

**GAO**

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# ENVIRONMENTAL JUSTICE

## Measurable Benchmarks Needed to Gauge EPA Progress in Correcting Past Problems

Statement of John B. Stephenson, Director  
Natural Resources and Environment



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Highlights of [GAO-07-1140T](#), a testimony before the Subcommittee on Superfund and Environmental Health, Committee on Environment and Public Works, United States Senate

## Why GAO Did This Study

A 1994 Executive Order sought to ensure that minority and low-income populations are not subjected to disproportionately high levels of environmental risk. Studies have shown that these groups are indeed disproportionately exposed to air pollution and other environmental and health problems. The Order sought to address the problem by requiring EPA and other federal agencies to make achieving environmental justice part of their missions.

In July 2005, GAO issued a report entitled, *Environmental Justice: EPA Should Devote More Attention to Environmental Justice When Developing Clean Air Rules* (GAO-05-289). Focusing on three specific rules for detailed study, the report identified a number of weaknesses in EPA's approach to ensuring that environmental justice is considered from the early stages of rule development through their issuance. The report made several recommendations, to which EPA replied in an August 24, 2006 letter. GAO also met recently with cognizant EPA staff to obtain updated information on the agency's responses to these recommendations.

In this testimony, GAO (1) summarizes the key findings of its 2005 report, (2) outlines its recommendations to EPA and EPA's August 2006 responses, and (3) provides updated information on subsequent EPA actions.

[www.gao.gov/cgi-bin/getrpt?GAO-XX-XXX](http://www.gao.gov/cgi-bin/getrpt?GAO-XX-XXX).

To view the full product, including the scope and methodology, click on the link above. For more information, contact John Stephenson at (202) 512-3841 or [Stephensonj@gao.gov](mailto:Stephensonj@gao.gov)

## ENVIRONMENTAL JUSTICE

### Measurable Benchmarks Needed to Gauge EPA Progress in Correcting Past Problems

#### What GAO Found

EPA generally devoted little attention to environmental justice when drafting three significant clean air rules between fiscal years 2000 and 2004. GAO's 2005 report concluded, for example, that while EPA guidance on rulemaking states that workgroups should consider environmental justice early in the process, a lack of guidance and training for workgroup members on how to identify potential environmental justice impacts limited their ability to analyze such issues. Similarly, while EPA considered environmental justice to varying degrees in the final stages of the rulemaking process, in general the agency rarely provided a clear rationale for its decisions on environmental justice-related matters. For example, in responding to comments during the final phase of one of the rules, EPA asserted that the rule would not have any disproportionate impacts on low-income or minority communities, but did not publish any data or the agency's assumptions in support of that conclusion.

Among its recommendations, GAO called on EPA to ensure that its rulemaking workgroups devote attention to environmental justice while drafting and finalizing clean air rules. EPA's August 2006 letter responded that it had made its Office of Environmental Justice an *ex officio* member of the Regulatory Steering Committee so that it would be aware of important regulations under development and participate in workgroups as necessary. GAO also recommended that EPA improve the way environmental justice impacts are addressed in its economic reviews by identifying the data and developing the modeling techniques needed to assess such impacts. EPA responded that its Office of Air and Radiation was examining ways to improve its air models so it could better account for the socioeconomic variables identified in the Executive Order. GAO also recommended that cognizant EPA officials respond more fully to public comments on environmental justice by better explaining their rationale and by providing the supporting data for the agency's decisions. EPA responded that it would re-emphasize the need to respond fully to public comments, include the rationale for its regulatory approach, and describe its supporting data.

Recent discussions between GAO and EPA officials suggest that some progress has been made to incorporate environmental justice concerns in the agency's air rulemaking, but that significant challenges remain. For example, while the Office of Environmental Justice may be an *ex officio* member of the Regulatory Steering Committee, it has not participated directly in any air rules that have been proposed or finalized since EPA's August 2006 letter to GAO. Also, according to EPA staff, some of the training courses that were planned have not yet been developed due to staff turnover among other reasons. When asked about GAO's recommendation that cognizant officials respond more fully to public comments on environmental justice, the EPA officials cited a recent rulemaking in which this was done. But the officials said they were unaware of any memoranda or revised guidance that would encourage more global progress on this key issue.

