# **Office of Air and Radiation**

# Draft National Program and Grant Guidance for Fiscal Years 2005-2007

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#### **Summary of National Priorities**

OAR's national program priorities for the FY 2005-2007 time-frame are straightforward and consistent with OAR's FY 2004 priorities. The list below in no way reflects the full range of OAR's work. For example, our efforts to improve indoor air quality, further the Homeland Security effort, encourage the development of new technologies, and reduce greenhouse gas emissions are critical to the Agency's mission. Nevertheless, continued progress in the following areas will bring us significantly closer to healthier air and will create a more effective regulatory system.

#### **Reduce Health Risks from Fine Particles**

Fine particles are the most serious environmental health threat we face today. Years of research have proved the respiratory and cardiovascular impacts of fine particulate – especially for at-risk populations. It is extremely important that we continue our work to implement the new PM2.5 NAAQS, and address power plants, either through legislation (Clear Skies) or regulation (Interstate Air Quality rule), to reduce levels of fine particles, ozone, acid deposition, and regional haze in every part of the country where power plants contribute significantly to air pollution. It is equally important to continue national programs for reducing mobile source emissions, and state, tribal, and local clean air programs.

## **Reduce Emissions from Nonroad Diesel Engines**

In 2003, EPA introduced a proposal to reduce emissions from the nonroad sector. This proposal uses the same approach as the heavy-duty diesel rule, including both fuel and engine emissions standards. Without these changes, emissions from nonroad vehicles will soon become the single largest contributor to NOx and PM emissions from the mobile sector. The nonroad rule also will accomplish important reductions in hazardous air pollutants and will improve visibility throughout the nation. Our priorities are to finalize the nonroad heavy-duty diesel rule and implement the onroad heavy-duty diesel rule

#### Implement the Risk-based Air Toxics Program

We have just completed the 10-year MACT regulations – a tremendous accomplishment. Our next tasks include promulgating area source and residual risk standards; developing tools to assess baseline risks and risk reduction scenarios; implementing national, regional, and community-based initiatives that focus on multi-media and cumulative (including indoor-outdoor) risks; and providing public education and outreach. We need to build on the successes of community-based efforts such as the Cleveland Air Toxics Project to identify and achieve additional reductions that matter most at the local level.

#### Improving Existing Regulatory Programs

The Clean Air Act's reputation as one of the most complex laws on the books today is well deserved. In many ways, the nature of air pollution control necessitates this complexity. However, our experience implementing the CAA has revealed the need to make our existing regulatory programs work better, and in some cases more simply. The recent changes to the New Source Review program are one example of the type of changes we can make. We are

working to make similar improvements in other regulatory programs.

#### Working with Partners

We also will work with states, tribes, and local programs to develop the additional local measures necessary in areas with the worst air quality. We will encourage states, tribes, and local programs to adopt measures that achieve early reductions in emissions to provide public health benefits sooner.

#### Focus on Title V Priorities

At this point, we are well over a decade into the Title V operating permit program. Although behind schedule, state and local agencies have issued almost 90% of the permits. The pollution sources that remain to be permitted are among the largest and most complex.

#### Non-Regulatory Programs

Another lesson we've learned over the past several years is the importance of non-regulatory approaches. For example, the diesel retrofit program has made it possible to achieve reductions from the diesel trucks and buses before our regulations are implemented. The Clean School Bus USA program, a multi-million dollar initiative, will reduce both children's exposure to diesel exhaust and the amount of air pollution created by diesel school buses. The joint EPA-DOT Best Work Places for Commuters program will continue to help clean air areas stay in attainment and rewards companies for being good stewards of the environment. Energy Star will continue to help consumers to choose products that save money and improve the environment and encourage companies to produce these products. We will be working to grow these programs as we test out similar approaches in other areas.

# **Healthier Outdoor Air**

#### Performance Targets

- By 2010, improve air quality to healthy levels for 39 percent of the people who live in areas where the air does not meet new national standards for fine particles in 2001 and for 60 percent who live in areas not meeting new national standards for 8-hour ozone in 2001.
- By 2010, air quality will improve for an additional 27 percent of the people who live in areas not meeting new standards for 8-hour ozone in 2001.
- Through 2010, maintain attainment status for the 123.7 million people who had healthy air for the criteria pollutants in 2001.
- By 2010, reduce stationary source emissions of sulfur dioxide by 6.7 million tons from the 2000 level of 11.2 million tons, and by 2008, reduce stationary source emissions of nitrogen oxides by 3 million tons from the 2000 level of 5.1 million tons.
- By 2010, reduce mobile source emissions of nitrogen oxides by 3.4 million tons from the 2000 level of 11.8 million tons; volatile organic compounds by 1.7 million tons from the 2000 level of 7.7 million tons; and fine particles by 122,400 tons from the 2000 level of 510,550 tons.
- By 2010, working with partners, reduce air toxics emissions and implement area-specific approaches to reduce the risk to public health and the environment from toxic air pollutants.
- By 2007, through maximum achievable control technology (MACT) standards, reduce air toxics emissions from major stationary sources by 1.7 million tons from the 1993 level of 2.7 million tons.
- By 2010, through the President's Clear Skies legislation, reduce mercury emissions from electric generating units by 22 tons from the 2000 level of 48 tons.
- By 2010, through federal standards, reduce air toxics emissions from mobile sources by 1.1 million tons from the 1996 level of 2.7 million tons.
- By 2010, all of the 260,000 diesel school buses manufactured between model years 1991 and 2000 will be retrofitted either with better emission controls or to use cleaner fuels, and all 130,000 buses manufactured before 1991 but still in use in 2003 will be replaced.

EPA's strategy for achieving these goals combines national and local measures, reflecting different federal, state, tribal, and local government roles. We have found that problems with broad national impact – such as emissions from powerplants and other large sources and pollution from motor vehicles and fuels – are best handled primarily at the federal level. States, tribes, and local agencies can best address the regional and local problems that remain after federal measures have been fully applied.

EPA, states, and local agencies work together to meet clean air goals cost-effectively by employing various regulatory, market-based, and voluntary approaches and programs. States are primarily responsible for improving air quality and meeting the NAAQS. States first develop emission inventories, operate and maintain air monitoring networks, and perform air quality modeling. They then develop SIPs that lay out the mobile and stationary source control strategies they will employ to improve air quality and meet the NAAQS.

EPA assists states by providing technical guidance and financial assistance, issuing regulations, and implementing programs designed to reduce pollution from the most widespread and significant sources of air pollution: mobile sources, such as cars, trucks, buses, and construction equipment; and stationary sources, such as power plants, oil refineries, chemical plants, and dry cleaning operations. Interstate transport of pollutants—a problem no state can solve on its own—makes a major contribution to air pollution problems in the eastern U.S. To address this issue, EPA requires control of upwind sources that contribute to downwind problems in other states.

EPA has a trust responsibility to protect air quality in Indian country, but authorized tribes may choose to develop and implement their own air quality programs. EPA and tribes are working to increase the currently limited information on air quality on tribal lands, build tribal capacity to administer air programs in Indian country, and establish EPA and state mechanisms to work effectively with tribal governments on regulatory development and regional and national policy issues.

To further reduce exposure to air toxics, EPA will develop and issue federal standards for major stationary sources which, when implemented through state programs, will reduce toxic emissions by 1.7 million tons. In addition, we will conduct national, regional, and community-based efforts to reduce multimedia and cumulative risks. Characterizing emissions and the risks they pose on national and local scales, such as in Indian country, will require significant effort. We will need to update the science and to keep the public informed about these issues.

We will develop and refine tools, training, handbooks, and information to assist our partners in characterizing risks from air toxics, and we will work with them on strategies for making local decisions to reduce those risks. We are working with state, tribal, and local agencies to design a national toxics monitoring network, and will compile and analyze information from local assessments to better characterize risk and assess priorities.

Our strategies for achieving healthier outdoor air are implemented through the following six programs:

- Clean Air Allowance Trading Programs
- Federal Vehicle and Fuels Standards and Certifications
- Federal Stationary Source Regulations
- Federal Support for Air Quality Management
- Federal Support for Air Toxics Management
- State and Local Air Quality Management
- Tribal Air Quality Management

The first five programs are federally-implemented programs and the latter two are grant programs that support state, tribal, and local air program implementation. These programs and their priorities for FY 2005-2007 are described below.

## **CLEAN AIR ALLOWANCE TRADING PROGRAMS**

This program includes development, implementation, and evaluation of federallyadministered programs for the trading of emissions allowances. The trading programs help implement the NAAQS and reduce acid deposition, toxics deposition, and regional haze. Pollutants include SO2 and NOx. Current programs include: the Acid Rain Program, the OTC NOx Budget Program, the NOx trading program established under the NOx SIP Call, and the NOx Budget Trading Program established under §126. EPA also plans to establish allowance trading programs in the future either under the Clear Skies legislation initiative or the Interstate Air Quality Rule. Our strategy for using allowance trading programs includes three components:

- <u>New Statutory Authority:</u> Establish a comprehensive, multi-pollutant approach with President Bush's Clear Skies Initiative as a key element. Using a market-based approach, Clear Skies would create a mandatory program that would reduce power plant emissions of three of the worst air pollutants SO2, NOx, and mercury.
- <u>Interstate Air Quality Rule:</u> Reduce power plant emissions by promulgating a federal rule. Clear Skies is the most effective way to reduce emissions, but pending enactment of this new authority, a federal rule is the single most important step we can take to improve air quality in the U.S.
- <u>Existing Programs</u>: Implement existing allowance trading programs while the Clear Skies legislation moves forward and work on the Interstate Air Quality Rule progresses.

**Status:** Proposed legislation for Clear Skies will be re-introduced in Congress in 2004. Implementation of the NOx SIP call began in 2003 for states in the Ozone Transport Region and in 2004 for other states. In 2004, the initial compliance year for the NOx SIP call, up to 2,000 units in as many as 20 states and the District of Columbia will be reporting data to the acid rain program's emissions tracking system. The Interstate Air Quality Rule was proposed on January 30, 2004.

## FY 2005-2007 Milestones and Priorities

- 2005: EPA finalizes the Interstate Air Quality Rule.
- 2005-2007: EPA develops program operating software and guidance. States develop SIP revisions and propose and finalize rules, for 2008 implementation.

## FEDERAL STATIONARY SOURCE REGULATIONS

This program includes activities related to Maximum Achievable Control Technology (MACT), combustion, and Area Source Standard development, the Stationary Source Residual Risk Program, New Source Performance Standards, and associated national guidance and outreach information. The strategy is to develop generally-available, control technology-based standards for the highest priority area source categories.

## Status

EPA has finalized all MACT standards required by the CAA; there are now MACT standards for all major sources of HAPs. EPA is in the early stages of the Residual Risk program, with the first residual risk standard scheduled to be finalized in 2005. Risk assessments for 19 other industries are in various stages of completeness. Ultimately, risk assessments for over 150 industries will be prepared under the Residual Risk program. EPA has identified a total of 70 area source categories, which represent 90% of the emissions of the 30 air toxics that pose the greatest potential health threat in urban areas. Of these 70 area source categories, 14 categories are already regulated. The remaining area source standards are under development or will be developed in the future.

On January 30, 2004, EPA published the proposed Utility Mercury Reductions rule to reduce mercury emissions from coal-fired units and nickel emissions from oil-fired units. Two basic alternatives were proposed – a traditional §112 MACT approach and an alternative approach based on the use of §111. The §111 approach would set emission limits for mercury from new coal-fired sources and nickel from new oil-fired sources under §111(b); guidelines for nickel from existing oil-fired sources under §111(d); and cap-and-trade guidelines for mercury from existing coal-fired sources under §111(d). The rule is to be finalized by December 15, 2004.

EPA contracted with the National Academy of Sciences (NAS) to review the scientific issues and make recommendations related to characterization of the swine, beef, dairy, and poultry animal feeding operations industries; measuring and estimating emissions; and analyzing potential best management practices, including costs and technological feasibility. The NAS findings identified numerous deficiencies in EPA's methodologies and technical tools for estimating emissions for this industry. As a result of the NAS study, EPA is working with industry, USDA, academia, and non-governmental organizations to develop a two-year monitoring program to fill data gaps in the emission estimates. EPA, in partnership with USDA, is prioritizing a research agenda to ensure critical research is initiated immediately. Concurrent with the monitoring program, EPA is in the process of defining the applicable CAA requirements for AFOs. The Agency will prepare an announcement of its strategy and hold public meetings around the country. Following public comments, a proposed rule will be drafted.

## **FY 2005 Milestones and Priorities**

- EPA completes Utility Mercury Reductions rule
- EPA continues development of "Defense Land Systems and Miscellaneous Equipment" MACT (Military MACT)
- EPA promulgates coke oven residual risk rule
- EPA promulgates other solid waste incineration area source rule
- EPA proposes Strategy for Addressing Air Emissions from Animal Feeding Operations (CAFO rule)
- Regions delegate and/or otherwise ensure implementation of 100% of applicable major and area source §112(d), §111(d), and §129 standards.
- Regions help states implement MACT/BACT/GACT and/or §112(d) standards.
- Regions implement MACT/BACT/GACT and/or §112(d) standards where applicable in Indian Country

## FY 2006 Milestones

- EPA promulgates area source rule for oil and natural gas production
- EPA promulgates Strategy for Addressing Air Emissions from Confined Animal Feeding Operations (CAFO rule)
- EPA provides oversight on emission monitoring study associated with consent agreement on Animal Feeding Operations (AFO)

## FY 2007 Milestones

- EPA promulgates area source rules for stationary internal combustion engine, hospital sterilizers, and gas distribution stage I
- EPA promulgates additional area source standards and residual risk standards according to court order schedule.

## FEDERAL VEHICLE AND FUELS STANDARDS AND CERTIFICATIONS

This program includes federal activities for the development, implementation, and evaluation of regulatory, market-based, and voluntary programs to reduce pollutant emissions from mobile sources and fuels, as well as reduce vehicle travel. Types of mobile sources include: light-duty vehicles/engines (automobiles, light trucks, and sport utility vehicles), heavy-duty engines (buses and large trucks), non-road vehicles/engines (construction and farm equipment), and fuels (diesel and gasoline). The strategy for reducing emissions from mobile sources includes five elements:

- <u>Clean Vehicles:</u> Implement and ensure compliance with more stringent emission standards for cars, buses, trucks, and nonroad engines, such as construction equipment, boats, lawn and garden equipment, and locomotives.
- <u>Clean Fuels</u>: Develop reformulated gasoline, diesel fuel, and non-petroleum alternatives.
- <u>Clean Transportation Alternatives</u>: Develop strategies to encourage transportation alternatives to address vehicle travel growth.
- <u>New Technology</u>: Partner with industry to develop and certify low emissions vehicles that use new technology (clean diesel, EGR, new catalyst technology, fuel cell, hybridelectric). Continue in-house assessment and development of clean engine and fuel technologies to meet our commitment of conducting technology reviews to evaluate progress toward implementation of new vehicle/engine standards.

