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## **ABOUT THE AUTHOR**

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## **WISE**

The Washington Internships for Students of Engineering is a ten-week program for outstanding engineering students who have completed their junior year who display evidence of leadership skills and an interest in public policy. The students spend the summer in Washington, D.C. learning how engineers contribute to public policy decisions on complex technological matters. Through frequent meetings and discussions with government officials and other policy-makers, students examine a variety of public policy issues. Each student completes a paper that analyzes a specific engineering public issue of concern to her/his sponsoring society. For information about the WISE Program, contact WISE, Attn: Anne Hickox, 400 Commonwealth Drive, Warrendale, PA 15096-0001, (412) 776-4841, or fax (412) 776-2103.

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## EXECUTIVE SUMMARY

The regulated community, dissatisfied with the current command-and-control regulatory system operation, has been calling for relief from the administrative and financial burden incurred from maintaining compliance with a host of federal and state environmental laws and statutes. Industry protests that the current regulatory framework imposes excessive costs, requires redundant paperwork, and limits the use of innovative technologies. Companies advocate an efficient and cost-effective environmental management system that provides industry flexibility in achieving performance standards as opposed to maintaining compliance with prescriptive regulation.

Many public health and environmental groups, however, support prescriptive regulation and more stringent control of industrial operations and emissions. These groups fear that a reduction in environmental protection will result if regulations do not prescribe the exact manner in which industry controls pollution.

Thus, the U.S. Environmental Protection Agency (EPA) is faced with a challenge to develop an environmental management system that mutually supports economic growth and environmental protection.

The EPA has initiated several regulatory reinvention projects aimed at identifying the limitations of the current system and testing ideas for improvement. Project XL, which stands for “eXcellence and Leadership,” is the landmark reinvention initiative introduced by President Clinton in March of 1995. Project XL exempts participating facilities from certain regulatory requirements in exchange for their agreement to achieve better environmental results. This voluntary, site-specific pilot program was established to target participation from companies desiring regulatory flexibility and willing to test innovative technologies and management systems for achieving superior environmental performance. To obtain regulatory flexibility, a project sponsor must demonstrate how the company will achieve results more protective than compliance with traditional standards and how the company will involve relevant community members.

Given its potential for creating a new paradigm of environmental regulation, Project XL has received varying degrees of support and resistance from industry, environmental organizations, community stakeholders, and states. The obstacles limiting the success of Project XL are the substance of individual proposals, the process for public participation, and the legal issues raised by EPA efforts to implement the program. Because the ground rules of Project XL are unclear, stakeholders argue over the definition of “superior environmental performance” and the level of regulatory flexibility merited by voluntary actions. The collaborative, decision-making process is also frustrated by the challenge of bringing historically adversarial groups together.

Although the EPA has received 47 proposals from industry, only three are in the implementation phase. The EPA remains committed to the requirement that proposals must achieve superior environmental performance. Some companies have shown an interest in obtaining regulatory flexibility through Project XL, but have had difficulty

demonstrating how an improved environmental benefit will be achieved and that the innovation being tested merits the level of regulatory flexibility proposed. Many project proposals are not approved because more flexibility is requested than the EPA can prudently grant. The length of time it takes the EPA to determine if a proposal meets the Project XL criteria is also a deterrent to participation.

Due to the limited number of approved proposals, the effectiveness of the framework is in question. But given that reinvention is a complicated process requiring long term-efforts, Project XL may be an essential catalyst in advancing the development of an environmental management system that focuses on providing improved environmental benefit to the community while providing economic and regulatory relief to the company. To improve the current Project XL success, a focus should be placed on accountability. Since project approval is contingent upon community support, a community group's confidence that performance standards are being met is important. Actions to expedite the collaborative process between government, industry, and community groups will also improve success.

## INTRODUCTION

Although industry and environmental groups voice different criticisms on the limitations of the current environmental regulatory system, they both agree that it is inefficient. Industry accepts that environmental compliance is part of its operations, but protests that the current command-and-control regulatory framework imposes excessive costs, requires redundant paperwork, and limits the use of innovative technologies capable of providing increased protection of the environment.<sup>1</sup> The regulated community has been calling for relief from the administrative and financial burden incurred from maintaining compliance with a host of federal and state environmental laws and statutes. Companies advocate an efficient and cost-effective environmental management system that provides industry flexibility in achieving performance standards as opposed to maintaining compliance with prescriptive regulation.

Many public health and environmental groups, however, express concern that the current environmental regulatory system lacks a comprehensive scope.<sup>2</sup> They support prescriptive regulation and more stringent control of industrial operations and emissions. These groups fear that a reduction in environmental protection will result if regulations do not prescribe the exact manner in which industry controls pollution.

Thus, the U.S. Environmental Protection Agency (EPA) is faced with a challenge to develop a management system that mutually supports economic growth and environmental protection.

