



United States General Accounting Office  
Washington, DC 20548

Resources, Community, and  
Economic Development Division

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June 30, 2000

The Honorable Fred Thompson  
Chairman  
The Honorable Joseph I. Lieberman  
Ranking Minority Member  
Committee on Governmental Affairs  
United States Senate

Subject: Observations on the Environmental Protection Agency's Fiscal Year 1999 Performance Report and Fiscal Year 2001 Performance Plan

As you requested, we have reviewed the 24 Chief Financial Officers (CFO) Act agencies' fiscal year 1999 performance reports and fiscal year 2001 performance plans required by the Government Performance and Results Act of 1993 (GPRA). In essence, under GPRA annual performance plans are to establish performance goals and measures covering a given fiscal year and provide the direct linkage between an agency's longer-term goals and day-to-day activities. Annual performance reports are to subsequently report on the degree to which those performance goals were met. This letter contains two enclosures responding to your request concerning key program outcomes and major management challenges at the Environmental Protection Agency (EPA). Enclosure I to this letter provides our observations on EPA's fiscal year 1999 actual and fiscal year 2001 planned performance for the key outcomes that you identified as important mission areas for the agency. These key outcomes are (1) the air in every community is safe and healthy to breathe, (2) water is safe for drinking and recreation, (3) hazardous waste ("Superfund") sites are cleaned up, and (4) food supplies are free from unsafe pesticide residues. Enclosure II lists the major management challenges facing the agency that we and EPA's Inspector General identified, how their fiscal year 1999 performance report discussed the progress the agency made in resolving these challenges, and the applicable goals and measures in the fiscal year 2001 performance plan.

## Results in Brief

EPA's performance report shows that the agency largely met its annual performance goals and made progress towards achieving its long-term strategic objectives.

EPA reported making significant progress toward achieving its key outcome of safe and healthy air. For example, the agency reported making substantial reductions in air toxic emissions; bringing additional areas into attainment of air quality standards for carbon dioxide, sulfur dioxide and lead; and being on track to achieve 4 million tons of sulfur dioxide emissions from utility sources and 300,000 tons of nitrogen oxide reductions from coal-fired utility sources. However, EPA recognizes that, while it has achieved cost-effective pollution reduction, the most difficult increments in pollution reduction lie ahead. EPA plans to work toward the remaining obstacles by minimizing the burden on the regulated community, while maximizing pollution prevention across all titles of the Clean Air Act, ensuring that research addresses areas most likely to pose risks to public health and the environment, and working with Tribal governments to develop their capacity for implementing the Clean Air Act. We generally concur with EPA's assessment of its progress and challenges. We also note in particular that EPA has recognized the importance of working toward obtaining credible data to measure its progress and guide future activities under its clean air goal. As we have reported several times in recent years, the need for such data to establish a direct cause-and-effect relationship between a program's activities and the resulting changes in the environment is one of the most difficult and chronic problems facing the agency.

Concerning its key outcome of making sure that water is safe for drinking and recreation, EPA's long-term objective is to (1) ensure that 95 percent of people served by community water systems will receive water that meets EPA's 1994 health-based drinking water standards and (2) reduce the consumption of contaminated fish and shellfish and exposure to microbials and other forms of contamination in waters used for recreation. EPA's fiscal year 1999 performance report indicates progress in meeting its drinking water safety goals, and its fiscal 2001 performance plan shows continued emphasis on working with states and communities to increase the number of people benefiting from safe drinking and recreational water. However, EPA acknowledges that data quality problems make it difficult to measure performance and the actual public health impacts of its activities. The agency is implementing strategies to improve the quality of data, including state-specific training for data entry into its Drinking Water Information System. In addition to improving the quality of its water data, EPA needs to continue its outreach to states, communities, and the public to achieve the agency's goals.

EPA reports significant progress in cleaning up hazardous waste sites and protecting public health and the environment. For example, EPA reports that the pace of completing construction has been greatly accelerated, and more than 90 percent of the sites on the National Priorities List—the nation's most pressing hazardous waste sites—are either undergoing cleanup construction or are completed. EPA also has made progress in ensuring that all sites ready for construction under the Superfund program are ranked on the basis of health and environmental risks and other project considerations, such as cost-effectiveness. However, states have a major influence in selecting Superfund sites. In selecting new sites to include in the Superfund program, EPA must rely on the states to concur in the eligible sites for the program. Consequently, in the future, sites coming into the program will not necessarily be the

most risky, but rather large, complex, and costly sites or those without responsible parties willing or able to pay for the cleanup. Therefore, additional actions are needed to ensure that sites that pose the greatest risks to human health and the environment are addressed.

EPA has also taken actions to control the costs of the Superfund program. EPA reports that in fiscal year 1999 the Superfund enforcement program obtained commitments from parties responsible for the contamination at Superfund sites of over \$780 million to conduct future response work and to reimburse the agency for its past costs. EPA also has established a goal to ensure that polluters pay for the cleanups and, responding to our recommendations, has established a new methodology to implement an indirect cost recovery rate. In the past, EPA has used an understated conservative rate for charging its indirect costs to polluters. According to EPA, adopting the new rate could significantly increase the indirect costs charged to responsible parties. EPA has also taken action to award more performance-based contracts, which will help to control cleanup costs. These contracts are, however, only a partial solution to cost control, and EPA needs to do more to expand its monitoring of costs under the Superfund program and identify areas of potential cost savings.

EPA's key outcome to ensure that food is safe from pesticide residues stems from its responsibility to evaluate the safety of all new and existing pesticides and restrict pesticide use to those applications that do not pose unacceptable human health or ecological risks. EPA's performance goals for fiscal year 1999 were output-oriented and were associated with various aspects of assessing and registering pesticides to ensure their safety. While EPA was not fully successful in achieving its 1999 performance goals related to re-assessing tolerances (the legal levels of pesticide residue on foods), the agency asserts that if it maintains the level of progress it has achieved to date, it should be able to complete its pesticide assessments within the 10-year deadline mandated by the Food Quality and Protection Act of 1996. Starting in fiscal year 2000, EPA established an outcome goal to link its efforts under this key outcome to their health and safety impacts. EPA's goal is to reduce the percentage of use of pesticides that cause cancer or have neurotoxic effects. While EPA is striving to make its food safety goals and measures more outcome-oriented, gaps in data make it difficult for the agency to establish a direct cause and effect relationship between its assessment and registration activities and public health impacts.

We and EPA's Office of the Inspector General have identified a total of 11 major management challenges facing EPA. EPA's fiscal year 2001 performance plan identifies specific goals and measures to address three of these challenges. For example, to address the Inspector General's concern that the agency uses inefficient types of contracts, EPA has a performance goal and corresponding measure for fiscal year 2001 to increase the percentage of new contracts utilizing performance-based statements of work. While EPA's fiscal year 2001 performance plan did not provide specific goals and measures for the remaining eight management challenges, it did provide strategies to address these challenges. For example, we have identified as a major challenge EPA's relationship with states, which has been characterized by

fundamental disagreements over roles, priorities, and the extent of federal oversight. In its “Special Analysis Section” of its fiscal year 2001 performance plan, EPA points out that it is considering a number of actions to enhance its National Environmental Performance Partnership System with the states, including improving processes for setting priorities and clarifying federal and state roles and responsibilities.

## **Objectives, Scope, and Methodology**

Our objectives concerning selected key agency outcomes were to (1) identify and assess the quality of the performance goals and measures directly related to a key outcome, (2) assess the agency’s actual performance in fiscal year 1999 for each outcome, and (3) assess the agency’s planned performance for fiscal year 2001 for each outcome. Our objectives concerning major management challenges were to (1) assess how well the agency’s fiscal year 1999 performance report discussed the progress it had made in resolving the major management challenges that we and the agency’s Inspector General had previously identified and (2) identify whether the agency’s fiscal year 2001 performance plan had goals and measures applicable to the major management challenges. As agreed, in order to meet the Committee’s tight reporting timeframes, our observations were generally based on the requirements of GPRA, guidance to agencies from the Office of Management and Budget (OMB) for developing performance plans and reports (OMB Circular A-11, Part 2), previous reports and evaluations by us and others, our knowledge of EPA’s operations and programs, and our observations on EPA’s other GPRA-related efforts. We did not independently verify the information contained in the performance report or plan. We conducted our review from April through May 2000 in accordance with generally accepted government auditing standards.

## **Agency Comments and Our Evaluation**

We provided a draft of this report to EPA for its review and comment. EPA stated that the report reflected a balanced and accurate assessment of the discussion in EPA’s performance report of the four mission outcome areas that were the focus of the review. However, EPA raised broad concerns about the focus of our review, particularly regarding what the agency perceived as a disparity between congressional expectations and OMB’s Circular A-11, Part 2 guidance for annual performance reports.

