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ACRONYMS AND ABBREVIATIONS

CBEP	Community-Based Environmental Protection
CSI	Common Sense Initiative
DfE	Design for Environment
EPA	Environmental Protection Agency
GPRA	Government Performance and Results Act
LMOP	Landfill Methane Outreach Program
NGO	Non-Governmental Organization
OAR	Office of Air and Radiation
OPPTS	Office of Pollution Prevention and Toxic Substances
OPR	Office of Policy and Reinvention
OSHA	Occupational Safety and Health Administration
P2	Pollution Prevention
PPCC	Partnership Programs Coordinating Committee
TRI	Toxics Release Inventory
XL	(Project) Excellence and Leadership

EXECUTIVE SUMMARY

In slightly less than a decade, partnership programs at EPA have evolved from two experimental projects into a varied array of over 40 programs addressing diverse EPA priorities. This process of development has been highly decentralized, drawing its energy from the initiative and entrepreneurship of individuals in EPA's programs and policy offices at headquarters and in the regions. Outside of EPA, many individual states and other federal agencies have also adopted the partnership model of voluntary, mutually beneficial cooperative programs with partner organizations.

This study investigates how partnership programs as a whole are organized and managed at EPA—how the partnership approach[1] now stands after a decade of decentralized development. The Office of Policy and Reinvention (OPR), which supported the study, stipulated two central goals:

- To develop more information about how EPA's partnership programs are currently structured from an organizational standpoint.
- To make recommendations on what management steps the Agency could take to make partnership programs more effective.

To gather the data for this study, we relied heavily on interviews with headquarters and regional EPA staff (both inside and outside of partnership programs) and a survey sent to managers and implementers of partnership programs. We also reviewed existing literature on EPA and non-EPA partnership programs and contacted several current industry partners.

[1]Partnership programs are the most obvious, but not the only, example of using the partnership approach– a strategy by which the Agency forms a partnership with an external entity to resolve an issue of shared importance. CBEP (Community Based Environmental Protection) and NEPPS (National Environmental Performance Partnership System) are both partnership approaches, but are not part of the Partnership Programs Coordinating Committee (PPCC).

The findings of our research and our recommendations to OPR and EPA for improving the Agency's use and management of partnership programs are best understood in light of ongoing changes in the structure of the nation's economy. Before discussing the results of our investigation, we turn briefly to these changes and related trends.

Partnerships in the Changing Context of Environmental Management

Partnership programs have developed rapidly and will have an increasingly important role in EPA's ability to accomplish its mission in the future. They are flexible enough to address complex environmental problems in the context of a rapidly changing economy—where increased productivity comes less from manufacturing advances and more from knowledge-based services. The following trends, closely related to the shifting structure of the economy, will make partnerships a core element of EPA's approach to environmental protection:

- **The emergence of new environmental issues.** Urban sprawl, non-point source pollution, and increased greenhouse gas emissions are examples of emerging environmental issues of critical importance that are related closely to new patterns of economic development. Issues like these are difficult to address in a regulatory framework, but are amenable to the partnership approach.

- **A better informed public.** Advances in computer programming and Internet technology place environmental data only a click away from citizens and advocacy groups. Meanwhile, scientists continue to improve our understanding of the environmental and public health impacts of pollution and environmental degradation. Partnership programs can work through a variety of stakeholders to channel relevant information to the public, highlight new and promising practices, and provide recognition for the environmental commitment of outstanding partners.

- **The increasing importance of non-regulatory, market-oriented forces for improving corporate environmental performance.** Driven by market and stakeholder forces, companies are undertaking initiatives that go beyond regulatory requirements to improve customer and community relations and to become more efficient. Many EPA partnership programs offer a combination of non-regulatory incentives that allow partners to realize business benefits by improving some aspect of their environmental performance.

The best partnerships take advantage of these trends to create powerful, effective environmental programs in which the goals of partners and of the Agency can both be advanced. Partnership programs should not supplant regulations, however. They work best as a complement to existing regulatory programs.

EPA Management of Partnership Programs: The 1,000 Flowers

In surveying Agency staff and reviewing literature on partnership programs, we developed a comprehensive picture of how the Agency views the partnership model and manages existing programs. We did not evaluate the effectiveness of individual programs, but focused instead on how the partnership programs fit into the Agency's management structure. The following are our major findings:

- **There exists enormous variation among existing EPA partnership programs.** Programs vary across many axes, including type of environmental issue addressed, type of partner sought, incentives offered, amount of EPA funding, and program location within EPA, to name a few. To use a metaphor we encountered during our interviews, the programs are like "1,000 flowers blooming": individually, partnership programs have been remarkably successful in meeting their goals and in attracting a dynamic and entrepreneurial staff; there has been to date, however, little organized planning to determine where the 1,000 flowers should spring up.

- **There is a lack of consensus within the Agency concerning the role and value of partnership programs in EPA's mission.** While there exists a rigorous theoretical basis for regulatory programs, neither the theoretical nor the practical case for partnership programs has been well articulated across the Agency (though some programs have developed program-specific cases). Program proponents, including partnership program staff and their advocates, see partnerships as incubators of reinvention and a critical part of EPA's future. Skeptics, on the other hand, consider the partnership approach inappropriate for a regulatory government agency. If partnerships yield such beneficial results, skeptics ask, why do the partners not develop the programs themselves?

This debate is not just theoretical: it has practical, negative consequences for the partnership programs. Because of this lack of consensus, EPA senior management has shown inconsistent support for existing programs. In the survey and during interviews, program mangers and staff referred consistently to two damaging manifestations of inconsistent senior management support:

— **The partnership program approach is not integrated with traditional Agency approaches to environmental protection.** There is little communication between partnership programs and non-partnership staff, and multimedia partnership programs have difficulty receiving support from qualified divisional staff in the regions.

— **Partnership programs generally receive inconsistent funding.** In addition, staff of many of the programs believe the funding they receive is not sufficient to exploit the full potential of their programs.

- **In general, individual programs are well managed.** Most programs have a mission statement, have defined objectives, gather environmental performance data, conduct evaluations, and attain their objectives cost-effectively. Thus, the Agency does not need to oversee or centralize management of individual programs.

- **Partnership programs are designed more to address the needs and priorities of individual program offices than those of the industry partners.** Although *individual* programs are generally well managed, there is little evidence of consolidation or coordination *among* partnership programs to serve the needs of particular "customers" (generally industry partners).

- **Partnership programs attract talented, entrepreneurial staff to the Agency.** Generally, partnership staff think differently about industry-government relations than EPA traditionally has. Their perspective adds value to the Agency beyond supporting the partnership approach.

Recommendations: Capturing the Potential of the Partnership Approach

As our study results suggest, partnership programs can be better supported and managed at EPA. Fortunately, there exists today a 10-year base of experience from which to build. Although we have not rigorously evaluated the results of the partnership programs to date, we strongly believe,

based on evidence provided by the programs themselves and by industry partners, that the partnership approach is vital to addressing effectively the environmental protection challenges of today and tomorrow. Our starting point in making the recommendations that follow is that the Agency could firmly commit to improving the application and effectiveness of partnership programs.

To this end, we make recommendations at two levels: EPA-wide recommendations and recommendations for OPR. For the partnership approach to reach its true potential, *EPA must make the partnership approach an integral part of the Agency's strategy for accomplishing its environmental mission*—something the Occupational Safety and Health Administration (OSHA) has done effectively to improve occupational safety and health. Partnership programs have blossomed at the grassroots level to date; now is the time to make them more powerful by supporting the approach on a broader level within the Agency. This change will not happen overnight, nor will it happen without a champion. *OPR should take the role of champion, leading the process through which the Agency integrates the partnership approach into its core strategy.* We expand upon these recommendations below.

EPA-Wide Recommendations: Partnerships as a Core Strategic Approach

In interviews and surveys, partnership program staff consistently referred to the lack of Agency consensus on the partnership approach (or its direct consequences) as a central limitation to their program's success. There are three key steps that the Agency as a whole must take to overcome this limitation, thus ensuring that partnership programs realize their full potential as an integral part of EPA's strategy:

- **Define and articulate the role of partnership programs in accomplishing EPA's mission.** Most importantly, the Agency needs to build consensus across both partnership

program staff and non-program staff concerning the value—and limitations—of partnership programs. The concerns of partnership skeptics must be addressed, and the claims of proponents must be validated.

Building consensus involves developing and articulating the case for partnership programs, defining priority goals for their application, and integrating the partnership approach into strategic Agency initiatives, as well as establishing standards of quality and performance expected of partnerships. The very nature of partnership programs makes it challenging to accomplish these tasks: in a true partnership program, EPA's should not be the only voice in defining program objectives and establishing performance standards.

- **Develop performance indicators relevant to partnership programs.** The Government Performance and Results Act (GPRA) has caused the Agency to focus on environmental results measures. While commendable in itself, this emphasis has the unfortunate consequence of devaluing significant potential contributions of partnership programs to innovation and learning across the Agency and to improvements in the working relationship between EPA and industry. EPA should develop performance indicators that measure partnership programs in a more balanced way. In particular, we recommend that EPA use a "balanced scorecard" to measure programs in terms of internal management, customer satisfaction, and innovation and learning, as well as actual environmental results.

- **Provide adequate, consistent financial support to partnership programs.** Widely fluctuating budgets are demoralizing to staff, exasperating to industry partners and stakeholders, and affect the credibility of the partnership approach. The Agency should collect supporting data and make a strong case for partnership programs during budget negotiations. In addition, we recommend that EPA develop a mechanism for providing consistent incubator funding for selected new programs.

Recommendations for OPR: The Role of Champion

In addition to managing partnership programs such as Project XL and Common Sense Initiative, OPR has recently played the role of coordinating programs housed throughout the Agency. OPR has developed a website with links to the partnership programs and to the regions and has brought representatives from different programs together for networking and seminars. While important,

the role of coordinator is not sufficient. OPR should expand its focus to being the champion of the partnership approach within the Agency. In particular, OPR should:

- **Serve as the champion for partnership programs Agency-wide.** The EPA-wide recommendations we outlined above will not be implemented unless an internal champion pushes the Agency to do so. OPR should not lead or manage the programs themselves (this would actually lead to greater marginalization). Rather, OPR should be the advocate and supporter of the partnership approach within the Agency.

  Being champion involves advocacy in the Office of the Administrator, "in-reach" to non-program offices at EPA, and collaboration with the media and program offices and with the regions. These efforts should initially focus on building Agency consensus concerning the role and value of partnership programs.

- **Provide services that meet the needs of partnership programs.** OPR has begun to provide some of these services in the role of coordinator; examples include compiling environmental results data across the partnership programs and arranging expert guidance on program evaluation. OPR should continue to develop tools needed by the partnership programs and help the programs learn from each other through targeted networking.

- **Ensure that partnership programs meet a high standard of quality.** If particular partnership programs are poorly designed and implemented, the other programs suffer by association. As champion, OPR needs to protect the "brand identity" of partnership programs by acting as gatekeeper, ensuring that new partnerships meet clearly defined criteria before they are formally designated as partnership programs, and by helping established programs improve their quality based on internal evaluations. Playing the role of gatekeeper will be challenging, but it is one that OPR should undertake. Being a partnership program should convey an image of creativity and dedication to cost-effective environmental management both inside and outside of EPA.

INTRODUCTION

This study investigates how partnership programs are organized and managed at EPA. In February of 1998, the Reinvention Action Council directed the Partnership Programs Coordinating Committee (PPCC), which operates out of the Office of Policy and Reinvention (OPR), to develop a characterization and analysis of partnership programs. The research and organizational analysis presented in this report complement recent work that characterizes individual partnership programs.[2] This study was not meant to characterize each EPA partnership program comprehensively or to evaluate the effectiveness of the partnership programs, either individually or as a group. OPR stipulated two central goals for this study:

- To develop more information about how EPA's partnership programs are currently structured from an organizational standpoint.
- To make recommendations on what management steps the Agency could take to make partnership programs more effective.

Our report is structured in the following way:

- **Methodology** describes the research tools and key audiences for our study.
- **Part I: Context and Rationale for Partnership Programs** analyzes current trends in environmental management and provides the rationale for partnership programs' role in EPA's approach to environmental protection.
- **Part II: Profile of EPA's Partnership Programs** provides a brief definition, history and current characterization of EPA's partnership programs as a group.
- **Part III: Research Findings** summarizes our key findings with regards to the organization and management of partnership programs at EPA.

[2]See The Cadmus Group. 1999. *Characterization of Selected EPA Partnership Programs*. Final report prepared for U.S. EPA, OAR.

- **Part IV: Recommendations** presents our recommendations on how, from a management standpoint, to make the partnership programs as effective as possible. Appendix A contains more detailed action items for several recommendations.

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METHODOLOGY

We concentrated our data collection efforts on the Agency itself in order to focus our report on how EPA manages partnership programs. We gathered data directly from EPA staff both in Headquarters and in the Regions through interviews and surveys. We also contacted a limited number of industry partners and other stakeholders and reviewed available information about EPA and non-EPA partnership programs inside and outside the U.S. Our data-gathering efforts are described in more detail below:

- **Survey of EPA partnership staff.** Because we believed that personal contact would generate the most candid results, we distributed surveys to targeted EPA staff and interviewed staff from Headquarters and four regions. We distributed two surveys by e-mail, one to managers of national or regional partnership programs (the "manager's survey") and the other to regional implementers of national programs (the "implementer's survey"). These surveys asked quantitative and qualitative questions about how partnership programs were managed, from budget to stakeholder involvement to intra-Agency organization.

  We sent 82 implementer's surveys and received 23 responses; of the 56 manager's surveys that we sent, we received 24 responses. (Because not every respondent answered each question, the total number of respondents may vary from question to question). Copies of the surveys and a printout of collated responses to selected questions are given in Appendix B and C respectively. Respondents' names are kept confidential.

- **Interviews with EPA staff (partnership and non-partnership).** We also interviewed approximately 60 EPA staff members, including senior policy makers, non-partnership program[3] staff, and individuals who manage or are involved in partnership programs at the headquarters or regional level. We chose Regions 1, 3, 6, and 7 to conduct the regional interviews because they represent a cross-section of approaches to partnership programs. We also relied on data gathered from related interviews conducted by an OPR staff member. Where the interviewees represented a partnership program, our questions generally reflected the categories of survey questions, although we did not follow a strict

[3] A non-partnership program is an EPA-sponsored program that is not a partnership program, including, enforcement, regulatory, or grants programs.

protocol. A list of people interviewed is given in Appendix D. We have kept our notes confidential.

- **Interviews with partner and stakeholder sources.** We contacted six partner representatives and one non-governmental organization by telephone to discuss their perspective on EPA's partnership programs. In particular, we wanted to learn whether the programs caused partners to take actions they otherwise would not have taken and whether they were confused by the variety of partnership programs available. We conducted these interviews to stimulate our thinking rather than to generate extensive data; many more partners would have to be contacted to understand comprehensively how partners view the programs. We have kept the names of the partners we contacted confidential.

- **Review of existing literature on EPA's partnership programs.** Because EPA's partnership efforts are relatively new, there is not much literature describing these programs. EPA has compiled several documents that characterize the partnership programs, and several limited external studies of their effectiveness have been conducted. We reviewed these documents, concentrating on concerns raised in the studies relating to partnership program organization and management. Our report on these studies is in Appendix E.

- **Review of available information on non-EPA partnership programs.** To place EPA's management of partnership programs in perspective, we gathered data on several non-EPA partnership programs and voluntary efforts. In the U.S. public sector, we focused on OSHA and DOE efforts. We also researched several private initiatives, including the Responsible Care program, and reviewed several broader studies on initiatives in other countries. We gathered our information through a literature review and through telephone interviews. Our report on non-EPA partnership programs is in Appendix F.

We have drawn from all of the sources listed above in writing this final report. A comprehensive bibliography is provided in Appendix G.

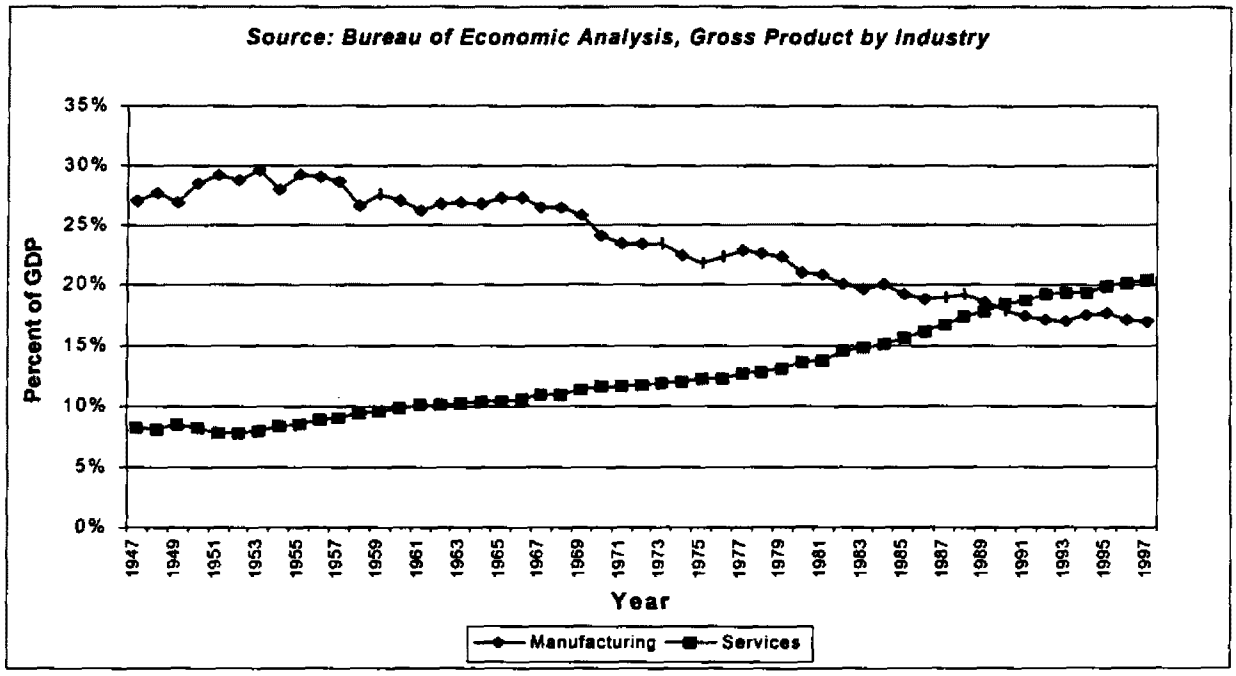
PART I: CONTEXT AND RATIONALE FOR PARTNERSHIP PROGRAMS

Beginning in the early 1980s, but principally in the past decade, the context of environmental management in the United States and internationally has shifted substantially. In the 1970s, EPA primarily focused its efforts on point sources of pollutants through an adversarial regulatory process. Today, EPA faces environmental challenges that extend beyond its original statutory mandate and has the opportunity for a less adversarial relationship with industry.

Many of these complex environmental issues and opportunities arise in the context of a rapidly changing economy—where increased productivity comes less from manufacturing advances and more from knowledge-based services. In 1947, for example, the service sector of the economy accounted for 8 percent of Gross Domestic Product (GDP) and manufacturing accounted for 27 percent. In 1997, the service sector accounted for 20 percent and manufacturing accounted for about 16 percent (see Figure 1). Most service operations use relatively little capital and resources: their environmental impacts stem not from their manufacturing process, but from their impact on the economy, their use of products and energy, and their suppliers.

Several significant and related trends indicate that partnership programs will have an increasingly important role in EPA's ability to accomplish its mission in the future. The partnership approach is a powerful mechanism for EPA to address the shifting structure of the economy and the changing context of environmental management, complementing but not replacing its regulatory programs. This part of the report highlights four significant trends related to environmental management and the opportunities they create for partnership programs.

Figure 1: Manufacturing and Services Shares of GDP, 1947 to 1997



Trend: The Increasing Importance of Knowledge in Industry. At the 1999 Harvard commencement, Alan Greenspan told graduates that "knowledge is far more important as a source of economic growth than physical capital." Improved information reduces the need for inventories and redundant capacity and increases operating efficiency. It has also led to new business development, as shown by the emergence of so-called "knowledge" industries, such as software design, financial services, and consulting. Even in 1980 (the most recent date from which data are available), "knowledge" accounted for 36.5 percent of U.S. GDP.[4] That fraction must be much higher today. Thomas Stewart illustrates this change in *Intellectual Capital:* "...four out of five dollars Levi Strauss spends to make a pair of blue jeans go to information, not to make, dye, cut, and sew denim."[5]

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[4] Stewart, T. 1997. *Intellectual Capital.* New York: Doubleday/Currency Publishers, Inc.

[5] Ibid.

In the environmental arena, innovative techniques such as environmental management systems, pollution prevention, and design for environment represent a shift towards the increasing knowledge content of environmental management. The infusion of billions of dollars in product and process research and development has led to a significant reduction of material and energy use in the manufacturing sector. A beer can that weighed 1.25 ounces in 1957 weighs 0.48 ounces today; and recycling the can will save 95 percent of the energy it takes to make a new can from virgin aluminum. In 1979, a manufacturer might have hired a consulting engineering firm to build a treatment plant to handle its wastewater. Today, the same company might redesign its processes to reduce the quantity of waste generated. As investment in capital, labor, and resources gradually decreases, the need for a sophisticated understanding of process and product is greater.

Partnership Opportunity: Partnership programs develop and communicate environmental management knowledge and provide industry the flexibility to use the best existing practices. Programs such as Design for the Environment, Natural Gas STAR, and the Environmental Accounting Project generate knowledge that helps industry tackle environmental problems more efficiently. These programs also provide technical assistance and disseminate knowledge to a wider industry audience. Without these programs, industry might not develop, organize, or share this information as efficiently or quickly.

Partnership programs allow the Agency the flexibility to address both new impacts and new industries generated by the service economy. The major performance-oriented partnership programs establish (jointly with industry) performance goals without specifying how these goals are to be met. Industry can find the most efficient way of meeting these goals, in contrast to being mandated (*de jure* or *de facto*) to use a particular technology.

Trend: Widespread public access to information. Since the initial publication of the Toxics Release Inventory (TRI) data in 1988, the amount of corporate environmental performance data available has increased dramatically. TRI currently covers nearly twice as many industries and

chemicals as it did in 1988, and provides time series data to evaluate long-term change. Several environmental groups accumulate, interpret, and disseminate environmental data, such as the Environmental Defense Fund's "Scorecard" and the Council on Economic Priorities' "Corporate Ratings." Increasing numbers of corporations publish environmental data in their annual reports and investment analysts, such as Innovest, rate corporate environmental risks. Corporate and environmental organizations are also developing tools that specify common environmental reporting elements. The challenge facing EPA today is not how to acquire environmental data but how to select and interpret these data most effectively.

Partnership Opportunity: By providing environmental performance information to the public, partnership programs can promote market-based solutions to potential environmental problems. Reporting environmental performance information is an important component of many partnership programs. The first concrete project that members of the Common Sense Initiative's (CSI's) Petroleum Refining workgroup agreed upon, for example, involved trying a more efficient and more easily understood mechanism for environmental reporting. As clear, relevant, standardized environmental information becomes more available to the public, market pressures will drive facilities to improve their environmental performance.

Trend: The emergence of new environmental issues. One of the greatest challenges facing EPA is the emergence of critical environmental issues that it has neither the regulatory authority nor the capability to address through its traditional structure. Some issues—such as point source greenhouse gas emissions—are beyond EPA's regulatory mandate but could be managed through an existing approach (emissions trading). Other issues—urban sprawl, congestion, area source pollution, habitat protection—cross media boundaries and affect a diverse group of stakeholders. Effective environmental management of these complex issues will require much more than better coordination among media offices: it will require affecting societal behavior. It is unlikely that new legislation will give EPA the authority to address these issues in a regulatory framework and, even so, traditional regulatory instruments alone will not be adequate to address these issues.

Partnership Opportunity: Partnership programs address issues beyond the reach of traditional regulatory programs. Partnership programs allow EPA to address both impacts (such as greenhouse gas emissions and urban sprawl) and industries (such as retail, agriculture, and services) that are difficult to regulate or are beyond the reach of traditional regulatory programs. Regulatory approaches are not well-suited to these purposes because they require legislation that does not exist and because they are less capable of adapting to changing circumstances.

Trend: The emergence of non-regulatory forces for improving environmental performance. In the OECD countries, environmental regulations are only one, albeit the major, factor promoting industry environmental performance improvements. Since the early 1990's—when a group of US companies established the Global Environmental Management Initiative (GEMI), the International Chamber of Commerce published its "Principles for Sustainable Development," and the World Business Council on Sustainable Development was formed—companies have undertaken environmental initiatives that go beyond regulatory requirements. They have taken these initiatives for reasons of corporate image, market advantage, cost savings, or community relations[6]. Once an "externality" addressed through regulation, the environment is now increasingly internalized in corporate and market decision-making.

Partnership Opportunity: Partnership programs leverage industry's recognition of voluntary environmental initiatives. Leveraging the brainpower, energy, and perspectives of industry partners, stakeholders, and the public is perhaps the greatest strength of the partnership programs. During one interview, a CSI staff member related an anecdote about two participants in the petroleum refining sector. At the beginning of a project, the participants, one a director of an environmental group and the other a corporate VP for the environment, would have nothing to do

[6]A recent survey of major US and non-US companies found that the leading reasons for corporate "beyond compliance" activities were corporate image, operational efficiency, and economic benefit. See The Lexington Group and the Conference Board. 1999. *Corporate Environmental Management: A State-of-the-Art Survey.*

with each other. Now, several years into the process, they have agreed on a pilot project to improve environmental reporting; moreover, they even feel comfortable enough to call each other directly to ask for information or discuss an issue. This sort of cooperation is evidence of the growing power of partnerships to improve environmental performance.

Partnership programs offer the Agency an important mode for operating in the changing climate of environmental management. Partnerships focus more on the knowledge content of environmental management than on the "bricks and mortar." They provide greater flexibility to address environmental management in an economy that is increasingly service-oriented and in which several critical environmental issues are beyond EPA's regulatory mandate. Finally, partnerships provide a mechanism to work with positive forces in industry and the environmental community and provide an opportunity for more collaborative "win-win" management methods. For these reasons, the ways in which EPA manages and learns from its partnerships programs transcend the programs in place today; they will form a significant part of the foundation for environmental protection tomorrow.

In your own words, what benefits does your program provide to your partners?

- "Disposal costs of PCB equipment and mercury-containing wastes are reduced."
- "Cost savings, new ideas/approaches."
- "A cleaner, healthier Chesapeake Bay."
- "The ability to participate with regulators and business having similar interests and commitments."
- "Consensus-based decision-making process for addressing complex environmental issues."
- "Protect public health, increase compliance."

Source: Surveys of National Managers and Regional and National Implementers

PART II: PROFILE OF EPA PARTNERSHIP PROGRAMS

In this part of the report, we discuss the definition of partnership programs at EPA, the history of partnership programs within the Agency, and the existing models for partnership programs.

Definition

An "operating" definition of an EPA partnership program is a program that involves voluntary cooperation with an outside entity (such as other governmental agencies, business and industry, environmental and public interest groups, and communities and private citizens) to improve performance.

EPA conducts many activities complementary to the regulatory sphere, including research, outreach and information dissemination, technical assistance, and grant-making. These activities are not partnership programs in and of themselves, but they are often components of partnership programs. This makes the line between partnership programs and, for example, grant programs hard to define. Partnership programs usually involve elements of pollution prevention or reinvention, but not all pollution prevention or reinvention programs are partnerships. Some distinguishing characteristics of partnership programs are that they are:

- Non-regulatory;
- Mutually beneficial to all parties;
- Based on shared goals and joint responsibility;
- Interactive and reciprocal, not one-way streams of technical or financial assistance; and
- Non-prescriptive, tailored to meet the specific needs of partners.

History

The 33/50 and the Green Lights programs were the first partnership programs, established in the early 1990s. The 33/50 program challenged industry partners to reduce their emission of selected chemicals by 33 and 50 percent over a 7-year period, while the Green Lights program provided technical assistance and other tools to businesses and organizations seeking to use energy more efficiently in their buildings.

These programs were not established by statutory mandate. Rather, entrepreneurial EPA staff recognized that important environmental results could be achieved by providing the right incentives and information to voluntary industry partners. Partnership programs have subsequently blossomed throughout the agency, most importantly in the two offices that first used them—the Office of Pesticides, Pollution Prevention and Toxic Substances (OPPTS) and the Office of Air and Radiation (OAR). Today, in fact, a commonly used phrase to describe partnership programs is "a thousand flowers blooming." At the time of this writing, there are approximately 25 partnership programs run from EPA Headquarters and 40 from the regions.[7]

There still is no specific statutory mandate for most of the partnership programs[8]. Instead, the flowers have bloomed where entrepreneurial EPA staff have seen an opportunity and management has supported their efforts at the divisional, office, or regional level. There is also no centralized control exercised by the Agency over partnership programs. However, in 1998 OPR assumed the role of coordinating an exchange of information and lessons learned between representatives of different partnership programs. The Partnership Programs Coordinating Committee (PPCC), hosted by OPR and composed of representatives from headquarters partnership programs and the

[7] A current listing of partnership programs exists at http://www.epa.gov/partners/partnerships.html.

