



2006 Air Quality

Annual Report

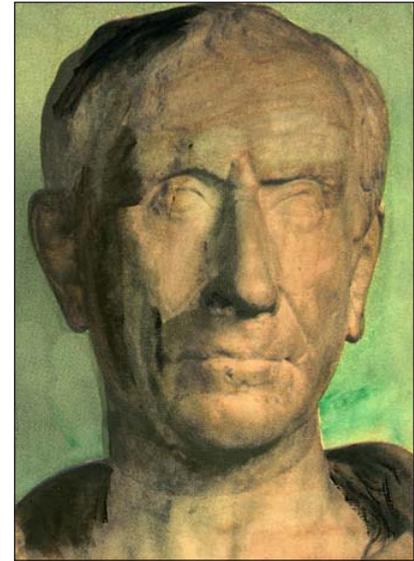
Ancient Air



Each time someone takes a breath, it contains at least one molecule from the last breath exhaled by Julius Caesar. Modern physicist Enrico Fermi posed this premise to stimulate his students' interest in physical problems. That premise is still presented today in high school and college chemistry classes around the world. Although scholars concede that some ancient molecules have been absorbed by plants, some by animals, and some by water, they believe that a large portion of them still floats free, spreading all around the globe in a pattern so predictable that if a person

takes a deep breath right now, at least one — some say three, some eight or ten — of the molecules entering the lungs literally comes from Caesar's last breath.

What is put into the air stays there. This is why it is important, in this age of unprecedented industrial accomplishment, for humans to acknowledge, measure, weigh and delineate exactly what they have contributed to the atmosphere. That is the role that Oklahomans have given the Air Quality Division. It is proof that what this division does matters.



Considering Caesar's last breath

Growing Pains: NSR Revises Standards That Define "Major" Plant Modifications



Major modifications are redefined in NSR.

The federal New Source Review (NSR) program requires new major stationary sources and sources making major modifications to install the best available control technology (BACT)

to control air pollutants. The sources must also assess related air quality impacts to prevent violating health-based National Ambient Air Quality Standards. The NSR program was revised December 31, 2002 (NSR reform). The NSR reform, as promulgated, would have altered the method of determining whether a modification to a major stationary source is a *major* modification by adding an actual-to-projected-actual applicability test and Clean Unit, Pollution Control Project (PCP) and

Plant-wide Applicability Limitation (PAL) exclusions. However, a lawsuit was filed with the U.S. Court of Appeals for the District of Columbia Circuit by several states and other entities challenging the revisions as inconsistent with the federal Clean Air Act. In the decision handed down on June 24, 2005, the Court vacated those parts of the NSR reform dealing with Clean Unit and Pollution Control Project exclusions and remanded the recordkeeping revision. On August 8, 2005, EPA requested the Court to

reconsider its ruling on the Clean Unit provisions and to clarify its ruling on existing PCPs. On December 9, 2006, the Court refused the EPA petition.

States wishing to retain the NSR program were required to revise their

rules and submit a State Implementation Plan (SIP) revision by January 2, 2006 (or to be in the process of revising rules or making a good faith effort).

At its January 18, 2006, meeting, Oklahoma's Air Quality Council

recommended that the revision to DEQ's NSR rule be forwarded to the Environmental Quality Board for adoption as a permanent rule. On February 27, 2006, the board accepted the recommendation. The revised rule became effective June 15, 2006.

Home Delivery



Oklahomans can now receive air quality health advisories at home.

Oklahomans can now receive the latest state environmental information at home. The Air Quality Division delivers our new health advisories, newsletters, meeting notices and agendas via e-mail. The health advisories are designed to let Oklahomans know when air quality monitors around the state are detecting levels of pollution that are considered unhealthy for sensitive groups. They report near-real-time air

pollution data on both ozone and fine particulate matter directly to the people who need to know. This is the same data that is reported to EPA daily, only now it is available in a person's inbox.

Other items delivered directly to the home or office include the division's quarterly newsletter, *The Air Quality Update*, which went paperless this year. Air Quality Council meeting notices and agendas are also available

either electronically or by mail. The move to e-mail has resulted in an appreciable reduction in the division's use of paper and envelopes.

At present, AQD corresponds with 245 individuals and businesses across the state using this system, but the division has the potential to service thousands more. To sign up for Air Quality advisories, go to www.deq.state.ok.us/aqdnew.

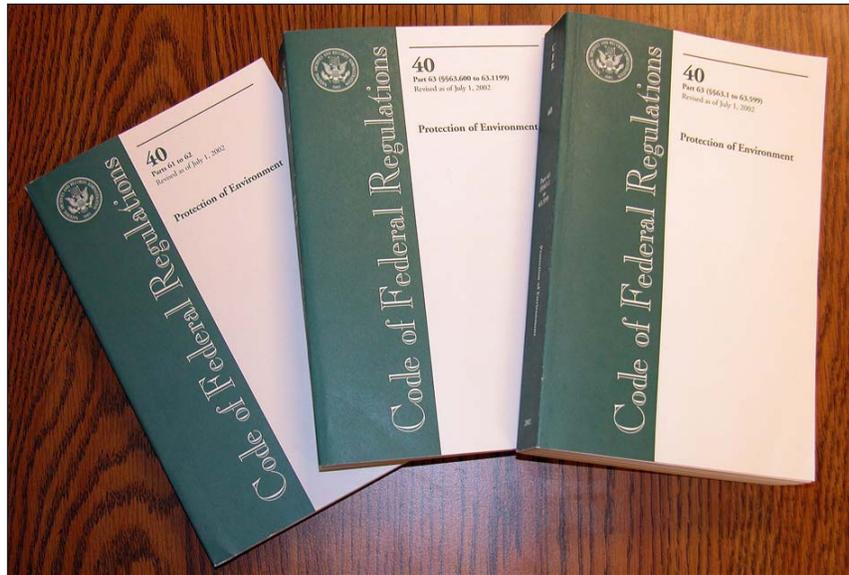
Regulatory Changes Affect Air Quality Facilities and Permits



Several changes in Air Quality Division (AQD) rules and programs now are in effect for Oklahoma facilities and their air quality permits. Some changes emerged from modifications to EPA rules and programs. Others reflect AQD's attention to increasing its effectiveness at maintaining clean air while minimizing regulatory burdens on industry and at using staff and resources cost-effectively.

