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Tribal Air News

Assistant Administrator for Air Visits the Bois Forte Band of Chippewa

- Darrel Harmon

On May 27, 2004, Jeff Holmstead, EPA's Assistant Administrator for Air, traveled with a group of EPA staff and management to see the air quality achievements of the Bois Forte Band of Chippewa. The group included Region 5 Air Division Director Steve Rothblatt, Region 5 Project Officer Julie Henning, Jeff Holmstead's Special Assistant Chitra Kumar, and the OAR Senior Indian Program Manager Darrel Harmon.

From left to right: Darren Steen and Sara Polski of the Bois Forte Tribe greet Jeff Holmstead at the airport.

To learn more about the Tribe, the group toured the Fortune Bay Resort and Casino which is located north of Duluth, Minnesota. The Tribe has developed this comprehensive resort including a marina, championship golf course, hotel and RV park. It is also restoring neighboring Nett Lake to improve the productivity of the highly valued wild rice crop. The Tribe still harvests its rice by hand, using traditional methods. To ensure better protection, no motorized boats are allowed on Nett Lake.

Sara Polski opened the meeting between Jeff and the Tribal Council with a presentation on the tribe's indoor air quality program. Over the

Jeff Holmstead and Steve Rothblatt with the Bois Forte Band of Chippewa Tribal Council.

last few years, Sara has developed the program as a Regional Pilot Program. In addition to assessing homes and commercial buildings for indoor air quality and making recommendations on remediation and preventative measures, she regularly visits other tribes in Region 5 to share her expertise. This allows other tribes to benefit from her experience without developing an entire program of their own. Jeff Holmstead then discussed air quality issues with the majority of the Tribal Council. Vice-Chair Gordon Adams Jr. explained to Jeff Holmstead how important the indoor air program has been to the tribe, offering significant benefits to Bois Forte and other tribes, as they struggle to address health issues within the tribe and among neighboring tribes. Vice-Chair Adams noted that they have made a number of improvements to new and existing buildings around the reservation based on Sara's recommendations.

Touring a home abandoned due to mold.

Following this meeting, the group toured the reservation and stopped at one house that had to be abandoned because of mold. The mold problems were so severe that the tribe asked the resident family to move out. Jeff Holmstead saw how large families and poor insulation, combined with sealing a house against temperatures that can reach -40F, can lead to moisture buildups that create opportunities for mold to grow unchecked. After seeing this house, the group moved on to see some new housing that was just being completed. The new housing incorporated design features that should prevent mold problems. The tribe has also made changes in many existing buildings, based on the indoor air program's recommendations, to ensure problems are either resolved or avoided by improving air exchange, reducing humidity and adding insulation.

The group continued on to see the project to restore Nett Lake's wild rice production, then visited a local restaurant for an outstanding meal of fried Walleye before departing. Jeff Holmstead was clearly impressed by the work being done at Bois Forte and mentioned that he looks forward to seeing more accomplishments, such as these, being achieved by tribes in the future.

EPA Proposes BART Requirements

EPA's Best Available Retrofit Technology (BART) requirements are intended to reduce emissions from certain large industrial sources of air pollution that create visibility impairing haze in our national parks, scenic wilderness and wildlife protection areas. Under the Clean Air Act, BART applies to the largest industrial sources in 26 source categories built between 1962 and 1977, including utility and industrial boilers and large industrial plants such as pulp mills, refineries, and smelters. BART requirements apply to facilities that have the potential to emit over 250 tons a year of one or more pollutants that contribute to visibility impairment, most notably sulfur dioxide (SO2), nitrogen oxides (NO2) and fine particles.

-Continued on next page

Smoke stacks like this one create emissions that decrease visibility in their surrounding areas. The BART requirements would control those emissions to improve visibility.

In April, 2004, EPA proposed Guidelines for BART Determinations. This proposal is a follow-up to the 1999 Regional Haze rule, which required state plans for addressing regional haze, including a BART requirement. Because of a court challenge striking down certain aspects of the BART requirements in the 1999 haze rule, EPA needed to revise the BART provisions.