[8] 10 respondents to the manager's survey identified a specific statutory basis for their program, and 11 said there was none. The statutes identified included parts of the Pollution Prevention Act and the Clean Air Act, as well as the Climate Change Action Plan.

regions, currently undertakes these efforts. Several members of the Reinvention Action Council (RAC), which is composed of senior managers from the regions and offices and is also hosted by OPR, act as liaisons between the PPCC and EPA's reinvention planning. OR has also assumed leadership of high-profile, cross-cutting partnership programs such as Project XL.

Current Models of Partnership Programs: The 1,000 Flowers

To continue the metaphor, none of the 1,000 flowers are alike. Because they were developed at different times and places in the Agency and in response to different environmental issues, each program is different. There is not even a small group of models that represents all of the programs. EPA has already sponsored several studies that help to characterize the partnership programs[9]. Although the purpose of this study is to complement, not repeat, these prior efforts, it is useful to describe some of the most significant axes of variation:

- **Environmental Problem Addressed.** The partnership programs address a wide variety of environmental problems, from greenhouse gas emissions to solid waste generation and water consumption. Several programs, such as the Design for the Environment Program (DfE) address multiple environmental problems on a sector-specific basis.

- **Partner Profile.** Although industry is the primary group targeted by the partnership programs, some target state and local governments, industry organizations, and other non-governmental organizations (NGOs) as well. Many programs, such as the Landfill Methane Outreach Program (LMOP), target several partner types, or at least attempt to include them as stakeholders (variously called "Allies" or "Endorsers").

- **Level of Decision-Making.** Some programs address facility or product-specific issues (WasteWi$e, Energy Star), some operate at the corporate level (formerly 33/50), the industry level (CSI), or the trade association level (DfE, the U.S. Auto P2 Project), and others address community-level concerns (Transportation and Environmental Network

[9]See The Cadmus Group. 1999. *Characterization of Selected EPA Partnership Programs*. Final report prepared for U.S. EPA, OAR.

and State and Local Outreach Program). Finally, some programs address economy-wide issues (environmental accounting).

- **Incentives for/Benefits of Participation.** The partnership programs offer several types of incentives to industry and other potential partners. These include regulatory flexibility, cost savings, market transformation, recognition for environmental commitment, and development and transfer of technical information. Many programs employ multiple incentives to attract partners. For example, the Natural Gas STAR Program recognizes participants and facilitates cost savings by providing partner companies with information on best management practices to reduce methane emissions.

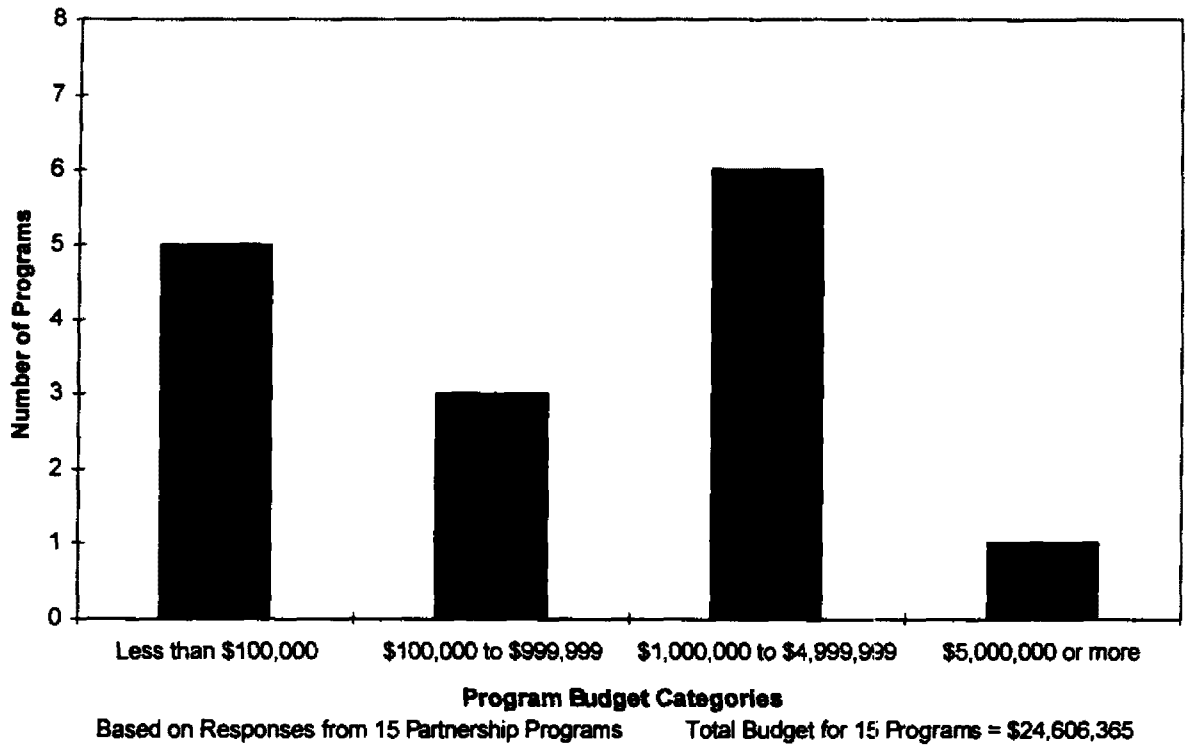
- Program Location Within EPA. As mentioned above, approximately 25 partnership programs are run from various Headquarters offices. In many cases, some or all of the regions are actively involved in supporting, administering, or developing these programs. When managers of national programs were asked how many regions were actively involved, the answers ranged from 1 and 2 to 10. This variation is due in large part to the autonomy regions have in how they will dedicate staff resources.

  Most of the regional partnership programs are unique to one region, although some programs, such as the Chlor-Alkali Industry Mercury Reduction Project (coordinated in Region 5) involve multiple regions. Many regions, for example, have developed their own compliance assistance/recognition programs such as the Small Business Assistance Center in Region 3 and the Bay Area Green Business Program in Region 9.

- **Amount and Source of EPA Funding.** As would be expected from a group of programs so dispersed throughout the Agency, the amount and source of funding varies greatly from program to program (see Figure 2, which shows the number of partnership programs within set budget categories, and the sum of the budgets of each program for each category). The FY '99 budgets reported by program managers responding to the survey ranged from $3,000 to more than $10 million, and full time equivalent (FTE) allocation ranged from 0.05 to 20. For programs run from Headquarters with assistance from the Regions, Headquarters generally provides only limited (or no) budgetary resources earmarked for the program. This is one explanation for the range in regional involvement in Headquarters programs.

- **Degree of flexibility/adaptation to individual circumstances.** Some programs have a standard "product" that is provided to partners and usually have a standard Memorandum of Understanding (MOU) that all partners sign. Other programs involve the partners in deciding what issues will be addressed and what levels of performance will be attained.

Figure 2: Diversity of Funding for Partnership Programs



The above list is not meant to be comprehensive—there are other variables that distinguish one partnership program from another. As stated previously, other efforts have characterized the partnership programs much more comprehensively than this study was intended to do. We have discussed these axes of variation to point out the diversity of the 1,000 flowers and because these axes are directly related to our key findings on EPA's management of partnership programs.

PART III: RESEARCH FINDINGS

These findings reflect our analysis of the interview and survey data, referring to specific data where appropriate. Our findings are organized into two major areas:

The Partnership Program Approach and EPA's Mission

Lack of Framework and Inconsistent Agency Support for Partnership Programs
Limited Integration into the Agency's Traditional Areas
Resources and Budget
Different Implementation Approaches
Human Resources Benefits

Current Management of Partnership Programs

Current Status of Coordination
Good Internal Program Management
Retail Operations
A View from the Partners and Stakeholders

The first part of this section focuses on the overall relationship of partnership programs to EPA's mission. We identify a lack of a framework within the Agency concerning the role of partnership programs and examine the resulting challenges for these programs, including inconsistent support from upper management, lack of integration with other EPA programs, inconsistent funding, human resource challenges, and varying implementation approaches.

The second set of results examines EPA's current management of partnership programs. We examine an internal debate among EPA staff over the question of increased coordination of partnership programs. After reviewing internal management practices for the programs, we identify opportunities for coordinated marketing. Finally, we conclude by summarizing interviews with partners and stakeholders.

The Partnership Program Approach and EPA's Mission

Lack of Framework and Inconsistent Agency Support for Partnership Programs

While EPA has a rigorous theoretical basis for regulatory programs, the role of partnership programs in EPA's mission is not well defined either theoretically or operationally. In theoretical terms, there exists no coherent framework for the role of partnership programs in a market economy as there exists for regulatory programs. In operational terms, the role of partnership programs as a whole, their goals, and their relationship to EPA's regulatory programs are not well-defined. This lack of a theoretical or practical framework for partnership programs has created a fault line within the Agency concerning the value of partnership programs in accomplishing EPA's mission.

Some proponents of partnership programs maintain that they are the harbinger of the new EPA—more flexible, more entrepreneurial, less confrontational, and better able to address critical current and future issues that are not covered by environmental regulation and legislation. Others argue that partnership programs have (at least in some cases) a special status because they have substantial indirect and internal culture change benefits. For example, it is difficult to point to specific environmental improvements that have resulted directly from the Environmental Accounting Project, but the program has been instrumental in introducing a better way for industry to manage its environmental costs and make better environmental decisions. Others are less enthusiastic, but recognize that partnerships are a useful tool to achieve certain environmental ends. They argue, however, that partnership programs must justify themselves in cost-effectiveness terms, just as EPA regulatory initiatives must be subject to economic analyses. (Note that the established partnerships such as Energy Star and WasteWi$e easily meet this criteria).

Skeptics argue that partnerships are another form of "corporate welfare." They mostly benefit larger companies (through recognition, technical assistance, and funding support, or in limited

cases, regulatory relief) for taking actions that are in their own interest. Survey results reinforce this criticism: managers report that, on average, only 25 percent of their partners are small businesses, whereas small businesses make up a much greater percentage of the total number of businesses. Other critics stress that these programs divert Agency resources from the "true" regulatory function of EPA. There are no consistent Agency responses to these arguments, or framework that acknowledges and directly addresses them.

This debate is not just theoretical: it has practical, negative consequences for the partnership programs. Because of this lack of consensus, EPA senior management has shown inconsistent support for existing programs.

Our data indicate that senior EPA management support for the partnership programs is inconsistent. **Seven** of **19** partnership program managers (37 percent) rated *lack of recognition within EPA* as "quite important" or the "most important" internal barrier to their program (see Figure 3). **Sixteen** of the **23** managers (70 percent) responding to the question on internal supports rated *support and recognition from EPA management* as an important support for their program (see Figure 4). However, this figure is elevated because several respondents answered this question based, as one manager explains, "on what I think a program should have to be successful, not what we've actually experienced."[10]

In several of the regions we visited, the general sentiment of the partnership program staff was that EPA senior management emphasized the importance of the partnership approach in public appearances but, with the exception of a few well-endowed programs, did not provide the necessary resources or recognition for the partnership approach to take hold in the Agency.

[10]This respondent rated Agency support as most important to have but noted that the lack thereof, in her particular case, was a very important barrier.

Figure 3: Internal Barriers to Partnership Programs

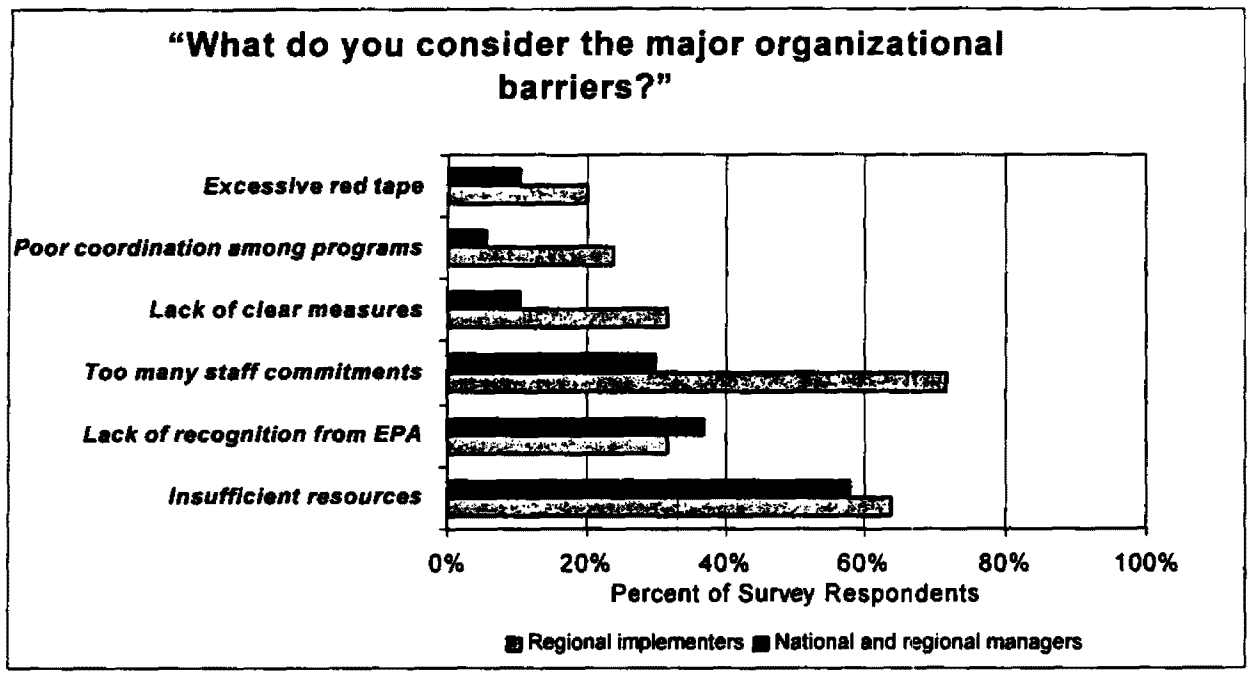
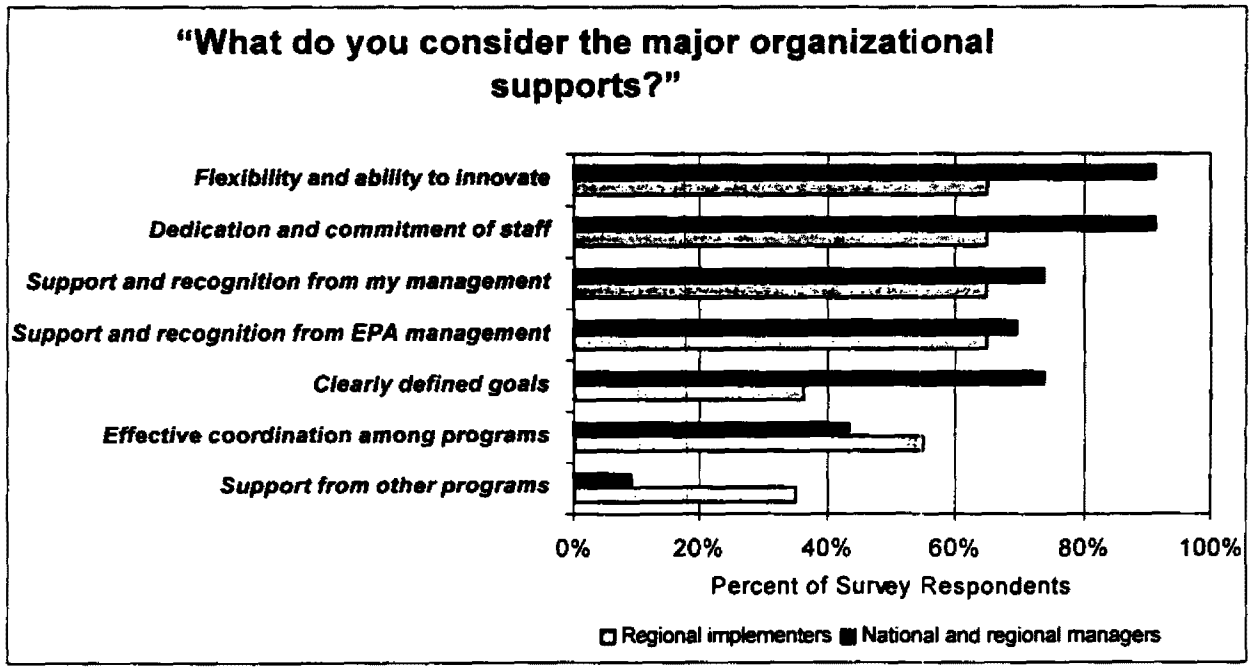


Figure 4: Internal Supports for Partnership Programs



Limited Integration into the Agency's Traditional Areas

Another negative result from the lack of a framework and inconsistent agency support for partnership programs is their lack of integration into EPA. Our data show that at EPA headquarters, and especially within the Regions, the partnership programs are viewed as separate from the main Agency business of regulation and enforcement. This lack of integration is evident in several ways:

- **Partnership programs, especially multimedia programs, have difficulty getting support from qualified divisional staff in the regions.** In several of the regions we visited, EPA staff who managed or coordinated the Project XL program stated that it was very difficult to get qualified technical assistance from regional divisions. These two programs in particular have a small staff of coordinators and rely on assistance from experts in the appropriate media to develop and appraise specific projects.

- **Employee incentive structures, particularly at the regional level, often make it extremely difficult to achieve integration.** The quantitative incentives for divisional heads are based on indicators such as number of permits, inspections, civil referrals, administrative orders, etc. As one EPA regional staffer writes, these types of incentives do not support involvement in partnership programs:

  "If EPA had a system set up where managers were evaluated based on the emission/pollution reductions they achieve, there would be more support for many partnership programs that achieve reductions in pollution. However, as long as the system continues to recognize only paper actions and penalty totals, there is not going to be broad support from management for diverting staff to work on activities for which no bean counts are generated."

  Although many participants in partnership programs shared this sentiment, in several cases, partnership program objectives were included in a division's incentive structure. One respondent, for example, reported that her division director was asking for the numbers of companies that reported undertaking P2 activities.

- **There is not a great deal of interaction between the partnership programs and other EPA (non-partnership) programs.** Nine respondents to the manager's survey said that they coordinated objectives with non-partnership programs. Additionally, only five

percent of respondents rated other EPA programs (partnership and non-partnership) as an important source of client leads. Of respondents to the implementer's survey, **9** of **18** reported working with another EPA program—due in part, no doubt, to the versatility of regional implementers, most of whom wear several hats.

- **Many partnership program staff interviewed expressed frustration that others in the building had no idea of their program's existence.** They believe that many of their colleagues view them with suspicion for working too closely with industry. Although we can not verify this perception, it indicates that the partnership approach has not yet become a part of EPA culture. Several of the survey respondents specifically recommended that partnership programs interact more with other programs in the Agency in order to become more integrated with the general EPA culture.

Resources and Budget

Lack of consistent support leads to fluctuating funding. Our data reveal that partnership programs undergo major year to year changes in funding levels. One program, for example, saw its budget drop from $225,000 to $150,000 to $80,000 from fiscal year 1997 to 1999. Allocations for regional participation in several national partnership programs have been reduced as well.

While budgetary changes are inherent to any government program, uncertainty and insufficient resources plague the partnership programs, especially the smaller, less established ones. (As mentioned previously, the larger, more established headquarters programs are generally better and more consistently funded). One senior manager explained that mandated programs are more level-funded; therefore, discretionary programs such as partnerships absorb budgetary fluctuation. Managers of regional or national partnership programs rated *insufficient number of staff* and *insufficient resources* as the two major internal barriers of their programs (**11** of **20** (55 percent) and **11** of **19** (58 percent) managers rated these two issues, respectively, as most important or quite important barriers). Regional implementers of national programs selected *overcommitment of regional staff to a variety of projects* as the major barrier (**15** of **21** regional implementers (71

percent) rated it as most important or quite important), reflecting the fact that regional staff who work on headquarters programs usually have multiple responsibilities.

As will be noted later, budget fluctuations can have a significant negative effect on partners. When a partner invests time and resources into a partnership program only to see the program greatly curtailed because of funding cuts, that partner will be much less inclined to participate in future joint initiatives.

Different Implementation Approaches

Partnership programs in regional and headquarters offices have developed different implementation approaches. While the headquarters' partnership programs vary significantly in how they involve regions and define responsibilities, the organizational structure of programs in the EPA regional offices reflects each office's priorities.

Several headquarters' programs rely extensively on contractors and little on the regions. This relationship is viewed both positively and negatively by the regions. One regional staff person explained that she appreciated this lack of responsibility because, "I'm not a marketer and I don't want to do marketing; this lets me focus on technical assistance." However, in other regions, staff resented the fact that headquarters did not coordinate a program with the region. Other programs involve the regions in identifying leads, promoting outreach activities, and conducting follow-up visits. Still other headquarters programs solicit much stronger regional input, including the region as a full member of a project planning and implementation team. These latter models were viewed positively by the regions.

The differences among headquarters' programs in their approaches to the regions are due at least in part to differences in the "products" they provide to their partners. Large programs with

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[illegible]
1200 [illegible]
[illegible]

established "products," such as Energy Star, have less need to involve the regions (or even their partners) in a significant way in the design of their products than do programs such as XL that are highly tailored to individual partners. For example, the Energy Star label is found on many popular brands of office equipment, home electronics, and appliances that are certified as products that operate at exceptional levels of energy efficiency. Programs such as CSI and XL, by contrast, develop new products that are tailored to the specific needs of individual industries, facilities, or communities. For example, CSI targets environmental management practices by industrial sector. There were six industries that served as CSI pilots: automobile manufacturing, computers and electronics, iron and steel, metal finishing, petroleum refining, and printing.

The implementation of partnership programs by the EPA regions reflects each office's priorities and organizational structure. Some regions, such as Region 1, placed all partnership-related activities in a single office. This structure counterbalances the "stovepipe" structure of the partnerships at headquarters and links the federal partnerships to regional partnerships (which are also contained within the same office). Region 1's organizational structure reflects how partnerships are a priority aspect of its mission.

Other regions essentially mirror the headquarters' organizational structure. One region, for example, housed the partnership programs in their corresponding media program offices. In this region, the PPCC representative did not know several of the people who implemented partnership programs outside of his division. There was little region-level activity promoting either national or regional partnership programs. In another model, dictated primarily by size, one relatively small region assigns responsibility for many national and regional partnership programs to a single individual.

Human Resources Benefits

As pointed out to us by a senior official in EPA, partnership programs have allowed EPA offices to attract entrepreneurial staff with an interest in "running their own show" and working collaboratively with industry. Our survey and subsequent interviews confirmed this impression: In response to a survey question asking managers to rate organizational supports, **21** of **23** managers (91 percent) rated *dedication and commitment of program staff* as "quite important" or "most important."

Although many of the individuals we interviewed displayed a strong commitment to their programs and an evident pride in their success, they sensed that they were overcommited and that their programs were not central to EPA's mission. While this sense of dissatisfaction is difficult to define and measure, it may be the source of what some observe to be a high turnover rate in partnership program staff.

The partnership program staff are probably responding to the mixed message they receive from the Agency. On the one hand they are recognized and promoted as dedicated, innovative entrepreneurial individuals on the cutting edge of the "new" EPA (and this message is clearly communicated and creates a strong "esprit de corps" among program staff). On the other hand, they see their programs as understaffed and underemphasized relative to EPA's regulatory and enforcement activities and, in the regions, feel by-passed by headquarters-based programs. Without a consistent message of the importance of their contribution to the agency's mission, EPA runs the risk of losing these talented staff.

What motivates you personally?

- "The partnership emphasis is a motivation."
- "The opportunity to work collaboratively with other government and private sector folks who place a high value on environmental excellence/leadership."
- "Challenge of reaching out to industry generally hostile to EPA."
- "Ability to experiment with new approaches."
- "The opportunity to be on the cutting edge."
- "Energy efficiency is the key to the survival of the planet."

Source: Surveys of National Managers and Regional and National Implementers

Current Management of Partnership Programs

Current Status of Coordination

Interviews with EPA staff revealed an internal debate about the question of coordination among partnership programs. This debate raises a critical management question for EPA partnership programs: Should the 1,000 flowers be allowed to bloom separately, or should they be arranged in vases?

Proponents of independence for individual partnership programs point out that centralized coordination would deprive them of the flexibility and opportunities that lead to their success. Partnership programs have succeeded because they have been able to adapt to changing environmental and industry needs with a minimum of bureaucracy. Partnership programs have been EPA's incubators, where entrepreneurial staff test innovative approaches outside of

adversarial processes dominated by legal and regulatory structures. Excessive coordination or centralization of the partnership programs could also lead to the loss of a highly motivated, creative group of professionals in the Agency.

Others, however, argue that coordination is necessary for the programs to survive internally. They believe that partnership programs are being marginalized in internal budget and priority decisions because they do not have a common voice. In order to make the case for themselves internally, partnership programs must act like mature programs, measuring and reporting performance and accepting some degree of central coordination. Externally, the failure of coordination among partnership programs has created confusion as potential partners wonder how the programs are different and which one they should join.

Another argument for coordination comes from smaller programs. While some partnerships constitute entire EPA divisions with substantial FTEs and budgets, several programs are two- or three-person operations with very limited budgets. The smaller programs tend to be more interested in some degree of coordination because they have more to gain from strength in numbers.

Good Internal Program Management

Although the question remains whether partnership programs as a whole need further coordination, our data reveals that individually, the partnership programs are generally well managed. And more importantly, internal program management is improving.

As indicators for program management, we chose to use existence of a mission statement, connection to GPRA objectives, collection and verification of environmental results data, and existence of an evaluation process. Results from the managers' survey revealed that:

- **16** of **21** of the responding partnership programs have a defined mission statement.
- **11** of the respondents were able to identify the GPRA objectives that their program addresses, **3** could not, and **8** were unsure.
- **19** of **23** of the responding programs collect environmental performance data from their partners, and more than half of these programs employ some means of verifying these data.
- **10** program managers reported that their programs have conducted an internal evaluation, and **7** are in the process of (or soon will) do so.

These data are encouraging although not exceptional[11]. Yet based on our interviews, we believe that the trend is clearly toward more mission-driven, results-oriented program management. Because of the entrepreneurial and innovative nature of the partnership programs, and the complex nature of the problems that they address, it can be difficult to define goals clearly, develop performance measurements, and evaluate progress. Measuring reductions in environmental and public health risks, for example, is extremely difficult. Nevertheless, managers of several programs that have risk-related goals (including PESP and DfE) have initiatives underway to improve measurement and program evaluation.

[11]One discouraging result from the implementer's survey, discussed more under "Retail Operations," is the disproportionate amount of time regional implementers of national programs appear to spend on overhead functions (i.e., pushing paper) instead meeting with partners.

Retail Operations

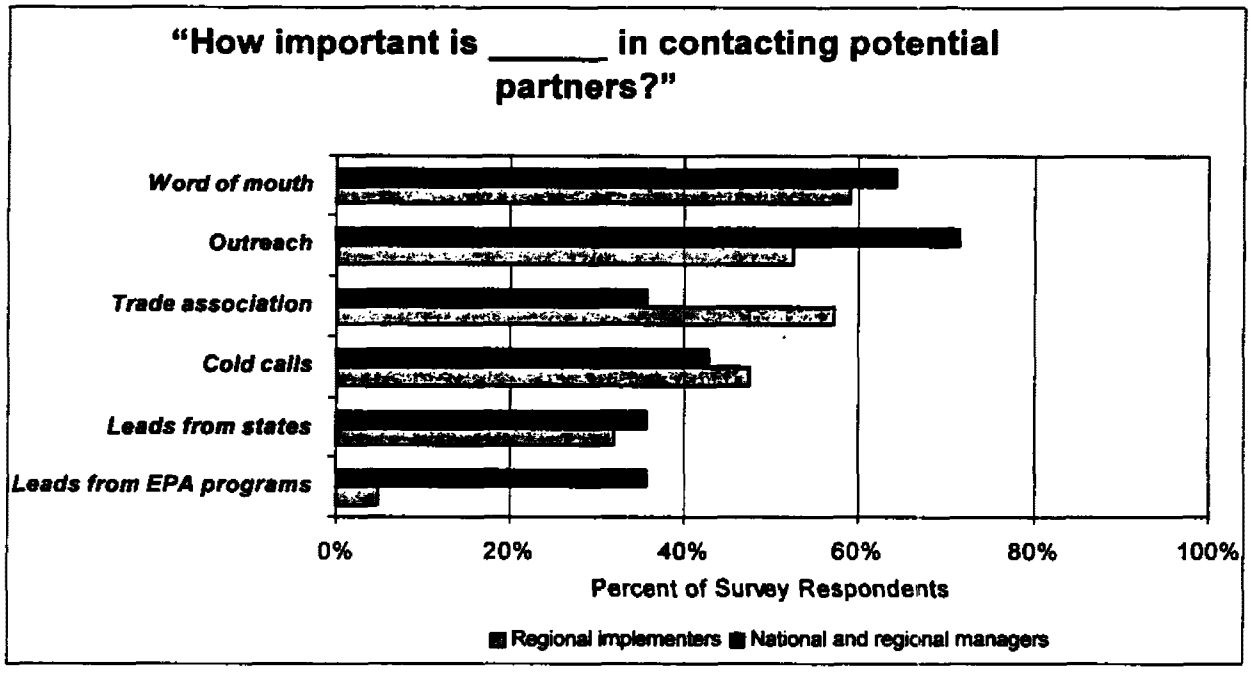
Just as a corporation interacts with its customers at a retail level, EPA interacts with its customers (industry partners) through contractors, regional offices, or directly from headquarters. To continue this analogy, individual partnerships might be considered EPA's "brands"—the name, logo, reputation, and promise of future service that customers associate with particular programs. In retail operations, "brands" must be very carefully managed. They should not compete with each other (just as two shampoos from the same company should not compete in the same segment of the market) and ideally they should reinforce each other (a low cost "starter" automobile brand that allows customers to graduate to a higher priced brand as they accumulate wealth).