President Clinton described a need for reinvention of environmental regulation during the State of the Union Address on January 24, 1995. He stated, "Do we need more common sense and fairness in our regulations? You bet we do. But we can have common sense and still provide safe drinking water. We can have fairness and still clean up toxic waste dumps. And we ought to do it."<sup>3</sup>

The current environmental regulatory system often puts economic growth and environmental protection at odds because it does not have mutually reinforcing goals. Economic prosperity can be limited by attempts at environmental protection. Likewise, environmental quality can be sacrificed for economic reasons. A balance between these competing agendas needs to be established. The question, simply stated by Fred Hansen, Deputy Administrator of the EPA, is this "How shall we improve the system used to protect public health and the environment in this country, so that it generates more benefits for all Americans while imposing less cost?"<sup>4</sup>

In response, President Clinton, Vice President Gore, and EPA Administrator Carol Browner announced an agenda to reinvent environmental regulation in March of 1995. The administration states that it is committed to providing that environmental protection in a common sense, cost-effective manner. Guidance to meet this challenge is described by "A Vision for the Next 25 Years" and "10 Principles for Reinventing Environmental Protection" presented in *Reinventing Environmental Regulation* (see Appendix A - B). The administration's initiatives contain two sets of "High Priority

Actions.”

The first set of actions are targeted to fix problems with today’s regulatory inefficiencies. The second set titled ”Building Blocks to a New System” are designed to facilitate development of innovative alternatives to the current regulatory system (see Appendix C). The administration proposes to test alternative management strategies through partnerships with businesses, environmentalists, states, and communities.<sup>5</sup>

Project XL is the most ambitious reinvention initiative in the administration’s *Reinventing Environmental Regulation* agenda. Project XL, which stands for “eXcellence and Leadership,” is an effort that provides industry with regulatory flexibility as an incentive to test alternative strategies of environmental protection. The difference between Project XL and the other reinvention initiatives is in the application of lessons learned. The objective of Project XL is broad implementation of cleaner, cheaper, smarter approaches of environmental protection into the current system. Other reinvention initiatives seek to customize the system on a site-by-site basis to meet the unique needs of each site. The goal of Project XL is to “engage those parties affected by environmental regulation in an unprecedented effort to find solutions that work better than those currently mandated and to apply what is learned more broadly to improve public health and environmental protection.”<sup>6</sup>

Many companies welcome the opportunity to implement ideas they have longed to put into practice. For example, the Chairman of the Board of Intel, Gary E. Moore, states, “What I see in Project XL is a real paradigm shift. The old way of doing business was that government dictates every move a business must make to protect the environment. The new system, envisioned by Project XL, is to work cooperatively and focus on the results: a cleaner environment; a faster, less costly system; with more input from the local community.”<sup>7</sup>

## **CURRENT ENVIRONMENTAL PROTECTION SYSTEM**

The current system of environmental protection is comprised of several approaches to pollution control. A majority of protection results from prescriptive, command-and-control regulations, but significant achievements have been made through voluntary efforts.

### **Command-and-Control Regulation**

#### *Prescriptive Regulation*

The current system of environmental protection is characterized by command-and-control regulations. This approach to environmental protection is based on the assumption that if outlawed pollution will stop. Through prescriptive regulation the EPA attempts to control pollution by setting standards, mandating control systems, and enforcing the standards. This approach is limited because inefficient government enforcement is often the only incentive to control or prevent pollution.

### Liability-Based Legislation

To augment government enforcement, Congress has passed liability-based legislation that applies retroactively. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), known as “Superfund,” is an example of retroactive-liability legislation. These laws deter companies from polluting soil and water because they could hold polluting parties responsible for long-lasting, expensive clean-up. The retroactive-liability based approach lacks a similar deterrent for emitting air pollutants because after chemicals disperse into the air, the source cannot be identified nor can pollutants be remediated.<sup>8</sup>

### Risk-Based Prioritization

Assessing the danger associated with the staggering number of chemicals in use and regulating each accordingly is not possible. Prioritization through risk assessments and cost-benefit analysis is another approach to protection. Elimination of all risk is not possible; therefore, risk assessments are most useful in setting priorities.

## **Market-Based Approaches**

### Marketable Permits

A system that uses marketable permits to create economic incentives to reduce pollution allows businesses to buy and sell rights to pollute within government designated areas. This enables businesses to make the same overall reductions less expensively. By regulating the pollution rights in each designated area, the EPA protects the environment while eliminating some aspects of central planning problems under the current system.<sup>9</sup>

### Site-Specific Emission Caps

Through site-specific emission caps, major pollution sources voluntarily enter into legally enforceable agreements with the local community promising both to cap environmental releases and to reduce releases gradually over time. Acceptance of all provisions of current law are a condition to any such procedural relief. Advocates for this system point out that the current system devotes too large a share of its resources to controlling major stationary sources. This approach can provide attention to smaller sources that usually escape regulation.<sup>10</sup>

### Voluntary Partnerships

Throughout the agency, EPA is promoting other voluntary partnerships that challenge companies to prevent pollution and help their businesses' bottom lines. Participation in partnership programs can deliver environmental benefits more quickly with less cost than would be achieved through traditional approaches. In 1995, over 6,000 companies saved a total of \$435 million through participation in programs to reduce energy consumption (Green Lights), reduce emissions of toxic chemicals (33/50 Program), and reduce emissions of CO<sub>2</sub> (ClimateWise).<sup>11</sup>

## **Achievements**

The combination of these approaches have provided major improvements in public

health, worker safety, and the natural environment. For example, lead levels in the bloodstream of Americans have dropped 25 percent since 1976. This health improvement has resulted primarily from removing lead and gasoline from paint.<sup>12</sup> As a result of the Clean Air Act and its subsequent amendments total air emissions dropped by more than 33 percent between 1970 and 1990. Automobiles emit 97 percent less carbon monoxide and 90 percent less nitrous oxide than in they did in 1973.<sup>13</sup>

However, EPA reports that, “forty percent of our rivers and lakes still do not meet water quality standards and 54 million Americans - one in five - still live in areas where the air does not meet public health standards”.<sup>16</sup> In their view this indicates that there is still need for improvement.