Under the 1999 regional haze rule, tribes may set periodic goals for improving visibility in the 156 natural areas. As they work to reach these goals, states and tribes will develop "implementation plans" that contain enforceable measures and strategies for reducing visibility-impairing pollution. These plans are due to EPA by January, 2008. States or tribes will need to identify the facilities that will have to install BART controls, and must support their decisions in their implementation plans.

The BART requirement directs air quality agencies to identify whether emissions from sources subject to BART are well controlled, or whether retrofit measures are needed and available to reduce the emissions below current levels. For some of the source categories, existing technology often can reduce emissions by up to 90 to 95 percent. Implementation of this proposal would result in reductions of 2.2 million tons of sulfur dioxide and 1.2 million tons of nitrogen oxides from the power sector by 2015.

The proposed amendments would not set federal emission limits for these plants; air agencies will set those limits as they implement the regional haze rule. This amendment also proposes guidelines, known as BART guidelines, for tribes and states to use in determining which facilities must install controls and the type of controls they must use.

According to the Clean Air Act, BART determinations for individual facilities, must consider a number of factors, including:

- the cost of the controls;
- the impact of controls on energy availability or any non-air quality environmental impacts;
- the remaining useful life of the equipment to be controlled;
- any existing pollution controls already in place; and
- the visibility improvement that would result from controlling the emissions.

The proposed guidelines also explain:

- How to identify the plants and equipment for which a BART analysis is required;
- The circumstances under which a source may avoid a detailed BART review;
- The procedures for reviewing available emission control methods, and procedures for summarizing and reporting the results of this review; and
- The type of air quality analysis that EPA requires in the regional haze regulation.

The proposed BART rule also provides guidelines for states or tribes that want to establish an emissions trading program, an alternative to BART allowed under the haze rule. Such a cost-effective trading program may be used, provided it results in greater visibility improvement and emissions reductions than would be expected through emission controls on each facility.

EPA will issue final BART provisions by April 15, 2005. For additional information, please call Kathy Kaufman, EPA Office of Air Quality Planning and Standards, at (919) 541-0102, or e-mail kaufman.kathy@epa.gov or visit www.epa.gov/visibility

Health Effects of PM 2.5

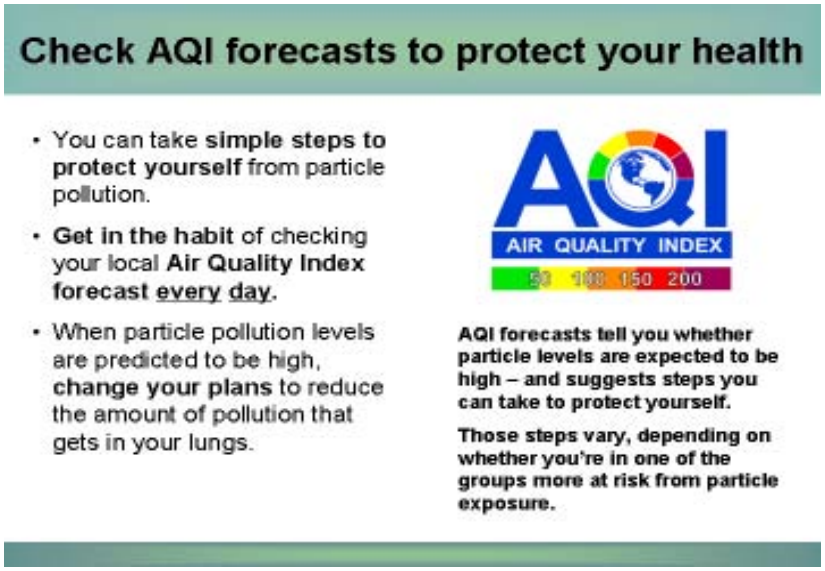
Particle pollution is a mixture of microscopic solids and liquid droplets suspended in air. This pollution, which is also known as particulate matter, is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, soil or dust particles, and allergens (such as fragments of pollen or mold spores).

The size of particles is directly linked to their potential for causing health problems. Small particles, less than 10 micrometers in diameter, pose the greatest problems, because they can get deep into your lungs, and some may even get into your bloodstream. Exposure to such particles can affect both your lungs and your heart. Larger particles are of less concern, although they can irritate your eyes, nose, and throat.