We have little evidence that EPA's partnership programs have focused on this type of "brand management." The survey results indicated that only 5 percent of program managers considered other programs an important source of client leads (see Figure 5) and anecdotal evidence in regional interviews suggests that the partnership programs actually compete with each other for partners. In addition, the EPA partnerships "compete" with other federal and state partnerships, for example those sponsored by the Department of Energy. The problem of "brand identity" needs further study to determine whether they are competing by selling essentially the same product to the same customers, selling different products to the same customers, or different products to different customers.

EPA partnership programs are missing opportunities that could benefit all the partnership programs and misallocating resources. No strategy exists for cross-selling of partnerships or for "graduating" partners from relatively straightforward "starter" programs to much more comprehensive programs. Programs expended substantial effort to identify new partners, while little effort is made to capitalize on existing partners, who may be receptive to EPA requests to join another partnership. As noted above, only 5 percent of headquarters program managers said they considered other programs an important source of client leads. By contrast, both

implementers and managers indicated that word of mouth and outreach are important sources of leads (see Figure 5). Program managers reported spending an average of between 20 and 25 percent of their budget on marketing, and regional implementers reported spending an average of 26 percent of their time on marketing. A very substantial amount of time is spent on program management and coordination with national programs (43 percent) and only 13 percent of time is spent on providing technical assistance to partners.

Figure 5: Contacting Potential Partners



The problem of coordinated marketing is complicated by the lack of central coordination at headquarters, the stovepipe structure of the Agency, and by the role of contractors in partner interaction.[12] Nevertheless, it is difficult to see how coordination can be improved given the current structure of EPA's partnership programs. Programs are funded independently and

[12] The large programs' contractors work directly with partners, not with other programs in client interaction. Although regional staff often work on two or more programs, the major headquarters use contractors who to a greater or lesser degree bypass the regions.

promoted independently both internally and externally. There are few incentives for sharing client leads and EPA's current atmosphere (in order to measure and demonstrate performance it is important for programs to win for themselves rather than for all the Agency's programs), in fact, offers disincentives for cooperation.

The View from the Partners and Stakeholders

We contacted six industry representatives and one NGO to get an impression of how industry and stakeholders perceive partnerships. Because of the small sample of companies contacted in our study, the findings described in this section are not comprehensive, yet instructive. The following are the major findings from these interviews:

- All of the companies contacted indicated that partnership programs are useful because they can affect the companies' internal decision-making. Being associated with a partnership gives a company's environmental initiative greater internal priority and makes it more likely that initiative will receive resources, time, and attention.

- There was general consensus (but not unanimity) that the technical assistance provided by partnerships is useful. Small companies without other sources of data appreciate the technical assistance and large companies find it useful to have information documented and available in one place.

- The companies felt they could "handle" the large number of partnership programs. The six industry representatives interviewed understood that EPA needs to have a wide range of partnership programs and is not confused by them.[13]

- There is distrust of EPA because it is a regulatory agency. One representative of a large environmentally progressive company said that one particular partnership program is rigid

[13] This finding differs from other studies of industry attitude and needs to be verified by further research before it can be accepted. In fact, the views of the one NGO interviewed were much more negative than those of the industry staff. The NGO (with considerable partnership program experience) generally concurred with previous industry critiques that partnership programs are too numerous and confusing. This organization also expressed a concern that the requirements of some partnership programs present a moving target to industry.

and bureaucratic in its response to suggestions for improvement and that its consultants are "arrogant" and uninformed "just like with regulatory programs." Another said that as a matter of company policy, they participate only in partnerships that are not associated with any regulatory issues because they are concerned about letting EPA's regulatory enforcement staff "get the camel's nose in the tent."

- EPA's inconsistent support of partnership programs causes confusion and frustration. A strong trade association supporter of partnership programs based on one very positive experience promoted another program only to find out that the program was cut back by EPA. The cancellation was a source of considerable embarrassment.

Has any of your programs been more/less successful? What contributed to success/failure?

SUCCESSES

• "Brought EPA HQ and regional staff, state staff, and industry reps together as team members in a way that had never been tried before.."

• "The partnership aspect...very successful in building better relationships across state, federal, industrial, and environmental institutions."

FAILURES

• "(In)ability to reach internal consensus on the role of voluntary programs and appropriate benefits."

• "Small business participation."

• "Attempts to team up with DOE."

• "Lack of commitment from team members."

• "HQ staff didn't share...visions and goals...did not communicate with regions."

Source: Surveys of National Managers and Regional and National Implementers

PART IV: RECOMMENDATIONS

In slightly less than a decade, partnership programs at EPA have evolved from two experimental programs (33/50 and Green Lights) into a richly varied (and sometimes bewildering) array of over 40 programs addressing diverse headquarters and regional office priorities. In addition, individual states have in many instances adopted the partnership model. As a result, EPA has a base of experience with partnerships that did not exist a decade ago. Given this experience and the Agency's current review of its reinvention activities, this is a particularly appropriate time to examine how EPA can utilize and manage partnership programs more effectively.

Although we have not rigorously evaluated the results of the partnership programs to date, we strongly believe, based on evidence provided by the programs themselves and by industry partners, that the partnership approach is vital to addressing effectively the environmental protection challenges of today and tomorrow. As the summary of our findings suggests, we also believe that partnership programs can be better supported and managed at EPA. Our starting point in making the recommendations that follow is that the Agency could firmly commit to improving the application and effectiveness of partnership programs. We have developed six recommendations based on this fundamental premise. These recommendations are outlined below and expanded upon in the rest of the report.

First, we recommend three critical steps for EPA to take to integrate partnerships as a core strategic element for accomplishing its mission:

- Better define and articulate the role of partnerships in the Agency's mission.
- Develop and use performance indicators relevant to partnerships.
- Provide adequate, consistent financial support to partnership programs.

Second, we identify three actions for the OPR to take in broadening their role of coordinator to include that of champion of the Agency's partnership programs:

- Serve as the champion for partnership programs Agency-wide.
- Provide services that respond to the needs of the partnership programs and make them more effective.
- Ensure that partnership programs meet a high and consistent level of quality, convey an image of creativity, show dedication to cost-effective environmental management, both inside and outside EPA.

I. EPA-WIDE ACTIONS: INTEGRATE PARTNERSHIPS AS A CORE ELEMENT OF EPA'S MISSION

As noted in Part I, "The Context of Environmental Management," in a more knowledge- and service-based economy, non-regulatory approaches will be an increasingly important management mechanism for EPA. Partnerships are one of EPA's potentially most effective non-regulatory mechanisms, but, as we noted in our "findings" section, there is disagreement within the Agency over the appropriateness and role of partnership programs and the support that they should receive. We discuss below the following three key actions for EPA to take to ensure that partnerships realize their full potential:

- Better define and articulate the role of partnerships in EPA's mission.
- Develop and use performance indicators relevant to partnerships.
- Provide adequate, consistent financial support to partnership programs.

Define and Articulate the Role and Value of Partnerships in EPA's Mission

Most importantly, the Agency needs to build consensus across both partnership program staff and non-program staff concerning the role of partnership programs in a structure that is primarily regulatory. Consensus in some areas is reasonably well established—for example, the use of partnership programs to reduce greenhouse gas emissions where the Agency lacks regulatory authority (although even in this area Agency skeptics argue that "if it's such a good idea, industry would be doing it on its own"). There is much less agreement concerning the role and value of smaller, innovative programs, particularly regarding what value they have in changing the internal culture of EPA and in the way EPA interacts with industry.

In fact, there are few guidelines for what the "new" relationship between EPA and industry should look like, and both partnership and non-partnership staff struggle to create this vision. Should recognition be given to industry for taking actions that are in its own interest? Should regulatory compliance be a prerequisite for recognition? Should partnerships benefit large, well-established companies or should benefits go to smaller companies? What should be the role of communities and stakeholders in defining program objectives? Should partnership programs receive special consideration because they have cultural change and reinvention benefits beyond their direct environmental benefits, or should they be subject to the same cost-effectiveness tests as traditional programs? Will partnership programs lose credibility if they are oversold and overused? How should partnership programs be protected from budgetary whipsaws caused by fluctuating budgets and constant budget allocations for mandatory programs?

In interviews we identified substantial confusion concerning the definition, role, and value of partnership programs to EPA. This confusion is a fault line running through the Agency's attitudes toward partnership programs: proponents extol their virtues as the incubators of the new EPA; skeptics suggest that partnership programs are oversold and provide services that industry should provide for itself. The process of defining the role of partnership programs should:

Articulate the case for partnerships in theoretical and practical terms. As we have noted in this report, while there exists a coherent, generally accepted theoretical framework for the role of regulation in a market economy, the same is not the case for partnership programs. Both the theoretical and the practical case for partnerships need to be made and articulated. In particular, the Agency must answer internal and external skeptics by developing a rationale for EPA's involvement in programs that are, in theory, in industry's own best interest.

Define priority goals for the application of partnerships. With the exception of a few regions and offices that have defined a role for partnerships in their mission, there has been little systematic thinking about the current and emerging environmental issues that partnership programs can most effectively address, in what circumstances and how partnerships can be combined with regulatory programs, under what circumstances partnerships are likely to prove effective, and what their limitations are. A first step is to define, based on experience, what types of issues lend themselves to a partnership approach and to identify current and emerging environmental issues that can most effectively be addressed through partnerships.

Build consensus around the role of partnerships in accomplishing EPA's mission. The partnership approach will flourish most effectively if all Agency staff understand its value and priority applications. At present, partnership programs and staff have relatively little day-to-day contact with non-partnership programs and staff. Although cultural change will not happen overnight, we believe there exists an interest in (but little understanding of) partnership approaches throughout EPA. We recommend that EPA act to ensure that the role of partnership programs is understood throughout the Agency.

Specific, detailed steps toward accomplishing these three goals are discussed in Appendix A.

Develop Performance Indicators Relevant to Partnerships

Under GPRA, the Agency has focused very strongly on outcome-based environmental results measures. While this emphasis is commendable in itself, it has had the unfortunate consequence of ignoring other dimensions of performance. In a seminal article in Harvard Business Review, Norton and Kaplan have argued that a single-minded focus on one aspect of performance (in the case of corporations, financial performance) is similar to a pilot flying an airplane with only an altimeter: he or she may know how high the airplane is flying but have no idea how much fuel the

airplane has left. To provide the other gauges, Norton and Kaplan propose the "Balanced Scorecard," now in common use among corporations.[14]

In an adaptation of the balanced scorecard to partnership programs, environmental results are analogous to financial results for companies. Accordingly, partnerships can be measured across four dimensions, one of which is environmental results:

Environmental Results. "Is the environment improving?" Results measures are clearly the key measures of performance. Programs such as Energy Star and WasteWi$e have developed effective results measures that demonstrate that they are attaining their goals in a cost-effective manner. Defining results measures for programs that are more removed from direct environmental results, such as the Environmental Accounting Program or Environmental Technology Verification, is more complex and may not reflect the full contribution of these programs.

Internal Management. "Are programs being managed effectively? Are we doing the right things?" The survey of partnership program managers and implementers revealed significant problems in inter-program management (intra-program management was more effective). Internal management measures may include:

- "Cost of sales" or "overhead" time per partner.
- Employee satisfaction.
- Lead sharing (number of partner contacts provided to other partnerships, number received from other partnerships).
- Integration with regulatory and/or non-regulatory programs.

Not all measures necessarily apply to all programs, but all programs would benefit from internal management tracking (some programs may already have such measures in place).

Customer Satisfaction. "Are our partners and stakeholders happy?" Clearly, a key dimension of success for partnership programs concerns the extent to which their "customers," i.e., partners and stakeholders, are satisfied. Currently, EPA is conducting customer satisfaction surveys of four

[14]Norton, D. and R. Kaplan. January-February 1996. Using the balanced scorecard as a strategic management system. Harvard Business Review.

partnership programs. Ideally, such data would be developed for all programs. The programs can take advantage of OMB's quick turnaround period (two weeks) for customer satisfaction surveys, and the process could be expedited by getting blanket approval for a common template of questions appropriate to most or all of the programs. Other surrogate measures of customer satisfaction can, however, be used. These might include 800-line responses, referrals to other partners, or comment cards filled out at seminar or outreach sessions.

Innovation and Learning. "Are we improving?" Given the importance of partnership programs to EPA's Reinvention, the innovation and learning they generate are important aspects of their performance. Performance measures may include "lessons learned," adoption of the model by other regulatory or non-regulatory programs, and information-sharing through coaching and mentoring. These measures may be quantitative (number of programs adopting a given model) or qualitative (description of lessons learned). As one regional staffer told us, "We emphasize that partnership programs are part of developing a new way to manage the environment, but then we measure their performance exclusively in terms of environmental results."

Provide Adequate, Consistent Financial Support to the Partnership Programs

The funding available for EPA partnership programs is seen by program staff as inadequate and inconsistent. We are not able in this report to determine whether, relative to EPA's other priorities, the funding for partnership programs is "inadequate." This judgment depends on how important EPA considers partnerships and how EPA fares in the Congressional budget allocation process.

We can say, however, that the inconsistent "whipsaw" nature of the partnership program budgets—one of our findings noted previously—is demoralizing and exasperating to program staff and, of great importance, to industry and stakeholder partners. Highly dedicated program staff receive a clear message that EPA does not consider their role important when budgets are cut year to year, and long- or even short-term planning is also extremely difficult. Budgetary uncertainty exacts a toll on industry partners as well: they are much more reluctant to participate in partnership programs if they have invested substantial resources in a given program that is subsequently cut back or eliminated. We recommend two actions in particular for EPA to take in

reducing budgetary uncertainty and ensuring that worthy partnership programs receive appropriate support:

Make the Case for Partnerships in Budget Negotiations. For partnerships to argue their case effectively at budget negotiations, EPA needs to build a foundation of knowledge about partnership programs' budgets. This involves tracking program budgets, tracking budget fluctuations, and evaluating the cost-effectiveness of resources expended on partnership programs.

Secure Consistent Incubator Funding. We recommend that EPA ensure that deserving projects are underwritten by establishing an internal "start-up" fund to match office or regional resources expended during the early phases of implementing new partnership programs.

These two actions are discussed in greater detail in Appendix A.

II. OFFICE OF POLICY AND REINVENTION: AS COORDINATOR AND CHAMPION

OPR has been given a somewhat vague mandate to coordinate the activities of the partnership programs. The reason why this mandate is unclear is readily apparent: partnership programs and their staff do not lend themselves readily to centralized management. First, the programs themselves are highly diverse in terms of subject matter, approach, and tools. Second, the very characteristics of entrepreneurship, creativity and flexibility that make programs and staff effective make centralized management inappropriate.

Although the partnership programs do not need centralized management, they do need a champion within EPA to advocate for the partnership approach and to ensure that the Agency takes the necessary steps to support promising programs. We believe that OPR, as the EPA office with the broadest responsibilities for changing the Agency's approach to environmental protection, should undertake this role of champion. This role involves three key functions:

- Serve as the champion for partnership programs Agency-wide.

- Provide services that respond to the needs of the partnership programs and make them more effective.
- Ensure that partnership programs meet a high and consistent level of quality.

Serve as the Champion for Partnership Programs Agency-wide

Individual program offices have been highly effective in some cases as champions for their particular partnership programs, but there has been little advocacy for partnership programs *per se* within EPA or to external constituencies (Congress, industry, stakeholders). No internal group has taken the initiative to articulate the case for partnership programs and to build consensus within the Agency on their most effective applications. Serving as the internal champion for partnership programs involves pushing the Agency to implement the three Agency-wide recommendations given previously: defining the role and value of the partnership approach; ensuring that the programs receive adequate and consistent funding; and developing relevant indicators of performance.

In particular, OPR will have to work closely with the following constituencies within EPA to drive implementation of the Agency-wide recommendations:

The Office of the Administrator and the Reinvention Action Council. There exists a perception among both program and non-program staff that senior EPA management support for partnership programs is variable and inconsistent. Whether this perception is correct or not, OPR should ensure that, to the extent possible, support and funding for partnerships is visible, consistent, and predictable.

Non-Program Offices at EPA. There are important functions in non-program offices at EPA—strategic planning, budgeting, outreach, Congressional relations, policy analysis—that can influence how partnership programs are perceived and supported internally and externally. The

recent consolidation of the Offices of Reinvention and Policy in particular creates an important opportunity for partnership programs.

Media and Program Offices. Partnership programs are well established in specific areas of particular program offices. Outside of those offices they are not well known. In addition, OPR could help promote the smaller partnership programs.

Regions. Some EPA regions have adopted partnership programs as a core element of their activities while others have minimal programs. OPR could help promote partnerships among regions where they are relatively underutilized.

Similarly, OPR could help to convey a consistent, positive message concerning partnerships to external audiences, including industry, stakeholders, and Congress. This activity goes beyond promoting individual programs to promoting the concept of partnerships as a legitimate and important mechanism for EPA to accomplish its mission in the context of ongoing structural changes in the American economy.

Provide Services That Respond to the Needs of Partnership Programs

Because partnership programs share certain characteristics, they will benefit from services developed for their particular needs. For example, both StarTrack (Region 1) and WasteWi$e attempt to encourage companies to undertake cost-effective pollution prevention activities voluntarily. Although they reside in very different places organizationally speaking, both programs share the challenges of marketing an "environment in your own best interest" philosophy to potential partners and of gathering and reporting environmental results.

As a champion of the partnership programs, OPR is well positioned to know and address their particular needs. Although there are opportunities for all programs to benefit, needs may be greatest in the cases of the smaller, cross-media programs which may not have strong, consistent

internal support from their respective offices. Services that OPR could provide to these programs include:

Networking, communications, and knowledge exchange. The PPCC is a useful mechanism but it suffers from a lack of participation of program staff. PPCC subcommittees have been poorly attended, in part because the PPCC has not focused on service provision. In addition to focusing the PPCC (or a group within the PPCC, as is currently being considered) more directly on service provision, a more proactive OPR role would be to make specific "matches" between programs that share common interests or needs. For example, OPR might link up two programs facing a similar partner or substantive issue based on its knowledge of the programs. In this sense, OPR's expertise would be knowing where opportunities for mentoring or knowledge exchange exist.

Recognition. Most partnership program staff are highly dedicated and serve the program as a labor of love, with little recognition or reward. The Agency could set up a recognition program for partnership staff, administered by OPR, to recognize individual staff members or programs for their contributions (nominations could come from partners or stakeholders). Award recipients would be publicly recognized Agency-wide. Like incubator program participants, recipients of recognition could be asked to develop lessons learned to improve future programs. This recognition program could also be carried out on a broader scale, where entire programs are recognized for their results and achievements.

Specific tools. Recently OPR brought in experts in program evaluation to describe evaluation techniques to partnership programs so that they could evaluate their own programs. OPR could provide similar tools based on best practices within the programs or using outside expertise. For example, OPR could develop performance measurement tools or partner contact tools that would be useful across programs.

What services could OR/PPCC usefully provide?

- "Critically evaluate the programs...and tell management the truth..."
- "Seek cross-platform opportunities."
- "More importance attached to the program by management."
- "Gatekeeper...integrator...lessons learned."
- "Clearinghouse."
- "Information gathering and sharing only."

Source: Surveys of National Managers and Regional and National Implementers

Ensure That Partnership Programs Meet a High and Consistent Standard of Quality

The traditional role of a champion is to advocate on behalf of its constituency and to ensure that its constituency receives the most appropriate level of support. As champion of the partnership programs, OPR should pursue one additional priority: ensuring that all partnership programs meet high standards for quality. If partnership programs were poorly designed or implemented, all the programs would suffer by association, and OPR's role as champion would be undermined. Programs should be proud to call themselves partnership programs and careful to save the benefits of being a partnership program for deserving, innovative programs.

Playing the role of gatekeeper will be challenging for OPR because programs may question its authority to take this role. If legitimate partnership programs truly perceive the benefit of OPR as champion, however, they will understand the need for the gatekeeper role. The advocacy and valuable services that OPR has to offer should be reserved for programs that meet high standards.

At a minimum, OPR should develop and apply guidelines to new programs that want access to its services and advocacy and should assist existing programs in improving based on internal evaluations.

III. THE NEXT STEPS

A process of change must start somewhere. As champion of the partnership approach, OPR can capitalize on ongoing and planned activities in the coming year as platforms for defining the role and priority applications of partnership programs, building consensus within the Agency, and advocating for sufficient funding. These activities may include:

- The revision of EPA's strategic plan
- The activities of the Reinvention Action Council
- The development of sector-based action plans
- The review of program activities by EPA's Planning and Budget Office

At these venues, OPR should develop and present a coherent theoretical and practical case for the partnership approach. As this case becomes better defined, it may be appropriate for OPR to organize a high-profile retreat to further develop the case for partnership programs and to begin the process of articulating the case and building consensus within the Agency. Representatives of the program and regional offices, partnership program representatives, and key partners and stakeholders could be invited. A structured two-day retreat of this nature would be an excellent vehicle for beginning to involve key personnel across EPA in the process of making partnerships a cornerstone of EPA's approach to environmental protection.

APPENDIX A

DETAILED RECOMMENDATIONS

Appendix A

Detailed Recommendations

In this appendix we present detailed, specific steps for implementing the first two of our EPA-wide recommendations from Part IV of the report: articulating the role of partnership programs in accomplishing the Agency's mission and providing adequate and consistent funding for the programs.

Define and Articulate the Role and Value of Partnerships in EPA's Mission

In Part IV, we discussed three facets of this recommendation. We present detailed implementation steps related to each facet below.

Articulate the Case for Partnerships in Theoretical and Practical Terms

As we have noted in this report, while there exists a coherent, generally accepted theoretical framework for the role of regulation in a market economy, the same is not the case for partnership programs. Both the theoretical and the practical case for partnerships need to be made and articulated. In particular, the Agency should:

— ***Define what a partnership is.*** At present, partnerships are self-defined. If a program considers itself a partnership, it is a partnership. There is a need for a clear, readily communicated definition of partnerships for the benefit of both the EPA staff and the public.

— ***Establish criteria for designating partnerships.*** From both a quality control and an identity viewpoint, there should exist criteria for designating new partnerships. These criteria should be derived directly from the definition. One principle to keep in mind: being designated a partnership should convey status and benefits to the partnership, not merely require attendance at PPCC meetings.

— ***Set expectations.*** While not all partnerships need necessarily lead to specific direct environmental benefits, their objectives should be clearly set and measurable and partnership staff should be accountable for performance (see below for performance measures).

Define Priority Goals for the Application of Partnerships

With the exception of a few regions and offices that have defined a role for partnerships in their mission, there has been little systematic thinking about the current and emerging environmental issues that partnership programs can most effectively address, in what circumstances and how

partnerships can be combined with regulatory programs, under what circumstances partnerships are likely to prove effective, and what their limitations are. In particular, the Agency should:

— ***Work with its strategic planning staff*** to identify emerging environmental issues ("environmental futures") and to determine how partnership programs can be used to address these issues.

— ***Review the regulatory agenda*** to identify upcoming regulations or initiatives that may lend themselves to a partnership approach.

— ***Work with regional office staff*** to identify issues and approaches where partnership programs have been particularly effective.

— ***Work with industry and stakeholder groups*** to identify their environmental priorities over a 5-year timeframe to identify how these priorities can be addressed using a partnership approach.

— ***Identify "gaps" in partnerships.*** Partnerships are heavily concentrated in a few areas—energy, solid waste, and toxics—and by and large focus on large company partners. Partnerships likely lend themselves well to use by other media and cross media programs and would be a useful tool to address small enterprise issues.

— ***Build strategic links among partnerships.*** A well-conceived partnership program may have "entry level" partnerships to introduce partners to the benefits of partnerships and a system of graduating partners to more advanced programs.

— ***Develop partner-oriented programs.*** At present, partnership program structures are dictated by the needs of different organizations within EPA (i.e., individual offices and the regions). Partnerships might be less costly to implement and more effective if they focused on the needs of the partners. For example, there could exist an umbrella partnership program for building owners and operators that covered energy, solid waste, and water issues.

Build Consensus Around the Role of Partnerships in EPA's Mission

The partnership approach will flourish most effectively if all Agency staff understand its value and priority applications. At present, partnership programs and staff have relatively little day-to-day contact with non-partnership programs and staff. Although cultural change will not happen overnight, we believe there exists an interest in (but little understanding of) partnership approaches throughout EPA. The following are specific steps to begin the process of cultural change:

— ***Integrate partnerships in office-specific and EPA-wide planning processes.*** Only 9 of 24 partnership programs responding to the managers' survey said they coordinate objectives with other partnerships; a more important statistic (which we did not research) would be how many EPA non-partnership programs have considered a partnership approach. There may be a useful lesson learned in the experience over the past decade of integrating pollution prevention in EPA's planning processes. This integration was accomplished through a mix of specific requirements to account for pollution prevention in the regulation development process, the availability of assistance from the Office of Pollution Prevention, and Agency-wide publicity. The experience of pollution prevention could be used as a model for partnerships.

— ***Distribute a "primer" on the partnership approach*** to staff involved in the development of regulatory and non-regulatory programs describing the theoretical case for partnerships and their practical benefits, the role of partnerships in EPA's mission, the conditions under which they are likely to prove successful, limitations on their use, and case studies of their application. The primer should be theoretically rigorous but written in a down-to-earth, user-friendly style.

— ***Integrate partnerships in incentive structures*** for senior staff. Performance appraisals and incentives may, for example, include specific recognition for environmental results obtained using a partnership program approach.

Provide Adequate, Consistent Financial Support to the Partnership Programs

In Part IV of the report, we discussed two components of this recommendation. We elaborate on these components, making the case for partnerships in budget negotiations and securing consistent incubator funding, below.

Make the Case for Partnerships in Budget Negotiations

With a few exceptions, partnership program budgets appear to be what is left over after "essential" programs have been taken care of or they are pieced together from funds available for other programs. If they are an important element of EPA's mission, they should be considered explicitly in budget appropriations.

— ***Track partnership program budgets.*** At present, no one at EPA can answer the question, "How much does EPA spend on partnership programs?" let alone more in-depth questions such as, "How much do partnerships spend on outreach, technical assistance, and program management?" Without this information, it is difficult for EPA to determine whether the resources spent on partnerships are adequate and whether they are well spent. In addition, this information could be compared to similar

information for non-partnership programs as a benchmark of the relative severity of fluctuation in overall spending on partnership programs.

— ***Track budget fluctuations.*** Partnership programs' budget fluctuations have serious repercussions because they diminish the credibility of the Agency with its external partners and its own staff. As part of the budget tracking described above, there should be a mechanism to highlight specific programs that are undergoing particularly severe and abrupt funding changes. If these changes are inevitable, specific actions should be taken to limit their damage to EPA's relationship with its staff and partners.

— ***Evaluate the cost-effectiveness of resources expended on partnership programs.*** It is probably impossible to develop a means to link all partnership expenditures to environmental results measures and to use this information as a single indicator of cost effectiveness. It should, however, be possible to link partnership program expenditures to the "balanced scorecard" measures described in Part IV of the main report. While individual partnerships may not show results in all dimensions of the balanced scorecard, they should show cost-effective results in some of the measures.