EPA has issued the Mercury Rule and worked to complete the set of MACT standards, and, as noted elsewhere in the annual report, federal changes have occurred in the New Source Review (NSR) and Regional Haze Programs. When needed, the AQD permitting section has provided modeling, permitting and other expertise to assess the impact of these developments on Oklahoma's larger industries. The section has also assisted in developing changes to the AQD Toxic Air Pollutants program under Subchapter 41. These changes have simplified the application process for facilities and the permit drafting process for AQD permit writers, achieving shorter permit processing times and less uncertainty for Oklahoma industries.

During 2005, the permitting section received 207 determination requests from facilities that believed they qualified to take advantage of the permit-exempt category. This category applies to facilities with 40 or fewer



Changes to EPA's rules impact Oklahoma's industries and AQD's permitting programs.

tons per year (TPY) of actual facility emissions of each regulated air pollutant. (Major sources and major stationary sources – e.g., those with potential or actual emissions above the thresholds listed in definitions of those terms in Subchapter 8 – are not eligible for permit-exempt status. In addition, a facility that is subject to an emission standard, equipment standard

or work practice standard required by a NSPS under 40 CFR Part 60, a NESHAP under 40 CFR Part 61, or a NESHAP (MACT Standard) under 40 CFR Part 63 would not qualify as a permit-exempt facility. Note that a facility subject only to recordkeeping requirements under one of these federal standards is not excluded from the permit-exempt category.)



Oklahoma's industries should benefit from AQD's simplified Air Toxics Program.

Industries Implement Controls on Flash Emissions



As a result of the combined efforts of the Air Quality Division's (AQD) permitting, compliance and enforcement sections, Oklahoma facilities have reduced potential emissions of volatile organic compounds (VOCs) by an estimated 17,501 tons per year (TPY). They have accomplished this by better controlling VOC flash emissions from hydrocarbon storage tanks. These changes in the crude petroleum and natural gas industries have also decreased potential emissions of hazardous air pollutants by an estimated 537 TPY.

After AQD and industry realized both the significance of flash emissions *and* the difficulty of estimating the amount occurring at any given facility, AQD developed a guidance document to provide a consistent methodology for determining VOC flash emissions from hydrocarbon storage tanks. Since the guidance document became final in 2004, all facilities with potential flash emissions have been required to include these estimates when applying for an AQD permit.



Without controls, hydrocarbon storage tanks can be significant sources of VOC flash emissions.

Facilities in the crude petroleum and natural gas industries have submitted a total of 277 applications involving flash emission issues since the initiative began, and AQD has issued 203 permits. Most of the applications resulted directly from consent orders issued by AQD's compliance/enforcement sections. Once these additional emissions were estimated, many facilities found it necessary to install add-on control equipment or to modify their

process to route flash emissions back into the pipeline. As stated above, AQD estimates that the potential emission reductions resulting from consent order requirements are 17,501 TPY of volatile organic compounds and 537 TPY of hazardous air pollutants. Most consent orders will require facilities to complete their work by December 31, 2006, so the permit sections expect a significant number of additional requests for related permit modifications during 2006.

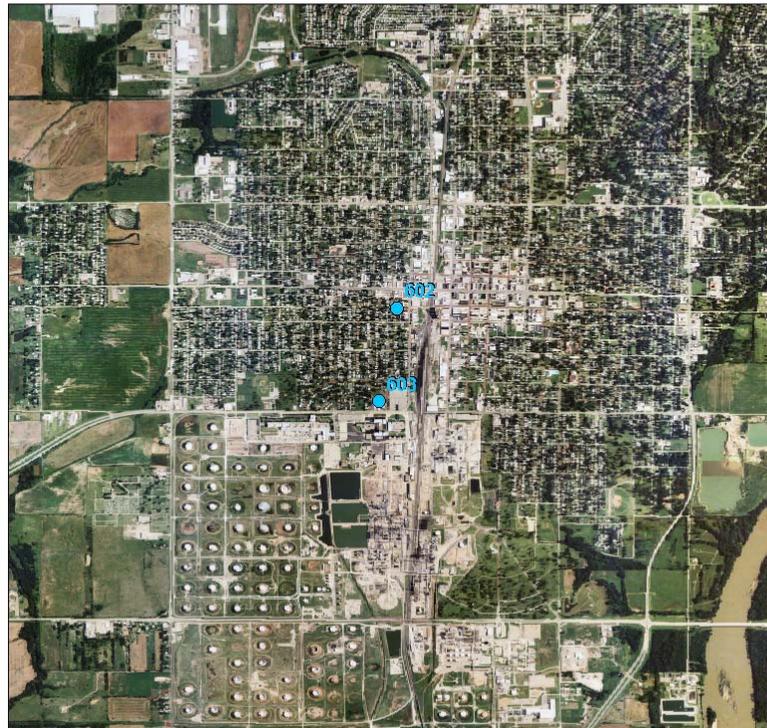
Ponca City Phase II Toxic Monitoring Completed



The Air Quality Division (AQD) has completed the second phase of the Ponca City Air Toxic Monitoring project. During this phase, AQD tracked levels of an additional 57 VOC pollutants, both at the downtown site and at a mobile site immediately north of the Conoco-Phillips refinery. Sampling concluded in July 2005. The project's first phase, in 2004, involved one site in downtown Ponca City and sampling for 78 Volatile Organic Compounds (VOC).