**Status:** Light-duty is phasing in the Tier2 standards. The in-use program is successfully finding and remedying in-use emission problems (over one million vehicles recalled annually). Heavy-duty has implemented 50% more stringent standards early and will start the phase-in standards which will be 95% more stringent. The heavy-duty in-use screening program is now in-place and certification and in-use FTP testing program is being developed for FY 2005. Toxics emission performance requirements for conventional gasoline and cleaner-burning reformulated gasoline were promulgated in 2000. EPA is re-evaluating the need for and feasibility of additional controls to reduce emissions of mobile source air toxics and plans to promulgate a rule in 2005.

## FY 2005 Milestones and Priorities

- EPA promulgates final rule for in-use compliance program for highway heavy-duty engines and proposes similar program for nonroad diesel engines.
- EPA promulgates final rule to address emissions from small gasoline engines (<50 hp).
- EPA promulgates final rule establishing OBD requirements for engines used in highway heavy-duty trucks and begins development of similar OBD program for nonroad engines.
- EPA promulgates final rule addressing air toxics from mobile sources.
- EPA proposes rule to apply advanced after-treatment technologies to locomotives and commercial marine engines and require low sulfur in their fuels.
- Regions assist nonattainment areas in SIP preparation and implementation of federallyrequired control strategies such as I/M and state fuel programs, and provide technical support for implementation and unique modeling issues.

## FY 2005-2006 Milestones

- Heavy-duty on-highway diesel engine manufacturers begin in use testing to ensure compliance with emission standards. EPA will receive about 2,000 in-use test results annually.
- EPA proposes rule to reduce emissions from large commercial ships.
- EPA implements mobile source air toxics rule and continues implementation of the RFG program, Tier2 vehicle standards, and low sulfur gasoline requirements.

## FY 2007 Milestones

- EPA promulgates final rule to reduce emissions from large commercial ships.
- EPA promulgates final rule for in-use compliance program for nonroad diesel engines.
- EPA promulgates final rule establishing OBD requirements for nonroad diesel engines.

## FEDERAL SUPPORT FOR AIR QUALITY MANAGEMENT

The federal support program includes HQ and Regional Office non-financial support to state, tribal, and local air pollution control agencies for the development, implementation, and evaluation of programs to implement the NAAQS. It also includes regular reviews of, revisions to, and establishment of standards for the criteria pollutants, the development of associated national guidance and outreach information for implementation of these standards, and development of emission limiting regulations for specific categories of stationary sources. The federal support program also includes working with other federal agencies to ensure a coordinated approach, and working internationally to address sources of air pollutants that lie outside our borders but pose risks to public health and air quality within the U.S., are also included under this heading. Federal financial support is addressed under "State and Local Air Quality Management" and "Tribal Air Quality Management".

Over the next several years, our focus will be on implementing the PM2.5 and 8-hour ozone standards. We will continue to work with multi-state planning groups to develop strategies for reducing regional haze and with individual states to develop implementation approaches to reduce emissions of PM and ozone precursors. In addition, we will work with states and tribes to identify opportunities for better integrating ozone and PM efforts, such as improving emission inventories and comprehensive air quality modeling approaches, controlling sources of precursors common to both pollutants, and coordinating control strategy planning cycles.

We will continue to help states and local agencies implement the transportation conformity regulation and work to ensure the technical integrity of mobile source controls in SIPs. We will also work with states, tribes, and local governments and assist them in crafting strategies that accommodate growth and economic development while minimizing adverse effects on air quality and other quality-of-life factors. This includes the development of programs to identify faulty emission controls and ensure their repair so vehicles remain clean in actual customer use.

We are also working with states, tribes, and local agencies to develop an integrated ambient monitoring strategy that will refocus the existing air monitoring program towards current data collection needs for ozone, PM, and air toxics. This national monitoring strategy will provide agencies with more flexibility in designing their networks.

**Status:** The Interstate Air Quality Rule was proposed on December 17, 2003 with final promulgation between December 2004 and June 2005. The Implementation rule for the 8-hr ozone NAAQS will be promulgated in FY 2004. Area designation rulemaking for 8-hour ozone areas will be completed by April 15, 2004. EPA will announce its plan to review and possibly revise its policy on the reactivity of VOCs in FY 2004. EPA will propose the PM2.5 implementation rule in 2004 and finalize it in late 2004. Area designations for PM2.5 will be final by December 2004. Regional Haze SIPs were submitted for Arizona, Utah, New Mexico, Wyoming and Oregon.

## FY 2005 Milestones and Priorities

## **Headquarters**

- Promulgate final Interstate Air Quality rule.
- Promulgate final PM2.5 Implementation rule by10/31/04.
- Propose PM2.5 designations by 12/31/04.
- Promulgate final National Core (Ncore) ambient air monitoring network rule.
- Promulgates final BART revisions to Regional Haze rule and guideline by 4/30/05.
- Proposes rulemaking on PM NAAQS by 3/31/05.
- Publish report on RPO program progress.
- Complete and issue guidance on the use of the most recent MOBILE model for calculating emission inventory and control strategy impacts.
- Promulgate final I/M rule for 8-hour ozone NAAQS.

Regions Implement the PM2.5 NAAQS

- Finalize and promulgate designations.
- Develop nonattainment area strategies and encourage early reduction programs.
- Work with HQ to finalize the Interstate Air Quality rule; once finalized work with states to revise their SIPs.

Regions Implement the 8-hour Ozone NAAQS

• Assist states with ozone Early Action Compacts to ensure timely submission of their SIP revisions in December 2004. Work with states to develop approvable Phase II NOx SIP call SIPs, and to complete all base case modeling and model performance evaluation.

# Regions Continue to Implement the 1-hour Ozone NAAQS

• Take final rulemaking actions on redesignation requests for: Atlanta, GA; Sunland Park, NM; El Paso, TX; Sacremento, CA; Ventura Co., CA; and Sussex Co., DE. Provide technical support to those states required to submit mid-course reviews in 2004, including preparation of example model applications, 10-year trends analyses, and other factors that can be used as part of the weight-of-evidence relative to demonstrating progress in attainment.

# Regions Implement the Regional Haze Program

• Coordinate EPA efforts to implement the ozone and PM2.5 standards with the Regional Haze rule to maximize the ability of the states, tribes, and regulated community to respond to these requirements in an integrated fashion.

Regions Continue Work to Attain and Maintain the other NAAQS.

• Continue implementation activities to attain and maintain the NAAQS for PM10, CO, SO2, NO2, and lead. PM10 redesignation requests for Salt Lake Co., UT; Utah Co., UT; Spokane Co., WA; and Jackson Co., OR.

Regions Implement Mobile Source Programs

- Assist nonattainment areas and maintenance areas with SIP preparation and implementation of mobile source control strategies such as I/M and state fuel programs. Provide technical support for implementation and unique modeling issues.
- Evaluate and promote public comprehension of the need to maintain vehicles when OBD light is illuminated.
- Review conformity determinations and/or process motor vehicle emission budget adequacy findings under the 1-hour and 8-hour ozone NAAQS for nonattainment and maintenance areas. Assist states and local air quality and transportation agencies in future conformity determinations as needed.
- With OTAQ, continue to provide training in the use of MOBILE6, and review modeling results for state and local agencies.
- Work with states to develop creditable mobile source programs.
- Work with HQ and states to implement voluntary emission control retrofit programs for existing heavy-duty diesel engines.

Regions Implement the Title V and NSR Programs

- Review proposed initial and renewal operating permits, as necessary, to ensure consistent implementation of the Title V program.
- Prepare draft orders to citizen (public) petitions. Note process in 12/6/99 HQ guidance. Issue Title V permits to respond to objections where the permitting authority refuses to act.
- Implement actions pursuant to settlement agreements/court orders resulting from citizen suits on Title V program approvals and citizen response letters.
- Take rulemaking action on NSR SIPs.
- Evaluate one quarter of Title V permit program pursuant to the March 2003 OIG report and set target to issue evaluation report within 90 days of evaluation.
- Evaluate NSR permit program, as warranted, and set target to issue report within 90 days of evaluation.
- Provide training and technical guidance and support to permitting authorities and the

public regarding the NSR regulatory revisions and proposed regulations.

- Take action on NSR SIP/TIP submittals, equivalency demonstrations, and delegation requests submitted in response to revisions to NSR rules, including the minor source Indian Country NSR FIP.
- Review PSD and nonattainment NSR permits as necessary to ensure the integrity of the NSR program. Quantify the emission reductions in all issued permits, including reductions attributed to NSR reform measures.
- Issue and enforce PSD permits in states where EPA implements the federal PSD program.

Regions Assess Air Quality in Indian Country and Develop and Implement Tribal Programs

- Implement the CAA in Indian country using direct implementation and the Tribal Authority Rule, meet the federal trust responsibility and promote EPA's Indian Policy. Develop and implement FIPs where tribes necessary and appropriate. Develop regulations needed to fill regulatory gaps and ensure equal CAA protection is provided in Indian country. Direct implementation of CAA components and gap filling regulations where appropriate.
- Support tribes in developing programs to implement the CAA and develop tribal measures to protect unique cultural resources and subsistence populations in Indian country. Provide training to develop tribal capacity, expertise, and abilities to manage air quality on reservations and technical support to enhance tribal capabilities in program development and implementation.
- Continue to issue and enforce initial, new and renewal operating permits and NSR permits for sources on Indian Country where a tribe has not been approved to implement such a program.
- Provide support and guidance for all tribal requests to redesignate Indian country to Class I for PSD purposes.
- Assist tribal efforts to develop and implement Title V operating and NSR permit programs for sources in Indian Country.

# FY 2006 Milestones

- EPA and co-regulators implement the Interstate Air Quality rule.
- EPA and co-regulators implement Phase I of NCore Level II monitoring network.
- EPA promulgates PM2.5 nonattainment area designations.
- EPA implements PM NAAQS review response.

# FY 2007 Milestones

- EPA and co-regulators implement PM2.5 Transport Rule.
- EPA and co-regulators implement Phase II of Ncore Level II monitoring network.
- EPA continues to implement PM NAAQS review response.

# FEDERAL SUPPORT FOR AIR TOXICS PROGRAMS

The federal support program includes HQ and Regional Office non-financial support to state, tribal, and local air pollution control agencies for: modeling, inventories, monitoring, assessments, strategy and program development; community-based toxics programs; voluntary programs including those that reduce inhalation risk and those that reduce deposition to water bodies and ecosystems; international cooperation to reduce transboundary and intercontinental

air toxic pollution; National Toxics Inventory development and updates; Great Waters; and Persistent Bioaccumulative Toxics activities. It also includes training for air pollution professionals. In addition, it includes activities for implementation of Maximum Achievable Control Technology standards and the National Air Toxics Assessment. Our strategy has four components:

- Work with partners to implement a national air toxics monitoring network and develop improved emission factors.
- Implement a residual risk program and support community assessment and risk reduction projects, and compile and analyze the information collected from them to better characterize risk and assess priorities for further action.
- Provide technical expertise and support to state, local, and tribal air toxics programs in assessing and reducing mobile source air toxics.
- Continue to develop and improve risk assessments and management methodology.

The technical elements of the toxics reduction strategy include EPA's National Emissions Inventory (NEI), the National Air Toxics Assessment (NATA), air quality modeling, and data analysis programs. In addition, the Air Toxics Monitoring Program indirectly and in some cases directly supports all the technical tools as well as the programs noted above.

# FY 2005 Milestones and Priorities

Headquarters

- EPA publishes National Air Toxics Assessment (NATA) updated with 1999 data.
- EPA updates National Air Quality and Emissions Trends Report to include 1999 National Toxics Inventory data and 2003/2004 National Air Toxics Trends Sites (NATTS) data.

Regions Assess and Reduce Risk

- Review QA programs and ensure comparability of air toxics measurements for states and tribes.
- Identify state and tribal air toxics monitoring data and submit to AIRS.
- Assess and review existing air toxics networks and help states, tribes, and locals site new monitors.
- Participate in at least 50% of all NATTS QA field audit visits.
- Help HQ with developing a draft S/L/T Framework for air toxics programs.
- Use air toxics assessment results to identify areas for further study.
- Work with states and tribes on establishing infrastructure to implement the risk-based air toxics program focusing on urban areas first.
- Continue to build capacity of states to characterize risks, ability to use dispersion and exposure models, and conduct risk assessments.
- Work with states and tribes to identify, quantify, estimate, and reduce risk from hazardous air pollutants as they impact states, locals and Indian Country.
- Conduct outreach to improve public understanding of the air toxics program, particularly the risk-based aspect of the program.
- Apply appropriate tools at regional and local levels to assess baseline risks and risk reduction scenarios.
- Maintain and enhance at a minimum 22 NATTS sites (negotiations may result in additional sites be required), and assist states with their community monitoring projects

funded by EPA.

- Train states and tribes on Air Toxics Program requirements.
- Participate in developing air toxics assessments that consider outdoor stationary and mobile sources as well as indoor air sources.
- Encourage states and tribes to seek voluntary reductions of air toxics.
- Work with OTAQ to help states develop voluntary, mobile source air toxics programs.
- Work with OTAQ to help states to implement voluntary emission control retrofit programs for existing heavy-duty diesel engines and school buses.
- Include tribal programs in federal toxics planning and implementation.
- Develop information and tools to assess and address the disproportionate impact of air toxics on tribal communities with small populations and subsistence lifestyle.
- Assist tribes in carrying out monitoring activities to adequately assess potential toxics problems, and in developing tribal air quality management programs to address local problems identified by monitoring.
- Ensure tribes are included in planning and implementation activities regarding toxics monitoring networks and related activities.
- Carry out toxics assessments and monitoring activities as appropriate in Indian country.
- Ensure remote tribes have adequate opportunity to identify and address local exposure issues.
- Promote tribal participation in national programs and activities related to the identification and amelioration of issues.

# FY 2006 Milestones

- EPA publishes National Emissions Inventory (NEI) updated with 2002 data.
- EPA updates National Air Quality and Emissions Trends Report to include 2004/2005 National Air Toxics Trends Sites (NATTS) and local scale project data.

# FY 2007 Milestones

- EPA publishes National Air Toxics Assessment (NATA) updated with 2002 data.
- EPA updates National Air Quality and Emissions Trends Report to include 2002 National Toxics Inventory Data and 2005/2006 National Air Toxics Trends Sites (NATTS) and local scale project data.