## **Deficiencies**

The command-and-control approach to environmental protection presupposes the government’s ability to: (1) identify environmental problems and set rational priorities; (2) develop regulations that provide technically feasible and politically viable solutions; and (3) enforce those regulations effectively. The command-and-control approach exhibits deficiencies because it often mandates actions that require greater costs than the benefits are worth, discourages technological innovation that can provide better performance, and places emphasis on compliance with statutes instead of environmental protection.<sup>14</sup>

### Current and Projected Costs

Designing, installing, and maintaining pollution control equipment to achieve regulatory standards requires a financial and resource commitment from industry. Additional expenses are incurred as a result of continuous monitoring and reporting necessary to verify compliance with standards.

Despite improvements in environmental performance, EPA and environmental groups continue to identify pollution problems. EPA has projected that by the year 2000, the U.S. could be spending \$160 billion annually on pollution control, 90 percent more than was spent in 1987.<sup>15</sup>

### Decreasing Cost-Benefit Ratio

The cost-benefit ratio for pollution control will decrease for two primary reasons. First, environmental challenges in the future will be more complicated than those in the past. Unless innovative technologies are encouraged, the cost to address these challenges will increase. Secondly, the benefit obtained per dollar spent will be less because many of the easy, relatively inexpensive clean-ups have been made. A decreased cost-benefit ratio will pose a greater impact on industrial operations than is even currently experienced. As the cost of pollution control increases in a market limited by financial resources, the debate over the effects of mandated environmental protection on industry will intensify.

## REINVENTING ENVIRONMENTAL REGULATION: PROJECT XL

In response to the inability of the command-and-control system to provide a comprehensive, cost-effective approach to environmental protection, the Clinton administration developed an agenda promoting mutually reinforcing economic and environmental goals. The agenda, titled *Reinventing Environmental Regulation*, was introduced on March 16, 1995. It is part of a larger initiative on the part of the Clinton administration to improve the efficiency of the government. *Reinventing Environmental Regulation* outlines 25 “High Priority Actions” designed to promote innovation and flexibility, increase community participation and partnerships, improve compliance with environmental laws, and cut paperwork. The first set of actions addresses the everyday inefficiencies and limitations of environmental programs and regulations. The second includes initiatives to design and test fundamentally new systems and approaches to address complex environmental challenges. The “High Priority Actions” instruct the EPA to sponsor Project XL.

### Project XL

Project XL, which stands for “eXcellence and Leadership,” offers a framework to explore possible strategies without putting the community at risk.<sup>17</sup> Through Project XL, a limited number of companies agreeing to commit to superior environmental performance are given the opportunity to demonstrate excellence and leadership in their environmental operations. Project XL exempts participating facilities from certain prescriptive, command-and-control regulatory requirements in exchange for their agreement to meet superior environmental performance standards. Thus, it provides the regulated community with flexibility as an incentive to test innovative technologies capable of achieving environmental performance beyond what the law requires. Companies are offered flexibility through site-specific, performance-based agreements if certain criteria are met. The alternative strategy must:

- Provide environmental performance beyond what could be achieved by full compliance with current laws and regulations;
- Be “transparent” so that citizens can examine assumptions and track progress toward meeting promised results;
- Not create worker safety or environmental justice problems;
- Enjoy the support of the community surrounding the facility; and
- Be enforceable<sup>18</sup>

Although each of these criteria must be met, Project XL focuses on three key areas: superior environmental performance; regulatory flexibility; and stakeholder support.

#### Superior Environmental Performance

Superior environmental performance can be demonstrated directly through achieving cleaner results or through the reinvestment of cost savings from the project into activities which contribute to improved environmental benefit. An April 23, 1997 *Federal Register* announcement provides guidance for determining if an improved

environmental benefit will result from the implementation of a proposal. In the *Federal Register*, EPA introduced a two-tiered assessment of environmental performance. The Tier I analysis determines the current environmental impact and sets a baseline for a comparison of the results anticipated under the proposed project. The analysis involves emissions to the environment and inputs to production. The Tier II analysis is an examination of both qualitative and quantitative factors indicating the achievement exceeding the Tier I benchmark.<sup>19</sup>

### Regulatory Flexibility

The flexibility provided through Project XL is a key area because it is the primary incentive for industry to participate. XL participants have the opportunity to anticipate and suggest changes to the current regulatory system designed to meet the needs of industry and the environment. Regulatory flexibility has the potential to result in the development of innovative solutions with cost-effective approaches to environmental protection. The Aspen Institute estimates that flexibility could allow far greater environmental progress while saving between \$800 billion and \$1.5 trillion in the next 15 years. Regulatory flexibility allows environmental managers to focus on achieving standards as opposed to uncoordinated paperwork that does not directly affect environmental performance.<sup>20</sup>

### Stakeholder Involvement

The final key area, stakeholder involvement, is critical to the success of an XL project. Collaborative processes involving stakeholders foster a more cooperative relationship between regulators, the facility, and the community.<sup>21</sup> Community stakeholders may initiate proposals by discussion of concepts with EPA or the relative state environmental agency, contacting companies directly, or broadly soliciting participants from among regulated companies. The extent to which project sponsors seek and achieve the support of community stakeholders is an important factor in the decision by EPA to approve project proposals.<sup>22</sup> EPA requires public participation of community stakeholders to forestall charges that a secret “sweetheart deal” with industry seeking “permission to pollute” has been negotiated. Projects are vulnerable to citizen suits charging that they allow ongoing violations of existing regulatory standards. By establishing a broad-based consensus with community stakeholders, legal challenges may be avoided.<sup>23</sup>

