

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
ENFORCEMENT
AND COMPLIANCE
ASSURANCE

December 22, 1997

MEMORANDUM

SUBJECT: *National Performance Measures Strategy* -- Final Report for Public Distribution

FROM: Michael M. Stahl
Deputy Assistant Administrator

TO: Stakeholders and Interested Parties

Attached is the final *National Performance Measures Strategy* ("*Measures Strategy*") report. This report is being distributed to stakeholders and interested parties who have participated in meetings and discussions that were conducted over the last several months.

The *Measures Strategy* was initiated by OECA in January of 1997 "to develop and implement an enhanced set of performance measures for EPA's enforcement and compliance assurance program." Since January, public meetings and roundtable sessions with state, industry, environmental and environmental justice groups, consultations with experts and other regulatory agencies, and reviews of studies and articles have occurred. A draft report released on September 17, 1997 was the subject of a final "Capstone Conference" in Washington, D.C. on October 7, 1997. At that conference, panels of stakeholders and interested parties provided comments and suggestions about the measures or other aspects of the report. This final report reflects that input; it contains several new sections, as well as a revised set of measures EPA intends to implement beginning this fiscal year.

EPA would once again like to thank all stakeholders and interested parties who participated in this effort. EPA greatly appreciates the considerable time and effort participants gave to considering these challenging issues, and believes the enhanced measures contained in this report have greatly benefitted from this public discourse. If you have additional comments or questions about this report or the measures contained in it, please contact Marie Muller at 202-564-2445.

Attachment

**MEASURING THE PERFORMANCE OF
EPA'S ENFORCEMENT AND COMPLIANCE ASSURANCE PROGRAM**

Final Report of the
National Performance Measures Strategy
Office of Enforcement and Compliance Assurance
United States Environmental Protection Agency

12/22/97

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Introduction

The Office of Enforcement and Compliance Assurance (OECA) of the U.S. Environmental Protection Agency (EPA) is responsible -- along with state environmental agencies -- for enforcing and ensuring compliance with the nation's environmental laws. EPA believes that an effective federal enforcement and compliance assurance program is an indispensable element of the national environmental protection system. The Agency has recently reaffirmed this view by declaring "a credible deterrent to pollution and greater compliance with the law" as one of its ten goals in the EPA Strategic Plan submitted to Congress on September 30, 1997, as required by the Government Performance and Results Act (GPRA).¹

Each year OECA personnel in headquarters and regional offices conduct approximately 18,000 inspections of regulated facilities and entities, refer about 400 civil judicial enforcement cases and 250 criminal enforcement cases to the U.S. Department of Justice (DOJ), issue about 1,200 administrative penalty orders and 1,800 compliance orders, and assess approximately \$250 million dollars in criminal, civil, and administrative penalties. For many years, these numbers about enforcement outputs have been used as the sole measure of performance for EPA's enforcement and compliance assurance program. These output numbers remain an important measure of program performance and accountability to the public. But they do not reveal the state of compliance among regulated entities, the environmental results and impact from enforcement and compliance assurance activities, nor the extent to which important environmental objectives and problems are being addressed.

Because of these limitations, OECA initiated the National Performance Measures Strategy in January of 1997 "to develop and implement an enhanced set of performance measures for EPA's enforcement and compliance assurance program." OECA conducted more than 20 public meetings and roundtable sessions, consulted with experts and practitioners, and reviewed dozens of studies and articles. Ideas about better performance measures have been offered by representatives of national and local environmental organizations, environmental justice advocates, regulated industries and companies, state environmental protection agencies and associations, state attorneys general offices and associations, federal oversight and management agencies, federal regulatory and law enforcement agencies, environmental policy institutes, Congressional staff, and academic experts. EPA reviewed the ideas and suggestions offered from these sources, and used them to develop an enhanced set of performance measures. This report describes those measures and OECA's schedule for implementing them.

This report's findings were shaped by a set of assumptions which were stated by OECA in all meetings and documents associated with the Strategy:

* Measures developed through the Strategy will be incorporated in OECA's and the Agency's strategic plans and annual performance plans required by the GPRA.

* Measures developed through the Strategy will apply only to EPA's enforcement and compliance assurance program. They will not serve as a framework for measuring performance

of state enforcement and compliance assurance programs. OECA and the states developed a separate set of accountability measures for state enforcement and compliance assurance programs, and those measures are being used in Performance Partnership Agreements (PPAs). The measures adopted for EPA's program through this Strategy have incorporated the accountability measures. (Section VI of this report discusses the relationship between these sets of measures.)

- * EPA will continue to use enforcement outputs (e.g., inspections conducted, cases initiated, and penalties assessed) as important management information even as it develops and uses a broader set of outcome-based measures.
- * EPA intends to implement and begin using these measures in FY 1998, although some of the measures (indicated in the report) will require more time to implement.
- * The enhanced measures adopted through this Strategy represent a significant step forward in accountability and performance reporting for EPA's enforcement and compliance assurance program, but the development and refinement of measures, both for internal and external purposes, will continue.

These findings were also shaped by a set of definitions. EPA and the Environmental Council of the States (ECOS) have defined three categories of measures -- outputs, outcomes, and environmental indicators -- to develop a set of Core Performance Measures to be used in PPAs between EPA and individual states. These definitions, which are consistent with similar definitions used in the GPRA, have been adopted for the Strategy and are used throughout this report:

- * *Outputs* are defined as quantitative or qualitative measures of important activities, work products, or actions taken by EPA or by states under delegated Federal programs.
- * *Outcomes* are defined as quantitative or qualitative measures of changes in the behavior of the public or regulated entities caused, at least in part, by actions of government.
- * *Environmental indicators* are defined as quantitative or qualitative measures over time of progress toward achieving environmental or human health objectives.

This report begins by explaining the need for enhanced performance measures (see Section I), then summarizes key ideas from interested parties (Section II), identifies several general findings about performance measures (Section III), describes the measurement framework and the individual performance measures (Section IV), sets forth implementation tasks and schedules for the measures (Section V), describes the alignment between the measures and related planning efforts (Section VI), and discusses activities to continue the improvement of performance measures. Three appendices provide a list of selected EPA strategic goals and objectives, a list of meetings and interested parties associated with the Strategy, and a list of documents reviewed.

A previous draft of this report (dated 9/17/97) was discussed at a public meeting in Washington D.C. on October 7, 1997. At that meeting, panels of interested parties were asked to provide comments and suggestions about the measures or other aspects of the report. Comments were also solicited through a Federal Register Notice (9/17/97) which requested comments by October 17, 1997. OECA reviewed these comments from the meeting and the FR notice to prepare this final report and select the performance measures it intends to implement.

The National Performance Measures Strategy was directed by Michael Stahl, Deputy Assistant Administrator of OECA. Dr. Malcolm Sparrow, a Lecturer in Public Policy at the John F. Kennedy School of Government at Harvard University, served as a consultant to OECA for the Strategy. Marie Muller of OECA assisted Michael Stahl with substantive analysis of issues and ideas, review of documents and articles, and development of proposed measures. James McDonald of OECA was responsible for planning meetings, distributing documents, maintaining a docket and web site, and serving as a primary contact point for interested parties. Christine Stackpole, a graduate intern from the Kennedy School conducted special analyses, identified and reviewed documents and articles, and set up interviews with experts on performance measurement.

The Strategy was guided by an informal steering group consisting of the following: EPA Headquarters--Eric Schaeffer, Connie Musgrove, OECA/Office of Regulatory Enforcement; Elaine Stanley, OECA/Office of Compliance; Earl Devaney, OECA/Office of Criminal Enforcement, Forensics, and Training; Mark Luttner, Acting Deputy Director/Office of Planning, Analysis and Accountability. EPA Regions--Ira Leighton, R1; Walter Mugdan, R2; Phyllis Harris, R4; Jose Cisneros, R5; Gerald Fontenot, R6; Sally Seymour, R9; Betty Wiese, R10. Department of Justice--John Cruden, Deputy Assistant Attorney General, Environment and Natural Resources Division; Scott Siff, Counsel to the Assistant Attorney General; Robert Klotz, Senior Attorney/San Francisco. State environmental agency participants--Steve Thompson, OK; Mike Phillips, FL; Roger Kanerva, IL; and Jodi Perras, IN. State attorneys general participant--Tom McDonald, WA. It should be noted that participation on the steering group does not imply agreement with or endorsement of all recommendations and statements contained in this report.