# STATE AND LOCAL AIR QUALITY MANAGEMENT

The state and local air quality management program includes funding to assist state and local air pollution control agencies in developing and implementing programs to attain and maintain the NAAQS and to assess, prevent and control air pollution. The program also provides funding to regional haze planning organizations, interstate transport commissions, and other multi-jurisdictional organizations (which include state and local representation), to help coordinate air quality improvement efforts from a multi-jurisdictional perspective. State, local, and tribal agencies also maintain Title V operating permit programs for major stationary and other sources but these are funded through permit fees and are not grant-eligible.

Continuing state and local air programs are funded under §105 of the Clean Air Act (CAA) with recipient agencies providing matching resources. Section 103 provides 100% federal funding to state, multi-jurisdictional, and local entities, including universities and other non-profits, to conduct studies, investigations, experiments, demonstrations, surveys, training, and certain forms of research, on the nature, prevention, causes and effects of air pollution. Interstate air pollution control agencies, including interstate transport commissions, receive funds under §106 which also requires a recipient match. See detailed grant guidance in Appendix A.

## **Strategy**

EPA's overall strategy for achieving clean outdoor air includes a comprehensive, multipollutant approach that combines national, regional, and local measures, with responsibilities for implementation carried out by the most appropriate and effective level of government. Problems with broad national or global impact are best handled at the federal level. State, local, and tribal agencies can best address regional and local problems that remain after the application of federal measures. In implementing the state and local air quality management component of this strategy EPA will:

- work with state, local, and other governmental partners to target available STAG resources to those air pollution problems which pose the greatest risk to the public's health (e.g., fine particulates, ozone, and hazardous air pollutants);
- allocate resources to address not only the attainment of new PM2.5 and 8-hour ozone NAAQS, but also support ongoing state and local air program operations and delegated programs which help maintain healthy air quality;
- encourage support for regional and community-scale strategies that complement the impacts of federal measures (i.e., early ozone reductions, voluntary diesel retrofits and other mobile source initiatives, integrated air toxics risk assessment and reduction projects);
- target significant resources to recipients to develop, refine, and maintain monitoring systems and emission inventories which help provide a clear picture of the nature and sources of air pollution and help gauge the impacts of preventive and mitigative measures employed;
- support the efforts of regional haze planning organizations to develop information and strategies for use by states and tribes in reducing haze and improving visibility across the country, including formerly pristine areas;
- provide resources that focus on bi-national, geographically-specific environmental issues involving a multi-pollutant, multi-state, and sometimes a multi-media approach; and
- provide support for training and other associated program support to assist state, local, multi-state, and other agencies in addressing their air pollution problems.

Inherent in these efforts is EPA's policy to ensure that collaborative and timely consultation occurs with its partners in the areas of planning, priority-setting, and budgeting. It is the policy of OAR and the regions to seek prior consultation with its partners on the allocation of grant resources. EPA will continue to work with the Environmental Council of States (ECOS), the National Tribal Air Association (NTAA), the State and Territorial Air Pollution Program Administrators (STAPPA) and the Association of Local Air Pollution Control Officials (ALAPCO) to identify and resolve any issues associated with the allocation and use of grant resources.

EPA will continue to place high priority on effective grants management including proper use of authorities for award, the effective use of competition where appropriate, the articulation and verification of programmatic and environmental results, and the effective oversight of agreements including compliance with programmatic terms and conditions. More information is contained in the attached Appendix A.

#### <u>Status</u>

A total of over \$4 billion in air grant assistance has been provided to state, local, and multistate agencies since enactment of the 1963 Clean Air Act. This has been complemented with an estimated \$6.6 billion in matching resources from state and local governments over the same period. Assistance is provided by Congress via the State and Tribal Air Grant Appropriation (STAG).

For FY 2005, the total STAG request is \$312,750,000. This includes: \$166.1 million for continuing state and local programs, including national geographic initiatives; \$42.5 million for fine particulate monitoring; \$10 million for the continued development of a national air toxics monitoring network; and \$10 million for regional haze planning organizations. Also included is a requested increase of \$65 million for expansion of the voluntary retrofit program to reduce diesel emissions from school buses. This competitive program was funded with \$5 million in EPA resources in FY 2004. Funds for Tribal air programs (\$11.1 million) and State indoor radon programs (\$8.15 million) are discussed in elsewhere in this guidance. Aside from the requested increase for the Clean School Bus USA program, the targeting of FY 2005 air grant resources remains largely unchanged. A draft, preliminary allocation is contained in Appendix A.

Of the nearly \$166.1 million for continuing state/local air programs, all but \$9 million is targeted for direct award to state, local, and multi-state agencies. The balance of grant funds fall into 3 categories: undistributed (\$2.4 million), centrally-administered (\$4.7 million), and direct implementation (\$1.9 million). Undistributed funds include over \$648,000 for the Ozone Transport Commission, \$1.2 million for the STAPPA-ALAPCO Secretariat, and \$550,000 for competitive mobile source outreach grants. The centrally-administered funds are used by EPA for providing associated program support to state and local agencies at their request. These activities include: CAA training (\$1.8 million), the national monitoring procurement contract (\$1 million), and nearly \$1.9 million for the NOx Allowance Trading System operated under the auspices of EPA on behalf of the affected states. Funds for direct implementation cover the Interagency Monitoring of Protected Visual Environments (IMPROVE) network (\$1.2 million) and EPA's administration of the NOx trading program pursuant to \$126 of the Act.

OAR will continue to target significant resources to develop, implement, and refine ambient air monitoring networks nationwide pursuant to a revised National Air Monitoring Strategy. Funds are provided under §103 for visibility and haze (IMPROVE - \$1.25 million), fine particulates (\$42.5 million), and air toxics (NATTS and community-based monitoring - \$10 million); and under §105 for ongoing state and local air toxics monitoring (\$6.5 million) and ozone (PAMS - \$14 million). EPA will be working with state, local, and tribal agencies to reexamine the most effective use and distribution of these resources pursuant to the revised National Air Monitoring Strategy.

While development of a national air toxics trends and community-gradient monitoring network will continue in FY 2005, this is also expected to be the first year of transition from the traditional NAMS/SLAMS framework to the NCore framework for ambient PM2.5 monitoring and for photochemical assessment monitoring for ozone in the U.S. (additional discussion is included in Appendix A). The transition to NCore represents a repackaging of the existing networks with continued operation of high value sites, plus investments and disinvestments under the revised national strategy. In the coming months EPA will engage state, local, and tribal agencies in a more detailed discussion and consultation on the resource implications of the revised network for the period from FY 2005-2007.

Additional information on all of these activities is included in Appendix A.

## **FY 2005 Milestones and Priorities**

States Implement the PM2.5 NAAQS.

- Develop and implement voluntary early reduction programs.
- Complete and submit modeling protocols.
- Complete and submit 2002 Base Year Emission Inventories.

States Implement the 8-hour Ozone NAAQS

- Submit complete Phase II NOx SIP Call SIPs.
- Submit Early Action Compact SIPs including all adopted measures and attainment demonstration by 12/31/04.
- Perform attainment demonstration modeling.
- Pursue activities to bring about successful SIPs to attain the NAAQS.
- Complete and submit 2002 Base Year Emission Inventories.
- Complete development of and submit modeling protocol.

States Continue to Implement the 1-hour Ozone NAAQS

- Complete development or adoption and submit mid-course reviews by 12/31/04.
- Maintain healthy air quality in areas that are attaining.
- Submit redesignation requests for nonattainment areas that are attaining.

States Implement the Regional Haze Program

- Regional Planning Organizations (RPOs) achieve milestones outlines in their work plans.
- Initiate integrated PM2.5/Regional Haze §308 SIPs.

States Attain and Maintain the other NAAQS.

- Maintain healthy air quality in areas attaining the NAAQS for PM10, CO, NO2, SO2, lead.
- Submit redesignation requests for areas attaining the NAAQS for PM10, CO, NO2, SO2, lead.

States Implement Mobile Source Programs

- Prepare SIPs including implementation of mobile source control strategies such as I/M and state fuel programs.
- Implement voluntary emission control retrofit programs for existing heavy-duty diesel engines/school buses.
- Prepare conformity determinations and motor vehicle emission budgets under the 1-hour and 8-hour ozone NAAQS for nonattainment and maintenance areas.

States Implement the Title V\* and NSR Programs

- Ensure sources submit Title V applications for renewal.
- Continue to issue initial and renewal Title V and NSR permits.
- Cooperate with EPA in Title V permit program evaluations, set target to respond within 90 days to EPA's evaluation report and implement recommendations as warranted.
- Cooperate with EPA in NSR permit program evaluations, set target to respond within 90 days to EPA's evaluation report and implement recommendations as warranted.
- Follow through on actions resulting from settlement agreements or court orders in response to citizen suits on Title V program approvals.
- Issue NSR permits consistent with CAA requirements and enter BACT/LAER determinations in the RBLC.
- Submit draft, proposed, and/or final SIPs/TIPs, equivalency demonstrations, and/or delegation requests in response to revisions to NSR rules.
- Quantify the emission reductions in all issued NSR permits, including reductions attributed to NSR reform measures.
- \* State and local Title V activities are funded with operating permit fees collected by the permitting authorities. These activities are not eligible for CAA grant funding.

States Implement the Air Toxics Program

- Implement 100% of promulgated \$112(d) standards including area source MACTs and GACTs, \$111(d) or \$129 standards for major sources and area sources.
- Implement 100% of delegated residual risk standards.
- Develop air toxics programs, particularly the risk-based aspect of the program.
- Establish community scale monitoring sites in-place using locally-selected technologies.
- Review the draft 2002 NEI for hazardous air pollutants.
- Collect, quality assure, and report all air toxics monitoring data into AIRS for PAMS, UATMP, pilot air toxics monitoring study.
- Finalize and quality assure the 2002 NEI for HAPs by 02/28/05.
- Share information and build capacity to identify and characterize air toxic risks.
- Assess suspected air toxics risks in local areas.
- Participate in developing regional air toxics assessments that consider outdoor stationary and mobile sources as well as indoor air sources.
- Seek voluntary reductions of air toxics.

- Develop voluntary, mobile source air toxics programs.
- Implement voluntary emission control retrofit programs for existing heavy-duty diesel engines and school buses.
- Participate in developing area source and residual risk standards.

## FY 2006 Milestones

- States pursuing those activities which will bring about successful SIPs to attain the 8-hr ozone and PM2.5 NAAQS.
- States complete and submit RACT and RFP plans for moderate and above 8-hour ozone nonattainment areas.
- States implement Phase I of NCore Level II monitoring network.
- States submit NSR programs that are consistent with NSR reform measures.
- Mercury MACT If proposed cap & trade program alternative applies, states submit plans for approval.
- States implement promulgated §112(d) standards including area source MACTs and GACTs, §111(d) or §129 standards for major sources and area sources.
- States implement delegated residual risk standards.

## FY 2007 Milestones

- States submit approvable SIPs to attain the 8-hr ozone NAAQS.
- States submit Interstate Air Quality Rule SIPs.
- States implement PM2.5 Transport Rule.
- States implement Phase II of Ncore Level II monitoring network.
- States continue development of PM2.5 nonattainment area SIPs.
- States submit Regional Haze SIPs by December 31, 2007.
- Mercury MACT If proposed MACT alternative applies, states will need to be in compliance with MACT by early 2008.
- States implement promulgated §112(d) standards including area source MACTs and GACTs, §111(d) or §129 standards for major sources and area sources.
- States implement delegated residual risk standards.

## TRIBAL AIR QUALITY MANAGEMENT

The tribal air quality management program includes funding for tribal air pollution control agencies and tribes. Through CAA §105 Grants, tribes may develop and implement programs for the prevention and control of air pollution or implementation of national primary and secondary ambient air standards. Tribes also have the authority to set standards and develop additional programs to meet their unique needs. Through CAA §103 Grants, tribal air pollution control agencies, tribes, colleges, universities, multi-state jurisdictional air pollution control agencies, and non-profit organizations may conduct and promote research, investigations, experiments, demonstrations, surveys, studies and training related to air pollution. The National Tribal Air Association will continue to develop as a leadership and coordination organization, working to promote relationships between and amongst tribes and EPA. For detailed grant guidance see Appendix A.

#### <u>Strategy</u>

EPA and tribes remain committed to completing assessments of air quality concerns in Indian country through a combination of training and support in technical and policy areas, including improving and facilitating tribal participation in the national air quality management program while they complete local assessments, source characterizations, emission inventories and develop monitoring programs. As tribes complete these steps, they are then able to make decisions on program development as appropriate. Tribal STAG funds are allocated to tribes through each Regional Office (except Region 3 which has no federally recognized tribes) based on a formula that includes a number of factors including tribal population, reservation acreage and number of Title V sources. Regional Offices then allocate funds to tribes within each region based on a draft consistency policy that directs resources to tribal governments based again on factors related primarily to environmental benefits. EPA STAG funding in recent years has been unable to provide grants to every tribe requesting support, so this methodology allows funding decisions to be made in a nationally-consistent manner while seeking to maximize the environmental benefit. A training program is also funded by OAR that provides an internationally-recognized curriculum developed especially for the unique needs of Indian country.

Our strategy also is to seek specific funding to support tribal interest in air toxics. Tribes have started to increase their participation in air toxics issues, but are limited by availability of funding and resources to pursue areas beyond basic programs. However, a number of tribes are interested in toxics issues, especially local issues perceived to be caused by local and regional sources such as industrial facilities and mobile sources. Tribes are also interested in larger toxics issues, particularly as they relate to deposition and bioaccumulation of persistent bioaccumulative toxins, such as mercury, dioxin and PCBs. The 229 Alaska Native Villages, many of whom rely on traditional subsistence lifestyles, have expressed particular concern over local and international toxics.

#### <u>Status</u>

The OAR tribal program has accomplished significant gains in a short number of years. Currently 120 tribes receive grant support, and 150 air quality monitors are being operated in Indian country. In recent years tribes have started to move from assessments to program development, and 18 tribes have received delegations of CAA authority under the Tribal Authority Rule. Advanced tribes are beginning to complete and submit for approval Tribal Implementation Plans – two have been submitted to date and several more are in development. Tribes have also uniquely expressed interest in PSD redesignations to reclassify their airsheds for optimum protection against deterioration, and to date nine tribes have redesignated their airsheds to Class 1 under PSD. Over 100 tribes participate in Regional Haze planning organizations, and the Western Regional Air Partnership is co-chaired by a tribal leader. We expect this trend to continue, and the Tribal Operations Committee is reflecting this increasing interest in air programs in Indian country. EPA continues to strive to support the ongoing needs in this growing program.