### Project Phases

Prior to submitting a proposal, project sponsors should obtain the support of the community groups and relevant state and local officials. Collaborative approaches involve the widest possible participation in environmental protection and encourage creativity by fostering trust among traditionally adversarial stakeholders.<sup>24</sup>

The first official phase in Project XL participation is the proposal stage. In an attempt to encourage creativity, the EPA did not establish any firm standards, baselines, or limits on either the substance or the process for developing XL proposals.<sup>25</sup> After a proposal is accepted for negotiation, project sponsors and stakeholders develop a Final Project Agreement (FPA). The FPA specifies what innovation is to be tested, what standards

must be met, and how results will be monitored and reported. The implementation and evaluation phases follow the signing of the FPA. The time from the initial acceptance of a project proposal to the signing of the FPA should not exceed six months.<sup>26</sup>

A central theme in Project XL proposals is the replacement of command-and-control requirements with facility-wide caps. These caps allow companies to trade emissions among pollutants and among media. For example, a company might propose increasing its total emissions of volatile organic compounds (VOCs) above the levels allowed in existing permits in exchange for reductions in emissions of sulfur dioxide or nitrogen oxide below permit limits. A proposal might also suggest trading emissions to the air of a class of chemicals for emissions to the water of the same or a different class.<sup>27</sup>

### Accountability

There are two types of accountability commitments under the Project XL framework. The first are enforceable commitments that can be compelled by government. Although each FPA has an enforceable component, each project must also have a legally binding document such as a permit, rule-making, or administrative order. Facilities are not held accountable for voluntary commitments through conventional legal action. Instead, failure to meet voluntary commitments is an appropriate basis for termination or modification of a project agreement.

### Benefits to Industry

Project XL offers companies the opportunity to seek relief from existing regulatory requirements in exchange for their commitment to achieve improvement in environmental performance. From industry's perspective this yields three major benefits: saving money on compliance with existing regulation; achieving rapid review of alternative compliance plans; and winning freedom from constant reevaluation of pollution control strategies.<sup>28</sup> Obtaining these benefits can be approached two different ways. A company may seek to reduce capital and operative costs of pollution control. Additionally, a company may seek to improve their competitive ability by gaining flexibility and reducing transactional and time-related costs.<sup>29</sup>

## **Project XL: Implemented Projects**

FPA's have been negotiated for three project proposals. Each of these projects is testing a different alternative management strategy.

### Jack M. Berry Corporation

Jack M. Berry Inc., a mid-sized juice processing plant in LaBelle, FL was the first company to develop a proposal demonstrating an acceptable alternative management strategy. The FPA was signed on July 8, 1996. Jack M. Berry Inc. is testing replacement of 23 federal, state, and local environmental permits with a facility-wide Comprehensive Operating Plan. Jack M. Berry is relieved of the burden associated with preparing multiple permit applications every few years. Federal, state, and local environmental agencies will identify the benefits and pitfalls of comprehensive operating permits that consolidate dozens of permits into one. The resulting impact on costs and expenditures,

as well as regulatory certainty on the cost of capital, will be evaluated.<sup>30</sup> Jack M. Berry Inc. demonstrated superior environmental performance by voluntarily installing a new peel dryer used in fruit processing. The new equipment will reduce air emissions of VOCs, sulfur dioxide, and oxides of nitrogen.<sup>31</sup>

### Intel Corporation

The alternative management strategies implemented by the Intel Fab 12 facility in Chandler, AZ are a pre-construction approval permit and an emissions cap. The FPA signed on November 16, 1996 identifies the efficiency of pre-performance caps in lieu of pre-construction review as the alternative management strategy being tested. Intel is committed to maintaining “minor” air emissions source levels under the Clean Air Act for air emissions of nitrogen, sulfur dioxide, carbon monoxide, particulate matter, and VOCs. The effectiveness of community involvement and the use of innovative technology to provide an improvement in environmental performance is being evaluated.<sup>32</sup>

### Weyerhaeuser Flint River Operation

Weyerhaeuser Company’s pulp manufacturing facility in Oglethorpe, GA signed a FPA on January 17, 1997. EPA is testing how a facility operates under a minimum impact goal. Weyerhaeuser’s agreement focuses on minimizing the impact on the Flint River and surrounding ecosystem by cutting its bleach plant effluent by over 50 percent in the next ten years. Weyerhaeuser set a goal to reduce water consumption by about one million gallons a day. EPA is seeking to determine if new technology aimed at meeting ambitious environmental goals can be created by a company through collaborative efforts with community stakeholders and government agencies. EPA offers Weyerhaeuser the flexibility to consolidate routine reports into two reports per year as an incentive. Provided emissions do not exceed stipulated levels, EPA is also waiving government review prior to certain physical plant modifications.<sup>33</sup>

## **Limitations of Project XL**

The number of projects in the implementation stage of Project XL compared to those that have been withdrawn or rejected indicates that there are some barriers preventing the success of Project XL. While Jack M. Berry, Inc, Intel, and Weyerhaeuser have successfully negotiated FPAs, 25 proposals have been withdrawn or rejected.<sup>34</sup> In order to successfully implement the remaining 18 proposals, some issues must be resolved. The issues raised by Project XL fall into three categories: (1) the substance of the individual proposals; (2) the process for public participation; and (3) the legal issues raised by implementation. Each of the problems and recommendations for resolution are affected by what action is taken in each of the others.<sup>35</sup>

