U.S. Environmental Protection Agency Workplan for the National Air Toxics Program and Integrated Air Toxics State/Local/Tribal Program Structure

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Attached is the "U.S. Environmental Protection Agency Workplan for the National Air Toxics Program and Integrated Air Toxics State/Local/Tribal Program Structure." The purpose of this workplan is to provide an overview of the activities EPA has accomplished or is planning to address during the technology- and risk-based phases of the national air toxics program under the Clean Air Act (CAA). In addition, this workplan addresses EPA's plan to develop a program encompassing Federal, State, Local, and Tribal authorities to coherently address air toxics risk in the second, risk-based phase of the national program. As a starting point, EPA is using recommendations from a report EPA received in September 2000 from the Integrated Urban Air Toxics State/Local/Tribal Program Structure Workgroup. This workgroup was created by EPA under the Clean Air Act Advisory Committee, which EPA chartered through the Federal Advisory Committee Act (FACA).

A draft of the attached workplan was sent to all EPA Regional Offices, the State and Territorial Air Pollution Program Administrators (STAPPA), the Association of Local Air Pollution Control Officials (ALAPCO), the National Environmental Justice Advisory Council (NEJAC) Air/Water Subcommittee, and Tribal governments in February 2001 for comment. We considered all comments received and made several changes based on these. However, many of the comments refer to concerns that issues raised in the FACA report were not addressed in the workplan such as "the workplan does not address the issues of whether EPA has the authority to require State, Local, and Tribal agencies to develop air toxics programs" or "that the workplan does not identify the role of EPA Regional Offices."

Therefore, we want to clarify that the intent of this workplan was not to resolve answers to the issues addressed in the FACA report, but rather, to lay out the issues that need to be addressed. Therefore, the final workplan does not provide any additional information on such critical issues as authority or funding.

As a result of comments received, further refinements and clarifications were made to the workplan and critical issues such as "How will EPA address flexibility in the design of the program from state-to-state?"and "Will the public participation process ensure adequate consultation with tribal governments?" were added to certain sections. The "near-source goal" name was changed to "near-source, including consideration from surrounding sources" along with a description defining the intent of this goal. In addition, the format was changed to make it easier to identify individual sections.

Within the next 24 months, we plan to supplement this workplan with a document that includes additional details on how EPA proposes to address the issues discussed in this workplan. We are now beginning to prioritize the critical issues identified in the workplan and set up a timeline for addressing these.

Should you have any concerns or questions please feel free to contact Yvonne W. Johnson at 919-541-2798 or johnson.yvonnew@epa.gov. We thank you for the comments received on the draft workplan and we look forward to working with all of you as we move forward in the development of the State/Local/Tribal Program Structure.

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1.0 INTRODUCTION

1.1 Purpose of Workplan

This workplan provides an overview of current EPA activities and plans for an integrated Federal, State, Local and Tribal program

This purpose of this workplan is twofold. First, this workplan provides an overview of the activities we, the EPA, have accomplished or are planning to address for the technology- and risk-based phases of the national air toxics program under the Clean Air Act (CAA). The overview describes the variety of activities underway within the air toxics program, identifies interrelationships among activities and highlights timeframes for products and opportunities for public participation. The overview includes both near-term activities, as well as milestones and deadlines that are many years in the future. The overview is divided into four components:

Component 1: Standards
Component 2: Multi-media Projects and Risk Initiatives
Component 3: National Air Toxics Assessments
Component 4: Education and Outreach

Second this workplan addresses EPA's plan to develop a program encompassing Federal, State, local, and Tribal authorities to coherently address air toxics risks in the second, risk-based phase of the national program. To develop this program, we intend to use, as a starting point, the recommendations from a report, Recommended Framework for State/Local/Tribal Air Toxics Risk Reduction Program, we received in September 2000 from the Workgroup on Integrated Urban Air Toxics State/Local/Tribal Program Structure. We believe the report's recommendations are helpful and informative. In the second part of the workplan we will:

- Provide a preliminary idea of what issues and topics we anticipate we will need to address as we move forward to develop a coherent, national, risk-based air toxics program
- Highlight current or planned activities that address some of these issues and topics
- Provide an overall schedule for EPA program development

As the Agency develops the national risk-based air toxics program, we will continue to consult and seek input from affected stakeholders through different forums. We also intend to supplement this workplan in the next 18-24 months with a document that includes additional details on how we propose to address the issues discussed in this workplan.

1.2 Background

Information about EPA's requirements to address air toxics

Air toxics or hazardous air pollutants are pollutants that are known or suspected to cause cancer or other serious health effects such as birth defects or reproductive effects. The CAA addresses the threat from air toxics through a national air toxics program that is structured in two, overlapping phases.

In the first phase, EPA is required to establish national technology-based standards for sources of air toxics to reduce emissions of air toxic emissions from stationary and mobile sources. In the second phase of the program, EPA is required to meet several risk-related goals and requirements for air toxics. For example, we are required to evaluate the public health risk remaining (i.e., the "residual risk") after implementation of technology-based air toxics regulations for stationary sources. Under the residual risk program, we must decide if additional stationary source regulations are needed to protect public health and the environment.

In addition to the CAA, EPA is required to develop national air toxics program goals under the Government Performance and Results Act (GPRA). For the last several years, including fiscal year 2001, the GPRA goal has been to reduce air toxics emissions by 75 percent from 1993 baseline levels by 2010, and thereby the risk to the public of cancer and other serious adverse health effects caused by airborne toxics. Because EPA's knowledge and tools to assess the impacts of these emissions on public health and the environment were limited when the Agency set this current goal, it reflects the straightforward intent to reduce total air toxics emissions as a means to reduce risks associated with exposure to air toxics. However, in fiscal year 2002 we plan to shift to a risk-based, national, GPRA goal, as we extend our knowledge, develop better assessment tools, and begin to address the risks associated with air toxics emissions as required by the Act. One issue we will address in the development of this program is how the achievements of this program can be incorporated with the achievements of other EPA activities toward meeting this GRPA goal.

2.0 OVERVIEW OF NATIONAL AIR TOXICS PROGRAM

2.1 Component 1: Standards

This section of the workplan includes an overview of each of the four components of the air toxics program, a timeline for activities, and tables that contain key milestones related to the activity.

Types of standards EPA must develop to address air toxics

The Clean Air Act requires EPA to develop many different types of standards (also known as regulations or rules) for both stationary and mobile sources. These are listed in Table 2-1 and include:

MACT Standards

Under the Clean Air Act Amendments of 1990, EPA is required to regulate stationary sources of 188 listed toxic air pollutants. On July 16, 1992, EPA published a list of 174 industry groups (known as source categories) that emit one or more of these air toxics. For listed categories of "major" sources (those that emit, or have the potential to emit, 10 tons/year or more of a listed pollutant or 25 tons/year or more of a combination of pollutants), the Clean Air Act requires EPA to develop standards that require the application of stringent air pollution reduction measures known as maximum achievable control technology (MACT) standards. To date, we have finalized 50 standards affecting 86 source categories. We have also proposed an additional 19 standards covering 25 source categories. Five source categories have been “delisted.” We are continuing to develop standards for the remaining source categories.

Combustion Standards

We have also issued final rules which establish new source performance standards for new solid waste combustion facilities and emission guidelines for existing solid waste combustion facilities. These rules set limits on emissions of mercury, as well as dioxin/furans, from municipal waste combustors, hospital/medical/infectious waste incinerators, and commercial and industrial solid waste incinerators. By the time these rules are fully implemented, they will reduce mercury and dioxin/furan emissions from these sources by about 90% and more than 95%, respectively, from current levels. EPA is also working on rules to address other solid waste incinerators.

Residual Risk Standards

The residual risk program is designed to assess the risk remaining from stationary source categories after EPA implements a technology-based standard. We are required to set additional standards if the level of "residual risk" doesn't provide an "ample margin of safety to protect public health" or if further emissions reductions are needed "to prevent, taking into consideration costs, energy, safety, and other relevant factors, an adverse environmental effect." These residual risk standards are required within 8 years (9 years for the earliest standards) after EPA finalizes the technology-based standard.

Area Source Standards

Under the Integrated Urban Air Toxics Strategy, EPA must ensure that 90 percent of the area source emissions of the 30 "area source" urban air toxics listed in the Strategy are regulated. In order to accomplish this, EPA identified 13 new categories of smaller commercial and industrial operations or so-called "area" sources for regulation. EPA plans to finalize regulations for these area source categories by 2004. EPA has completed or nearly completed regulations on an additional 16 area source categories. However, the Agency will be adding source categories to the list for regulation to meet the requirement to regulate 90 percent of the area source emissions.[1] We plan to complete the area source list by December 2003.

Seven Specific Pollutants

The Act also lists seven specific pollutants (alkylated lead compounds, polycyclic organic matter (POM), hexachlorobenzene, mercury, polychlorinated biphenyls, 2,3,7,8-tetrachlorodibenzofurans (TCDF) and 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD)) for special attention by the EPA. The Act requires that EPA assure that sources accounting for 90 percent of the emissions of these toxics are subject to regulation. We plan to complete these standards by 2003.

Utility Standards

We have gathered data on the mercury emissions from coal-fired electric utility power generation plants to evaluate the need for regulation of toxic air pollutants from these sources. Utility plants (primarily coal-fired plants) emit approximately 50 tons per year of mercury nationwide, which is almost 1/3 of the manmade mercury emissions in the United States. Mercury compounds are one of the listed 188 toxic air pollutants. It is a concern because it persists in the environment and can accumulate (e.g., can bioaccumulate in the food chain and lead to human exposure through food consumption). In December 2000, to reduce the risk mercury poses to people's health, we announced that we will regulate emissions of mercury and other air toxics from coal- and oil-fired electric utility steam generating units (power plants). This rule is scheduled to be proposed in 2003 and completed in 2004.

[1] In the Integrated Urban Air Toxics Strategy, we identified the 33 air toxics that present the greatest threat to public health in the largest number of urban areas; 30 of these make up the greatest area source contribution to total emissions.

Mobile Source Standards

Although EPA started enforcing the first federal emission standards for passenger cars in 1968, prior to 1990 EPA had no specific directions from Congress for a planned program to control toxic emissions from mobile sources. However, in 1990 Congress amended the Clean Air Act, adding a formal requirement to consider motor vehicle air toxics controls.

Section 202(l) requires the Agency to complete a study of motor vehicle-related air toxics, and to promulgate requirements for the control of air toxics from motor vehicles. We completed the required study in 1993, and have conducted analyses to update emissions and exposure analyses done for that study. On March 29, 2001, we issued a final rule identifying 21 mobile source air toxics and setting new gasoline toxic emission performance standards. It also sets out a Technical Analysis Plan to continue to conduct research and analysis on mobile source air toxics. Based on the results of that research, we will conduct a future rulemaking, to be completed no later than July 1, 2004, in which we will revisit the feasibility and need for additional controls for nonroad and highway engines and vehicles and their fuels.

We have achieved large reductions in toxics emissions as a result of the emissions standards we have developed since 1968, even though those emissions standards are focused on volatile organic compounds and particulate matter rather than specific, individual hazardous air pollutants.
We have developed emission standards for all types of highway vehicles, their fuels, and engines used in virtually all varieties of mobile or portable nonroad equipment such as tractors, construction vehicles, recreational and commercial vessels, and lawn and garden equipment. We have made the emission standards more stringent over time. In December of 1999, we finalized stringent new standards for all cars and light duty trucks, and the gasoline they use.

