriptions are available at no charge. Please forward name and address to Hamilton County Environmental Services. Contact nan.mckenna@hamilton-co.org for more information or call: (513) 946-7754, fax (513) 946-7779.