### The Substance of Proposals

EPA refrained from establishing firm guidelines regarding the content of project proposals in an effort to foster industrial creativity. The criteria that projects must “achieve environmental performance superior to what would be achieved through compliance with current and reasonably anticipated future regulation” is deceptively

simple.<sup>36</sup> The result has been that proposals frequently outline environmental improvements as cross-pollution trades within a facility cap. Rather than comparing before and after emissions of the same pollutants, EPA, local regulators, and community stakeholder groups must evaluate the implications of trading decreased emissions of one aggregate class of pollutants (e.g., VOCs) for increased emissions in another class of pollutants (e.g., sulfur dioxide and nitrogen oxide). Other proposals require evaluation of emission trades that achieve lower air emissions in exchange for increased releases to the surface water or land.

The absence of a baseline for measuring environmental performance is at the heart of proposal rejections and withdrawals. Without a range of acceptable options, companies may define baselines as improvements over actual emissions, improvements over acceptable emissions, or improvements over expected emissions if the plant expands. While a decrease in actual emissions seems like the obvious choice, the aggregate and media-trading nature of proposals make this impossible.

Not only is it difficult to quantify such exchanges, the environmental improvement achieved is questionable. The EPA must evaluate these approaches although scientific uncertainty exists concerning their effectiveness at yielding increased protection. By aggregating pollutants into classes, the proposals allow companies to change the composition of emissions within the classes over time. This could allow an increase in release of a more toxic chemical for a decrease in release of a more benign chemical. In most cases cross-media trading results in transferring pollutants between media as opposed to reducing emissions.

Thus far EPA has remained true to the requirement that a project must provide performance above what could be achieved through compliance with existing regulation. The process of evaluating proposals and notifying project sponsors of decisions is viewed by industry as lengthy, but is necessary in evaluating proposals focusing on management systems with scientific uncertainty.

EPA is considering allowing companies to complete risk assessments to determine the direct effects of emissions on people who live or work in the community surrounding the facility. This approach would not capture the damage to ecosystems or impacts on the entire geographical area affected by the facility. These approaches revert to a period in environmental protection when long-term synergistic effects of pollution on all aspects of the environment were not evaluated.<sup>37</sup>

#### *Compromise of Public Health and Environmental Quality*

Some community groups have concerns about the use of approaches lacking scientific certainty. They argue that the flexibility provided in Project XL puts people at an increased risk. These stakeholders describe Project XL as “eXtra Lenient.” The Campaign for Responsible Technology of the Silicone Valley Toxics Coalition (SVTC), commenting on Intel’s Project XL proposal for its facility in Chandler, AZ, claims that the “FPA between EPA and Chandler, Arizona turns back the clock on hard-won laws that protect the environment and on the President’s own Executive Order on Environmental

Justice.” The SVTC reports that in the case of the Intel project, air pollution emission standards are 2 to 50 times less stringent than existing limits and the standards do not protect against chronic health problems. The SVTC claims that rather than focusing on how clean the facility could be, the numbers are designed to escape EPA’s regulatory jurisdiction. Intel is not required to monitor air emissions or the performance of its scrubbers. There is no way to verify independently that Intel is meeting its commitments. Currently regulated pollutants are essentially deregulated.<sup>38</sup>

#### Direct Environmental Improvement vs. Efficiency

States seek a more involved role in Project XL negotiations. Although states are involved in the development and approval of projects, some states are interested in participating in the Project XL selection process. States desire to participate in defining “superior environmental performance.” States agree that the goal of all regulatory reform should be improved environmental protection but the definition of improved environmental protection differs. States disagree with the requirement that the regulatory relief received be proportionate to the benefit achieved. States argue that as long as reforms do not diminish existing standards, reinvention initiatives should not rule out projects that improve efficiency of regulations even if the reforms do not directly influence environmental protection.<sup>39</sup>

#### Flexibility Sought

Another concern about the content of proposals is the level of regulatory flexibility sought by companies. Limited guidance on what level of flexibility the EPA is willing to grant has resulted in companies submitting “wish lists” of exemptions unrelated to each other and the improved environmental benefit proposed.<sup>40</sup> Unclear ground rules concerning the available flexibility and definition of superior environmental performance contribute to industry’s inability to demonstrate the criteria necessary for approval. One of the reasons why the Project XL proposal for 3M’s Hutchinson, MN facility eventually failed was because EPA was unwilling to accept unprecedented flexibility in Title V air permitting. The proposal provisions would have set the air emissions cap below the legal threshold but above 3M’s current emissions level-in essence, allowing 3M to increase emissions.<sup>41</sup>

The other issue of concern about the 3M proposal was the demonstration of superior environmental performance. Despite the active involvement and support of local stakeholders, negotiations between 3M’s Minnesota facility and EPA ceased over whether 3M had to guarantee superior environmental performance in an XL permit. EPA and 3M could not agree on the degree to which voluntary environmental improvement would be included in determining a baseline of environmental performance.<sup>42</sup>