In July 2000 we issued a final rule as part of the first phase of a two-part strategy to significantly reduce harmful diesel emissions from heavy-duty trucks and buses. The final rule is designed to significantly reduce harmful diesel emissions from heavy-duty trucks and buses beginning in 2004. Under the rule, heavy-duty gasoline engines will be required to meet new, more stringent standards starting no later than the 2005 model year.

As part of the second phase of the strategy, in January 2001, we published another final rule establishing a comprehensive national control program that will regulate the on-road heavy-duty vehicle and its fuel as a single system. As part of this program, new emission standards will begin to take effect in model year 2007 and will apply to heavy-duty highway engines and vehicles. These standards are based on the use of high-efficiency catalytic exhaust emission control devices or comparably effective advanced technologies. Because these devices are damaged by sulfur, our program also reduces the level of sulfur in highway diesel fuel by 97 percent by mid-2006.

We are continuing to set emissions standards for various categories of nonroad engines and equipment. We intend to finalize new standards for nonroad diesel engines and equipment in 2003.

Implementation

We have a number of activities underway to help facilitate implementation of air toxics standards or regulations. They include rulemaking for delegation of the programs to the States, as well as activities to track progress, and provide guidance. Many of these activities are on-going and, therefore, do not have specific milestones.

Table 2-1. Component One Program Elements

Element/ Sub-elements	Activities	Estimated Dates
National Technology-Based Standards		
Standards required by the Act in 1992 and 1994 (2&4-year)	Promulgate the 2&4 year air toxics standards	Completed
Standards required by the Act in 1997 (7-year)	Promulgate remaining 7-year air toxics standards	Completed
Standards required by the Act in 2000 (10-year)	Develop 10-year air toxics standards	May 2002
Combustion standards	Promulgate remaining combustion standards for Small Municipal Waste Combustors and Commercial Industrial Solid Waste Incinerators (CISWI)	Completed November 3, 2000 and November 15, 2000
Residual Risk (RR) Program		
Residual risk	Finalize any additional standards needed for coke ovens	2001
	Finalize any necessary residual risk standards for 2- and 4-year technology based standards	2002-2004

Element/ Sub-elements	Activities	Estimated Dates
Area Source Category Listing and Standards		
Update area source category list	Complete the area source list	December 2003
Develop area source standards	Promulgate 13 area source standards	2004
Develop area source standards	Promulgate additional area source standards	2006
	Promulgate last group of area source standards	2009
Seven specific pollutant - Source Category List and Standards		
Standards for seven specific pollutants	Promulgate any standards necessary to meet requirement that sources accounting for 90% of emissions are subject to regulation for seven specific pollutants	2003
Utilities Standards		
Develop Utility Standard	Propose regulation for Coal-and Oil-fired Power Plants	2003
	Promulgate regulation for Coal-and Oil-fired Power Plants	2004
Mobile Source -Related Activities		
Tier 2 rule	Promulgate new emissions standards and gasoline sulfur controls that are expected to reduce NO_x, HC, and PM emissions from light-duty vehicles and light-duty trucks	Completed
2004 Heavy-Duty Diesel standards	Reconfirms standards for heavy-duty diesels that were finalized in 1997. Adds new test procedures and compliance requirements to ensure standards are met "in use." Requires on-board diagnostics for some engines beginning in 2005. Requires new standards for heavy-duty gasoline engines and vehicles.	Completed
Diesel Fuel Sulfur Control and Post-2004 Heavy-Duty Diesel Standards	Promulgate rule establishing a comprehensive national control program to regulate the on-road heavy-duty vehicle and its fuel as a single system.	Completed
Tier 3 Standards for Nonroad Diesel Engines	Proposal expected to review test procedure and Tier 3 emission standards for nonroad diesel engines, and consider nonroad diesel fuel sulfur control. Proposed program could result in dramatic diesel PM reductions	Proposal planned for mid 2002. Final rule planned for 2003.
Section 202(l) rule	Promulgate rule identifying 21 mobile source air toxics and setting new gasoline toxic emission performance standards.	Completed
Section 202(l) rule	Revisit need for feasibility of additional mobile source controls	Proposal by July 1, 2003 Final rule by July 1, 2004

Element/ Sub-elements	Activities	Estimated Dates
State Programs delegation (section 112(l))		
Federal Register notice and promulgation of amendments	Promulgation of rule amendments for delegation of the air toxics program implementation to the S/L/T agencies	Completed
Guidance Document	Prepare a guidance document to facilitate implementation of Subpart E delegation provisions for S/L/T agencies	Completed
Clarifications to Existing MACTs Delegation Provisions	Propose revisions to all existing Part 63 NESHAP to clarify which authorities can and can not be delegated to S/L/T agencies	July 2001
National Technology-Based Standards Implementation		
Implementation documents (to support State/local/Tribal implementation of air toxics standards)	Publish implementation assistance documents for highest priority needs for 7-year standards	September 2001
	Publish implementation assistance documents for highest priority needs for 10-year standards	September 2001 - November 2004

2.2 Component 2: Multimedia Projects and Risk Initiatives

The Act requires a number of risk initiatives to help EPA better characterize risk to human health and the environment from air toxics. Information from these initiatives will provide information for rulemaking in some cases but will also provide information to support national and local efforts to address risks through other voluntary and pollution prevention programs. These activities are listed in Table 2-2 and include:

State, Local and Tribal Program Structure to Support the Risk Reduction Goals of the Air Toxics Program

In January 2000, we created the Integrated Air Toxics State/Local/Tribal Program Structure Workgroup, which met from February through August 2000. We created the workgroup to obtain advice on how to structure a program encompassing Federal, State, local, and Tribal authorities to collectively address air toxics risk. We created the workgroup under the Clean Air Act Advisory Committee, which we chartered in 1990 through the Federal Advisory Committee Act. To address the charge provided by EPA, the workgroup developed a report that contains a structure for a program to address air toxics risk. Using the workgroup's recommended structure as a starting point, we plan to develop a program for an integrated air toxics State/Local/Tribal program structure to move the national risk-based program forward. Section 3.0 of this document contains EPA's workplan for developing this program.

Integrated Urban Air Toxics Strategy

On July 19, 1999 EPA published the National Air Toxics Program: The Integrated Urban Strategy. The urban strategy contains the same components as the overall air toxics program. However, it has risk-based goals for addressing risks in the urban areas. Specifically, the Strategy has three goals for urban areas nationwide. The first, to ensure a 75% reduction in cancer incidence from stationary sources. The second to ensure a "substantial" reduction in health risks from area sources. The third to ensure that disproportionate risks are addressed first, thus focusing our efforts for sensitive populations or where there are geographic hot spots.

Urban Community-Based Pilot Projects

The Integrated Urban Air Toxics Strategy has the goal of reducing public health risks (of cancer and other effects) from air toxics. It presents an approach for reducing these risks by looking at the cumulative risks posed by multiple sources (mobile, area, major and indoor air) and multiple pollutants in urban areas. However, since air toxics exposures vary (in terms of toxic air pollutants and sources) among urban areas across the country, EPA's activities to reduce risk on a national scale may not address potential risks on the more local level. Consequently, the Strategy includes local and community-based initiatives which we envision will involve partnerships between EPA and the State, local and Tribal governments.

We are currently conducting a pilot project in Cleveland, Ohio. A goal of the Cleveland Air Toxics Pilot Project is to develop methods to characterize local risks from air toxics and to implement risk reduction measures. The project will focus on activities that will achieve early risk reduction and continue to implement regulatory and non-regulatory approaches and will increase monitoring and research efforts to improve our understanding of air toxics risks. Through the Cleveland project we hope to build partnerships with the State of Ohio, the City of Cleveland, citizen and community groups, and industry. We also hope to replicate both the risk reduction and hazard characterization aspects of the project so they can by used as an example in other urban air projects throughout the Nation. Through the Cleveland effort we hope to improve our understanding and awareness of air toxic hazards and to build community capacity to deal with some aspects of the problem.

To learn more about risks at local levels, to promote two way information transfer between EPA and state, local, and tribal agencies, and to use localized risk information in the development of the residual risk and urban air toxic programs, we have become involved in community assessment and risk reduction projects. In FY 2001, to add value to existing, regionally lead, community projects, EPA provided supplemental funding to these as well as to several community risk assessment and risk reduction projects.

We are also developing a Community Assistance Collaboration Database that will allow EPA, state, local, and tribal agencies to share knowledge and experiences in all phases of past and on-going community assistance collaborations. We will also conduct workshops as necessary to bring together a broad spectrum of governments and stakeholders to share experiences, tools, and knowledge in the assessment and management of local air toxics issues in urban settings.

Air/Water Interface Activities (including Great Waters)

The Act directs EPA to monitor, assess and report on the deposition of toxic air pollutants to the "Great Waters," which include the Chesapeake Bay, Lake Champlain, the Great Lakes, National Estuary Program areas, and National Estuarine Research Reserves. Activities include assessing deposition to these waters by establishing a deposition monitoring network, investigating the sources of pollution, improving monitoring methods, evaluating adverse effects, and sampling for the pollutants in aquatic plants and wildlife. Pollutants of concern to the Great Waters include mercury, lead, cadmium, nitrogen compounds, polycyclic organic matter/polynuclear aromatic hydrocarbons (POM/PAHs), dioxins and furans, PCBs and seven banned or restricted pesticides. As part of the Great Waters Program, we have funded over the years, special monitoring studies and are currently providing supplemental funding to one site. We will continue to develop coastal monitoring and to support improvement of air deposition monitoring methods.

The Great Waters program is multimedia in nature and requires cross-program approaches to investigate and address problems. Our air and water programs are working together on two pilot studies to address mercury deposition to waterways, and the outcome of this effort will influence the development of joint national guidance for addressing Total Maximum Daily Loads (TMDLs) where air deposition is a factor. TMDLs specify the amount of pollutant that may be present in the water and still allow the water body to meet State water quality standards. TMDLs allocate pollutant loads among pollution sources (e.g., point and nonpoint sources), and include a margin of safety that accounts for uncertainty in the relationship between pollutant loads and characteristics of the waterbody. In part because of the efforts of the Great Waters program, there is now a greater level of coordination among research agencies and institutions to target areas of critical uncertainty and suspected threats to human health and the environment. Recent research continues to show that the diffuse emissions of urban areas can significantly affect nearby deposition rates to water bodies. In January 2001, we completed an air/water interface workplan which describes measures to protect both public health and our nation's waterbodies from atmospheric deposition of pollutants. This plan can be found at http://www.epa.gov/ttn/oarpg/t3/reports/combined.pdf and it will be revised and reissued every two years.

Mercury Initiatives

The Act requires EPA to issue a report to Congress on the sources and impacts of mercury, which we released in December 1997. The report includes an assessment of the emissions of mercury from all known anthropogenic sources in the United States, the health and environmental implications of these emissions, and the availability and cost of control of these emissions.

Mercury compounds are one of the listed 188 toxic air pollutants. It is a concern because it persists in the environment and can accumulate (e.g., can bioaccumulate in the food chain and lead to human exposure through food consumption). In December 2000, to reduce the risk mercury poses to people's health, EPA announced that it will regulate emissions of mercury and other air toxics from coal- and oil-fired electric utility steam generating units (power plants).

Persistent Bioaccumulative Toxics Initiative (PBTI)

We have a number of activities to identify and address risks from specific types of pollutants. This includes the Persistent Bioaccumulative Toxics Initiative (PBTI) that requires coordination among our offices, and other Federal and State and local agencies. The PBTI initially is focusing on the 12 priority pollutants identified under the Binational Strategy between the US and Canada (BNS). The Great Waters pollutants included are mercury, PCBs, dioxins and furans, toxaphene, aldrin/dieldrin, benzo(a)pyrene, chlordane, DDT, hexachlorobenzene and alkyl lead. The initiative is developing and implementing national action plans for the priority PBT pollutants. These actions plans will include regulatory and non-regulatory activities.

