

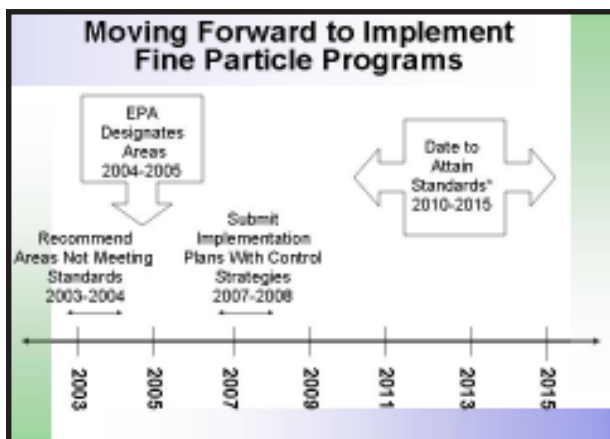
Tribal Air News

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United States Environmental Protection Agency
Office of Air & Radiation
Office of Air Quality Planning & Standards

Fine Particles Do Not Make Fine Air Quality

by Cynthia Yu-Robinson



With this summer's wildfires, many of us are more attuned to air quality and visibility problems. If you can see hazy conditions resulting from fire or other types of air pollution, in most cases it is caused by fine particles in the air. These particles scatter and absorb light, leading to reduced visibility, poor contrast, and degraded vistas. Particulate matter, or "PM," is often categorized into two sizes: PM-2.5 (measuring less than 2.5 microns in diameter, about one-seventh the width of a human hair), and PM-10 (measuring less than 10 microns in diameter). PM-2.5 is often referred to as "fine particles," and these fine particles can have a significant effect on human health by penetrating deep into the lungs.

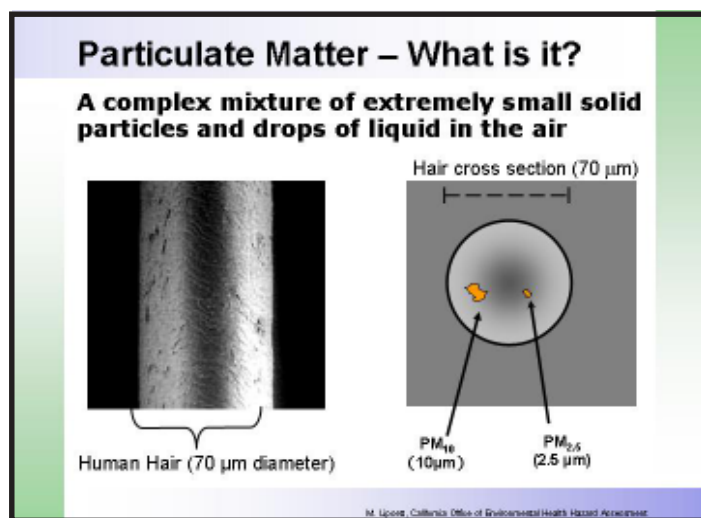
When exposed to fine particles, children, the elderly and people with heart or lung diseases – such as congestive heart disease, coronary artery disease, asthma, chronic obstructive pulmonary disease, or

emphysema - are at an increased risk of illness requiring hospital admission and an increased risk of death. Tens of thousands of premature deaths per year are attributable to fine particles in the air, and millions of school and work absences are due to aggravation of asthma and other lung and heart diseases. Fine particles are a public health problem that the Clean Air Act, EPA, state and tribal governments must tackle.

Fine particles include a complex variety of compounds that come from many sources of emissions, including power generation plants, industries, and mobile sources like cars and trucks, heavy duty diesel engines, and non-road vehicles. Smaller sources of PM include wood stove fires and backyard burning. Even natural sources like forest fires contribute to the fine particle count. Some of these pollutants, such as soot from fire or diesel engines, are emitted directly to the air. Other pollutants, such as sulfur dioxide and nitrogen oxides, are emitted as gases and undergo chemical reactions in the atmosphere to form fine particles. Under certain conditions, fine particles can be transported hundreds of miles through the atmosphere. For this reason, fine particles are considered a regional issue.