Small particles of concern include both "fine particles" (such as those found in smoke and haze), which are 2.5 micrometers in diameter or less; and "coarse particles" (such as those found in wind-blown dust), which have diameters between 2.5 and 10 micrometers.

People with heart or lung disease, older adults, and children are considered to be at greater risk from particles than other people, especially when they are physically active. Exercise and physical activity cause people to breathe faster and more deeply taking more particles into their lungs.

Particle exposure can lead to a variety of health effects. For example, numerous studies link particle levels to increased hospital admissions and emergency room visits and even to death from heart or lung diseases. Both long-term and short-term particle exposures have been linked to health problems.



Your chances of being affected by particles increase the more strenuous your activity and the longer you are active outdoors. If your activity involves prolonged or heavy exertion, reduce your activity time——or substitute another that involves less exertion. Go for a walk instead of a jog, for example. Plan outdoor activities for days when particle levels are lower. And don't exercise near busy roads; particle levels generally are higher in these areas.

Particle levels can be elevated indoors, especially when outdoor particle levels are high. Certain filters and room air cleaners can help reduce indoor particle levels. You also can reduce particle levels indoors by not smoking inside, and by reducing your use of other particle sources such as candles, wood-burning stoves, and fireplaces.

For more information on PM 2.5 health effects visit www.epa.gov/airnow.

Clean Air Interstate Rule Update

On January 30, 2004, EPA proposed the Interstate Air Quality Rule (69 FR 4566). This rule, now known as the Clean Air Interstate Rule or CAIR would require 29 states and the District of Columbia to develop plans to reduce sulfur dioxide (SO2) and nitrogen oxides (NOx) emissions from facilities that emit these pollutants. The states affected by this rule significantly affect downwind states' ability to meet national air quality standards for fine particle pollution (PM2.5) and/or 8-hour ozone. SO2 and NOx are "precursor" pollutants that react with other compounds in the atmosphere to form PM2.5. NOx is also a precursor of ozone. Reducing upwind precursor emissions will help downwind PM2.5 and 8-hour ozone nonattainment areas to meet national air quality standards.

Each of the affected 29 states and the District of Columbia would be required to submit plans to EPA that demonstrate that they will meet their assigned statewide SO2 and NOx budgets. States could meet the proposed emissions reductions using one of two options for compliance: 1) requiring utilities to participate in an interstate cap and trade system that caps emissions, or 2) meeting an individual state emissions budget through measures of the state's choosing.

The proposed Interstate Air Quality Rule would reduce emissions of SO2 and NOx in 29 eastern states and the District of Columbia in two phases. SO2 emissions would be reduced by 3.6 million tons in 2010 (approximately 40 percent below 2002 levels) and by another 2 million tons per year when the rules are fully implemented (approximately 70 percent below 2002 levels). NOx emissions would be cut by 1.5 million tons in 2010 and 1.8 million tons annually in 2015 (about 65 percent below 2002 levels). When combined with the recently completed Clean Air Nonroad Diesel Rule and other national control programs, the reductions required by the CAIR would allow most areas of the country to meet the PM2.5 and 8-hour ozone standards without having to impose additional local controls.

The CAIR will not have an immediate affect on many tribes because Indian country is not typically home to the types of industrial sources potentially affected by this rule, such as power plants and other large sources of NOx or SO2. Nonetheless, tribes have raised valid concerns about the rule's future implications. These arise from the fact that a cap-and-trade program, by definition, is designed to cap emissions over a broad geographic area and constrain to these emissions into the future. Indian country lands are included within these broad areas. In addition, at least one coal-producing tribe outside the CAIR region is concerned that its coal operations would be adversely affected by the rule.

EPA believes new sources that locate in Indian country within the affected region should be subject to the program in the same manner as other new sources. If not, emissions from new Indian country sources could jeopardize the environmental goals of the program. In a supplemental proposal dated June 10, 2004 (69 FR 32684), EPA requested comment on the existence of potentially affected emissions sources located in Indian country, and on whether a program that would create a set-aside of emissions allowances for potential future tribal sources is necessary or appropriate. EPA plans to issue a final CAIR later this year.