Because this was a short-term study (three months), AQD cannot draw definitive conclusions regarding toxic levels, but all pollutant levels monitored in both phases were much lower than levels of concern set out in Appendix O of the Air Quality Rules. The U.S. Environmental Protection Agency provided partial funding for the sample analysis trailer and monitors. A final report and all sampling data are available on the AQD Web page at www.deq.state.ok.us/AQDnew/index.htm.

Air Toxics Monitoring Sites Ponca City Phase II



0 0.25 0.5 1 Miles

Monitoring at these Ponca City sites is now complete.

Tulsa Air Toxic Monitoring Project



The Air Quality Division (AQD) is in the first stage of an air toxic monitoring project in Tulsa. Sampling began in January 2006, and is expected to run for at least one year, in several phases. During the first phase, AQD is measuring 12 carbonyl compounds (e.g., formaldehyde and acetaldehyde) and 58 volatile organic compounds (VOCs) at three sites around downtown Tulsa. Each site has meteorological monitoring equipment for comparing data to actual weather conditions when it was sampled.

Subsequent phases beginning July 2006 will include sampling for particulate metals and possibly other parameters. Because Tulsa has a



Tulsa Air Toxic Site # 0172 on the OSU at Tulsa Campus.

large number of monitoring sites available and one site is a mobile trailer, sampling can be moved and adapted to react to sample

concentrations or new information as the project continues. This is the largest air toxic monitoring project ever performed in Oklahoma.

New Air Toxics Rule Effective in August



Upon approval by the Environmental Quality Board in June 2005, the new Control of Toxic Air Contaminants rule (252:100-42) became effective August 15, 2005. The rule contains

a list of 21 Toxic Air Contaminants, found in Appendix O. It shifts the focus of air toxics control from permitting to monitoring and modifies the list of toxics to a manageable number. Under the new

rule, DEQ may conduct air sampling in areas suspected to have elevated levels of toxins. Monitoring results then will trigger other actions, as appropriate. The first study of this kind is currently underway in Tulsa.

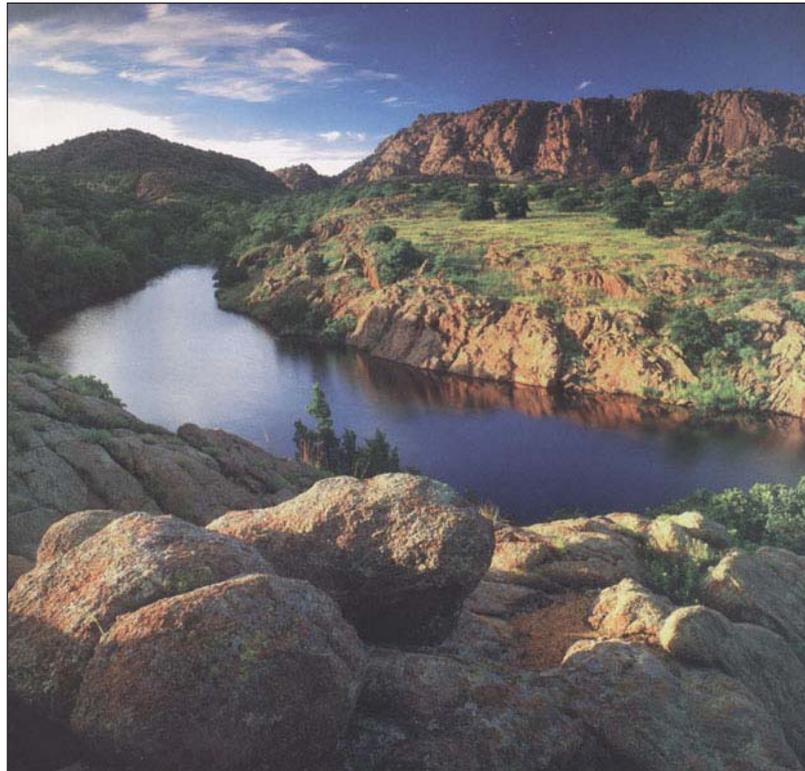
AQD Works Toward BART Adoption



Much activity concerning BART has occurred in the Air Quality Division (AQD) this year. And no, BART is not that loveable, yellow cartoon character you see on TV – it is an acronym for Best Available Retrofit Technology, an integral part of EPA’s regional haze rule.

AQD staff have been developing a proposed rule to implement BART in Oklahoma. The proposed rule will apply only to facilities built between 1962 and 1977 that have the potential to emit more than 250 tons a year of visibility-impairing nitrogen or sulfur oxides. These facilities fall in 26 categories and include utility and industrial boilers, large industrial plants and refineries. Many, because of their grandfathered status, have not previously been subject to pollution control requirements for these pollutants.

The proposed rule will require Oklahoma facilities that significantly impair visibility in areas such as national parks and wilderness areas to install Best Available Retrofit Technology



The BART rule is designed to protect areas like the Wichita Mountains.

within the next several years. DEQ will consider a number of factors when determining which facilities will be affected, such as the cost of controls, the impact of controls on energy usage, the remaining useful life of the facility, existing pollution controls, and the visibility improvement that would result from controls.

AQD is scheduled to submit a State Implementation Plan addressing regional haze and BART controls to EPA by December 1, 2007. All associated proposed rulemaking will be presented in public hearings at regularly scheduled meetings of the Air Quality Council and the Environmental Quality Board.