Indoor Air Toxics Strategy

Through the National Air Toxics Program/Integrated Urban Air Toxics Strategy, EPA recognized that, although exposures to air toxics indoors may be significant, the risks associated with indoor exposures are not as well characterized as those for exposures outdoors. In the July 19, 1999 Integrated Urban Air Toxics Strategy Notice, we stated that we would assess the current information on exposures to indoor air toxics, include information on indoor exposures in our characterization of risks and in the development of risk management options for air toxics, and conduct additional research on indoor exposures to air toxics.

The Indoor Air Toxics Strategy, a plan to reduce risks from toxic air pollutants indoors, will detail our initial approach to address those needs. It will provide an evaluation of past and current information on the potential exposures to, and risks from, air toxics indoors and briefly describe the overall National Air Toxics Program and how indoor air toxics fits within the program. It will also present actions that have been taken in the past to reduce the risks from air toxics indoors. The Indoor Air Toxics Strategy will also present a screening-level ranking and selection of key air toxics indoors, which was performed to help us prioritize our future efforts in this area. Finally, it will present the next steps in our strategic approach to addressing indoor air toxics as a part of the National Air Toxics Program, building upon the current information and relying heavily on voluntary, non-regulatory efforts to reduce risks from air toxics indoors.

EPA requested an Scientific Advisory Board (SAB) review of the ranking analysis, which occurred in March 2001. Final SAB comments are expected in Fall 2001. After the SAB review, EPA will respond to any comments on the ranking analysis. The analysis will be finalized when the Indoor Air Toxics Strategy is released in late 2001.

Table 2-2. Component Two Program Elements

Element/ Sub-elements	Activities	Estimated Dates
State, Local and Tribal Program Structure to Support the Risk Reduction Goals of the Air Toxics Program		
Workgroup under CAAAC, Permits/NSR/ Toxics Subcommittee	Final Workgroup Report	Issued September 2000
Plan for S/L/T Program structure	Prepare and issue work plan	October 2001
Development of comprehensive plan for the S/L/T program structure	Issue document which includes additional details on how we propose to address issues discussed in workplan	April 2002 - October 2003
Activities Under the Integrated Urban Air Toxics Strategy		
Establish pilot projects working with interested mayors, NEJAC, etc.	Initiate Cleveland Pilot Project and begin discussions with stakeholders	Completed
	Select specific communities as the study area within the metropolitan Cleveland area	Completed
Assessment of progress with risk reduction goals	Identify and begin implementation of risk reduction activities within the Cleveland study area	December 2001

Element/ Sub-elements	Activities	Estimated Dates
	Present/discuss risk characterization based on 1996 assessment activities (see component 3)	Fall 2001
Great Waters		
Conduct two mercury Total Maximum Daily Load (TMDL) pilot studies	Develop model TMDL report for air deposition impacts for Florida and Wisconsin	Florida - Summer 2001 & Wisconsin Fall 2001
	Develop TMDL lessons learned report for air deposition impacts	Winter 2001 - 2002
Develop Air/Water Interface Work Plan	Develop final work plan *http://www.epa.gov/ttn/oarpg/t3/reports/ combined.pdf*	Completed January 2001
	Target State-identified impaired waterbodies and model regional air deposition loads	2002
Mercury Initiatives		
Information gathering and action plan	Regulatory determination for air toxics emissions (including mercury) from electric utilities **[See activities under Utilities Standards]**	Completed
Indoor Air Toxics Strategy		
Rule-making Activities	Technical Support Document (ranking analysis for key pollutants)	Fall/Winter 2001
	Federal Register Notice	Fall/Winter 2001
Coordination Activities		
Persistent Bioaccumulative Toxics initiatives	Development of action plans for pollutants	Fall 2001

2.3 Component 3: National Air Toxics Assessment Activities

Assessment activities EPA is undertaking as part of the National air toxics assessment (NATA)

National air toxics assessment (NATA) activities are a primary component of EPA's national air toxics program (see Table 2-3 for a list of the Component 3 activities). Over time, these activities will help us set program priorities, characterize risks, and track progress toward meeting our overall national air toxics program goals, as well as specific risk-based goals, such as those of our Integrated Urban Air Toxics Strategy. More specifically, our NATA activities broadly include expanding air toxics monitoring, improving and periodically updating emissions inventories, periodically conducting national- and local-scale air quality, multi-media and exposure modeling, characterizing risks associated with air toxics exposures, and continued research on health and environmental effects and exposures to both ambient and indoor sources of air toxics.

As part of these NATA activities EPA is now conducting an initial national-scale assessment to demonstrate our approach to characterizing air toxics risks nationwide. This initial national-scale assessment will help to characterize the potential health risks associated with inhalation exposures to 32 of the hazardous air pollutants (HAPs) identified as priority pollutants in our Integrated Urban Air Toxics Strategy, based on our 1996 national toxics emissions inventory. While such a broad-scale assessment is necessarily limited in the scope of the risks that it can address quantitatively, and by the uncertainties inherent in the various types of data and methods currently available, it represents an important step in characterizing air toxics risks nationwide. Our initial national-scale air toxics assessment includes four major steps that focus on 1996 emissions of 32 air toxics plus diesel particulate matter:

National emissions inventory for 188 HAPS

Compiling a national emissions inventory of air toxics emissions from outdoor sources of air toxics emissions. The types of emissions sources in the inventory include major stationary sources (e.g., large waste incinerators and factories), area and other sources (e.g., dry cleaners, small manufacturers), and both onroad and nonroad mobile sources (e.g., cars, trucks, boats). This inventory includes the 188 HAPs listed in the Clean Air Act.

Estimating 1996 ambient concentrations of 33 urban HAPs

Estimating air toxics ambient concentrations across the continental United States (and Puerto Rico and the Virgin Islands) for 32 air toxics plus diesel particulate matter using an air dispersion model and the 1996 national air toxics inventory as input to the model. As part of this modeling exercise, estimated ambient concentrations are compared to available ambient air toxics monitoring data to evaluate model performance. This modeling was completed and the results made available to the public in August 2000. Diesel particulate matter results was added to the public website in January 2001.

Estimating 1996 population exposures to 33 urban HAPs

Estimating population exposures across the continental United States (and Puerto Rico and the Virgin Islands) to 32 air toxics plus diesel particulate matter using a screening-level inhalation exposure model and the estimated ambient concentrations as input to the model. Exposure modeling is an important step in this assessment because it can provide more realistic estimates of actual population exposures to air toxics from outdoor emission sources by accounting for time people spend indoors and in other "microenvironments" (e.g., in vehicles), patterns of movement (e.g., commuting between home and work locations), and activity levels. This exposure was completed in 2000 and will be added to the EPA website in 2001 after incorporating any comments from the Science Advisory Board's peer review.

Risk characterization

Characterizing potential public health risks due to inhalation of air toxics, including both cancer and noncancer effects, using available information on air toxics health effects, current Agency risk assessment and risk characterization guidelines, and the estimated population exposures. This characterization quantifies, as appropriate, potential cumulative risks to public health due to inhalation of air toxics from outdoor emission sources, discusses the uncertainties and limitations of the assessment, and identifies other potential risks to public health from air toxics that are beyond the scope of this quantitative assessment. The characterization was completed in 2000 and will be added to the EPA website in 2001 after incorporating any comments from the Science Advisory Board's peer review.

These NATA activities are being completed at the screening level with computer modeling

The assessment approach outlined above is fundamentally based on using screening-level computer models to estimate ambient air toxics concentrations and population exposures nationwide. While such computer models necessarily require simplifying assumptions and introduce significant uncertainties, they are needed to conduct such a large scale assessment since direct measurements of ambient air toxics concentrations are limited, and direct personal exposure measurements are even more limited . Such measurements are available for only a subset of air toxics in relatively few locations and for small study populations. Although we are working to expand the number and locations of ambient air toxics monitors and the study of personal exposures, direct measurement of air toxics concentrations is not practical for all air toxics of interest across all areas of the country. Over time, such measurement data can and will be used, however, to evaluate the models so as to better understand some of the uncertainties in such assessments and to improve our modeling tools.

In describing what this assessment includes, it is also important to recognize potentially important sources and pathways of risks to public health that are beyond the scope of this quantitative assessment. Non-inhalation exposures are not included. Evaluation of additional pathways for exposure is especially important for pollutants that persist in the environment and bioaccumulate, such as mercury, dioxin, and PCBs. The highest localized exposures and risks are significantly underestimated by the national-scale approach. EPA conducted two comparisons between the results of the 1996 national-scale assessment and results from local-scale refined assessments which indicate that this limitation can lead to significant underestimation of risks in the vicinity of individual point sources. These two comparisons showed an under-prediction of local-scale risks by a factor of 10 in a relatively small census tract and by a factor of 100 in a relatively large census tract. Indoor sources of air toxics are not included. While these are considered outside the scope of the current study, it is important to recognize that, for certain air toxics, total long-term human exposures can be significantly influenced and sometimes dominated by exposures due to indoor sources. These and other important aspects of total population exposures to air toxics will be addressed more fully over time as part of our NATA assessment activities as more comprehensive data and assessment tools become available.

Other key NATA activities

Additionally, NATA includes other key activities that will support further risk characterizations on the local and national level in the future. These include:

Expansion of ambient toxics monitoring network and compilation of monitoring data	Developing and implementing a plan to characterize the concentrations of ambient air toxics through an expanded monitoring network. Data from existing state and local air monitoring programs has been compiled to summarize our current knowledge about ambient air toxics. Existing ambient air toxics monitoring data was compared to national-scale model estimates as a "reality check" for the model output. A national monitoring strategy calls for incremental changes to existing monitoring networks, guided by data analysis and model predictions, to improve the collection of ambient data for future model evaluations. As the monitoring program matures, trend sites will then be established to assess the effectiveness of the air toxics program components.
Monitoring in pilot cities	A $2.5 million grant was awarded to 10 cities in fy2000 (Phase 1). Another $3.0 million grant was awarded to about 30 cities in fy2001 (Phase 2). These grants are to cover pilot monitoring of toxic pollutants including hydrocarbons, metals, and particulate matter. The Phase 1 pilot results (expected to be complete and uploaded to AIRS in late fy 2002) will assist US EPA in designing a national network of toxic monitors that will yield important information on levels of ambient toxics concentrations across the country. Also in fy2000, another $0.5 million grant was awarded to the Lake Michigan Air Directors Consortium (LADCO) to analyze current data from 300 existing toxic monitors, and to compile and analyze the pilot data as it is released. The LADCO is managing the grant with contractual assistance from Battelle Laboratories.
Troubleshooting data collection and management workgroups	Workgroups comprised of State grantees and EPA staff meet monthly to resolve data management, laboratory sampling, field, and general quality assurance issues that are expected to arise during monitoring. Actual monitoring of the Phase 1 projects began in stages, depending on the resolution of staff and equipment issues, throughout the January to June 2001 time span. Most of the Phase 2 pilot programs will begin monitoring in January 2002.
Modeling at a local scale	Evaluating air toxics on a more local scale (e.g., an urban area) using more refined air quality modeling tools that factor in specific local information such as terrain (mountainous or flat) and local weather patterns. The results of national and local-scale modeling can be compared to provide a more complete context for the evaluation of air toxics.
Hot spot exposure assessment	Assessing concentrations and exposure in mobile-source-related hot spots through fixed site and personal monitoring.