Section I

THE NEED FOR ENHANCED PERFORMANCE MEASURES

EPA identified the need to develop enhanced performance measures for its enforcement and compliance assurance program as part of the Agency's September 1993 report announcing the reorganization of its enforcement program. That report cited the need to develop "better ways to measure impact" of enforcement and compliance assurance activities as an improvement desired by both external stakeholders and EPA enforcement personnel. OECA has worked to develop better performance measures since the reorganization and some of those efforts are described below. In addition, certain national trends compelled the Agency to develop more systematic and comprehensive performance measures.

Compelling Trends

The National Performance Measures Strategy for EPA's Enforcement and Compliance Assurance Program was initiated in response to several compelling trends in government, environmental protection, and enforcement and compliance assurance programs. The trend in government is toward results-based management and greater accountability to taxpayers. At the Federal level, this trend is being realized through the implementation of the GPRA, which requires Federal agencies to develop strategic plans with goals, objectives, and performance measures. State and local legislative requirements have also moved many governmental agencies toward greater accountability for results.

The trend in environmental protection is toward a more sophisticated model of protection which integrates incentive-based methods and traditional regulatory approaches, empowers the public with more information about environmental problems and industry performance, and focusses on a second generation of more diverse environmental problems and sources.

The trend in enforcement and compliance assurance programs is to emphasize strategic targeting of risk and noncompliance problems, assess risks and set priorities, maintain an effective deterrent presence, and use a wider range of tools (i.e., not solely inspections and enforcement actions) to increase compliance. Regulatory and law enforcement agencies of many kinds -- not just environmental protection -- are developing and integrating these approaches in order to optimize their impact on compliance levels and/or human health and safety.

EPA Efforts

These three trends have influenced OECA to identify and implement an enhanced set of measures which will ensure accountability and provide a powerful management tool to improve program performance.

After the reorganization three years ago, OECA began to develop and implement additional measures which capture outcomes. During that time, OECA: (1) convened a Measures of Success Work Group, comprised of EPA headquarters and regional officials; (2) developed and implemented a Case Conclusion Data Sheet (CCDS) to gather new types of information about environmental improvements resulting from completed cases; (3) developed and implemented a reporting measure for compliance assistance activities; and (4) realigned single-media data bases to enable collection and analysis of compliance information by industry sector.

These steps enabled OECA to make progress in developing and implementing an enhanced set of performance measures. Specifically, OECA can now supplement traditional enforcement measures with more outcome-based measures, including: (1) actions taken by regulated entities as a result of enforcement actions; (2) quantitative environmental impact and qualitative environmental benefit of those actions; and (3) industry-specific information about noncompliance.

Purpose of the National Performance Measures Strategy

Recognizing that its current approach of counting enforcement outputs needed to be supplemented further by measuring improvements in environmental quality and the state of compliance among regulated entities, OECA began the National Performance Measures Strategy by asking regulatory partners, interested parties, and stakeholders, to provide ideas about the following issues:

1. What innovative approaches are being used (or could be used) by other environmental agencies, other regulatory agencies, and law enforcement agencies to measure the effects of their enforcement and compliance assurance programs?
2. What innovative approaches are being used by regulated facilities, companies, or trade groups and associations to measure the effect of their efforts to achieve and maintain compliance and to protect the environment?
3. How can EPA measure the impact of its enforcement and compliance assurance program in low income/minority population communities?

4. How can EPA measure the deterrent effect of its enforcement-related activities?
5. How can EPA measure industry compliance with environmental laws and regulations?
6. How can EPA measure the impact of compliance assistance activities and compliance incentives (e.g., its audit and self-disclosure policy)?

Throughout the course of the meetings with regulatory partners, interested parties, and stakeholders, and the review of relevant reports and studies, OECA focussed on these issues and gathered information and ideas that address each of them. OECA has made progress on most of these issues, and that progress is reflected throughout this report.

As a direct result of soliciting ideas and suggestions from regulatory partners and stakeholders from February-October 1997, OECA developed the following objectives for the National Performance Measures Strategy and subsequent efforts to develop and refine performance measures:

- 1) Adopt the most effective combination of output measures, outcome measures, and environmental indicators.
- 2) Utilize performance measures that improve EPA's ability to evaluate the effectiveness of its enforcement and compliance assurance program and to manage that program more strategically.
- 3) Ensure public accountability of EPA and enhance accountability of regulated entities.
- 4) Empower the public by providing performance data which is accurate, transparent, and accessible.
- 5) Continue to seek and implement enhanced performance measures.

These objectives guided the decisions that OECA has made (see Section IV and V) about selecting and implementing an enhanced set of performance measures . They will also guide the additional long-term actions (see Section VII) OECA will pursue to enhance performance measurement in its enforcement and compliance assurance program.

Section II

LISTENING TO STAKEHOLDERS AND PARTNERS

The National Performance Measures Strategy collected ideas through: initial public meetings in which the full range of stakeholders and partners participated; focussed roundtable discussions with various subsets of stakeholders and partners; consultations with experts on performance measurement or other related subjects; and written comments submitted to EPA by interested parties. In addition, OECA held several meetings with EPA headquarters and regional enforcement and compliance assurance managers and staff to solicit their views. (A listing of participants and meetings can be found in Appendix B) EPA staff also identified and reviewed a variety of reports, articles, case studies, and academic studies about performance measurement, regulatory enforcement and other relevant subjects in an attempt to find and evaluate useful ideas. (A listing of these documents can be found in Appendix C)

Key Ideas from Discussions

The public meetings and roundtable sessions provided OECA with many useful ideas and proposals. These ideas were considered by OECA as suggested guiding principles or suggested measures, and most of them have been summarized in a separate document entitled “Inventory of Ideas and Proposals from Stakeholders and Partners,” (September 17, 1997).² Key points from each category of stakeholder and partner groups are described briefly below, based on the prevailing ideas offered by these groups.

Oversight Agencies

Discussions with representatives from the General Accounting Office (GAO), the Office of Management and Budget (OMB), and the EPA Inspector General’s Office (IG) provided the following key ideas:

- 1) The movement toward measuring results and outcomes of the enforcement and compliance assurance program is a positive step and should proceed.
- 2) The use of output measures should not be discontinued, especially without measures that are “equally as clear and powerful” indicators of performance.
- 3) In using outcome measures, program managers and oversight officials will need to be mindful of uncertainties surrounding attribution and causality of outcomes to activities and outputs.
- 4) A combination of measures (i.e., outputs and outcomes) will probably be most useful for program managers and oversight agencies.

State Environmental Agencies

Discussions with management and staff-level officials from state environmental protection agencies provided the following key ideas:

- 1) EPA's enforcement and compliance assurance program should place more emphasis on the use of outcomes and environmental indicators to measure performance, and reduce its emphasis on outputs as a measure of performance.
- 2) Appropriate performance measures can and should be developed to assess progress in addressing specific environmental problems and achieving environmental goals.
- 3) Although the states will continue to report enforcement outputs and activities, such outputs should be "placed within an appropriate [measurement] hierarchy and understood as being less than performance measures."
- 4) Enforcement of the law is but one tool among many available to agencies in addressing key environmental problems. States do not believe that enforcement can or should be separated from all other tools and measured independently.

Environmental Organizations, Environmental Justice Advocates

Discussions with representative of national and local environmental organizations, and environmental justice advocates provided the following key ideas:

- 1) The number of enforcement outputs is a useful measure of government presence among regulated entities and is important for ensuring government accountability.
- 2) Performance measures and associated data need to be understandable and accessible to the public.
- 3) EPA should maintain and improve the capability to organize and report performance measures and associated data for local community analysis and use.
- 4) EPA should develop and use data about health of communities and cumulative impacts on health as measures of the effectiveness of its programs.

Industry

Discussions with representatives of industry coalitions and individual companies provided the following key ideas:

- 1) Enforcement and compliance assurance activities should be linked to environmental goals and objectives, and measuring progress in achieving those goals is an important dimension of performance for EPA's enforcement and compliance assurance program.
- 2) Compliance with the law is an important goal which necessitates tracking of compliance trends and using those trends as a measure of performance.
- 3) EPA should provide more context about the state of compliance by categorizing violations according to seriousness and describing the range of compliance obligations.
- 4) EPA should step up its efforts to measure the amount and results of compliance assistance and analyze its relative effectiveness in increasing compliance.

5) EPA should provide more information about the constructive efforts of industry to improve environmental management.

Other Participants

OECA also solicited ideas from other parties such as academic experts and officials from other federal regulatory agencies. For the most part these ideas were highly specialized, offered parallels and examples from other areas of public policy, or were otherwise so diverse that “prevailing ideas” cannot be extracted from them. For further information about these participants, and the ideas or materials they presented, see Appendices B and C of this report.