EPA noted that OMB Circular A-11 states that “the annual plan is the principal document for describing how an agency intends to verify and validate the performance data it collects and reports. An agency may selectively include comments on the quality of the actual performance data included in the annual report, where such comments would help in understanding the accuracy or validity of the data.” In our review of EPA’s Fiscal 1999 Performance Plan, we found that the agency had not sufficiently described its data verification and validation procedures

and data limitations.<sup>1</sup> Therefore, we believe that, as allowed by OMB guidance, EPA should have discussed more extensively the limitations of its data and how the agency ensured that the data in its performance report were credible.

EPA agreed that there was an explicit requirement to include discussions of major management challenges in the performance plans, but stated that OMB's guidance does not require discussion of them in the performance report. The management challenges are serious problems adversely affecting EPA's performance. Therefore, we believe that, whenever possible, EPA should establish performance goals for dealing with its management challenges and report on its progress in resolving them.

Concerning program evaluations, the agency stated that OMB requires a summary of the findings and recommendations of such evaluations completed during the fiscal year. EPA commented that it had included information on program evaluations conducted under all 10 strategic goals and objectives. However, according to EPA, our review had focused on a limited subset of the agency's work for which it had not necessarily conducted relevant program evaluations. Because our work covered key agency outcomes, we believe that the importance of these programs warranted program evaluations.

EPA also provided technical clarifications, which we incorporated into the report, as appropriate.

As arranged with your offices, unless you publicly announce its contents earlier, we will make no further distribution of this report until 30 days after the date of this report. At that time, we will send copies of this report to the Honorable Carol Browner, EPA Administrator, and to other interested parties. We will also make copies available to others on request. If you or your staff have any questions, please call me at (202) 512-6111. Key contributors to this report were David Wood, Edward Kratzer, Ralph Running, James McDowell, William Roach, Rosemary Torres-Lerma, Bernice Dawson, and Michael Ibay.

A handwritten signature in black ink, appearing to read 'Peter F. Guerrero', written over a horizontal line.

Peter F. Guerrero  
Director, Environmental  
Protection Issues

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<sup>1</sup>Results Act: EPA's Annual Performance Plan for Fiscal Year 1999 (GAO/RCED-98-166R, April 28, 1998).

**Observations on the Environmental Protection Agency's Fiscal Year 1999 Actual Performance and Fiscal Year 2001 Planned Performance Related to Key Outcomes**

This enclosure contains our observations on the Environmental Protection Agency's (EPA) fiscal year 1999 actual performance and fiscal year 2001 planned performance related to the following selected key outcomes: 1) the air in every community is safe and healthy to breathe; 2) water is safe for drinking and recreation; 3) hazardous waste (Superfund) sites are cleaned up; and, 4) food supplies are free from unsafe pesticide residues. As requested, we have identified the goals and measures directly related to a selected key outcome. Our observations are organized according to each selected key outcome and follow the goals and measures.

**Key Agency Outcome: The Air in Every Community is Safe and Healthy to Breathe**

**Fiscal Year 1999 Performance Goals and Measures for the Key Agency of Safe and Healthy Air to Breathe in Every Community**

Goal: Eight additional non-attainment areas (areas that do not meet national air quality standards) will have the 1-hour ozone standard revoked because they meet the old standard. Annual Performance Goal (APG) 1<sup>2</sup> **(Goal met)**

Measure: Publish notice revoking the 1-hour ozone standard for eight areas designated as non-attainment.

Goal: Deploy particulate matter (PM) 2.5 ambient monitors, including mass, continuous, speciation, and visibility resulting in 1,500 monitoring sites. (APG 2) **(Goal not met)**

Measure: States deploy 1,500 monitoring sites.

Goal: Identify and evaluate at least two plausible biological mechanisms by which PM causes death and disease in humans. (APG 3) **(Goal met)**

Measures:

- Issue a report describing research designed to test a hypothesis about mechanisms of PM-induced toxicity.
- Issue a report characterizing factors affecting PM dosimetry in humans.

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<sup>2</sup>This matrix identifies each APG by its number in EPA's fiscal year 1999 performance report. Where pertinent, the new and revised APGs for fiscal years 2000 and 2001 show parenthetically the fiscal year 1999 APG numbers to which they are related.

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- Issue a report identifying PM characteristics/composition.

Goal: Reduce air toxic emissions by 12 percent in fiscal year 1999, resulting in cumulative reduction of 25 percent from 1993 levels. (APG 4) **(Goal met, subject to confirmation of data.)**

### Measures:

- Compile national toxics inventory for 1999.
- States will collect emission inventory and ambient data from monitoring sites.

Goal: Complete health assessments for five air toxics indicated as high priority by EPA. (APG 5) **(Goal not met)**

Measure: Complete five toxicological reviews and assessments of high priority to the air program.

Goal: Certify that 14 non-attainment areas have achieved the National Ambient Air Quality Standards for carbon monoxide, sulfur dioxide, or lead. (APG 6) **(Goal not met)**

Measure: Fourteen areas will be redesignated to attainment.

Goal: Maintain 4 million tons of sulfur dioxide emissions reduction from utility sources, and maintain 300,000 tons of nitrogen oxides reduction from coal-fired utility sources. (APG 7) **(Goal met, subject to confirmation of data.)**

### Measures:

- Sulfur dioxide emissions will be reduced by 4 million tons.
- Nitrogen oxide emissions will be reduced by 300,000 tons.

### GAO's Observations on EPA's Fiscal Year 1999 Actual Performance for the Key Agency Outcome of Safe and Healthy Air to Breathe in Every Community

EPA's goals and measures for this key agency outcome are objective, measurable, and quantifiable. Four of the seven goals are outcome-oriented. The other three are output-oriented.

According to EPA, it exceeded the first goal by revoking the 1-hour ozone standard for two additional areas, bringing the total to 10 instead of 8 (APG 1). It met another goal by identifying and evaluating two mechanisms by which particulate matter causes death and disease in humans. (APG 3)

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EPA states that estimates indicate a 14-percent reduction in air toxics in fiscal year 1999 and considers itself to be on track in meeting its goal. However, EPA does not yet have final data to confirm that it has met its goal to reduce air toxic emissions by 12 percent in fiscal year 1999. (APG 4) EPA said that it calculates the percentage reductions using the National Air Toxics Inventory that it updates every 3 years. According to EPA, the 1999 National Toxics Inventory will not be published until 2002. Nor does it have the final data to confirm reductions of 4 million tons of sulfur dioxide and 300,000 tons of nitrogen oxides in fiscal year 1999. (APG 7). EPA explained that emissions data for sulfur dioxide and nitrogen oxide are not available until 12 months after the end of the calendar year and, therefore, data on sulfur dioxide and nitrogen oxide reductions for 1999 will not be available until December 2000.

EPA does not provide sufficient discussion of how key performance data were verified or validated to show progress in achieving its goals. However, as noted earlier, for two of its goals, EPA explains why data needed to measure performance are not currently available.

The agency described three program evaluations related to its clean air activities.

### Unmet Fiscal Year 1999 Performance Goals and Measures for the Key Outcome of Safe and Healthy Air to Breathe in Every Community

The agency did not meet three goals:

- EPA deployed particulate matter ambient monitors at 1,110 sites, rather than 1,500 as stated in the goal. (APG 2)
- EPA completed health assessments for only four air toxics rather than five as stated in the goal. (APG 5)
- EPA certified that 13 instead of 14 non-attainment areas have achieved the National Ambient Air Quality Standards for carbon monoxide, sulfur dioxide, or lead. (APG 6)

### GAO's Observations on EPA's Unmet Fiscal Year 1999 Goals and Measures for the Key Agency Outcome of Safe and Healthy Air to Breathe in Every Community

EPA explains that it changed the number and types of ambient monitors deployed in fiscal year 1999 in response to a National Academy of Science recommendation. As we reported in August 1999 (GAO/RCED-99-215), EPA's initial plans did not include an appropriate mixture of monitoring sites to support the agency's health effects, exposure assessment, and atmospheric modeling research needs. Additionally, numerous operational problems were discovered only after over 800 monitors were deployed, resulting in lost and questionable data, unanticipated operation and



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maintenance expenses, and delays in the deployment of additional monitors. EPA still plans to deploy a total of 1,500 sites, but with a different mix of monitors.

EPA did not provide a detailed explanation for not meeting fully the last two goals listed above (APGs 5 and 6). It simply explains that any delay in meeting these goals will not adversely affect achievement of the agency's strategic objective.

The agency stated that it plans to complete the fifth health assessment in fiscal year 2000.