Madam Chairman and Members of the Subcommittee:

I am pleased to be here today to discuss the Environmental Protection Agency's (EPA) consideration of environmental justice, particularly as it has been used to develop clean air rules. According to EPA studies, low-income and minority populations are disproportionately exposed to air pollution and other environmental risks. In 1994 President Clinton issued Executive Order 12898, which stated that EPA and other federal agencies, to the greatest extent practicable and permitted by law, shall make achieving environmental justice part of their missions by identifying and addressing as appropriate, the disproportionately high and adverse human health of environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.<sup>1</sup>

To implement the order, EPA developed guidance for incorporating environmental justice into its programs, such as the enforcement of the Clean Air Act, which is intended in part, to control emissions that harm human health. A key to ensuring that environmental justice is sufficiently accounted for in agency decisions and operations is that it be considered at each point in the rulemaking process—including the point when agency workgroups typically consider regulatory options; perform economic analyses of proposed rules' costs; make proposed rules available for public comment; and finalize them in advance of their implementation.

My testimony today is based largely on our 2005 report,<sup>2</sup> which recommended that EPA devote more attention to environmental justice when developing clean air rules. In addition, we met with cognizant EPA staff to understand what actions the agency has taken since the report's issuance to improve its treatment of environmental justice issues during its air rulemaking process.

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<sup>1</sup> Efforts to identify and address disproportionately high and adverse impacts on specific populations and communities are commonly referred to under the term "environmental justice."

<sup>2</sup> GAO, *Environmental Justice: EPA Should Devote More Attention to Environmental Justice When Developing Clean Air Rules*, GAO-05-289 (Washington, D.C.: July 22, 2005).

Our report examined how EPA considered environmental justice during the drafting of these air rules (including activities of the workgroups that typically consider regulatory options, the economic review of the rules' costs, and the manner in which proposed rules are made available for public comment) and their finalization (including how public comments are addressed and how the economic review is revised). The three rules we examined included a 2000 gasoline rule to reduce sulfur in gasoline and to reduce emissions from new vehicles; a 2001 diesel rule to reduce sulfur in diesel fuel and to reduce emissions from new heavy-duty engines; and a 2004 ozone implementation rule to implement a new ozone standard. My testimony today (1) summarizes the key findings of our 2005 report, (2) provides both the recommendations we made to EPA to address the problems identified and EPA's written response to these recommendations in August 2006, and (3) provides updated information on pertinent EPA actions.

In summary:

When drafting the three clean air rules, EPA generally devoted little attention to environmental justice. Our 2005 report concluded, for example, that while EPA guidance on rulemaking states that workgroups should consider environmental justice in the rulemaking process, a lack of guidance and training for workgroup members on identifying environmental justice issues limited their ability to identify such issues. In addition, while EPA officials stated that economic reviews of proposed rules considered potential environmental justice impacts, the gasoline and diesel rules did not provide decision makers with environmental justice analyses, and EPA did not identify all the types of data necessary to analyze such impacts. In finalizing the three rules, EPA considered environmental justice to varying degrees although, in general, the agency rarely provided a clear rationale for its decisions on environmental justice-related matters. In responding to comments during the final phase of the gasoline rule, for example, EPA asserted that the rule would not raise environmental justice concerns, but did not publish data and assumptions to support that conclusion.

Our report made four recommendations to help EPA ensure that environmental justice issues are adequately identified and considered when clean air rules are being drafted and finalized. The following includes each recommendation and summarizes the response provided in EPA's August 24, 2006, letter to the Comptroller General and cognizant committees of the Congress:

- *Ensure that the agency's rulemaking workgroups devote attention to environmental justice while drafting and finalizing clean air rules.* Among the actions highlighted by EPA were that the Office of Environmental Justice was made an *ex officio* member of the Regulatory Steering Committee so that it would be aware of important regulations under development and participate in workgroups.
- *Enhance the workgroups' ability to identify potential environmental justice issues through such steps as (a) providing workgroup members with guidance and training to help them identify potential environmental justice problems and (b) involving environmental justice coordinators in the workgroups when appropriate.* EPA responded that it would supplement its existing environmental justice training with additional courses to create a comprehensive curriculum to assist agency rule writers. In response to our call for greater involvement of Environmental Justice coordinators in workgroup activities, EPA said that as an *ex officio* member of the Regulatory Steering Committee, the Office of Environmental Justice would be able to keep the program offices' environmental justice coordinators informed about new and ongoing rulemakings with potential environmental justice implications. It said that the mechanism for this communication would be monthly conference calls between the Office of Environmental Justice and the environmental justice coordinators.
- *Improve assessments of potential environmental justice impacts in economic reviews by identifying the data and developing the modeling techniques that are needed to assess such impacts.* EPA responded that the Office of Air and