Section III

**GENERAL FINDINGS ABOUT MEASURING PERFORMANCE OF
EPA'S ENFORCEMENT AND COMPLIANCE ASSURANCE PROGRAM**

Some ideas offered by participants provided broad guidance to OECA about measuring the performance of its enforcement and compliance assurance program. These general findings are described below. They were invaluable in developing and evaluating the sets of measures presented in Section IV. They will also guide OECA's continuing efforts to seek and implement enhanced performance measures.

1. There are diverse and multiple audiences for enforcement and compliance assurance performance measures.

Information about the performance of EPA's enforcement and compliance assurance program is used by many parties in a variety of ways. The most important audience is the public. Other significant audiences include EPA internal managers and staff, Congressional members and staff, oversight agencies, state environmental agencies, state attorneys general, environmental organizations, communities, regulated entities, and the media. All of them want and would use results-oriented performance measures presented in clear and understandable ways.

2. A combination of measures -- outputs and outcomes, quantitative and qualitative, statistical and narrative, aggregated and disaggregated, national or localized -- is necessary to measure performance, inform management, and serve the full range of audience and purposes.

No single number, fact, or category of measure (e.g., output or outcome) can convey all the information necessary to comprehensively measure performance. The mission of EPA's enforcement and compliance assurance program is complex. Its responsibilities are multiple and the tools used to achieve them are multi-faceted. Therefore, a variety of performance measures is needed to ensure accountability, improve management, and increase program effectiveness.

3. The value of individual performance measures and systems of measures should be judged by whether they are relevant, transparent, credible, feasible, functional, and comprehensive.

Performance measures should be relevant to EPA's mission, goals, objectives, and priorities, and to the needs of external stakeholders. Measures should be transparent and understandable so they enlighten users about program or agency performance. The credibility of the measures depends on the completeness and accuracy of the data used to support them. Measures are feasible if the cost of collecting data does not outweigh their value. To be

functional, measures should encourage organizations and programs to engage in effective and constructive behavior and activities. Finally, measures should be as comprehensive as possible with respect to important operational aspects of organizational performance. OECA used these criteria to evaluate proposed measures and select the measures described in Section IV of this report.

4. Performance measures are most effective when they reflect management priorities and are linked to a limited number program goals and objectives.

Successful performance measures demonstrate the degree to which organizations or programs are achieving their goals and desired results. The number of measures should be limited to key performance elements essential for producing data that aids program evaluation and decision making. Performance measures should reflect those operational aspects (e.g., quality, fairness, timeliness, cost, etc.) considered to be management priorities.

5. Increased use of outcomes measures presents many challenges, because agencies or programs may influence -- but not necessarily control -- outcomes.

Outcomes cannot generally be attributed or causally linked to individual functions of an agency or program. "Prevention" or deterrence of undesired outcomes is difficult to measure. Outcome measures are most concrete and useful when they are specific to a particular problem, and therefore may not lend themselves to broad aggregation.

6. Problem-specific, tailor-made performance measures are effective for evaluating performance in solving specific environmental and noncompliance problems.

When agencies or programs identify and target high-risk, high-priority environmental or noncompliance problems, their performance in mitigating or solving such problems can best be evaluated using tailor-made measures, indicators, or metrics which specifically relate to each problem. Generally a performance record that is specific to each problem needs to be developed, since problem-specific measures often cannot generally be aggregated in any useful way.

7. Performance measures are principally used to evaluate effectiveness and manage more strategically, rather than simply reporting accomplishments to the public in more interesting and informative ways.

If developed and used correctly, performance measures should permit more sophisticated analysis of results and the activities that produced them, allow comparisons of the relative effectiveness of specific tools and strategies, and lead to informed resource allocation that is more likely to achieve the desired results. A well-designed and wisely-utilized set of performance measures can put strategy and vision, goals and objectives at the center of management attention.

Section IV

ENHANCED PERFORMANCE MEASURES

OECA reviewed and evaluated all ideas and suggestions about performance measurement and specific measures received from stakeholders, regulatory partners, and experts. OECA also reviewed studies, articles and reports about measuring performance of enforcement and compliance assurance activities and programs.³ From these, OECA developed a measurement framework and a set of performance measures. Implementation and use of these measures is discussed in detail in Section V of this report.

**Measurement Framework:
The Performance Profile for EPA's
Enforcement and Compliance Assurance Program**

OECA will implement a measurement framework which will be called the Performance Profile for Enforcement and Compliance Assurance. The framework has three categories of measures -- indicators, outcomes, and outputs (See Table IV-1). EPA believes all three categories provide important information, each category is strengthened by the other two, and each category would be weakened or prone to misinterpretation in the absence of any of the others.

A. Indicator Category -- Impact on Environmental, Public Health, and Noncompliance Problems

The first category of the Profile analyzes the impact of the enforcement and compliance assurance program on *selected* environmental or public health problems. Impact will be measured by conducting annual evaluation studies of how the enforcement and compliance assurance program contributed to the achievement of selected Agency objectives included in the EPA Strategic Plan. The objectives selected for evaluation will be from among those targeted through an OECA enforcement and compliance assurance strategy developed in consultation with the relevant EPA media program(s).

B. Outcome Category -- Effects on Behavior of Regulated Populations

The second category describes changes in the behavior of regulated populations. The outcome category includes quantitative or qualitative measures of external behavior by regulated entities caused, at least in part, by actions of EPA. This category includes three types of measures: Levels of Compliance in Regulated Populations; Environmental Improvements by Regulated Entities; and Responses of Significant Violators.⁴

Table IV-1

**MEASUREMENT FRAMEWORK:
PERFORMANCE PROFILE FOR EPA'S
ENFORCEMENT AND COMPLIANCE ASSURANCE PROGRAM**

Indicator Category -- **Impact on Environmental or Human Health Problems**

Type: Annual evaluation studies of selected EPA objectives.

Outcome Category -- **Effects on Behavior of Regulated Populations**

Types: Levels of Compliance in Regulated Populations

Environmental Improvements by Regulated Entities

Responses of Significant Violators

Output Category -- **Enforcement and Compliance Assurance Activities**

Types: Monitoring Compliance

Enforcing the Law

Providing Assistance and Information

Building Capacity

C. Output Category -- Enforcement and Compliance Assurance Activities

The third category of the Profile describes activities undertaken by EPA as part of the enforcement and compliance assurance program. The output category includes quantitative or qualitative measures of important activities, work products or actions taken. There are four types of measures in the output category: Monitoring Compliance; Enforcing the Law; Providing Assistance and Information; and Building Capacity.⁵

Description of Performance Measures

The eleven sets of performance measures OECA will use to assess the effectiveness of its enforcement and compliance assurance program are described below. (See Table IV-2 for a complete list of performance measures by category and type.) The description includes the purpose served by the set, ways to aggregate and present the data associated with the set, supplemental measures (if any) about selected operational aspects of the output or outcome, and examples or illustrations of the information produced by the set.

I. Indicator Category: Impact on Environmental or Human Health Problems

This category focusses on measuring the impact of enforcement and compliance assurance activities on selected EPA objectives for improving environmental quality or human health. EPA developed ten goals and associated objectives as part of its strategic plan. (A listing of most of these goals and objectives can be found in Appendix A.)

Each year, OECA will evaluate three to five targeted EPA objectives to assess the impact of the enforcement and compliance assurance program on the achievement of those objectives. These evaluation studies will examine the Agency's overall progress in achieving the objectives, identify the outputs and outcomes that contributed to the progress, and draw plausible conclusions about the use and effectiveness of various enforcement and compliance assurance tools and initiatives. Over time, these studies should help OECA clarify the links between its actions and improvements in environmental quality, human health or compliance with environmental requirements.⁶

For example, one goal in the EPA Strategic Plan is "preventing pollution and reducing risk in communities, homes, workplaces and ecosystems." One of the objectives associated with this goal is "by 2005, the number of young children with high levels of lead in their blood will be

Table IV-2

**PERFORMANCE PROFILE FOR EPA'S
ENFORCEMENT AND COMPLIANCE ASSURANCE PROGRAM**

Impact on Environmental or Human Health Problems

Annual evaluation studies of selected EPA objectives..