Comparison of 1990 and 1996 air toxics inventories

Comparing air toxics inventories from 1990 and 1996 on a toxicity-weighted basis to help inform future assessments of progress toward meeting the risk reduction goals.

Recommendation of assessment tools to State, local, and tribal agencies

Recommending tools to State, local and tribal regulatory agencies for evaluating air toxics concentrations, exposures and risk. This will include a comparison of the results of national scale models to those from more local scale models.

These NATA activities are intended to be iterative, repeated every three years

This initial national, screening-level assessment is part of an iterative and evolving process to assess and characterize risks from exposures to air toxics, measure progress in meeting goals, and inform future directions for EPA's national air toxics program. While there continue to be significant uncertainties and gaps in methods, models, and data that limit our ability to assess risks to public health and the environment associated with exposures to air toxics, continued research will enable future assessment activities, both at the national screening-level and at more local refined levels, to yield improved assessments of cumulative air toxics risks. An important component of our future NATA activities will be to repeat this type of national screening-level assessment every three years – with the next such assessment focusing on 1999 air toxics data.

Table 2-3. Component Three Program Elements

Element/ Sub-elements	Activities	Estimated Dates
Emission Inventory		
Air toxics emission inventory	Complete 1996 National Toxics Inventory Summary files available (NTI)	Completed
	Begin development of 1999 NTI	Ongoing
	Preliminary comparison of toxicity-weighted baseline and 1996 NTI emission inventories	Fall 2001
Modeling		
National-scale air quality modeling	Public release of data	Completed
	Re-run model based on SAB comments	Completed
	State preview of model re-run data	Fall 2001
National-scale exposure modeling	Complete exposure/risk segments and submit entire assessment (including NTI and ASPEN modeling) for peer review. Make peer review draft available to the public	Completed

Element/ Sub-elements	Activities	Estimated Dates
National-scale exposure modeling (cont.)	Public release of model re-run data	Fall 2001
Local scale air quality and exposure modeling	Evaluate air quality and exposure in one selected urban area (Houston)	Winter 2001
	Comparison of local scale modeling with National scale modeling	Winter 2001
Mobile assessment activities	Emissions and exposure analyses and risk assessment and characterization for motor vehicle-related air toxics	Completed
	Final Diesel Health Assessment Document	Winter 2001
Risk Characterization Analyses		
National Scale Assessment: Risk Characterization Results	Submit to Science Advisory Board	Completed
	Science Advisory Board Meeting	Completed March 2001
	Release results to public via website	Fall 2001
Integrated Urban Air Toxics Strategy	Compare toxicity weighted inventories analysis	Fall 2001
	Estimate progress in meeting risk reduction goals 1990-1996	Ongoing in 2001
Monitoring		
Database and analyses	Compilation of State/local monitoring data	Completed
	Public access of monitoring data/summary report	Completed
Network development	Develop detailed monitoring plan for FY-2000 monitoring	Completed
	Science Advisory Board review	Completed
	Finalize guidance	Completed
	Allocate funding, grantees submit plans	Completed
	Site development, new sampling begins	September 2001
	Data submission to AIRS	Late 2002

2.4 Component 4: Education and Outreach

EPA's plans for involving the public in the activities of this workplan

We believe that public participation is vital for the implementation of the overall air toxics program. We are committed to working with cities, communities, State, local and Tribal agencies, and other groups and organizations that can help implement activities to reduce air toxics emissions. For example, we expect to work with the cities and other interested stakeholders in the national air toxics assessments that will be conducted. In addition, we will continue to work with stakeholders on regulation development. We are working with local communities, industries, and other interested stakeholders, in the development of local risk initiatives such as the urban community-based pilot project in Cleveland. Outreach and education efforts are listed in Table 2-4 and include:

Urban Air Toxics Report to Congress

EPA is required under the Act to provide two reports to Congress on actions taken to reduce the risks to public health posed by the release of toxic air pollutants from area sources. The Act also requires that the reports identify specific metropolitan areas that continue to experience high risks to public health as a result of emissions from area sources. We completed the first of these two reports in September 2000. The report provides specific information about the Integrated Urban Air Toxics Strategy, including further details on the methodologies we used to develop the final urban air toxics list and the list of source categories. The report also provides an overview of previous studies conducted in various cities to characterize their respective urban air toxics problems and contains a detailed discussion of the research needed to achieve the goals of the Strategy. The second report is due in 2004. We also expect to report to the public about air toxics emissions trends and air quality in urban and other areas in our annual Air Quality and Emissions Trends Reports in the future.

Air/Water Interface Program Outreach (including Great Waters)

The Act directs EPA to periodically report its findings related to the results of any monitoring, studies and investigations conducted under this program. We have already submitted a *First* and *Second Report to Congress* and completed the *Third Great Waters Report to Congress* in June 2000. We are also working on additional outreach tools for the public such as an further enhancements to Great Waters websites. We are also developing a handbook to assist water resource managers in understanding how to characterize air deposition problems.

Stakeholder Meetings on State, Local and Tribal Program Structure

In January 2000, EPA created the Integrated Air Toxics State/Local/Tribal Program Structure Workgroup, which met from February through August 2000. The workgroup consisted of a diverse group of stakeholders representing many sectors. We created the workgroup to obtain advice on how to structure a program encompassing Federal, State, local, and Tribal authorities to collectively address air toxics risk. This workgroup was created under the Clean Air Act Advisory Committee, which EPA chartered in 1990 through the Federal Advisory Committee Act. To address the charge we provided, the workgroup developed a report that contains a structure for a program to address air toxics risk. Using the workgroup's recommended structure as a starting point, we plan to develop a program for an integrated air toxics State/Local/Tribal program structure to move the national risk-based program forward. Section 3.0 of this document contains our workplan for developing this program.

Website Activities

We will continue to develop and maintain websites with information on the urban air toxics program, the National Air Toxics Assessment and other air toxics programs. This includes coordination with State, local, and Tribal agencies on the presentation of results for the National-Scale Air Toxics Assessment.

Table 2-4. Component Four Program Elements

Element/ Sub-elements	Activities	Estimated Dates
Reports to Congress		
Issue Urban Air Toxics Report to Congress (section 112(k))	Publish First Urban Air Toxics Report to Congress	Completed September 2000
	Publish Second Urban Air Toxics Report to Congress	November 2004
Great Waters Program Outreach		
Third Report to Congress	Complete third Great Waters report covering six required elements	Completed June 2000
Public information website	Update and improve EPA's Great Waters website	2002
Handbook for water quality managers	Complete development of handbook	Fall 2001
State/Local/Tribal Program Structure Stakeholder Workgroup Meetings		
Public FACA meeting to discuss State/Local/Tribal program structure	Held public meetings February - August 2000	Completed
Conduct series of meetings to discuss development of State/Local/Tribal program structure	Meetings with EPA regional offices and stakeholders	Initiate early 2002
National Air Toxics Assessments (NATA) Outreach Activities		
NATA results	1996 National Toxics Inventory	Completed
	Results of air quality modeling	Completed
	Draft results of exposure modeling on State/Local preview website	Completed
	Draft results of risk characterization on State/Local preview website	Completed
	Final results of assessment for State/local preview	Fall 2001
	Final results of assessment on public NATA website	Fall 2001

3.0 INTEGRATED STATE/LOCAL/TRIBAL PROGRAM STRUCTURE

3.1 Introduction

EPA convened a workgroup under the Federal Advisory Committee Act to make recommendations for the structure of an integrated air toxics risk program

On July19, 1999, EPA issued a *Federal Register* notice which outlines the National Air Toxics Program and describes in detail the Integrated Urban Air Toxics Strategy (64 FR 38705). In the notice, we promised to convene stakeholder meetings early in fiscal year 2000 to address how to structure a risk-based air toxics program integrated between EPA and State, local, and Tribal agencies. In January 2000, we created the Integrated Air Toxics State/Local/Tribal Program Structure Workgroup. This workgroup was created to obtain advice on how to structure a program encompassing Federal, State, local, and Tribal authorities to collectively address air toxics risk. The workgroup was specifically charged with making recommendations regarding the details of program administration and coordination. The workgroup was created under the Clean Air Act Advisory Committee, which EPA chartered in 1990 through the Federal Advisory Committee Act.

To address the charge we provided, in September 2000 the workgroup developed a report, the Recommended Framework for State/Local/Tribal Air Toxics Risk Reduction Program, that recommends a structure for a program to address air toxics risk and includes a list of issues they feel should be addressed in developing the program. A copy of the workgroup's report is available at http://www.epa.gov/ttn/atw/urban/urbandev.html.

Major issues EPA will address during program development

Using the workgroup's recommended structure and list of issues as a starting point, we plan to develop a program for an air toxics State/Local/Tribal program structure to move the national risk-based program forward. We believe the report's recommendations are helpful and informative. From our viewpoint, some of the major issues that will need to be addressed as we develop a program include:

- What is the nature and extent of the air toxics problem that the national program needs to address and how should we define success at addressing it?
- How should we address the issues of flexibility and variability in the setting of S/L/T goals in different areas across the nation?
- What are the best mechanisms for putting in place programs to reduce air toxics risk, including the implementation options described in the

workgroup report?

- In the risk-based phase of the national air toxics program, what will be the respective roles and responsibilities of EPA and S/L/T agencies?
- What program elements should be part of risk-based programs across the nation?
- What are the appropriate timeframes for reducing air toxics risks across the nation?
- How can a common currency be achieved for air toxics information reported to EPA to ensure the measurability of progress toward meeting the national goals, while minimizing disruption to S/L/T programs?

To develop this program, we plan to develop guidance and rulemaking and to provide opportunities for public comment and stakeholder involvement. As the Agency develops the national risk-based air toxics program, we will continue to consult and seek input from affected stakeholders through different forums. We also intend to supplement this workplan in the next 18-24 months with a document that includes additional details on how we propose to address the issues discussed in this workplan.

3.2 Areas to be Addressed in EPA Program Development

Components of the workgroup recommended structure that EPA plans to address

As we develop a program for an air toxics State/Local/Tribal program structure, we also plan to address the components of the structure the workgroup recommends in its report related to the development of S/L/T programs to address air toxics risk, including:

- Four levels of goals:
  - < National
  - < Area-wide
  - < Near source, including consideration from surrounding sources[2]
  - < Community/neighborhood
- Four-step process for addressing air toxics risk:
  - < Assessment
  - < Program development
  - < Program implementation
  - < Audit/backstop
- Description of minimum program elements and options
- Timeframe for development and completion of the program
- Implementation mechanism options to put air toxic risk-based programs in-place:
  - < S/L/T plan
  - < S/L/T-EPA partnership
  - < Delegation approach
  - < Default: EPA Implements Plan
- Critical issues related to the suggested program structure that were identified in the workgroup's report
- Other issues identified in Appendix G of the workgroup's report

The following sections roughly follow these components from the workgroup's report, but do not necessarily reflect our priority in addressing these areas. In each section, we briefly describe what information can be found in the workgroup's report on the topic and provide information on our plans to address that issue area. The presentation of each issue area that appeared in the workgroup's report includes tables that appear here exactly as they appear in the report or consists of information taken directly from the report.

[2] Commenters on the draft workplan were concerned that S/L/T agencies may need more time to develop tools to do more complex analysis to address cumulative risk. Note: the phrase "including consideration of risk contribution from surrounding sources" does not mean that a S/L/T agency must wait until it has such tools to address "unacceptable risk" from a single source. On the other hand, a S/L/T agency should not make a finding that a source has "acceptable risk" without considering the risk contribution from surrounding sources. Therefore, if a S/L/T agency is unable to quantify the cumulative risks initially when examining an individual source, it should caveat its findings by explaining that it will later quantify the cumulative risk, and at that time may require additional control on the individual source if the total risks are then judged to be unacceptable. In other words, the "risk contribution form surrounding sources" should at least be considered qualitatively, if not quantitatively, when examining the risks from an individual source.