The St. Regis Mohawk Tribe has made considerable progress through monitoring and negotiation to convince neighboring sources to reduce their toxics emissions. They continue to monitor to ensure the reductions are adequate. Tribes in the Phoenix area have worked very

closely with EPA, state, city, and county governments to establish a joint air toxics study of the Phoenix metropolitan area which includes three reservations, and seek to continue and conclude these efforts with additional support. Many other tribes such as the Sioux tribe are performing source-specific toxic assessments around a Kevlar plant in Fort Cotton ND, and are interested in implementing and continuing toxics monitors to assess toxics impacts for their reservations, but are limited by the availability of funding. EPA supports these efforts where feasible, and expects that as tribes increase their sophistication and understanding of air quality, they will request increased support in areas related to toxics.

## FY 2005-2007 Priorities and Milestones

General

- Tribes adopt regulations to address air quality issues for their reservations
- Tribes develop and implement Tribal Implementation Plans, including the first in Indian country
- More tribes receive program approvals under the Tribal Authority Rule
- Tribes continue to complete assessments and move to advanced options including program development
- Tribes continue development of air issues through the NTOC's and RTOC.
- Tribes participate in ongoing interdisciplinary efforts to understand and quantify crossmedia impacts on culturally-significant environmental issues such as atmospheric deposition and bioaccumulation of harmful air pollutants.
- Tribes implement voluntary programs addressing local nuisance issues.
- Tribes implement voluntary programs addressing local indoor air issues.
- Many tribes begin and complete transitions to programmatic activities and funding.

## Criteria Pollutants/Regional Haze/Title V/NSR

- Develop and implement regulatory air quality management programs to suit tribal needs
- Participate in efforts to maintain and attain the NAAQS.
- Continue to forge partnerships in participating in Regional Haze Planning.
- Complete tribal emission inventories using WRAP-developed TEISS software.
- Participate in ozone and PM redesignation issues affecting Indian country.
- Participate in monitoring efforts to the greatest extent possible to complete assessments of air quality in Indian country, support national monitoring initiatives, and ensure Indian country is properly represented in national data collection efforts.
- Acquire training and credentials to perform source inspections on reservation sources.
- Adopt and implement minor NSR Program for Indian country.
- Seek approval of the first tribal Title V permitting program
- All major sources in Indian country are permitted under the Title V permitting program

## Air Toxics

- Share information and build capacity to identify and characterize air toxic risks.
- Assess suspected air toxics risks in local areas.
- Participate in developing regional air toxics assessments that consider outdoor stationary and mobile sources as well as indoor air sources.
- Seek voluntary reductions of air toxics.
- Develop voluntary, mobile source air toxics programs, and implement voluntary emission

control retrofit programs for existing heavy-duty diesel engines and school buses.

- Participate in developing area source and residual risk standards
- Install and operate air toxics monitoring sites in Indian Country.
- Carry out and complete further study of air toxics issues in the Phoenix Metropolitan Area.
- Take steps to address toxics issues for Alaska Native Villages
- Undertake an additional tribal air toxics study.
- Implement measures to reduce toxics exposures.

# **Indoor** Air

#### Performance Targets

- By 2008, 22.6 million more Americans than in 1994 will be experiencing healthier indoor air in homes, schools, and office buildings.
- By 2008, approximately 12.8 million additional people will be living in homes with healthier indoor air. These include people living in homes with radon-resistant features, children not being exposed to environmental tobacco smoke, and asthmatics with reduced exposure to indoor asthma triggers.
- By 2008, approximately 7.8 million additional students and staff will experience improved air quality in their schools.
- By 2008, approximately 2 million additional office workers will experience improved air quality in their workplaces.

EPA addresses indoor air quality issues by developing and implementing voluntary outreach and partnership programs that inform and educate the public about indoor air quality and actions that can reduce potential risks in homes, schools, and workplaces.

Through these voluntary programs, EPA disseminates information and works with state, tribal, and local governments; industry and professional groups; and the public to promote actions to reduce exposures to possibly harmful levels of indoor air pollutants, including radon. We also transfer technology by providing detailed guidance on indoor-air-related building design, operation, and maintenance practices to building owners, building managers, and school facility managers and easy-to-use tools to educators and school facility managers.

EPA also provides tribes with appropriate tools and assistance to address indoor air toxics, such as radon, environmental tobacco smoke, PM, and biological issues, such as mold contamination. EPA works with other federal agencies to provide guidance and assistance on how to reduce the exposure levels of these contaminants in all Indian communities.

EPA will broaden awareness and increase action by working with national as well as local community-based organizations to design and implement programs that address critical indoor air quality problems, including radon, secondhand smoke, asthma, and mold contamination in homes, child care and school facilities, and other residential environments. Through our State Indoor Radon Grant Program, we will continue to help states that have not yet established the basic elements of an effective radon assessment and mitigation program, and will support innovation and expansion in states that already have programs. Other indoor environment programs will focus on expanding national awareness of asthma triggers through outreach to schools, child care centers, health care providers, and the general public.

Our strategies for improving indoor air quality and increasing the number of people breathing healthier indoor air are implemented through the following four programs:

- Asthma
- Schools and Workplaces
- Environmental Tobacco Smoke

Radon

More information on each of the four programs follows.

## ASTHMA PROGRAM

This program includes voluntary programs that address asthma triggers through a variety of programs including raising asthma awareness through outreach, partnerships, and education. EPA's strategy is to implement a national, multi-faceted asthma education and outreach program to improve and expand the delivery of comprehensive asthma care programs to reach more people, more effectively. This program reaches out to the general public, schools and child care communities, and the health care community through partnerships with Federal agencies and non-governmental organizations committed to improving the quality of life for children with asthma. The program includes:

- National public awareness and media campaigns.
- Community-based outreach and education.
- Enhancement and application of programmatic support data.

## <u>Status</u>

In FY 2004, work under four current program areas will increase:

- Health care/managed care organization outreach, including work with the American Association of Health Plans representing 175 million Americans;
- National awareness campaigns, including a third wave of it's PSA campaign and World Asthma Day activities;
- Working to increase school based and in-home asthma programs; and
- Improving our understanding of effective interventions and improving tools for measuring results

## SCHOOLS AND WORKPLACES

This program includes voluntary programs and activities that address indoor air quality in schools through Tools for Schools (TfS) and office building air quality management approaches as well as outreach, training and educational activities, and potential guidance. Our stategy is to implement a national education and outreach program to inform the public, schools, school districts, educators, and building professionals about the importance of creating and maintaining healthy indoor environments in schools and workplaces. Our program relies on three key implementation/educational tools:

- <u>Indoor Air Quality (IAQ) Tools for Schools:</u> A comprehensive tool kit that can help school officials maintain a healthy environment in their school buildings by identifying, correcting, and preventing indoor air quality problems. Using the tool kit, school officials can educate staff, students, and parents about the importance of good IAQ.
- <u>IAQ Design Tools for Schools:</u> A tool to help school districts and facility planners design new schools as well as repair, renovate, and maintain existing facilities. Though

its primary focus is on indoor air quality, it is also intended to encourage school districts to embrace the concept of designing High Performance Schools, an integrated, "whole building" approach to addressing a important – and sometimes competing – priorities, such as energy efficiency, indoor air quality, day-lighting, materials efficiency, and safety, and doing so in the context of tight budgets and limited staff.

• <u>IAQ Building Education and Assessment Model (I-BEAM)</u>: Comprehensive, state-of-the-art guidance for managing IAQ in commercial buildings.

## <u>Status</u>

In FY 2004, IED will sponsor it's 5<sup>th</sup> annual Tools for Schools Symposium and National Tools for Schools Awards Program, continue to expand its mentoring program, expand promotion of the new IAQ Design Tools for Schools guidance, and work with five national school organizations to expand implementation of Tools for Schools.

## ENVIRONMENTAL TOBACCO SMOKE

This program includes voluntary programs and activities such as providing outreach, training and education to caregivers that address environmental tobacco smoke (ETS) in the home and areas where children are frequently present. EPA implements its secondhand smoke (ShS, or ETS) program through a national education and outreach program that supports the Department of Health and Human Service's Healthy People 2010 objectives. Although EPA's mission addresses all involuntary exposure to ShS, EPA's efforts target the risks to millions of children age 6 and younger. EPA's 4-pronged strategy includes:

- <u>Multi-Media Efforts</u> on ShS to promote behavior change associated with children's exposure to ShS.
- <u>Smoke-free Homes Pledge</u> which targets the parents of young children, advising them of the health consequences of exposing children to secondhand smoke inside the home.
- <u>Technical Support</u> provided directly to state, local, and tribal governments and public health organizations to develop and make available tools and resources that promote behavior changes in parents and guardians that result in smoke-free homes.
- <u>Nationally-directed Pilot Efforts</u> focused on changing clinical practices in pediatric offices to heighten parent awareness and promote smoke-free homes and concentrated effort on reducing risk disparities among at-risk populations.

## <u>Status</u>

In FY2004, IED will support initiatives targeted to: increase the effectiveness of state radon programs; increase the number of homes tested and mitigated through direct education and outreach to the public, and increase leveraging real estate and new construction opportunities.

## **RADON**

This program includes voluntary national, regional, state, and tribal programs and activities that address radon primarily in homes. EPA implements its radon program through a national program and through the State Indoor Radon Grants (SIRG) program. Through the Radon program, EPA:

- Provides analytic support to develop, implement, and enhance programs to assess and mitigate radon risks.
- Promotes adoption of local real estate disclosure laws and policies and works with the real estate community to include radon testing and disclosure in residential real estate transactions.
- Encourages voluntary radon-resistant construction and national, state and local radon-resistant code adoption to effect the construction of new homes built with radon-resistant features.

# **Milestones for FY 2005-2007**

- An estimated additional 500,000 children and low income adults will have reduced exposure to asthma triggers in FY 2005, 2006, and 2007.
- In schools, an estimated additional 1,300,000, 600,000, and 600,000 students and staff will experience healthier indoor air each year in FY 2005, 2006, and 2007, respectively.
- In buildings, an estimated additional 150,000, 240,000, and 240,000 building occupants will experience healthier indoor air each year in FY 2005, 2006, and 2007, respectively.
- An estimated additional 300,000 children aged 6 and under will no longer be exposed to secondhand smoke in the home each year in FY 2005, 2006, and 2007.
- An estimated additional 250,000 people will experience healthier indoor air as a result of radon mitigation or radon resistant construction each year in FY 2005, 2006, and 2007.

# **Priorities for Regions**

- Continue to serve as the local, community-based point of contact to disseminate information and foster implementation of the indoor air programs.
- Provide grants oversight for the SIRG program. See Appendix \_\_\_\_, SIRG Technical Guidance.

# **Stratospheric Ozone**

#### Performance Targets

- By 2010, through worldwide action, ozone concentrations in the stratosphere will have stopped declining and slowly begun the process of recovery, and the risk to human health from overexposure to ultraviolet radiation, particularly among susceptible subpopulations, such as children, will be reduced.
- By 2010, atmospheric concentrations of the ozone-depleting substances CFC-11 and CFC-12 will have peaked at no more than 300 and 570 parts per trillion respectively, while production of these chemicals will be allowed only for very limited essential uses.
- By 2010, all methyl bromide production and import, except for exemptions permitted by the Montreal Protocol, and 45 percent of all HCFC production and import, will be phased out, further accelerating the recovery of the stratospheric ozone layer.

As a signatory to the *Montreal Protocol on Substances That Deplete the Ozone Layer* (Montreal Protocol), the U.S. is obligated to regulate and enforce its terms domestically. In accordance with this international treaty and related Clean Air Act requirements, EPA will continue to implement the domestic rule-making agenda for the reduction and control of ozone-depleting substances (ODS) and enforce rules controlling their production, import, and emission. This implementation includes combining market-based regulatory approaches with sector-specific technology guidelines and facilitating the development and commercialization of alternatives to methyl bromide and HCFCs. We will strengthen outreach efforts to ensure efficient and effective compliance, and continue to identify and promote safer alternatives to curtail ozone depletion. To help reduce international emissions, we will assist with the transfer of technology to developing countries and work with them to accelerate the phase-out of ozone-depleting compounds.

Because the ozone layer is not expected to recover until the middle of this century at the earliest, the public will continue to be exposed to higher levels of UV radiation than existed prior to the use and emission of ODS. Recognizing this fact and the public's current sun-exposure practices, EPA will continue education and outreach efforts to encourage behavioral changes as the primary means of reducing UV-related health risks.

## **DOMESTIC PROGRAMS**

This program includes activities for regulatory programs to restore the ozone layer and voluntary programs to reduce public health risk. For the period 2005-2007, EPA's domestic strategy for stratospheric ozone protection will focus on:

- Undertaking measures to ensure achievement of incremental targets for reducing production of class II substances between 2010 and 2030, when HCFC production is to be phased out under the Clean Air Act.
- Limiting production of class I substances such as CFC-11, CFC-12, and methyl bromide to uses identified as critical or essential under the Montreal Protocol.

Status: As of January 2004, the U.S. has succeeded in phasing out new production and

importation of most class I substances, with the exception of certain applications for which the search for acceptable, non-ozone depleting alternatives continues. For class II substances (HCFCs), EPA has phased out production of HCFC-141b.

# FY 2005-2007 Milestones and Priorities

- EPA phases out methyl bromide production except for critical uses allowed under the Montreal Protocol.
- EPA allocates production allowances for all remaining classes of HCFCs.
- EPA proposes a rule to determine which equipment HCFC-142b and HCFC-22 may be exempted from the ban on production of those chemicals that under current plans will take effect in 2010.
- Regions carry out enforcement actions related to programs under Title VI of the CAA, including servicing of motor vehicle air conditioners, recycling of ozone depleting substances, and emissions of phased out substances. For additional information see the National Program Guidance issued by the Office of Enforcement and Compliance Assurance.

# MULTILATERAL FUND

This program includes the Multilateral Fund that promotes international compliance with the Montreal Protocol by financing the incremental cost of converting existing industries in developing countries to cost-effective ozone-friendly technology. Our strategy is to continue to support the Ozone Secretariat's Multilateral Fund, which provides resources to developing nations to facilitate their transition to non-ozone depleting substances. For the period 2005-2007, we will focus on:

- Maximizing developing country reductions in ozone-depleting substances by moving aggressively from a project-by-project approach to a national phaseout strategy approach.
- Accelerating the shift to CFC alternatives by accelerating the closure of CFC manufacturers in developing countries.
- Increasing support to developing country institutions to enable effective implementation of policy measures.

# <u>Status</u>

To date, the Fund has supported over 4,480 activities in 134 countries that, when fully implemented, will prevent annual emissions of more than 174,000 metric tons of ODSs. In addition, the Fund has reached long-term agreements to dismantle over 2/3 of developing country CFC production capacity and virtually all of developing country halon production capacity. Final closure of related facilities depends on continued funding. EPA's FY 2003 contribution to the Multilateral Fund helped the Fund support cost-effective projects designed to build capacity and eliminate ODS production and consumption in over 60 developing countries.