#### Existing Voluntary Controls

As stated, the withdrawal of the 3M proposal demonstrates insufficient guidelines for addressing credit for past voluntary control measures. Logically, voluntary actions in place at the time of the project proposal are included in the benchmark because the benefits from the voluntary actions would have occurred absent participation by the facility in Project XL. To assume that the pre-existing environmental protection

measures are creditable to Project XL could create a bank account from which a company could draw.<sup>43</sup> If voluntary actions currently employed are not included in the baseline estimate, the initial performance baseline would be lower than actual. However, a level playing field is obstructed because facilities that have not implemented significant voluntary measures prior to Project XL may be able to achieve a greater improvement than those facilities who have implemented such measures. Companies who have already made improvements to end-of-pipe controls view this as a disadvantage because they will have to use more innovative technologies to demonstrate improved benefit.<sup>44</sup>

Although EPA claims that participants will not be further examined as a result of Project XL, the need to establish baseline performance results in additional assessment. The EPA must also complete compliance background checks.<sup>45</sup>

Although the 3M proposal did successfully involve and gain the support of community stakeholders, EPA eventually rejected the proposal. Alfred Marcus, a University of Minnesota professor and 3M participant, said, "The 3M Company's XL project could have achieved better environmental performance at a lower cost to the company and regulatory agency than will now happen."<sup>46</sup> According to Carol Weissner, an attorney for the Minnesota Center for Environmental Protection, many community stakeholders expressed the view that the EPA should approve the proposal and give 3M the chance to demonstrate superior environmental performance.<sup>47</sup>

### **The Process for Public Participation**

The process for public participation is also a barrier for success. The EPA has charged companies with the responsibility of involving community stakeholders without providing guidance on who the stakeholders might be or establishing guidelines for facilitation of an effective collaborative process.

The quality of public participation is one of the most controversial aspects of EPA's implementation of the program. Since EPA has not established clear standards for judging environmental achievements and has not set limits to the regulatory flexibility available through projects, Project XL places much of the burden for ensuring that the public interest is protected on community stakeholders involved in each project. The more flexibility a company is given to depart from regulatory requirements, the more important it becomes that projects are negotiated through a collaborative process involving equally matched representatives from industry, regulators, and public interest groups.<sup>48</sup> Carol Weissner explains that for a stakeholder group to be successful, project leaders must get the right mix of community representatives.<sup>49</sup>

#### **Hadco Proposal**

In some proposals the absence of guidelines for obtaining community support has resulted in project sponsors omitting actual involvement of community groups. The most extreme example is a proposal developed by Hadco Corporation for its facilities in New Hampshire. The proposal would delist a wastewater treatment sludge now categorized

as a hazardous waste under the Resource Conservation and Recovery Act (RCRA), allowing the waste to be shipped to a recycling facility in Canada instead of a treatment facility in Pennsylvania. Under the heading “Stakeholder Support”, the proposal states:

No active support of this proposal from various stakeholders has been sought. However, we expect that communities between New Hampshire and Pennsylvania would welcome not having wastewater treatment sludge hauled back and forth through their states prior to recycling. We do not anticipate community concern with direct shipment of these wastes to Canada for recycling, but will certainly consider outreach efforts that may be appropriate.<sup>50</sup>

### Equal Stakeholder Representation

Since companies are responsible for enlisting stakeholder participants, some community groups question whether there is equal representation of EPA, industry, and community groups. The SVTC suggests an example of this one-sided approach in Intel’s Project XL proposal for its Chandler, AZ facility. The SVTC claims that Intel hand-picked the stakeholders. They complain that the stakeholder group included minimal representation of the Chandler community and no representation of the fabrication workers from the plant.<sup>51</sup> Michael McCloskey of the Sierra Club also agrees and adds that the “partnerships” focus on addressing the agenda of industry.

Additionally, even if the right group participate, community stakeholders often lack the time, resources, independent technical assistance, and decision making authority to ensure that a proposal would increase protection of public health and the environment. On average, community stakeholders lack technical and regulatory expertise to participate meaningfully in the debate involved in determining which regulatory exemptions to grant, evaluating what environmental benefits will be achieved, and predicting what adverse effects may be approved in the project.<sup>52</sup>

## **The Legal Issues**

Another barrier to success has been concerns over the legality of granting modifications or waivers from regulations. Project XL is vulnerable as a legal matter because it develops and evaluates transferable models for regulatory change. When combined with a weak public participation process and the absence of criteria for evaluating the substance of proposals, the possibility that projects will set precedent for application industry-wide raises concern among regulators and community stakeholders.

### Civil Suits

Trace Finley, Texas Project XL coordinator, said companies are leery of relying solely on devices such as discretionary enforcement. Environmental statutes are strict and industry is apprehensive of civil suits that could force them back into compliance with regulatory standards after they have made substantial investment to accomplish their innovative compliance alternatives. EPA agreed to exercise discretionary enforcement in responding to violations of regulatory standards as long as alternative goals are met.

EPA enforcement staff urged the regional office staff and state and tribal regulators who are responsible for negotiating and implementing final agreements to specifically identify the violations anticipated by the agreement and to further specify the consequences of noncompliance with the terms of the agreement and of the failure to meet its objectives. This commitment has not calmed industry's anxiety about civil suits because it is limited to EPA's enforcement action.<sup>53</sup>

#### Site-Specific Rulemakings

EPA has also suggested the use of site-specific, notice-and-comment rulemakings that would act as a legal bar against civil suits. This option faces opposition because it limits community participation to a 30-day public comment period as opposed to participation in development of the terms and conditions of the project. The rulemaking alternative does not support the stakeholder involvement criteria of Project XL because it eliminates the incentive for project sponsors to obtain community stakeholder support.