Secure consistent incubator funding

EPA should develop a discretionary budget to support deserving projects as defined by predetermined criteria (for example, small business benefit, multimedia impact, highly important innovative or learning opportunities, long-term sustainability). It could match regional or partnership funds to ensure that a new program has sufficient funding over, say, a 3-year period, enough time to become well-established. Incubator programs could also receive coaching and mentorship from established programs. A condition of participation in an incubator program might be that the recipient be available as a training case study of partnership program implementation (much as Federal Quality and Malcolm Baldrige award recipients are).

APPENDIX B

SURVEY TEXT

Appendix B

Survey Text

This appendix contains the full text of the managers' survey (sent to managers of national and regional partnership programs) and the implementers' survey (sent to regional implementers of national programs).

Managers' Survey (Sent to Managers of National and Regional Partnership Programs)

General Program Information

1. What is the name of the partnership program for which this survey is being completed?

2. Is this a national or regional partnership program? (*check the one that best applies*)

   __ National __ Regional *(please indicate the Region)*:

3. What is your role in the program? (*check the one that best applies*)

   __ Partnership Program Manager
   __ Partnership Program Staff

4. Is there a specific statutory basis for your program? *(mark yes or no with an "x")*

   __ Y __ N __ Don't know

   If so, what is it?

5. Do you have a defined mission statement? *(mark yes or no with an "x")*

   __ Y __ N

   If yes, please e-mail or fax a copy along with the completed survey, or give the URL where it can be found on the Internet:

6. In your own words, what benefits does your program provide to your partners?

7. Why is a partnership program appropriate to provide these benefits? Were any alternative approaches analyzed when the program was being established?

Managers' Survey (Sent to Managers of National and Regional Partnership Programs)

Organization Within EPA

8. Which of the following best describes how your program is structured within EPA? *(mark the option that best applies with an "x")*

   __ Run entirely from EPA Headquarters
   __ Run from Headquarters with support from some or all of regions
   __ Run from the Regions, with Headquarters playing a coordinating role
   __ Run entirely from one Region
   __ Other *(please specify)*:

9. If your program is run from Headquarters with support from the Regions, please indicate how many Regions are actively involved.

   __ Number of regions actively involved in supporting the program

10. What outside support does your program rely on? *(mark each option that applies with an "x")*

    __ Consultants and contractors
    __ Trade associations
    __ State staff
    __ Universities
    __ Other *(please specify)*:

11. What is the title of the person to whom the head of your program reports, and where is he or she located in the organization?

    Title (of person to whom program head reports):

    EPA Program or Office:

Managers' Survey (Sent to Managers of National and Regional Partnership Programs)

12. What, if any, do you find to be the major organizational/internal barriers to the implementation of the program? *(please rate each from 1 to 5 using the following scale: **1** = not important; **2** = minimal importance; **3** = somewhat important; **4** = quite important; **5** = most important)*

    __ Poor communication/coordination between Headquarters and the regions *(if your program is a national program)*
    __ Poor coordination and communication among partnership programs
    __ Lack of clarity as to program definition and/or objectives
    __ Lack of clear, quantitative performance measures
    __ Excessive red tape
    __ Lack of recognition as important within EPA
    __ Insufficient resources (excluding number of staff)
    __ Insufficient number of staff
    __ High turnover of program staff
    __ Lack of staff skills in managing collaborative programs
    __ Staff working on program implementation have too many other commitments
    __ Other *(please specify)*:

13. What do you consider the major organizational supports in the implementation of the program? *(please rate each from 1 to 5 using the following scale: **1** = not important; **2** = minimal importance; **3** = somewhat important; **4** = quite important; **5** = most important)*

    __ Flexibility and ability to innovate
    __ Effective coordination among programs
    __ Access to support from other partnership programs
    __ Support and recognition from my management
    __ Support and recognition from EPA management
    __ Dedication and commitment of program staff
    __ Clearly defined, measurable goals
    __ Other (*please specify*):

14. Has any of your projects been more/less successful than you anticipated? If so, what was the project and to what do you attribute its success/failure?

    Success:

    Failure:

15. What motivates you personally to participate in the program?

Managers' Survey (Sent to Managers of National and Regional Partnership Programs)

Budget

16. What is the total FY99 budget for your program?

    $

17. How many FTEs do you have assigned for FY99?

    _____ FTEs

18. What is your contractor budget for FY99?

    $

19. What were your FY97 and 98 budgets?

    FY97: $

    FY98: $

20. What EPA Programs, Offices, or Regional Divisions determine your budget?

21. **If your program is run from Headquarters with assistance from regions**, please indicate what role Headquarters plays in funding regional assistance. *(mark the option that best applies with an "x"; leave blank if your program is **not** run from HQ with assistance from regions)*

    __ The Headquarters program provides participating regions with budgetary resources ($ and/or FTEs) for assisting with program implementation. These resources cover most or all of the costs incurred by the regions.
    __ The Headquarters program provides participating regions with limited budgetary resources ($ and/or FTEs) for assisting with program implementation. The regions, however, pick up most of the cost of implementation assistance.
    __ The Headquarters program does not provide participating regions with any sort of budgetary resources. The regions pick up the full cost of implementation assistance.
    __ This varies greatly from region to region.
    __ Don't know
    __ Other *(please specify)*:

Managers' Survey (Sent to Managers of National and Regional Partnership Programs)

22. **If states assist in the implementation of your program**, please indicate how their assistance is funded. *(mark the option that best applies with an "x"; leave blank if states are **not** involved in implementation of your program)*

__ States do not assist in program implementation.
__ Participating states are given grants for assisting with program implementation. These resources cover most or all of the costs incurred by the states.
__ Participating states are given small grants for assisting with program implementation. The states themselves, however, pick up most of the cost of their assistance.
__ Participating states do not receive any grants for assisting with program implementation. They pick up the full cost of implementation assistance.
__ This varies greatly from state to state.
__ Don't know
__ Other *(please specify)*:

Partner Involvement

23. How is your partnership program structured? *(please mark the option that best applies with an "x")*

__ Partners sign a formal Memorandum of Understanding (or equivalent) to join
__ Agreements between EPA and participants are created on an ad-hoc basis
__ We maintain a network of interested parties but do not have any formal partners
__ Other *(please specify)*:

24. How important is each of the following in contacting potential partners? *(please rate each from 1 to 5 using the following scale: **1** = we don't use this method; **2** = minimal importance; **3** = somewhat important; **4** = quite important; **5** = most important)*

__ Advertising
__ Word of mouth
__ Compliance actions
__ Cold calls and networking
__ Outreach, e.g. seminars or Public Service Announcements (PSAs)
__ Leads from other partnership programs
__ Leads from other EPA programs
__ Leads from states
__ Trade associations
__ Other *(please specify)*:

Managers' Survey (Sent to Managers of National and Regional Partnership Programs)

25. Roughly speaking, what percentage of your budget is used for marketing and outreach?

    __ percent

26. Does your program have a system (or exit strategy) for "graduating" partners who have demonstrated superior performance and/or achieved the goals of the program? *(mark the option that best applies with an "x")*

    __ Yes, we do have this sort of exit strategy
    __ No, we do not have this sort of exit strategy, but we could potentially develop one
    __ No; this sort of exit strategy does not make sense given our program structure

    If you answered "Yes" above, please describe your exit strategy.

27. Does your program itself have an exit strategy? In other words, does your program have a definitive end-point or set of goals that, when achieved, would imply the closing of the program? *(mark the option that best applies with an "x")*

    __ Yes, we do have this sort of exit strategy
    __ No, we do not have this sort of exit strategy, but we could potentially develop one
    __ No; this sort of exit strategy does not make sense given our program structure

    If you answered "Yes" above, please describe your exit strategy.

28. How is contact maintained with Partners? *(please mark all that apply with an "x")*

    __ Designated EPA personnel maintain contact with groups of partners
    __ Designated contractor employees maintain contact with groups of partners
    __ As new developments occur, partners are informed by e-mail or other communications
    __ Contact proceeds with partners on an ad-hoc basis
    __ Partners submit periodic reports
    __ Other *(please specify)*:

Managers' Survey (Sent to Managers of National and Regional Partnership Programs)

29. How many partners do you have, and how many other supporters, allies, and endorsers (organizations that support or endorse the program but are not partners) do you have? *(please indicate in the matrix the approximate number of partners and supporters in each category and the total numbers)*

Category	Number of Partners	Number of Supporters, Allies, or Endorsers
Private-sector companies		
Public agencies or organizations		
Trade associations		
Other non-governmental organizations		
Universities		
Foreign partners		
Other *(please specify)*:		
TOTAL		

30. Of your partners in the private sector, approximately what percentage are small businesses? *(please indicate the approximate percentage; leave it blank if you can't make an approximation)*

__ %

31. Does your program target a specific geographic area such as a particular state, a water- or airshed, or a border area? *(please mark yes or no with an "x")*

__ Yes __ No

If you marked"Yes", what geographical area?

U.S. [illegible] Library
[illegible] NW

Managers' Survey (Sent to Managers of National and Regional Partnership Programs)

Stakeholder Involvement

32. What sorts of stakeholders do you involve in your program? *(mark all that apply with an "x")*

__ Other government agencies
__ Industry associations
__ States
__ National and regional environmental organizations
__ Communities
__ Suppliers to target partners
__ Customers to target partners
__ Educational or research organizations
__ Supporters, Allies, or Endorsers *(please define):*
__ Other *(please specify):*

33. How helpful have you found participation from stakeholders to be in supporting and improving your program? *(mark the option that best applies with an "x")*

__ Extremely helpful
__ Very helpful
__ Somewhat helpful
__ Unhelpful
__ Very unhelpful; a hindrance
__ Our experience varies so much that it is impossible to generalize

Managers' Survey (Sent to Managers of National and Regional Partnership Programs)

Interactions With Other Programs

34. Please fill in the following matrix regarding the types of interaction between your program and other EPA, federal, and state programs and non-governmental organizations (NGOs): *(mark an "x" where appropriate for the first four rows; specify any other types of interaction you have in the fifth row; and list the programs you interact with in the sixth row)*

Types of Interaction	Other EPA Partnership Programs	Other EPA Programs (non-partnership)	Programs in Other Federal Agencies	State Programs	NGOs
1. Coordinate objectives					
2. Share client leads					
3. Coordinate client participation (one-stop shopping)					
4. Ideas for program design					
5. Other *(please specify)*					
6. With what programs?					

35. What opportunities do you see for increased interaction with EPA partnership programs, other EPA programs, programs in other Federal agencies, states and/or NGOs?

36. The Office of Reinvention (OR) has recently been assigned the role of coordinating the efforts of partnership programs. How have OR's efforts been useful to you? *(mark all that apply with an "x")*

__ Our program has benefitted from OR's internal coordination and networking efforts
__ Our program has received potential partner leads through OR's efforts
__ Our program has benefitted from OR's overall outreach activities (e.g. web site)
__ Other *(please specify)*:
__ None of the above options apply

Managers' Survey (Sent to Managers of National and Regional Partnership Programs)

37. Please describe the nature of your interaction with the Partnership Program Coordinating Committee run out of OR and of your interaction with your Region or Office's PPCC representative. Do you have any suggestions for improvement?

38. What other services do you think OR could usefully provide in its role as coordinator for partnership programs?

Evaluation and Measurement

39. Who is responsible for evaluating the success of your program? *(please mark all that apply)*

__ We have conducted an internal program evaluation
__ We are or will soon conduct an internal program evaluation
__ An EPA group outside of our program has, is, or will soon conduct an evaluation of our program. (*please indicate which EPA organization*):
__ Other *(please specify):*

40. What criteria were, are, or will be used to evaluate your program?

41. If both your program and an external EPA group have, are, or will soon conduct an evaluation of your program, are different criteria being used for these two evaluations?

__Yes __ No

If so, how are they different?

42. Do you gather environmental and/or economic performance data from your partners? *(mark yes or no with an "x")*

Environmental: __ Y __ N

Economic: __ Y __ N

Managers' Survey (Sent to Managers of National and Regional Partnership Programs)

43. If you collect these data, please indicate how. *(mark the option that best describes how you collect these data with an "x")*

    __ Partners submit an annual report. They do this by using a template file we send them.
    __ Partners submit an annual report. They can do this using our Internet site.
    __ Data are periodically collected by interviewing, written communication, or site visits
    __ Other *(please specify)*:

44. If you collect environmental and economic performance data, please list the EPA programs or offices to which you report these data.

45. If you collect environmental performance data, do you have a process for verifying these data? *(mark yes or no with an "x")*

    __ Y __ N

    If so, what is your process?

46. Does your program address Government Performance and Results Act (GPRA) objectives and sub-objectives? *(mark yes, no, or don't know with an "x")*

    __ Y __ N __ Don't Know

    If yes, please indicate below which objectives and sub-objectives it addresses.

    Objectives:

    Sub-objectives:

47. Do you gather customer satisfaction data from your partners and stakeholders? *(mark yes or no with an "x")*

    Partners: __ Y __ N

    Stakeholders: __ Y __ N

Managers' Survey (Sent to Managers of National and Regional Partnership Programs)

48. If you collect these data, please indicate how. *(mark the option that best describes how you collect these data with an "x")*

    __ A survey is periodically sent to partners and/or stakeholders
    __ 800 number
    __ Comment cards
    __ Direct feedback
    __ Other *(please specify)*:

49. Roughly speaking, what percentage of your budget is used for conducting evaluation and soliciting feedback from partners and other stakeholders?

    __ percent

Additional Information

(Please give the following additional information. The Lexington Group may contact you for additional information or to conduct an interview. Note that individual respondents will not be identified in our report to EPA, although we will occasionally ascribe particular comments to the programs from which they come.)

Your name:

Your title:

Your phone number:

Your fax number:

THANK YOU!!

Please e-mail the completed survey as a Word Perfect attachment to survey@lexgrp.com or, if necessary, fax it to 781-674-2851, attn: Richard Wells.

Implementers' Survey (Sent to Regional Implementers of National Partnership Programs)

General Program Information

1. Which EPA Region are you from? *(mark one option with an "x")*

__ Region 1 __ Region 2 __ Region 3 __ Region 4
__ Region 5 __ Region 6 __ Region 7 __ Region 8
__ Region 9 __ Region 10

2. What is the number of national partnership programs that you personally help to implement in your region?

__ Number of national partnership programs you help to implement

What are the names of these programs?

3. What percentage of your time do you spend on these partnership programs?

__ % of time

For purposes of this survey, please select the national partnership program you are most involved with out of the ones you listed above (or, if you are just involved with one such program, choose that one). **You will fill out the rest of this survey from the perspective of this program only.** If you wish, we encourage you to fill out additional surveys, one per program.

4. Name of national partnership program chosen for this survey: _____

5. What is your role in this program?

__ Manager for regional implementation of a national partnership program
__ Staff for regional implementation of a national partnership program
__ Other *(please specify)*:

Implementers' Survey (Sent to Regional Implementers of National Partnership Programs)

6. Do you have a set of goals or an operating plan that describes your partnership program activities? *(mark yes or no with an "x")*

   __ Y __ N

   If yes, please e-mail or fax a copy along with the completed survey, or give the URL where it can be found on the Internet:

7. In your own words, what benefits does this program provide to its partners?

Organization Within EPA

8. Where are you located in the Regional office?

   __ Office *(please name):*
   __ Division *(please name):*
   __ Branch *(please name):*

9. What is the title of the person to whom you report for partnership program activities? Is he or she in EPA Headquarters or in the region? *(mark "Headquarters" or "Region" with an "x" and fill in title)*

   __ Headquarters __ Region Title:

10. How many staff in your region, other than yourself, are involved in implementing this program?

    __ Number of regional staff involved (not counting yourself)

Implementers' Survey (Sent to Regional Implementers of National Partnership Programs)

11. What, if any, do you find to be the major organizational/internal barriers to the implementation of the program? *(please rate each from 1 to 5 using the following scale: **1** = not important; **2** = minimal importance; **3** = somewhat important; **4** = quite important; **5** = most important)*

__ Poor communication/coordination between Headquarters and the region
__ Poor coordination and communication among partnership programs
__ Lack of clarity as to program definition and/or objectives
__ Lack of clear, quantitative performance measures
__ Excessive red tape
__ Lack of recognition as important within EPA
__ Insufficient resources (excluding number of staff)
__ Insufficient number of staff
__ High turnover of program staff
__ Lack of staff skills in managing collaborative programs
__ Staff working on program implementation have too many other commitments
__ Other *(please specify)*:

12. What do you consider the major organizational supports in the implementation of the program? *(please rate each from 1 to 5 using the following scale: **1** = not important; **2** = minimal importance; **3** = somewhat important; **4** = quite important; **5** = most important)*

__ Flexibility and ability to innovate
__ Effective coordination among programs
__ Access to support from other partnership programs
__ Support and recognition from my management
__ Support and recognition from EPA management
__ Dedication and commitment of program staff
__ Clearly defined, measurable goals
__ Other (*please specify*):

13. Has any of your projects been more/less successful than you anticipated? If so, what was the project and to what do you attribute its success/failure?

Success:

Failure:

14. What motivates you personally to participate in the program?

Implementers' Survey (Sent to Regional Implementers of National Partnership Programs)

15. The Office of Reinvention (OR) has recently been assigned the role of coordinating the efforts of partnership programs. How have OR's efforts been useful to you? *(mark all that apply with an "x")*

__ We have benefitted from OR's internal coordination and networking efforts
__ We have benefitted from OR's overall outreach activities (e.g. Web site)
__ Other *(please specify)*:
__ I know very little about OR's efforts
__ None of the above options apply

16. What services do you think OR could usefully provide in its role as coordinator for partnership programs?

17. Please describe the nature of your interaction with the Partnership Program Coordinating Committee (PPCC) run out of OR and of your interaction with your Regional PPCC representative. Do you have any suggestions for improvement?

18. Please give any suggestions you have for improving the way your program is managed (either at the regional or national level).

Program Implementation

19. Please fill in the matrix below regarding whether other EPA programs, other federal agencies, state or local agencies, or non-governmental organizations are involved in conducting the program. *(please mark Y or N in the "Involved" column and name specific entities involved in the right column)*

Entity	Involved (Y or N)	Specific programs, agencies, organizations
Other EPA Programs		
Other Federal Agencies		
State Agencies		
Local Agencies		
Non-governmental Organizations		

Implementers' Survey (Sent to Regional Implementers of National Partnership Programs)

20. What opportunities do you see for increased interaction with EPA partnership programs, other EPA programs, programs in other Federal agencies, states and/or non-governmental organizations?

21. How would you characterize where you spend your program time? *(Provide the approximate percentage of time you spend on each activity below as a percentage of the total amount of time you spend on the program.)*

___% Promoting and marketing
___% Technical assistance to partners
___% Coordination with national program
___% Program management
___% Other; *please specify:*

22. What outside support do you rely on for program implementation assistance? *(mark each option that applies with an "x")*

__ Consultants and contractors
__ Trade associations
__ State staff
__ Universities
__ Other *(please specify)*:

Budget

23. Do you receive resources from the national program to conduct your regional program activities? *(mark the option that best applies with an "x")*

__ Yes, we receive resources from the national program
__ No, we do not receive resources from the national program
__ I am not sure

Implementers' Survey (Sent to Regional Implementers of National Partnership Programs)

24. If you marked "Yes" above, please indicate the nature and extent of the resources provided by the national program for FY99 by filling in the matrix below. *(Indicate whether they are involved by marking Y or N; then use Y, N, or U (for unsure) to indicate the type of resources provided; fill in the amount of the resource where you can estimate it. Use the example in the shaded area as guidance.)*

Resources Provided by National Program for FY 99							
FTEs		Grant Funds		Contract Funds		Other	
Y,N,U	Amount	Y,N,U	Amount	Y,N,U	Amount	Y,N,U	Specify
(*ex.*) Y	2 FTEs	N		U		Y	computers

25. Are you receiving resources for implementation assistance in FY99 from sources other than the national program?

__ Yes __ No __ Unsure

If "Yes", please name these sources.

26. Please fill in the matrix below regarding assistance you provide to state governments, local governments, and non-profit organizations involved in implementing your program for FY99. *(Indicate whether they receive assistance from you by marking Y, N, or U (for Unsure); then use Y, N, or U to indicate the type of resources provided; fill in the amount of the resource where you can estimate it. Use the example as guidance.)*

Entity	Receive Your Assistance? (Y,N,U)	Resources You Provide, FY99					
		FTEs		Grant Funds		Other	
		Y,N,U	Amount	Y,N,U	Amount	Y,N,U	Specify
EXAMPLE	Y	N		Y	$50,000	Y	Training Materials
State Agencies							
Local Agencies							
Non-profit organizations							

Implementers' Survey (Sent to Regional Implementers of National Partnership Programs)

Partner Interactions

27. How important is each of the following in contacting potential partners? *(Please rate each from 1 to 5 using the following scale: **1** = we don't use this method; **2** = minimal importance; **3** = somewhat important; **4** = quite important; **5** = most important. Leave blank if the region is not involved in contacting potential partners.)*

__ Advertising
__ Word of mouth
__ Compliance actions
__ Cold calls and networking
__ Outreach, e.g. seminars or Public Service Announcements (PSAs)
__ Leads from other partnership programs
__ Leads from other EPA programs
__ Leads from states
__ Trade associations
__ Other *(please specify)*:

Additional Information

(Please give the following additional information. The Lexington Group may contact you for additional information or to conduct an interview. Note that individual respondents will not be identified in our report to EPA, although we will occasionally ascribe particular comments to the programs from which they come.)

Your name:

Your title:

Your phone number:

Your fax number:

THANK YOU!!

Please e-mail the completed survey as a Word Perfect attachment to survey@lexgrp.com or, if necessary, fax it to 781-674-2851, attn: Richard Wells.

APPENDIX C

SELECTED SURVEY RESULTS

Appendix C

Selected Survey Results

This appendix contains results to selected questions from the managers' survey (sent to managers of national and regional partnership programs) and the implementers' survey (sent to regional implementers of national programs). To protect the confidentiality of EPA staff, some questions and responses were omitted from this compilation. For example, narrative responses may directly or indirectly identify the respondent and have therefore been omitted. The full text of both surveys is contained in the previous appendix.

Selected Results of Managers' Survey (Sent to Managers of National and Regional Partnership Programs)

2. Is this a national or regional partnership program?

Count	Percent	
13	54.2%	National
11	45.8%	Regional

3. What is your role in the program?

Count	Percent	
14	58.3%	Partnership Program Manager
8	33.3%	Partnership Program Staff

4. Is there a specific statutory basis for your program?

Count	Percent	
10	41.7%	Yes
11	45.8%	No
1	4.2%	Don't know
2	8.3%	Blank

5. Do you have a defined mission statement?

Count	Percent	
16	66.7%	Yes
5	20.8%	No
3	12.5%	Blank

8. Which of the following best describes how your program is structured within EPA?

Count	Percent	
5	20.8%	Run entirely from EPA Headquarters
8	33.3%	Run from Headquarters with support from some or all of regions
0	0.0%	Run from the Regions, with Headquarters playing a coordinating role
6	25.0%	Run entirely from one Region
6	25.0%	Other

Selected Results of Managers' Survey (Sent to Managers of National and Regional Partnership Programs)

10. What outside support does your program rely on?

Count	Percent	
17	70.8%	Consultants and contractors
12	50.0%	Trade associations
11	45.8%	State staff
9	37.5%	Universities
15	62.5%	Other

12. What, if any, do you find to be the major organizational/internal barriers to the implementation of the program? (please rate each from 1 to 5 using the following scale: 1 = not important; 2 = minimal importance; 3 = somewhat important; 4 = quite important; 5 = most important)

Avg.	Mode	Count by Response				Total Count
		4-5	3	1-2		
2.0	1	2	3	10	Poor communication/coordination between Headquarters and the region	15
1.8	1	1	3	14	Poor coordination and communication among partnership programs	18
1.7	1	1	3	15	Lack of clarity as to program definition and/or objectives	19
2.2	1	2	7	10	Lack of clear, quantitative performance measures	19
2.1	2	2	3	14	Excessive red tape	19
2.6	4	7	3	9	Lack of recognition as important within EPA	19
3.8	5	11	6	2	Insufficient resources (excluding number of staff)	19
3.8	5	11	5	4	Insufficient number of staff - The issue here is that it demands more time than my duties allow	20
1.7	1	2	2	15	High turnover of program staff	19
1.4	1	0	2	17	Lack of staff skills in managing collaborative programs	19
2.8	3	6	6	8	Staff working on program implementation have too many other commitments	20
4.0	5	7	1	1	Other	9

Selected Results of Managers' Survey (Sent to Managers of National and Regional Partnership Programs)

13. What do you consider the major organizational supports in the implementation of the program? (please rate each from 1 to 5 using the following scale: 1 = not important; 2 = minimal importance; 3 = somewhat important; 4 = quite important; 5 = most important)

Avg.	Mode	Count by Response				Total Count
		4-5	3	1-2		
4.6	5	21	2	0	Flexibility and ability to innovate	23
3.2	0	10	5	8	Effective coordination among programs	23
2.1	0	2	6	14	Access to support from other partnership programs	22
4.0	4	17	5	1	Support and recognition from my management	23
3.7	4	16	3	4	Support and recognition from EPA management	23
4.6	5	21	2	0	Dedication and commitment of program staff	23
4.0	4	17	5	1	Clearly defined, measurable goals	23
3.0	0	1	1	1	Other	3

		Average	Minimum	Maximum	Count
16. What is the total FY99 budget for your program?		$1,025,266	$3,000	$13,400,000	15
17. How many FTEs do you have assigned for FY99?		2.8	0.05	20.0	20
18. What is your contractor budget for FY99?		$665,000	$20,000	$7,900,000	10
19. What were your FY97 and 98 budgets?					
	FY97:	$826,697	$3,000	$10,200,000	15
	FY98:	$865,192	$3,000	$10,400,000	16

21. If your program is run from Headquarters with assistance from regions, please indicate what role Headquarters plays in funding regional assistance.

Count	Percent	
2	8.3%	The Headquarters program provides participating regions with budgetary resources ($ and/or FTEs) for assisting with program implementation. These resources cover most or all of the costs incurred by the regions.
2	8.3%	The Headquarters program provides participating regions with limited budgetary resources ($ and/or FTEs) for assisting with program implementation. The regions, however, pick up most of the cost of implementation assistance.
3	12.5%	The Headquarters program does not provide participating regions with any sort of budgetary resources. The regions pick up the full cost of implementation assistance.
0	0.0%	This varies greatly from region to region.
0	0.0%	Don't know
0	0.0%	Other

Selected Results of Managers' Survey (Sent to Managers of National and Regional Partnership Programs)

22. If states assist in the implementation of your program, please indicate how their assistance is funded.

Count	Percent	
6	25.0%	States do not assist in program implementation.
1	4.2%	Participating states are given grants for assisting with program implementation. These resources cover most or all of the costs incurred by the states.
2	8.3%	Participating states are given small grants for assisting with program implementation. The states themselves, however, pick up most of the cost of their assistance.
4	16.7%	Participating states do not receive any grants for assisting with program implementation. They pick up the full cost of implementation assistance.
1	4.2%	This varies greatly from state to state.
0	0.0%	Don't know
5	20.8%	Other

23. How is your partnership program structured?

Count	Percent	
12	50.0%	Partners sign a formal Memorandum of Understanding (or equivalent) to join
1	4.2%	Agreements between EPA and participants are created on an ad-hoc basis
4	16.7%	We maintain a network of interested parties but do not have any formal partners
7	29.2%	Other

24. How important is each of the following in contacting potential partners? (please rate each from 1 to 5 using the following scale: 1 = we don't use this method; 2 = minimal importance; 3 = somewhat important; 4 = quite important; 5 = most important)

Avg.	Mode	Count by Response				Total Count
		4-5	3	1-2		
2.4	1	4	6	11	Advertising	21
3.6	4	13	6	3	Word of mouth	22
1.3	1	1	1	17	Compliance actions	19
3.0	4	10	3	8	Cold calls and networking	21
3.3	4	11	4	6	Outreach, e.g. seminars or Public Service Announcements	21
2.1	2	1	6	13	Leads from other partnership programs	20
2.0	1	1	6	14	Leads from other EPA programs	21
2.6	0	7	4	11	Leads from states	22
3.3	4	12	4	5	Trade associations	21
3.6	5	3	1	1	Other	5

Selected Results of Managers' Survey (Sent to Managers of National and Regional Partnership Programs)

25. Roughly speaking, what percentage of your budget is used for marketing and outreach?

Average:	20.4%	Count by Response:	18	Less than 25%
Minimum:	0%		3	Between 25% and 50%
Maximum:	100%		3	More than 50%

26. Does your program have a system (or exit strategy) for "graduating" partners who have demonstrated superior performance and/or achieved the goals of the program?

Count	Percent	
4	16.7%	Yes, we do have this sort of exit strategy
6	25.0%	No, we do not have this sort of exit strategy, but we could potentially develop one
14	58.3%	No; this sort of exit strategy does not make sense given our program structure

27. Does your program itself have an exit strategy? In other words, does your program have a definitive end-point or set of goals that, when achieved, would imply the closing of the program?