# FY 2005-2007 Milestones and Priorities

- By 2005, negotiate closure agreements with all remaining CFC producers in developing countries.
- By 2006, cease consideration of individual investment projects in favor of national or sectoral phaseout strategies.

- By 2006, increase support to developing country institutions by 50% in at least 25% of all developing countries in return for performance-based agreements that would enable active implementation of new policy measures.
- Note: Achievement of above milestones is contingent upon full payment to the Fund of agreed contributions by all Parties to the Montreal Protocol, including the United States. For the United States, full payment must be made by both EPA and the Department of State.

# **Radiation Protection**

	Performance Targets
•	Through 2008, working with partners, minimize unnecessary releases of radiation and be prepared to minimize impacts to human health and the environment should unwanted releases occur.
•	Through 2008, protect public health and the environment from unwanted releases of EPA-regulated radioactive waste and minimize impacts to public health from radiation exposure. By 2008, increase the total number of drums of radioactive waste certified by EPA as properly disposed to 140,171 (420.5 million milli curies) from 47,171 (141.5 million milli curies) in 2003.*
	* In memo dated 11/4/2003, ORIA documented the need to update the strategic target for the WIPP based on a revised analysis of DOE shipments through September 2003. The updated strategic target should read as follows: "By 2008, increase the total number of drums of radioactive waste certified by EPA as properly disposed to 283,787 (851.4 million millicuries) from 72,787 (218.4 million millicuries) in 2003. (The estimated total drums to be deposited at the Waste Isolation Pilot Plant [WIPP] is 860,000 [2.6 billion millicuries] over the next 35 years.)"
•	By 2008, ensure Agency readiness to inform the public about and protect them from airborne releases of radiation. By 2008, 80 percent of EPA's 300-person Radiation Emergency Response Team will meet scenario-based response criteria, up from 50 percent in 2005. By 2008, EPA's National Radiation Monitoring System will cover 70 percent of the U.S. population. (2005 baseline: 37 percent of the U.S.

EPA helps prevent public exposure to harmful levels of radiation in the environment, by working with other Federal, state, Tribal, and local agencies to assess exposure risks, managing radioactive releases and exposures, ensuring proper disposal of radioactive materials, and providing the public with information about radiation and its hazards. Should an event occur, EPA maintains a high level of preparedness to respond to radiological emergencies. These responsibilities form the core of our strategy to protect the public and the environment from unnecessary exposure to radiation. Our strategies for radiation include three program areas:

Radiation Protection

population)

- Radiation Response Preparedness
- Homeland Security Preparedness, Response, and Recovery

## **RADIATION PROTECTION**

This program includes activities for radiation clean up, federal guidance, risk modeling, Clean materials, Waste Isolation Pilot Plant (WIPP), Yucca Mountain work, radiation air toxics, naturally-occurring radioactive material, radiation waste management, and radioactive and mixed-waste operations and measurements.

## **Strategy**

Using a collaborative strategy, EPA works with the public, industry, states, Tribes and other governmental agencies to inform and educate people about radiation risks and promote actions that reduce human exposure. EPA also provides radiation guidance and develops regulations as

appropriate. Key programmatic activities include:

- maintaining certification and oversight responsibilities for DOE waste disposal activities at the WIPP.
- promoting the management of radiation risks in a consistent and safe manner at Superfund, DOE, DOD, state, local, and other federal sites.
- assessing exposure risks and providing information about radiation and its hazards
- maintaining appropriate methods to manage radioactive releases and exposures
- evaluating the human health and environmental risks from radiation exposure
- providing national-level guidance on the risks posed by radioactive materials in the environment.

# FY 2005-2007 Milestones and Priorities

- An estimated 40,000, 45,000, and 45,000 additional drums of radioactive waste certified by EPA as properly disposed will be deposited at the WIPP in FY 2005, 2006, and 2007 respectively.
- Regions continue to serve as the local, community-based point of contact to disseminate information on EPA's radiation protection program.
- Regions work with states on mining legacy waste disposal issues.

# RADIATION RESPONSE PREPAREDNESS

This program includes federal preparedness activities including radiation emergency response team and equipment, training and outreach, radiological emergency response guidance, and the national environmental radiation monitoring system.

## **Strategy**

Using a collaborative strategy where appropriate, EPA works with tribes and other federal and state and local agencies to ensure that the appropriate parties are fully informed and prepared to respond should an incident involving radiation occur. EPA's key activities that support our radiation response preparedness include:

- preparing for and responding to incidents involving radioactive materials through regular exercises and experience
- issuing Protective Action Guides
- coordinating with other organizations to ensure thorough response and preparedness planning
- ensuring the safety of the U.S. and international metal supply
- providing radioanalytical laboratory capabilities

## FY 2005-2007 Milestones and Priorities

• An estimated 50%, 60%, and 70% of Radiation Emergency Response Team team members will meet scenario-based response criteria in FY 2005, 2006, and 2007 respectively. The RERT encompasses 300 individuals.

- Regions continue to serve as the local, community-based point of contact to disseminate information on EPA's radiation response and preparedness program, activities, and capabilities. As appropriate, regions should:
  - provide on-site technical support to state radiation, solid waste and health programs that regulate radiation remediation
  - participate in Protective Action Guideline workshops
  - participate in radiological response exercises

## HOMELAND SECURITY PREPAREDNESS, RESPONSE, AND RECOVERY

This program includes developing plans, procedures, and standards to respond to major hazardous substance and oil releases caused by weapons of mass destruction or nationally-significant terrorist incidents. Ensure readiness of EPA preparedness and response personnel through planning, training, and exercises. Coordinate Homeland Security activities with the Department of Homeland Security and other federal agencies to ensure consistency with the National Response Plan.

# <u>Strategy</u>

EPA's strategy for developing, enhancing, and implementing the national monitoring system as part of homeland security preparedness, response, and recovery efforts includes the following components:

- Near-Site Emergency Monitoring
- Fixed Air Monitoring through Environmental Radiation Ambient Monitoring System (ERAMS)
- Deployable Monitoring

These three components will provide EPA with data for nuclear emergency response assessments, data on ambient levels of radiation in the environment, and data for public officials and the general public.

## <u>Status</u>

EPA continues to be primarily involved in four program areas:

- Improve radioactive waste management
- Build a comprehensive framework to expand and enhance voluntary programs
- Continue our commitment to Emergency Response/Homeland Security
- Continue providing regional offices with radiation analytical and technical support

EPA is currently evaluating the comments received on the Advanced Notice of Proposed Regulation (ANPR) for Low Activity Waste published in October 2003, recertifying the Waste Isolation Pilot Project, continuing to integrate radiation data into the Agency's information systems and making radiation information more accessible to the public, and enhancing our National Environmental Radiation Monitoring System to better respond to radiation emergencies and be better prepared for potential terrorist threats. We are also continuing efforts to create and enhance voluntary programs to better protect the nation's ports of entry, find alternatives to radiation sources in industry, and improve disposal options for radioactive sources in commerce.

# FY 2005-2007 Milestones and Priorities

- In FY 2005 through 2007, EPA expects to purchase an additional 60, state-of-the-art monitoring units, bringing the total to120. By 2007, these units will be operational and will cover approximately 60% of the U.S. population. (The current radiation air monitoring system covers about 24% of the U.S. population.) Through a series of upgrades by 2009, EPA will have in place a real-time system covering 70% of the U.S. population by 2009.
- Regions will continue to serve as the local, community-based point of contact to disseminate information on EPA's national monitoring system.

# **Climate Change**

#### Performance Targets

- Through EPA's voluntary climate protection programs, contribute 45 million metric tons of carbon equivalent (MMTCE) annually to the President's 18 percent greenhouse gas intensity improvement goal by 2012. (An additional 75 MMTCE to result from the sustained growth in the climate programs are reflected in the Administration's business-as-usual projection for greenhouse gas intensity improvement.)
- Through EPA's ENERGY STAR<sup>®</sup> program, prevent 27 MMTCE in the buildings sector in 2012, in addition to the 20 MMTCE prevented annually in 2002.
- Through EPA's industrial sector programs, prevent 80 MMTCE in 2012, in addition to the 43 MMTCE prevented annually in 2002.
- Through EPA's transportation programs, prevent 13 MMTCE in 2012, in addition to the 2 MMTCE being prevented annually as of 2002.

In 2002, President Bush announced a U.S. climate policy to reduce the GHG intensity of the U.S. economy by 18% over the next decade. EPA's strategy for helping to improve GHG intensity is to enhance its partnerships with businesses and other sectors through programs that deliver multiple benefits in addition to reducing GHG intensity – from cleaner air to lower energy bills. At the core of these efforts are voluntary government-industry partnership programs designed to capitalize on the opportunities that consumers, businesses, and organizations have for making sound investments in efficient equipment, policies and practices, and transportation choices.

## **CLIMATE PROTECTION PROGRAM**

This program includes voluntary domestic and international programs that address GHG and climate change issues. Efforts are aimed at reducing emissions of GHGs and mitigating the effects of global climate change on the environment and human health while growing the economy. EPA's strategy for 2005-2007 includes:

- Continue the successful Energy Star partnerships in the residential and commercial buildings sector by adding new products to the Energy Star family, raising awareness of the Energy Star label, and continuing to promote superior energy management to organizations of all sizes.
- Continue to build on the success of the voluntary programs in the industrial sector by enhancing the rate of energy and resource efficiency improvements through the Energy Star and WasteWise programs; cost-effectively keeping emissions of methane at 1990 levels or below through 2010; cost-effectively limiting emissions of the more potent greenhouse gases (HFCs, PFCs, SF6); and facilitating the use of clean energy technologies and purchases of renewable energy.

- Continue non-regulatory, transportation business-government partnerships to reduce GHG intensity in the transport sector. The two existing programs Best Workplaces for Commuters and SmartWay Transport will grow significantly and will be supplemented with new non-regulatory partnerships with the business sector.
- Develop and demonstrate innovative and ultra-clean and fuel efficient vehicle technologies. Work with partners in industry to transfer engineering expertise on EPA's advanced technologies so that industry can commercialize them.

**<u>Status:</u>** As of 2002, EPA's climate programs had reduced GHG emissions by 65 MMTCE. By 2012, EPA expects these programs to help avoid an additional 120 mmtce of GHGs.

## Milestones for FY 2005-2007

- 2005 Reduce GHG emissions from projected levels by approximately 90 MMTCE per year through EPA partnerships with businesses, schools, state and local governments, and other organizations.
- 2006 Reduce GHG emissions from projected levels by approximately 102 MMTCE per year through EPA partnerships with businesses, schools, state and local governments, and other organizations.
- 2007 Reduce GHG emissions from projected levels by approximately 115 MMTCE per year through EPA partnerships with businesses, schools, state and local governments, and other organizations.

Demonstrate technology such as mild hydraulic hybrid retrofits, full hydraulic hybrids, clean diesel combustion, homogeneous charge compression ignition engines, or variable displacement engines. By 2007, these technology demonstrations will demonstrate 70-100% fuel economy improvement in light duty vehicle applications or 40-60% fuel economy improvement in heavy duty applications.

**FY 2005 Priorities for Regions, States, Tribes:** Lead by example in the area of energy efficiency and clean energy and promote making the cleaner energy choice to stakeholders. This includes:

- making commitments to procure Energy Star qualifying products and encouraging other organizations to do the same.
- ensuring tribal governments and communities are included as partners in GHG activities, and ensure they participate in and benefit from ongoing coordinated efforts and outreach programs
- ensuring that the power management feature of Energy Star qualifying computer monitors is enabled and encouraging other organizations to do the same.
- rating the energy performance of buildings, schools, hospitals, etc, using EPA's national

energy performance rating system, applying for the Energy Star label for the qualifying superior buildings, and determining improvement plans for those that do not currently qualify; and encouraging other organizations to do the same;

- making or encouraging energy efficiency improvements and clean energy choices by promoting a range of innovative financial and policy mechanisms, including:
  - purchasing green power
  - integrating energy efficiency and clean energy into air quality plans (i.e., SIPs), and state supplemental environmental projects (SEPs)
- creating pilot programs to use the commercially-available advanced technology in fleets (such as state/municipal vehicles, school buses, or refuse vehicles) to produce cost-effective emissions and fuel consumption reductions.
- supporting Best Workplaces for Commuters and SmartWay Transport through:
  - outreach to local and regional government, nonprofit agencies, and businesses
  - presentations for local and regional business organization meetings
  - promotion of BWC and SmartWay Transport at local and regional trade shows
  - assisting with regional marketing campaigns.

#### Appendix A.

## Additional Information for Selected Aspects of the State and Local Air Quality Management Portion of the FY 2005 National Air and Radiation Program Guidance

#### Section I. EFFECTIVE GRANTS MANAGEMENT

EPA places a high priority on effective grants management. The Agency and OAR have issued directives, policies, and guidance to help improve grants management and ensure environmental results.

<u>Using Proper Authorities for Award</u>. On November 12, 1999, OAR issued "Guidance for Funding Air and Radiation Activities Using the STAG Appropriation," to help identify the appropriate statutory authority to use in awarding STAG grants. EPA funds state, tribal, and local continuing air programs using the authority of section 105 of the Clean Air Act and funds the Ozone Transport Commission (OTC) using section 106 of the Act. The Agency uses the authority of section 103 to fund most other clean air activities, including the national fine particulate monitoring network, the air toxics monitoring pilots, tribal capacity building, and regional planning organizations (comprised of state, local and tribal representatives). EPA awards radon assistance grants under sections 10 and 306 of TSCA.

<u>Promoting Competition</u>. EPA's policy is to promote competition in the award of grants and cooperative agreements, and to ensure that the competitive process is fair and open, with no applicant receiving an unfair advantage. EPA Order 5700.5, effective September 30, 2002, includes the requirements for implementing this policy. In drafting the order, EPA recognized that it is not practical to compete certain grants and cooperative agreements. The competition order exempts grants for continuing environmental programs, such as those funded under section 105. The order also exempts: CAA section 103 grants for fine particulate monitoring, air toxics monitoring pilots, regional haze planning, and federally-recognized tribes and inter-tribal consortia under OAR's tribal grant program; TSCA section 306 grants for state indoor radon programs; and TSCA section 10 grants for tribal radon programs. The order does not preclude EPA from allocating grant funds for a portion of these programs through competition, if the Agency determines it is in the best interest of the public. The order may be found at: <u>http://www.epa.gov/ogd/grants/competition.htm</u>. For more information on competition in air assistance programs, contact Kari Bilal at 202-564-1356.

Achieving Programmatic and Environmental Results. OAR's final guidance will outline selected programmatic and environmental results expected from state, tribal, and local programs funded by grants. Regional offices use the technical guidance in negotiation of section 103 and 105 work plans and agreements with grantees. Performance objectives and measures related to the grant-funded activities discussed specifically in this guidance are included within the respective sections of the narrative. Approved agreements should meet the requirements of 40 CFR 31 and 40 CFR 35. Pursuant to 40 CFR 35.107, section 105 agreements should include milestones, deliverables, and expected outcomes or accomplishments.