### **Additional Barriers to Success**

#### Financial and Personnel Requirements

The cost of proposal application in Project XL, estimated at \$8250, prevents small companies from participation. The public reporting burden for the collection of information needed for Project XL is estimated to average 150 hours. This estimate includes time for reviewing instructions, developing the proposal, reviewing the proposal through respondent management, and consulting with state or tribal regulatory agencies.<sup>54</sup> For small companies, the application costs may outweigh benefits enjoyed from regulatory flexibility.

#### Overlapping Goals and Initiatives

Industry, environmental groups, states and EPA agree that the Baltimore Environmental Partnership serves as a cautionary tale of all the things that can go wrong in the new world of partnerships and public participation. The EPA launched the Baltimore Community Partnership in a highly industrialized area of Baltimore, but the area was already negotiating an XL project. The experience shows the importance of having clear goals and ground rules in mind when industry, government, and the public sit down to discuss their environmental concerns. "The plethora of overlapping projects ultimately exhausted and confused most of the participants, so that one project's unraveling ended up tearing down the others as well."<sup>55</sup>

## **CONCLUSIONS AND RECOMMENDATIONS**

Government bureaucracies are not equipped to manage the enormous scope of environmental problems and resulting scientific and political uncertainties. At the request of the Clinton administration, EPA is attempting to improve the way it protects public health and the environment by reinventing its philosophy of environmental protection so that America can enjoy continued environmental protection at a reasonable cost. EPA is focusing on allowing flexibility on how results are achieved, sharing information with all stakeholders, creating incentives for compliance with

environmental requirements, and reducing the burden of complying with environmental requirements.

Although, the desire exists for reinvention to move more quickly, it is important to remember that reinvention is not a project. It is a process driven by multiple projects. Initially, the results of these projects will lead to specific and sometimes more subtle changes in EPA programs, policy, and procedure. Reinvention is an evolutionary process of cultural change that by nature is time-intensive. Building partnerships and trust takes an unprecedented effort.

As stated by David Monsma of the President's Council on Sustainable Development, "The problems with Project XL are not a result of deficiencies in the program. The philosophical debate occurring within the XL framework would be occurring anyway."<sup>56</sup> Project XL facilitates discussion of issues that would be normally overlooked by EPA, industry, and community groups busy maintaining, verifying, and increasing compliance.

There are many visions for future systems of environmental protection. Programs like Project XL that provide regulatory flexibility as an incentive for testing innovative technologies and management systems are an important building block to the development of a new system of environmental protection. Although Project XL has met varying levels of support, the effort should continue. Resources should be dedicated to resolving issues prohibiting its success.

Emphasis should be placed on improving the community stakeholder involvement process. Support of the community should be solicited from the early proposal stage. Efforts should be made to educate these stakeholders on complex issues. By empowering community groups with technical assistance, opposition to a project can be prevented because people tend to oppose what they do not understand. By educating community groups first and then negotiating to get the approval of community groups, time and resources are used most efficiently. Improving communication within the group and among stakeholders will serve to ensure that the areas of interest for each group are adequately addressed.

EPA should provide improved guidance for the ground rules of negotiation with stakeholder groups. Improved facilitation of bringing environmental groups and industry together would speed the process of developing trust. Accountability and verification that companies are meeting performance standards must be strengthened. To get community stakeholder support, the concept of "sweetheart agreements" between the EPA and industry must be disbanded.

Discussion has occurred concerning legislation that would broaden the concept of superior environmental performance to include achieving equivalent technology at a lower cost. If it can be shown in a proposal that cost savings are applied in activities that ultimately produce improved environmental results, those proposals should also be given consideration for experiment. The proposals should be given consideration especially if the cost savings are invested in design for environment and resource

conservation efforts.

Proposals should focus on controlling non-point source pollution and harmful waste streams that escape regulation. Resources should be allocated to increase understanding of what actions reduce environmental protection and which provide a superior environmental benefit. The focus should be on pollution prevention since pollution transfer does not remove pollution. Cross media trading and the impact assessments necessary to scientifically ground the calibration of equivalent impacts is a distraction from the real issue. Pollution-whether released to the air, water, or land-does not go away. The pollutants are merely transferred.

The challenge in developing a new environmental management system involves bridging the gap between the opposing agendas of stakeholder groups. Project XL is a revolutionary effort to bring traditionally adversarial groups together. As stated by President Clinton, "To industry, Project XL shows that protecting the health and safety of our citizens doesn't have to come at the expense of the bottom line. And to those in the environmental community, XL shows that strengthening the economy doesn't have to come at the expense of the air we breathe, the food we eat, the water we drink."

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## APPENDICES

### Appendix A

#### *A Vision for the Next 25 Years*

We envision a 21st century America in which healthy and economically secure people breathe clean air, drink clean water, eat safe food, and live, work and play in clean and safe communities.

We envision a 21st century America in which economic incentives, environmental incentives, and technological innovation are aligned so that economic growth improves -rather than diminishes -- environmental quality.

In the next century, environmental protection must be driven by clear and measurable national goals. Economic, environmental, and social goals must be integrated so policies are mutually supportive, not conflicting. Performance will be measured by achieving real results in the real world, not simply by adhering to procedures.