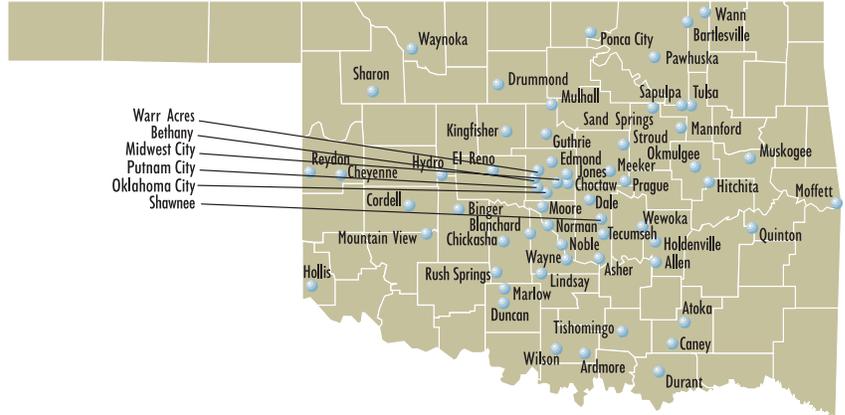
ScienceFest 2006



On April 20, the 5th annual ScienceFest took place at the Oklahoma City Zoo to promote scientific interest and expose students to science in a fun and different setting. The day of interactive science and environmental activities involved 4,500 fourth and fifth grade students from across the state. The students represented more than 90 different public and home schools and 260 teachers.

Twenty agencies and organizations participated with 23 activity stations and a specially scripted Fins and Feathers Show. The activity stations represented many disciplines of science including recycling, energy, and pollution. DEQ hosted five of them, two promoting air quality, two promoting water quality, and one demonstrating the benefits of composting. Alternative-fueled

Schools Registered to Attend ScienceFest 2006



More than 90 schools attended ScienceFest 2006.

vehicles were on location for the students to view. One teacher stated, "I had my students tell me what they learned after leaving each station. Their excitement was contagious. I wish you could have been on the bus on the return trip to school as the students compared what they each had seen."

DEQ, OGE Energy Corporation, the Department of Commerce and the Office of the Secretary of the Environment cosponsored

ScienceFest 2006. The event was planned by a steering committee of representatives from DEQ, OGE, the Conservation Commission, Tinker Air Force Base, the Department of Tourism and Recreation, the Indian Nations Council of Governments, the Oklahoma Climatological Survey, the Oklahoma City Zoo, the Department of Education, the Department of Commerce and the Office of the Secretary of the Environment.

With the assistance of many hard-working volunteers, the event ran smoothly. Nearly 6,000 people were fed in a short two hours. In addition, the efficiency of the day allowed students to flow easily from activity to activity. The students enjoyed a wonderful, educational day. After five years of growing and learning, this year the sponsors and supporters gave Oklahoma school children the best ScienceFest yet.



ScienceFest volunteers manning the recycling of 210 pounds of aluminum cans.

ScienceFest Through a Child's Eye

$$E=mc^2$$

Fortunately for all involved, the weather forecast predicted a perfect day for the 5th Annual ScienceFest at the Oklahoma City Zoo. And perfect it was. Dedicated ScienceFest committee members arrived before daylight to prepare for volunteer sign-in and, along with presenters, to set up interactive hands-on science exhibits.

Participating in the day's activities were thousands of excited and energetic children from across the state. Through brainstorming and interactive learning opportunities, the students discovered a wide variety of environmental concepts, including what comprises water pollution and how it affects the environment, what materials are recyclable, and how an earthworm functions in an ecosystem. Particularly enjoyable was birdseed mining, a timed competitive event where the kids mined M&Ms out of a pile of birdseed without letting seeds pollute past the boundaries.

The goal of AQD's activities was to teach children what air pollution is and how it can be prevented. Among the favorite activities was AQD's air savvy rendition of the popular television show "Survivor." Puzzles, word finds

and word scrambles were tools through which the children learned about carpooling, renewable resources, ozone, smog, and how air pollution can affect their health. The children learned to provide energy for a light bulb and a doorbell by using their own physical energy to wind up a generator. Full-sized alternative fuel vehicles were displayed throughout the zoo so kids could learn the potential that alternative fuels hold. A fascinating solar-powered toy car not only taught the kids about alternative fuels, but also provided an entertaining introduction to solar-powered weather stations. The children learned how weather

information was collected around Oklahoma using the latest solar-powered equipment. Meteorologists then provided the children with the opportunity to measure the speed of wind by blowing into anemometers.

There was so much to do at this year's ScienceFest that not all groups were able to visit every ScienceFest station. When asked about their favorite exhibits, children had an array of preferred activities depending upon the path they took through the zoo. Through direct involvement encouraged at each exhibit, the kids learned concepts that encourage them to be good environmental stewards throughout their lives.



Maria Collard, AQD, assists children with AQD's "Survivor" word scramble

Since its inception, ScienceFest has been an anticipated event for DEQ. The event's ever-growing success and increasing volunteer and student attendance are a well-deserved credit to all of those involved. For this year's ScienceFest, DEQ set out to witness first-hand what the children experience throughout the course of the day. DEQ Air Quality Environmental Programs Specialist Caprice Coleman agreed to follow her daughter's elementary class and observe how those children experienced

the event. The school, Moss Elementary, is a small, rural school outside of Holdenville in Hughes County, that is new to the ScienceFest.

After a long and rowdy 2-hour car ride, the group from Moss arrived at the zoo. Upon check-in, the children and chaperones crowded through the entrance and onto the three main ScienceFest paths. Though enthusiastic during the long ride, some children were initially timid, needing a little time to warm up to the interaction at the booths. Shortly, however, the children began racing excitedly

from station to station, eager to learn what each booth had to offer.