What can we do about fine particles? A multi-faceted approach involving national, regional, and local efforts are needed to address the problem. In 1997, the EPA set National Ambient Air Quality Standards (NAAQS) for fine particles. Accordingly, fine particles should not exceed 65 ug/m³ during a 24-hour period and 15 ug/m³ on an annual average using data collected over 3 years. Both standards must be met in order for a geographic area to be designated as attainment. Air quality monitoring indicates that fine particles are a significant problem in California and throughout the East, where population and industrial activity are more

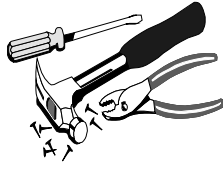
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Federal Minor Source New Source Review Rule for Indian Country

EPA is starting the initial steps to develop the Federal Minor Source New Source Review Rule for Indian Country (“Tribal NSR”) to address significant regulatory gaps in the protection of air quality in Indian Country. The Clean Air Act requires a new source review program for sources of air pollution. The Tribal NSR rule will address smaller air pollution sources (usually called “minor sources”) of air pollution.

Minor sources could be new businesses or existing businesses that are making changes in equipment or their operational processes that would result in small increases in emissions. Collectively, they may be a significant source of air quality problems in Indian Country because they are much more numerous than large sources. Examples of minor sources could include gasoline stations, dry cleaners, spray paint operations, automotive repair shops, etc.

Currently, minor sources in Indian Country are unregulated, and Tribes have expressed concerns to EPA about the cumulative impacts. Although many states have developed regulatory programs for minor sources, these do not apply in Indian Country, and there is currently no Federal minor source program. Our plan is that the Tribal NSR rule will put a Federal minor source program in place within Indian Country.

Spearheading this project is Joyce Barkley, a member of the St. Regis Mohawk Tribe. Joyce has been with the Tribe’s Environment Division for a number of years and has worked on several projects including developing a Tribal Implementation Plan (TIP) for the tribe which contains provisions for a minor source permitting program. She has accepted a 1 year position with EPA to develop the Tribal NSR rule.

Beginning in mid-August and running through November 2002, EPA will be hosting several national meetings across the United States. These meetings are meant to provide a forum for gathering Tribal input on the development of the rule. EPA is working with Tribal Leaders and Tribal environmental professionals to develop other avenues for tribal input.

For more information or comments about the rule, contact Joyce Barkley at 919-541-1877 or barkley.joyce@epa.gov.

Reducing Air Pollution from School Buses

Advanced emission control technologies and strategies for reducing emissions from diesel engines (retrofitting) that will provide immediate air quality and health benefits when applied to existing diesels are available now. New tough standards for diesel engines only cover new vehicles and not the large number of existing ones. Existing highway diesel vehicles have a long lifespan, lasting 25 to 30 years, and can drive over a million miles. The engines from these vehicles produce exhaust that contains particulate matter, air pollutants that form ozone

(nitrogen oxides and hydrocarbons), air toxics and other air pollutants.

The Pulluyup Tribe in the State of Washington is employing a strategy to reduce the emissions from their school bus fleet by retrofitting those buses with advanced emission control technology and using ultra low sulfur diesel fuel. EPA’s Voluntary Diesel Retrofit Program has issued a grant to assist in the purchasing of this equipment.

The Diesel Retrofit Program is a non-regulatory, incentive based, voluntary program designed to reduce emissions from existing diesel vehicles and equipment by the installation of pollution-reducing technology. Good candidates for the program include school bus fleets, transit bus fleets, sanitation trucks and freight haulers, as well as nonroad equipment such as construction equipment, drilling equipment, etc. For information on this project, contact Pat Childers at 202-564-1082 or childers.pat@epa.gov.

Bridging the Digital Divide to Improve Tribal Access to Environmental Information

There are many issues surrounding the Digital Divide that are common to every under-represented group, including income levels, education levels, information, computer literacy, Internet access, available technology and geographic location. However, among the Native American people, there is an additional consideration of cultural concerns and diversity among tribes that needs to be addressed. The Digital Divide among Native American people needs to be bridged in such a way that it will respect and act to preserve their cultural heritage while providing improved access to relevant environmental information.

Currently, EPA does not have a single point of entry for Tribes to access when seeking environmental information or assistance. EPA’s Office of Environmental Information (OEI) is planning to develop a **Tribal Portal** to facilitate access to relevant environmental information for Native Americans. Although much of this information may be available on the Internet, it is not available via a centrally located and easily searchable website. While developing a Tribal Portal has many merits, non web-based methods for disseminating relevant environmental information also need to be considered. OEI also plans to develop and deploy several **Tribal Kiosks** to provide relevant environmental information and also encourage Tribal feedback to the Agency.