Ensuring Effective Oversight of Assistance Agreements. EPA issued Order 5700.6, effective January 8, 2003, to streamline post-award management of grants and cooperative agreements and to help ensure effective oversight of recipient performance and management. The order encompasses both the administrative and programmatic aspects of the Agency's financial assistance programs. It requires each EPA office providing assistance to develop and carry out a post-award monitoring plan, and conduct basic monitoring for every award. From the programmatic standpoint, this monitoring should ensure satisfaction of five core areas: (1) compliance with all programmatic terms and conditions, (2) correlation of the recipient's workplan/application and actual progress under the award, (3) availability of funds to

complete the project, (4) proper management of and accounting for equipment purchased under the award, and (5) compliance with all statutory and regulatory requirements of the program.

Offices must conduct advanced monitoring on a portion of grant awards each year and carry out more extensive contact with, and review of, recipient performance. Both levels of oversight must be documented in the official grant file. Regional offices may find more information on the order at <a href="http://epawww.epa.gov/oinijhhk/order/5700.6.pdf">http://epawww.epa.gov/oinijhhk/order/5700.6.pdf</a>. To assist EPA project officers in oversight of assistance agreements, EPA has developed a grant inquiry project management tool that is available on the Agency's intranet. For more information on this tool, contact William Houck (202-564-1349) or Katherine Moore (202-564-1514).

#### Section II. ADDITIONAL INFORMATION ON AMBIENT MONITORING

#### FINE PARTICULATE MONITORING NETWORK

FY2005 is expected to be the first year of transition from the traditional NAMS/SLAMS framework to the NCore framework for ambient air monitoring in the United States. For PM-2.5 this means continued operation of high value federal reference method (FRM) and speciation sites, additional investments in PM-2.5 continuous monitoring and associated data management systems for timely reporting of high quality data, and initial investments of trace gas analyzers to support better understanding of particle formation.

The total program budget has remained the same as in FY '04 at \$42.5 million. While the total program budget has not changed, the amounts allocated to the specific categories within the budget will likely change. There is an expected decrease in the number of required filter-based monitoring sites that are to accompany implementation of the NCore network. These sites are largely redundant urban sites that are considered low value. As a result, there is an expected reduced cost of operating the FY '05 FRM network than in previous years, which has reduced the costs for operations and maintenance, filters, and quality assurance.

The size of the PM-2.5 continuous monitoring network continues to grow, supporting real time data reporting of the Air Quality Index across the country. The size of this network is expected to continue to grow as NCore is implemented and some of the FRM sites are replaced by *approved* PM2.5 continuous monitors. Therefore, an increase in the number of continuous PM2.5 measurements is expected to be realized, with a commensurate increase in the operations budget for that category.

The transition to NCore represents a repackaging of the existing networks with continued operation of high value sites, plus investments and divestments. To provide a more clear understanding of the expected outcomes in using 103 funds to support ambient air monitoring objectives, the following goals for the monitoring network have been developed:

- Appropriate spatial characterization of PM2.5 NAAQS.
- Public Reporting of PM2.5 in the AQI;
- Characterization of PM2.5 chemical speciation data for long term trends, development and accountability of emission control programs, and tracking of regional haze;
- Initial implementation of NCore CO, SO2, NO2/NOy trace gases to support characterization of PM presursers.
- Assessment of PM2.5 data quality;
- Procurement and testing of PM2.5 filters.

Table A provides an historical comparison of FY 2003, FY 2004, and proposed FY 2005 for the various

costs associated with the PM<sub>2.5</sub> monitoring network.

	FY2	2003	FY2	004	FY2005		
	State/local	OAQPS	State/local	OAQPS	State/local	OAQPS	
Dperation & Maintenance O&M) for Federal Reference Method FRM) sites	\$23,569,750		\$21,237,492		\$18,337,500		
Filter costs		\$523,605		\$496,487		\$452,044	
MPROVE in Class I areas		\$2,380,000		\$2,213,420		\$3,797,789	
MPROVE State Protocol sites		\$957,000		\$891,000		\$957,000	
QA/ Performance evaluation		\$1,961,000		\$1,912,000		\$1,912,000	
D &M for chemical speciation sites	\$4,940,500		\$4,851,500		\$4,487,000		
Laboratory analysis	\$409,925	\$5,570,700	\$413,670	\$6,705,051	\$413,670	\$6,207,17	
D & M for continuous mass sites	\$2,187,520		\$3,779,380		\$3,845,620		
Data Management Systems to Support Real Time Reporting of Data					\$640,200		
PM precursers - trace Gas capital acquisition and O/M					\$1,250,000		
State Directed Data Analyses						\$200,000	
Subtotal	\$31,107,695	\$11,392,305	\$30,282,042	\$12,217,958	\$28,973,990	\$13,526,010	
Fotal (Region +HQ)	\$42,50	)0,000	\$42,500,000		\$42,500,000		
Percent of Totals	73%	27%	71%	29%	68%	32%	

#### Table A. Historical Comparison of PM<sub>2.5</sub> Costs

For FY 2005, EPA has requested \$42.5 million to meet the continued costs of the PM<sub>2.5</sub> monitoring network including operation, maintenance, filter analysis, and data management. A preliminary budget for discussion with state and local agencies is still being assembled. This allocation template below (Table B) is being developed in consideration of the investments that need to be made for NCore, the phased approach for the strategy, the network assessments and design plans being developed in each Region, and the available resources and costs of various components of the monitoring. New records highlighted in *italics* are being added to the table below that are consistent with the key investments of the National Monitoring Strategy. For more information on PM<sub>2.5</sub> monitoring, contact Tim Hanley at 919-541-4417 or via email at: *hanley.tim@epa.gov*.

# Table B. Preliminary FY 2005 PM2.5 Fundsby Category and by Region

	Ι	II	III	IV	V	VI	VII	VIII	IX	Х	TOTAL
Regional Allocations											
O/M for FRM samplers											
O/M for speciation samplers											
O/M for continuous	monitors										
Data Management Systems to support real time reporting of data											
PM precursers - trace Gas capital acquisition and O/M											
State Lab analysis											
Subtotal											
Nationally Administe	ered										
Filter cost CY2002											
IMPROVE											
IMPROVE-State pro	otocol										
QA/FRM Performar Evaluation and <i>NPA</i> operation	nce P										
Laboratory analysis											
State Directed DataAnalyses											
Subtotal											
Total PM <sub>2.5</sub> funding											

## PHOTOCHEMICAL ASSESSMENT MONITORING STATIONS (PAMS) NETWORK

#### [OAQPS is in the process of gathering and updating information on PAMS network changes that have been made or are planned as a result of reconfiguration efforts. OAQPS will provide FY 2005 PAMS grant guidance for review in early March 2004.]

Required by section 182(c)(1) of the Clean Air Act, the PAMS program collects ambient air measurements in the worst ozone nonattainment areas for a target list of volatile organic compounds (VOCs), NO<sub>x</sub>, and ozone, as well as surface and upper air meteorological measurements.

The PAMS allocation for FY 2005 is proposed to be reduced from the FY 2004 allocation (see Table C). The \$\_\_\_ million for PAMS provides \$\_\_\_ million for program implementation/operation, \$\_\_\_ million for data analysis, and \$1.2 million for meteorological monitoring. Remaining PAMS funds are allocated among the seven affected regions based upon the following:

• State and local agencies will continue meteorological monitoring and data analysis at a total of 86

sites in the seven regions.

Approved alternative networks are sufficiently equivalent to the program articulated in 40 CFR 58 to merit the same funding levels as other networks.

FY 2005 funds will continue to support six types of activities: system implementation, data reporting to AQS, data analysis, meteorological monitoring, quality assurance, and SIP development. Guidance for the use of grant funds for the five types of activities is presented below. Table 4 shows the allocation of funds among regions for FY 2005.

Region	Number of PAMS Areas	Data Analysis	Meteorological Monitoring and Analysis	Implementatio n	Total
1	5	\$	\$	\$	\$
2	1	\$	\$	\$	\$
3	3	\$	\$	\$	\$
4	1	\$	\$	\$	\$
5	$2^{1}$	\$	\$	\$	\$
6	4	\$	\$	\$	\$
7	0	\$0	\$0	\$0	\$0
8	0	\$0	\$0	\$0	\$0
9	8 <sup>2</sup>	\$	\$	\$	\$
10	0	\$0	\$0	\$0	\$0
Totals	24	\$	\$	\$	\$

## Table C. Distribution of Funds for PAMS Support

<sup>1</sup>Chicago and Milwaukee have a combined network.

<sup>2</sup>South Coast Air Quality Management District (AQMD) and Mojave Desert AQMD have a combined network.

As noted, OAR anticipates completing a review of its overall monitoring strategy during FY 2004. As part of that effort, OAR expects to revise the PAMS and other monitoring requirements and provide a final regulation during 2004. Future funding, particularly for FY 2005, will be affected depending upon how agencies need to modify their PAMS configurations. OAR will work closely with state, local, and tribal agencies during FY 2003 to prepare for possible changes for the future.

#### PAMS Activities

(1) Continue System Implementation

- Reduce monitoring at certain sites in accordance with approved alternative plans developed as part of reconfiguration efforts.
- Operate remaining existing sites for all PAMS areas.
- Continue to improve NO<sub>x</sub> monitoring, replacing NO<sub>x</sub> instruments with NO<sub>y</sub>/NO instrumentation and/or more sensitive NO<sub>2</sub>/NO<sub>x</sub> monitors.

## (2) Data Analysis

- Continue to develop and implement PAMS data analysis plans at the regional, state, and local levels that demonstrate use of data, provide analyses demonstrating data analysis products and results commensurate with allocated resources targeted for data analysis in Table 4, column 3.
- Perform the minimum set of PAMS data analyses specified in EPA guidance.
- Support a data analyst position for each of 24 PAMS areas.
- Submit data into AQS consistent with 40 CFR Part 58.

#### (3) Meteorological Monitoring

The allocation for meteorological monitoring is to support both surface and upper-air meteorological monitoring, processing, and quality assurance of data, and support of activities necessary to provide the data to the user community. Specific requirements include:

- Surface measurements of wind direction, wind speed, temperature, and humidity at all PAMS sites and additional measurements of solar radiation, ultraviolet radiation, pressure, and precipitation at one site in each PAMS area.
- Upper-air measurements of wind direction, wind speed, and temperature at a representative location in each PAMS area. The upper-air monitoring program will depend upon region-specific factors such that the optimum design for a given PAMS region is expected to be some combination of remote sensing and conventional atmospheric soundings.

#### (4) Quality Assurance

• All sites must have a Quality Assurance Project Plan (QAPP) approved by a regional office. Regions should advise OAQPS-EMAD of the approval dates.

#### (5) SIP Development

- Affected state and local air pollution agencies should use PAMS data to develop and optimize ozone control strategies.
- Affected state and local air pollution agencies should develop trends in ozone precursors, based on PAMS data, that may serve to corroborate their "rate-of-progress" demonstrations.
- Affected state and local air pollution agencies should use PAMS data to corroborate ozone precursor emissions inventories and to address transport concerns.

For more information on PAMS please contact either Kevin Cavender (919-541-2364) or David Lutz (919-541-5476).

<u>AIR TOXICS MONITORING NETWORK DEVELOPMENT</u> (More detailed guidance is to be provided in March 2004).

The FY 2005 national air toxics monitoring program will have a three-fold goal:

- (1) establishing a firm quality program based on consistency and technical validity, reporting initial analytical values to both the monitoring community and interested stakeholders;
- (2) establishing community-scale projects designed to capture information on "typical" and "atypical" toxics profiles; and

(3) establishing community-scale projects.

For the first two goals, we will build on the protocols established in FY 2004. For instance, the national air toxics trends stations (NATTS) laboratory and field staff are working with EPA to ascertain the optimum methods for capturing and analyzing core pollutants associated with risk, developing performance based quality indicators to prove valid data results that will contribute to our understanding of risks, and stabilizing the measurements for all 22 NATTS sites so that comparisons across the nation can be made. With these protocols in place in fy2005, the analytical community will then begin initial trends analysis to ascertain toxics concentration levels, and relate that data to levels of risk. (This initial trends analysis will be performed on the January 2004 through December 2004 data set.)

The third goal is to establish community-scale projects. These projects are intended to better characterize air toxics problems at the local level and to address those problems through local actions which complement regulatory requirements. Monitoring has the potential to inform us on what the air toxic problem is at the local level and measure what reductions have been achieved through actions taken. In general, the community projects can help develop a baseline that will provide information on what the local air toxics problem may be, and point the direction needed for national policy development on reducing emissions from particular sources. For more information contact Sharon V. Nizich in OAQPS' Monitoring Group at 1-919-541-2825.

# Section III. ADDITIONAL INFORMATION ON SPECIFIC AIR AND RADIATION PROGRAM AREAS

#### MULTI-STATE PROGRAMS : National Geographic Priorities

**U.S.-Mexico Border Air Pollution**: The proximity of States and localities in EPA's Regions 6 and 9 to the Mexican Border presents a number of trans-boundary air quality challenges. Many Border area residents, especially those in heavily urban areas, are exposed to health-threatening levels of air pollutants including ozone, particulate matter, carbon monoxide, sulfur dioxide, and air toxics. Visibility impairment exists in most of the Class I areas along and near the Border. Accurate evaluation of air quality in the Border will allow both countries to successfully target controls and reduce levels of air pollutants.

The Agency's activities are designed to encourage, develop and implement cooperative projects with various levels of the Government of Mexico so that sustained, comprehensive pollution abatement can occur in the common airsheds of Border sister cities, as well as in remote areas where trans-border air pollution occurs. Although State/Local/Tribal partners are increasingly engaged, frequently this is only possible by direct efforts of the federal governments of the U.S. and Mexico working together. In this way, EPA is providing vital support to the ongoing efforts of State, Local, Tribal, and multi-State organizations.

The *Border 2012: U.S. Mexico Environmental Program*, signed on April 3, 2003, was created to promote regional as well as border-wide strategies to improve air quality through coordinated air quality planning and management activities, such as the development of emissions inventories; the deployment, operation, and maintenance of air monitoring networks; the development of alternative fuels and energy sources; the development of innovative and progressive air quality management approaches; the design of air quality plans for the reduction and control of air pollution; and the development of public awareness and participation.

Over the next several years, the implementation of air pollution emission reducing strategies will be developed and implemented through the regional workgroups, task forces, and policy forums under the *Border 2012 Program*. For this reason, it will be difficult to identify partners and projects prior to the

submissions of proposed projects on an annual basis. Additionally, the *Border 2012 Program* relies heavily upon input and grass-roots improvement strategies. Encouraging local and grass-roots strategies is the Agency's commitment to full and open competition for many grants and contracts, which will empower a larger number of State, Local, and Tribal entities to become active participants in border air quality improvements.