Count	Percent	
7	29.2%	Yes, we do have this sort of exit strategy
5	20.8%	No, we do not have this sort of exit strategy, but we could potentially develop one
11	45.8%	No; this sort of exit strategy does not make sense given our program structure

28. How is contact maintained with Partners?

Count	Percent	
15	62.5%	Designated EPA personnel maintain contact with groups of partners
10	41.7%	Designated contractor employees maintain contact with groups of partners
19	79.2%	As new developments occur, partners are informed by e-mail or other communications
10	41.7%	Contact proceeds with partners on an ad-hoc basis
12	50.0%	Partners submit periodic reports
8	33.3%	Other

Selected Results of Managers' Survey (Sent to Managers of National and Regional Partnership Programs)

29. How many partners do you have, and how many other supporters, allies, and endorsers (organizations that support or endorse the program but are not partners) do you have?

Category	Average No. of Partners	Average No. of Supporters, Allies, or Endorsers
a. Private-sector companies	176	40
b. Public agencies or organizations	18	2
c. Trade associations	5	3
d. Other non-governmental organizations	8	4
e. Universities	4	1
f. Foreign partners	1	0
g. Other (please specify):	0	1

30. Of your partners in the private sector, approximately what percentage are small businesses?

Average:	24.2%	Count by Response:	15	Less than 25%
Minimum:	0%		3	Between 25% and 50%
Maximum:	100%		6	More than 50%

31. Does your program target a specific geographic area such as a particular state, a water- or airshed, or a border area?

Count	Percent	
10	41.7%	Yes
14	58.3%	No

32. What sorts of stakeholders do you involve in your program?

Count	Percent	
20	83.3%	Other government agencies
22	91.7%	Industry associations
20	83.3%	States
16	66.7%	National and regional environmental organizations
12	50.0%	Communities
12	50.0%	Suppliers to target partners
11	45.8%	Customers to target partners
18	75.0%	Educational or research organizations
11	45.8%	Supporters, Allies, or Endorsers
2	8.3%	Other

Selected Results of Managers' Survey (Sent to Managers of National and Regional Partnership Programs)

33. How helpful have you found participation from stakeholders to be in supporting and improving your program?

Count	Percent	
16	66.7%	Extremely helpful
3	12.5%	Very helpful
2	8.3%	Somewhat helpful
1	4.2%	Unhelpful
0	0.0%	Very unhelpful; a hindrance
1	4.2%	Our experience varies so much that it is impossible to generalize

34. Please fill in the following matrix regarding the types of interaction between your program and other EPA, federal, and state programs and non-governmental organizations (NGOs):

Interaction and Number of Responses:	a.Other EPA Partnership Programs	b.Other EPA Programs (non-partnership)	c.Programs in Other Federal Agencies	d.State Programs	e.NGOs
1. Coordinate objectives	8	9	8	8	8
2.Share client leads	10	3	3	4	4
3.Coordinate client participation	6	3	1	5	3
4. Ideas for program design	12	7	7	8	9

36. The Office of Reinvention (OR) has recently been assigned the role of coordinating the efforts of partnership programs. How have OR's efforts been useful to you?

Count	Percent	
6	25.0%	Our program has benefitted from OR's internal coordination and networking efforts
3	12.5%	Our program has received potential partner leads through OR's efforts
2	8.3%	Our program has benefitted from OR's overall outreach activities (e.g. web site)
1	4.2%	Other
15	62.5%	None of the above options apply

Selected Results of Managers' Survey (Sent to Managers of National and Regional Partnership Programs)

39. Who is responsible for evaluating the success of your program?

Count	Percent	
10	41.7%	We have conducted an internal program evaluation
7	29.2%	We are or will soon conduct an internal program evaluation
2	8.3%	An EPA group outside of our program has, is, or will soon conduct an evaluation of our program.
10	41.7%	Other

41. If both your program and an external EPA group have, are, or will soon conduct an evaluation of your program, are different criteria being used for these two evaluations?

Count	Percent	
2	8.3%	Yes
5	20.8%	No
17	70.8%	Blank

42. Do you gather environmental and/or economic performance data from your partners?

Environmental:

Count	Percent	
19	79.2%	Yes
4	16.7%	No
1	4.2%	Blank

Economic:

Count	Percent	
12	50.0%	Yes
11	45.8%	No
1	4.2%	Blank

43. If you collect these data, please indicate how.

Count	Percent	
7	29.2%	Partners submit an annual report. They do this by using a template file we send them.
2	8.3%	Partners submit an annual report. They can do this using our Internet site.
8	33.3%	Data are periodically collected by interviewing, written communication, or site visits
8	33.3%	Other

45. If you collect environmental performance data, do you have a process for verifying these data?

Count	Percent	
11	45.8%	Yes
7	29.2%	No
6	25.0%	Blank

Selected Results of Managers' Survey (Sent to Managers of National and Regional Partnership Programs)

46. Does your program address Government Performance and Results Act (GPRA) objectives and sub-objectives?

Count	Percent	
11	45.8%	Yes
3	12.5%	No
8	33.3%	Don't know
2	8.3%	Blank

47. Do you gather customer satisfaction data from your partners and stakeholders?

Partners:

Count	Percent	
12	50.0%	Yes
12	50.0%	No

Stakeholders

Count	Percent	
8	33.3%	Yes
14	58.3%	No

48. If you collect these data, please indicate how.

Count	Percent	
6	25.0%	A survey is periodically sent to partners and/or stakeholders
0	0.0%	800 number
1	4.2%	Comment cards
11	45.8%	Direct feedback
4	16.7%	Other

49. Roughly speaking, what percentage of your budget is used for conducting evaluation and soliciting feedback from partners and other stakeholders?

Average:	5.5%	Count by Response:	23	Less than 25%
Minimum:	0.0%		0	Between 25% and 50%
Maximum:	75.0%		1	More than 50%

Selected Results of Implementers' Survey (Sent to Regional Implementers of National Partnership Programs)

2. What is the number of national partnership programs that you personally help to implement in your region?

Average:	1.7	Count by Response:	One program:	13
Minimum:	0		Two or more programs:	9
Maximum:	5			

3. What percentage of your time do you spend on these partnership programs?

Average:	21.9%	Count by Response:	11	Less than 25%
			3	Between 25% and 50%
			9	More than 50%

5. What is your role in this program?

Count	Percent	
13	54.2%	Manager for regional implementation of a national partnership program
9	37.5%	Staff for regional implementation of a national partnership program
2	8.3%	Other

6. Do you have a set of goals or an operating plan that describes your partnership program activities?

Count	Percent	
11	47.8%	Yes
11	47.8%	No
1	4.3%	Blank

9. What is the title of the person to whom you report for partnership program activities? Is he or she in EPA Headquarters or in the region?

Count	Percent	
8	34.8%	Headquarters
13	56.5%	Region
2	8.7%	Blank

Selected Results of Implementers' Survey (Sent to Regional Implementers of National Partnership Programs)

10. How many staff in your region, other than yourself, are involved in implementing this program?

Average: 2.2

Minimum: 0

Maximum: 11

11. What, if any, do you find to be the major organizational/internal barriers to the implementation of the program? (please rate each from 1 to 5 using the following scale: 1 = not important; 2 = minimal importance; 3 = somewhat important; 4 = quite important; 5 = most important)

Avg.	Mode	Count by Response				Total Count
		4-5	3	1-2		
2.4	1	4	7	11	Poor communication/coordination between Headquarters and the region	22
2.2	1	5	2	14	Poor coordination and communication among partnership programs	21
2.0	1	3	4	15	Lack of clarity as to program definition and/or objectives	22
2.5	1	7	3	12	Lack of clear, quantitative performance measures	22
2.5	2	4	4	12	Excessive red tape	20
2.9	2	7	5	10	Lack of recognition as important within EPA	22
3.6	4	14	5	3	Insufficient resources (excluding number of staff)	22
3.1	2	8	3	8	Insufficient number of staff - The issue here is that it demands more time than my duties allow	19
1.8	1	2	2	17	High turnover of program staff	21
2.0	1	2	5	13	Lack of staff skills in managing collaborative programs	20
4.2	4	15	3	3	Staff working on program implementation have too many other commitments	21
4.2	4	5	1	0	Other	6

Selected Results of Implementers' Survey (Sent to Regional Implementers of National Partnership Programs)

12. What do you consider the major organizational supports in the implementation of the program? (please rate each from 1 to 5 using the following scale: 1 = not important; 2 = minimal importance; 3 = somewhat important; 4 = quite important; 5 = most important)

Avg.	Mode	Count by Response				Total Count
		4-5	3	1-2		
4.2	5	13	4	3	Flexibility and ability to innovate	20
3.2	4	11	2	7	Effective coordination among programs	20
2.8	4	7	4	9	Access to support from other partnership programs	20
3.7	4	13	4	3	Support and recognition from my management	20
3.6	4	13	3	4	Support and recognition from EPA management	20
3.8	4	13	6	1	Dedication and commitment of program staff	20
3.0	3	8	8	4	Clearly defined, measurable goals	22
0.5	0	2	0	0	Other	20

15. The Office of Reinvention (OR) has recently been assigned the role of coordinating the efforts of partnership programs. How have OR's efforts been useful to you?

Count	Percent	
4	17.4%	We have benefitted from OR's internal coordination and networking efforts
5	21.7%	We have benefitted from OR's overall outreach activities (e.g. Web site)
1	4.3%	Other
14	60.9%	I know very little about OR's efforts
4	17.4%	None of the above options apply

19. Please fill in the matrix below regarding whether other EPA programs, other federal agencies, state or local agencies, or non-governmental organizations are involved in conducting the program.

Count by Response	Yes	No	Blank
Other EPA Programs	9	12	2
Other Federal Agencies	9	10	4
State Agencies	17	6	0
Local Agencies	13	7	3
Non-governmental Organizations	13	8	2

Selected Results of Implementers' Survey (Sent to Regional Implementers of National Partnership Programs)

21. How would you characterize where you spend your program time?

	Count by Response			
Average	Less than 25%	Between 25% and 50%	More than 50%	
26.3%	13	4	6	Promoting and marketing
13.3%	17	4	2	Technical assistance to partners
21.5%	13	5	5	Coordination with national program
20.9%	14	7	2	Program management
10.0%	20	1	2	Other

22. What outside support do you rely on for program implementation assistance?

Count	Percent	
9	39.1%	Consultants and contractors
6	26.1%	Trade associations
10	43.5%	State staff
7	30.4%	Universities
3	13.0%	Other

23. Do you receive resources from the national program to conduct your regional program activities?

Count	Percent	
8	34.8%	Yes, we receive resources from the national program
10	43.5%	No, we do not receive resources from the national program
4	17.4%	I am not sure

24. If you marked "Yes" above, please indicate the nature and extent of the resources provided by the national program for FY99 by filling in the matrix below.

Resources Provided by National Program for FY 99

	Yes	No	Unsure	Blank
FTEs	6	0	2	15
Grant Funds	3	6	0	14
Contract Funds	0	6	1	16
Other	3	3	0	17

Selected Results of Implementers' Survey (Sent to Regional Implementers of National Partnership Programs)

25. Are you receiving resources for implementation assistance in FY99 from sources other than the national program?

Count	Percent	
4	17.4%	Yes
13	56.5%	No
3	13.0%	Unsure
3	13.0%	Blank

26. Please fill in the matrix below regarding assistance you provide to state governments, local governments, and non-profit organizations involved in implementing your program for FY99.

	Yes		No		Unsure	
State Agencies	Count	Percent	Count	Percent	Count	Percent
Receive Your Assistance?	10	76.9%	3	23.1%	0	0.0%
FTEs	0	0.0%	10	100.0%	0	0.0%
Grant Funds	4	44.4%	4	44.4%	1	11.1%
Other	5	71.4%	2	28.6%	0	0.0%

	Yes		No		Unsure	
Local Agencies	Count	Percent	Count	Percent	Count	Percent
Receive Your	6	46.2%	7	53.8%	0	0.0%
FTEs	0	0.0%	7	100.0%	0	0.0%
Grant Funds	0	0.0%	6	100.0%	0	0.0%
Other	3	50.0%	16.66	16.7%	0	0.0%

	Yes		No		Unsure	
Non-profit organizations	Count	Percent	Count	Percent	Count	Percent
Receive Your	6	46.2%	7	53.8%	0	0.0%
FTEs	0	0.0%	7	70.0%	0	0.0%
Grant Funds	1	11.1%	5	55.6%	0	0.0%
Other	3	42.9%	1	14.3%	0	0.0%

Selected Results of Implementers' Survey (Sent to Regional Implementers of National Partnership Programs)

27. How important is each of the following in contacting potential partners? (Please rate each from 1 to 5 using the following scale: 1 = we don't use this method; 2 = minimal importance; 3 = somewhat important; 4 = quite important; 5 = most important. Leave blank if the region is not involved in contacting potential partners.)

Avg.	Mode	Count by Response				Total Count
		4-5	3	1-2		
2.1	1	3	2	9	Advertising	14
4.3	5	9	3	2	Word of mouth	14
1.5	1	0	2	11	Compliance actions	13
2.9	0	6	1	7	Cold calls and networking	14
4.1	0	10	4	0	Outreach, e.g. seminars or Public Service Announcements (PSAs)	14
2.7	0	5	2	7	Leads from other partnership programs	14
2.9	0	5	3	6	Leads from other EPA programs	14
3.0	2	5	3	6	Leads from states	14
3.1	3	5	5	4	Trade associations	14
5.0	5	2	0	0	Other	2

APPENDIX D

EPA STAFF INTERVIEWED

Appendix D

EPA Staff Interviewed

Headquarters

Shannon Alford and John Thomas, Transportation Partners
Mark Badalamente, OA
Jay Benforado, OP
Rob Brenner, OAR
Karyn Finkle, ClimateWise
John Flowers, Water Alliances for Voluntary Efficiency
Terry Grogan, WasteWi$e
Penny Hansen, Environmental Technology Verification
Kathleen Hogan, OAR
David Kling, OPPTS
Robert Lee, OPPTS
Jean Lupinacci, Energy Star Buildings/Green Lights Program
Mark Luttner, Budget Office
Ellie McCann, OPPTS
Susan McLaughlin, Environmental Accounting
Rebecca Nachtrieb, OPR
Judy Nelson, OPPTS
David Sarokin, OPPTS/Chemical Right to Know
Deborah Thomas, Environmental Leadership Program
Harry Wells, Mike Farrar, and Jim Boland, Pesticide Environmental Stewardship Program

Headquarters, at PPCC Meeting

Mary Dominiak, Green Chemistry
Jerry Filbin, CBEP
Dan Fiorino, OP
Kathy Hart, DfE
Kathleen Hogan, Energy Star

Region 1

Tom d'Avanzo
Christine Bonica
George Frantz
Cynthia Green
Norm Williard

Region 3

Jeff Burke, PPCC Representative
Richard Daly, Business Assistance Center
Lisa Donahue, Pesticide Environmental Stewardship Program
Fran Dougherty, Indoor Air
Ray George, Southwestern PA Voluntary Initiative for Pollution Prevention
Kelly Mecum, Business for the Bay
Tad Radzinski, Waste Min & Strategic Goals for Metal Finishers
Bruce Smith, Global Warming (Energy Star Buildings)
Tom Stolle, Brownfields
Beth Termini, Project XL
Paul Wentworth, Transportation Partners

Region 6

David Bond, Project XL coordinator and PPCC participant
Adele Cardenas, Project XL
Bill Gallagher, Streamlined Delisting Program
Brad Lamb
Rick McMillin, Region 6 Lab
Tom Reich, Environmental Excellence Awards Program
Craig Weeks, CSI

Cindy Wolf and William Rhea, Community-Based Environmental Protection Program

Region 7

Mary Carter, Branch Chief, P2 and Solid Waste Branch
Bob Dye, OAR
David Flora, WasteWi$e
Marc Matthews, P2 and Solid Waste Branch
Chet McLaughlin, Energy STAR Programs; PPCC Representative
Bill Rice, RAC member; RAC advisor to PPCC; Deputy RA
Richard Sumpter, NEPPs
Glen Yager and Jamie Green, Pesticide Environmental Stewardship Program

APPENDIX E

LITERATURE REVIEW

Appendix E

Literature Review

I. INTRODUCTION

This document is a review of selected studies on the management of the U.S. EPA's partnership programs. Most of the documents reviewed are the product of research efforts that entailed extensive interviews of both EPA staff and program partners. Through these interviews, researchers gained valuable insight as to what management issues hinder, and what enables, program success. On an individual basis, the findings from each of these studies are hardly conclusive, given the limited range of programs, issues, and constituencies any given study can evaluate. However, the findings in aggregate provide a sound basis for beginning to review the way partnership programs are managed at EPA.

We want to emphasize that this review does not investigate program success. Several of the sources reviewed include the authors' viewpoint on the effectiveness of voluntary programs, but none of them provide any sort of comprehensive evaluation. We are approaching this review from the spirit of most of these authors: that EPA's partnership programs represent an exciting new complement to traditional approaches to environmental protection, and that opportunities for improvement exist.

In conducting this review, we attempted to analyze research findings from industry, government, and academia to provide the most comprehensive analysis possible. Specifically, we reviewed:

- Two industry studies including a Global Environmental Management Initiative report (by Terry Davies and Jan Mazurek of Resources for the Future) and a Conference Board Townley Global Management Center for the Environment, Health and Safety special report (by Meredith Whiting and John D. Whiting).
- A government study completed by the U.S. General Accounting Office.
- Two student academic studies including research projects conducted by Deborah Boger and Christine Stackpole from Harvard's John F. Kennedy School of Government and Suganthi Simon from the Yale School of Forestry and Environmental Studies.
- An EPA catalogue, an older Global Environmental Management Initiative (GEMI) catalogue, and an EPA-commissioned characterization of partnership programs.

An annotated bibliography that contains exact citations for these documents is attached to this report. We did not review any documents from the non-governmental organization sector, as our literature search suggested that nothing has been written on EPA partnership programs by NGOs.

We found that most of the research on partnership programs analyzes program results with little or no focus on opportunities for the Office of Policy and Reinvention (OPR) to help improve EPA's management of them. Consequently, this review complements the limited research on opportunities for coordination with research findings on specific programs.

Our review contains the following elements:

- A generalized characterization of different management components of EPA partnership programs (Section II);
- Discussion of management issues of concern identified by the studies (Section III);
- Identification of opportunities suggested for addressing those concerns (Section IV); and
- A potential framework for analyzing management issues (Section V).

II. GENERAL MANAGEMENT CHARACTERISTICS OF PARTNERSHIP PROGRAMS

Perhaps the most notable characteristic among all of EPA's Partnership programs is their diversity. To date, between 26 and 28 partnership programs (depending on how you define "partnership" program) are housed in various offices at the EPA headquarters. An additional 20 or more programs are administered out of regional offices, sometimes in conjunction with state environmental protection offices. Partnership programs vary in their history, goals and objectives, budgets, level of commitment by EPA staff, type and number of partners, and stakeholder constituencies.

Nevertheless, there is uniformity in this diversity. Most EPA partnership programs require stakeholder participation in reaching agreements, seek to achieve multiple goals, support a variety of EPA strategic objectives, and provide multiple incentives to participants. Boger and Stackpole (1998) highlight additional similarities among headquarters-based programs and among region-based programs as follows:

Similarities Among Headquarters-Based Partnership Programs

- All of the programs (with the exception of Water Alliances for Voluntary Efficiency (WAVE)) state pollution prevention as a main objective.
- A main objective of 15 of the 28 headquarters-based programs is the reduction of greenhouse gas emissions.

- Nearly all of the programs offer public recognition, economic benefits, and technical assistance as incentives.

- Companies and trade associations are most commonly targeted as partners.

Similarities Among Region-Based Partnership Programs

- A major incentive to participate in many regional-level programs, for example the Bay Area Green Business Program, is industry's desire for compliance assistance.

- A variety of constituencies (i.e., beyond just the business community) are targeted somewhat equally to participate in programs.

III. MANAGEMENT ISSUES OF INTEREST

The reports identified a number of successes achieved by the partnership programs analyzed and also pointed to some concerns with how many of the programs are organized and managed. Evaluating the successes achieved is outside the scope of this project, but the management issues of concern identified are central to it. We therefore concentrate on these issues, most of which fall into one or more of the following seven broad categories.

- ***Definition and Goals of Partnership Programs***- Studies identified problems associated with confusion over the definition of both the general categorization of "partnership program" and specific program goals.

- ***Program Incentives***- Studies raised concerns over the ineffectiveness of some program incentives.

- ***Procedural Burden***- Studies noted that partnership programs can be unnecessarily burdensome due to excessive information requirements, failure to facilitate information sharing, and inflexibility.

- ***Stakeholder Participation***- Studies noted that partnership program stakeholders have great appreciation for EPA's dedication to facilitating better communication between traditionally adversarial parties. Nevertheless, some of the studies cited mistrust between stakeholders and ineffective or ill-defined procedures for coordinating stakeholder participation as potential impairments to program success, particularly with respect to reaching consensus. This concern was noted specifically for XL and CSI (which were reviewed more frequently than other partnership programs).

- ***Performance Measurement***- The lack of or incomplete nature of performance measures, as well as the lack of procedural mechanisms for evaluating performance, were identified as major barriers to program advancement. In addition, some studies pointed to past inappropriate performance evaluations of specific partnership programs, such as 33/50.

- ***EPA Internal Management and Organizational Culture***- According to the studies, obstacles to program success caused by EPA's management of the partnership programs include poor coordination and outreach of programs, high turnover of and ill-qualified partnership program staff, and poor systems for managing problems as they arise. Studies also noted a general cultural preference for regulatory programs among EPA staff accompanied by a lack of agency staff "buy-in" to the programs. The lack of statutory base for voluntary initiatives, lack of management support for programs, inadequate provision of staff and financial resources, and failure to include partnership program performance in staff performance evaluations were identified as systematically maintaining cultural barriers.

- ***Statutory Restrictions***- Studies noted that incentives to participate in partnership programs are often inadequate in comparison to the burden of the existing, rigid regulatory structure. In addition, because the partnership programs offer little or no reprieve from the existing statutes, the programmatic opportunities for achieving environmental benefits at lower cost may be limited.

Of these seven categories, concerns over statutory restrictions, EPA's internal management and culture, and performance measurement were most commonly mentioned and vigorously emphasized. Specific issues within the remaining four general categories also persisted throughout the literature. The following matrix highlights the categories of management issues and provides more detailed information about specific concerns within each of these categories. It is important to note that while some of the issues presented have been identified in only one or two of the reviewed documents, given minimal overlap in the scope of research among the documents reviewed, this information may be quite valuable.

III.i. Matrix of Partnership Program Management Issues

Table 1 shows which studies raise each of the management issues, as described above. Studies that describe the partnership programs but do not offer any analysis are not included in this matrix.

Table 1 - Management Issues Raised By Studies

MANAGEMENT ISSUE	REFERENCE				
	Whiting & Whiting	Simon	Boger & Stackpole	Davies & Mazurek	U.S. GAO
Definition and Number of Programs					
Ill-defined programs lead to confusion among EPA staff			X		X
Ill-defined programs lead to confusion for external constituencies			X		X
Too many programs with overlapping and ill-defined objectives make program selection confusing and burdensome for potential partners			X		X
Program goals are poorly defined			X	X	X
Program Incentives					
The significance of public recognition (a common program incentive) is unclear to customers (program participants)			X		
Programs rarely result in cost savings	X			X	
Incentives are generally unsubstantial				X	
Incentives are not tailored to target participant needs				X	
Procedural Burden					
Failure to provide support of partnership networks working on similar issues to partners			X		
Programs are inflexible and complex				X	X
Information requirements from partners are burdensome		X	X	X	X
Stakeholder Participation (note focus on XL, CSI)					
Mistrust and competing interests between EPA, industry, and environmental organizations hinders the stakeholder participation process	X	X		X	
Lack of or ineffective procedures for addressing stakeholder concerns				X	
Standard for consensus is excessive, leading to progress impairment and frequent impasse			X		X
NGOs lack resources to effectively participate in process of reaching consensus					X
Lack of uniform definition (across programs) of consensus leads to confusion					X

MANAGEMENT ISSUE	REFERENCE				
	Whiting & Whiting	Simon	Boger & Stackpole	Davies & Mazurek	U.S. GAO
Performance Measurement					
Few criteria developed for assessing program performance		X		X	
Failure to measure customer (participant) and employee satisfaction			X		
Incorrect program evaluation	X				X
No systematic process for evaluation by either EPA or partners	X	X		X	X
EPA Culture and Internal Management					
Cultural barriers within EPA inhibit communication, prioritization of programs, and agency "buy-in"		X		X	X
Failure to hold EPA employees accountable for their performance in partnership programs limits employee dedication		X			X
Lack of management support for lower level staff and program advancement		X			
Poor program coordination and outreach leads to confusion and overlap			X		
Limited financial and staff resources to coordinate programs among constituencies and to administer them at the regional level			X		X
Varied approaches to management across programs and offices implementing the same programs					X
Undervaluation of partnership programs by non-partnership program staff		X	X	X	
High turnover rate, inadequate knowledge of, and shortage of program staff			X		
Lack of management structure and formalized administrative procedures for approval of project proposals and problem resolution		X			X
Statutory Restrictions					
Lack of statutory basis for programs	X			X	X
Rigidity and demands of existing regulatory structure limits program success			X		X
Failure to provide legal shelters to partners diminishes incentive to participate		X			X

IV. RECOMMENDATIONS FOR ADDRESSING ISSUES OF CONCERN

This section summarizes the recommendations made in the studies reviewed for addressing each of the seven management issues of concern presented in Section III.

IV.i. Recommendations for Clarifying Program Definition

The issue of program definition has three main concerns, according to the studies that address the issue. First, there are no established criteria for what makes a "partnership" program. Second, some of the partnership programs are ill-defined, with program goals and priorities not having been set in some cases. In other instances, while goals and priorities have been set, they are not effectively conveyed to EPA staff or program partners. The studies note that confusion over program definition has sometimes frustrated staff and outside participants and led to difficulties in determining program success. Third, some programs have overlapping objectives, which can leave potential partners feeling confused by multiple program options and overburdened by multiple requests for program participation.

Davies and Mazurek (1996) suggest that advanced planning, which defines (among other things) program goals, is paramount to the future survival of EPA's partnership programs. Once program goals have been identified, additional key steps include determining what actors will govern the accomplishment of those goals and what incentives will be most enticing to those actors (as discussed in Section IV.ii).

In general, researchers suggested that clearly defining partnership programs is a solid first step toward alleviating confusion both internally and externally, identifying redundancies, and better conveying responsibilities to partnering organizations. (Boger and Stackpole (1998) actually detail what the definition of "partnership" should be). In so doing, initiatives that may not currently be considered partnership programs may be classified as such and others that are considered partnership programs and should not be would be reclassified.

Once the definition of a partnership program is clear, U.S. GAO (1994) argues, priority objectives and programs should be identified, in order to ensure cost-effectiveness in administering partnership programs. This will also help to alleviate the problem of limited resources for operating programs as identified in Section IV.vi. A cost-benefit analysis tool of some sort would be instructive in helping to measure and compare cost-efficiencies of different programs (Ibid and Boger and Stackpole, 1998).

IV.ii. Opportunities for Providing Greater Incentives

Several of the authors scrutinized closely the incentives offered by partnership programs to their targeted customers. Selecting and marketing incentives is a management action of highest concern to EPA program managers because it determines what rewards a participant can expect.

While most of EPA's partnership programs claim to provide multiple incentives, there is speculation over the importance of the incentives. The Davies and Mazurek study focuses largely on the issue of incentives. The authors found that programs rarely result in cost savings and that other benefits are relatively unsubstantial. There is some evidence to suggest that the common utilization of the public recognition incentive is less effective than it could be due to lack of clarity in customers' minds regarding the significance of EPA recognition (Boger and Stackpole, 1998). Boger and Stackpole also suggest that the development of uniform standards for public recognition would better inform customers.

Davies and Mazurek (1996) are less optimistic about concrete opportunities to remedy shortcomings in partnership program incentives for programs that target business communities, largely due to the statutory limitations on partnership programs and the huge diversity among businesses targeted for the same programs. Within the limitations of the current regulatory structure, the authors view changes that address diversity among businesses as providing some of the most significant opportunities for program improvement. They argue that because of the diversity of businesses, no single incentive appeals to all. Public recognition, for instance, is a much stronger driver for firms that sell directly to the public. Davies and Mazurek believe that incentive structures tailored to better meet the diversity of business needs are likely to achieve greater success.

The authors argue that in determining the degree to which the incentive is likely to be effective, EPA must answer the question "how much" of the incentive is required for firms to want to participate. The likelihood that the answer to this question will change over time in response to changes in political and economic climates, competing investment options, and firm leadership is significant, making this task particularly daunting, but nevertheless crucial (Ibid).