Radiation was examining ways to improve its air models so they could better account for the socioeconomic variables identified in Executive Order 12898.

- *Direct cognizant officials to respond fully, when feasible, to public comments on environmental justice by, for example, better explaining the rationale for EPA's beliefs and by providing its supporting data.* EPA responded that it would re-emphasize the need to respond fully to public comments and to include in those responses the rationale for its regulatory approach and a description of its supporting data.

Upon meeting with cognizant EPA officials on July 18, 2007, we learned that in the two years since our July 2005 report was issued, some progress has been made to incorporate environmental justice concerns into EPA's air rulemaking process but that considerably more remains to be done. For example, while the Office of Environmental Justice may be an *ex officio* member of the Regulatory Steering Committee, it has not participated directly in any air rules that have been proposed or finalized since EPA's August 2006 letter to us. In addition, according to EPA staff, some of the training courses that were planned have not yet been developed due to staff turnover, among other reasons. Regarding EPA's efforts to improve assessments of potential environmental justice impacts in economic reviews, agency officials said that their data and models have improved since our 2005 report, but that their level of sophistication has not reached their goal for purposes of environmental justice considerations. They said that economists within the Office of Air and Radiation are, among other things, continuing to evaluate and enhance their models in a way that will further improve consideration of environmental justice during rulemaking. When asked about GAO's recommendation that cognizant officials respond more fully to public comments on environmental justice, the EPA officials cited a recent rulemaking in which this was done; but added that they were unaware of any memoranda or revised guidance that would encourage more global, EPA-wide progress on this important issue.

## **Background**

Executive Order 12898 stated that to the extent practicable and permitted by law, each federal agency, including the EPA, "...shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, the disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States..." In response to the 1994 order, among other things, the EPA Administrator issued guidance the same year providing that environmental justice should be considered early in the rule-making process. EPA continued to provide guidance regarding environmental justice in the following years. For example, in 1995, EPA issued an Environmental Justice Strategy that included, among other provisions, (1) ensuring that environmental justice is incorporated into the agency's regulatory process, (2) continuing to develop human exposure data through model development, and (3) enhancing public participation in agency decision making.

The Office of Environmental Justice, located within EPA's Office of Enforcement and Compliance Assurance, provides a central point for the agency to address environmental and human health concerns in minority communities and/or low-income communities. However, the agency's program offices also play essential roles. As such, the key program office dealing with air quality issues is the agency's Office of Air and Radiation. In fulfilling its Clean Air Act responsibilities, the Office works with state and local governments and other entities to regulate air emissions of various substances that harm human health. It also sets primary national ambient air quality standards for six principal pollutants (carbon monoxide, nitrogen oxides, sulfur dioxide, particulate matter, ground level ozone, and lead) that harm human health and the environment. These standards are to be set at a level that protects human health with an adequate margin of safety which, according to EPA, includes protecting sensitive populations, such as the elderly and people with respiratory or circulatory problems.

The Office of Air and Radiation has a multistage process for developing clean air and other rules that it considers a high priority. Initially, a workgroup chair is chosen from

the lead program office—normally the Office of Air and Radiation in the case of clean air rulemakings. The workgroup chair assigns the rule one of the three priority levels, and EPA's top management makes a final determination of the rule's priority. The priority level assigned depends on such factors as the level of the Administrator's involvement and whether more than one office in the agency is involved. The gasoline, diesel, and ozone implementation rules were classified as high-priority rules on the basis of these factors. They were also deemed high priority because they were estimated to have an effect on the economy of at least \$100 million per year or were viewed as raising novel legal and/or policy issues.<sup>3</sup>

For high-priority rules, the workgroup chair is primarily responsible for ensuring that the necessary work gets done and the process is documented. Other workgroup members are assigned from the lead program office and, in the case of the two highest priority rules, from other offices. Among its key functions, the workgroup (1) prepares a plan for developing the rule, (2) seeks early input from senior management, (3) consults with stakeholders, (4) collects data and analyze issues, (5) analyzes alternative options, and (6) recommends one or more options to agency management. In addition, a workgroup economist typically prepares an economic review of the proposed rule's costs to society. According to EPA, the "ultimate purpose" of an economic review is to inform decision makers of the social welfare consequences of the rule.