We must set environmental standards with full public participation. We must encourage innovation by providing flexibility with an industry-by-industry, place-by-place approach to achieving standards, building on the work begun in the Common Sense Initiative. But we will require accountability that such standards be met. Rather than focusing on pollutant-by-pollutant approaches, attention must shift to integrated strategies for whole facilities, whole economic sectors, and whole communities.

We must employ an inclusive decision-making process that will provide states, tribes, communities, businesses and individual citizens the opportunity to participate. In particular, low-income and minority citizens must have a meaningful voice in decisions that affect their lives. But in addition to providing opportunity, we must encourage individuals, businesses, and governments to accept their responsibility for environmental stewardship.

The power of information will be critical to the success of this new system. Better information will allow businesses to identify and eliminate inefficiencies that create pollution and reduce profits. Better information will enable government to avoid "one size fits all" approaches and efficiently tailor solutions to problems. Better information will allow citizens to participate effectively in decisions that affect their families and communities.

This new management system will require everyone to accept new roles and responsibilities. Individuals will have new responsibilities as consumers and as participants in local decision-making. Businesses will make environmental protection a strategic consideration that will be designed into their products and services, not

considered after the fact. State, tribal, and local governments will serve as full partners in the development and implementation of policies to achieve national goals. EPA will become a partner providing information and research to empower local decision-makers.

## **Appendix B**

### *10 Principles for Reinventing Environmental Protection*

1. Protecting public health and the environment are important national goals, and individuals, businesses and government must take responsibility for the impact of their actions.
2. Regulation must be designed to achieve environmental goals in a manner that minimizes costs to individuals, businesses, and other levels of government.
3. Environmental regulations must be performance-based, providing maximum flexibility in the means of achieving our environmental goals, but requiring accountability for the results.
4. Preventing pollution, not just controlling or cleaning it up, is preferred.
5. Market incentives should be used to achieve environmental goals, whenever appropriate.
6. Environmental regulation should be based on the best science and economics, subject to expert and public scrutiny, and grounded in values Americans share.
7. Government regulations must be understandable to those who are affected by them.
8. Decision making should be collaborative, not adversarial, and decision makers must inform and involve those who must live with the decisions.
9. Federal, state, tribal and local governments must work as partners to achieve common environmental goals, with non-federal partners taking the lead when appropriate.
10. No citizen should be subjected to unjust or disproportionate environmental impacts.

## **Appendix C**

### Building Blocks to a New System

It isn't enough to focus on improving the current regulatory system. Incremental change alone will never get us where we ultimately need to be. As we move toward a new century, it is imperative that we challenge ourselves to step outside the context of the established way of doing things to identify new and innovative means to achieve our goals. The High Priority Actions that follow do just that. They will test the building blocks for a new way to ensure both a vibrant economy and a healthy environment. By providing flexibility -- with accountability -- we will spark technological innovations that will demonstrate that economic and environmental goals can be achieved simultaneously. The knowledge gained from this bold experimentation will allow us to leapfrog past the limitations of the current system to create a new environmental management system for the 21st century.

#### Alternative Performance-based Strategies

EPA has developed a coordinated series of demonstration projects designed to provide the opportunity to implement alternative management strategies for facilities, industrial sectors, communities, and federal agencies. These projects will provide environmental managers the flexibility to employ technological innovation to achieve environmental goals beyond what the law requires, while requiring accountability for performance. These projects will also encourage collaborative decision-making with increased citizen involvement. EPA will sponsor the following demonstration projects.

19. Project XL. This project is a critical component of the Administration's effort to reinvent regulation. In partnership with the states, the Administrator will provide a limited number of responsible companies the opportunity to demonstrate excellence and leadership.

They will be given the flexibility to replace the requirements of the current system at specific facilities with an alternative strategy developed by the company if certain conditions are met: (a) the alternative strategy must produce environmental performance superior to that which would be achieved by full compliance with current laws and regulations; (b) the alternative strategies must be "transparent" so that citizens can examine assumptions and track progress toward meeting promised results; (c) the alternative strategy must not create worker safety or environmental justice problems; (d) the alternative strategy must enjoy the support of the community surrounding the facility; and (e) the alternative strategy must be enforceable.

20. Alternative strategies for sectors. Through the use of industry covenants and other forms of enforceable agreements, EPA and several industries will demonstrate how adjustments and modifications in environmental regulatory requirements can achieve more cost-effective environmental results. The industries involved in the Common Sense Initiative will provide the first opportunities to test this approach.

21. Alternative strategies for communities. EPA will join with states and communities,

and perhaps other federal agencies, to conduct pilot projects that will demonstrate and assess the merits of community-designed and directed strategies for achieving environmental and economic goals. The pilots will be undertaken with communities that are seeking innovative alternatives that promise greater efficiency and effectiveness than current approaches, as well as with communities that are grappling with limited ability to meet current regulatory requirements. The pilots will apply, in a geographic area, the concepts contained in the facility and sector projects, and will build on the Administration's Empowerment Zone and Ecosystem Management Initiatives. These pilots will integrate the mutually supportive goals of economic development and environmental protection at the community level with full public participation.

22. Alternative strategies for agencies. EPA will work with other federal agencies that have environmental responsibilities to ensure that their programs achieve environmental results in the most cost-effective manner, while eliminating needless bureaucratic procedures. The initial pilot in this effort will focus on two to four Department of Defense facilities. EPA and DOD will enter into a memorandum of understanding to define performance goals and jointly devise an optimal approach to achieve those goals. The approach will combine pollution prevention, compliance and technology research projects.