IV.iii. Opportunities for Alleviating Procedural Burden

The studies suggest that many of the procedural burdens to program success boil down to program inflexibility and complexity. While some of the complexities are linked to statutory requirements, other complexities arise when programs are administered and must be approved through multiple offices or by diverse constituencies. Another major concern among partners is that information requirements are extremely burdensome, sometimes to the extent that potential participants choose not to engage in the program.

Davies and Mazurek argue that relatively simple programs that have few requirements and mirror existing EH&S programs have been more effective than more complex program models. Whether or not to rely on this information in guiding future program developments will of course depend on a number of additional management factors, particularly OPR's approach to statutory limitations and stakeholder participation. However, there are opportunities for answering a call for more flexibility and simplicity with better program management, independent of larger management considerations. Several such opportunities are touched on in Section IV.vi.

IV.iv. Recommendations for Facilitating Effective Stakeholder Participation

Perhaps the most consistent finding with respect to the issue of stakeholder participation is that many of the partnership program participants have great appreciation for EPA's dedication to facilitating better communication between traditionally adversarial parties. For many, an opportunity to contribute to the alleviation of the traditional mistrust and sense of competing interests between constituencies is the most attractive incentive for participation. Whiting and Whiting (1998), for example, quote Northrop Grumman's corporate environmental director as justifying his company's investment in the Region IX MERIT partnership program on the grounds that "Open relationships [between Northrop Grumman and the regulatory community and public] have been formed."

That said, some of the flagship partnership programs — especially Project XL and CSI, which the studies analyze most heavily — have experienced great difficulties in achieving stakeholder consensus because of the following factors:

- The lack of a clear definition of what is required to meet a consensus;
- General mistrust between industry, EPA, and environmental groups; and
- A lack of or ineffective procedures for meeting stakeholder needs.

There have also been claims by NGOs that they are unable to actively participate in the consensus-reaching process due to inadequate resources to analyze technical information.

Project XL, while still experiencing some difficulties with stakeholder issues, has effectively addressed many of those mentioned above. For example, XL does not require 100 percent agreement in achieving consensus, as several other partnership programs do (Simon and U.S. GAO). XL has also effectively addressed the problem of limited technical resources of NGOs by providing technical assistance grants to enhance their level of participation (Ibid). In addition, some regional offices have, by reorganizing their staff around multi-media issue management, provided more institutionalized opportunities for reaching consensus (Boger and Stackpole, 1998).

Despite general optimism over Agency success in identifying and addressing some of the concerns associated with the stakeholder participation process, Davies and Mazurek (1996) found that programs relying on cooperation and voluntary actions for their success do not fare well due to mistrust and paranoia among parties. They hold that there is a fundamental conflict between industry desire for flexibility and the environmental community's desire for certainty and enforceability, which is not easily overcome. The authors go on to argue that problems in reaching consensus and other factors inhibiting program success are largely symptoms of a need for statutory overhaul (to be discussed Section IV.vii). Within the current regulatory system, they suggest that the inhibitory nature of the Federal Advisory Committee Act process used at the

Federal level in managing stakeholder involvement renders partnership programs better conducted at the state or regional level. Whiting and Whiting (1998) provide some evidence to suggest that, in fact, region- and state-level programs are more effective. However, they suggest that the force behind this success is the greater ease of collaborating when partners are in closer geographic proximity.

IV.v. Opportunities for Improving Performance Measurement

Performance measurement was commonly cited as one of the weakest areas of partnership program management. In most cases, few or no criteria have been developed for measuring program performance and programs often lack systematic processes for evaluation. While both the U.S. GAO (1997) and Davies and Mazurek (1996) acknowledge that in many cases it is too early to do full program evaluations given the newness of most partnership programs, they also note the importance of developing metrics and tracking systems early on in the program development process.

Despite EPA's recent advances in developing uniform standards for performance measurement, the weaknesses in this area continue to be highlighted as an area in crucial need of management attention. Boger and Stackpole (1998) note that employee and customer satisfaction is an important metric that has been omitted from the new EPA performance measurement standards; Whiting and Whiting (1998) highlight the need for EPA to have a clear idea of what to measure and why before institutionalizing performance evaluation; and Davies and Mazurek (1996) emphasize the need to avoid stating evaluative measures in end-of-pipe terms in order to promote the development of innovative proposals and to attract participants. EPA's 33/50 program provides one example of where evaluation (although ultimately controversial) was built into program design and linked directly to clear program goals (Davies and Mazurek, 1996).

IV.vi. Recommendations for Addressing EPA Cultural Barriers and Internal Management Issues

Concerns over EPA cultural barriers and the internal management of partnership programs are the most frequently noted of all the management issues. Some research suggests that EPA staff and external parties are excited about the opportunity for addressing these issues through centralized coordination by OPR (Boger and Stackpole, 1998 and U.S. GAO, 1997). In addition, several parties point to recent success in overcoming organizational barriers at the regional level.

Many of the organizational barriers to partnership program success are viewed as stemming from the culture of EPA. The media-specific focus of EPA's statutory authority and its tendency to act on this authority through a command-and-control style of regulation have led to ingrained tendencies to place secondary emphasis on voluntary approaches to environmental protection. Another oft-cited barrier is the failure in most offices to hold EPA staff accountable for their performance on partnership program projects (Simon, 1998 and U.S. GAO, 1997). These two factors have led to a sense among partnership program staff of undervaluation by their colleagues,

creating low morale. An additional cultural issue that is seen as inhibiting Agency "buy-in" is the non-traditional interdivisional and interoffice communication required to operate multi-media voluntary programs. This cultural barrier to communication has led to poor Agency coordination of and outreach for partnership programs, as previously discussed in Section IV.i.

Concerns with respect to a lack of management support for lower level staff, limited financial and staffing resources, and the lack of management structures that define at what level problems should be resolved are likely products of the aforementioned cultural barriers, as well as the newness of the programs. High turnover rate, inadequate knowledge of, and shortage of program staff may also be products of these cultural inhibitions.

Both Whiting and Whiting (1998) and Simon (1998) suggest that a remedy to many of these problems is to provide a champion within each partnership office to carry the program vision, secure resources and long-term commitment, and provide management support for better integration. The U.S. GAO (1997) points to success achieved by specific regional initiatives that have established agency champions. The U.S. GAO report also highlights regional initiatives that have achieved greater participant and staff satisfaction through the establishment of review and reward systems for evaluating employee performance on partnership projects, dedicating a comparatively greater percent of resources to partnership initiatives, and developing cross-divisional and cross-media project teams.

On the national level, the Agency has assigned senior program managers to the Reinvention Action Council to expedite the problem solving process. While this move has proven effective in providing more timely responses to partner concerns, the U.S. GAO (1997) suggests that the permanent assignment of senior management to trouble-shooting duty is not a sustainable solution to the larger problem of a lack of an effective management structure.

In summary, the reports reviewed suggest that OPR and specific program offices face a major task in overcoming the institutional barriers to progress. Yet, regional success stories suggest that with some structural reorganization and program championship, real progress can be made. Finally, it is important to note that cultural change in any environment is rarely a speedy process and requires a large degree of patience.

IV.vii. Relationship of Partnership Programs to EPA's Statutory Structure

Boger and Stackpole (1998) suggest that EPA staff and external partnership constituents' perceptions of the relationship between partnership programs and the statutory structure are varied and unclear. This issue largely stems from the problem of program definition discussed in Section IV.i. Much of the research reviewed here suggests, however, that regardless of how this relationship is defined, the success of partnership programs will always be severely limited by the current statutory framework. In fact, several researchers find that the current statutory framework is the most significant limiting factor in determining the achievement frontier of EPA's partnership programs.

This sense of restriction stems from the rigidity of regulations that have been developed to implement EPA statutes, a cultural bias toward regulatory programs, and competition for scarce resources between partnership and command-and-control programs (U.S. GAO, 1997). Given this framework for operation, there is a sense among many stakeholders that partnership programs will always struggle to survive. Davies and Mazurek (1996) say that partnership programs are and will always be "peripheral" to society and industry (in the sense that they make no significant contribution to the improvement of environmental conditions or cost reductions) because of the limited support provided by the current statutory framework.

Given the limited control EPA exercises over the nature of its statutory mandates, Davies and Mazurek (1996), in their report prepared for GEMI, assert that "[s]ignificant regulatory relief and consequential financial incentives may only be able to come from Congress or from the state governments." They go on to suggest that voluntary programs are simply a band-aid to a larger problem of statutory ineffectiveness and that there is no "short-cut" around legislative overhaul in achieving superior environmental performance at a reduced cost.

Many staff within EPA believe that mechanisms within the current statutory framework can provide the necessary flexibility to achieve greater efficiency through voluntary efforts (U.S. GAO, 1997 and Boger and Stackpole, 1996). Specifically, the EPA claims to be able to effectively deal with potential regulatory constraints through "site-specific rulemakings" (U.S. GAO, 1997). The U.S. GAO (1997) responds negatively to such a claim because site-specific rule-makings must go through a rule-making process. Given that the rule-making process commonly takes years to complete, this mechanism can hardly be viewed as increasing the efficiency of partnership programs (Ibid).

V. Framework for Analyzing Management Issues

Boger and Stackpole (1998) provide a comprehensive characterization of current partnership programs based on four main features including: goals, partners, incentives, and partnership requirements. They also discuss suggestions for other means of characterization and comparison made by EPA staff including: market transforming and non-market transforming programs; multimedia and single media programs; regulated industry as partner and non-regulated entity as partner programs; heavily interactive and less interactive programs; and programs with well-defined and less-defined goals.

These parameters provide an exceedingly useful basis for comparing different partnership programs. Boger and Stackpole (1998) and Cadmus's draft characterization report (1998) provide tables and matrices that compare the programs based on these and other parameters. Their characterization work serves as one foundation for our management review because it provides a comprehensive snapshot of EPA's current partnership programs. The studies reviewed most extensively in this report go one step further and identify a range of issues that impact how well these programs perform (Section III) – and, in some cases, suggest improvements EPA can make in addressing these issues.

All of the issues we identified in Section III are "management" issues, but their scope varies. For example, it is important that the procedural burden on partners be reduced as much as possible for a given program. This is a management issue that can be addressed at the program level. But it is equally important that different partnership programs complement each other rather than compete and that partnership programs as a whole have an effective and recognized role within EPA's overall, statute-driven approach to environmental management. These are management issues that must be addressed at higher levels than that of the individual program.

Instead of focusing primarily on a strategy for comparing one partnership program to another, we instead want to propose that our future analyses be based in part on the following three levels of management issues:

- **Program-specific issues**, such as procedural burden and performance measurement. All management issues that are ultimately the responsibility of the program manager fall into this category.

- **Issues of coordination among the programs**, which include the potential for overlapping goals (which can lead to confusion or even competing programs) and the opportunity to consolidate or standardize certain support functions. OPR is already strengthening its role at this level.

- **Role of partnership programs as a group within EPA's portfolio.** Issues of statutory restriction and the overall definition of and support for partnership programs fall into this category. These are issues that are critical to the partnership programs but cannot be resolved by them or even by OPR (though OPR can certainly play a role).

Of course, these levels are related. It is important to have evaluations of specific programs support the larger role of partnership programs, for example. Nevertheless, we believe that these three levels provide a clear framework for understanding most of the management issues raised in the studies reviewed for this report and for focusing our upcoming data collection activities and analysis.

Annotated Bibliography

Boger, Deborah and Christine Stackpole. 1998. *Opportunities to Strategically Manage the U.S. Environmental Protection Agency's Partnership Programs*. Report prepared for U.S. EPA, OR.

This report evaluates and seeks to identify opportunities for the Office of Reinvention to utilize their new coordination role to more effectively and strategically manage the U.S. EPA's partnership programs. The authors liken the management of these voluntary initiatives to managing a portfolio of financial investments, with a focus on program performance, characteristics, and opportunities for improvement. The report identifies four dimensions for characterizing and comparing EPA's 28 partnership programs including goals, partners, incentives, and partnership requirements. Three options for management improvement of both service and control functions are presented, followed by an endorsement of one of the three approaches. The recommended approach entails the U.S. EPA's Office of Reinvention take a "limited control" approach to coordinating partnership programs across offices, with an emphasis on providing control, rather than service functions.

The Cadmus Group. 1998. *Characterization of Selected EPA Partnership Programs*. Draft report prepared for U.S. EPA, OAR.

As part of the initial efforts by the U.S. EPA's Office of Reinvention (OR) and the Partnership Programs Coordinating Committee (PPCC) to examine the Agency's partnership programs, this report seeks to identify the different design characteristics of 28 such programs. The report categorizes programs by objectives, sector relationships, EPA strategic goals, and incentives.

Davies, Terry and Jan Mazurek. 1996. *Industry Incentives for Environmental Improvement: Evaluation of U.S. Federal Initiatives*. Report prepared for Global Environmental Management Initiative. Washington, DC: GEMI.

This report is the product of one of a series of three studies commissioned by the Global Environmental Management Initiative (GEMI) to investigate areas of interest for environment, health, and safety managers. An executive summary of all three documents prefaces the body of this document that identifies the importance of accounting for stakeholder needs, performance objectives, procedural requirements, and effective incentives in future program development. Specifically, the report evaluates five federal programs seeking to achieve environmental results through alternative initiatives including: 33/50, OSHA Star, Common Sense Initiative (CSI), Project XL, and SO_2 emissions trading under the Clean Air Act (CAA). The authors find that four of the five programs (SO_2 trading being the exception) are "peripheral" to business and society, noting that XL and CSI are likely too new to evaluate. The report further documents the need to

take into account the significant diversity of characteristics in the business community, limits of the current statutory structure, pervasive mistrust among stakeholders, and problems with EPA management in further developing these programs.

Global Environmental Management Initiative. 1994. *GEMI Reference to EPA Voluntary Programs*. Washington, DC: GEMI.

An early attempt to catalog partnership efforts by the U.S. EPA, this report identifies key characteristics of 14 programs (the totality of partnership programs in 1994). GEMI identifies statutory barriers to participation in partnership programs and examines the importance of designing partnership initiatives in a manner that is easily integrated with existing management systems. The report broadly identifies benefits of partnership programs to include cost savings, public recognition, and rewards over the long-term from innovation efforts.

Simon, Suganthi. February 18, 1999. Personal communication.

A master's degree student at the Yale School of Forestry and Environmental Studies, Ms. Simon recently conducted a management study for the U.S. EPA's Project XL with the HADCO Corporation-Project XL partnership as the centerpiece of her investigation. This conversation highlighted many of her findings.

U.S. Environmental Protection Agency, OA. 1998. *A Catalogue of the Agency's Partnership Programs*. Report EPA100-B-97-003.

An agency guide to its voluntary partnership programs, this document provides information on the history, goals, participants, benefits of participation, and results of all headquarters, regional, and state-level initiatives. The most comprehensive cataloging of the EPA's partnership programs to date, this document provides one stop information shopping for potential partners and other interested parties.

U.S. General Accounting Office. 1997. *Environmental Protection. Challenges Facing EPA's Efforts to Reinvent Environmental Regulation*. Report to Congressional Requesters GAO/RCED-97-155. Washington, DC: U.S. GAO.

By request of several congressional committees, this report examines the U.S. EPA's reinvention initiatives, highlighting key management issues for the Office of Reinvention (OR) in moving towards greater program success. The report evaluates how the EPA, specifically OPR might better manage its reinvention efforts to provide flexible, cost-effective environmental protection.

A great deal of emphasis is placed on the issues of performance measurement, stakeholder participation, and organizational barriers to success in achieving these management objectives.

Whiting, Meredith and John D. Whiting. 1998. *Innovative Public-Private Partnerships: Environmental Initiatives*. The Conference Board Townley Global Management Center for Environment, Health and Safety Special Report 1208-98-RR. New York: The Conference Board.

Acknowledging that while it is too early to determine the degree of success achieved by the growing number of environmentally oriented public-private collaborations, this report examines the experiences of participants from both the public and private sectors in some of these programs. The authors discuss lessons learned from a variety of federal, state, and regional level initiatives to move beyond command-and-control regulation toward a more cooperative and efficient system of environmental oversight. Specifically, the accomplishments and participant reaction to efforts by the President's Council for Sustainability, the National Environmental Performance Partnership System (NEPPS), the U.S. EPA's Project XL and Common Sense Initiative, and several state and regional programs are reviewed. The report closes with recommendations for developing more successful partnership programs given participant experience.

APPENDIX F

ANALYSIS OF NON-EPA PARTNERSHIP PROGRAMS

Appendix F

Analysis of Non-EPA Partnership Programs

I. INTRODUCTION

This document is an analysis of select voluntary and partnership programs initiated by U.S. federal agencies, the private sector, state departments of environmental protection, and in foreign nations around the world. Four U.S. federal agency initiatives and two private sector initiatives are examined in significant detail, while the analysis of state government programs and a number of international efforts is limited to review of aggregated evaluations. We place special emphasis on analyzing climate change initiatives to complement the large number of EPA partnership programs with this environmental focus. Specifically, we reviewed:

Federal Agency Initiatives

- The Occupational Safety and Health Administration's (OSHA) three primary voluntary and partnership programs: the Voluntary Partnership Program (VPP), the Consultation Program (CP), and the Strategic Partnership Program (SPP). Our analysis is principally derived from personal communication with VPP Director, Cathy Oliver and former OSHA consultant, Carol Vira, with additional information obtained from multiple occupational health periodicals.

- The Department of Energy's (DOE) Climate Challenge and Clean Cities programs. With respect to the Clean Cities programs, we draw almost exclusively from personal communication with Assistant Director, Marcy Rood, and staff person, Christy Ficker, because the literature on this relatively new program is quite limited. The Climate Challenge and Voluntary Reporting programs are well documented and commonly compared to other initiatives around the world. Information for program analysis is derived from documents published by the DOE, program partners and advocates Environmental Defense Fund and Edison Electric Institute, and numerous comparative analyses of the Climate Challenge program with similar programs in Canada, Australia, Japan, and throughout the European Union.

The Private Sector

- The Alliance for Environmental Innovation's (AEI's) comprehensive experience with building industry partnerships. We draw primarily from a report sponsored by the J.M. Kaplan Fund that reflects AEI's experience over the past decade in managing effective partnerships.

- The chemical industry's Responsible Care® (RC) program. In addition, peripheral analysis of: sub-sector spin-offs of RC is provided. The analysis of these programs rests largely on findings from research publications by the Organization for Economic Co-operation and Development (OECD) and the International Labour Organization (ILO).

State Government and International Efforts

- Multiple government-initiated voluntary environmental programs in Minnesota, New Jersey, and Massachusetts. We draw solely from a study conducted by Daniel P. Beardsley and written up for the Global Environmental Management Initiative for this analysis.

- An array of non-U. S. voluntary environmental initiatives from around the world. Analysis of these efforts is aggregate in nature due to the large number of programs. While multiple documents are reviewed, key documents are published by the European Environment Agency, United Nations, Global Environmental Management Initiative, The New Directions Group, and the Institute of Local Government Studies-Denmark.

An annotated bibliography that contains exact citations for all references is attached to this report.

The degree of diversity in the programs reviewed is significant. To some degree, this diversity reflects the lack of overriding consensus on the distinction between key terms. While some organizations are currently struggling to communicate discrete definitions for the terms "voluntary" and "partnership", the majority of actors participating and analyzing these programs use the terms interchangeably, with a greater emphasis on the term "voluntary."

There is greater consensus in the literature about the distinction between the terms "initiatives" and "agreements," particularly on the international front. The general consensus is that agreements must involve at least two parties, demand a significantly larger degree of commitment, and usually involve a degree of negotiation.[1] In contrast, initiatives can involve some or all of these components, be limited to codes of conduct, or simply involve an exchange of information.[2] For the purposes of this abstract, this distinction is of greatest import, and one that we make when drawing from "lessons learned" in either case.

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[1]International Labour Organization (ILO). 1999. *Voluntary Initiatives Affecting Training and Education on Safety, Health, and Environment in the Chemical Industries*. Geneva: ILO, 39. *See also* European Environment Agency (EEA). 1997. *Environmental Agreements: Environmental Effectiveness*. Environmental Issues Series, No. 3, Vol. 2. Copenhagen: EEA, 5.

[2]Ibid.

As indicated in the work plan, this abstract seeks to answer five key questions in our analyses of the aforementioned initiatives:

- How are the programs structured?
- How are the programs managed?
- How is performance measured?
- What "lessons learned" can be transferred to EPA's programs?
- Where is there potential for overlap and coordination between EPA and voluntary programs in Federal agencies?

It should be noted that information on program structure and management was less forthcoming in programs for which there was no personal communication. This is particularly the case with most of the international and state-led programs.

Our review proceeds as follows:

- A discussion of Key Findings (Section II)
- Program Abstracts and Summaries of Relevant Points (Section III)
- Summary of Relevant Findings and Proposed Management Guidelines from Comprehensive Studies (Section IV)
- Lessons Learned Relevant to EPA Partnership Programs

Recommendations for improved management and coordination of EPA's partnership programs will be included in our final project report and will account for the findings discussed here.

II. KEY FINDINGS

In the process of analyzing programs for this task, we identified a number of common themes and recommendations for effective management of voluntary and partnership initiatives. These findings are organized into four main management areas including: stakeholder involvement, program incentives, program evaluation, and general guidelines/keys to success.

Stakeholder Involvement

- Opinions regarding the appropriate nature and degree of stakeholder involvement in the development and monitoring of voluntary initiatives are polarized. There exists a significant contingent that claims participation by the general public and environmental groups is detrimental to the process of developing effective programs, and an equally strong contingent that argues for the necessity of their involvement.

- There is a general sense that where industry is a program partner, the participation of industry representatives in the program development process is crucial.

Program Incentives

- In identifying incentives for voluntary program participation, partners most commonly cite qualitative benefits such as improved relationships with regulators and impacts on public image. In addition, these benefits are often viewed by industry partners as relatively significant.

- Another commonly cited incentive for participation is to prevent the establishment of potential new regulations. Proof of this tendency is the existence of and degree of participation in a relatively large number of climate change initiatives in countries, including the U.S. In most cases, signatory countries are responding to industry requests to test the effectiveness of voluntary pledges in meeting Kyoto Protocol commitments before digging into the policy toolbox for regulatory options.

Program Evaluation

- There is an almost across-the-board lack of systematic measurement and subsequent evaluation of programs by program partners. Most evaluation is completed by outside parties seeking to analyze the public policy potential of voluntary initiatives. As a result, all but qualitative benefits are extremely difficult to assess.

- While the qualitative benefits of partnership programs for both the regulating agencies and partners are frequently noted in program evaluations, these benefits are often referred to as amorphous.

- Where systematic program evaluation does exist, it is often limited to the evaluation of project outcomes. Consistency with program and larger agency objectives and program cost efficiency are rarely assessed.

- Despite this lack of measurement, there is a pervading sense that programs are cost effective for both industry and regulatory agencies.

- Even with careful measurement and evaluation, the complexity of factors influencing program outcomes renders the isolation of program effects extremely difficult.

General Guidelines/Keys to Success

- There is a pervasive consensus across industry, non-profit groups, and government agencies that voluntary and partnership programs are best utilized as a complement to other regulatory tools.

- There is a degree of commonality in the recommendations made by multiple reports with respect to the key elements of program success (see Section IV). Acknowledgment

that the determination of program success should be contingent upon the ability of the program to satisfy program goals and objectives is much less common.

- There is limited evidence to suggest that successful agency programs have some statutory basis.

Federal Agency Initiatives

U.S. Occupational Safety and Health Administration (OSHA)

The Occupational Safety and Health Administration started experimenting with voluntary approaches to regulation in 1982 with the establishment of the Voluntary Protection Programs (VPP).[3] The program has since grown from 11 to 292 sites,[4] and the Agency has developed two additional cooperative programs: the Consultation Program (CP) and the Strategic Partnership Program (SPP). While the SPP is too new to evaluate its success, the CP has been praised in a number of arenas for its success in improving work-place safety in a cooperative manner.

There is a widespread sense within OSHA of the importance of partnership initiatives to the success of the larger organization. OSHA employees tend to be very proud of the program accomplishments and extremely committed to their objectives;[5] organizational leaders, including assistant labor secretary for occupational safety and health, Charles Jeffress,[6] and former OSHA Chief, Joseph Dear,[7] are known for their commitment to cooperative efforts; and Congress, in recent amendments to the OSHA Act, has placed a premium on the value of industry partnerships by mandating the dedication of 15 percent of the Agency's budget to cooperative efforts and in placing the highest priority on achieving results through the systematic management of health and safety, including the use of voluntary policy tools.[8]

Outside of OSHA, there is appreciation among industry health and safety officers for the specific OSHA partnership programs, and more generally for the agency's reinvention as a friendly, cooperative partner.[9] Employers comment that they see benefits, rather than detrimental impacts

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[3]Oliver, Cathy. May 3, 1999. Personal communication.

[4]Hanson, D. March 31, 1997. OSHA marks gains with voluntary plans. Chemical and Engineering News, Vol. 75, 22.

[5]Vira, Carol. April 27, 1999. Personal communication.

[6]Brostoff, S. December 1, 1997. OSHA creates cooperative program for safety testing. National Underwriter, Vol. 101, 1.

[7]Figura, S. March, 1997. Is OSHA reform on target? Occupational Hazards, Vol. 59, 23.

[8]Oliver.

[9]Figura. *See also* Hofmann, M. 1998. Employer groups divided on OSHA auditor idea. Business Insurance, No. 32, Vol. 3+, F9.

in working cooperatively with OSHA, both on the compliance end of operations and in the realm of setting standards.[10] Further, the insurance industry praises the CP and VPP for significantly reducing occupational risk and calls for the expansion of both programs.[11]

Beyond the benefits of specific partnership programs, VPP Program Director Cathy Oliver emphasizes that OSHA's systems approach to health and safety management is the "heartbeat" of the organization, which enables effective interplay between programs and with customers to meet the specific needs of different employers.[12]

The structure of cooperative programs within OSHA reflects this systems approach. Each program has a distinct target audience, with little overlap between them, and communication structures have been established to ensure cooperation between the programs when appropriate.[13] To aid in facilitating this approach, a distinction has been made between partnership and voluntary programs with respect to the regulatory components of the programs. The partnership programs (which are overseen by SPP) can have regulatory enforcement components to them, whereas the voluntary programs (CP and VPP) are set up either to ensure there will be no enforcement consequences to participating or to offer regulatory reprieve as an incentive to participants.[14]

Assistant Secretary Charles Jeffress points out that another key aspect of this systems approach is to unify the measures of success for employers and the organization.[15] By assisting employers through a variety of programs to model OSHA's systems approach, the organization is accomplishing this goal. In an interview with Ms. Oliver, she cited the fact that workplace injuries and illnesses are 40 to 80 percent less in environments where the employer takes a systems approach to health and safety (H&S) management,[16] driving home the point that this strategy is working. The numbers are indicators of success for both partners.

While voluntary initiatives have been a part of OSHA's approach to achieving policy objectives for nearly two decades and the concept of Reinvention is nearly a decade old, the organizational culture is still adapting to these changes. For example, at the regional level all emergency response personnel are just as of this year being trained to provide strategic, innovative consultations to

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[10]Ibid.

[11]Hofmann, *Employer*. *See also* Brostoff, *OSHA creates* 1.

[12]Oliver.

[13]Ibid.

[14]Ibid. *See also* Vira.

[15]Fleming, S. Fall/Winter 1998. Assistant secretary Charles Jeffress discusses plans for OSHA. Job Safety and Health Quarterly, No. 9, Vol. 20, 18.

[16]Ibid.

employers after site visits.[17] Another area of cultural resistance identified at the regional office level is in accepting the validity and need for inviting and facilitating stakeholder participation.[18]

OSHA officials are quick to note that there is a need for a spectrum of policy tools,[19] within a larger philosophical approach.[20] Among these tools, partnership programs are seen as complementary to regulatory enforcement, and neither approach is seen as effective independent of the other.[21] Of particular note, this outlook is supported by industry H&S officers familiar with the Agency's health and safety objectives.[22] They note that the regulatory enforcement process seems more valid, less "nitpicky" since the implementation of the cooperative efforts within OSHA.[23]

Strategic Partnership Program (SPP)

The SPP is a newly instituted effort to set standards for a number of Reinvention initiatives that have been established under the general heading of "Partnership Programs" over the last decade.[24] Previously, the management approach to these programs was to treat them as regional or industry-specific laboratory efforts designed to explore options for H&S performance improvement through cooperative measures.[25]

As the number of programs grew to between 30 and 40, the Agency decided that while these programs are still best managed at the project level there needed to be some coordination among them.[26] The realization that each program houses valuable information that may be useful in other settings and that some broad policy guidelines needed to be set in order to avoid regulatory and other problems associated with ill- management guided the establishment of the SPP.[27] The SPP is currently housed in the same office with the VPP.[28] Due to the relative newness of this program, little evaluation has been done or made available.