Concerning the certification of attainment areas, EPA told us that the certification of areas coming into attainment is primarily a "paper" exercise. According to the agency, areas will often have the required 3 years of clean air to be certified as attaining air quality standards, but will not have completed the paperwork to be redesignated as an attainment area. Therefore, EPA believed that stating that missing one redesignation will not impact the longer-term goal was an adequate explanation. Furthermore, EPA discussed its strategy to bring the remaining 74 non-attainment areas into attainment by 2005 through actions such as inspection and maintenance programs for automobiles.

### Fiscal Year 2000 Performance Goals and Measures for the Key Agency Outcome of Safe and Healthy Air to Breathe in Every Community

#### Dropped Performance Goals and Measures

Goal: Deploy PM 2.5 ambient monitors, including: mass, continuous, speciation, and visibility resulting in 1,500 monitoring sites. (APG 2)

Goal: Identify and evaluate at least two plausible biological mechanisms by which PM causes death and disease in humans. (APG 3)

#### Revised Performance Goals and Measures

Goal: Maintain healthy air quality for 33.4 million people living in 43 areas attaining the ozone standard. (APG 1)

##### Measures:

- 33.4 million people will live in areas attaining the ozone standard.
- Volatile organic compounds mobile source emissions will be reduced by 1.6 million tons.
- Nitrogen oxide mobile source emissions will be reduced by 1.1 million.

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**Goal:** Air toxics emissions nationwide from stationary and mobile sources will be reduced by 3 percent from 1999 (for a cumulative reduction of 30 percent from the 1993 level of 4.3 million tons). (APG 4)

**Measure:** Air toxics emissions from combined stationary and mobile sources will be reduced by 3 percent.

**Goal:** Provide methods to estimate human exposure and health effects from high-priority urban air toxics, and complete health assessments for the highest-priority hazardous air pollutants (including fuel/fuel additives). (APG 5)

**Measures:**

- By September 30, 2000, produce process and framework for incorporating Acute Reference Exposure values into the Integrated Risk Information System.
- Submit for agency consensus review five toxicological reviews and assessments (RfC, RfD, cancer unit risks) of high priority to the air program.

**Goal:** Maintain healthy air quality for 27.7 million people living in 46 areas attaining carbon dioxide, sulfur dioxide, nitrogen oxide, and lead standards, and increase by 1.1 million the number of people living in areas with healthy air quality that have attained the standard. (APG 6)

**Measures:**

- 28.8 million people will live in areas attaining the standards for carbon dioxide, sulfur dioxide, nitrogen oxide, and lead.
- 16 new areas will attain the standard.
- Carbon dioxide mobile source emissions will be reduced by 10.3 million tons.
- 13 million people will live in areas with demonstrated attainment for nitrogen oxide.

**Goal:** Reduce sulfur dioxide emissions from utility sources by 5 million tons from the 1980 baseline. (APG 7)

**Measure:** Sulfur dioxide emissions will be reduced by 5 million tons.

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Goal: Reduce nitrogen oxide emissions from coal-fired utilities by 2 million tons from levels before implementation of title IV of the Clean Air Act Amendments. (APG 7)

Measure: Nitrogen oxide emissions will be reduced by 2 million tons.

### New Performance Goals and Measures

Goal: Maintain healthy air quality for 1.3 million people living in seven areas attaining the particulate matter standards and increase by 60,000 the number of people living in areas with healthy air quality that have attained the standard.

Measures:

- 1.3 million people will live in areas attaining standards for particulate matter.
- Six new areas will attain the standard.
- PM-10 mobile source emissions will be reduced by 20,000 tons.
- PM-2.5 mobile source emissions will be reduced by 15,000 tons.

Goal: Provide new information on the atmospheric concentrations, human exposure, and health effects of particulate matter, including PM-2.5, and incorporate it and other peer reviewed research findings in the second External Review Draft of the PM Air Quality Criteria Document for National Ambient Air Quality Standards review.

Measures:

- Hold a Clean Air Scientific Advisory Council review of draft PM Air Quality Criteria Document by September 30, 2000.
- Complete longitudinal panel study data collection and preliminary report on exposure of susceptible subpopulations to total particulate matter and co-occurring gases of ambient origin and identify key exposure parameters.
- By September 30, 2000, use data generated from PM monitoring studies in Phoenix, Fresno, and Baltimore to reduce uncertainties on atmospheric PM concentrations in support of the draft PM Air Quality Criteria Document.
- Issue a report on the results from Baltimore study evaluating the cardiovascular and immunological responses of elderly individuals to particulate matter.

GAO Observations on EPA's Fiscal Year 2000 Planned Performance for the Key Agency Outcome of Safe and Healthy Air to Breathe in Every Community

In EPA's Fiscal Year 2000 Performance Plan, the agency dropped two of the seven annual performance goals contained in the fiscal year 1999 plan. However, as shown in the next section, the agency replaced these goals with a new one linked to reductions in particulate matter pollution.

The agency revised five of the fiscal year 1999 performance goals. EPA split one of the revised goals into two separate goals, making six goals carried over to the fiscal year 2000 plan. The agency revised its goals to increase the level of projected performance and in two cases made the goals more outcome-oriented by focusing on the numbers of people expected to benefit from safe and healthy air.

EPA's Fiscal Year 1999 Performance Report does not provide an assessment of the effect of its fiscal year 1999 performance on its new performance goals and measures for fiscal year 2000. According to EPA, the agency plans to discuss the revised goals and measures in the fiscal year 2000 performance plan and their relationship to the fiscal year 1999 goals and measures.

EPA described clear and adequate revisions to its means and strategies to achieve the fiscal year 2000 performance goals. For example, the agency discusses a variety of regulatory, standards setting, research, and assistance activities that are linked to achieving its goal to reduce air toxics.

Fiscal Year 2001 Performance Goals and Measures for the Key Agency Outcome of Safe and Healthy Air to Breathe in Every Community

Revised Performance Goals and Measures

**Goal:** Maintain healthy air quality for 33.4 million people living in 43 areas attaining the ozone standard; increase by 1.9 million the number of people living in areas with healthy air quality that have attained the standard; and certify that 5 new areas have attained the 1-hour standard of ozone. (APG 1)

**Measures:**

- 35.3 million people will live in areas attaining the ozone standard.
- Five new areas will attain the standard.
- Volatile organic compounds mobile source emissions will be reduced by 1.7 million tons

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- Nitrogen oxide mobile source emissions will be reduced by 1.2 million tons.

Goal: Maintain healthy air quality for 1.26 million people living in 13 areas attaining PM standards and increase by 60,000 the number of people living in areas with healthy air quality that have attained the standard.

### Measures:

- 1.32 million people will live in areas attaining standards for PM.
- Six new areas will attain the standard.
- PM-10 mobile source emissions will be reduced by 22,000 tons.
- PM-2.5 mobile source emissions will be reduced by 16,500 tons.

Goal: Air toxic emissions nationwide from stationary and mobile sources combined will be reduced by 5 percent from 2000 (for a cumulative reduction of 35 percent from the 1993 level of 4.3 million tons.) (APG 4)

Measure: Air toxic emissions from combined stationary and mobile sources will be reduced by 5 percent.

Goal: Maintain healthy air quality for 28.8 million people living in 62 areas attaining carbon dioxide, sulfur dioxide, nitrogen oxide, and lead standards, and increase by 16.4 million the number of people living in area with healthy air quality that have attained the standard. (APG 6)

### Measures:

- 45.2 million people will live in areas attaining the standards for carbon dioxide, sulfur dioxide, nitrogen oxide, and lead.
- 18 new areas will attain the standard.
- Carbon dioxide mobile source emissions will be reduced by 10.7 million tons.
- 13 million people will live in areas with demonstrated attainment for nitrogen oxide.

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**Goal:** Provide new information on the atmospheric concentrations, human exposure, health effects and mechanisms of toxicity of particulate matter, and facilitate PM National Ambient Air Quality Standards review through Air Quality Criteria Document development and consultation.

**Measures:**

- Complete particulate matter longitudinal study data collection and report exposure data. Produce a peer reviewed research plan for population-based exposures to causal agents.
- Report on health effects of concentrated ambient particulate matter in healthy animals and humans, in asthmatic and elderly humans, and in animal models of asthma and respiratory infection.
- Complete the final PM Air Quality Criteria Document.

### New Performance Goals and Measures

**Goal:** EPA will develop the infrastructure to implement the Clean Air Act Partnership Fund, which will demonstrate smart multi-pollutant approaches that reduce greenhouse gases, air toxics, soot, and smog.

**Measures:**

- Issue request for proposals by November 30, 2000.
- 100 percent of states, localities, and tribes will be informed of the program.
- 25 percent of the funds will be awarded.