The Moss Elementary school teachers and principal were struck by the amount of educational content the exhibits provided, and the vote was unanimous from the students and teachers to make this an annual trip.

Upon witnessing the Moss Elementary students' increased awareness and concern for pollution and its effect on the environment, DEQ is optimistic for the future.



Tulsa Office Protects Public from Asbestos



The Tulsa office of the Department of Environmental Quality (DEQ) inspects and regulates asbestos activities in 38 eastern Oklahoma counties. The office conducts about 300 inspections each year. Inspections consist of the following types: pre-abatement and preparatory inspections, active abatement, post-abatement, non-notifier, self-initiated, public or contractor-requested, follow-up, and complaint investigations. In addition, the office may collect suspect materials to be analyzed for asbestos; this service may be provided to the public at no charge.

The Tulsa office also reviews and follows up approximately 300 to 500 written notifications each year, as required by federal law, from contractors concerning building



Environmental Specialist Rene Koesler suited up for an asbestos removal inspection.

demolitions or renovations. When violations of state or federal asbestos regulations are uncovered, the office issues warning letters and notices of deficiencies and violations. If problems are not corrected at this point, further steps such as issuing fines or initiating criminal

proceedings may be taken.

Since asbestos when inhaled is a known carcinogen, the Tulsa office prioritizes these complaints. DEQ is proactive whenever asbestos removal is contemplated by building owners. The Tulsa office offers asbestos training at Tulsa Community College as part of the continuing education program *Environmental Assessment*. As time permits, the office also provides guidance on environmental and work place asbestos problems for local communities, the public, and private institutions.

When needed, the Asbestos Program implements the new enforcement and penalty policy. Penalties vary, depending upon the severity of the violation. To date, several violators have been successfully brought into compliance under the new policy.



Environmental Specialist Rene Koesler checks on asbestos removal.

Online Excess-Emissions Reporting Now Available



Excess-emissions reporting, described in OAC 252:100-9, is required whenever an emission of a regulated pollutant occurs above the established enforceable limit. Thanks to the Information Technology Development Team's programming and the Quality Assurance and Enforcement and Compliance Sections' thorough planning and testing, an online system for reporting excess emissions became available on December 1, 2005. Facilities may access the system using their Redbud Emission Inventory company ID and password on the Compliance and Enforcement/Air Quality Division Web page, or directly at

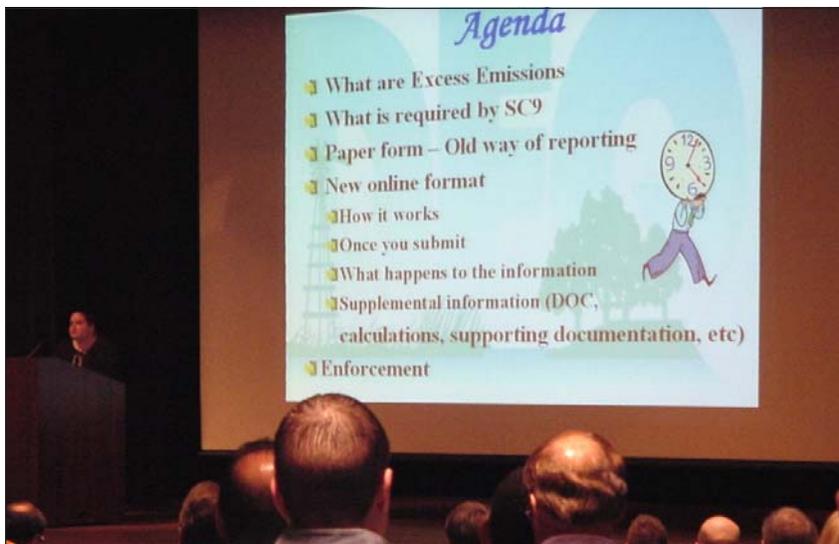
www.deq.state.ok.us/excessemissions.

In the past, facilities have reported excess-emission events by phone or fax, following up within 10 business days with an official written report. Using the online system, companies can file an immediate notification and an official report at the same time, or they can still wait to file the official report for up to 10 business days, if they need further information. The online system allows users to report several pollutants and sub-events per entry, without having to re-enter repetitive information for each. The Web-based system is faster and assures that facilities enter all relevant and

required information in their reports. Users can access and review their own reports and submission histories online any time from a satellite location.

AQD and the Customer Service Division (CSD) offered six workshops around the state to inform and train facility staff. The presentations were well attended; in all, 101 companies were represented by 166 attendees. Tulsa had the largest turnout with 80 participants. Audiences were led step-by-step through the online process and reviewed the basic requirements of the excess emission rule OAC 252:100-9 and possible enforcement issues. This was a useful refresher for the attendees. The presentation can be found at www.deq.state.ok.us/AQDNew/ComplianceEnforcement/OnlineExcessEmissionPresentation.ppt.

The online system has proven a positive addition to the excess-emission reporting process, enabling faster industry response times and more efficient data entry for AQD inspectors. Since the program's introduction, companies have responded well. Between December 1, 2005, and April 1, 2006, more than 400 reports have been submitted using the online system.



Tulsa excess-emissions outreach presentation

Air Quality Enforcement Develops Alternate Policy



Does anyone like sending or receiving a notice of violation? Probably not. A notice often signals the start of a lengthy, sometimes contentious process. The Air Quality Enforcement, Compliance, and Technical Resources and Training sections jointly developed an alternative procedure that under certain circumstances can simplify and streamline the air quality enforcement process. Their intent is to promote cooperation between the regulated community and DEQ, and to achieve timely resolution of noncompliance matters.