The Voluntary Protection Programs (VPP)

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[17]Oliver.

[18]Ibid.

[19]Vira.

[20]Oliver. *See also* Fleming, *Assistant* 19-20.

[21]Oliver.

[22]Figura, *Is OSHA reform...*?

[23]Ibid.

[24]Oliver.

[25]Ibid.

[26]Ibid.

[27]Ibid.

[28]Ibid.

The Voluntary Protection Program (VPP) is designed to "recognize and promote excellence in worksite-based safety and health program management.[29] As mentioned, the VPP started in 1982 with 11 test sites and has since grown to encompass 292 sites (1997 figure). The pre-requisites to participation are that the employer must be in compliance with all OSHA regulations and have developed and implemented its own health and safety program.[30] Incentives to participate include public recognition and exemption from OSHA's routine inspection list for two years.[31] The program offers different levels of leadership recognition, depending on the employer's ability to meet a variety of requirements upon OSHA inspection.[32] At all levels, VPP qualification is regarded as a true mark of excellence.[33]

VPP-recognized employers are credited with injury and illness rates at 50% below industry norms.[34] As the reduction of workplace deaths, injuries, and illnesses are primary goals of both the program and the organization, the program's performance is very impressive. Kenneth Brock, a safety consultant, commented during an interview for Susannah Figura's article that OSHA has in essence become a "victim of its own success."[35] OSHA doesn't have enough resources to conduct evaluations of all the employers wishing to participate in the program! While this can be seen as problematic, it appears that OSHA has discovered a pareto optimal means of responding to this demand, the VPPPA Volunteers Program.

The Voluntary Protection Programs Participant Association (VPPPA) Volunteers Program (VP) has burgeoned from the VPP program in the past couple of years. The VPPPA Volunteers Program was initiated by H&S officers from VPP-certified organizations that wanted to share their experience with other employers in the capacity of VPP on-site review team members.[36] Volunteers must meet rigorous requirements in order to be accepted into the program, at which time they are sworn in for 3-year renewable terms as "Special Government Employees."[37] As of last year, OSHA had effectively recruited 80 volunteers.

The benefits of this program are numerous. Participants are not shy about sharing their contentment: Industry representatives comment on the refreshing sense of cooperation among businesses; volunteers comment on how they learn a great deal from interacting with employees at

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[29]Sherill, L. and J. Weinberg. Summer 1998. OSHA's VPP gets a little help from its friends. Job Safety and Health Quarterly, No. 4, Vol. 9, 29.

[30]Hanson, *OSHA marks*.

[31]Ibid.

[32]Sherrill and Weinberg, *OSHA's VPP* 29.

[33]Ibid.

[34]Hanson, *OSHA marks*.

[35]Figura, *Is OSHA reform...?* 25.

[36]Sherrill and Weinberg, *OSHA's VPP* 29.

[37]Ibid.

the sites they audit; OSHA on-site review team members have found the volunteers to be invaluable in maintaining program quality; and the Agency is saving significant economic resources.[38] A recently debated issue is whether OSHA should certify third parties to do site evaluations (at the employers' expense) in order to meet the ever owing demand for VPP participation.[39] In this instance, industry is, in general, for the option of third party authorization capabilities, but there are many issues that will have to be resolved before OSHA makes a decision either way to proceed with this option. Acknowledging that there are some concerns with this type of program, one must credit OSHA for again charting new ground in providing their customers with flexibility in a manner that is cost efficient for the agency.

In any case, it is noteworthy that OSHA has invited significant stakeholder participation in the development of the VPP program, as demonstrated through the establishment of the volunteers program and the Agency's willingness to consider a third party certification option.

The Consultation Program (CP)

The Consultation Program (CP) was established in 1997 to support small business (100 or fewer employees) in improving health and safety programs and compliance records.[40] It is based on a successful prototype that originated in Maine, which analyzes accident data and targets companies with the worst records.[41] The CP program targets 14,500 employers with lost workday injury rates more than double the national average.[42] Employer incentives for participation include: free technical assistance, an assurance that any findings of non-compliance during consultation sessions will not be reported, a reduction in chances of being inspected from 3/10 to 1/10, lower worker's compensation costs, and lower insurance costs. The Agency headquarters monitors this program, but program management and implementation largely take place at the regional level.[43]

Aside from anecdotal approval of the program,[44] and a sense of improved cost efficiency among Agency staff, this one-year old program is yet too young for evaluation. However, initial reactions are highly positive, and there is a general sense that the program will continue to grow.

Summary of Relevant Points

- Unification of performance measures for both partners.

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[38]Ibid.

[39]Hofmann, *Employer groups.*

[40]Brostoff, *OSHA creates* 1.

[41]Ibid.

[42]Ibid.

[43]Vira.

[44]Hofmann, *Employer* 5.

- Overarching philosophy that enables inter-program coordination and efficiency.
- Both OSHA and industry view partnership programs as an essential tool among many-one that is only complementary to effective regulatory programs.
- Cultural change takes time.
- Emphasis on Agency cost efficiency.

U.S. Department of Energy

Clean Cities

The objective of the Clean Cities program is to encourage the use of alternative fuel vehicles (AFVs) and the development of a supporting infrastructure toward the end of achieving energy security and the reduction of urban pollution.[45] The first Clean City was designated in 1993, and the program has grown significantly since that time.[46] DOE Clean Cities staff provide partner cities with technical support and relay relevant information between stakeholders[47]. This is of particular interest to fuel providers that are required by law to make AFV acquisitions or conversions in the near future.[48] In addition, participants are motivated by the increased likelihood that through voluntary participation, they can avoid future regulation.[49]

There is minimal marketing of the program, so the program relies on cities interested in participating to contact the Clean Cities offices.[50] While there is no component of regulatory reprieve in the program[51], cities must be in compliance with the Energy Policy Act (EPAct) State Government Fuel Provider Rule in order to participate.[52] The Clean Cities program is grounded in the EPAct mandate for the development of voluntary programs to complement regulatory enforcement.[53]

The Clean Cities program is centrally managed, but administered at the regional level.[54] Assistant Program Director, Marcy Rood commented that the headquarters office staff communicate

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[45]U.S. Department of Energy (DOE). 1999. http://www.ccities.doe.gov/what_is.html.

[46]Ficker, Christy. April 29, 1999. Personal communication.

[47]DOE.

[48]Ibid.

[49]Ibid.

[50]Ficker.

[51]There is a provision for establishing voluntary alternatives to state fleet mandates, but no state has submitted an application for this alternative.

[52]Ibid.

[53]Ibid.

[54]Rood, Marcy. May 3, 1999. Personal communication.

regularly and effectively with regional staff.[55] In addition, the program tends to attract and retain very high quality staff.[56] Ms. Rood feels that this is largely a product of a general sense of enthusiasm for and importance of voluntary initiatives within the agency that is supported by upper management.[57] Despite this fact, she noted that the program is resource scarce and would be more effective if it were able to support full-time coordinators at the regional level. In addition, Ms. Rood commented that there is some tension within the Agency over the relationship between the program and the larger DOE mission.[58]

With respect to coordination of the Clean Cities program with other voluntary or partnership initiatives, the Assistant Secretary of DOE has recently expressed concern over the need for a more community-based approach to marketing programs.[59] A model where DOE would present a city or potential customer with all of the partnership program options and provide assistance in identifying what programs best suit their needs is being considered.[60] DOE has also recently published a brochure entitled "Communities of the Future" that lists all of the partnership programs.[61] Despite the Agency's lack of focus heretofore on program coordination and a failure to strictly define the components of a "voluntary" or "partnership" program, there is little overlap in program focus and confusion over program structure doesn't appear to be a problem.[62] Another area of coordination that needs to be improved is program referral at the regional level.[63]

The program monitors the number of AFVs on the road, fleet conversions, and other more qualitative indices to measure program performance.[64] This information is reported to Congress and compiled in a report on an annual basis.[65] There is no cost efficiency component or measure of contribution of the program to the larger goals of the agency as part of this review.[66] A relatively new program, it is difficult to evaluate its success. Most of the information on the program is available through DOE and it tends to be educational, rather than evaluative in nature. There has been some criticism that the program has not been successful in getting enough AFVs on the road.[67]

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[55]Ibid.

[56]Ibid.

[57]Ibid.

[58]Ibid.

[59]Ibid.

[60]Ibid.

[61]Ibid.

[62]Ibid.

[63]Ibid.

[64]Ibid.

[65]Ibid.

[66]Ibid.

[67]Ibid.

Summary of Relevant Points

- Importance of upper level management support for programs in attracting and retaining high quality program staff.
- Current lack of coordination between DOE partnership programs. Emphasis is being placed on improving program communication and collaboration.
- Program is based in EPAct statute.
- Program provides technical assistance to customers in meeting regulatory requirements.
- Avoidance of future regulation is an incentive for participation.
- Lack of performance evaluation.

Climate Challenge and the Voluntary Reporting Program

The DOE's Climate Challenge program is a voluntary, performance-based program whereby energy utilities enter into formal agreements with DOE detailing their greenhouse gas emission reduction commitments.[68] In exchange for voluntary reduction commitments, DOE provides technical information and support; a periodic, public report on the progress of the program; and public recognition to utility participants.[69]

The impetus for the establishment of the program came largely from the U.S. signing of the Kyoto Protocol.[70] The Electric Utility Industry responded strongly to this development by lobbying the U.S. government with an argument that voluntary reductions would come at a significantly smaller cost to both agencies and business than regulatory measures. The Administration and DOE recognized the cost and time efficiency advantage of a voluntary initiative and created Climate Challenge, among other partnership programs.

From the program's inception, DOE has worked cooperatively with the Edison Electric Institute and other electric utility associations at developing the program.[71] The Environmental Defense Fund (EDF) has also taken an active role in advocating for the Climate Challenge program by publicly praising the approach and partnering with one utility, Public Service Electric and Gas

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[68]U.S. Department of Energy (DOE). *Voluntary Reporting of Greenhouse Gases 1995.* http://www.eia.doe.gov/oiaf/vrgg05/chap3.html.

[69]Newman, J. 1997. *Policies and Measures for Common Action: Electricity Sector: Utility Voluntary Agreements to Reduce Greenhouse Gas Emissions.* Working Paper 17, Annex I Expert Group on the UN Framework Convention on Climate Change.

[70]Kinsman, J.D., M. McGrath, R. McMahon, M. Ricker, R. Shiflett, and R. Tempchin. June 23-28, 1996. *A Status Report on Climate Challenge Program's Voluntary Initiatives to Manage U.S. Electric Utility Greenhouse Gases.* Presented at 89th Annual Meeting & Exhibition Air & Waste Management Association, Nashville, TN. http://www.eei.org/industry/enviro/manus.htm.

[71]Edison Electric Institute (EEI). *Global Climate.* http://www.eei.org/Industry/enviro/global.htm.

(PSE&G) of New Jersey.[72] EDF is collaborating with PSE&G in developing a plan to assure that emissions reduction commitments come to fruition.[73]

Climate Challenge participants are required to report "annually on activities and achievements under the Climate Challenge Program in a clear and understandable manner."[74] In developing standards for reporting, it was realized that a reporting tool developed for the Voluntary Reporting Program (VRP) would serve this purpose well. (The Voluntary Reporting Program is an EPAct mandated, EPA and DOE collaborative, voluntary greenhouse gas emissions reporting program).[75] Climate Challenge participants signed an MOU with DOE stating that they will record project efforts on one of two versions (short and long) of VRP Reporting Form EIA 1605(b) to facilitate the reporting process.[76]

The EIA forms are based on guidelines developed during a series of DOE and EPA-conducted workshops and in response to public review.[77] In developing the guidelines, there was a fair amount of debate over the degree of flexibility that should be afforded participants in defining baseline emissions and ownership of emissions reduction.[78] Those arguing that a more rigid format would discourage voluntary participation won out, and the final guidelines emerged affording partners more flexibility in defining these parameters.[79] In addition, the guidelines entail several themes including:[80]

- The encouragement of broad participation in reporting.
- Participants are to be granted nearly complete flexibility in crafting their reports.
- Participants are permitted to report activities both in the U.S. and abroad.
- Participants are encouraged to report emissions and emissions reductions as broadly as possible.
- Participants are encouraged to report for a broad range of greenhouse gases.
- Participants are permitted to report on "achieved" reductions after 1990.

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[72]Environmental Defense Fund. (EDF). *EDF, PSE&IG Ink Pact to Turn CO_2 Cut Promise into Performance.* http://www.edf.org/pubs/newsreleases/1995/feb/d_unpseg/html.
See also Environmental Defense Fund. April 20, 1994. *EDF Unveils Pact with PSE&G Creating Environmental "Backstop."* http://www.edf.org/pubs/newsreleases/1994/apr/d%5Fpseg.html.

[73]Ibid.

[74]Kinsman *et al., A status.*

[75]DOE, *Voluntary.*

[76]Kinsman, *et al., A status.*

[77]DOE, *Voluntary.*

[78]Ibid.

[79]Ibid.

[80]Ibid.

Pursuant to these guidelines, the forms are designed to track a broad range of emissions sequestration, avoidance, and reduction activities.

The electric utility industry contributes one-third of the total U.S. carbon dioxide emissions- it is also the largest contributor to Climate Challenge and Voluntary Reporting Program emissions reductions.[81] The electric utility DOE Climate Challenge participants make up the majority, 560 out of 645 reported projects, of VRP participation, with 37 of the remaining 85 reported projects being associated with other voluntary programs.[82] As is obvious from the numbers, there is a great deal of collaboration between the Climate Challenge and Voluntary Reporting Programs, and between VRP and other climate change programs within EPA.

As of 1996, 600 participants, representing 60 percent of the electric power generation in the nation, had signed 113 Climate Challenge agreements with DOE.[83] In most cases, partners have chosen to participate in the program to establish a public record of their contribution toward meeting a national environmental policy goal that may create standing in a possible future regulatory scheme and to enable others to learn from their experience.[84] Some examples of projects undertaken to meet program commitments include:[85]

- American Electric Power has established a program of carbon offsets from aforestation. The company has planted over 41 million trees since 1945 on company lands.
- Texas Utilities Company has begun commercial operation of two nuclear power units as substitutes for slated coal-fired plants.
- Allegheny power has established a demand-side program that educates customers on energy conservation measures, including load management.

All of these programs have tracked past and estimated future impact on greenhouse gas emissions.

DOE estimates that Climate Challenge covenants will lead to reduced emissions of 43 million metric tons of carbon equivalent by the year 2000.[86] EEI provides a reduction number four times as large (170 million metric tons) and claims that the program is the most successful in the world.[87] The discrepancy in numbers comes from a difference in the types of activities recorded.

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[81]DOE, *Voluntary*.

[82]Ibid.

[83]Edison Electric Institute (EEI). *Climate Challenge Report: Voluntary Programs Work*. http://www.eei.org/Industry/enviro/programs.htm.

[84]DOE, *Voluntary*.

[85]EEI, *Climate*.

[86]Ibid.

[87]EEI, *Global*.

DOE excludes reduction commitments not yet quantified and utility-wide educational initiatives aimed at transforming key markets.[88]

The Climate Challenge and Voluntary Reporting programs are yet too young to be comprehensively evaluated. It is interesting to note, however, that it would be difficult to conduct an evaluation given the nebulous nature of program objectives. The Climate Challenge program seeks as its main objective to encourage electric utilities to identify means of and commit to reductions of greenhouse gas emissions. The Voluntary Reporting program simply aspires to broad participation in reporting activities that will effect the stock of greenhouse gases in the atmosphere. If there are specific targets set for the degree of participation in either program, that information is not readily available. Assuming that 100 percent participation would be ideal, one could give the Climate Challenge program a very positive rating given the 60 percent rate of participation by the electric utility industry. With respect to VRP, only 23 percent of total emissions are currently being accounted for. The DOE also sets as a program goal the provision of technical information for participants, which it has achieved on one level through the recent publication of the Climate Challenge Options Workbook.[89]

Given that it is a goal of both programs to reduce greenhouse gas emissions, a likely measure of effectiveness in the future will be to quantify reductions and compare total emissions with projected emissions absent any voluntary commitments. However, this would be difficult given the non-uniform, unverified form in which emissions reductions are being reported.

It is instructive to review findings from other voluntary climate change programs around the world that have been more extensively evaluated against program goals. Canada, for example, has implemented a program quite similar to the Climate Challenge program. Canada's Voluntary Challenge and Registry (VCR) is also a performance-based initiative, with similar program objectives and offering identical benefits to both industry and the government. However, the Canadian program is grounded in a set reductions target, whereas the Climate Challenge program is a "no regrets" initiative.[90] Like in the U.S., industry in Canada has been an active advocate for voluntary initiatives, fearing strict legislation as the alternative.[91]

While the VCR program has been successful in meeting its goal of a high degree of participation (the majority of utilities have registered), only half of those registered have submitted action plans, and a small fraction have quantified reductions.[92] In addition, there is no evidence to suggest that the program is getting Canada any closer to meeting its signatory commitments. Another program

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[88]Kinsman, *et al.*, *A status.*

[89]EEI, *Climate.*

[90]O'Brien, R. 1997. *Global Warming and Voluntary Initiatives: The Role of the Voluntary Challenge and Registry in Canada.* http://www.web.net/~robrien/papers/vcrpaper.html.

[91]Ibid.

[92]Ibid.

goal, similar to the Climate Challenge program, is to provide information to participants on the latest developments in emissions reductions achievements.[93] The VCR has established a web site from which it was to serve as an information clearinghouse, however, the site has not been updated in over a year due to an inadequate level of support for the program.[94]

On a broader level, the program has been evaluated as unsuccessful with respect to helping to meet the goal of reducing emissions back to 1990 levels.[95] Projections suggest that the Canada will likely be emitting greenhouse gases at a 9 percent increase from 1990 levels by the year 2000.[96] Likely contributors to program failure include the minute nature of program incentives, an increase in overall production due to consumer demand, poor program design, and a lack of government support for the program.[97] This lack of success in reaching reductions targets has prompted a "turn to a regime of legislated economic instruments in the form of global tradable emissions permits."[98] Whether or not the results of the highly similar Canadian VCR program can be assumed to reflect the likelihood of Climate Challenge outcomes remains to be seen. However, the similarity between the programs and the economic and social contexts in which they operate suggests that this is not an unlikely possibility.

Summary of Relevant Points

The United Nations Framework Convention on Climate Change conducted an evaluative study on climate change initiatives in the U.S. (Climate Challenge), the Netherlands, Canada, and Australia.[99] In attempting to make some broad generalizations about the use of voluntary initiatives to meet global greenhouse gas emission reduction goals, the author makes the following assertions:[100]

- Due to the young nature of most of the programs reviewed, it is difficult to assess results.
- Voluntary climate change programs rarely operate in isolation. Financial incentives or regulations often accompany them, making it difficult to isolate effects.
- The effectiveness of different types of voluntary initiatives is difficult to assess due to the range of political and economic factors influencing each context.

[93]Ibid.

[94]Ibid.

[95]Ibid.

[96]Ibid.

[97]Ibid.

[98]Ibid.

[99]Newman, *Electricity*.

[100]Ibid.

- There is no evidence to suggest that one type of voluntary program is better than another, rather the effectiveness of each program depends on the economic and competitive conditions that exist.

In summary, it appears that largely due to the lack of generally accepted accounting principles, the newness of programs, and the wide diversity of economic and social contexts in which the climate change initiatives are operating, it is nearly impossible to establish general guidelines for effective management. However, it is perhaps of interest that the Institute for Local Government Studies (AKF) in the Netherlands has been successful in conducting comprehensive, quantitative studies on the cost-efficiency and effectiveness of the voluntary component of the National Environmental Policy Plan.[101] This evaluation suggests that the voluntary Dutch climate change program has been both effective and cost-efficient at meeting program goals.[102]

With specific respect to the Climate Challenge and Voluntary Registry Programs, the following findings are of particular relevance to this paper:

- There appear to be significant opportunities for collaboration between EPA and DOE voluntary climate change programs, with the VRP serving as the nexus between programs.
- DOE programs have been marked by significant stakeholder involvement in program development.
- Program effectiveness is difficult to evaluate due to the apparent lack of clear objectives, the newness of the program, and the non-uniformity of project emissions reports.
- Questions remain as to how and if emission reduction achievements will be validated.

Private Sector Initiatives

Multiple private sector voluntary initiatives have burgeoned in recent decades. The Environmental Defense Fund (EDF) has emerged as a leader of industry partnerships in the environmental non-profit community. Starting in 1991 with a McDonald's alliance, EDF has in recent years proven effective at assisting private companies in adding value through the adoption of environmentally sound practices and in eroding the adversarial nature that traditionally characterizes relationships between industry and advocacy groups.[103]

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[101]Rietbergen, M., J. Farla, and K. Blok. June 11-12, 1998. *Quantitative Evaluation of Voluntary Agreements On Energy Efficiency* In: Proceedings of the International Workshop on Industrial Energy Efficiency Policies: Understanding Success and Failure. Utrecht: AKF. http://www.akf.dk/vaie/papers.htm.

[102]Ibid.

[103]Fastiggi, E. 1999. *Catalyzing Environmental Results. Lessons in Advocacy Organization-Business Partnerships*. The Alliance for Environmental Innovation (AEI), 3.

In 1994, the EDF formalized its commitment to revolutionizing the business world's approach to environmental issues in a partnership with The Pew Charitable Trusts (which also has an impressive record in establishing industry partnerships) called the Alliance for Environmental Innovation (AEI).[104] Given EDF's and AEI's reputation for success and longevity in pursuing such endeavors, we have chosen to showcase their efforts. We draw primarily from a report sponsored by the J.M. Kaplan Fund that reflects AEI's experience over the past decade in managing effective partnerships.[105]

With respect to industry-led initiatives, we focus here on initiatives within the chemical industry due to the large number, relatively long history, and pervasiveness of these efforts. Particular emphasis is placed on the Responsible Care® program as it is the most mature, extensively evaluated, and expensive of its kind.

In particular, we have reviewed lessons learned from:

- The Alliance for Environmental Innovation,
- Responsible Care® (RC),
- Subsector spin-offs of RC (chemical distributors, traders, and industry associations have developed their own programs, which commonly employ the RC logo),
- The industry-led voluntary cessation of manufacture of benzidine dyes in Switzerland and the United Kingdom, and
- An industry-sponsored nickel/cadmium battery collection and recycling program in the United States

Our analysis of the industry-led programs is based on research publications by the Organization for Economic Co-operation and Development (OECD) and the International Labour Organization (ILO). Additional references are cited as appropriate.

The Alliance for Environmental Innovation

The Alliance for Environmental Innovation's primary mission is to create and execute environmentally beneficial partnerships that generate economic benefits.[106] The economic and environmental components of this goal are viewed as equally essential as the Alliance believes that "environmental initiatives will only sustain themselves and grow within a company when they deliver specific, measurable business benefits."[107] At the same time, AEI emphasizes the importance of both partners investing significant time and resources in the project at the time of

[104]Ibid.

[105]Ibid.

[106]Fastiggi, *Catalyzing* 3.

[107]Fastiggi, *Catalyzing* 22.

inception, despite the fact that the requisite benefits will likely not materialize until the future. This is of premier import given the traditionally adversarial nature of the two partner communities.

Beyond these guiding principles, AEI documents the steps in establishing successful NGO-industry partnership projects. The majority of these recommendations are inapplicable to EPA's partnership programs given their fundamentally different structure. For example, one of the central components of the guidelines is the negotiation and signing of a memorandum of agreement (MOA) between the two partners. The guidelines for negotiating an effective MOA, among other recommendations, would primarily be applicable in the Project XL program (other partnership programs contain MOUs, but they are generally pre-set and non-negotiable).[108] One component of AEI's recommendations, which includes means to effective performance measurement, provides highly applicable guidelines for EPA programs.

The Alliance has been diligent in measuring and evaluating the performance of its partnerships based on the organization's central goals of achieving superior environmental performance and economic benefits for its partner companies. In essence, both partners must identify the specific, measurable indicators that determine if the project is meeting both their project goals and the larger organizational missions. With respect to AEI, this means that they will always need to select performance indicators that track both economic and environmental results.[109] The Alliance emphasizes that after identifying measures appropriate to the specific project goals, it is "essential to establish a baseline"[110] from which progress can be evaluated, and to evaluate progress throughout the project. Given the common failure by both government agencies and industry participants to measure quantitative results of voluntary initiatives and the almost ubiquitous failure by regulatory agencies to evaluate program performance in relation to the organization's larger mission, AEI's approach to performance measurement is particularly noteworthy.

Summary of Relevant Points

- Criticality of economic benefits in environmental initiatives in order for them to be sustainable
- Performance measurement based on baseline measurements of appropriate indicators to both project and organizational objectives

Responsible Care®

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[108]For additional recommendations that may be useful in improving the management of Project XL, see Fastiggi, *Catalyzing* 7-22.

[109]A table of metrics for tracking both qualitative and quantitative benefits to business categorized by risk reduction, costs, costs of capital, and revenues is provided. Fastiggi, *Catalyzing* 24-26.

[110]Fastiggi, *Catalyzing* 23.

Introduction and History

Responsible Care® (RC) is an international chemical industry effort to continually improve in all aspects of environment, health, and safety (EHS) performance, with particular emphasis on communication of EHS performance to the public.[111] The international effort is modeled after a program developed by the Canadian Chemical Producers Association's (CCPA), with significant components drawn from the U.S. Chemical Manufacturers' Association's (CMA) Community Awareness and Emergency Response (CAER) program.[112]

RC started in 1985, largely in response to three major chemical release disasters around the world and a realization that "if the public's expectations of improved performance [were] not realized, the chemical industry [would] face greater regulation, sanctions, protests, or even closure."[113] It has since spread to 41 countries in companies accounting for 88 percent of world chemical production[114] - an unprecedented degree of voluntary participation within a given industry on a global basis. The degree and scope of RC program implementation varies greatly from country to country, but all program sponsors commit to the same set of eight fundamental features.[115] Beyond these features, the program entails the adoption of ten guiding principles and six management codes of practice.[116] For example, there is a code of management practices for product stewardship which, among other commitments, requires the company to maintain health, safety, and environmental information on its products. A complete list of principles and management practices is available from the CMA website at http://www.cmahq.com/cmawebsite.nsf/pages/responsiblecare.

Program Structure

Program commitment is often conditional upon membership with national chemical manufacturers' associations,[117] which ensures significant degrees of participation and avoids free rider problems. In addition the International Council of Chemical Associations (ICCA) has established an RC Leadership Group (RCLG) to oversee international coordination of RC

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[111]International Labour Organization (ILO). 1998. *Voluntary Initiatives Affecting Training and Education on Safety, Health and Environment in the Chemical Industries.* Report for Discussion at the Tripartite Meeting on Voluntary Initiatives Affecting Training and Education on Safety, Health and Environment in the Chemical Industries. Geneva.

[112]ILO, *Voluntary* 30.

[113]Inter-Organization Programme for the Sound Management of Chemicals. 1997. *Proceedings of the OECD Workshop on Non-regulatory Initiatives for Chemical Risk Management,* OECD Environmental Health and Safety Publications Series on Risk Management, No. 7. Paris: OECD, 16.

[114]IOMC, *Proceedings* 15.

[115]ILO, *Voluntary* 29.

[116]Ibid.

[117]ILO, *Voluntary* 30.

efforts.[118] CEO level commitment has been instrumental in assuring sustained commitment to the initiative.[119] Complete implementation is self-verified in most countries, but recently heated debate has ensued in the U.S. and Canada over the need for third-party verification and public disclosure of third-party findings.[120]

The methodology by which RC's guiding principles and management codes of practice are implemented in a given company varies depending on the company's previous commitments and management systems. RC is flexible enough that its commitments can be adapted to other management systems.[121] With respect to effectively managing what can be highly complex issues, this approach appears logical. It allows individual companies to determine what is the best way of injecting RC's principles into an existing corporate culture without confusing the work force by adding new terminology or giving the impression of not following through on existing programs.[122]

One result of this approach is that there is little "brand recognition" of RC below the management level within member companies.[123] In response to the RC's challenge, "don't trust us, track us," the Public Research Interest Groups (PIRGS) conducted a series of two surveys in 1992 and 1998 of U.S. RC members (with the worst TRI reports) during which they asked between seven (1998) and nine (1992) basic questions relating to RC.[124] The PIRGs found the results very "disturbing."[125] To the point, only 17 percent of respondents in 1992 and 22 percent of respondents in 1998 provided responses to all nine questions - to say nothing of the quality of the responses.[126] Studies done by the ILO and the International Federation of Chemical, Energy, Mining, and General Workers' Unions (ICEM) determined the level of worker awareness and involvement in RC to be very minimal as well.[127]

Logically, it can be and is argued that given the "cocktail" approach, the absence of brand recognition implies very little about the degree and effectiveness of program implementation.[128] In fact, a survey of member companies conducted by the CMA "repeatedly referred to the value that

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[118]ILO, *Voluntary* 32.