### GAO Observations on EPA's Fiscal Year 2001 Planned Performance for the Key Agency Outcome of Safe and Healthy Air to Breathe in Every Community

EPA revised three of its performance goals carried over from fiscal year 1999 and one goal carried over from fiscal year 2000. EPA did not explain the reasons for the revisions. However, the revisions, for the most part, increase the level of performance. The goals provide a succinct and concrete statement of expected performance for subsequent comparison with actual performance.

In our previous reviews of EPA's performance plans for fiscal years 1999 and 2000, we identified as key weaknesses (1) the lack of sufficient details on crosscutting goals and activities and (2) limited confidence that the agency's performance information would be credible. In its fiscal year 2001 performance plan for safe and healthy air, EPA describes its coordination with a variety of other agencies, but falls short in providing specifics on crosscutting goals and measures. For example, EPA

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describes how it works closely with the Department of Transportation (DOT) in reducing mobile source emissions, but does not provide data on how DOT's performance goals complement or supplement EPA's goals. Concerning the credibility of its performance information, EPA has increased the transparency of its verification and validation of performance data for safe and healthy air. Importantly, the plan highlights the limitations of air quality data. For example, the agency points out the potential data limitations due to incomplete reporting, missing data, and inaccuracies due to imprecise measurement and recording. The agency also describes actions to improve its data collection system to reduce the possibility of errors.

**Key Agency Outcome: Water is safe for drinking and recreation**

Fiscal Year 1999 Performance Goals and Measures for the Key Agency Outcome of Safe Water for Drinking and Recreation

Goal: EPA will issue and begin implementing two protective drinking water standards for high-risk contaminants, including disease-causing microorganisms (Stage I Disinfection /Disinfection By Products and Interim Enhanced Surface Water Treatment Rules). (APG 8) **(Goal met)**

Measure: Two regulations will be promulgated that establish protective levels for high-risk contaminants.

Goal: 89 percent of the population served by community water systems will receive drinking water meeting all health-based standards in effect as of 1994. (APG 9) **(Goal met)**

Measure: 89 percent of the population will be served by community water systems that will receive drinking water for which there have been no violations during the year of any federally enforceable health-based standards.

Goal: 4,400 community water systems will be implementing programs to protect their source water (APG 10). **(Goal met)**

Measure: 4,400 community water systems will have ground or surface water protection programs in place.

Goal: EPA will develop critical dose-response data for its disinfectant by-products, water-borne pathogens, and arsenic to address key uncertainties in the risk assessment of municipal water supplies. (APG 11) **(Goal met)**

Measures:

- Data on first city study on microbial enteric disease.
- Complete hazard identification/screening studies on reproductive/developmental effects of selected disinfectant by-products.

GAO Observations on EPA's Fiscal Year 1999 Actual Performance for the Key Agency Outcome of Safe Water for Drinking and Recreation

EPA's goals and measures for this key agency outcome are objective, measurable, and quantifiable. For safe drinking water, two goals were outcome-oriented and two were output-oriented.



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Four of the 11 performance goals for water in EPA's fiscal year 1999 performance report were directly related to the key outcome that water is safe for drinking. In the performance report, the agency discussed its activities to provide the public information on beach safety and contaminated fish. However, EPA did not include specific recreational water safety goals in the report. Two of the safe drinking water goals were output-oriented and related to performing research and implementing drinking water standards. Another was an intermediate outcome goal showing progress in achieving safer drinking water based on the number of communities implementing efforts to protect their sources of water. The agency had an end outcome goal to increase the percentage of people drinking water from systems meeting health-based standards.

The agency says that it either met or exceeded its fiscal year 1999 annual performance goals for drinking water. However, in one case the agency has not clearly demonstrated the extent to which it has achieved its goal to get communities to implement water protection systems. According to EPA, 8,261 community water systems either have implemented water protection systems or have initial planning steps for implementing water protection programs. However, the report does not show the number of communities that actually implemented the source protection programs. By including planning activities in the total number, EPA did not demonstrate the extent to which it achieved real success.

Furthermore, EPA does not provide reasonable assurance that its performance information is credible. The agency's performance report does not describe data limitations, provide sources to support EPA's observations, nor ensure the validity or credibility of the data provided.

The agency did not provide information or descriptions of program evaluations for its activities to ensure water is safe for drinking and recreation.

### Unmet Fiscal Year 1999 Performance Goals and Measures for the Key Agency Outcome of Safe Water for Drinking and Recreation

None

### Fiscal Year 2000 Performance Goals and Measures for the Key Agency Outcome of Safe Water for Drinking and Recreation

#### Dropped Performance Goals and Measures

Goal: EPA will issue and begin implementing two protective drinking water standards for high-risk contaminants, including disease-causing microorganisms (Stage I Disinfection /Disinfection By Products and Interim Enhanced Surface Water Treatment Rules). (APG 8)

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### Revised Performance Goals and Measures

**Goal:** 91 percent of the population served by community drinking water systems will receive drinking water meeting all health-based standards that were in effect as of 1994, up from 83 percent in 1994. (APG 9)

**Measure:** 91 percent of the population served by community water systems that will receive drinking water for which there have been no violations during the year of any federally enforceable health-based standards.

**Goal:** States and community water systems will increase efforts and programs to protect their source water resources including ground water. (APG 10)

**Measures:**

- 7,000 community water systems will implement efforts to protect their source water resources, such as wellheads, sole source aquifers, and watersheds.
- 40 states will be implementing their EPA-approved source water protection programs.
- 28 million people will be served by community water systems that are implementing efforts to protect their source water resources, such as wellhead protection, sole source aquifer, and watershed protection.

**Goal:** Reduce uncertainties and improve methods associated with the evaluation and control of risks posed by exposure to disinfection by-products in drinking water. (APG 11)

**Measures:**

- Issue report assessing the feasibility of attaining/constructing refined disinfectant by-product exposure information for extant epidemiologic drinking water studies.
- Issue report on the identification of new disinfectant by-products in drinking water formed by alternative disinfectants.
- Complete a peer-reviewed report on the impacts of mixtures of selected disinfectant by-products on cancer and various noncancer endpoints, including reproduction and development effects, from animal studies.

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### New Performance Goals and Measures

Goal: Reduce consumption of contaminated fish and exposure to contaminated recreational waters by increasing the information available to the public and decision-makers.

Measures:

- 125 fish tissue samples will be collected.
- 500 high-use coastal beaches will have their data entered into the public right-to-know data base on beach monitoring and closures.
- 150 digitized maps will be entered into the public right-to-know data base on beach monitoring and closures.

Goal: Reduce uncertainties and improve methods associated with the evaluation and control of risks posed by exposure to microbial contaminants in drinking water.

Measures:

- Issue a report on waterborne disease outbreaks in the U.S.
- Complete an evaluation on Method 1622 for *Cryptosporidium* for the use in the Information Collection Rule.

### GAO Observations on EPA's Fiscal Year 2000 Planned Performance for the Key Agency Outcome of Safe Water for Drinking and Recreation

The plan does not assess the effect of fiscal year 1999 performance on estimated performance levels for fiscal year 2000.

The agency described clear and reasonable means and strategies to achieve the fiscal year 2000 performance goals. For example, in its plan EPA lays out its strategies for implementing the four major areas of the 1996 Safe Water Drinking Act Amendments to improve drinking water standards, establish new prevention approaches, provide consumers better information, and expand funding of state and community drinking water projects. Among other things, the agency says that it plans increased support for work to meet statutory deadlines on the development of safety standards and regulations for high-risk chemicals such as arsenic and radon.

EPA met its goal of issuing two protective drinking water standards in 1999 and, therefore, dropped this goal in fiscal year 2000.

EPA revised its goal that 89 percent of the population receive drinking water that had received no violations to 91 percent. EPA also revised its goal for states and

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community water systems to increase efforts and programs to protect their source water resources. The agency made the goal more outcome-oriented by including a performance measure showing the numbers of people benefiting from efforts to protect drinking water sources. However, EPA has not designated this as a goal for congressional reporting purposes in fiscal years 2000 and 2001. In addition, EPA revised its goal related to developing critical dose response data for disinfectant by-products as follow-on to work completed in fiscal year 1999.

### Fiscal Year 2001 Performance Goals and Measures for the Key Agency Outcome of Safe Water for Drinking and Recreation

#### Dropped Performance Goals and Measures

Goal: Reduce uncertainties and improve methods associated with the evaluation and control of risks posed by exposure to disinfection by-products in drinking water. (APG 11)

#### Revised Performance Goals and Measures

Goal: Reduce exposure to contaminated recreation waters by increasing the information available to the public and decision-makers.

Measure: Monitoring and closure data will be available for 2,200 beaches on EPA's website.