When a compliance evaluation is conducted at a facility, a report is generated detailing the findings. The report is sent to the company along with a summary of noncompliance issues. The company is requested to inform the report writer by phone within ten calendar days if it would like to use the alternate enforcement procedure. The option may be withdrawn after ten days if no contact is made.

The alternate procedure requires the company to provide a compliance plan within 20



DEQ personnel conduct an air quality compliance evaluation. Fortunately, this evaluation did not result in enforcement.

calendar days after contact, including a proposal and schedule for resolving its noncompliance issues. If the company found factual errors in the DEQ report, these may be pointed out within the compliance plan, but the alternate procedure does not include dispute of issues. A company wishing to dispute allegations of noncompliance, rule or statute interpretations must use the standard enforcement procedure. This opens the possibility that a formal notice of

violation may be issued.

Under the alternate procedure, if DEQ approves the company's compliance plan, the case will be tracked until all noncompliance issues are resolved, after which the case will be closed. An enforcement conference and penalties may still be required, when appropriate. The alternate option reflects the collective goal of DEQ and the regulated community: full and prompt compliance and a healthy environment for the people of Oklahoma.

Redbud Users Have Good Reporting Experience



Users of Redbud, the electronic emission inventory reporting system, were able to complete the reporting process in 2005 with fewer problems than before. Most of the difficulties reported in prior years were successfully resolved. Increased system reliability allowed more facilities to use Redbud this year. The system is the easiest and quickest reporting method available to Oklahoma companies.

This year, companies were required to fill in all data fields before their inventory reports could be accepted. EPA does not accept incomplete reports, so in past years, AQD staff filled in fields left blank by reporting companies. However, staff frequently do not have the “best data available,” as required by Oklahoma Administrative Code 252: 100-5-2.1(d). This year, facility personnel, who know the processes best, were asked to provide all applicable data.

DEQ emissions inventory staff received fewer calls for clarification on how to complete the electronic forms. They worked hard to clarify and simplify instructions wherever



Students observe and discuss the steps required to report the annual emissions inventory.

possible, after last year’s experience suggested that these needed improving. This is a continuous quality assurance process to make the Redbud system as user-friendly as possible.

Even with the relative ease of reporting electronically, the number of time extensions to submit late emissions inventories continues to be too high. Too many companies are still requesting one and sometimes two extensions.

AQD encourages companies to plan ahead, especially now that the timeline has been in place for several years. AQD will continue to grant 30-day extensions from March 1 until April 1 for good cause; second 30-day extensions will be reviewed closely and approved only for emergencies. However, a change in the reporting deadline is under consideration and would significantly change the reporting schedule.

Once Again, Oklahoma Air Quality Escapes Non-Attainment Status



AQD is responsible for monitoring and reporting on the state's attainment of the National Ambient Air Quality Standard (NAAQS) for ozone. (See ozone map.) Oklahoma summers present an air quality challenge and the summer of 2005 was no exception. Weather conditions with lots of sunshine, warm temperatures and light wind speeds favored formation of high concentrations of ozone. Fortunately, however, none of the permanent state ozone monitoring sites recorded the benchmark reading: a fourth-highest eight-hour average ozone concentration of 0.085 parts per million or greater. The Tulsa North site, near Skiatook, recorded the highest such reading, 0.083 parts per million.

Burneyville, one of two Red River/special purpose monitoring sites, did record a fourth-highest eight-hour average reading of 0.085 parts per million in 2005, but special purpose monitors are used only for special studies. Such readings are not considered in determining the state's attainment/non-attainment designation. The monitors are moved from place to place for research every two years.

On 12 days in the summer of 2005, ozone monitors did record 0.085 parts per million eight-hour

average ozone concentrations, compared with two days in 2004. Still, this was fewer than the 13 that had been recorded in the years 2002 and 2003. Credit for reducing ozone concentrations is shared by the public who participated in Ozone Alert Days. Alerts were called on 13 days in at least one of the three participating metropolitan areas — Lawton, Oklahoma City and Tulsa. The public responded by voluntarily reducing fossil fuel combustion to cut back emissions of ozone precursors. They helped by refraining from using gas-powered mowers and reducing vehicle usage with carpooling, riding the bus and “trip chaining.” (“Trip chaining” means planning and combining errands to make fewer, shorter trips.)

The Oklahoma Particulate Matter (PM) 2.5 continuous monitoring network expanded to eight sites in 2005. (See PM 2.5 map.) The newest monitors began gathering data in Ponca City, Glenpool and McAlester. Continuous monitors are used for mapping and Air Quality Index* (AQI) purposes, but not to determine NAAQS attainment; sites using non-continuous Federal Reference Method (FRM) monitors are used for that purpose. The

number of FRM sites was reduced to seven; sites in Ardmore and Enid and one in Tulsa were closed due to redundancy and low recorded concentrations of PM-2.5. All seven remaining FRM sites indicate NAAQS attainment. (See map.)

Speciation and IMPROVE (Interagency Monitoring of Protected Visual Environments) monitoring sites (see map) are collecting PM-2.5 data for use over the next few years in writing state air pollution regulations pertaining to regional haze and visibility. IMPROVE data will help to set a visibility baseline and to determine sources of pollutants causing visibility impairments. IMPROVE data cannot be used for attainment determinations, but it will show how well the state is meeting visibility goals established by the Regional Haze rule.