For more information visit www.epa.gov/interstateairquality.

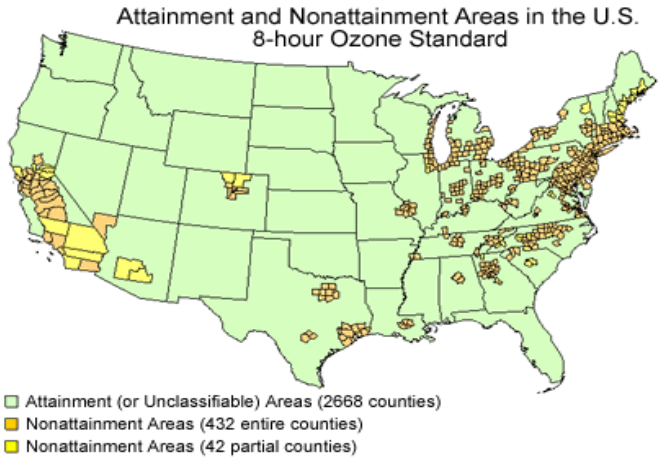
Impacts of Ozone and PM Designations

The designation and classification process plays an important role in letting the public know whether air quality in their community is healthy. Once designations of attainment or nonattainment, and classifications denoting the level of air quality for 8-hour ground-level ozone (sometime referred to as smog), took effect on June 15, 2004, state and local governments began preparing plans which describe their efforts to reduce the problem. Some tribes may participate in the process. By law, most nonattainment areas are subject to certain requirements to reduce ozone-forming pollution.

Unlike the 1991 designations, many tribes participated in this designation process. Nearly 40 tribes made air quality boundary recommendations to EPA for the 8-hour ozone standard. Approximately 64 tribal areas were designated as nonattainment.

Those areas categorized as nonattainment will have to comply with the Clean Air Act (CAA) requirements. EPA classifies ozone nonattainment areas based on the severity of their ozone problem: marginal, moderate, serious, severe and extreme. More information is available from regional EPA offices.

The CAA requires state and local governments to take steps to control pollution in nonattainment areas. These steps may include stricter controls on business and industrial facilities, requirements for new or modified emission sources, and additional requirements for transportation sources, such as vehicle emission inspection programs. Not every nonattainment area will be required to adopt these controls.



Some tribes are developing their own Federal air programs. However, tribes are not required to adopt and implement CAA programs. The EPA committed in the Tribal Authority Rule (TAR) to develop and administer additional Federal programs by regulating sources not covered by tribal rules, in circumstances where EPA determines that doing so is "necessary or appropriate" to protect air quality in Indian country.

Once designated, nonattainment areas are subject to New Source Review (NSR) requirements. NSR is a permitting program for industrial facilities to ensure that new and modified sources of pollution do not impede progress toward cleaner air. Tribes have made comments to EPA about their concerns with these requirements. EPA intends to address these concerns in the Minor NSR rule for tribes. The contact is Raj Rao, 919 -541-5344.

State governments must detail control requirements in plans demonstrating how they will meet the ozone and particulate matter standards. Those plans are known state implementation plans, or SIPs. States must submit their plans to EPA within three years after the Agency makes final designations.

On the other hand, a tribe may prepare a Tribal Implementation Plan (TIP) if they choose. In addition to, or instead of adopting a TIP, a tribe may wish to participate in the SIP development process. EPA is currently developing tools and training to enable tribes to effectively participate in the SIP development process. The contact is: Julie McClintock 919-541-3214.

For more information on designations visit www.epa.gov/ozonedesignations or www.epa.gov/pmdesignations.