In order to make sure that EPA provides relevant environmental information in a culturally sensitive way OEI will be working and partnering with Tribal Representatives, Tribal organizations, other EPA Offices, EPA Regional Tribal contacts, and other government agencies in developing both web and non-web based products and services.

If you have and questions or feedback regarding this project please contact Jeff Tumarkin (202) 566-0681 or Charlotte Cottrill (202) 566-0684 of EPA’s Office of Environmental Information.

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concentrated. Tribes living in California as well as some in the Pacific Northwest and the Southeast are more likely to be affected by periodic high levels of fine particles.

The Clean Air Act outlines the process for implementing the fine particle standards yet the exact timeline is still being worked out by a workgroup including representatives from state, local, and tribal governments. State, local, and tribal governments will first recommend areas NOT meeting the fine particle standards, most likely in the 2003 to 2004 timeframe. EPA then designates areas as attainment or non-attainment in 2004. EPA will then work with affected tribes to achieve reductions as soon as possible. The final date for attainment of the daily and annual standards is 5 to 10 years from the designation date.

There is substantive discussion of and support for harmonizing the timelines for implementation of the fine particle standards and the 8-hour ozone standards, especially with respect to designating attainment and non-attainment areas. However, the decision to do so and the details of the timing have not yet been determined. Through this newsletter and other communication channels, EPA will keep tribal leaders, councils, and organizations informed of the timelines.

In addition to setting the national ambient air quality standards, EPA has permitting programs for cleaner industrial boilers and power plants, as well as requirements for cleaner fuels and for less-polluting diesel and gas car and truck engines. EPA plans to propose standards to control air emissions from non-road vehicles (which include farm and construction equipment, lawn and garden equipment, marine vessels, and locomotives.) EPA's Regional Haze Rule of

1999 which addresses visibility in Class One areas – 156 national parks and wilderness areas – calls for states and tribes to set long-term goals for improving visibility by reducing emissions of particulate matter. Improving visibility in Class One areas, will also reduce particulate matter in urban and more populated areas.

Another significant approach for reducing fine particles is the Clear Skies Act, which targets 3 main pollutants - sulfur dioxide (SO₂), nitrogen oxides (NO_x), and mercury. Reductions of two of these, SO₂ and NO_x, will help reduce fine particles nationally, specifically through reductions from the power generation plants. The Clear Skies Act will need Congressional approval. If there is not enough Congressional support for the Clear Skies Act, EPA has the authority to promulgate a Regional Transport Rule, which will address fine particles and target similar sources. Regional strategies like the Clear Skies Act or the Regional Transport Rule will not help clean up all areas in the nation. Local and tribal efforts will be essential to clean up specific areas.

Through a network of urban-based fine particle monitors, EPA expects to release – by October of 2002 – a new Air Quality Index (AQI) to forecast days with high fine particle counts. On such days, which can occur anytime of year, individuals who are more vulnerable – children, the elderly, and people with lung or heart disease, will be advised of activity and exposure precautions, with a color-coded AQI announcement along with local weather broadcasts. These urban forecasts may be helpful to tribal residents.

For more information contact Laura McKelvey at 919-541-5497 or Mckelvey.laura@epa.gov or Julie McClintock at 919-541-5339 or mcclintock.julie@epa.gov.

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The Clean Air Act and Permitting – Level 2

February 10 – 13, 2003, Phoenix, AZ

Course Description

This workshop provides an understanding of the Clean Air Act (CAA) and the Tribal Authority Rule (TAR) as the foundation for air quality permitting on tribal lands. There will also be a section on tribal involvement in permitting off-reservation sources. This course will be the prerequisite for an advanced course titled Reviewing State Title V Permits.

Topics Include

- CAA History
- Tribal Authority Rule (TAR) and Tribal Sovereignty
- National Ambient Air Quality Standards (NAAQS)
- New Source Review (NSR)
- Prevention of Significant Deterioration (PSD)
- Minor NSR
- Class I Redesignation
 - Air Toxics
 - Title V – Operating Permits

Who Should Attend

This course is open to tribal air quality professionals who have successfully completed ITEP's Developing a Tribal Air Program (TAP) course.

Course Structure and Approach

This course is designed as a highly interactive workshop. There will be lectures and discussions with visual aids, but the emphasis will be on small-group work. About one hour of reading/writing will be assigned each evening during the workshop.