Effects on Behavior of Regulated Populations

Levels of Compliance in Regulated Populations

- Set 1. Rates of noncompliance for --
 - a) fully-inspected populations
 - b) self-reported compliance information
 - c) populations targeted for special initiatives
 - d) priority industry sectors

Environmental or Human Health Improvements by Regulated Entities

- Set 2. Improvements resulting from EPA enforcement actions
- Set 3. Improvements resulting from compliance assistance tools and initiatives
- Set 4. Improvement resulting from integrated initiatives
- Set 5. Self-policing efforts by using compliance incentive policies

Responses of Significant Violators

- Set 6. Average number of days for significant violators to return to compliance or enter enforceable plans or agreements
- Set 7. Percentage of significant violators with new or recurrent significant violations within two years of receiving previous enforcement action

Enforcement and Compliance Assurance Activities

Monitoring Compliance

- Set 8. Number of inspections, record reviews, responses to citizen complaints, and investigations conducted

Enforcing the Law

- Set 9. Number of notices issued, civil and criminal actions initiated and concluded, and self-policing settlements concluded

Providing Assistance and Information

- Set 10. Facilities/entities reached through --
 - a) compliance assistance tools and initiatives
 - b) distribution of compliance information

Building Capacity

- Set 11. Capacity building efforts provided to state, local or tribal programs

significantly reduced from the early 1990's." A special evaluation study could analyze the reduction in lead levels for geographic or other patterns, inventory the enforcement and compliance assurance activities targeted at this problem, examine the relevant outcomes resulting from those activities, and assess the contribution of those activities (within the context of the Agency's overall effort) to the reduction in lead levels.

II. Outcomes Category: Effects on Behavior of Regulated Populations

A. Type: Levels of Compliance in Regulated Populations

Performance Measures Set #1 -- Rates of noncompliance for populations that are fully-inspected, required to self-report compliance information, targeted for special initiatives, or designated as priority industry sectors.

This set of measures provides an indication of the state of compliance among regulated entities. Compliance levels can provide a broad measure of the behavior of populations affected to some degree by enforcement and compliance assurance activities.

Valid compliance rates can be calculated for regulated populations in which the entire population is inspected or self-reporting compliance information (e.g., quarterly Discharge Monitoring Reports from permitted major dischargers, required by the Clean Water Act). Similarly, regulated populations which are targeted as part of a focussed initiative can yield valid initiative-specific compliance rates, although these cannot be aggregated to produce a macro-level measure. For most industry sectors, OECA currently has compliance rate information based on targeted samples of inspected facilities. These samples are not capable of producing rates which are statistically valid and representative of the whole sector.

OECA will implement compliance rate measures incrementally. First, OECA will review the accuracy of the data for regulated populations which are fully-inspected or required to self-report, and then begin using these rates as outcome measures in the Performance Profile. Second, for initiative-specific compliance rates, OECA will need to include in the design of initiatives either the use of a subset of existing compliance data or collection of new data about the targeted population. Third, OECA needs to begin conducting random inspections (as a supplement to targeted inspections) for industry. These random inspections could be conducted in a maximum of five to ten sectors per year to produce statistically valid compliance rates, and would be repeated over time to monitor changes and assess impact.

B. Type: Environmental and Human Health Improvements by Regulated Entities

Performance Measures Set #2 -- Environmental and human health improvements initiated as a result of EPA enforcement actions.

This set of measures provides an indication of the scope and type of environmental improvements which can be attributed directly to completed EPA enforcement actions. This data will be aggregated and presented by type of improvement, industry sector, statute, and EPA Region. Supplemental measures in this set will include pounds of pollutant reductions from enforcement cases and the results and dollar value of injunctive relief.

OECA collected this information for FY 1996 and FY 1997 on the CCDS, which divides improvements into 19 different types, ranging from emissions/discharge reduction to record keeping upgrades. For FY 1996, completed enforcement cases caused regulated facilities to implement a wide range of environmental improvements, including, but not limited to: 291 instances of emissions reductions; 150 instances of remediation or restoration; 132 removals of hazardous substances; 82 instances of industrial process changes; 86 environmental audits at facilities; and 122 instance of reporting chemical emissions to the public. Overall, about 25 percent of the improvements caused regulated entities to reduce emissions or discharges or change facility operations. About 75 percent caused regulated entities to improve their environmental management systems, take preventive actions to avoid noncompliance, or enhance the public's right to know.

Performance Measures Set #3 -- *Environmental or human health improvements from compliance assistance tools and targeted initiatives.*

This set of measures provides an indication of the scope and types of improvements resulting from compliance assistance tools and the delivery of compliance assistance through targeted initiatives. Because these outcomes are very specific to the tool or initiative, aggregating them nationally will be difficult. Instead, this measure will produce a set of accomplishments which would be expressed in quantitative or qualitative terms.

EPA and several state environmental agencies (e.g., Massachusetts, Connecticut, Washington, Oregon, Illinois) have conducted assistance initiatives targeted at specific industry sectors. Some of these initiatives have produced outcome data about environmental improvements at facilities receiving compliance assistance. For example, some initiatives documented increased use of environmentally-beneficial business practices at facilities receiving compliance assistance.⁷

Performance Measures Set #4 -- *Environmental or human health improvements from integrated enforcement and compliance assurance initiatives.*

This set attempts to demonstrate the scope and types of improvement resulting from initiatives which use some combination of compliance assistance, compliance incentives, and enforcement. Like Set #3 above, these outcomes are very specific to the initiative, and it may not be possible to aggregate them in a national total. This measure is likely to produce

accomplishments described in both qualitative and quantitative terms. Establishing a measure for integrated initiatives creates an incentive for OECA managers and staff to develop and conduct such initiatives, and to design them in a way that facilitates measurement of outcomes.

One example of an integrated approach is a steel mill sector initiative in EPA Region 5. Steel mills were encouraged to use EPA's audit and self-disclosure policy, offered compliance assistance, and were advised that inspections and enforcement actions would subsequently be targeted at non-participating mills. Such initiatives can produce a variety of outcomes (better compliance rates, increased use of beneficial business practices, pollutant reductions, etc.) from the synergistic effect of using enforcement and compliance assurance tools in combination.

Performance Measures Set #5 -- *Self-policing efforts by regulated entities using compliance incentive policies.*

This set of measures indicates how many companies or facilities are identifying, correcting, and disclosing violations under the terms of EPA's self-policing incentive policies. These data will be presented by industry sector, statute, and EPA Region.

This measure includes the number of self-policing companies and facilities since the inception of the policy, and the number doing so for the most recent fiscal year. For example, since the inception of the self-policing policy 233 companies voluntarily disclosed violations at more than 750 facilities nationwide. This measure will also include data about companies and facilities participating in other incentive programs designed to increase compliance with specific requirements in exchange for a reduced penalty.

C. Type: Responses of Significant Violators

Performance Measures Set #6 -- *Average number of days for significant violators to return to compliance or enter enforceable plans or agreements.*

This set of measures provides an indication of the behavior of significant violators regarding their timeliness in addressing violations. This data will be aggregated and presented by industry sector, statute, and EPA Region.

Performance Measures Set #7 -- *Percentage of significant violators with new or recurrent significant violations within two years of receiving previous enforcement actions*

The purpose of this set of measures is to provide an indication of whether significant violators continue to violate after a previous enforcement action. This data will be aggregated and presented by industry sector, statute and EPA Region.

III. Outputs Category: EPA Activities

A. Type: Monitoring Compliance

Performance Measures Set #8 -- *Number of inspections, record reviews, responses to citizen complaints, and investigations conducted.*

This set of measures provides an indication of EPA's monitoring "presence" among regulated populations. Inspections, record reviews, and investigations are fundamental tools for identifying instances and recognizing patterns of noncompliance. Data from this measure will be aggregated and presented by industry sector, statute, and EPA Region. Supplemental measures will include percentage of individual industry sectors inspected, and percentage of inspections occurring in low income/minority communities or at previously uninspected sites.

B. Type: Enforcing the Law

Performance Measures Set #9 -- *Number of notices of violation issued, civil (administrative and judicial) and criminal enforcement actions initiated and concluded, and number of self-policing settlements concluded.*

This set of measures will provide an indication of EPA's enforcement "presence" among regulated populations. Enforcement actions provide a powerful deterrent to noncompliance, provide incentives for voluntary compliance, and prevent noncomplying entities from getting an unfair economic or competitive advantage over entities who invest resources in compliance.

Data from this measure would be aggregated and presented by industry sector, statute, and EPA Region. Supplemental measures will include percentage of cases in low income/minority communities, types of environmental impact from concluded cases, types of Supplemental Environmental Projects from concluded cases, the number of significant violators relative to the number of inspections and number of regulated facilities, and jail time and penalty amounts by statute. These measures can serve as "intermediate outcomes", information about compliance that can be especially useful until valid compliance rates (see measures set #1) are implemented.