Goal: Maintain percent of population served by water systems that will receive drinking water meeting all health-based standards that were in effect as of 1994. (APG 9)

Measures:

- 96 percent of the population will be served by non-community, non-transient water drinking water systems for which there have been no violations during the year of any federally enforceable health-based standards that were in place by 1994.
- 91 percent of the population will be served by community drinking water systems with no violations during the year of any federally enforceable health-based standards that were in place by 1994.

Goal: States and community water systems increase efforts and programs to protect their source water resources including ground water. (APG 10)

Measures:

- 36 million people will be served by community water systems that are implementing efforts to protect their source water resources.

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- 6,500 community water systems will implement efforts to protect their source water resources.

### GAO Observations on EPA's Fiscal Year 2001 Planned Performance for the Key Agency Outcome of Safe Water for Drinking and Recreation

For fiscal year 2001, EPA dropped its goal associated with evaluating and controlling risks from exposure to disinfectant by-products in drinking water, but did not explain why.

The agency revised its goal carried over from fiscal year 2000 to reduce exposure to contaminated recreation waters by increasing the information available to the public and decision-makers. The agency dropped the reference to contaminated fish and changed its measure to make monitoring and closure data available for 2,200 beaches on EPA's website. The agency did not provide an explanation for the changes to the goal.

Although the agency does not explain why it revised two of its goals related to drinking water safety, the changes increased the level of performance. The plan generally provides succinct and concrete statements of expected performance for subsequent comparison with actual performance.

In our previous reviews of EPA's fiscal years 1999 and 2000 performance plans, we identified lack of sufficient details on crosscutting goals and activities, and limited confidence that the agency's performance information will be credible as key weaknesses. In its fiscal year 2001 performance plan for safe drinking and recreational water, EPA describes its coordination with a variety of other federal agencies, but falls short in providing specifics on crosscutting goals and measures. For example, the agency says that it has identified the need to engage in joint, collaborative field activities, research and testing, data exchange, and analysis with the U.S. Geological Survey (USGS). However, the agency does not provide data on how USGS performance goals complement or supplement EPA's goals.

Concerning the credibility of performance information, EPA has increased the transparency of its verification and validation of performance data for safe drinking and recreational water. Importantly, the plan highlights the limitations of water quality data. For example, the agency says that Safe Drinking Water Information System data quality has been problematic, and discrepancies between EPA and state water quality data exist. The agency discusses its strategies for improving water quality data including state-specific training for data entry into the Safe Drinking Water Information System.

**Key Agency Outcome: Hazardous waste (Superfund) sites are cleaned up**

Fiscal Year 1999 Performance Goals and Measures for the Key Agency Outcome of Cleaned Up Hazardous Waste (Superfund) Sites

Goal: EPA and its partners will maintain the pace of cleanups by completing construction at 85 additional Superfund sites (for a cumulative total of 670 construction completions with a target of 900 construction completions in 2002). (APG 28) **(Goal met)**

Measure: 85 construction completions.

Goal: Obtain potentially responsible party (PRP) commitments for 70 percent of the work conducted at new construction starts at non-federal facility sites on the national priority list (NPL) and emphasize fairness in the settlement process. (APG 29) **(Goal met)**

Measures:

- 38 section 106 civil action agreements,
- 36 orphan share settlement offers,
- 23 de minimis settlements, and
- 19 remedial administration orders.

Goal: Address cost recovery at all NPL and non-NPL sites with a statute of limitations on total past costs equal to or greater than \$200,000. (APG 30) **(Goal met)**

Measure: Cost recovery will be addressed at all NPL and non-NPL sites with statute of limitations on total past costs equal to or greater than \$200,000.

Goal: Demonstrate and verify the performance of 18 innovative technologies by 2001, emphasizing remediation and characterization of groundwater and soils. (APG 34) **(Goal met)**

Measures: Delivery of the annual Superfund Innovative Technology and Evaluation (SITE) Program report to the Congress.

GAO Observations on EPA's Actual Performance for the Key Agency Outcome of Cleaned Up Hazardous Waste (Superfund) Sites

The goals and measures for this key agency outcome are objective, measurable, and quantifiable.

EPA discussed four goals in its 1999 performance report that were directly related to the key outcome that hazardous waste (Superfund) sites are cleaned up. Three of the goals were output-oriented and one was an intermediate outcome. The goals related to maintaining the pace of site cleanups, recovering clean-up costs, and evaluating research on innovative clean-up technologies. The performance measures adequately indicated progress towards the performance goals. However, the report did not clarify that EPA was using the number of orphan share offers as a performance measure of fairness in the settlement process. This was clarified in the fiscal year 2001 performance plan.

According to the agency, EPA either met or exceeded its fiscal year 1999 annual performance for all four goals. For the most part, the agency clearly articulated the degree to which it achieved its performance goals. The exception was in the case of APG 29 where EPA does not specify if or the degree to which it met its performance measures for "section 106 civil action agreements" or "remedial administration orders." EPA subsequently told us that section 106 civil actions and remedial administrative orders were developed as secondary performance measures. EPA said that since they were not essential in demonstrating achievement of this goal, the agency chose not to include them in the performance report. The agency did not explain how it exceeded its goals for obtaining PRP commitments for work conducted at new construction starts at non-federal facility sites on the NPL. According to EPA, the agency obtained PRP for 80 percent of the work, instead of the target of 70 percent. EPA told us that the percentage of work conducted by PRPs depends on a number of factors such as the total number of sites available for remedial action. Therefore, according to the agency, variations above and below 70 percent will occur in the future, but the long-term average should be at or near the 70 percent goal. We believe that this explanation would have been useful information to include in the performance report.

Although EPA notes that it and other organizations "have recently conducted various evaluations relevant to the agency's waste management and clean-up programs", it does not specify which programs or whether PRP work commitments or settlements were included.

EPA does not provide reasonable assurance that its performance information is credible. The agency's performance report does not describe data limitations, provide sources to support EPA's observations, nor assure the validity or credibility of the data provided.

For the most part, the agency did not provide information or descriptions of performance evaluations for its programs to ensure hazardous waste sites are being

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cleaned up consistent with its performance goals. The one exception was a brief summary of the results from a recent SITE program evaluation that appears relevant to EPA demonstrating and verifying the performance of innovative clean-up technologies EPA is assessing. The report did not include a discussion of GAO and IG reviews of the validity and accuracy of cleanup status of hazardous waste sites. These reviews had found the construction clean up data were generally reliable and would have been useful information to provide the users of the report.

### Unmet Fiscal Year 1999 Performance Goals and Measures for the Key Agency Outcome of Cleaned Up Hazardous Waste (Superfund) Sites

None

### Fiscal Year 2000 Performance Goals and Measures for the Key Agency Outcome of Cleaned Up Hazardous Waste (Superfund) Sites

#### Dropped Performance Goals and Measures

None

#### Revised Performance Goals and Measures

Goal: Maximize all aspects of PRP participation, including 70 percent of the work conducted on new construction starts at non-federal facility sites on the NPL, and emphasize fairness in the settlement process. (APG 29)

Measures: 20 de minimis settlements, 100 administrative and judicial actions, and 30 orphan share settlements as a result of offers made at all eligible work settlement negotiations.

#### New Performance Goals and Measures

None

### GAO Observations on EPA's Fiscal Year 2000 Planned Performance for the Key Agency Outcome of Cleaned Up Hazardous Waste (Superfund) Sites

The plan does not assess the effect of fiscal year 1999 performance on estimated performance levels for fiscal year 2000.

The goal of obtaining PRP participation in 70 percent of the new construction starts at non-federal sites on the NPL did not change in fiscal year 2000. The measures for this goal, however, did change. The number of de minimis settlements was reduced from 23 in fiscal year 1999 to 20 in fiscal year 2000. Completing 38 section 106 civil action agreements and issuing 19 remedial administrative orders in fiscal year 1999 was changed to 100 administrative and judicial actions in fiscal year 2000. EPA did not provide an explanation for these changes.



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### Fiscal Year 2001 Performance Goals and Measures for the Key Agency Outcome of Cleaned Up Hazardous Waste (Superfund) Sites

#### Dropped Performance Goals and Measures

EPA dropped two performance measures for its goal to maximize PRP participation. (See discussion on goal revisions.)

#### Revised Performance Goals and Measures

**Goal:** EPA and its partners will complete 75 Superfund cleanups (construction completions) to achieve the overall goal of 900 construction completions by the end of 2002. (APG 28)

**Measure:** 75 construction completions

**Goal:** Maximize all aspects of PRP participation which includes maintaining PRP work at 70 percent of the new remedial construction starts at non-federal facility Superfund sites, and emphasize fairness in the settlement process. (APG 29)

**Measure:** PRPs conduct 70 percent of the work at new construction starts, ensure fairness by making orphan share offers at 100 percent of all eligible sites, and provide finality for small contributors by entering into 18 de minimis settlements.