The Quapaw Tribe of Oklahoma and the Tar Creek Project

-Taken from the March 2004 Outlook

The Quapaw Indian Tribe of Oklahoma was originally located near the mouth of the Ohio River, where they were part of a larger group known as the Dhegiha Sioux. As a member of this group, they belonged to the same Siouan linguistic family as the Ponca, Osage, Omaha and Kansas tribes. In the early 1600s, the Quapaw began to move downstream to the Mississippi River and settle in what is now known as Arkansas. This move earned them the tribal name of Ugakhpa, which means "downstream people." During the mid-1600s, the French explorers Robert De La Salle and Henri De Tonti encountered the Quapaw and began referring to them as Akansea or "Bow people of the south wind." The area in which the Akansea were located eventually became the State of Arkansas. Beginning in 1818, the United States government began obtaining land from the Quapaws until 1833 when, "the tribe was removed from Arkansas for the last time." The 1833 move put them into Indian Territory in what is now known as Oklahoma. In 1867, they were yet again forced to sign over a large portion of their lands. "Today, the Quapaw retain only a small parcel of historic trust lands of less than 13,000 acres."

In 1919, lead and zinc deposits were found on tribal lands. This discovery brought a fifty year period of intense mining activity, which included the Tar Creek area, with the last mines closing in the 1970s. The mining activity took place in what has been designated as the Tri-State Mining area, which encompasses portions of Oklahoma, Kansas and Missouri. Some of the mining operations were conducted at depths of 90 to 320 feet below ground surface in the Boone Aquifer. It should be emphasized that the Tar Creek site has become not only a state and federal issue, but also tribal. The Quapaw Nation and a group of seven other small tribes in Ottawa County own 80 percent of the land that makes up the Tar Creek Superfund site. Environmental problems began showing up in 1979 with the advent of acid mine drainage from the underground mines flowing into Tar Creek through abandoned mine shafts and bore-holes. Along with the acid drainage from the mines, lead-contaminated soil had become a major source of surface contamination. This contaminated soil was then deposited into "chat" piles, which constituted approximately 165 million tons of tailings, over 1,320 mine shafts and thousands of drill holes. With these considerations in mind, the Quapaw Nation has been in the forefront of a cooperative effort to resolve these problems.

A home next to a chat pile in Ottawa County.

In 1980, the Governor of Oklahoma established the Tar Creek Task Force to investigate acid mine drainage into Tar Creek. In 1983, the Tar Creek Site was listed on the National Priorities List (NPL). This list is used to guide the Environmental Protection Agency (EPA) "in determining which sites warrant further investigation" as to releases of hazardous substances, pollutants or contaminants. Remediation efforts by the EPA had begun addressing the acid mine drainage problem and the lead-contaminated residential yards; however, the Quapaw Tribe felt that one other area

needed to be addressed, that of air quality. Leon Crow, Air Quality Manager, Quapaw Tribal Air Program, emphasized in a Tribal Case Study, that "Air quality is of primary concern to a majority of Tar Creek residents and tribal members."
The tribe requested air monitoring equipment be placed within designated areas. After discussions with EPA's Office of Air and Radiation (OAR), it was determined that monitoring for fine particulate matter PM2.5 and PM10 and lead was warranted. The tribe also requested that silica monitoring be included (this last was deemed necessary due to complaints from local residents).

Four air monitoring sites were selected: The Thomas Buffalo Allotment; the Whitebird Allotment; the Hum-bah-wat-tah Allotment and the Anna Beaver Allotment (which was also the quality assurance and quality control site). The tribal staff received training in several TAMS Center-sponsored courses, which included: Quality Assurance; PM monitoring; TEOM Ambient Particulate Continuous Monitoring and Air Quality Systems (EPA database). The tribe also participated in EPA's National Performance Audit Program (one site every quarter); an Independent Audit Program (one site every quarter) and a Self Audit Program, conducted on every sampler on a bi-weekly basis. In addition to the formal course training at the TAMS Learning Center, located in Las Vegas, Nevada, at EPA's Radiation and Indoor Environments National Laboratory (R&IE), two on-site training sessions were conducted in March 2003 and January 2004 by Joe Hameed, Technical Specialist II, with the TAMS Center. The training concentrated on the operation, maintenance and calibration of the equipment; auditing procedures; quality assurance/quality control checks; data management and verification and troubleshooting processes.

The reddish iron oxide staining the vegetation and banks of the creek are a visible sign of acid mine drainage into Lyle Creek.

With the expertise and training provided by the TAMS Center, the Quapaw Tribe of Oklahoma has formed the groundwork for reaching its ultimate goal of finding a comprehensive solution to the Tar Creek dilemma.