C. Type: Providing Assistance and Information

Performance Measures Set #10 -- *Number of facilities/entities reached through: compliance assistance tools and initiatives; distribution of compliance information.*

This set provides an indication of the amount and types of regulated entities potentially affected by compliance assistance efforts, and the number and types of recipients potentially empowered by information about facility or sector compliance. A supplemental measure will be

the number and types of compliance assistance and information tools developed.

D. Type: Building Capacity

Performance Measures Set #11 -- *Capacity building efforts provided by EPA to state, local, or tribal programs.*

This set of measures is to provide an indication of efforts made to build enforcement and compliance assurance capacity among other levels of government. Capacity building efforts include activities such as assisting with investigations or cases, and training programs to build specific skills. Capacity building by EPA has a “multiplier effect” by positioning other levels of government to identify and address noncompliance. Data from this measure could be aggregated and presented by type of assistance, type of recipient, and EPA Region. Supplemental measures could include some indication of the quality and use of the capacity building effort.

The Performance Profile As a Management and Accountability Tool

The framework of activities (outputs), effects on behavior (outcomes), and environmental impacts (indicators), and the 11 performance measures sets that reside within the framework form the Performance Profile for EPA’s Enforcement and Compliance Assurance Program. When implemented and utilized, the Profile will provide a valuable tool for EPA program managers and staff, the general public, environmentalists, environmental justice advocates, regulatory partners, Congress, oversight agencies, and regulated industries.

The Profile offers many advantages over EPA’s previous approach to measuring the performance of its enforcement and compliance assurance program. The previous approach focussed on a limited set of outputs and did not emphasize development and analysis of outcome measures. The Profile improves upon that approach in several ways:

- 1) The Profile **measures the full range of program outputs**, including compliance assistance, providing information to the public, compliance incentives, along with the traditional output measures for compliance monitoring and enforcement. Through the use of supplemental measures, the Profile **moves beyond mere counting of outputs to measure important operational aspects** of those outputs.
- 2) The Profile **begins to illustrate the links between activities and effects** by combining outputs and outcomes in the same measurement system. Outputs can be examined in conjunction with outcomes and managers can build their understanding of combinations of outputs that might influence certain outcomes.
- 3) The Profile **connects program outputs and outcomes to EPA’s GPRA goals and**

objectives by more systematically measuring the contribution of the enforcement and compliance assurance program to the achievement of Agency objectives. It moves those objectives to the forefront of management attention and thereby promotes more strategic approaches to program management.

4) The Profile **increases the power and value of each measure by combining them in a set** which can be used to meet a wide range of needs. Each measure provides an important piece of information about the performance of EPA's enforcement and compliance assurance program. But no single measure or type of measure conveys enough information to evaluate fully the performance of the program. The individual measures are similar to pieces of a puzzle or a mosaic: individually, the pieces do not describe very much about the whole; together, the pieces can convey a coherent picture.

5) The Profile **provides an instrument for improved program management**. Two of the definitions of "instrument" are a "measuring device" and a "thing used in performing an action." The Profile provides both to managers. It measures activities and their results, and promotes evaluation of program effectiveness. It provides an action tool for managers to develop and modify strategies through fact-based analysis.

6) The Profile **provides a window for improved accountability**. Two of the definitions of "window" are "make visible" and "opportunity to learn through observation." The Profile provides both of these to stakeholders, Congress, oversight agencies, and the public. It makes transparent the key activities and results of the enforcement and compliance assurance program, as well as the performance of regulated entities in complying with the law.

Section V

**IMPLEMENTING THE
PERFORMANCE MEASURES**

A variety of actions are needed to implement the categories and measures in the Performance Profile. OECA's goal is to fully implement or conduct pilot projects for each of the measures during FY 1998. This goal is ambitious, and will require a significant commitment of resources. The implementation of the Performance Profile will be a major priority of OECA throughout FY 1998, and the use and refinement of the Profile will be an OECA priority for the foreseeable future.

OECA will look for opportunities to implement individual measures through pilot projects with state regulatory agencies, external stakeholders, and other interested parties. These projects can often combine the expertise of EPA and other agencies or organizations, and thereby accelerate the effective implementation of the performance measures.

For each measure, implementation issues, a schedule of tasks, and an overall rating of implementation difficulty are provided below.

I. Indicators

OECA will assess the impact of its programs on environmental, human health, and noncompliance problems by conducting evaluation studies of the enforcement and compliance assurance contribution to achieving EPA strategic objectives. (Those objectives are listed in Appendix A.) The tasks and schedule for implementation for the Indicators portion of the Performance Profile are as follows:

1. Select EPA objective for FY98 pilot evaluation study. 2nd Quarter FY98
2. Develop study plan and conduct pilot evaluation study. 2Q-4Q FY98
3. Complete evaluation and report results. 12/1/98
4. Select 2-3 EPA objectives for evaluation studies. 1Q FY99
5. Report results of FY99 studies.12/1/99

The implementation difficulty for this category is high. Conducting these evaluation studies will require significant resources and sophisticated analysis methods. The evaluation studies should have a significant effect over time on OECA's targeting and resource allocation practices, to both align them with EPA's strategic objectives and to identify approaches that produce measurable results in each program area.

II. Outcomes

A. Set 1- Rates of Noncompliance

As described in Section IV, OECA will develop noncompliance rates for four different categories of regulated populations. Implementation tasks for each of the four types are formidable and vary depending on current availability of data and other factors. The tasks and schedule for implementation of noncompliance rates are as follows:

- a) Fully-inspected populations
 - 1. Review statistical validity of current data. 2Q-3Q FY98
 - 2. Develop selected noncompliance rates 3Q-4Q FY98
 - 3. Report noncompliance rates. 12/1/98
- b) Populations self-reporting compliance information.
 - 1. Review statistical validity of current data. 2Q-3Q FY98
 - 2. Develop selected noncompliance rates 3Q-4Q FY98
 - 3. Report noncompliance rates. 12/1/98
- c) Populations targeted for special initiatives
 - Varies according to development and completion of special initiatives. First available rates may be reported in FY 99 for initiatives begun in FY 98.
- d) Priority industry sectors.
 - 1. Develop inspection/sampling plan for selected sectors. 2Q FY98
 - 2. Conduct inspection/sampling plan. 3Q-4Q FY98
 - 3. Report noncompliance rates for selected sectors. 12/1/98
 - 4. Develop inspection/sampling plan for additional sectors. 2Q FY98
 - 5. Report noncompliance rates for additional sectors. 12/1/99

The implementation difficulty for fully-inspected and self-reporting populations is moderate, assuming current data can produce statistically valid rates. The implementation difficulty for priority industry sectors is high due to the design and execution of the inspection/sampling plan, which will require significant resources.

B. Set 2 - Environmental or Human Health Improvements from Enforcement

OECA has been collecting and analyzing this data from the CCDS during FY 96 and FY 97. Much of the implementation necessary for this measure is already in place. OECA intends to review the quality of the data from the first two years. The remaining task and schedule for this measure are as follows:

- 1. Develop evaluation plan for FY 96-97 CCDS. 2Q-3Q FY98
- 2. Conduct evaluation study 3Q-4Q FY98
- 3. Report results and make system improvements. 1Q FY99

The implementation difficulty for this measure is low given that OECA has implemented and refined the CCDS process during the last two years.

C. Set 3 - Environmental or Human Health Improvements from Compliance Assistance

OECA has experimented with collecting this kind of outcome information in the last two years, and has had only limited success. This is due to confusion over definitions of terms, lack of standard reporting, and the difficulty of designing compliance assistance efforts so as to measure outcomes. The tasks and schedule for this measure are as follows:

- 1. Develop definitions/categories, information collection process. 2Q FY98
- 2. Conduct pilot projects in 3-5 regions. 3Q-4Q FY98
- 3. Review and report results of pilots. 12/1/98
- 4. Implement nationwide. FY99

The implementation difficulty for this measure is high. The previous OECA efforts have illustrated the difficulty of collecting this information, and have perhaps been instructive in pointing out some ways to succeed with this measure. Previously, collection of outcome-related data had been impeded by the difficulty in designing data collection instruments that would access the facilities receiving compliance assistance directly. However, OECA has recently received approval (from OMB) to collect data on facility impact and behavioral change.