**Goal:** Provide technical information to support scientifically defensible and cost-effective decisions for cleanup of complex sites, hard-to-treat wastes, mining, oil spills near shorelines, and brownfields to reduce risk to human health and the environment. (APG 34)

**Measure:** Deliver the annual Superfund innovative technology and evaluation program report to the Congress.

#### New Performance Goals and Measures

None

### GAO Observations on EPA's Planned Performance for the Key Agency Outcome of Cleaned Up Hazardous Waste (Superfund) Sites

For fiscal years 1999 and 2000 EPA planned to complete 85 Superfund cleanups in each of those fiscal years to allow it to maintain the pace of site cleanups. However, in the fiscal year 2001 plan, EPA reduced the number of cleanups to be completed to 75. The agency did not provide an explanation for these changes.

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The agency did not change its overall goal of maintaining PRP work at 70 percent of the new remedial construction starts at non-federal facility Superfund sites (APG 29), but the measures were revised. The agency has restated this goal as a performance measure in the 2001 plan. It also clarified the purpose of the orphan share offer measure by associating it specifically with fairness in the settlement process. Two other measures associated with this goal were either decreased or dropped without explanation. First, the number of de minimis settlements included in the performance plan was decreased without specific explanation; however, the narrative does state that maximizing PRP participation is heavily dependent on the progress of PRP negotiations, among other things. Second, the 2001 plan also dropped measures for administrative and judicial actions that had been included in the 1999 and 2000 plans.

The agency's 1999 and 2000 performance plans included a goal to demonstrate and verify the performance of 18 innovative technologies by 2001 (APG 34). The 2001 plan does not include any reference to this specific goal, but includes only the more general goal to provide technical information to support scientifically defensible and cost-effective decisions for cleanup of complex sites. The plan provided no explanation for the change. The measure associated with the goal included in the prior year plans, however, remains unchanged in the 2001 plan.

In our previous reviews of EPA's performance plans for fiscal years 1999 and 2000, we identified as key weaknesses (1) the lack of sufficient details on crosscutting goals and activities and (2) limited confidence that the agency's performance information would be credible. Our reviews of EPA's fiscal years 1999 and 2000 performance plans identified a lack of sufficient details on crosscutting goals and activities as a key weakness. EPA relies on the actions of a number of federal agencies to attain its goals. In some cases, other federal agencies provide essential services where EPA does not possess the needed specialized expertise. EPA must also coordinate with other federal agencies in the cleanup of Superfund sites at federal facilities. At these facilities, EPA must provide technical and regulatory oversight to ensure effective program implementation and protection of human health. In these cases, the plan does not discuss how the level of commitment provided by these agencies could affect EPA's objectives. Nor does EPA describe how its goals supplement or complement those of other agencies.

Concerning the credibility of its performance information, EPA sufficiently describes its data verification and validation procedures.

**Key Agency Outcome: Food supplies are free from unsafe pesticide residues**

Fiscal Year 1999 Performance Goals and Measures for the Key Agency Outcome of Food Supplies Free From Unsafe Pesticide Residues

Goal: Decrease adverse risk from agricultural pesticides from 1995 levels and ensure that new pesticides that enter the market are safe for humans and the environment through such actions as registering 15 safer pesticide chemicals and biopesticides, issuing 95 new tolerances [legal amounts of pesticide residue permissible on food], and approving 95 new pesticide uses. (APG 19)  
**(Goal met)**

Measures:

- Register 15 safer chemicals and biopesticides
- 9 new chemicals registrations
- 2,000 amendment actions
- 600 me-too actions
- 90 new use actions
- 45 inerts actions
- 370 special registrations
- 95 tolerance petitions

Goal: Under pesticide re-registration, EPA will reassess 19 percent of the existing 9,700 tolerances (cumulative 33 percent) for pesticide food uses to meet the new statutory standards of “reasonable certainty of no harm.” (APG 20)  
**(Goal not met)**

Measure: 1,850 tolerance reassessments

GAO Observations on EPA’s Fiscal Year 1999 Performance Goals and Measures for the Key Agency Outcome of Food Supplies Free From Unsafe Pesticide Residues

In general, the goals and measures in EPA’s fiscal year 1999 performance report are objective, measurable, and quantifiable. However, EPA does not define the 1995 baseline for measuring the decreased risk from pesticides. Nor does the agency address the verification and validation procedures for its performance data. However, it discusses data limitations. In the performance report, EPA stated that it lacks reliable data on baseline health risks posed by pesticides and on the risks reduced by agency actions. In addition, EPA stated that it lacks methods to measure directly or to estimate reliably these risks on a national or regional basis. EPA stated, therefore, that it used a variety of pesticides registration activities as indicators of progress.

Both goals were output-oriented. According to EPA, the agency exceeded all its performance measures for decreasing risks from agricultural pesticides (APG 19).

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EPA provided explanations for exceeding its performance goals related to the registration and assessment of pesticides. For example, the agency explained that it exceeded its goal for issuing new tolerances by 246 in large part because it changed the way it counts tolerance activities.

In the performance report section on program evaluations, EPA discussed its Risk Assessment/Risk Management Pilot for organophosphate pesticides that are highly toxic and in wide spread use. The purpose of the pilot is to increase stakeholder and public participation and coordination with the Department of Agriculture in evaluating pesticide risk assessment policies, procedures, and processes. As such, it is not a program evaluation in the strict sense of the term, but a way to enhance program evaluation.

### Unmet Fiscal Year 1999 Performance Goals and Measures for the Key Agency Outcome of Food Supplies Free From Unsafe Pesticide Residues

Under pesticide re-registration, EPA reassessed only 15 percent of the existing 9,700 tolerances, short of its goal of 19 percent. (APG 20)

### GAO Observations on EPA's Unmet Fiscal Year 1999 Performance Goals and Measures for the Key Agency Outcome of Food Free From Unsafe Pesticide Residues

EPA said that it fell short of meeting its annual performance target due to internal process changes aimed at achieving greater stakeholder involvement in the reassessment process and making the tolerance reassessment process more open to the agricultural community. EPA said, however, that it had evaluated 35 percent of the tolerances and had exceeded the cumulative statutory target of evaluating 33 percent by the end of fiscal year 1999.

### Fiscal Year 2000 Performance Goals and Measures for the Key Agency Outcome of Food Supplies Free From Unsafe Pesticide Residues

#### Revised Performance Goals and Measures

Goal: Decrease adverse risk from agricultural pesticides from 1995 levels and ensure new pesticides that enter the market are safe for humans and the environment. (APG 19)

#### Measures:

- Register 13 safer chemicals and biopesticides
- 6 new chemical registrations
- 1,800 amendment actions
- 500 me-too actions
- 100 new use actions
- 45 inert actions

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- 375 special registrations
- 105 tolerance petitions

Goal: EPA will reassess 20 percent of the existing 9,700 tolerances to ensure that they meet the statutory standard of “reasonable certainty of no harm.” achieving a cumulative 53 percent assessed. (APG 20)

### Measures:

- 1,950 tolerance reassessments
- 20 re-registration eligibility decisions
- 750 product re-registrations

## New Performance Goals and Measures

Goal: Use of pesticides classified as having the highest potential to cause cancer, or neurotoxic effects, will be reduced by 5 percent (from fiscal year 1995 baseline).

Measure: Reduction of pesticide use that has the highest potential to cause cancer or neurotoxic effects.

Goal: Provide methodologies to evaluate the risk to human health posed by food-use products.

### Measures:

- Develop and validate a new and improve an existing method to evaluate the effects of pre- and perinatal exposure to pesticides and other toxic substances.
- Develop dose-response relationships to evaluate risks to human health from exposures to mixtures of pesticides and other toxic chemicals with the presumed same mode of action.
- First generation multimedia, multipathway exposures model for infants and young children and the identification of critical exposure pathways and factors.
- Develop a method to evaluate the human health effects of cumulative exposure to pesticides and other toxic substances.

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### GAO Observation on EPA's Fiscal Year 2000 Planned Performance for the Key Agency Outcome of Food Supplies Free From Unsafe Pesticide Residues

The plan does not assess the effect of fiscal year 1999 performance on estimated performance levels for fiscal year 2000.

In EPA's Fiscal Year 2000 Performance Plan the agency kept the two goals in the fiscal year 1999 plan and added two more goals.

The agency revised the performance measures under APG 19 and revised APG 20 to include the statutory standard of "reasonable certainty of no harm." EPA did not explain the reason for the change.