If you have any questions concerning the training and on-site visits conducted by the TAMS staff, please call Joe Hameed at (702) 784-8269 or email to Joe.Hameed@nau.edu. For questions involving the Tar Creek Project and the Quapaw Tribe, please call Leon Crow at (918) 542-1853 or email to LCrow@Quapawtribe.com.

How EPA Is Creating Awareness

In October, EPA's Office of Air Quality Planning and Standards is holding training on "Working Effectively with Tribes" on the EPA campus at Research Triangle Park, NC. The goal is to help EPA staff learn about Indian law and policies, and Federal responsibilities to tribes, as well as to develop staff awareness about how to relate appropriately to tribal environmental staff and tribal leaders.

In the same month, EPA will developed a tribal entrance display to show some on-the-ground tribal program work that is going on in the air office. For more information, contact Sara Terry at (919) 541-7576 or via email at terry.sara@epa.gov.

Mark Your Calendar

National Congress of American Indians Annual Session, **Oct 10-15, 2004,** Fort Lauderdale, Florida
Contact:
NCAI
1303 Connecticut Ave
Washington, D.C.
Phone: (202) 466-7767

Trading at the River Conference: A Gathering of Native American Businesses and Tribal Enterprises, **Oct 27-28, 2004,**
Portland, OR
This conference offers workshops and discussions on business issues and allows Native American entrepreneurs and Tribal Enterprises to network.
For more information contact:
Cindy Darcy at (202) 442-3544

Intertribal Monitoring Association on Indian Trust Funds, 14th Annual Conference, **Oct 27-29, 2004,** Las Vegas, NV
For more information contact:
Cindy Darcy at (202) 442-3544

35th Annual Convention of the National Indian Education Association, **Oct 28-31, 2004,** Phoenix, AZ
For more information contact:
Cindy Darcy at (202) 442-3544

2004 Tribal Leader Health Summit, American Indian Health Commission for Washington State, **Nov 4-5, 2004,** Bow, WA
For more information contact:
Cindy Darcy at (202) 442-3544

American Indian Air Quality Training Program - FY 2005 Course Schedule

Dates	Course Name	Location	Course Sponsor
Please keep in mind that these dates are subject to change. The schedule at http://www.nau.edu/itep/ reflects the most current date changes.			
2004			
Oct 19-22	Tribal Residential Indoor Air Quality (IAQ)	Albuquerque, NM	TAMS Center
Oct 25-29	Air Pollution Technology (TECH)	Las Vegas, NV	TAMS Center
Nov 16-19	Educational Outreach for Air Quality Professionals (Outreach)	Albuquerque, NM	ITEP-NAU
Dec 6-10	Management of Tribal Air Programs and Grants (MGMT)	Atlanta, GA	ITEP-NAU
Dec 14-16	Meteorological Monitoring (MET)	Las Vegas, NV	TAMS Center
2005			
Jan 25-27	Air Toxics	Research Triangle Park, NC	TAMS Center
Feb 1-4	Quality Assurance Project Plans (QAPP)	Las Vegas, NV	TAMS Center
Feb 15-18	Introduction to Tribal Air Quality (INTRO)	TBD	ITEP-NAU
Feb 23-25	* Dataloggers	Las Vegas, NV	ITEP-PA
Mar 7-11	Air Quality Computations (COMP)	Las Vegas, NV	TAMS Center
Mar 15-17	AIRS Air Quality Subsystem (AQS)	Kansas City, KS	ITEP-NAU
Apr 4-8	Air Pollution Technology (TECH)	Las Vegas, NV	TAMS Center
Apr 19-22	Educational Outreach for Air Quality Professionals (Outreach)	Phoenix, AZ	ITEP-NAU
May 16-20	Management of Tribal Air Programs and Grants (MGMT)	Coeur d'Alene, ID	ITEP-NAU
May 24-27	Gaseous Pollutant Monitoring	Las Vegas, NV	TAMS Center
June 7-10	The Clean Air Act and Permitting (CAA/P)	Indianapolis, IN	ITEP-NAU