[119]IOMC, *Proceedings* 13.

[120]ILO, *Voluntary* 31.

[121]ILO, *Voluntary* 34.

[122]ILO, *Voluntary* 35.

[123]Ibid.

[124]ILO, *Voluntary* 36.

[125]Ibid.

[126]Ibid.

[127]ILO, *Voluntary* 37.

[128]ILO, *Voluntary* 35.

RC had brought to creating an integrated management system."[129] However, this has led to some significant problems in evaluating the effectiveness of RC. Consistent with worker recognition findings, the degree of public recognition of RC is very low.[130] The results of surveys assessing changes in public image of the chemical industry in general are mixed, but there is some evidence to suggest that RC has contributed to stopping a "25-year decline in the general public's opinion"[131] of the industry. While the degree of "brand recognition" of RC within member companies and among the public is very low, in many respects, performance measures suggest that the initiative may be accomplishing its primary goals. However, one cannot be sure, given the near impossibility of isolating the effects of this effort.[132]

Incentives for Participation

The RC program provides multiple incentives for participation. Perhaps the greatest of these is the increased likelihood of staying in business.[133] Other key incentives include: a positive impact on companies' bottom line through reduced EH&S costs and improved efficiency; avoidance of environmental liability suits; improved relations with stakeholders; and the improved likelihood of avoiding stricter government regulation.[134]

Stakeholder Involvement

Consistent with the RC articulation that public accountability is a key tenet of the program,[135] the nature of stakeholder involvement in RC is highly inclusive. While the RC rules at both the national and international level call for specific industry association coordination, the remainder of the stakeholders mentioned in Table 1 participate either because they have been invited to participate or in response to the RC challenge of "don't trust us, track us." As the program has grown, RC leaders and administrators have sustained and expanded their initial commitment to public involvement and approval and the number of stakeholders actively participating in its development has increased.[136]

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[129]ILO, *Voluntary* 36.

[130]ILO, *Voluntary* 34.

[131]ILO, *Voluntary* 10.

[132]ILO, *Voluntary* 72.

[133]IOMC, *Proceedings* 14-16.

[134]IOMC, *Proceedings* 14-16.

[135]ILO, *Voluntary* 15-16.

[136]ILO, *Voluntary* 16-17.

Table 1 - RC Stakeholders and Functions

Stakeholder	Function
National chemical industry associations	• responsible for implementation of RC in their countries • i.e., the United States Chemical Manufacturers' Association (CMA) membership is conditional on RC implementation
Regional chemical industry associations	• some overlap with National Chemical Industry Associations • i.e., European Chemical Industry Council (ECIC) membership is conditional on RC implementation
Trade unions	• program monitoring • driving force behind call for third-party auditing • i.e., International Federation of Chemical Energy, Mining and general Workers' Unions (CEM)
Local communities	• dialoging over local concerns about chemical production and distribution through plant visits, panel meetings, and written communication • verification of program implementation • i.e., the Community Advisory Panels in the U.S.
International industry associations	• program monitoring • provide leadership • i.e., the International Council of Chemical Associations (ICCA), International Council of Chemical Trade Associations (ICCTA)
Intergovernment Forum on Chemical Safety ("a body set up to give effect to UNCED's Agenda 21"[137])	• monitors worldwide progress
Non-profit and advocacy organizations	• monitoring • i.e., the Public Research Interest Group (PIRGs) in response to RC's challenge of "don't trust us, track us"

Program Results

"Positive [environmental] trends are beginning to emerge wherever RC is being implemented."[138] Specific performance data are reported to and by the National Chemical Associations as a prerequisite to international participation. Some examples of documented improvements include:[139]

[137]ILO, Voluntary 29.

[138]IOMC, *Proceedings* 17.

[139]Ibid.

- The level of vinyl chloride monomer emissions has been reduced by approximately 50 percent between 1990 and 1993 in Japan.
- In the UK, member companies have reduced emissions of Red List substances by 89 percent since 1990.
- Member companies of RC in Canada have reduced emissions of all substances (excluding CO_2) by 50 percent since 1992.

More generally, the industry, as a whole has "reduced emissions to the environment, improved emergency response, reduced transportation mishaps, improved outreach and communication, safer working conditions, and overall reduced risk."[140] Yet, the ILO makes the point that these indicators are indirect. The RC program does not mandate the use of performance indicators to measure progress in implementing the RC codes a part of company self-assessment and/or third party verification.[141] As a result, while there is speculation, perhaps valid, that RC has been tremendously successful, it is impossible to isolate the impact of RC on performance improvements from other factors.

As a side note, the Chemical industry has received a great deal of recognition for taking a leadership role in a number of other voluntary initiatives, as well. For example, chemical plants account for one third of the participants in OSHA's Voluntary Protection Programs (VPP)[142] and for 60 percent of the documented energy savings in the Netherlands in 1995.[143] Again, while there is no isolated evidence to suggest that the participation in RC led to the industry taking these leadership positions, the possibility is interesting to note.

Summary of Relevant Findings of the ILO Study on RC and Sub-sector Spin-offs of RC

Chemical distributors, traders, and industry associations have developed their own programs that commonly employ the RC logo. In all cases, these programs are less pervasive and well established as RC, but are believed to have contributed significantly to the EHS performance of their industries. The programs are not presented in detail here, but we provide the following summary of relevant points.

- Isolating the effects of RC-based voluntary initiatives on EHS performance is highly difficult.[144]

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[140]Ibid.

[141]IOMC, *Proceedings* 38. *See also* IOMC, *Proceedings* 33.

[142]Hanson, *OSHA marks* 22.

[143]Rietbergen, *Proceedings*..

[144]ILO, *Voluntary* 72, 80-81.

- Due to the lack of direct performance measurement and the newness of many of the RC-based voluntary initiative, evaluation is difficult.[145]

IV. SUMMARY OF RELEVANT FINDINGS and PROPOSED MANAGEMENT GUIDELINES FROM COMPREHENSIVE INTERNATIONAL and STATE LEVEL STUDIES

We have been able to draw our own conclusions in separately reviewing the initiatives discussed above. In addition, we feel that it would be valuable to review the findings of other research studies that have evaluated voluntary measures on a more comprehensive, aggregate basis. Below we review three such studies that discuss voluntary initiatives and/or alternatives to "command and control" at a multi-national level.

Environmental agreements: Environmental effectiveness
by the European Environment Agency

The European Environment Agency (EEA) published this document to assist the European Parliament's debate on environmental agreements. The report examines six negotiated agreements (out of more than 300 across the European Union) currently being administered in France, Germany, Sweden, the Netherlands (two agreements), and Portugal. The authors emphasize that quantitative evaluations are hampered by lack of available data in all but one case (the Netherlands), but qualitative evidence suggests that valuable benefits result from the agreements. The report identifies common difficulties with the agreements, and provides some guidelines for effective management of voluntary negotiated agreements including:

- Set clear targets
- Ensure transparency during negotiation of the terms of the agreement
- Negotiate reliable monitoring and reporting agreements
- Systematically evaluate the results of the agreement against the targets
- Make provisions for access to information regarding the agreement
- Use negotiated agreements as a complement to other policy measures
- Use negotiated agreements in situations where regulatory or fiscal instruments would be difficult to administer

[145]ILO, *Voluntary* 81.

Additional key findings include:

- Negotiated environmental agreements are useful in creating greater awareness of a subject, facilitating information exchange, in the creation of a consensus, and in facilitating technical change.
- Strong incentives for participation are important.
- Lack of program monitoring is pervasive.
- It was impossible to prove that negotiated environmental agreements lead to environmental effectiveness in this case due to a lack of monitoring by all but one project.

Negotiated environmental agreements are most functional under the following conditions:

- Pro-active industries or businesses are involved.
- A small number of partners or high organization level of signatory partners are involved.
- Industry sectors that have matured and face little competition are involved.
- Environmental problems are of limited scale.
- There are a limited number of sources of pollution.
- Long-term targets (early signal) have already been established.

Voluntary environmental measures: What are they? What makes them work?
Prepared by John Moffet and Francois Bregha of Resource Futures International for The New Directions Group

This paper was prepared for the New Directions Group to provide an overview of issues and trends in the realm of voluntary environmental measures, with particular emphasis on opportunities for improvement of voluntary initiatives within Canada. Voluntary initiatives taking place in the U.S., Canada, and Europe are discussed, with emphasis on incentives for participation for both industry and government, critical success factors, key design and process features, appropriate measurements of achievements, and effective public participation in voluntary initiatives.

Given that most voluntary initiatives challenge industry to alter some basic aspect of how they do business, rather than just to implement quick technical fixes, the following barriers to success often exist:

- Uncertainty about future regulatory requirements
- "Concerns about potential adverse effects of disclosing environmental shortcomings"
- "Concerns about free riders"
- Short-term cost issues with respect to capital investments and long-term pay back
- "Inconsistent consumer behavior"
- Lack of expertise
- "Inadequate indicators to measure progress"

In order to overcome these barriers, the following managerial guidelines must be followed:

- Establish and monitor clear, measurable objectives from a measured baseline throughout the life of the project.
- Relate the initiative to the organization's core values to ensure cultural transformation.
- Secure the continuous, explicit commitment of senior managers to the project.
- Ensure a steady and adequate commitment of resources to the project.
- Develop capacity to communicate across traditional organizational barriers, i.e., through cross-functional teams.
- Provide consistent signals to project participants to maintain project momentum.
- Build the institutional capacity of the partners to act as leaders on the issue at hand.
- Provide useful information and the analytical tools necessary to process it.
- Effectively communicate and market the project such that program proponents are clearly recognized to differentiate them from their competitors.
- In industry-wide initiatives, provide both positive incentives for participation and negative incentives for not participating.
- Exchange "pre-competitive information" to ensure that all partners, who may also be competitors, are aware of the available techniques for addressing environmental problems.
- Ensure credibility of program claims by subjecting them to third party verification.

Empowering the community: Information strategies for pollution control
By Tom Tietenberg and David Wheeler

This paper compiles and identifies what is known about the effectiveness of information disclosure strategies as a "third wave" of pollution control policy. The authors discuss multiple government and industry information disclosure strategies, including a number of voluntary initiatives such as the 33/50 program, and present a series of research study findings on this topic. They conclude with a discussion of overall effectiveness of information strategies and the key determinants of successful strategies. Their recommendations include:

- Provide easily understandable, accessible, and moderate amounts of information so as to avoid information overload.
- The relay of information through direct means is much more effective than through mass communication channels.
- Pay attention to incentives created by complementary aspects of disclosure programs.

Incentives for environmental improvement: An assessment of selected innovative programs in the States and Europe
By Daniel P. Beardsley. Prepared for the Global Environmental Management Initiative (GEMI).

This report, one of three published by GEMI on the subject of "Industry Incentives for Environmental Improvement," reviews a number of programs in the states of Minnesota, Massachusetts, and New Jersey and international efforts in the Netherlands, Sweden, and the United Kingdom. Beardsley finds that among many innovative efforts throughout the U.S. and Europe to improve the effectiveness and efficiency of environmental protection, there are certain identifiable characteristics among the successful programs.

Key Findings:

- Economic incentives associated with participating in most voluntary programs are considered marginal. However, there is little doubt that they are more cost-effective than traditional command-and-control methods.
- Successful voluntary programs are supported by some legal context.
- Systematic evaluation is very weak, and it is therefore difficult to assess program effectiveness.
- The cultural expectations of the general population in which potential partners operate is a significant factor in determining whether or not to participate in voluntary initiatives. For example, the general populous in both Minnesota and the Netherlands tend to value environmental protection more than in other geographic areas, and industry responds to those values by participating in voluntary programs.
- Industry participants appreciate the cooperative nature of voluntary programs.

Recommendations:

- Establish and communicate simple, clear objectives.
- Offer bold economic incentives in order to ensure a large degree of participation.
- Enable participants to have a major voice in establishing program goals.
- Grant flexibility to industry in implementing features that will meet partnership objectives.
- Seek to establish trust among stakeholders and participants.
- Minimize transaction costs of participation.

V. LESSONS LEARNED RELEVANT TO EPA'S PARTNERSHIP PROGRAMS

In the sections above, we have comprehensively reviewed a number of non-EPA partnership programs and related reports. The structure and evolution of these programs provide many opportunities for contrast with EPA's management of partnership programs. Rather than doing an extensive comparison, however, we have decided to single out and condense the lessons learned from these programs that are most relevant to partnership program management at EPA. Key lessons learned include:

- Participation of industry in the development of industry-focused partnership programs is crucial to their success (as partnership programs). In particular, it is important for partners

to agree on program success indicators. The Alliance for Environmental Innovation provides excellent guidelines for designing performance measures.

- Especially for industry partners, the potential for economic benefit is an incentive of critical importance.

- Opportunities to improve relations with regulators and to enhance corporate image are also important incentives for companies to participate in partnership programs.

- Partnership programs work best when they complement regulations (or previously established, long-term goals, as in the case of the Dutch covenants). Nevertheless, because the opportunity to prevent new regulations can also be an important incentive to participation, partnership programs can also work to address unregulated issues.

- The success of OSHA's programs is reflected in the extent of integration of the partnership philosophy throughout the organization. Achieving this integration has taken time and effort focused on cultural change, however.

- OSHA has chosen to exercise some central coordination and control over partnership programs by establishing an initiative known as the Strategic Partnership Program (SPP). It is still too early to know how well the SPP has worked; it would be worthwhile to revisit this question in a year.

- DOE and EPA both have partnership programs that address climate change. There appear to be significant opportunities for collaboration through the joint EPA-DOE Voluntary Registry Program.

Annotated Bibliography

Beardsley, D.P. 1996. *Incentives for Environmental Improvement: An Assessment of Selected Innovative Programs in the States and Europe.* For the Global Environmental Management Initiative (GEMI). Washington, DC: GEMI.

This report, one of three published by GEMI on the subject of "Industry Incentives for Environmental Improvement", finds that among many innovative efforts to improve the effectiveness and efficiency of environmental protection, a select few at the state level (in the U.S.) and in Europe have spurred improvements in environmental quality. In addition, benefits of improved relationships between the private sector and regulators found at the federal level in the U.S. are present in this context, and to a greater degree. The European and state-level initiatives are viewed, contrary to federal programs, to be well-planned and administered. The author bases these conclusions on analyses of four state-level programs and selected programs in the Netherlands, Sweden, and the UK.

Bergman, P., R. Kane, and J. Kildow. 1997. United States policy for mitigating global climate change. Waste Management, No. 5-6, Vol. 17, 309-314.

This paper delineates the U.S. Department of Energy's efforts to implement the U.S. policy on climate change. In addition to a discussion of the recent U.S. policy shift in response to the realization that the FCCC targets are not being met and a brief presentation on the potential for the ocean storage of carbon, the effectiveness of the DOE Climate Challenge Program is analyzed.

Brostoff, S. December 1, 1997. OSHA creates cooperative program for safety testing. National Underwriter, Vol. 101, 1+.

This brief article announces the establishment of OSHA's Consultation Program. The history, program structure, incentives, and regulatory implications are discussed.

Edison Electric Institute (EEI). 1999. http://www.eei.org/Industry/enviro/global.htm.

This web site describes EEI's position on effective management of global climate change issues and their role in assisting electric utilities to voluntarily reduce, avoid, or sequester greenhouse gas emissions as part of the US Department of Energy's Climate Challenge program. Available on the web site is *the Climate Challenge Report: Voluntary Programs Work,* which documents the EEI's instrumental role in developing Climate Challenge initiatives and each initiative's potential for greenhouse gas reduction.

Environmental Defense Fund (EDF). January 26, 1999. *Environmental Defense Fund Praises Clinton Climate Proposal.* http://www.edf.org/pubs/newsreleases/1999/jan/b_climate.html.

Environmental Defense Fund. February 7, 1995. *EDF, PSE&G Ink Pact To Turn CO_2 Cut Promise Into Performance*. http://www.edf.org/pubs/newsreleases/1995/feb/d_unpseg/html.

Environmental Defense Fund. April 20, 1994. *EDF Unveils Pact With PSE&G Creating Environmental "Backstop."* http://www.edf.org/pubs/newsreleases/1994/apr/d%5Fpseg.html.

European Environment Agency (EEA). 1997. Environmental agreements: environmental effectiveness, Environmental Issues Series No. 3, Vol 2. Copenhagen: EEA.

This evaluation of European negotiated environmental agreements is targeted at policy makers and the public and timed to assist the European Parliament's debate on environmental agreements. The report examines six agreements in various countries and managing various issues for environmental effectiveness. The authors emphasize that quantitative evaluations are hampered by lack of available data in all but one case (the Netherlands), but qualitative evidence suggests that valuable benefits result from the agreements. The report identifies common difficulties with the agreements, and provides some guidelines for effective management of voluntary initiatives.

Fastiggi, E. 1999. *Catalyzing Environmental Results. Lessons in Advocacy Organization-Business Partnerships*. Boston: The Alliance for Environmental Innovation.

The Alliance for Environmental Innovation (AEI) produced this document as a means of disseminating lessons learned from a decade of experience in establishing cooperative partnerships with companies. AEI has pursued such partnerships toward the end of creating environmentally aggressive initiatives that generate business benefits. The report highlights successful strategies and program models for similar alliances and proposes guidelines that have emerged as reliable rules of conduct in AEI's advocacy-business partnerships.

Ficker, Christy. April 29, 1999. Personal communication.

Figura, S. March, 1997. Is OSHA reform on target? Occupational Hazards, Vol. 59, 23-25.

This article reviews OSHA chief Joseph Dear's progress toward his original mission of bringing a more cooperative regulatory approach to the agency when he accepted his position as chief in 1993. Particular note is given to the Consultation Program and the Voluntary Protection Program.

Fleming, S. Fall/Winter 1998. Assistant secretary Charles Jeffress discusses plans for OSHA. Job Safety and Health Quarterly, No. 9, Vol. 20, 16-20.

Jeffress discusses his prior experience at the state level in North Carolina and his goals for the federal position. He stresses cooperative efforts with employers, though conceding that these efforts are only effective with a regulatory enforcement mechanism backing them.

Gnee Library. Thematic references. Voluntary approaches. http://www.feem.it/gnee/direc/ref2.html.

Hanson, D. March 31, 1997. OSHA marks gains with voluntary plans. Chemical and Engineering News, Vol. 75, 22.

This article documents the growth of OSHA's VPPs since their inception in 1992.

Hennicke, P. and S. Ramesohl (project coordinators). 1998. *Interdisciplinary Analysis of Successful Implementation of Energy Efficiency in the Industrial, Commercial and Service Sector*. Final Report. Volume II. Documentation of Policy Case Studies. Chapter 1. The Danish CO_2 Tax on Trade and Industry. http://www.psychologie.uni-kiel.de/nordlicht/sme/b1.htm.

This paper analyzes the Danish CO_2 tax on trade and industry, with some focus on the role that alternative policy tools such as agreements play in meeting CO_2 reduction goals. Preliminary analysis of the effectiveness of agreements indicates that they have, in conjunction with investment grants, contributed to reductions.

Hoffman, M. 1998. Employer groups divided on OSHA auditor idea. Business Insurance, No. 32, Vol. 3+, F9.

This article presents opposing views on the most recent controversial issue at OSHA, the proposal to give third party auditors the authority to exempt workplaces from federal fines for 2 years under the VPP.

International Labour Organization (ILO). 1999. *Voluntary Initiatives Affecting Training and Education on Safety, Health and Environment in the Chemical Industries*. Geneva: ILO.

This document is a report developed for discussion at the Tripartite Meeting on Voluntary Initiatives Affecting Training and Education on Safety, Health and Environment in the Chemical Industries in Geneva, 22-26 February 1999. The report surveys voluntary initiatives within the arenas of health, safety, and the environment, with particular emphasis on chemical industry initiatives. The benefits of voluntary initiatives are qualitatively documented, and the difficulty in isolating and measuring quantitative benefits is discussed.

Inter-Organization Programme for the Sound Management of Chemicals. 1997. *Proceedings of the OECD Workshop on Non-Regulatory Initiatives for Chemical Risk Management*. An OECD Environmental Health and Safety Publications Series on Risk Management No. 7., OECD/GD(97)97. Paris: OECD.

This publication contains papers presented and the consensus of findings from the OECD Workshop on Non-Regulatory Initiatives for Chemical Risk Management held in the U.S. at Crystal City, Virginia on 10-12 September, 1996. Voluntary programs from around the world

were presented either extensively in panels or marginally in poster format. Panel presentations covered four general program types including: Industry Initiatives, Challenge Programmes, Bilateral/Multilateral Agreements, and Other Agreements. The document describes the history, participants, political setting, and progress of each of these initiatives and concludes with a statement of workshop findings.

Kinsman, J.D., M. McGrath, R. McMahon, M. Ricker, R. Shiflett, and R. Tempchin. June 23-28, 1996. *A Status Report on Climate Challenge Program's Voluntary Initiatives to Manage US Electric Utility Greenhouse Gases*. Presented at the 89th Annual Meeting & Exhibition, Air & Waste Management Association, Nashville, TN. http://www.eei.org/Industry/enviro/manus.htm.

This report discusses incentives for government to develop and industry to participate in voluntary programs such as Climate Challenge in reaching climate protection goals. Achieved reductions in emissions are documented and predictions for quantities of further reductions through the Climate Challenge program are presented for the year 2000. Finally, the five specific Climate Challenge initiatives led or supported by the Edison Electric Institute (EEI) are discussed in detail.

Krarup, S. and A. Larsen. 1998. *Energy Efficiency through Voluntary Agreements*. AKF. http://www.akf.dk/eng/98/energieff.htm.

This paper compares the different approaches to environmental voluntary agreements in five EU nations including Great Britain, Denmark, Finland, the Netherlands, and Sweden. The approaches reviewed for contrasts and similarities in policy formulation and the design, implementation, and effects of the agreements.

Kristof, K. and S. Ramesohl. June 9-14, 1997. *Can Industry Do Better Alone?: A Critical Discussion of the Voluntary Agreements on Climate Protection of the German Industry*. In: Sustainable Energy Opportunities for a Greater Europe, The Energy Efficiency Challenge for Europe: Proceedings of the 1997 European Council for an Energy Efficient Economy (ECEEE) Summer Study, Panel 3 - ID 123, Part 2. Czech Republic.

This critique of the German government's voluntary approach to climate protection, the "Declaration of German Industry for Climate Protection" (DCP), finds the program to be an ineffective instrument for meeting climate protection goals. The authors provide a number of suggestions for improvement.

Larsen, A., S. Krarup, and T.P. Krœmer. August 23-28, 1998. *A Policy Analysis of Voluntary Agreements for Energy Efficiency in Industry*. In: Proceedings of The 1999 ACEEE Summer Study on Energy Efficiency in Buildings. Pacific Grove, CA: Asilomare Conference Center. http://www.akf.dk/vaie/papers.htm.

This paper investigates the design, effects, and implications of voluntary agreements on energy efficiency in Great Britain, Denmark, Finland, Sweden, and the Netherlands. Of particular interest, the paper highlights sanctions imposed by select countries in the event of ill-participation or failure to participate in the voluntary programs.

Moffet, J. and F. Bregha. September 24,1996. *Voluntary Environmental Measures: What Are They? What Makes Them Work?* For The New Directions Group, Ottawa, Ontario.

This paper was prepared for the New Directions Group to provide an overview of issues and trends in the realm of voluntary environmental measures, with particular emphasis on opportunities for improvement of voluntary initiatives within Canada. The paper discusses incentives for participation for both industry and government, critical success factors, key design and process features, appropriate measurements of achievements, and effective public participation in voluntary initiatives.

Newman, J. 1997. *Policies and Measures for Common Action Electricity Sector: Utility Voluntary Agreements to Reduce Greenhouse Gas Emissions*. Working Paper 17, Annex I Expert Group on the UN Framework Convention on Climate Change.

This paper reviews current voluntary agreements (VAs) in the electric utility sector in Canada, the United States, and the Netherlands in seeking to determine the potential for the development of an international, voluntary, greenhouse gas reduction program. Specifically, the author reviews the Climate Challenge Program (U.S.), the Voluntary Challenge and Registry (Canada), and Environmental Action Plan (the Netherlands). The fundamental difference between target-based and "no-regrets" program models is emphasized as an important determinant of program outcomes.

O'Brien, R. 1997. *Global Warming and Voluntary Initiatives: The Role of the Voluntary Challenge and Registry in Canada*. http://www.web.net/~robrien/papers/vcrpaper.html.

This paper suggests that Canada's reliance on voluntary instruments, specifically the development of the Voluntary Challenge and Registry (VCR), as the primary means of meeting its responsibilities for reductions in greenhouse gas emissions is largely a response to industry and union pressure. The author documents that the VCR is falling far short of its targeted reductions and analyzes reasons for the performance failure. He concludes that as a result of this ineffectiveness and the legally binding nature of the Kyoto agreement, the Canadian legislature is looking to move away from voluntary methods and toward economic instruments backed by regulatory oversight to meet its commitments for 2010.

Oliver, Cathy. May 3, 1999. Personal communication.

Rietbergen, M., J. Farla, and K. Blok. June 11-12, 1998. *Quantitative Evaluation of Voluntary Agreements On Energy Efficiency.* In: Proceedings of the International Workshop on Industrial Energy Efficiency Policies: Understanding Success and Failure. Utrecht: AKF. http://www.akf.dk/vaie/papers.htm.

This paper evaluates the effectiveness (based on three independent assessments) and efficiency of voluntary agreements on energy efficiency in the Netherlands. The authors find that a significant portion of the energy efficiency improvement of participating organizations are a result of voluntary agreements and further conclude that voluntary agreements are more cost-efficient in meeting energy efficiency objectives than strictly subsidy-based schemes.

Rood, Marcy. May 3, 1999. Personal communication.

Sherrill, L. And J. Weinberg. Summer 1998. OSHA's VPP gets a little help from its friends. Job Safety and Health Quarterly, No. 4, Vol. 9, 29-34.

This article discusses the development of the VPP Volunteer Program. Motivations for volunteering are discussed, and OSHA describes what it sees as the program's successes.

Tietenberg, T., and D. Wheeler. October 23-25, 1998. *Empowering the Community: Information Strategies for Pollution Control.* Presented at Frontiers of Environmental Economics Conference, Airlie House, VA. http://www.worldbank.org/nipr/work_papers/ecoenv/index.htm.

This paper attempts to compile and identify what is known about the effectiveness of information disclosure strategies as a "third wave" of pollution control policy. The paper sets the stage for the discussion by acknowledging a growing need for broader use of diverse and resource-efficient policy tools, the declining costs of information dissemination, and growing demand for information to influence market forces. After reviewing the three types of situations influenced by information dissemination, the authors discuss multiple government and industry information disclosure strategies and research study findings on this topic. They conclude with a discussion of overall effectiveness of information strategies and the key determinants of successful strategies.

Tyson, P. November, 1995. OSHA has some friends in high places. Safety and Health, Vol. 152, 29-30+.

This article discusses an uncharacteristic alliance between member corporations of the VPPPA and organized labor in testifying against proposed changes to the OSHA reform bill.

U.S. Department of Energy. 1999. http://www.ccities.doe.gov/what_is.shtml.

This web site provides a description of the U.S. Department of Energy's (DOE) Clean Cities program and chronicles each Clean Cities initiative. Of particular interest, the 1999 version of the "Road Map" to Clean Cities document is available in PDF format.

U.S. Department of Energy. 1996. *Voluntary Reporting of Greenhouse Gases 1995.* http://www.eia.doe.gov/oiaf/vrgg05/chap3.html and http://www.eia.doe.gov/oiaf/vrgg05/chap1.html.

This report describes the development of the Voluntary Reporting Program, which was established pursuant to the enactment of the Energy Policy Act of 1992, through which entities can report actions taken to reduce greenhouse gas emissions to the Energy Information Administration (EIA). The report evaluates, among many different issues, project level reports of greenhouse gas emissions reduction and carbon sequestration to the DOE under Schedule II of Form EIA-1605 and EIA-1605EZ. The document asserts that despite the difficulty in evaluating the effects of project-level activities due to their relatively small size, such evaluations enable the process of identifying activities that would not have occurred absent project momentum. The role that 16 different DOE and EPA based voluntary programs have played in promoting the 645 evaluated projects is highlighted, with particular emphasis on the electric utilities Climate Challenge program.

Vira, Carol. April 27, 1999. Personal communication.

Weinberg, J. Summer 1997. OSHA cooperative efforts: a good deal for workers and employers. Job Safety and Health Quarterly, Vol. 8, 11-15.

This article documents the effectiveness of OSHA's voluntary CP and VPP, and surveys new initiatives within OSHA to improve performance even further.

APPENDIX G

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Appendix G

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