EPA added an outcome-oriented goal to reduce by 5 percent the number of these pesticides having the highest potential of causing cancer or neurotoxic effects use on food. Although not discussed in the plan, EPA officials told us that they are working to make their goals for safe food more outcome-oriented. According to EPA, the baseline for measuring this goal is the number of cancer-causing or neurotoxic pesticides on the market – estimated by the agency to be about 100.

### Fiscal Year 2001 Performance Goals and Measures for the Key Agency Outcome of Food Supplies Free From Unsafe Pesticide Residue

#### Revised Performance Goals and Measures

Goal: Decrease adverse risk from agricultural pesticides from 1995 levels and ensure that new pesticides that enter the market are safe for humans and the environment. (APG 19)

Goal: Provide timely decisions to the pesticide industry on the registration of active ingredients for conventional pesticides, including tolerance setting, product registrations, and inert ingredients.

#### Measures:

- Register 17 safer chemicals and biopesticides
- 7 new chemicals registrations
- 2,600 amendment actions
- 800 me-too actions
- 350 new use actions
- 45 inerts actions
- 375 special registrations
- 250 tolerance petitions

Goal: Use of pesticides classified as having the highest potential to cause cancer or neurotoxic effects that will be reduced by 10 percent.

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Measure: Reduction of pesticide use that has the highest potential to cause cancer or neurotoxic effects.

Goal: EPA will reassess an additional 1,200 of the 9,721 existing pesticide tolerances to ensure that they meet the statutory standard of “reasonable certainty of no harm” (for a cumulative 60 percent). (APG 20)

Measures:

- 1,200 tolerance reassessments
- 30 re-registration eligibility decisions
- 750 product re-registration
- 208 tolerance reassessments for top 20 foods eaten by children

Goal: Develop pesticides exposure and effects data risk assessment methods and models for children and control technologies needed to comply with the requirements of the Food Quality and Protection Act.

Measures:

- First generation multimedia, multipathway exposures model for infants and young children, and the identification of critical exposure pathways and factors.
- Develop and validate a new and improve an existing method to evaluate the effects of pre- and perinatal exposure to pesticides and other toxic substances.
- Develop a method to evaluate the human health effects of cumulative exposure to pesticides and other toxic substances.
- Develop dose-response relationships to evaluate risks to human health from exposures to mixtures of pesticides and other toxic chemicals with the presumed same mode of action.
- Describe age-dependant differences in responses to one or more pesticides.
- Report on Factors for Children’s Exposure to pesticides.
- NHEXAS: Evaluate available measurement data on aggregate human pesticide exposures in the NHEXAS probability sample of people in three areas of the United States.

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### New Performance Goals and Measures

Goal: By the end of FY 2001, complete reassessment of a cumulative 66 percent (560) of the 848 tolerances of special concern in protecting the health of children.

Measure: Reassess 66 percent of the tolerances.

Goal: Issuance of the rule for Registration Review

Measure: Issue Registration Review rule.

### GAO Observations on EPA's Fiscal Year 2001 Planned Performance for the Key Agency Outcome of Food Supplies are Free From Unsafe Pesticide Residues

The agency does not explain the reasons for the variations among fiscal years 1999, 2000, and 2001. However, in one instance EPA says that the agency anticipates that the effort currently being conducted on organophosphates in FY 2000 will result in tolerance completions in FY 2001. The agency provides statements of intended performance for the new and revised goals and measures and discusses the strategies to accomplish them.

In our previous reviews of EPA's fiscal year 1999 and 2000 performance plans, we identified lack of sufficient data on crosscutting goals and measures and limited confidence that the agency's performance information will be credible. In its fiscal year 2001 performance plan for safe foods, EPA describes its coordination with a variety of other agencies but falls short in providing specifics on crosscutting goals and measures. For example, the agency discusses its collaboration with the Department of Agriculture and Food and Drug Administration on residue testing programs and enforcement actions involving pesticide residues. However, the agency does not provide data on how its goals and measures complement and supplement those of other agencies.

While the agency sufficiently discusses the verification and validation of its output-oriented goals and measures, it does not specifically address the data limitations for determining reductions in pesticide use that has the highest potential to cause cancer or neurotoxic effects. However, EPA does note in the plan that it is developing baseline data.



**Observations on the Environmental Protection Agency’s Efforts to Address Its Major Management Challenges**

The following table identifies the major management challenges confronting the Environmental Protection Agency. The first column lists the management challenges identified by our office and EPA Inspector General (IG). The second column discusses what progress, as discussed in its fiscal year 1999 performance report, EPA made in resolving its major management challenges. The third column discusses the extent to which EPA’s fiscal year 2001 performance plan includes performance goals and measures to address the management challenges that we and the IG identified.

<b>Major management challenge</b>	<b>Progress in resolving major management challenge as discussed in the fiscal year 1999 performance report</b>	<b>Applicable goals and measures in the fiscal year 2001 performance plan</b>
<p>Environmental information: EPA needs more comprehensive information on the condition of the environment to effectively set priorities, assess progress in achieving its goals and objectives, and report on its accomplishments in a credible way. EPA’s data systems are often outmoded and difficult to integrate, and important gaps in the data also exist.</p> <p>(The IG identified this area as a management challenge.)</p>	<p>EPA states in its performance report that it established an Office of Environmental Information to: help the agency collect, manage, and disseminate data information more efficiently; respond to public information needs more effectively; and use environmental information as a strategic resource. However, the agency does not provide details on its progress in filling data gaps and improving data quality.</p>	<p><u>None.</u> While EPA has established an Office of Environmental Information to help fill data gaps and improve data quality, it is too early to tell what contributions the new office will make in improving EPA’s ability to establish outcome goals and measures. In several sections of its plan, EPA discusses the importance of improved management of its information systems and its various strategies for improving its environmental data, but it falls short in making itself accountable for achieving specific performance goals. For example, the plan discusses its Information Integration Initiative (I-3) to improve data accuracy and quality. Under I-3, EPA would work with the states and tribes to establish a single, integrated multimedia core of environmental data and information. EPA has no performance goal for achieving improved accuracy and data quality for the I-3 project. Nor has EPA developed performance measures to guide the I-3 project and measure its results. EPA told us that beginning with fiscal year 2002, EPA’s Annual Performance Plan would include specific outcome-oriented annual performance goals and measures for new information objectives.</p>
<p>Regulatory reinvention: Noting that complex future environmental challenges will require fundamentally different regulatory approaches, EPA has initiated a variety of actions aimed at reinventing environmental regulation. However, the agency faces several challenges, including helping its rank-</p>	<p>EPA provided information that demonstrates progress under two reinvention initiatives. Project XL (eXcellence and Leadership) allows companies to test innovative ways of achieving environmental protection. In its performance report, EPA says that it had 15 XL projects implemented in fiscal year</p>	<p>The plan has a performance goal to enter the next phase of identifying, implementing, and evaluating Project XL projects. However, it does not specifically discuss the agency’s plans to help its employees to understand and support changes to the regulatory system or to gain consensus for</p>

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<p>and-file employees to understand and support changes to the current regulatory system and obtaining consensus among the agency's varied stakeholders on what these changes should be.</p>	<p>1999 and another 36 XL proposals under development or in negotiations. According to EPA, this met its fiscal year 1999 goal to have 50 XL projects under implementation or in development or negotiation. EPA reported that in 1999 the agency and its partners determined that 30 innovations resulting from XL projects have the potential to improve traditional regulatory programs. EPA provided several examples of XL projects that have achieved environmental results through innovative approaches. EPA did not, however, discuss any efforts aimed at helping its employees to understand and support changes to the current regulatory system and gaining consensus among the agency's stakeholders on such changes. EPA also reported progress under its sector-based programs growing out of the agency's Common Sense Initiative. EPA reported that its sector programs have sought "cleaner, cheaper, and smarter" approaches to environmental protection through initiatives that rely on consensus-building processes.</p>	<p>changes among the agency's stakeholders.</p>
<p>EPA/State relations: The states have become important EPA partners as they have assumed the responsibility for implementing most national environmental programs on a daily basis. Despite the importance of this partnership, the relationship has often been characterized by fundamental disagreements over roles, priorities, and the extent of federal oversight.</p>	<p>The National Environmental Performance Partnership System (NEPPS) aims at improving EPA's relationship with the states. Under NEPPS, states and EPA agree on environmental priorities in performance partnership agreements. Among other things, the agreements explain the states' environmental objectives and establish "core" performance measures to gauge progress toward these objectives. EPA discusses NEPPS in its performance report and states that it has made progress in agreeing on core performance measures with the states. However, the agency acknowledges that many remaining challenges must be addressed in the years ahead to fully realize the goals articulated in NEPPS.</p>	<p><u>None</u>. However, in the "Special Analysis Section," EPA says that it is considering a number of actions to enhance NEPPS, including increasing public participation, improving processes for setting priorities, and clarifying the federal and state roles and responsibilities.</p>
<p>Superfund program management: EPA needs to take additional actions to (1) recover billions of dollars in cleanup costs from those responsible for the contamination, (2) control site cleanup costs through the efficient and effective administration of cleanup contracts, and (3) ensure that limited</p>	<p>EPA does not demonstrate in the performance report the progress that it has achieved in addressing the management challenges to ensure that its limited resources are used to clean up sites posing the greatest health risk or to control cleanup costs through the efficient and effective</p>	<p>EPA has a goal to ensure that the parties responsible for contaminating sites pay for cleaning them up. In addition, responding to our recommendations, EPA has established a new methodology to implement an indirect cost rate. In the past, EPA has used an understated conservative</p>