D. Set 4 - Environmental or Human Health Improvements from Integrated Initiatives

This measure will require that integrated initiatives be designed at the outset so as to measure the outcomes they produce. At least some of the initiatives planned for FY98 have not been designed to do so. The tasks and schedule for this measure are as follows:

- 1. Collect and analyze results from previous initiative. 2Q-3Q FY98
- 2. Review measurement capabilities for FY98 initiatives. 2Q-3Q FY98
- 3. Develop/collect data from selected FY 98 initiatives 3Q-4Q FY98
- 4. Report outcomes for selected FY98 initiatives. 12/1/98

The implementation difficulty for this measure is moderate. Although there are only a limited number of integrated initiatives conducted each year, collecting information about their outcomes will be a challenging task that will need to be customized for each initiative.

E. Set 5 - Self-Policing Efforts using EPA Compliance Incentive Policies

The information necessary for this measure is already being collected and used by OECA. Some further refining of data collection will be necessary, but implementation difficulty for this measure is low.

F. Sets 6 and 7 - Significant Violator Return to Compliance
 - Significant Violator New or Recurrent Violations

The information necessary for these measures is currently collected in EPA national data systems. However, there are questions about the timeliness and accuracy of this data. Also, OECA will need to define the trigger for beginning the count of average days for return to compliance and the two-year period within which a new or recurrent violation occurs. The tasks and schedule for this measure are as follows:

1. Review quality and timeliness of current data 2Q-3Q FY98
2. Resolve definitions and change collection process (if necessary). 2Q-3Q FY98
3. Report results for FY 98. 12/1/98

The implementation difficulty for this measure is moderate, assuming that reporting and timeliness issues are not more severe than expected.

III. Outputs

A. Set 8 - Monitoring Compliance

Implementing this measure will require developing definitions and categories for investigations, record reviews, and complaint responses. It will also require developing a process for collecting information about these outputs and pilot testing that process in regional offices. The tasks and schedule for this set of measures are as follows:

1. Develop definitions/categories and information collection process. 2Q-3Q FY98
2. Conduct pilot project in 3-5 regions. 2Q-4Q FY98
3. Report results of pilots. 12/1/98
4. Implement nationwide. FY99

The implementation difficulty for this measure is low, assuming regions are now collecting this information, and the remaining task is to standardize definitions and a reporting process.

B. Set 9 - Enforcing the Law

The only portion of this measure for which information is not now collected is the Notice of Violation. Therefore, a process for collecting this information will need to be implemented. The tasks and schedule for this set of measures are as follows:

- 1. Develop information collection process for NOVs. 2Q-3Q FY98
- 2. Report NOV data as part of this measure for FY98.12/1/98

The implementation difficulty for this measure is expected to be low, since this data should be relatively easy to collect.

C. Set 10 - Providing Assistance and Information

This set of measures will require developing two types of estimates: number of regulated facilities and/or entities reached through compliance assistance; and entities reached through providing information to the public about compliance of regulated populations. For compliance assistance, definitions and reporting of this information will be handled as a task under Set 3, Environmental or Human Health Improvements from Compliance Assistance. For compliance information to the public, definitions and collection processes will need to be developed. The tasks and schedule for this measure are as follows:

- 1. Develop definitions/categories, information collection process.2Q FY98
- 2. Conduct pilot project in 3-5 regions.2Q-4Q FY98
- 3. Review and report results of pilot project.12/1/98
- 4. Implement nationwide. FY99

The implementation difficulty for this measure is high, given the definitions and collection processes that need to be developed and the need to run a pilot project.

D. Set 11 - Building Capacity

This measure will require definitions and categories of capacity building to be developed, as well as creation of an information collection process. The tasks and schedule for this set of measures are as follows:

1. Develop definitions/categories, information collection process. 2Q-3Q FY98
2. Conduct pilot project in 3-5 regions. 2Q-4Q FY98
3. Review and report results of pilots. 12/1/98
4. Implement nationwide. FY99

The implementation difficulty for this measure is moderate. It will be necessary to determine which forms of capacity building efforts are worth measuring, develop uniform definitions of those efforts, and establish a standardized method of collecting this information.

Section VI

**ALIGNING THE MEASURES
WITH RELATED PLANNING EFFORTS**

OECA conducted the National Performance Measures Strategy at the same time three other related strategic planning and performance measurement efforts were underway. The other related efforts are: the development of EPA's Strategic Plan as required by GPRA; the development of an OECA strategic plan known as the National Enforcement and Compliance Assurance Plan (NECAP); and the development of Core Performance Measures by EPA and ECOS for use in Performance Partnership Agreements (PPAs). OECA monitored and considered the impact of these efforts as it developed the Performance Profile and recognizes the need for alignment with them. This Section briefly explains these other efforts and how the Measures Strategy aligns with them.

I. The EPA Strategic Plan

On September 30, 1997, EPA submitted its Strategic Plan to Congress as required by GPRA. The Plan describes the Agency's goals and objectives and discusses strategies for achieving them. The goals and objectives from the Plan are listed in Appendix A of this report.

One of the Plan's ten goals relates to OECA: "provide a credible deterrent to pollution and greater compliance with the law." This goal also has two associated objectives:

1. "Identify and reduce significant noncompliance in high priority program areas, while maintaining a strong enforcement presence in all regulatory program areas;" and
2. "Promote the regulated communities' compliance with environmental requirements through compliance incentives and assistance programs."

The measures included in the Performance Profile serve this goal and its objectives. The combination of outputs and outcomes included in the Profile will help OECA evaluate whether it is achieving a credible deterrent and greater compliance. Noncompliance rates will be used to determine whether noncompliance is being reduced in high priority program areas and how OECA activities are influencing changes in noncompliance. Output measures for inspections and enforcement actions will help monitor whether a strong enforcement presence is being maintained. Output and outcome measures for self-policing and other compliance incentive efforts, and for compliance assistance tools and initiatives will enable OECA to evaluate its effectiveness in promoting voluntary compliance by regulated entities.

Other goals in the Plan (e.g., clean air and water, safe food, preventing pollution, better waste management, expansion of community right-to-know about environmental matters) are also served by various measures in the Performance Profile. The output and outcome measures for assistance, incentives, monitoring, and enforcement can be organized and examined to show how goals and associated objectives were addressed by the enforcement and compliance assurance program. In addition, the Indicators category of the Profile will result in special evaluation studies of three to five Strategic Plan objectives each year. These studies will provide more rigorous analysis of the OECA contribution to achievement of environmental objectives.

II. The National Enforcement and Compliance Assurance Plan (NECAP)

Over the past several months, OECA staff and managers in headquarters and the regions have developed NECAP to guide OECA's efforts to "provide a credible deterrent to pollution and greater compliance with the law." NECAP is the basis for long-term and annual goals developed to meet GPRA requirements. It will be used to guide management and budget decisions, provide a framework for setting priorities, and evaluate OECA progress in meeting its goals.

NECAP includes five goals, the first two of which are the same as the objectives listed in the "credible deterrent and greater compliance" goal from the EPA Strategic Plan described above. The five goals are:

1. Identify and reduce significant noncompliance in high priority areas, while maintaining a strong enforcement presence in all regulatory programs;
2. Promote the regulated communities' voluntary compliance with environmental requirements through compliance incentives and assistance programs;
3. Ensure Americans' right to know about their environment and promote environmental justice in federal programs;
4. Reduce or control risks to human health and the environment at over 350,000 contaminated Superfund, RCRA, UST, and Brownfield sites; and
5. Use the best human resource and fiscal management practices to achieve our mission.

As explained above, various measures from the Performance Profile serve the first two of the five NECAP goals. The third NECAP goal regarding right-to-know is served both by Set #10 (providing information to the public) and by output and outcome data on assistance and enforcement activity designed to increase compliance with various information reporting requirements. Regarding the environmental justice portion of that goal, various outputs have supplemental measures about the percentage of activities occurring in low income and/or minority population areas. The Profile also includes output and outcome data which measures EPA enforcement and compliance assurance activity at Superfund, RCRA, Underground Storage Tank, and Brownfield sites. Finally, by adopting, using and refining the Performance Profile, OECA will be improving management practices as called for in the fifth NECAP goal.

III. Core Performance Measures

As part of the EPA and ECOS effort to develop Core Performance Measures for Performance Partnership Agreements, OECA and ECOS representatives agreed on a set of Accountability Measures for Enforcement and Compliance Assurance.⁸ The eight Accountability Measures are listed below, along with the corresponding measure in the OECA Performance Profile:

Outcomes --

1. Rates of significant noncompliance by industry sector and by media. (Corresponds to Performance Measures Set 1, rates of noncompliance for regulated populations).
2. Percent of significant violators in each media that have new or recurrent violations within two years of receiving a formal enforcement action. (Corresponds to Performance Measures Set 7, recurrent violations by significant violators).
3. Environmental and/or human health benefits achieved through inspection and enforcement activities (e.g., case settlements, compliance agreements, injunctive relief, Supplemental Environmental Projects). (Corresponds to Performance Measure Set 2, improvements from enforcement activities).
4. Results or impact of using: state audit privilege or immunity law; state audit policies; state small business compliance assistance policies; and compliance assistance initiatives developed for specific industry sectors. (Corresponds to Performance Measures Set 3, improvements from compliance assistance, and Set 5, self-policing efforts using incentive policies).