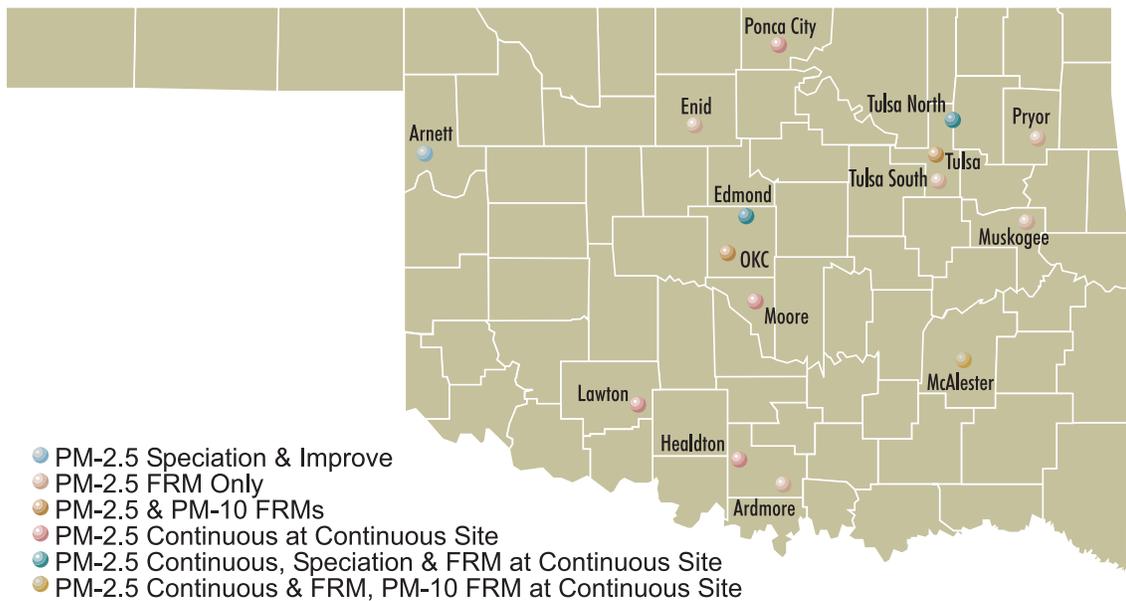
Raw data for all criteria pollutants, including speciation data, can be downloaded from the Web at www.epa.gov/ttn/airs/airsaqs/detaildata/downloadaqdata.htm. IMPROVE data can be viewed or downloaded at vista.cira.colostate.edu/views/. Customized criteria pollutant reports can be generated at www.epa.gov/air/data/geosel.html.

* The Air Quality Index (AQI) is a daily, standardized public report and forecast of air pollution for larger cities. Oklahoma produces an AQI for Tulsa, Lawton and Oklahoma City. The AQI is based

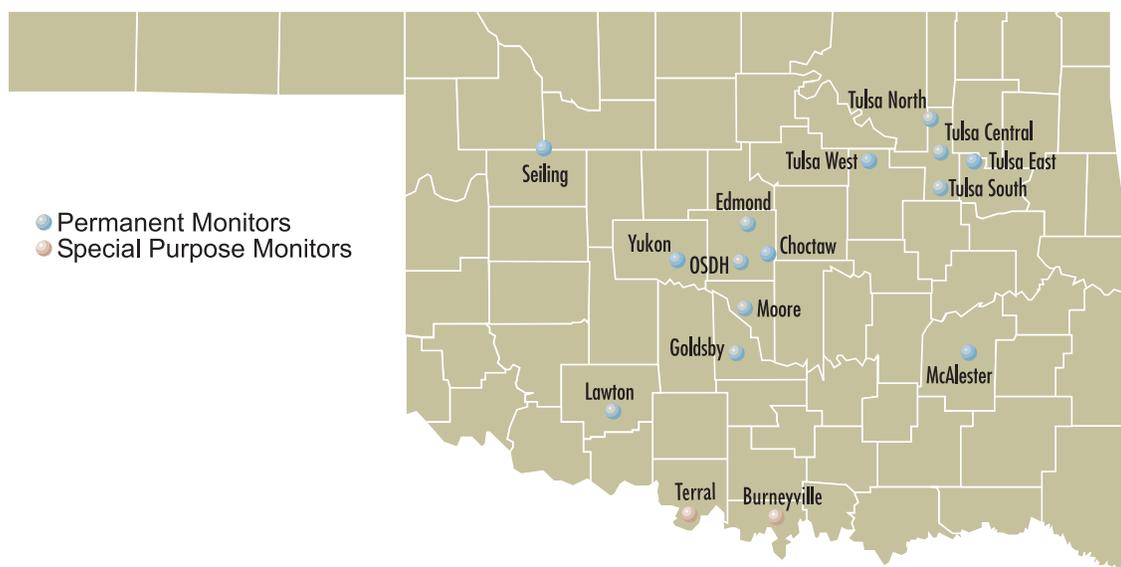
upon the previous day's monitored concentrations of criteria pollutants (particulate matter, ozone, carbon monoxide, sulfur dioxide and nitrogen dioxide). The report is also used to predict levels of criteria

pollutants, allowing sensitive people time to take precautions when pollutants are expected to reach unhealthy levels. The AQI report can be accessed from the Web at www.deq.state.ok.us.