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<p>resources are used to clean up sites that pose the greatest health and environmental risks.</p> <p>Related to our concerns, the IG has identified quality assurance plans at Superfund sites as a management challenge. According to the IG, EPA is not consistently using a scientifically based, systematic planning process to take actions at Superfund sites.</p>	<p>administration of cleanup contracts. Concerning cost recovery, the agency reported that in fiscal year 1999, it had obtained commitments from parties responsible for contamination of over \$780 million for future cleanups or reimbursements of past EPA cleanups. In the report, EPA does not address our concern that it has been using an understated conservative rate for charging its indirect costs to polluters. However, the agency has made progress in this area, as discussed in the column to the right. EPA does not address the need to administer cleanup contracts in an efficient and effective manner.</p>	<p>rate for charging its indirect costs to polluters. We found EPA's new method of calculating an indirect cost rate to be sound, complete, and in accordance with federal government accounting standards. However, EPA will not be fully responsive to our past recommendations until it actually assesses this higher rate to the parties responsible for the contamination at Superfund sites. EPA said that it plans to start applying the new methodology in October 2000. Under its "Effective Management" strategic goal, EPA has an agencywide performance goal to improve the quality, effectiveness, and efficiency of its contract management by increasing the percentage of performance-based contracts. On the other hand, implementing performance-based contracts is only a partial step in controlling site cleanup costs. EPA needs to expand the monitoring of Superfund expenditures in terms of contractor cleanup work, site-specific spending, and nonsite-specific spending to identify areas of potential cost savings. The plan has no goals to address sites with the greatest health and environmental risks. However, we have noted that, in response to our recommendations, EPA has taken appropriate steps to address this concern by ranking the sites for work on the basis of the risks that they pose.</p>
<p><b>Other areas identified by the EPA IG</b></p>		
<p>Accountability: The Inspector General identified four accountability issues. (1) Resources budgeted for environmental programs by EPA headquarters should be controlled and accounted for to ensure that they are used for the designated purpose. (2) The advent of performance grants giving states increased flexibility in how they use resources raises new questions regarding the extent to which EPA can be held accountable for work performed by states and their agents. (3) EPA does not consistently enforce its environmental regulations across the country. (4) Without reliable management information systems to measure this progress, personal accountability is difficult to assess.</p>	<p>EPA reported that it met its goal of capturing 100 percent of costs through the new Planning, Budgeting, and Analysis, and Accountability structure based on modified budget and financial accounting systems; a new accountability process; and new cost accounting mechanisms. GAO's recent work, however, shows that questions remain concerning EPA's ability to report accurately on the costs of achieving strategic goals and objectives. In this regard, EPA officials told GAO that the accuracy of data collected under the new cost-accounting system has not been assessed, although they recognize the need to do so. (GAO/T-RCED-00-129) EPA's report does not address questions or demonstrate progress regarding its accountability for work performed under performance grants. EPA did not</p>	<p><b>None.</b> However, EPA discusses performance grants in the "Special Analysis" section. According to EPA, it is revising its regulations on assistance to states to include the performance partnership agreements and adding a new Tribal-specific regulation. However, EPA does not explain what these changes entail or how they address the IG's specific concern. EPA also states that the Office of Grants and Debarment will examine existing performance partnership agreements and grants during regularly scheduled oversight reviews. Although EPA indirectly addresses the remaining issues in the "Special Analysis" section and other areas of the plan, it does not fully speak to them. For example, EPA does not provide specifics on what it is doing to ensure that its environmental regulations are enforced consistently across the</p>

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	demonstrate progress in making environmental information more reliable, but did identify key milestones for the future that discuss the agency's planned efforts to improve the quality of such information.	country.
EPA's oversight of enforcement activities: The Inspector General has identified fundamental weaknesses with state identification and reporting of significant violators of the Clean Air Act and the Resource Conservation and Recovery Act.	EPA reported that, following extensive coordination with the states, EPA issued new guidance needed to develop a common understanding regarding the definition of a "significant violator" and actions required of the states when dealing with significant violators.	<u>None</u> . In fiscal year 2000, EPA's IG dropped this as a major management challenge.
Backlog of National Pollutant Discharge Elimination System permits: The backlog of permits is a nationwide problem.	EPA discusses its program to issue permits but does not demonstrate progress in reducing the backlog of permits.	Under its "Clean and Safe Water" strategic goal, EPA has a goal that the NPDES permits will reduce or eliminate pollution discharged into the nation's water. The goal includes reducing or eliminating inadequately treated discharges from municipal and industrial facilities, as well as pollutants from urban storm water, combined sewer overflows, and concentrated animal feeding operations. The performance measures associated with this goal are the percentage of each polluting source covered by permits. EPA can be held accountable against these measures. According to EPA, it plans to report on the progress in achieving these goals in its fiscal 2001 performance report.
Use of inefficient contract types: EPA continues to rely extensively on level-of-effort cost reimbursable contracts that essentially buy labor hours, not results, and place the burden of cost control on the government.	EPA reported that it has been implementing contract reforms to improve contractor performance, provide greater accountability, and save taxpayer dollars. EPA exceeded its fiscal year 1999 performance that 10 percent of fiscal year 1999 new contract awards be performance-based contracts—the actual number awarded was 15 percent.	Under its "Effective Management" goal, EPA has a performance goal to increase the percentage of new contracts utilizing performance-based statements of work. Based on EPA's efforts in this area, the EPA IG dropped this as a major management challenge in fiscal year 2000.
Oversight of assistance agreements: Over the years, many of the IG's audits have shown that some recipients of assistance agreements have wasted taxpayers' dollars, and at times EPA did not get what it paid for.	EPA reported that it has made significant progress in carrying out its corrective action plans. However the agency acknowledged that it still has problems in this area. EPA pointed out that, as part of its fiscal year 1999 Financial Integrity Report, EPA re-designated Grants Closeout and Oversight of Assistance Agreements from a material weakness to an agency-level weakness.	<u>None</u> . However, EPA says in the "Special Analysis" section of its plan that the agency will continue to conduct management oversight reviews of Grant Management Offices, expand the grantee compliance assistance reviews, conduct five 1-day refresher training courses and six basic Assistance Project Officer certification courses, and continue to look for ways to strengthen grants management. EPA had a performance goal for this area in its fiscal year 2000 plan and says that it plans to complete corrective actions in fiscal year 2000.
The agency relationship with contractors: A personal services contract makes contractor staff	EPA's report does not discuss or show demonstrated progress in this area.	<u>None</u> . However, in fiscal year 2000, the IG dropped this as a management challenge. According to

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<p>appear to be government employees. Federal Acquisition Regulation 37.104(b) states that agencies are not permitted to award personal services contracts unless specifically authorized by statute. The IG's audit work has shown that instances or appearances of personal services contracts are a vulnerability that EPA needs to address.</p>		<p>EPA, it evaluated 189 high-risk contracts for personal services, identified 25 personal services issues, and took corrective action for all of them. On the basis of these results, the IG agreed that the agency had made significant progress in correcting personal services relationships under the EPA contracts.</p>
<p>EPA's security plans for automated information systems: The agency attempts to assess risk to its information systems and minimize potential vulnerabilities through a series of individual security plans. However, there is no centralized validation process for these plans.</p>	<p>EPA's report does not show demonstrated progress in addressing problems involving the security of its automated information systems. We recently reported that fundamental weaknesses in EPA's information security place EPA data and operations at risk. (GAO/T-AIMD-00-97).</p>	<p><u>None</u>. However, in the "Special Analysis" section, EPA says that it has developed security plans for the agency's telecommunications network and National Computer Center computer platforms. EPA recently advised us that it had taken steps to strengthen access controls, enhance its intrusion detection capabilities, and improve its information security management structure. Furthermore, EPA said that its plans include: establishing a program for testing and evaluating the controls and procedures adopted; improving the risk assessment process; and better supporting program managers in carrying out their information security related responsibilities.</p>

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