DRAFT FY 2005 U.S.-Mexico Border Air Quality Funding Requests

[Note: Because of new EPA policies requiring more complete competition among potential grantees and contractors, the Regions cannot provide a list of FY 2005 partners at this time.] Below are the likely project types that will be included in Regional Requests for Proposal (RFPs) for FY 2005. It is EPA's discretion which of the following project types will ultimately receive funding:

1. Enhancing energy efficiency in border communities with focus on municipalities and independent school districts, including documentation and quantification of kilowatt-hours and air pollutant emissions reduced

2. Installing renewable energy projects in border communities, including documentation and quantification of kilowatt hours and air pollutant emissions reduced

3. Working with State of Texas and/or State of New Mexico partners and EPA to produce a video (bilingual) that highlights practical methods of energy efficiency and renewable energy for border area city officials, staff, and residents

4. Enhancing baseline air quality monitoring in Ciudad Juarez, Mexico to include upgrading and replacement of existing air monitoring and meteorological devices and infrastructure provided under loan by EPA

5. Providing assistance to the City of Ciudad Juarez, Mexico and SEMARNAT to operate, quality-assure, and report data to EPA from the air and meteorological monitoring network provided under loan by EPA

6. Working with SEMARNAT, Mexico state and local governments, and NGOs to identify additional monitoring needs in the border zone of Mexico which directly may impact U.S. air quality

7. Operating, quality-assuring, and reporting data to EPA from the existing border air and meteorological monitoring network in Texas operated by TCEQ via U.S.-Mexico border grants

8. Operating, quality-assuring, and reporting data to EPA from the existing border air and meteorological monitoring network in New Mexico operated by NMED via U.S.-Mexico border grants

9. Assessing the PM-2.5 and haze impacts on all of Texas, with special emphasis on the Texas border area, from fires in Mexico and Central America

10. Providing administrative and technical support to the Paso del Norte Joint Advisory Committee for Air Quality Improvement, to include translation at meetings, advertisement of meetings, assistance in technical planning, air monitoring and analysis and emissions inventory assistance, arrangement of, and participation in, other binational meetings

11. Managing the U.S.-Mexico border air quality program for the State of New Mexico

12. Managing the U.S.-Mexico border air quality program for the State of Texas

13 Monitoring, assessing, and analyzing the non-fire effects of international pollution transport on Texas air quality and haze episodes, including impacts on Texas class I areas

14. Expanding the air pollution emissions inventory for northern Mexico previously facilitated by the Western Governors Association to include the U.S. border zone and then the remainder of Mexico.

15. Providing assistance to the Arizona Department of Environmental Quality to establish a monitoring network and meteorological measurements in Yuma, Somerton, San Luis, Fort Yuma Indian Reservation, West Cocopah Indian

Reservation, and with support from Mexican environmental officials in Sonora and Mexicali, Baja, California.

16. Provide assistance to the State of Arizona to continue air monitoring efforts in Nogales, Arizona and Nogales, Sonora for PM10, air toxics and outreach efforts.

17. Provide assistance to the State of Arizona to continue air monitoring efforts in Douglas and Agua Prieta.

18. Continue support to the State of California to operate a network of air monitoring stations in Tijuana, Rosarito, Tecate, Mexicali, and Calexico.

19. Provide assistance to the WGA for outreach efforts for the border energy bi-lingual website and audits of different energy consumption sectors along the border.

19. Support HQ's initiative, "Binational Air Quality Strategy," by providing funding for a cross-border emissions reduction credits project in the Imperial-Mexicali Valley.

20. Providing assistance to the State of California and Baja, California for the establishment of a Bi-lingual Air Quality and Health Information Center for the Imperial County-Mexicali Region. The project would establish an online service to provide air quality and health information to residents of Imperial County and Mexicali through an interactive website.

**Great Lakes Air Program.** Atmospheric deposition of air toxics is known to be one of the main environmental drivers negatively affecting the water quality and ecosystem health of the Great Lakes. The Great Lakes Program supports improvements to, and applications of, multi-media strategy development and assessment tools needed to identify the contribution and effects of toxic air deposition to the Great Lakes region. Priority activities include: identification of air toxics sources, development of accurate and comprehensive air toxics emission inventories, monitoring of air toxics deposition, modeling of atmospheric dispersion and deposition of toxic pollutants, assessment of long-range atmospheric transport of toxic pollutants to the Great Lakes region, and assessment of the effects of atmospheric toxic pollutants on fish and wildlife. These activities are consistent with the goals of the Clean Air Act, the Great Lakes Binational Toxics Strategy, the Great Waters Program, and the Office of Water's Total Maximum Daily Load (TMDL) Program.

The development of this information is critical in establishing the basis to create further regulations and strategies to minimize atmospheric loadings to the Great Lakes and other inland water bodies. The results of this work are used to guide federal, state, and local policy for the Great Lakes and other fresh water ecosystems. EPA, the eight Great Lakes States, and the Great Lakes Commission will work together to support activities based on the information needs of regulators and the relevance to toxics efforts.

Previous efforts funded under this program have focused on the atmospheric deposition of mercury to lakes and land, a national priority and a global concern. In addition, the development of atmospheric deposition analyses and robust toxic inventories are critical in establishing the basis to develop further state regulations and strategies to minimize atmospheric loadings to the Great Lakes and other inland water bodies. The inventory work will continue to be incorporated into national air toxics efforts. Current projects are focusing on identifying new sources of known and emerging pollutants in order to ascertain the need for further environmental controls. Recently, cause for human health and ecological concern regarding new chemicals has led to the investigation of emerging chemicals including polybrominated diphenyl ethers.

In FY2004, all funds allocated to the Great Lakes were awarded fully to the Great Lakes Commission (GLC), a multi-jurisdictional organization representing the eight Great Lakes States. For the past decade, the GLC has coordinated the Great Lakes regional air toxics inventory project. Starting in FY2004, the GLC is also coordinating the award of addition funding to meet the research needs of State agencies. The funding priorities include the program priorities of the States with States providing significant input to EPA prior to the Agency's selection of award recipients for projects in the region.

In FY 2005, EPA will continue to work closely with the GLC and the Great Lakes States to see continued improvement and application of multi-media strategies to address air deposition. EPA will highlight priority projects based on the regulatory and scientific needs of the Great Lakes States. In addition, research information and data collected as part of this effort will be shared via a Great Lakes Commission website.

To support the Great Lakes activities in FY 2005, the Agency has allocated just under \$1.2 million in STAG resources. For more information, including guidance on those entities eligible for receipt of funds, contact Erin Newman at 312-886-4587.

#### MULTI-STATE PROGRAMS : Multi-Jurisdictional Organizations

**Regional Haze Planning Organizations.** The President's budget request for FY 2005 includes \$10 million for Regional Haze Planning Organizations, continuing the level requested for FY 2004. Under the present award cycle, EPA will soon award FY 2004 funds to the RPOs. All RPOs now have fully established their organizational structures, completed their bylaws, and are moving ahead with policy and technical work.

The Western Regional Air Partnership (WRAP) has been focusing on the policy and technical work necessary to support member states that are planning to adopt and submit regional haze section 309 SIPs in early FY 2004. WRAP has also been developing the technical foundation for other member states that are planning to submit section 308 SIPs in 2008. Accordingly, WRAP support for section 309 SIPs has been shifting, similar to the other RPOs, to the section 308 SIPs.

The Visibility Improvement State and Tribal Association of the Southeast (VISTAS) continues to expand its regional haze work. VISTAS work in FY 2004 will continue to focus on monitoring air quality, collection and analysis of data, preparation of emissions inventories, and modeling of air quality.

The Midwest RPO has completed a number of tasks including special monitoring studies; emission inventory improvements; additional modeling runs; and support of tribal inventory and data analysis projects. The Midwest RPO funds also support continuation of the St. Louis Supersite, and new measurements of organic particles. Additionally, the Midwest RPO is completing follow-up work on an ammonia inventory, focusing on the seasonality of ammonia emissions.

The Mid-Atlantic/Northeast Visibility Union (MANE-VU) will continue their efforts in data collection and analysis, development and evaluation of a MANE-VU model, and expanded emissions inventory work. Additionally, MANE-VU will be working with member states on the preliminary analyses that will be required for regional planning SIP submittals.

The Central States Regional Air Planning Association (CENRAP) reached an agreement with its member states and tribes on the make-up of the Policy Oversight Group. With this key group established, CENRAP is in position to move forward on many of its activities and planned projects. The CENRAP currently has approximately \$2 million in prior year funds being applied toward its current and planned projects. The Agency will work with CENRAP on its, and other RPOs' funding needs, as part of the FY 2005 funding process.

**Northeast Ozone Transport Commission.** The OTC was created pursuant to sections 176A and 184 of the Clean Air Act. The OTC represents northeastern and mid-Atlantic states in the ozone transport region (OTR): (a) in assessing interstate transport of ozone and its precursors, and (b) in determining the need for, and appropriateness of, additional control measures within the OTR, or in areas affecting the OTR. The OTC is supported by a small executive staff that functions largely to coordinate

OTC activities, facilitate communication among members, and serve as the point of contact for organizations external to the OTC, including EPA.

For FY 2004-2005, the OTC's work continues to focus on six areas: general analytical support to member states; analysis of mobile, stationary, and area source measures, particularly new clean air technologies; member communications; solicitation of non-governmental stakeholder input; coordination with other organizations; and consensus building. The focus areas are supported by OTC committees that develop and recommend specific action items for the Commission and the member states. The OTC implements its policy recommendations through consensus resolutions that provide guidance to member states. EPA continues to provide approximately \$648,000 to fund these activities.

The OTC, as MANE-VU, serves as the regional haze planning organization for the OTR, in concert with the Northeast States for Coordinated Air Use Management and the Mid-Atlantic Regional Air Management Association.

**STAPPA/ALAPCO Secretariat.** STAPPA and ALAPCO are the national associations for state, territorial, and local air pollution control agencies in the U.S. STAPPA and ALAPCO are represented by a Secretariat with a small staff located in Washington, D.C. The objective of the Secretariat is to coordinate the air quality activities of state and local air pollution control officials at the national level and to engage in activities that enhance the effectiveness of their agencies. The Secretariat disseminates information, plans and sponsors workshops, serves as a state/local liaison to EPA, coordinates member participation on EPA technical committees, produces technical assistance for members, and addresses air pollution control issues in concert with other public and private interests.

Funding for the Secretariat has been identified as part of the national allocation at the request of the member state and local agencies for numerous years. Traditionally, the STAPPA and ALAPCO boards (comprised of state and local air pollution control officials) approve a request from the Secretariat for a two-year period and request that EPA set aside funds from the participating state and local agencies' grant funds on a proportional (i.e., population) basis. As STAPPA and ALAPCO are forward-funded, these funds go to support their secretariat for the ensuing fiscal year. Funds set aside in FY 2005 for STAPPA and ALAPCO will go to fund the secretariat's FY 2006 grant request. Actual funding is dependent upon consultation with, and concurrence of, the affected state and local agencies as well as EPA's action on a formal, approvable request. A jurisdiction not participating in STAPPA-ALAPCO does not provide funds for its support.

EPA is still awaiting information from the STAPPA-ALAPCO member agencies regarding the amount of FY 2005 funds they wish to support their associations' FY 2006 work plan. A placeholder amount is shown for planning purposes only in an accompanying spreadsheet. The planning amount does not include: (a) any contributions from member agencies that wish to be billed directly by the STAPPA-ALAPCO Secretariat nor (b) any EPA resources targeted to support the joint standing state-EPA air monitoring, modeling and emission inventory workgroups.) For more information, contact Bill Houck at 202-564-1349 or via email at - *houck.william@epa.gov.* 

**Other multi-jurisdictional organizations.** A state or local agency wishing to fund a multijurisdictional organization may: (a) direct that the EPA region set aside that agency's desired contribution from its prospective allotment (i.e., on a pre-allotment basis); or (b) directly fund the organization once the agency receives its allotment. These options also apply to funding STAPPA-ALAPCO, which coordinates the interests of participating state and local agencies at the national level. STAPPA-ALAPCO, because of its *national* focus, continues to be shown as a national line item at the discretion of those state and local agencies wishing to contribute their funds.

Funding for multi-jurisdictional organizations (MJOs) formed by state and local agencies to coordinate their air quality interests at the *regional level* is not delineated individually as part of the

national region-by-region allocation of CAA STAG funds. Funding levels for these organizations are included within the relevant subobjective categories of their respective region or regions.

Over the next several months, the regional offices will be working with their state and local agencies to identify the appropriate level of funds to be targeted on a pre-allotment basis for multijurisdictional agencies. OAR's "Guidance for Funding Air and Radiation Activities Using the STAG Appropriation," issued on November 12, 1999, describes the appropriate uses of STAG funds for multijurisdictional agencies.

#### MULTI-STATE PROGRAMS: Visibility Monitoring

**IMPROVE Network** *(FY 2004 discussion included; FY 2005 update will be provided.).* The IMPROVE network was started in 1987 as part of a federally-promulgated visibility plan and operated by the Department of the Interior (DOI) under the direction of a multi-agency federal/state steering committee. EPA expanded the original network in FY 1999 and FY 2000 from approximately 30 sites to 110 sites. The expanded network covers all of the CAA Class I areas where visibility is important (except the Bering Sea which is impractical to monitor). The states and tribes have added an additional 35 sites to provide supplemental coverage in non-Class I areas to support the visibility and PM<sub>2.5</sub> programs. These sites are termed 'IMPROVE Protocol' sites and operate using the same measurement and analysis protocols. EPA provides funds to the DOI to help maintain the IMPROVE network. The DOI and the other participant organizations contribute approximately \$3.5 million of their own funds or in-kind resources to support an additional 10 protocol sites and for supplemental visibility monitoring activities..

The IMPROVE network collects data on visibility, including optical, photographic, and speciated particulate data. EPA is working with the WRAP, and the four other regional planning groups, to determine the steps needed to implement the regional haze rule. Data from IMPROVE sites also are expected to meet the regional haze rule requirements of states for monitoring Class I area long-term trends, as well as being useful in the required periodic assessments of progress towards the national visibility goal. States also will use data from the IMPROVE network in developing strategies to implement the fine particulate standard.