After approval by relevant offices within EPA, the proposed rule is published in the *Federal Register*, the public is invited to comment on it, and EPA considers the comments. Comments may address any aspect of the proposed rule, including whether environmental justice concerns are raised and appropriately addressed in the proposed rule. Sometimes, prior to the publication of the proposed rule, EPA publishes an Advanced Notice of Proposed Rulemaking in the *Federal Register*. The notice provides an opportunity for interested stakeholders to provide input to EPA early in the process,

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<sup>3</sup> President Clinton issued Executive Order 12866 on September 30, 1993, to begin a program to reform the regulatory process and make it more efficient. Among other things, an OMB review is conducted to ensure that the rule is consistent with federal laws and the President's priorities, including executive orders.

and the agency takes such comments into account to the extent it believes is appropriate.

As required by the Clean Air Act, when finalizing a rule, EPA must respond to each significant comment raised during the comment period. In addition, EPA's public involvement policy states that agency officials should explain how they considered the comments, including any change in the rule or the reason the agency did not make any changes. After these tasks are completed, the rule, if it is significant, is sent to OMB for approval. Once OMB approves the final rule and the Administrator signs it, it is published in the *Federal Register*. After a specified time period, the rule takes effect.

### **EPA Generally Devoted Little Attention To Environmental Justice in Drafting Three Rules and Considered it to Varying Degrees in Finalizing Them**

When drafting the three clean air rules, EPA generally devoted little attention to environmental justice. We found, for example, that while EPA guidance states that workgroups should consider environmental justice early in the rulemaking process, this was accomplished only to a limited extent. Key contributing factors included a lack of guidance and training for workgroup members on identifying environmental justice issues. In addition, while EPA officials stated that economic reviews of proposed rules considered potential environmental justice impacts, the gasoline and diesel rules did not provide analyses of such impacts, nor did EPA identify all the types of data that would have been needed to perform such analyses. In finalizing the three rules, EPA considered environmental justice to varying degrees although, in general, the agency rarely provided a clear rationale for its decisions on environmental justice-related matters.

For the three rules we examined, concerns about whether environmental justice was being considered sufficiently early in the rulemaking process first became evident by its omission on the agency's "Tiering Form." Once a workgroup chair is designated to lead a rulemaking effort, the chair completes this key form to alert senior managers to potential issues related to compliance with statutes, executive orders and other matters. In each

case, however, the form did not include a question regarding the rule's potential to raise environmental justice concerns, nor did we find any mention of environmental justice on the completed form.

Beyond this omission, EPA officials had differing recollections about the extent to which the three workgroups considered environmental justice at this early stage of the rulemaking process. The chairs of the workgroups for the two mobile source rules told us that they did not recall any specific time when they considered environmental justice while drafting the rules. Other EPA officials associated with these rules said environmental justice was considered, but provided no documentation to this effect. Similarly, the chair of the ozone workgroup told us that his group considered environmental justice, but could not provide any specific information. He did, however, provide a document stating that compliance with executive orders, including one related to low-income and minority populations, would be a part of the economic review that would take place later in the process.

Overall, we identified three factors that may have limited the ability of workgroups to identify potential environmental justice concerns early in the rulemaking process. First, each of the three workgroup chairs told us that they received no guidance in how to analyze environmental justice concerns in rulemaking. Second, as a related matter, each said they received little, if any, environmental justice training. Two chairs did not know whether other members of the workgroups had received any training, and a third chair said at least one member did receive some training. Some EPA officials involved in developing these three rules told us that it would have been useful to have a better understanding of the definition of environmental justice and how to consider environmental justice issues in rulemaking. Finally, the Office of Air and Radiation's environmental justice coordinators—whose full-time responsibility is to promote environmental justice—were not involved in drafting any of the three rules.