Application Deadline January 6

**Visit the Tribal
Air Website**
<http://www.epa.gov/air/tribal>

Holmstead Visits Nez Perce

On May 6, 2002, Assistant Administrator Jeff Holmstead visited the Nez Perce reservation near Lapwai, Idaho. Jeff arrived late in the day and met with tribal representatives and staff over dinner. The Tribe delivered a presentation on its air program highlighting both the successes and obstacles the tribe has experienced. The next day, Jeff met with the Chair of the Tribal Executive Committee Natural Resources Subcommittee; Justin Gould at the National Park Service museum in Lapwai. The museum is dedicated to the history of the Nez Perce people. Jeff spent the rest of the morning on a tour of the reservation where he was able to see some Title V major sources, the Nez Perce ambient monitoring sites and the Tribes' Air Quality Project offices. Jeff commented that he really enjoyed his visit and hopes to have the opportunity to visit other reservations during his tenure. Jeff was accompanied by Bonnie Thie, Region 10 Acting Air Division Director, his Special Assistant Michelle Roos, and Darrel Harmon, Office of Air and Radiation Senior Indian Program Manager. Jeff is pictured here with Air Program staff Jenifer Williams and Angel McCormack (Julie Simpson is just out of the frame).



Frazier Receives Award for Service

None of us walks forever upon mother earth, and most of us hope that we will be remembered after we journey to the spirit world. Mentoring and sharing your knowledge and experience with others is one way of creating a living legacy. The National Tribal Environmental Council (NTEC) created the Michael A. Frost Award to honor Frost's memory and legacy of environmental protection for Indian Country.

Frost served as Director of the Environmental Programs Division of the Southern Ute Indian Tribe, from October 1991 until his death in January of 1998. His contributions and leadership touched not only those who worked with him, but earned him respect throughout Indian Country for his environmental work.

To receive the Michael A. Frost Award is to be recognized for outstanding leadership and dedicated service in advancing environmental protection or tribal environmental issues in Indian Country.

On June 5, 2002, during NTEC's ninth national conference, Virgil Frazier (Navajo), Air Quality Program Manager for the Southern Ute Indian Tribe, in Ignacio, Colorado, became the recipient of this highly respected award. Frazier was recognized for his superior and dedicated service in environmental protection for the Southern Ute Indian Tribe and nationally.



The award ceremony took place during an honoring reception. Surrounded by friends and colleagues Frazier accepted the award in memory of Frost, who had hired him in 1995, as the Air Quality Technician and Specialist for Southern Ute. Frazier had assisted Frost with the tribes air program, and then assumed all duties of the air quality program after Frost's death. In a heart felt and moving tribute Frazier shared his memories of Frost as both a mentor and a friend. He credited Frost as being an "environmental warrior," one who through passion, and perseverance set the highest of goals and standards for himself and for those with whom he worked.

During the past two years, since the Environmental Protection Agency's (EPA) Tribal Air Rule was passed, Frazier has led the Southern Ute Indian Tribe toward fulfilling the goal of receiving authority to regulate air activities on the reservation. He has worked with tribal staff, EPA Region VIII and EPA headquarter's staff, State of Colorado air program staff and the Colorado Governor's office to attain that goal.

"Virgil is well known and well respected by his peers in environmental/air quality protection. He has made significant

contributions to building intertribal relations and has shown outstanding leadership in advancing environmental protection in Indian Country," said NTEC's Executive Director Jerry Pardilla.

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EPA Partners with Tribes to Create Video for Tribal Governments

You spoke and we listened! For some time, Tribal representatives have informally been telling EPA's Office of Air and Radiation (OAR) that they would like to generate more support for Tribal air programs from their elected officials in Indian country. In response, EPA is partnering with Tribes to develop a short, high-quality videotape that would present key information about how the Clean Air Act (CAA) affects Tribes, and why it is in the interest of Tribal government leaders and communities to learn more about this important topic.* Tribes will decide the video's content, while OAR will fund the project and handle the logistics of video production. To get this project rolling, EPA currently is seeking 6 to 10 Tribal volunteers to serve on the project team and take the lead in developing this exciting product.