3.2.1 Four Levels of Goals

To achieve the objective of protecting human health from exposure to toxic air pollutants, the workgroup identified four categories of goals based on geographical extent (national, area-wide, near-source and community/neighborhood). Table 3-1 from the workgroup report displays each goal category, describes the specific goals developed for each category, and defines the scope of those goals. For specific goal definitions, refer to Chapter 3 of the workgroup's report, "Recommended Framework for State/Local/Tribal Air Toxics Risk Reduction Program."

The program will address local-level goals in addition to the national goals

To meet the goals outlined in section 112(k)[3] we have undertaken a number of national-scale activities to reduce risk from air toxics, but another important component to meeting those goals, and in addressing urban risk, is to address air toxics on a more local level. In fact, several State air agencies have also recognized the need to address air toxics at the local level and have developed their own programs before the section 112(k) goals were established in the Clean Air Act Amendments of 1990. Therefore, as part of the evolving framework, to develop a program for an integrated air toxics State/Local/Tribal program structure we will need to address local-level goals in addition to national goals. As explained on page 38712 of the Integrated Urban Strategy, the risk from air toxics exposure can be highly localized. Urban areas and other "hot spots" may face higher emissions of multiple HAPs, more ground level exposure because of area and mobile sources, and disproportionate impacts on minority and low income communities. In order to adequately address risk from air toxics on a local level nationwide, State, local, and Tribal agencies should be able to address issues that are of concern on a state-wide or area-wide basis, on the community or neighborhood basis, and for the areas in the immediate vicinities of sources of air toxic emissions.

The goals shown in Table 3-1 are the goals that we intend to use as a starting point in the development of a program for an integrated air toxics State/Local/Tribal program structure.

Table 3-1. Program Goals Summary from the Workgroup Report

Goal Category	Description	Scope
National (section 112(k) goals)	• Achieve 75% reduction in cancer incidence	• All 188 CAA air toxics • Stationary (major and area) sources in urban areas, nationwide • Can take credit for reductions under all laws • Consider cumulative risks from exposures to HAPs emissions from sources in the aggregate[1]
	• Achieve "substantial" reduction in noncancer risks	• All 188 CAA air toxics • Area sources in urban areas nationwide • Can take credit for reductions under all laws • Consider cumulative risks from exposures to HAPs emissions from sources in the aggregate
	• Address disproportionate impacts of air toxics hazards across urban areas, including low-income and people-of-color communities	• All 188 CAA air toxics • Stationary (area and major) and mobile sources in urban areas nationwide • Consider cumulative risks from exposures to HAPs emissions from sources in the aggregate
National (section 112(k) goals)	• Develop standards for issues of national concern to address air toxics emissions that S/L/T agencies can't adequately address	• Standards needed on following sources: mobile sources (e.g., automobiles, marine vessels, aircraft, locomotives), utilities/fuels, persistent bioaccumulative toxics, etc.
Area-wide	• Reduce potential cancer risk and non-cancer health impacts • Flexibility to express goals as reductions in HAPs emissions, ambient concentration reductions, or reductions in risk	• At a minimum, initial EPA list of 33 urban HAPs or functionally equivalent S/L/T list • Stationary (major and area) and mobile sources throughout the area defined by the S/L/T
Near-source	• Address cancer and non-cancer health impacts at stationary sources that are not yet adequately addressed by EPA or S/L/T programs	• Address risks of concern • Individual facilities in urban areas and rural hot spots
Community/ neighborhood	• Address remaining pockets of disproportionate risk after imposition of the other goals	• Address HAPs of concern • Cumulative health impacts from multiple stationary sources or mobile sources in both urban areas and rural hot spots

3.2.2 Four Step Process

Programmatic process developed by workgroup

The workgroup developed a process to achieve the goals consisting of the following four steps to be carried out for each set of goals:

- Assessment
- Program development
- Program implementation
- Audit/backstop process.

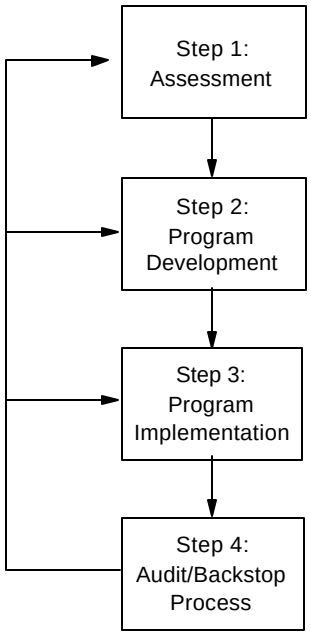

Figure 3-1. Four-Step Process

Generally the flow of the program would be to complete an assessment, develop a program, implement the program, evaluate the success of the program, and implement a backstop, if necessary, to make further progress. This is illustrated in Figure 3-1. The workgroup intended for this be an iterative process. For instance, the entire process may need to be repeated if sufficient progress toward the goals is not made. Also, by monitoring and assessing progress throughout the process, EPA and S/L/T agencies may find it necessary to revise portions of their program and to repeat implementation of certain steps.

EPA's plans for addressing this four-step process

The EPA plans to address the four steps and minimum elements together in the development of a program for an integrated air toxics State/Local/Tribal program structure. The issues EPA will address in program development are outlined below.

3.2.3 Minimum Program Elements and Options

Workgroup recommends requiring certain program elements

The workgroup's recommended framework includes certain activities that must be completed within each of the four steps described above. These activities are referred to as minimum program elements. The workgroup believes that there are several options available in carrying out each of these integral minimum program elements. This gives the implementing agency flexibility in developing a program for each goal in their area. Depending on the implementing agency's circumstances, different options may be more viable than others. The minimum program elements are discussed in greater detail below in connection with each of the four steps.

EPA's plans for addressing the recommended minimum elements

The EPA will address these four program steps and minimum elements in its program development. The EPA activities, either planned or underway, that address the minimum elements recommended by the workgroup for the national program are described below.

Step 1: Assessment

Workgroup's recommended minimum national assessment activities under Step 1

The workgroup recommended in its framework that the following activities become minimum assessment elements of the national EPA program to address national air toxics risks:

- Compile a national toxics emissions inventory
- Establish or update health-based values
- Characterize risks from 188 HAPs of concern and the responsible sources through the National Air Toxics Assessment (NATA) methodology
- Stakeholder process
- Develop a process for identifying communities disproportionately impacted by air toxics emissions

EPA's current activities encompassing workgroup's recommended national minimum assessment activities under Step 1

As described in the Integrated Urban Strategy (64 FR 38706), in the first part of this workplan and in Appendix D of the workgroup's report, EPA has been engaging in several NATA activities that serve the national and the S/L/T air toxics programs. These activities encompass several of the components the workgroup described as minimum national program assessment elements, including:

- Compiling a national-scale air toxics emission inventory (NTI)
- Estimating ambient air toxics concentrations
- National-scale air quality and exposure modeling
- Local-scale air quality and exposure modeling
- National-scale risk characterization
- Compiling air toxics monitoring data and making the data available to the public
- Conducting pilot studies in selected cities (Cleveland)
- Comparing air toxics inventories from 1990 and 1996 to determine progress toward meeting risk reduction goals
- Making residual risk determinations
- Developing the Air Toxics Monitoring Concept Paper
- Recommending tools to S/L/T agencies for the evaluation of air toxics concentrations, exposures, and risks.

There are some remaining challenges and issues EPA must address as part of the assessment step. For example, ongoing efforts often build upon activities already completed or underway. For example, the NTI is based mostly on emissions data collected by State and local air agencies. The EPA and State and local agencies continue to face the challenge of ensuring that State and local data inputs into the national inventory are of the highest quality possible since the content and quality of the national inventory depends on it. Other issues include:

- How will EPA address the remaining elements the workgroup suggested as minimum elements that are not current components of the National Air Toxics Program?
- How will the challenge posed by the lack of data be addressed?
- How should EPA communicate risk?
- How should the uncertainties of the risk determination be addressed?
- How should acceptable levels of risk be determined, given the uncertainties in the risk determination and the public perceptions of risk?

Workgroup's recommended minimum S/L/T assessment activities under Step 1

The workgroup also suggested minimum assessment step elements for S/L/T agencies to follow for each S/L/T goal category, as shown in Table 3-2.

Table 3-2. Recommended S/L/T Assessment Step Minimum Elements from the Workgroup's Report

	Area-wide goals	Near-source goals	Community/neighborhood goals
Recommended minimum elements	Stakeholder public participation process	Stakeholder public participation process	Stakeholder public participation process
	Develop process to identify communities disproportionately impacted by air toxics emissions	Identify communities disproportionately impacted by air toxics emissions	Identify communities disproportionately impacted by air toxics emissions
	Compile emission inventory, modeling, or monitory data or combination	Identify sources of concern	Assemble environmental justice stakeholder advisory committee
	Evaluate cancer risk and non-cancer health impacts from at least each HAP on EPA's list of 33 HAPs or an S/L/T functionally equivalent list	Establish or update health-based values	

Issues EPA will address regarding the recommended S/L/T minimum assessment elements

The EPA plans to address minimum elements for the assessment step as the Agency develops a program for an integrated air toxics State/Local/Tribal program structure to move the national risk-based program forward. In the process of addressing the elements, the following assessment issues will need to be addressed:

- Which of the assessment-related minimum elements identified by the workgroup should EPA establish?
- How prescriptive should the minimum assessment criteria be?
- Which program options need further explanation?
- Is it necessary for methods of creating emissions inventories across States to be the same?
- Are there any specific aspects of an emissions inventory to which consistency is more important?
- What elements drive S/L/T agencies to take different approaches?
- What roles should the EPA regional offices and the S/L/T agencies assume in the assessment process?

Step 2: Program Development

Workgroup's recommended minimum national program development activities under Step 2

The workgroup recommended in its framework that the following activities become minimum program development elements of the national EPA program to address national air toxics risks:

- Identify priority HAPs and sources
- Develop stakeholder process for setting priorities
- Develop options to reduce emissions
- Provide opportunity for public review and comments
- Develop options to measure progress

Suggested minimum program development activities EPA plans to conduct under Step 2

The EPA plans to conduct the activities described by the workgroup as minimum program development elements. These activities are described in further detail below and also appeared in the workgroup's report.

Identify priority HAPs and sources

For the national program, on July 19, 1999, EPA published a *Federal Register* notice describing the National Air Toxics Program and the Integrated Urban Air Toxics Strategy (64 FR 38706). Among other things, the Strategy includes a list of 33 priority HAPs judged to pose the greatest potential threat to public health in the largest number of urban areas, including 30 HAPs specifically identified as being emitted from smaller industrial sources known as "area" sources and a list of area source categories which emit a substantial portion of these HAPs, and which are being considered for regulation. In addition, in March 2001 EPA identified 21 air toxic compounds emitted from motor vehicles that are known or suspected to cause cancer or other serious health effects (66 FR 17230). Finally, EPA will use the information collected in the assessment phase to determine sources that contribute most to national risks and develop options to reduce emissions that include regulatory and non-regulatory approaches and incentives.

Develop stakeholder process for setting priorities

The EPA has utilized stakeholder processes in some cases to aid in setting program priorities and in developing programs. For example, this document is based on the framework a stakeholder workgroup spent 6 months discussing and preparing. The EPA will continue to concentrate on this type of communication.

Develop options to reduce emissions

Under the CAA, EPA is required and/or authorized to issue a wide array of national standards to reduce air toxics emissions. The EPA will work with S/L/T agencies to determine what reductions are needed from sources currently under Federal control.