As required, an economic review of the costs, and certain other features, was prepared for all three rules. According to EPA officials, however, the economic review of the two

mobile source rules did not include an analysis of environmental justice for various reasons, including the fact that EPA did not have a model with the ability to distinguish localized adverse impacts on a specific community or population. EPA's economic review of the 2004 ozone rule did discuss environmental justice, claiming that the rule would not raise environmental justice concerns. However, it based this claim on an earlier analysis of a 1997 rule that established the 8-hour ozone national ambient air quality standard. Yet rather than indicating that the 1997 ozone rule did not raise environmental justice concerns, this earlier economic review said it was not possible to rigorously consider the potential environmental justice effects because the states were responsible for its implementation. Hence, the inability of EPA to rigorously consider environmental justice in the economic review of the 1997 rule appears to contradict EPA's subsequent statement that there were no environmental justice concerns raised by the 2004 ozone implementation rule.

In finalizing each of the three rules, EPA considered environmental justice to varying degrees, but the gasoline rule in particular provided a questionable example of how comments and information related to environmental justice were received and handled. As noted earlier in this testimony, the Clean Air Act requires that a final rule must be accompanied by a response to each significant comment raised during the comment period. In addition, according to EPA's public involvement policy, agency officials should explain how they considered the comments, including any change in the rule or the reason the agency did not make any changes. In the case of the gasoline rule, representatives of the petroleum industry, environmental groups, and others had asserted during the comment period that the proposed rule did in fact raise significant environmental justice concerns. One commenter claimed that inequities arose from the fact that while the national air quality benefits were broadly distributed across the country, higher per capita air quality costs were disproportionately confined to areas around refineries.

Despite comments such as these, EPA's final rule did not state explicitly whether it would ultimately raise an environmental justice concern, although EPA officials told us in late 2004 that it would not. Furthermore, EPA did not publish the data and

assumptions supporting its position. In fact, an unpublished analysis EPA developed before finalizing the rule appeared to suggest that environmental justice may indeed have been an issue. Specifically, EPA's analysis showed that harmful air emissions would increase in 26 of the 86 counties with refineries affected by the rule. According to EPA's analysis, one or both types of emissions—nitrogen oxides and volatile organic compounds—could be greater in the 26 counties than the rule's benefit of decreased vehicle emissions. In one case involving a Louisiana parish, EPA estimated that net emissions of nitrogen oxides could increase 298 tons in 1 year as a result of the rule to refine cleaner gasoline.

Under EPA's rulemaking process, the agency prepares a final economic review after considering public comments. EPA guidance indicates that this final economic review, like the economic review during the proposal stage, should identify the distribution of the rule's social costs across society. In the case of the three air rules, however, EPA completed a final economic review after receiving public comments but performed no environmental justice analyses. The publication of the final rules gave EPA another opportunity to explain how it considered environmental justice in the rule's development. When EPA published the final rules, however, two of the three rules did not explicitly state whether they would raise an environmental justice concern. Only the ozone rule stated explicitly that it would not raise an environmental justice concern.

### **GAO's Recommendations and EPA's Response**

We made four recommendations to help EPA resolve the problems identified by our study. In its June 10, 2005 letter on a draft of our report, EPA initially said it disagreed with the recommendations, saying it was already paying appropriate attention to environmental justice. However, EPA responded more positively to each of these recommendations in an August 24, 2006 letter.<sup>4</sup> The first recommendation called upon

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<sup>4</sup>31 U.S.C. 720 requires the head of a federal agency to submit a written statement of the actions taken on our recommendations to the Senate Committee on Homeland Security and Governmental Affairs, the House Committee on Oversight and Government Reform, and the House and Senate Committees on Appropriations within 60 days of issuance of our recommendations.

EPA rulemaking workgroups to devote attention to environmental justice while drafting and finalizing clean air rules. EPA responded that to ensure consideration of environmental justice in the development of regulations, the Office of Environmental Justice was made an *ex officio* member of the agency's Regulatory Steering Committee, the body that oversees regulatory policy for EPA and the development of its rules. The letter also said that (1) the agency's Office of Policy, Economics and Innovation (responsible in part for providing support and guidance to EPA's program offices and regions as they develop their regulations) convened an agency-wide workgroup to consider where environmental justice might be considered in rulemakings and (2) it was developing "template language" to help rule writers communicate findings regarding environmental justice in the preamble of rules.