EPA's Office of Air Quality Planning and Standards (OAQPS) in Research Triangle Park, North Carolina has the lead for organizing this project. Project leader Michele Dubow says, while the details are still to be worked out, "EPA currently envisions producing a top-notch video, about 15 to 30 minutes long, that would be widely distributed within Indian country for Tribal leaders, councils, and other officials and interested Tribal members to view at their convenience. Tribal team members would be involved in all aspects of planning, scripting, and reviewing the production, and they would select the Tribal air quality problems and issues to highlight, people and locations to film, images and soundtrack, styles of presentation, and presenters."

Over the last few years, much of OAR's nuts and bolts outreach and capacity building activities has involved working with Tribal environmental professionals and program managers. These people have made it clear that, to expand their programs, they believe it is essential to get Tribal leaders more involved in understanding the CAA, how it affects or can affect Tribes, and how it relates to Tribal sovereignty, economic development, and Tribes' relationships with federal, state, and local governments. These issues have

important implications for all of Indian country, even for Tribes that do not have formal air programs. Consequently, Tribal environmental professionals, and even some Tribal leaders, have asked EPA for support in preparing outreach materials for a new audience: Tribal government leaders and their representatives.

The National Tribal Environmental Council (NTEC) and the Institute for Tribal Environmental

Professionals (ITEP) are working with EPA to raise awareness of this project in Indian country and encourage interested Tribal environmental professionals to participate on the project team.

If you are interested in learning more about this video project, or want to volunteer to work on it, please contact Michele Dubow, OAQPS, at (919) 541-3803, dubow.michele@epa.gov or Joanna Mounce Stancil, NTEC, at (505) 242-2175, jstancil@ntec.org. We appreciate any time, resources, or encouragement you can offer to make this a successful, worthwhile, and well-received effort, whether or not you become a team member!

* Please note that this project will complement, not duplicate, the video recently produced by the American Indian Science and Engineering Society called "Winds of Change."



National Tribal Air Grants

In order to address concerns raised by a number of tribes about consistency in grant allocations, EPA has developed draft guidance providing a framework for decision making on issuing tribal air grants. This guidance provides a general framework decision making, but also recognizes the need for flexibility for each region to address the specific issues and needs facing the tribes in their areas. We are interested in your feedback on this draft guidance. You can find a copy on the tribal air website at www.epa.gov/oar/tribal. Please provide your comments to Monica Morales at morales.monica@epa.gov. For more information please contact Monica at 303-312-6936.

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"Virgil has worked tirelessly to reinforce the importance of tribal sovereignty and tribal authority to regulate and protect their people and their environment. Frost would truly be honored to know that Virgil has carried on his legacy."

Virgil is active on air committee issues through the National Tribal Environmental Council and on several national environmental policy making workgroups. He also serves as an instructor of air training for the Institute for Tribal Environmental Professionals through Northern Arizona University.

The National Tribal Environmental Council, located in Albuquerque, New Mexico, is dedicated to enhancing each tribe's ability to protect, preserve and promote the wise management of air, land and water for the benefit of present and future generations. NTEC held its annual conference, "Promises Yet to be Honored," in Reno, Nevada from June 2-5, 2002. For more information check the NTEC web site at www.ntec.org or email your inquiry to: ntec@ntec.org.

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Mark your Calendar...

US EPA's Air Pollution Distance Learning Network: September 24 and 25, 2002, 1:00-4:00 EDT -- Safety and the Agency Inspector. (CLN 1420 -- New Course. Must preregister and successfully pass an exam to receive a certificate.) For more information go to <http://www.epa.gov/air/oaqps/eog/schedule.html> and see T-008-02.

Northern Arizona University's Institute for Tribal Environmental Professionals (ITEP) American Indian Air Quality Training Program (AIAQTP): Tribal Environmental Inspection/Compliance Workshop: Media Specific Compliance: CWA. Fall 2002, location TBA. You will need Adobe Acrobat to view the brochure. If you do not have it, please visit Adobe to get it for free.

Northern Arizona University's Institute for Tribal Environmental Professionals (ITEP) American Indian Air Quality Training Program (AIAQTP): Continuous PM Monitoring. October 1-3, Las Vegas, Nevada.

Northern Arizona University's Institute for Tribal Environmental Professionals (ITEP) American Indian Air Quality Training Program (AIAQTP): Introduction to Air Quality Management. October 8-11, HINU, Lawrence, KS.

Northern Arizona University's Institute for Tribal Environmental Professionals (ITEP) American Indian Air Quality Training Program (AIAQTP): Fundamentals of Air Quality Computations. October 22-25, Flagstaff, Arizona.

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