Provide opportunities for public review and comments

In its program development activities EPA will provide opportunities for the public to review and comment on EPA's rulemakings and program policies.

Develop options to measure progress

The EPA will use the results from the national-scale assessments conducted under NATA as the primary mechanism to assess national progress towards meeting the section 112(k) CAA goals. The EPA is currently completing the assessment for 1996 and is beginning the process for performing the 1999 assessment, which is estimated to be completed in 2 to 3 years.

Workgroup's recommended minimum S/L/T program development activities

The workgroup also suggested minimum program development elements for S/L/T agencies to follow for each S/L/T goal category, as shown in Table 3-3.

Table 3.3 Recommended S/L/T Program Development Minimum Elements Derived from the Workgroup's Report

	Area-wide goals	**Near-source goals**	**Community/neighborhood goals**
Recommended Minimum Elements	Identify priority HAPs and source categories	Identify priority HAPs and sources of near-source risk	Not defined in workgroup report
	Develop stakeholder process for setting reduction priorities	Develop stakeholder process for setting reduction priorities	
	Develop options to reduce emissions	Develop options to reduce emissions	
	Provide opportunity for public review and comments	Provide opportunity for public review and comments	
	Develop options to measure progress	Develop options to measure progress	

Issues EPA will address regarding the recommended minimum S/L/T program development elements

In the process of addressing each step in the development of a program for an integrated air toxics State/Local/Tribal program structure, EPA will address the following program development issues:

- How will EPA create a common form of reporting among all the S/L/Ts to enable progress toward the national goals to be measured?
- How will EPA address flexibility in S/L/T program design?
- Which of the assessment-related minimum elements identified by the workgroup should EPA establish?
- Which program options need further explanation?
- Should EPA determine what the minimum program development elements should be for the community/neighborhood goals at this time?
  - < If so, what are they?
  - < If not, when will the community/neighborhood program component be addressed?
- What are the appropriate roles for the EPA Regional Offices and the S/L/T agencies in developing programs?

Step 3: Program Implementation

Workgroup's recommended minimum national program implementation activities under Step 3

The workgroup recommended in its framework that the following activities become minimum program implementation elements of the national EPA program to address national air toxics risks:

- Follow a schedule that meets goal deadlines
- Follow the established stakeholder/public participation process
- Obtain adequate resources and authority to conduct the program
- Measure progress toward goals
- Develop a process to amend plan

Suggested minimum program implementation activities EPA plans to conduct under Step 3

We plan to conduct the activities described by the workgroup as minimum program implementation elements. These activities are described in further detail below and also appeared in the workgroup's report.

Schedule that meets goal deadlines

We will follow the schedule we have established for when to complete certain activities to carry out the national air toxics program. Some of the dates are specifically mandated by the CAA, while other dates are our estimates of when activities will occur.

Public participation process

During program implementation, S/L/T agencies are more likely to interact directly with the public on questions and issues than EPA. During this phase, we will continue to provide the public with program information and assessment results so that the public can monitor program progress toward meeting the national goals.

Measure progress

We will use the results from the national assessments conducted under NATA as the primary mechanism to assess national progress towards meeting the CAA goals. We are currently completing the assessment for 1996 and are beginning the process for performing the 1999 assessment, which is estimated to be completed in 2 to 3 years.

Develop process for amending plan

As EPA and the S/L/T agencies implement their programs, develop improved tools to measure progress, and achieve results, the original program plan will most likely need refining. Therefore, as part of the program implementation step, we need to develop a process for amending the national air toxics

strategy. The process will include public stakeholder input.

Workgroup's recommended minimum S/L/T program implementation activities

The workgroup also suggested minimum program implementation elements for S/L/T agencies to follow for each S/L/T goal category, as shown in Table 3-4.

Table 3-4. Recommended S/L/T Program Implementation Minimum Elements Derived from the Workgroup's Report

	Area-wide goals	Near-source goals	Community/ neighborhood goals
Recommended minimum elements	Follow the schedule for activities to meet goals	Follow the schedule for activities to meet goals	Not defined by workgroup
	Follow public participation process	Follow public participation process	
	Obtain adequate resources and authority to implement plan	Obtain adequate resources and authority to implement plan	
	Measure progress	Measure progress	
	Develop process to amend plan	Develop process to amend plan	

Issues EPA will address regarding the recommended minimum S/L/T program implementation elements

In the process of developing a program for S/L/T agencies to carry out each step of the program, we will address the following program implementation issues:

- Which of the assessment-related minimum elements identified by the workgroup should we establish?
- Which program options need further explanation?
- Should we determine what the minimum program implementation elements should be for the community/neighborhood goals at this time?
  - < If so, what are they?
  - < If not, when will the community/neighborhood program component be addressed?
- What are the appropriate roles for the EPA Regional Offices and the S/L/T agencies?

Step 4: Audit/Backstop

Workgroup's recommended minimum national program audit/backstop activities under Step 4

The workgroup recommended in its framework that the following activities become minimum audit/backstop elements of the national EPA program to address national air toxics risks:

- Follow a periodic audit process
- Implement a backstop, if necessary
- Include public participation in the process.

Suggested minimum program implementation activities EPA plans to conduct under Step 4

We plan to use the NATA assessment activities to measure progress toward the goals of the national air toxics program, as well as the goals of the Integrated Urban Air Toxics Strategy. These activities include:

- Compiling a national emissions inventory that will be updated every 3 years
- Comparing these inventories to measure progress toward goals in a manner that considers relative toxicity
- Estimating modeled ambient air toxics concentrations of 188 HAPs[5] across the continental U.S.
- Estimating modeled population exposures to 188 HAPs[5] across the continental U.S.
- Characterizing potential public health risks from exposure to these 188 HAPs

These processes will serve as the audit toward progress for step 4 of the program, and they will involve public participation procedures. We will continue to evaluate the need for additional (backstop) actions to address air toxics risks.

Workgroup's recommended minimum S/L/T program implementation activities

The workgroup also suggested minimum audit/backstop elements for S/L/T agencies to follow for each S/L/T goal category, as shown in Table 3-5.

Table 3-5. Recommended S/L/T Program Implementation Minimum Elements Derived from the Workgroup's Report

	Area-wide goals	Near-source goals	Community/ neighborhood goals
Recommended minimum elements	Follow a periodic audit process	Follow a periodic audit process	Not defined by workgroup
	Implement a backstop, if necessary	Implement a backstop, if necessary	
	Include public participation in the process	Include public participation in the process	

Issues EPA will address regarding the recommended minimum S/L/T program audit/backstop elements

In the development of a program for an integrated air toxics State/Local/Tribal program structure for S/L/T agencies for each step of the program, we will address the following audit/backstop issues:

- Which of the assessment-related minimum elements identified by the workgroup should EPA establish?
- Which program options need further explanation?
- Should EPA determine what the minimum audit/backstop elements should be for the community/neighborhood goals at this time?
  - < If so, what are they?
  - < If not, when will the community/neighborhood program component be addressed?
- Should each S/L/T use the same baseline for measurement?
- How will the S/L/T activities be tracked?
- Is there a uniform bright line for goal attainment?
- Who will carry out the periodic audits?
- How should the backstop be designed?
- Should there be a consequence if an S/L/T is not carrying out their program?
- What should be done if an S/L/T is not making adequate progress?
- Should the backstop differ for S/L/T inactivity vs. not enough progress toward goals?
- Which of the following possible backstop options should be used if an S/L/T is not making progress toward goals or is not completing its program tasks?
  - < Issue national standards
  - < Issue residual risk standards
  - < Issue clean fleet standards or guidance
  - < Issue pollution prevention standards or guidance

- Institute nationally consistent measures, but allow S/L/T flexibility in implementation.

3.2.4 Implementation Options to be Addressed in EPA Program Development

Four program implementation options recommended by workgroup

In addition to four levels of goals and the four steps, the workgroup also recommended four implementation options that address different approaches S/L/T agencies could use to carry out this program. The workgroup developed the implementation options to understand how S/L/T agencies might implement their respective programs under the current air toxics program structure and EPA's role in the process. The workgroup identified the following four implementation options in its report:

S/L/T Plan. This implementation option is designed primarily for agencies that have (or soon will have) established air toxics programs. The EPA Regional Offices may certify that the existing S/L/T program meets the minimum elements and that the program is likely to meet the prescribed goals. Alternatively, the S/L/T may also perform a self-certification using specific guidelines or a process similar to that established through section 112(g) of the CAA.

S/L/T-EPA Partnership. The S/L/T may choose to design programs to meet its area-wide, near-source, and community/neighborhood goals in partnership with EPA. The S/L/T would develop a program that conformed with each of the minimum elements and agreed to the timeframe. Implementation of that program would be shared between the S/L/T and the EPA. In order to formalize the partnership, the agencies would enter into a memorandum of agreement (MOA) with EPA Regional Offices to complete the program. Another possibility would be to use Performance Partnership Agreements with clearly defined goals and benchmarks.

Delegation Approach. The S/L/T may be precluded from being more stringent than the Federal program. Therefore, in this case, through the Regional Offices and in conjunction with headquarters for national rules as necessary, EPA would develop a generic Federal program for the area-wide, near-source and community/neighborhood goals. The S/L/T would adopt the programs/standards and seek delegation, just as the MACT program is delegated to States.

Default: EPA Implements Plan. If an S/L/T chooses not to accept delegation, EPA would implement the Federal program in that area. Again, the Regional EPA Offices would have the initial, primary responsibility of taking the lead to implement the air toxics program in specific areas.

The workgroup showed interest in using the delegation procedures of 40 CFR 63, subpart E to enable the program to be implemented through one of the options discussed above. The following explanation of the possible usefulness of subpart E to this program appeared in Appendix I of the workgroup's report:

Delegation and functional equivalency issues

Under section 112(l) of the CAA, EPA is authorized to approve alternative State, local, territorial agencies, and Indian tribes (S/L/T) hazardous air pollutant standards or programs when such requirements are demonstrated to be no less stringent than EPA's section 112 rules. Subpart E (40 CFR 63) implements section 112(l) of the CAA and contains procedures for delegating hazardous air pollutant standards and other requirements to S/L/T agencies. In August 2000, the Administrator signed a rule containing changes to subpart E to help S/L/T agencies preserve the integrity of existing S/L/T hazardous air pollutant programs by offering a range of options for demonstrating equivalence with the Federal requirements and expediting the approval process. In addition, the amendments will clarify what S/L/T agencies must or can do to obtain delegated authority under subpart E.

Subpart E will exist as a tool for S/L/T to use in submitting their programs under the Federal urban air toxics program to take delegation and achieve Federal equivalency. However, there may be flexibility to enhance or replace the delegation opportunities for rules, requirements, or programs designed to implement the urban air toxics strategy developed under Step 2 that go beyond subpart E. The issue of how to define and measure functional equivalency is a key element of workgroup discussions under program development.

Program implementation issues EPA plans to address

To develop a program for an integrated air toxics State/Local/Tribal program structure to address implementation options, we must explore two areas. One area to explore is to determine the appropriate legal/regulatory mechanism for establishing each implementation option. For example, we will need to explore section 112(l) of the Act (40 CFR 63, subpart E) to determine whether the regulation provides a mechanism to allow S/L/T agencies to individually select the implementation option each prefers. To make this determination, we will need to analyze the amended section 112(l) language to determine which option for acceptance of delegation could be used for each implementation option (see September 14, 2000; 65 FR 55810).