Outputs--

1. Number of inspections conducted, and percentage of total universe of regulated sources inspected in MOA priority areas (e.g., industry sectors, geographic areas). (Corresponds to Performance Measure Set 8, compliance monitoring activities).
2. Enforcement activity initiated (e.g., cases, referrals, orders, notices) by media. (Corresponds to Performance Measures Set 9, enforcement actions initiated).
3. Average number of days for significant violator cases to return to compliance or to enter enforceable compliance plans or agreements. (Corresponds to Performance Measures Set 6, average time for significant violators to return to compliance).
4. Enforcement activity concluded (e.g., cases, referrals, orders, notices) concluded by media, including penalty amounts for each category of action. (Corresponds to Performance Measures Set 9, enforcement actions concluded).

Data for outcome measures #1 and #2, and output measures #1,#2, and #3 are currently reported to EPA's national data systems by states. For the remaining measures, states were asked to report to EPA any existing information they had which could support these measures. Most states thus far have been unable to report this information to EPA. States and EPA regional offices also can decide jointly to substitute for individual measures as part of their PPA negotiations.

The Performance Profile OECA has adopted for its program includes all of the Accountability Measures. The Profile also adds other new measures that OECA feels are important for its program, but which it will not ask states to develop or report.

Section VII

**CONTINUING IMPROVEMENT OF
PERFORMANCE MEASURES**

As mentioned in Section I of this report, one of OECA's objectives is to "continue to seek and implement enhanced performance measures." This objective reflects an understanding that developing and using performance measures is an ongoing and iterative process. OECA will pursue this objective through a variety of means designed to ensure that performance measurement contributes effectively to the continued improvement of the enforcement and compliance assurance program.

As OECA begins the implementation phase of the National Performance Measures Strategy, immediate steps will be taken to ensure use of the Performance Profile. To ensure internal use, a series of regional briefings will be conducted to explain the Profile, regional and headquarters program performance reviews will utilize the Profile, and annual strategic planning and priority setting processes will feature the data from the Profile. To ensure external use, the Profile will be publicized and explained in various publications and presentations, and on-line access to the Profile will be developed. (See #3 below.)

OECA will also carry out other activities over the next two to three years as part of the Strategy:

- 1) **Continue working with state environmental agencies to align performance measurement efforts.** OECA will continue collaborations with state environmental agencies about development and use of performance measures and associated data. Specifically, there are at least four areas which OECA and the states need to work on: including output and outcome data currently reported to EPA by states as part of the presentation of Performance Profile data; ensuring consistency between Profile performance measures and the accountability measures states are using for PPAs; reducing reporting burdens for states if the review of data reporting and collection (#2 below) identifies data which are no longer necessary; and monitoring and learning from our respective performance measurement efforts so they can improve over time.
- 2) **Review current data reporting and collection systems.** As OECA's experience and confidence with the Profile grows, it will evaluate the utility and relevance of the data it currently collects. Nonessential data collection may be discontinued or streamlined. This will require a painstaking review of current data collection and use. A review of current hardware and software associated with those systems should also be undertaken to identify potential improvements.

- 3) **Provide electronic access to Profile data.** OECA will explore and establish on-line access to the Performance Profile through the OECA and EPA home page and make the available data as accurate and current as possible. Special analyses using Profile data may also be made available through the home page.
- 4) **Incorporate relevant results of significant noncompliance policy review.** OECA has undertaken a review of significant noncompliance policies to determine if revisions of definitions or other features are necessary. Potential changes might have an impact on some of the measures, for example, whether or how violations might be organized into categories by gravity or weighted by seriousness.
- 5) **Continue the search for ways to measure the deterrent effect.** The deterrent effect is a notoriously difficult phenomenon to measure, but one that warrants continued research and analysis. As part of the Strategy, EPA reviewed various studies, articles, and reports describing approaches to measure the deterrent effect of enforcement strategies or tools, including many used in regulatory programs other than environmental protection. Some of these approaches deserve further review for their applicability to environmental enforcement and compliance assurance programs. In addition, the special evaluation studies OECA will conduct to assess its contribution to the achievement of EPA objectives will present opportunities to explore the deterrent effect.
- 6) **Explore the link between performance measures and resource inputs.** As OECA gains more experience and confidence in using the performance measures, it will link resource inputs such as dollars and personnel utilization to learn the cost of producing outputs and outcomes. It seems clear that GPRA envisions this link between inputs, outputs, and outcomes. Oversight of government programs will increasingly focus on this link in the future.
- 7) **Translate Profile performance measures into personnel performance standards.** If performance measures are to have the maximum effect on an organization, they need to motivate and (if necessary) change behavior of the managers and staff of the organization. OECA will explore how best to translate the performance measures in the Profile into personnel performance standards that emphasize important activities and results.
- 8) **Monitor and learn from GPRA implementation efforts.** OECA will continue to actively pursue and learn from other regulatory and enforcement agencies' efforts to develop and use performance measures. Valuable lessons can be learned from their efforts and from oversight agencies' reviews of them.

NOTES

1. EPA Strategic Plan, United States Environmental Protection Agency, Office of the Chief Financial Officer, September 1997, EPA/190-R-97-002.
2. The inventory, public meeting transcript and other documents related to the Measures Strategy can be found on OECA's website at: <http://es.inel.gov/oeca/perfmeas>
3. These reviews were conducted by a combination of: OECA senior managers and staff; an expert consultant; a steering group composed of EPA, DOJ, and various state officials; and an internal OECA staff work group. In addition, many of the roundtable sessions with stakeholders, partners, and experts focussed on evaluative questions about the strengths and limitations of various measurement approaches and specific performance measures.
4. Since the previous 9/17/97 draft report and the discussion at the 10/7/97 public meeting, the outcome measures have been revised after consideration of internal and external comments. First, a measure regarding environmental improvements initiated by regulated entities (Set 5 in the 9/17/97) draft has been deleted. Although EPA still believes this data would be interesting to have, these improvements are not a very useful indication of EPA performance in ensuring compliance. Also, the feasibility of collecting such data was very problematic. EPA remains open to exploring the collection and use of this data, but will not include it in the Performance Profile at this time. Second, a measure for environmental improvements from integrated initiatives was added to encourage development and measurement of such initiatives.
5. Since the 9/17/97 draft report and the discussion at the 10/7/97 public meeting, the output measures have been revised after consideration of internal and external comments. Sets 12 and 13 from the 9/17/97 draft (regarding providing assistance and information) were combined to form Set 10 (i.e., facilities/entities reached through compliance assistance or providing compliance information) of the final report.
6. On page 95 of the EPA Strategic Plan, the Agency discusses the need to "prepare periodic reports of progress toward our strategic goals and objectives." The OECA evaluation studies described in this report will be used by the Agency to review progress toward those goals and objectives.
7. A useful discussion of measuring the results of compliance assistance efforts has been prepared by a Performance Measurement Panel which met at the National Compliance Assistance Providers Workshop in Washington D.C. on July 21-22, 1997. The Panel subsequently produced a set of principles and guidelines which is available on-line at the website listed in Note 2 above.
8. EPA and ECOS agreed to call the measures for enforcement and compliance assurance

programs “accountability measures” instead of performance measures for FY 1998. States felt that measures associated with enforcement and compliance assurance should not be considered performance measures since, in their view, enforcement is a “tool, not a goal.” EPA felt that enforcement and compliance assurance measures needed to be considered more than just “reporting requirements,” as the states preferred to call them. The accountability measures designation was the formulation agreed to by EPA and ECOS.

Appendix A

SELECTED GOALS AND OBJECTIVES FROM EPA'S STRATEGIC PLAN

Goal 1: Clean Air

The air in every American community will be safe and healthy to breathe. In particular, children, the elderly, and people with respiratory ailments will be protected from health risks of breathing polluted air. Reducing air pollution will also protect the environment, resulting in many benefits, such as restoring life in damaged ecosystems and reducing health risks to those whose subsistence depends directly on these ecosystems.