Second, to enhance workgroups' ability to identify potential environmental justice issues, we called on EPA to (a) provide workgroup members with guidance and training to help them identify potential environmental justice problems and (b) involve environmental justice coordinators in the workgroups when appropriate. In response to the call for better training and guidance, EPA said it was supplementing existing training with additional courses to create a comprehensive curriculum that will meet the needs of agency rule writers. Specifically, it explained that its Office of Policy, Economics, and Innovation was focusing on how agency staff can best be trained to consider environmental justice during the regulation development process; while the Office of Air and Radiation had already developed environmental justice training tailored to the specific needs of that office. Among other training opportunities highlighted in the letter was a new on-line course offered by the Office of Environmental Justice that addresses a broad range of environmental justice issues. EPA also cited an initiative by the Office of Air and Radiation's Office of Air Quality Planning and Standards to use a regulatory development checklist to ensure that potential environmental justice issues and concerns are considered and addressed at each stage of the rulemaking process. In response to our call for greater involvement of Environmental Justice coordinators in workgroup activities, EPA said that as an *ex officio* member of the Regulatory Steering Committee, the Office of Environmental Justice will be able to keep the program office

environmental justice coordinators informed about new and ongoing rulemakings with potential environmental justice implications. It said that the mechanism for this communication would be monthly conference calls between the Office of Environmental Justice and the environmental justice coordinators.

Third, we recommended that the Administrator improve assessments of potential environmental justice impacts in economic reviews by identifying the data and developing the modeling techniques needed to assess such impacts. EPA responded that its Office of Air and Radiation was reviewing information in its air models to assess which demographic data could be introduced and analyzed to predict possible environmental justice effects. It also said it was considering additional economic guidance on methodological issues typically encountered when examining a proposed rule's impacts on subpopulations highlighted in the executive order. Finally, it noted that the Office of Air and Radiation was assessing models and tools to (1) determine the data required to identify communities of concern, (2) quantify environmental health, social and economic impacts on these communities, and (3) determine whether these impacts are disproportionately high and adverse.

Fourth, we recommended that the EPA Administrator direct cognizant officials to respond more fully to public comments on environmental justice by, for example, better explaining the rationale for EPA's beliefs and by providing supporting data. EPA said that as a matter of policy, the agency includes a response to comments in the preamble of a final rule or in a separate "Response to Comments" document in the public docket. The agency noted, however, that it will re-emphasize the need to respond to comments fully, to include the rationale for its regulatory approach, and to better describe its supporting data.

### **EPA's Progress in Responding to Our Recommendations**

On July 18, 2007, we met with EPA officials to obtain more up-to-date information on EPA's environmental justice activities, focusing in particular on those most relevant to

our report's recommendations. While we have not had the opportunity to independently verify the information provided in the few days since that meeting, our discussions did provide insights into EPA's progress in improving its environmental justice process in the two years since our report was issued. The following discusses EPA activities as they relate to each of our four recommendations.

First, regarding our recommendation that workgroups consider environmental justice while drafting and finalizing regulations, EPA had emphasized in its August 2006 letter that making the Office of Environmental Justice an *ex officio* member of the Agency's Regulatory Steering Committee would not only allow it to be aware of all important EPA regulatory actions from their inception through rule development and final agency review, but more importantly, would allow it to participate on workgroups that are developing actions with potential environmental justice implications and/or recommend that workgroups consider environmental justice issues. To date, however, the Office of Environmental Justice has not participated directly in any of the 103 air rules that have been proposed or finalized since EPA's August 2006 letter. According to EPA officials, the Office of Environmental Justice did participate in one workgroup of the Office of Solid Waste and Emergency Response, and provided comments on the final agency review for the Toxic Release Inventory Reporting Burden Reduction Rule. EPA officials also emphasized that its Tiering Form would be revised to include a question on environmental justice. As noted earlier, this key form is completed by workgroup chairs to alert senior managers to the potential issues related to compliance with statutes, executive orders, and other matters. However, two years after we cited the omission of environmental justice from the Tiering Form, EPA explained that its inclusion has been delayed because it is only one of several issues being considered for inclusion in the Tiering process.