The second area we plan to explore is the appropriate planning roles and responsibilities of EPA and State, local, and Tribal agencies under each implementation option. The workgroup raised several questions related to implementation that we need to address, including:

- Will the EPA Regional Offices make decisions on the adequacy of S/L/T programs?
- What are the EPA Regional Offices' and EPA headquarter's roles and responsibilities under each type of implementation option?
- Is it important for EPA to ensure national consistency?
- If national consistency is important, how will consistency be defined and measured?
- What ability will S/L/T agencies have to change from one implementation option to another?

Uncertainties about each implementation option EPA will address

While the workgroup outlined the general characteristics of each implementation option, each option has specific remaining uncertainties that we must address before they can be employed. Outlined below are the remaining questions we plan to investigate in the development of a program for an integrated air toxics State/Local/Tribal program structure.

S/L/T Plan. We will address the following issues related to the S/L/T Plan option:

- Who will certify whether S/L/T plans are adequate?
  - < If the S/L/T performs a self-certification, what is the role of the EPA Regional Office?
  - < What is the appropriate EPA oversight role that avoids burdensome SIP procedures but helps ensure public trust in S/L/T programs?
  - < Would the section 112(g) certification model work in this situation?
- When should EPA intervene in an S/L/T's program implementation?
- How can participating S/L/T agencies take advantage of EPA's planned approach to regulating some area sources with a flexible generally available control technology (GACT) process?

S/L/T-EPA Partnership. We will explore which mechanisms are available and appropriate for implementing S/L/T-EPA Partnership programs. One option that will be examined is partial approval under the 40 CFR 63, subpart E rule substitution option.

Delegation Approach. We will explore which mechanisms are available and appropriate for implementing S/L/T-EPA Partnership programs. One option that will be examined is the straight delegation option under 40 CFR 63, subpart E.

Default: EPA Implements Plan. We will need to address under what circumstances and how we would develop a plan.

Tribal Implementation Issues. The Tribes face unique circumstances compared to State and local agencies in implementing their programs. We will need to address these Tribal issues in the following area:

- How can Tribes develop risk-based air toxic programs given the current lack of program infrastructure and expertise?

3.2.5 Timeframes for the Program

Table 3-6, which appeared in the workgroup's report, is shown below. This table outlines the timeframes the workgroup suggested for the implementation/completion of each activity. Slight changes have been made to the workgroup report to reflect past accomplishments.

Table 3-6. Timeframe for Implementation of Program Activities from Workgroup Report

Timeframe	Activity
1999	• EPA issues Tier 2 rule for stringent new emissions standards and gasoline sulfur controls to reduce NO_x, HC, and PM emissions from light-duty vehicles and light-duty trucks
2000	• EPA promulgates remaining combustion standards • EPA completes the 1996 national assessment • EPA initiates the 1999 national assessment • EPA makes regulatory determination for air toxics emissions (including mercury) from electric utilities
2001	• EPA reaffirms 1997 heavy duty diesel standards • EPA finalizes diesel fuel sulfur control and post-2004 heavy duty standards • EPA finalizes section 202(l) rule to designate motor vehicle air toxics and establish toxics emissions performance standard for gasoline • EPA completes the 1996 national assessment • EPA issues workplan for how to structure the national, risk-based air toxics program
2002	• EPA develops 10-year air toxics standards • S/L/T selects program implementation option
2002 - 2003	• EPA develops guidance/rulemaking to carry out the national, risk-based air toxics program • EPA to issue Tier 3 rule for nonroad diesel engine and fuel control
2002 - 2004	• EPA develops any necessary residual risk standards (for 2- and 4-year technology standards)
2003	• For the national, area-wide, and near-source goals, complete Step 1, Assessment

Table 3-6. Timeframe for Implementation of Program Activities from Workgroup Report

Timeframe	Activity
2003	• S/L/T begins risk-based program or continues to implement existing program • For the area-wide risk goals, S/L/T agencies assess the area-wide potential cancer risks and non-cancer health impacts throughout the State or region from, at a minimum, each HAP on EPA's list of 33 HAPs or on S/L/T functionally equivalent list
2003 - 2005	• For the community/neighborhood goals, complete Step 1, Assessment
2003 - 2006	• For the national, area-wide, and near-source goals, complete Step 2, Program Development
2003 - 2008	• For the community/neighborhood goals, complete Step 2, Program Development
2004	• For the area-wide risk goals, S/L/T agencies should develop a plan and risk reduction goal for reducing risks for locations identified on phase one • EPA develops regulation for utilities • EPA issues mobile source toxics rule under section 202(l)
2005 - 2010	• For the national, area-wide, and near-source goals, complete Step 3, Program Implementation
2005 - 2012	• For the community/neighborhood goals, complete Step 3, Program Implementation
2006	• For the near-source risk goals, S/L/T agencies should develop a program to identify, prioritize, and reduce near-source impacts from stationary sources
2009	• EPA promulgates last group of area source standards
2010	• EPA evaluates progress towards meeting national goals • For the near-source risk goals, using EPA-approved health-based guidelines or S/L/T functionally equivalent health-based guidelines, S/L/T agencies should achieve significant reductions in cancer risk and non-cancer health impacts near major and area sources of HAP emissions in urban and rural areas • S/L/T agencies meet area-wide goals • For the national, area-wide, and near-source goals, each S/L/T shall audit and prepare a report on its air toxics program. There shall be a comment period on the draft report with appropriate public hearings/meetings throughout the S/L/T area
2010 - 2012	• For the national, area-wide, and near-source goals, complete Step 4, Audit/Backstop
2012 - 2020	• For the community/neighborhood goals, complete Step 4, Audit/Backstop
2012	• For the area-wide risk goals, S/L/T agencies reassess area-wide risks and non-cancer health impacts throughout the State or region as identified in phase one
2020 +	• EPA and S/L/T agencies repeat the audit process in 2020 and every 10 years thereafter

Timeframe issues EPA plans to address

While this table will serve as a basis to work from, we will address the following issues in the development of the final timeframes to be used in developing an integrated air toxics State/Local/Tribal program structure:

- What timeline table updates/revisions are needed?
- Is the 2003 date too ambitious for S/L/T agencies to complete assessments and refined inventories for point/area/mobile sources?
- Is the 2003 date realistic for all S/L/T agencies to start assessments that do not already have an organized structure for this activity?
- What will happen to the timeframe if an S/L/T wishes to change to another implementation option?
- How much time should an S/L/T have for program selection after EPA completes program development and issues guidance/rulemaking?
- Should the timeframes be more stringent for issues presenting higher risk?

3.2.6 Critical Issues

Issues critical to program success

The workgroup identified several issues which they believed to be critical to the success of the overall program and its implementation. These following issues will also be addressed and integrated, as appropriate, into the final program. The following section lists each issue, followed by the workgroup's thoughts/concerns about the issue, and EPA's response to the workgroup for each issue.

Minimum elements issue:

An important issue concerns EPA's authority to require S/L/T agencies to develop plans to reduce air toxics risk with certain minimum elements and to conduct oversight.

Workgroup's concerns about minimum program elements

Before the recommended framework can be implemented nationally, particularly in S/L/T areas that lack authority, EPA must establish or identify appropriate authorities. Some workgroup members believe that EPA must determine what CAA authorities exist beyond sections 112(k) and 112(f) to require S/L/T agencies to use this framework to address local risk. Other members suggest, instead, that this framework could by adopted by S/L/T agencies as a comprehensive program (under the authority in CAA section 112(l)) that meets the mandates of section 112(k) and 112(f) while allowing them to customize goals and strategies to meet local air toxics concerns. In addition, many workgroup members believe incentives should be devised to encourage S/L/T agencies to implement a program regardless of the existence of CAA authority to require the program.

The EPA's response to the workgroup on the minimum program elements

We will address the authority issue as we develop a program for an integrated air toxics State/Local/Tribal program structure to move the national risk-based program forward. We will also address how to involve stakeholders as we approach the authority issue.

Funding Issue:

Adequate funding must be provided to ensure implementation of this program.

Workgroup's concerns about funding

While many tools are already available for S/L/T agencies to develop this program, additional support is essential. Key areas include the following:

- Funding is needed for the S/L/T governments to develop and implement an air toxics risk reduction program.
- The EPA must have adequate resources to ensure it can carry out its obligations under the program to support the S/L/T agencies, including completing national rulemakings and developing tools critical to support S/L/T efforts.
- Resources are also needed to encourage and support local community involvement, education, and training.
- Resources are essential to providing meaningful incentives for S/L/T agencies, industry, and other stakeholders to participate in the process and to leverage additional resources.

The EPA's response to the workgroup on funding

We will explore many existing funding sources such as CAA Section 105 funds, CAA Title V fees, Performance Partnership Agreements, partnerships with industry, market-based program fees, and fee-based inventory reporting, as well as addressing this as part of the Agency's strategic and budget planning activities.

National Standards Issue:

The EPA must carry out its obligations under the program to develop standards for issues of national concern.

Workgroup's concerns about additional national standards

While EPA currently has a plan to address mobile source HAP emissions and other issues of national concern, the workgroup feels these actions alone will not fully address national air toxics risk. Therefore, the workgroup believes that it is critical to the success of the program recommended in this report that EPA initiate national standards and programs in several key areas:

- Accelerate upgrade of diesel engines (require retrofits of older engines, accelerate removal of older vehicles from fleet)
- On-road and off-road mobile source (gasoline and diesel) standards
- Gasoline, diesel, and aviation fuel specification
- Standards for commercial marine vessels
- Aircraft, airport emissions, and locomotive standards
- Standards for utilities
- Standards in areas which are preempted from S/L regulation (e.g., new portable equipment and new equipment used for farm and construction activities that is rated 175 horsepower or lower)
- Development of Federal Action Plans for chemicals that are persistent bioaccumulative toxics (PBTs)
- Standards for other areas of national significance
- Guidance for S/L/T agencies to carry out this program

The EPA's response to the workgroup on additional national standards

As discussed in Sections 2.1 and 2.2 of this document, EPA already has programs and plans to initiate national standards to address several of the concerns listed above. An abbreviated list of the national air toxics program activities is shown below, while a more complete list is provided in the first part of this workplan. Information on our activities is also available on EPA's Unified Air Toxics Website at http://www.epa.gov/ttn/atw/eparules.html.

- Development of standards, including:
  - < Technology-based
  - < Combustion standards
  - < Residual risk
  - < Area source
  - < Mobile source
  - < Standards for seven specific pollutants listed in the Act
  - < Mercury emission standards for coal-fired electric utility power plants
- Multimedia projects and risk initiatives, including:
  - < Integrated urban air toxics strategy
  - < Urban community-based pilot projects
  - < Great waters program
  - < Mercury initiatives
  - < PBT initiatives

Also, as described in the Integrated Urban Strategy (p. 38723), we plan to develop general requirements that would be applicable to area sources in several source categories. These general requirements could outline procedures for determining what constitutes "generally available control technology." By following these procedures, S/L/T agencies could develop GACT for the area

sources under approved programs.

We plan to examine and address any remaining issues of national concern during the national program development phase of this program.

Diesel Issue: ***Emissions from diesel-fueled engines and vehicles must be addressed under this program.***

Workgroup's concerns about diesel emissions

Because of significant health issues associated with diesel emissions, the workgroup's framework included diesel emissions as an issue that should be addressed through the air toxics strategy. While EPA has already planned some activities to reduce diesel emissions, due to the significant health issues associated with diesel emissions, the workgroup felt that additional measures should be taken to fully address this issue.