Objectives

- By 2010, improve air quality for Americans living in areas that do not meet National Ambient Air Quality Standards (NAAQS) for ozone and particulate matter (PM).
- By 2010, reduce air toxic emissions by 75 percent from 1993 levels to significantly reduce the risk to Americans of cancer and other serious adverse health effects caused by air-borne toxics.
- By 2005, improve air quality for Americans living in areas that do not meet the current NAAQS for carbon monoxide, sulfur dioxide, lead, and nitrogen dioxide.
- By 2010, ambient sulfates and total sulfur deposition will be reduced by 20-40 percent from 1980 levels due to reduced sulfur dioxide emissions from utilities and industrial sources. By 2000, ambient nitrates and total nitrogen deposition will be reduced by 5-10 percent from 1980 levels due to reduced emissions of nitrogen oxides from utilities and mobile sources.

Goal 2: Clean and Safe Water

All Americans will have drinking water that is clean and safe to drink. Effective protection of America's rivers, lakes, wetlands, aquifers, and coastal and ocean waters will sustain fish, plants, and wildlife, as well as recreational, subsistence, and economic activities. Watersheds and their aquatic ecosystems will be restored and protected to improve public health, enhance water quality, reduce flooding and provide habitat for wildlife.

Objectives

- By 2005, protect public health so that 95 percent of the population served by community water systems will receive water that meets drinking water standards, consumption of contaminated fish and shellfish will be reduced, and exposure to microbial and other forms of contamination in waters used for recreation will be reduced.

- Conserve and enhance the ecological health of the nation's (state, interstate, and tribal) waters, and aquatic ecosystems -- rivers and streams, lakes, wetlands, estuaries, coastal areas, oceans, and groundwater -- so that 75 percent of waters will support healthy aquatic communities by 2005.
- By 2005, pollutant discharges from key point sources and nonpoint sources runoff will be reduced by at least 20 percent from 1992 levels. Air deposition of key pollutants impacting water bodies will be reduced.

Goal 3: Safe Food

The foods Americans eat will be free from unsafe pesticide residues. Children especially will be protected from the health threats posed by pesticide residues, because they are among the most vulnerable groups in our society.

Objectives

- By 2005, the risk from agricultural use of pesticides will be reduced by 50 percent from 1995 levels.
- By 2005, use on food of current pesticides that do not meet the new statutory standard of "reasonable certainty of no harm" will be substantially eliminated.

Goal 4: Preventing Pollution and Reducing Risk in Communities, Homes, Workplaces and Ecosystems

Pollution prevention and risk management strategies, aimed at cost-effectively eliminating, reducing, or minimizing emissions and contamination will result in cleaner and safer environments in which all Americans can reside, work and enjoy life. EPA will safeguard ecosystems and promote the health of natural communities that are integral to the quality of life in this nation.

Objectives

- By 2005, public and ecosystem risk from pesticides will be reduced through migration to lower risk pesticides and pest management practices, improving education of the public- and at-risk workers, and forming "pesticide environmental stewardship" partnerships with pesticide user groups.
- By 2005, the number of young children with high levels of lead in their blood will be significantly reduced from the early 1990's.

- By 2005, of the approximately 2,000 chemicals and 40 genetically engineered micro organisms expected to enter commerce each year, we will significantly increase the introduction by industry of safer or “greener” chemicals which will decrease the need for regulatory management by EPA.
- By 2005, fifteen million more Americans will live or work in homes, schools, or office buildings with healthier indoor air than in 1994.
- By 2005, reduce by 25% (from 1992 level) the quantity of toxic pollutants released, disposed of, treated, or combusted for energy recovery. Half of this reduction will be achieved through pollution prevention practices.
- By 2005, EPA and its partners will increase recycling and decrease the quantity and toxicity of waste generated.
- By 2003, 60% of Indian Country will be assessed for its environmental condition and Tribes and EPA will be implementing plans to address priority issues.

Goal 5: Better Waste Management, Restoration of Contaminated Waste Sites, and Emergency Response

America’s wastes will be stored, treated, and disposed of in ways that prevent harm to people and to the natural environment. EPA will work to clean up previously polluted sites, restoring them to uses appropriate for surrounding communities, and respond to and prevent waste-related or industrial accidents.

Objectives

- By 2005, EPA and its partners will reduce or control the risks to human health and the environment at over 375,000 contaminated Superfund, RCRA, UST and brownfield sites. (Total comprises of 1,200 NPL and 480 non-NPL sites; 2,475 RCRA facilities; 370,000 LUST cleanups initiated or completed; and 1,500 brownfield properties.)
- By 2005, over 282,000 facilities defined by RCRA Subtitles C, D, and I, the Oil Pollution Act (OPA), the Emergency Planning and Community Right to Know Act (EPCRA), and the Clean Air Act (CAA), section 112(r), will be managed according to practices that prevent dangerous releases to the environment. (Total comprises of 14,000 RCRA facilities [Subtitles C and D]; 264,000 USTs [RCRA Subtitle I]; and 4,200 oil facilities.
- By 2005, EPA and its partners will have the capability to successfully respond to 100 percent of known emergency actions at facilities defined under the OPA and EPCRA, to reduce the risk to human health and the environment.

Goal 7: Expansion of Americans' Right to Know About Their Environment

Easy access to a wealth of information about the state of their local environment will expand citizen involvement and give people tools to protect their families and their communities as they see fit. Increased information exchange between scientists, public health officials, businesses, citizens, and all levels of government will foster greater knowledge about the environment and what can be done to protect it.

Objectives

- By 2005, EPA will improve the ability of the American public to participate in the protection of human health and the environment by increasing the quality and quantity of general environmental education, outreach and data availability programs, especially in disproportionately impacted and disadvantaged communities.
- By 2005, EPA will improve the ability of the public to reduce exposure to specific environmental and human health risks by making current, accurate substance-specific information widely and easily accessible.
- By 2005, EPA will meet or exceed the Agency's customer service standards in providing sound environmental information to federal, state, local, and tribal partners to enhance their ability to protect human health and the environment.

Goal 9: A Credible Deterrent to Pollution and Greater Compliance with the Law

EPA will ensure full compliance with laws intended to protect human health and the environment.

Objectives

Through its credible deterrent goal, EPA seeks to ensure full compliance with laws intended to protect human health and the environment. Within the framework of this goal, our objectives are as follows:

- Identify and reduce significant non-compliance in high priority program areas, while maintaining a strong enforcement presence in all regulatory program areas.
- Promote the regulated communities' voluntary compliance with environmental requirements through compliance incentives and assistance programs.

Appendix B

MEETINGS AND CONFERENCES WITH STAKEHOLDERS, PARTNERS, EPA PERSONNEL

- 2/3/97 - Comprehensive Public Meeting, Alexandria, VA
- 3/10/97 - Congressional Staff Discussions (House Committees staff)
- 3/17/97 - Comprehensive Public Meeting, San Francisco, CA
- 3/28/97 - Congressional Staff Discussions (Senate - Environment and Public Works Committee)
- 5/28/97 - Roundtable Session: Oversight Agencies
- 5/29/97 - Roundtable Session: Industry, Environmentalists, Environmental Justice Advocates
- 6/4/97 - Roundtable Session: State Environmental Agencies
- 6/12/97 - Roundtable Session: Federal Regulatory Agencies
- 6/25/97 - Roundtable Session: State Environmental Agencies
- 7/22/97 - Roundtable Session: Regional EPA Managers (Eastern Regions)
- 7/23/97 - Roundtable Session: OECA Senior Managers
- 7/24/97 - Roundtable Session: Regional EPA Managers (Western Regions)
- 7/30/97 - Roundtable Session: Environmental Media Associations, National Association of Attorneys General (NAAG)
- 7/31/97 - Roundtable Session: Academic Experts, Policy Institutes
- 8/12/97 - Roundtable Session: Internal Revenue Service
- 8/14/97 - Roundtable Session: Performance Measures Steering Committee
- 8/28/97 - Congressional Staff Discussions (House)

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- 9/4/97 - Roundtable Session: OECA Senior Managers
- 10/7/97 - Comprehensive Capstone Conference, Alexandria, VA

**PARTICIPATING (NON-EPA) STAKEHOLDERS,
REGULATORY PARTNERS, AND EXPERTS**

The following organizations and individuals participated in the National Performance Measures Strategy by providing ideas at public meetings and roundtable sessions and/or offering written submissions for EPA review. Participation does not imply agreement with or endorsement of recommendations or statements included in this report.

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American Public Works Association

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Coalition for Effective Environmental Information (CEEI)

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Appendix C

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