Second, regarding our recommendation to (1) improve training and (2) include Environmental Justice coordinators from EPA's program offices in workgroups when appropriate, our latest information on EPA's progress shows mixed results. On the one hand, EPA continues to provide an environmental justice training course that began in

2002, and has included environmental justice in recent courses to help rule writers understand how environmental justice ties into the rulemaking process. On the other hand, some training courses that were planned have not yet been developed. Specifically, the Office of Policy, Economics, and Innovation has not completed the planned development of training on ways to consider environmental justice during the regulation development process. In addition, while the EPA said in its August 2006 letter that Office of Air and Radiation had developed environmental justice training tailored to that office, air officials told us last week that in fact they were unable to develop the training due to staff turnover and other reasons. Regarding our recommendation to involve the Program Offices' Environmental Justice coordinators in rulemaking workgroups when appropriate, EPA's August 2006 letter had said that the Coordinators' involvement would be facilitated through the Office of Environmental Justice's participation on the Regulatory Steering Committee. Specifically, it said that the Office of Environmental Justice would be "able to keep the agency's [Environmental Justice] Coordinators fully informed about new and ongoing rulemakings with potential Environmental Justice implications about which the coordinators may want to participate." According to EPA officials, however, this active, hands-on participation by Environmental Justice coordinators in rulemakings has yet to occur.

Third, regarding our recommendation that EPA improve assessments of potential environmental justice impacts in economic reviews by identifying the data and developing the modeling techniques that are needed to assess such impacts, EPA officials said that their data and models have improved since our 2005 report, but that their level of sophistication has not reached their goal for purposes of environmental justice considerations. EPA officials said that to understand how development of a rule might affect environmental justice for specific communities, further improvements are needed in modeling, and more specific data are needed about the socio-economic, health, and environmental composition of communities. Only when they have achieved such modeling and data improvements can they develop guidance on conducting an economic analysis of environmental justice issues. According to EPA, among other things, economists within the Office of Air and Radiation are continuing to evaluate and

enhance their models in a way that will further improve consideration of environmental justice during rulemaking. For example, EPA officials told us that at the end of July, a contractor will begin to analyze the environmental justice implications of a yet-to-be-determined regulation to control a specific air pollutant. EPA expects that the study, due in June 2008, will give the agency information about what socio-economic groups experience the benefits of a particular air regulation, and which ones bear the costs. EPA expects that the analysis will serve as a prototype for analyses of other pollutants.

Fourth, regarding our recommendation that the Administrator direct cognizant officials to respond more fully to public comments on environmental justice, EPA officials cited one example of an air rule in which the Office of Air and Radiation received comments from tribes and other commenters who believed that the proposed National Ambient Air Quality Standard for PM 10-2.5 raised environmental justice concerns. According to the officials, the agency discussed the comments in the preamble to the final rule and in the associated response-to-comments document. Nonetheless, the officials with whom we met said they were unaware of any memoranda or revised guidance that would encourage more global, EPA-wide progress on this important issue.

### **Concluding Observation**

Our 2005 report concluded that the manner in which EPA has incorporated environmental justice concerns into its air rulemaking process fell short of the goals set forth in Executive Order 12898. One year after that report, EPA committed to a number of actions to be taken to address these issues. Yet an additional year later, most of these commitments remain largely unfulfilled. While we acknowledge the technical and financial challenges involved in moving forward on many of these issues, EPA's experience to date suggests the need for measurable benchmarks—both to serve as goals to strive for in achieving environmental justice in its rulemaking process, and to hold cognizant officials accountable for making meaningful progress.

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Madam Chairman, this concludes my prepared statement. I would be happy to respond to any questions that you or Members of the Subcommittee may have.

**Contacts and Acknowledgements**

Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this testimony. For further information about this testimony, please contact John B. Stephenson, Director, Natural Resources and Environment (202) 512-3841, or [stephensonj@gao.gov](mailto:stephensonj@gao.gov). Key contributors to this testimony included Marc Castellano, John Delicath, Steven Elstein, Karen Keegan, Carol Kolarik, Alison O’Neil, and Daniel Semick.

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