The EPA's response to the workgroup on diesel emissions

As summarized in the first part of this workplan, we are addressing emissions from diesel engines through the following standards:

- On-road heavy-duty diesel engines and highway diesel fuel:
- In January 2001, we published a final rule to establish a comprehensive national control program that will regulate the heavy-duty vehicle and its fuel as a single system. As part of this program, new emission standards will begin to take effect in model year 2007 and will apply to heavy-duty highway engines and vehicles. Because these devices are damaged by sulfur, this rule will also reduce the level of sulfur in highway diesel fuel by 97 percent by mid-2006.
- Investigation into standards for nonroad diesel engines and diesel fuel sulfur control.

Functional Equivalency Issue: ***The flexible program must allow S/L/T agencies that have well-developed air toxics programs to continue without interference or interruption through a functional equivalency process.***

Workgroup's concerns about functional equivalency

The workgroup's framework suggested this process would be an up-front approval through a simple verification process that an existing S/L/T program may continue with current activities to reduce public health risks as a result of exposure to air toxics. It is a concern of the workgroup that existing S/L/T air toxics programs not be hindered by a difficult or lengthy federal program equivalency approval process.

The EPA's response to the workgroup on functional equivalency

In the development of a program for an integrated air toxics State/Local/Tribal program structure, the regulatory/legal issues must be explored and evaluated to determine how this approach could be achieved through the mechanisms of subpart E or another delegation program.

Use of Incentives Issue:

Incentives are an important program element regardless of the authority issue.

Workgroup's concerns about use of incentives for participation in this program

The workgroup felt incentives are needed for S/L/T participation and also for industry, who would play a large role in the success of an incentive-based program.

The EPA's response to the workgroup on the use of incentives for participation in this program

We will be challenged with developing these incentives, which will be addressed in the development of a program for an integrated air toxics State/Local/Tribal program structure. The following issues will be addressed:

- What incentive do S/L/T agencies want?
- What incentives will effectively encourage S/L/T participation?
- How can EPA and the S/L/T agencies develop and use incentive-based programs such as the diesel retrofit program?
- Can we use information on health indicators, public health, and non-cancer health risks to provide incentives to make progress and communicate with stakeholders?
- Are the following possible incentives viable?
  - < If the S/L/T doesn't perform the program, the EPA will do it.
  - < Funding for the minimum elements.

Stakeholder Involvement Issue:

Stakeholder involvement is critical to the success of the program the workgroup has developed.

Workgroup's concerns about stakeholder participation

The EPA and S/L/T agencies should create a viable process for stakeholder involvement to ensure stakeholders are engaged early in the program as active partners, so that different technical perspectives, public values, perceptions, and ethics are considered. Creating incentives for stakeholders to become involved at the beginning of the program and through its conclusion may be needed to ensure sufficient participation in the process.

The EPA's response to the workgroup on stakeholder participation

As noted above, we will address how stakeholders should be involved as a minimum program element.

Environmental Justice Issue:

Environmental justice (EJ) issues are central to operation of this program.

Workgroup's concerns about integrating environmental justice concerns into this program

The workgroup felt that EJ concerns needed to be integrated within its program framework, since decisions about where sources are sited, based on science and economics, may inadvertently result in a discriminatory effect. Therefore, in developing their urban air toxic programs, S/L/T agencies need to include consideration of historical patterns of racial and economic segregation in their decision-making. The workgroup suggests that EPA and S/L/T agencies develop a process to identify these communities at disproportionate risk early in the program. In addition, community-based research is an important tool that can be used by S/L/T agencies to help improve their understanding of the risks impacting the health and welfare of the EJ communities. Community outreach, including the establishment of advisory committees, is also important to implementation of a framework that addresses EJ concerns.

The EPA's response to the workgroup on integrating environmental justice concerns into this program

In developing a structure for integrating Federal and State/Local/Tribal air toxics programs, we will need to address several issues concerning environmental justice, such as:

- How will communities at disproportionate risk be defined?
- Should there be a minimum requirement that all communities are treated equally in relation to exposure and risk levels and involvement in the decision-making process?
- How will a proactive approach be employed to assess the conditions of the communities?
- How would the shift to education that the workgroup suggested be accomplished?
- Where would the resources come from to support community involvement?
- Should the establishment of an EJ advisory committee be a minimum element?
- What will be the role of the EPA Environmental Justice Office?
- How will a balance between mobile source emission reductions and point source reductions be achieved?

Tribal Areas Issue: ***There are special concerns specific to Tribes that need to be considered for the implementation of this program in Tribal areas.***

Workgroup's concerns about Tribes implementing this program

The workgroup felt the special needs of Tribes should be considered during the development of this program. Currently, none of the Tribes have a developed air toxics program and virtually all lack the infrastructure to build one and to perform this program. Also, in contrast to many States and local agencies, the Tribal air toxics concerns are generally rural in nature, and would be based on hot-spots or near-source concerns rather than concerns of urban areas.

The EPA's response to the workgroup on Tribes implementing this program

In development of a program for an integrated air toxics State/Local/Tribal program structure, for this issue we will focus on how risk-based Tribal air toxics programs should be developed, given the current lack of infrastructure and expertise, and the different environmental concerns of Tribal areas. In addition, we will address:

- How to communicate with Tribes since most lack internet access
- Will public participation process ensure adequate consultation with tribal governments?
- How will different exposure factors for tribal communities be considered?
- Should EPA develop generally applicable rules for Indian country, to remain in force for each Tribe until the Tribe adopts its own program?

Crisis Intervention Issue: ***A concept important to this program is that EPA should be able to intervene in situations where an immediate threat to public health is apparent.***

Workgroup's concerns about crisis intervention

The EPA should be able to intervene in situations where an immediate threat to public health is apparent. These "crisis" situations would include instances where there is evidence that public health is severely compromised due to exposure to air toxics.

The EPA's response to the workgroup on crisis intervention

We will need to explore how to address this issue. We will need to address how, in the event of these occurrences, the authority EPA or S/L/T may have to take action to immediately reduce or eliminate the threat.

Local Agency Cooperation Issue:	***The definition of "local" agency and ensuring effective intergovernmental relationships are important to the overall program.***
Workgroup's concerns about how local agency cooperation	In the workgroup's framework, "local" agency refers to the agency responsible for administering industrial operating permits, rather than the local government. However, it is important that these local agencies work together because often each only has partial control of any air toxics risk situations created by industrial air toxics emissions.
The EPA's response to the workgroup on the "local" agency definition	An integrated air toxics State/Local/Tribal program structure will need to address the need for coordination between the different local agencies within a State.
Urban Planning Issue:	***Proper and inclusive land use and urban planning can serve as primary prevention tools for many environmental concerns and EJ issues.***
Workgroup's concerns about urban planning	The workgroup felt urban planning could be used as a tool for this program, or could be integrated as a component of this program. Many private and public organizations are involved with the issues of urban sprawl, greenfield development, brownfield redevelopment, and the development of clean alternatives for mass transportation.
The EPA's response to the workgroup on urban planning	We plan to continue with the sustainable development activities of our Office of Transportation and Air Quality (OTAQ). These activities can by found at the OTAQ's Transportation Air Quality Center website at http://www.epa.gov/otaq/traq.

3.2.7 Other Issues to be Addressed in EPA Program Development

Other issues addressed earlier in this report that the workgroup identified as important but did not have time to discuss fully	The workgroup felt some issues were important to the program framework they developed, but they did not have time to address these issues fully. These issues were listed in Appendix G of the workgroup's report. The issues that have been discussed earlier in this document include: • Program roles and responsibilities for EPA Regional Offices • How urban sprawl and brownfield development should be addressed if acceptable levels of air toxics risk vary • How the program backstop discussed in Step 4 of the workgroup report should be designed

- The need for a common format for reporting air toxics information to EPA to enable measurement of national goals.

Other important issues that have not been addressed earlier in this report

In addition to the issues listed above, which have been addressed earlier in this document, other issues the workgroup identified as important but did not have time to fully discuss have not yet been addressed in this document. These remaining issues are listed below, along with EPA's plans to examine and address these issues.

Definition of Unacceptable Risk Issue:

Should an unacceptable level of air toxics risk that includes uncertainty be defined? If so, how?

The EPA's plans to examine the unacceptable risk level issue

We will be examining this issue in two areas. First, under the Residual Risk Program, we are developing a risk management framework which will serve as a tool for determining, on a case-by-case basis, whether a residual risk standard is warranted for a particular source category. Specifically, the framework identifies decision points in the residual risk analytical process, the major inputs into these decisions, the type of information required to support each decision and guidance for decision-making under uncertainty. Each residual risk determination, taking into account risk levels, populations exposed, uncertainty, variability and other factors under the risk management framework, will result in a decision about what risk is acceptable and what risk is unacceptable for particular air toxics source categories.

Second, EPA is required to develop national air toxics program goals under GPRA. The fiscal year 2001 GPRA goal focuses on emissions; however, in fiscal year 2002 we plan to shift to a risk-based national, GPRA goal. Evaluating progress toward that goal will involve making determinations with respect to national levels of risk. To make that determination, we may need to develop a methodology for determining what is an acceptable level of risk on a national scale, taking into account different factors, including uncertainty and variability.

Disparities in Risk Issue:

How should disparities in public health protection across communities (especially low income and people of color communities) be addressed if acceptable levels of air toxics risk vary?

The EPA's plans to examine the disparity in risk levels issue

As we indicated in the July 1999 Federal Register notice for the Integrated Urban Toxics Strategy, we have adopted as a goal for urban areas nationwide the need to address the disproportionate impacts of air toxics hazards across urban areas. As part of this goal, we plan to address disparities in risks from air toxics in the urban environment that may exist between different cities, between neighborhoods or demographic groups within a city, or within a similarly-exposed population that includes sensitive groups. In our assessments, we intend to pay particular attention to areas, populations, and sensitive groups with substantially higher-than-average risks. While differences in risk between different urban areas may be discernible from national screening-level modeling, more refined modeling will generally be needed to evaluate localized disparities within any one urban area. This is because highly localized disparities may be obscured by the simplifying assumptions that are necessarily inherent in national screening-level assessments. For this reason, the ability of EPA or State and local authorities to assess localized risk disparities will depend on the availability of detailed data on emissions and population distribution, local-scale models, and sufficient resources.

We are currently supporting local urban assessments through the development of tools and information in two areas. First, we are sponsoring a pilot study assessment in Cleveland, OH. The principle goal of the project is to demonstrate a successful community-based approach in which local stakeholders, with our support, can work collaboratively to identify and implement air toxics reduction actions. In addition, the project will be designed to include some risk-related characterization of air toxics relevant to the study area. In addition, we are exploring the possibility of sponsoring a workshop in 2001 to provide a forum for exchange of information concerning local assessment.

Second, the risk management framework that we are in the process of developing that is described immediately above will take into account the variability in risks prevalent in areas analyzed in connection with residual risk analyses. This will provide another tool that should help address the issue of disproportionate air toxics impact in urban areas.

Ecosystem Risk Issue:

How should ecosystem risk be addressed in S/L/T risk-based air toxics programs?

The EPA's plans to examine the ecosystem risk issue

We have developed a screening method for assessing ecosystem effects. We plan to also develop more refined methods for ecosystem effects, as resources become available.

Insufficient Data Issue:	***What should EPA or S/L/T agencies do if emissions or dose-response data is inadequate or unavailable?***
The EPA's plans to examine the insufficient data issue	Concerning emissions data, we intend to continue to work with S/L/Ts as we collectively strive to improve the quality of the information that serves as the basis for the NTI. Together we need to identify areas where the NTI is weak and try to work together to improve it. Concerning dose-response data, if such information is weak or lacking in certain areas, those areas need to be identified and incorporated into our research strategy. The research strategy is currently slated for adoption in 2001 and will be updated periodically thereafter.