For FY 2004, a total of \$2.0 million is targeted to support the IMPROVE visibility network. This money will support aerosol monitoring activities at 110 IMPROVE sites, 25 state-run protocol sites and 11 tribal protocol sites. This amount is comprised of \$1.3 million in STAG funds that have traditionally been targeted for this activity, \$0.4 million of the \$42.5 million targeted for the establishment of the national fine particulate monitoring network and assessment, and approximately \$300,000 from tribal air monitoring grants. The approximately \$3 million decrease in annual IMPROVE funding reflects a one time decrease in the annual funding required. This results from of cost savings of approximately 5% in the annual operation of the now larger IMPROVE network and a 6-month reduction in the amount of forward funded network operations (to cover activities thru June 30 instead of December 31). For more information contact Neil Frank at 919-541-5560 or Marc Pitchford at 702-895-0432.

#### NATIONAL PROGRAM SUPPORT

**Programs to Reduce NO<sub>x</sub> Emissions**. NO<sub>x</sub> emissions from major stationary sources contribute significantly to the formation of ground-level ozone, a significant public health and environmental problem. Long-range transport of ozone and precursor pollutants means that analysis and problem-solving must involve all of the jurisdictions with sources contributing to, and populations affected by, these pollutants. Experience has demonstrated that one of the most effective ways to achieve this is through a multi-jurisdictional, market-based approach using a well-designed, centrally-administered NO<sub>x</sub> emissions budget and trading system.

In FY 2004, OAR allocated nearly \$2.65 million for support of three such market-based programs in the eastern portion of the U.S. OAR will allocate approximately the same level of funding for FY 2005. Nearly \$1.2 million is again targeted to support a system that covers 978 NO<sub>x</sub> sources in the Ozone Transport Region at the request of the states affected. Additionally, \$1.45 million is targeted for a NO<sub>x</sub> budget and trading program covering 1,182 sources identified in both Phase I and Phase II of the NO<sub>x</sub> SIP Call and in the Clean Air Act section 126 petitions.

Most states have promulgated rules that incorporate both their Phase I and Phase II sources into the NOx trading program. Rules for a handful of states where Phase II applicability is still in question may still not cover their Phase II sources. If the Phase II NOx SIP Call rule is not promulgated in FY 2004 as expected, then the Phase II sources in such a state (e.g., Georgia) will not be part of the trading system during FY 2004. Any state facing such a situation has the option of retaining its Phase II resources until a Phase II rule is promulgated that addresses these sources.

EPA's administration of the trading program for the states is considered associated program support. As such, the affected state grant funds within each region have been identified in advance of actual allotment to the affected states. Accordingly, this support is not included in individual state grant agreements and does not affect a state's cost-sharing requirements. Jurisdictions not affected by the trading programs have not had to contribute their grant resources to support them.

**Mobile Sources Outreach Assistance.** The Office of Transportation and Air Quality (OTAQ) conducts a comprehensive outreach effort, which includes a very successful mobile source public education and outreach program. The program continues to enjoy the interest and support of state and local governments. OTAQ implements the program through an outreach assistance competition, which entered its eighth year in 2004. Funds for FY 2003 and FY 2004 were combined to total over \$1.1 million for awards in FY 2004. This ongoing program has funded 47 cooperative agreements during its first six years. In FY 2002, OTAQ received more than 46 eligible proposals totaling more than \$3.4 million. Funding for FY 2005 is again proposed to be \$550,000.

Recipients of assistance in this competitive grant program must be State, tribal, and local air management agencies (as defined by CAA section 302(b)) and be eligible to receive funding under CAA section 105 authority. These agencies are encouraged to forge partnerships with other public health, transportation, business and non-profit organizations involved in mobile source-related air quality issues to undertake qualifying projects. All projects and products developed under this program must be replicable and transferable to other state, tribal, and local air management agencies nationwide. This approach ensures that significant benefits are leveraged from limited resources and that agencies share the products developed. Each year all of the STAG grant funds targeted for this program return directly to state, tribal, and local air agencies. For more information, contact Susan Bullard at 202-564-9856 or via email at: <u>bullard.susan@epa.gov</u>.

**Program Support for Monitoring.** EPA makes procurement services available to state and local agencies, via a national contract, for the bulk purchase of ambient monitoring equipment, supplies, sample analysis, and associated data reporting/archiving (see Table D ). This approach provides significant cost-savings to state and local agencies. The six monitoring areas include: nonmethane organic compounds, urban air toxics, carbonyls, PAMS, hazardous air pollutants, and particulate matter filters (PM <sub>10</sub> and total suspended particulates). A new task will be added to the national contract in FY 2004 for performance evaluation (PE) sample support for agencies participating in NATTS.

Traditionally, the Office of Air Quality Planning and Standards (OAQPS) works with regions to determine the level of funds that each state wants to allocate for the national procurement contract. The procurement services offered by the Agency range from providing individual states with contractor assistance, to bulk purchase, testing, and distribution of filter media to all states, local agencies, and tribes

for particulate matter monitoring. This service can be conducted as either associated program support or as in-kind assistance.

In providing associated program support, EPA works with regions, tribes, and state and local agencies in advance to identify needs on a national basis and targets funds for the support *before* determining the region-by-region allocation of grant funds. In-kind assistance is agency-specific and the value of the service is included in the grant agreement of a state, tribe, or local agency *after* agency-by-agency allotments are determined. This approach requires the recipient to provide an appropriate amount of matching funds and meet other administrative obligations. For FY 2004, national procurement support will again be handled as associated program support.

Region	1	2	3	4	5	6	7	8	9	10	Totals
Categories											
S/NMOC Sampling Sites				26,271							26,271
UATMP Sites		31,332		29,264				116,602			177,198
PAMS Q/A Support	8,000	7,489	14,772	28,690	68,588	2,463			125,000		255,002
Carbonyl Monitoring		41,160		93,626	12,000				30,000		176,786
HAP Support		26,714									26,714
PM Filters	12,724	18,442	38,372	59,810	76,312	19,112	25,262	33,086	55,000	27,258	365,378
Totals	20,724	125,137	53,144	237,661	156,900	21,575	25,262	149,688	210,000	27,258	1,027,349

 Table D.
 FY 2005 National Procurement Contract Amounts (Pending - '04 Shown)

For FY 2004, procurement funds have been set aside from the appropriate pollutant categories (i.e., ozone, PM, toxics sub-objectives, etc.) of each region. The amounts shown for the six areas are based upon responses received from the regions and their state and local agencies to date. These amounts may change prior to the final FY 2005 grant allocation. For more information on the national procurement contract, contact Vickie Presnell at 919-541-7620 or via email at - *presnell.vickie@epa.gov.* 

**Speciated and Total Nonmethane Organic Compound Program (SNMOC/NMOC).** The SNMOC/NMOC program has been operating since 1984 to provide data for use in development of control strategies for ozone. EPA provides centralized assistance to state and local agencies in the collection of NMOC, SNMOC, selected toxic compounds, and carbonyl compounds. Participating sites are provided with all necessary sampling equipment, which they may co-locate with NO<sub>x</sub> monitors.

The SNMOC/NMOC program consists of the following base components:

- Base site support for sampling equipment preparation, installation and training, problem solving, and final reporting.
- Canister sample analysis for 79 speciated NMOC or total NMOC.

Options include:

- Analysis for 58 toxic and polar compounds.
- Cartridge sample analysis for 16 carbonyl compounds.
- Concurrent analysis for both toxic and polar compounds, and speciated NMOC at a cost that is significantly reduced compared to performing the two analyses separately.

States collect the samples in canisters and/or cartridges and air freight them to Research Triangle Park, NC, for analysis. The samples are collected each week day from 6:00 to 9:00 a.m. during the summer (typically June 1 - September 30). In general, 96 samples are collected at each site over the study period. However, additional samples may be purchased.

**Urban Air Toxics Monitoring.** To support emerging needs for information on levels of organic toxic species in ambient air, OAQPS initiated the Urban Air Toxics Monitoring Program (UATMP) in 1988. This program serves as an analytical/technical support program similar to the SNMOC/NMOC program. The major purpose of this program is to support state and local agency efforts to assess the nature and magnitude of various air toxics problems. The program also supports states in implementing the new national ambient monitoring network. Each year, the UATMP program supports collection and analysis of 34 canister samples collected every 12 days for a 12-month period. Additional samples can be purchased. This program continues to be highly successful, with excellent overall data capture (97 percent) and data quality that meets well-designed program goals.

The UATMP consists of the following base components:

- Base site support for sampling equipment preparation, installation and training, problem solving, and final reporting.
- Canister sample analysis for 58 toxic and polar compounds.
- Cartridge sample analysis for 16 carbonyl compounds.

Options include:

- Canister sample analysis for 79 speciated NMOC.
- Concurrent analysis for both toxic and polar compounds and speciated NMOC at a cost that is significantly reduced compared to performing the two analyses separately.

**Carbonyl Monitoring**. Carbonyl sampling and analysis has been part of the monitoring support options that the Agency has provided since 1990. Although carbonyl monitoring support can still be performed simultaneously with other program elements, the independent carbonyl option provides more flexibility for special studies and saturation monitoring programs.

The Carbonyl Monitoring Program support consists of the following base components:

- Base site support for sampling equipment preparation, installation and training, problem solving, and final reporting.
- Cartridge sample analysis for 16 carbonyl compounds.

**PAMS and Toxics.** In response to the 1990 Clean Air Act Amendments, EPA issued enhanced ozone monitoring requirements that require states to establish PAMS as part of their SIPs for ozone non-attainment areas. In addition to obtaining more comprehensive and representative data on ozone and its formation, the enhanced monitoring network is a necessary and desirable adjunct to corroborate and track emissions inventories, provide essential data for the operation of photochemical models, characterize exposure, and establish a firmer base for control strategy development.

The EPA will continue to provide support for this program, but with resources to account for shifts from the current level speciated hydrocarbon (HC) monitoring toward a core set of speciated HCs,

as enhanced nitrogen oxide monitoring, data analysis, and toxics monitoring. Included in this program is a full set of items to support Title I enhanced ozone precursor monitoring. The PAMS support items include technical off-site and on-site support (initial equipment set-up, on-site technical assistance, consultation, problem solving, etc.); quality control (QC); and quality assurance (QA) program support (data validation, standards acquisition, and data management support). VOC canister, carbonyl compounds sample and concurrent toxics and speciated hydrocarbon analysis are also available.

The PAMS and toxics technical support program consists of the following base components:

- Technical site support.
- QA/QC support.
- Canister analysis support for PAMS compounds.
- Cartridge sample analysis for 16 carbonyl compounds.
- Concurrent analysis for both toxic and polar compounds and speciated NMOC at a cost that is significantly reduced compared to performing the two analyses separately.

The PAMS automated analysis systems and/or multiple canister collection system purchase and installation are the responsibility of the participant. The amount of support an agency can order for the PAMS technical site support and QA/QC components of the program have been divided into smaller increments so that state and local agencies can order the exact amount of support they require.

**Other Hazardous Air Pollutant Analysis**. The national monitoring support programs have been expanded to provide for the measurement of additional HAPs to support the effective implementation of the CAA and address the needs of other special studies. Analytical services support is provided for samples containing specific HAPs, which are a subset of the 188 compounds listed in the CAA. Participants are responsible for providing all necessary sampling equipment. The analysis among categories is based upon the specific needs of the state or local agency. This support also will assist the states in implementing the new national ambient monitoring network.

**Performance Evaluation (PE) Sample Support**. Agencies that are participating in the NATTS can receive PE samples on an annual basis. These can include VOCs, carbonyls, SVOCs and metals on quartz filters. The PE samples must be generated and analyzed by the national contractor and sent as "blind" samples to the participating agency. If an agency uses the national contractor for analysis, the agency will not be able to use the contractor for PE sample support.

**Particulate Matter Filters.** OAQPS has historically purchased particulate matter filters (for  $PM_{10}$  and total suspended particulate sampling used for metals analysis) and distributed these to state and local agencies across the nation. The economies of scale from this type of centralized purchasing, centralized acceptance testing of filters, and distribution has produced lower costs than if state and local agencies each purchased these filters through their individual agencies. State and local agencies are responsible for providing information to the regions each year on the numbers and types of filters required prior to shipment.

## STATE INDOOR RADON PROGRAM

**(FY 2004 information shown; FY 2005 narrative and allocation will be provided.)** The State Indoor Radon Grant (SIRG) Program distributes grants authorized under section 306 of TSCA. The objectives of the SIRG program are articulated in EPA's SIRG Program Specific Technical Guidance, issued in May 1997. (The guidance is currently under revision, but program objectives and priorities are not expected to change significantly). Recipients are encouraged to design and implement programs that: (a) focus on the most effective approaches to reduce the risk of exposure to unhealthy levels of indoor

radon, (b) articulate measurable risk reduction targets, and (c) achieve quantifiable environmental results.

Use of FY 2004 SIRG grants should focus on achieving quantifiable results in the following radon program priority areas:

- 1. Getting new homes built radon-resistant.
- 2. Obtaining disclosure, testing, and mitigation in conjunction with transfers of real estate.
- 3. Developing coalitions that work with local governments, partner affiliates, and other radon risk reduction leaders.
- 4. Getting testing and, where necessary, mitigation in schools.
- 5. Setting targets for environmental results in four areas: testing, mitigation, radon resistant new homes, and awareness activity (optional).
- 6. Innovative activities that achieve measurable results in radon awareness, testing, mitigation, and radon resistant new construction.

In FY 2004, SIRG funds also may be used for activities related to the development of multimedia mitigation (MMM) plans under the Safe Drinking Water Act to address radon in indoor air. States electing to implement MMM programs will be required to submit their MMM plans to EPA within two years of publication of the final rule. SIRG funds may be used for activities specifically related to the development of MMM plans, including activities related to ensuring public participation and input in the development of MMM plans.

The SIRG program priorities, measures of performance, reporting requirements, and the allocation methodology are closely aligned to reinforce achievement of environmental results. Population, smoking rates, and geologic potential for elevated radon (exposure and risk parameters) are the principal bases for allocating 80 percent of available SIRG funds. The remaining 20 percent is being awarded on the basis of progress in achieving results in the radon program priority areas listed above.

In consultation with EPA regional SIRG offices, the SIRG National Program completed the process of reviewing and updating the underlying state and tribal demographics, past awards, and projected award requests that are used for allocation of SIRG resources. As a guiding principle, the SIRG National Program established a national regional allocation for tribes to emphasize the importance of tribal radon programs.

While the purpose of the allocation is to determine the appropriate amount per region based upon state and tribal population, risk, and past and projected awards and results, the regions still have the flexibility to determine the actual award to each state and tribe. Each region's allocation includes funds for tribes with existing agreements, and those that anticipate forming new agreements.

More details on how the allocation was generated on a region-by-region basis are available from Charles Gasque (202-564-1248) in the Office of Radiation and Indoor Air.

# Table E. FY 2005 State Indoor Radon Grant Allocation (Table Not Included; Proposed Regional Amounts Still Pending)

#### Section IV. DRAFT PRELIMINARY FY 2005 AIR GRANT ALLOCATION