2005 Oklahoma DEQ PM-2.5 Monitoring Network



2005 Oklahoma DEQ Ozone Monitoring Network



2005 OKLAHOMA OZONE

Highest 8-Hour Averages through 11/01/05

Site	02 4th	03 4th	04 4th	1st	2nd	3rd	4th	02-04 Avg* 4th Highs	03-05 Avg* 4th Highs
Terral ⁽⁶⁷⁰⁾ (Special Purpose Monitor)				0.093 22-Jun	0.093 9-Sep	0.080 6-Sep	0.080 10-Sep		
Burneyville ⁽³⁰⁰⁾ (Special Purpose Monitor)				0.090 2-Jun	0.090 23-Jun	0.086 29-Jun	0.085 6-May		
Tulsa West ⁽¹⁴⁴⁾				0.096 29-Jul	0.086 1-Sep	0.079 31-Aug	0.076 20-Jun		0.076
	0.081		0.071						
Tulsa East ⁽¹⁷⁸⁾				0.092 21-Jun	0.084 15-Jun	0.082 6-Aug	0.081 29-Jul	0.079	0.079
	0.080	0.084	0.073						
Tulsa Central ⁽¹¹²⁷⁾				0.091 1-Sep	0.083 20-Jun	0.083 21-Jun	0.082 29-Jul	0.076	0.076
	0.080	0.080	0.068						
Tulsa North ⁽¹³⁷⁾				0.090 8-Aug	0.087 22-Jun	0.087 2-Sep	0.083 20-Jun	0.079	0.079
	0.083	0.083	0.071						
Tulsa South ⁽¹⁷⁴⁾				0.085 29-Jul	0.077 14-Jul	0.073 30-Aug	0.072 20-May	0.079	0.076
	0.082	0.086	0.071						
Edmond ⁽⁰³⁷⁾				0.085 22-Jun	0.083 23-Jun	0.080 29-Jul	0.078 1-Aug	0.079	0.079
	0.078	0.082	0.077						
OKC ⁽⁰³³⁾				0.089 29-Jul	0.083 22-Jun	0.079 23-Jun	0.077 20-Jun	0.078	0.077
	0.080	0.080	0.076						
Moore ⁽⁰⁴⁹⁾				0.081 13-Jul	0.079 22-Jun	0.078 2-Jun	0.076 9-Apr	0.073	0.074
	0.075	0.076	0.070						
Goldsby ⁽⁰⁷³⁾				0.088 13-Jul	0.078 29-Jul	0.076 30-Aug	0.073 23-Jun	0.074	0.072
	0.078	0.077	0.068						
Choctaw ⁽⁰⁹⁶⁾				0.082 23-Jun	0.080 22-Jun	0.076 9-Apr	0.075 17-May	0.074	0.075
	0.078	0.078	0.072						
Yukon ⁽¹⁰¹⁾				0.094 21-Jun	0.093 29-Jul	0.081 20-May	0.079 20-Jun	0.076	0.076
	0.081	0.078	0.071						
Lawton ⁽⁶⁴⁷⁾				0.085 22-Jun	0.081 29-Jul	0.079 23-Jun	0.079 9-Sep	0.076	0.077
	0.076	0.078	0.075						
McAlester ⁽⁴¹⁵⁾				0.075 28-Jun	0.073 9-Apr	0.072 10-Sep	0.071 17-Apr	0.073	0.071
	0.076	0.076	0.068						
Seiling ⁽⁸⁶⁰⁾				0.087 22-Jun	0.079 23-Jun	0.077 21-Jun	0.076 2-Sep	0.071	0.073
	0.069	0.077	0.067						

*0.085 or greater indicates exceedance of National Ambient Air Quality Standards

Oklahoma Joins Blue Skyways Collaborative



The State of Oklahoma has joined the recently formed Blue Skyways Collaborative, a group working to improve public health in the heartland of the United States by reducing exposure to diesel emissions. The U.S. Environmental Protection Agency (EPA) estimates that every dollar spent on emissions reduction returns up to thirteen dollars in respiratory, circulatory and cancer health benefits.

The collaborative's subcommittees are addressing five sectors: on-road vehicles, non-road equipment, energy, fuels and technology, and air/water/rail. Adding clean diesel technology to some 10,000 diesel engines could keep as much as 2,300 tons of diesel soot from polluting the air. Initial projects will focus on increasing the use of biodiesel

fuel, diesel engine retrofitting and engine idle reductions. EPA is committing about \$9 million for project financing in FY 2006.

The collaborative's strategy is to exceed federally mandated fuel-related emission reductions and to increase fuel efficiency, while promoting regional economic growth with cost-effective, innovative practices and technologies. To achieve its goals, the group will use education and outreach, support for clean-energy technologies and renewable energy, and information-sharing about innovative projects and policies. The group encourages public and private partnerships to develop voluntary solutions, incentives and shared approaches to reducing diesel and other fuel-related emissions.

Partnerships can leverage resources,

share technologies and pool finances to achieve greater reductions than would be possible through individual efforts. An outreach and communication subcommittee will publicize the collaborative and promote its participants and projects.

EPA Regions 6 and 7, along with the nonprofit Central States Air Resources Agencies (CenSARA), are coordinating the collaboration. Participating partners include ten states (Minnesota, Iowa, Nebraska, Missouri, Kansas, New Mexico, Oklahoma, Arkansas, Louisiana and Texas), Canada, Mexico, and numerous federal, state and local government agencies, nonprofits, and private industry groups. For more information on the Blue Skyways Collaborative, visit www.blueskyways.org.



The Blue Skyways Collaborative's sectors include on-road vehicles, non-road equipment, energy, fuels and technology, and air/water/rail.



Oklahoma hopes to reduce emissions from diesel engines, like those pictured here, through voluntary measures.

Natural Gas Flash Initiative Finalized in December 2005



As part of an agreement with DEQ, seven natural gas companies doing business in Oklahoma reduced annual emissions of volatile organic compounds by a total of 17,501 tons. They reduced hazardous air pollutants by 537 tons. Several measures contributed to the reductions: closure of some natural gas transmission facilities, elimination of some emission points by repiping, and installations of control equipment.

The companies that participated in the initiative – ONEOK, Inc., Duke Energy Field Services, Enogex, Anadarko, Mustang, CenterPoint and Northern Natural – submitted new permit applications for the affected facilities and paid fees for past unreported emissions. Altogether, the companies invested \$8 million in control equipment.



A vapor recovery unit installed for the Oklahoma flash initiative.