Project XL: From Pilot to Practice

A Journey to System Change

"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."

—President Clinton, 1995 State of the Union Address

In March 1995, President Clinton and Vice President Gore charged the Federal government with finding ways to improve the way we manage the environment. They called for building upon the strengths of the current system, while overcoming its limitations. They promised to reform the system, while retaining its commitment to protect human health and to safeguard the environment. Project XL is one way the U.S. Environmental Protection Agency is living up to that promise.

Under Project XL, EPA made this offer to facilities, sectors, States and communities:

If you have an idea that offers better results than what would be achieved under current requirements, then we will work with you and other interested parties to put those ideas to the test.

Project XL encourages environmental eXcellence and Leadership by those who must comply with EPA regulations and policies. Its experiments are testing new ways of achieving environmental protection — methods that are better for the environment, better for project sponsors, and better for citizens. These experiments are helping EPA adjust to a changing world and prepare for the 21st Century. This report briefly summarizes the progress we have made to date.

How Project XL Works

Project XL is finding ways to improve our environmental regulatory system, including the way EPA operates. It is based on a simple idea: project sponsors can try new approaches if they can promise better environmental results than would be expected under the current regulatory regime. Project sponsors must involve States, tribes, local government, citizens, and others with a stake in the "experiment" being tested.

Why Project XL?

Since the early seventies, environmental laws and regulations have given us dramatic improvements in public health and environmental quality. More U.S. streams are fishable and swimmable. Our air is cleaner. The bald eagle, once near extinction, has been removed from the endangered list. But as we have achieved these successes, we learned that prescriptive regulations can have unintended results. Sometimes, they can require greater costs for smaller returns, or even discourage technologies that are cleaner and cheaper.

The world marketplace also has changed. Companies need to get new products to their customers faster than ever before. Yet the wait for environmental permits sometimes slows down their ability to launch new products or react to market demands. Today's industry leaders also realize that preventing pollution and recycling raw materials can save them money in the long run.

In the midst of this change, Project XL gives EPA and its stakeholders an opportunity to:

- Experiment with new approaches to environmental protection with the meaningful involvement of interested parties.
- Test ideas that break down barriers within the nation's separate air, water and waste regulations.
- Try out technologies that provide better options for meeting or exceeding environmental standards.
- Use the knowledge, experience, and resources of all stakeholders to find better Federal approaches to environmental problems.
- Shift from pollution control to pollution prevention.
- Ensure environmental equity.
- Find more sustainable solutions.

The Challenge of Experimentation

The first few XL projects posed many challenges. EPA had never attempted this type of experiment. As a regulatory agency, we were cautious in the early stages. We and others had concerns about how to test new approaches and yet still maintain the same level of protection that the current regulatory system provides. We had to learn as we went along. Project sponsors, regulators and citizens alike invested significant resources and time in XL's creative and complex experiments. After gaining experience, the Agency had a better idea of what information was important in a proposal and how decisions should be made. In 1998, we worked hard with our partners to streamline Project XL so negotiations would go more smoothly, quickly and predictably. We now expect this new process to yield agreements for most projects in six months to a year, compared to 24 months or longer under the old process. For example, the Atlantic Steel project, in Atlanta, GA, has already shown results by producing a signed project agreement for phase one, just eight months after initial pre-proposal discussions.

The Agency also developed several guides to help project sponsors, EPA staff, and citizens create successful projects. Technical assistance is made available to stakeholder groups participating in project negotiations. EPA also contracts with professional facilitators to get stakeholder discussions and internal EPA teams off on the right track.

Improving the Environment and Changing How EPA Works

As of August 1999, XL sponsors were implementing 14 projects, while 31 other project ideas were being developed or negotiated, and a number of additional concepts were also being discussed. Seven projects have been in place for a year or more. All were showing noteworthy benefits to the environment, project sponsors and stakeholders. These benefits include: superior results for the local environment and communities, and substantial operational benefits or cost savings for project sponsors. However, the value of this program goes beyond the benefits derived from each project. Project XL's greatest value lies in its potential for revealing improvements that can be made in the current system of environmental protection. Already, EPA has begun incorporating XL's successful innovations and flexibility into regulations, permits, and other core functions. Because of XL, we are also changing EPA's internal culture to support the challenges facing EPA staff and meet the needs of our partners. In this way XL has begun to encourage and reward excellence and leadership throughout the country.

XL Projects in Brief

Intel Corporation (signed: November 19, 1996)—Intel is testing a facilitywide pollution cap that ensures its Chandler, AZ, site will remain a minor source of air pollutants. The EPA, Arizona, and Maricopa County agreed to allow Intel to change equipment and processes and build new facilities without air permit reviews, as long as emissions stay below the plant-wide limits. The project also consolidates Intel's reporting and publishes environmental results on the Internet.

Weyerhaeuser Flint River Operations (signed: January 17, 1997)—Weyerhaeuser is testing a facilitywide permit that requires its pulp manufacturing facility in Oglethorpe, GA, to reduce wastewater discharges, air emissions and solid waste generation. In exchange, EPA and Georgia allowed process modifications without prior approval, streamlined the wastewater permit renewal process, eliminated unnecessary sampling, and allowed annual certification to replace monthly reporting. The agreement also reduces allowable air emissions by 60 percent using two emission caps: one for the plant's four major air pollution sources and another for the remaining sources.

Vandenberg Air Force Base (signed: November 3, 1997)—Vandenberg has agreed to reduce its annual emissions of ozone-causing chemicals by 10 tons or more by November 2002. Instead of considering the Air Force base as one major stationary source for Title V permitting, EPA and the Santa Barbara County Air Pollution Control District agreed to group different activities on the base as separate minor sources. This new method of grouping activities allows the base to comply with rules that entail significantly less administrative burden. The money saved will be used to reduce emissions by boilers and other pollution sources. These steps may help prevent Santa Barbara County, CA, where the base is located, from being reclassified as a nonattainment area for ozone.

HADCO Corporation (signed: October 2, 1997)—HADCO is testing whether copper-rich sludge from its printed wiring boards manufacturing operations can be recycled more easily by removing hazardous waste pretreatment requirements. The low toxicity of the sludge made them eligible for either a solid waste variance or conditional delisting at facilities in New Hampshire and New York. HADCO expects to implement reclamation of 100% copper drilling, sawing and edging dusts, and use its cost savings to increase pollution prevention and recycling.

Witco Corporation (formerly OSi Specialties) (signed: October 17, 1997)—Witco's chemical plant in Sistersville, WV is testing pollution prevention, waste minimization and alternative methods for reducing air emissions. Witco has installed an incinerator that will destroy 98 percent of the air emissions from a process unit and recover some 500,000 pounds of methanol per year from a wastewater treatment unit. In exchange, EPA and West Virginia are deferring hazardous waste air emission standards for Witco's two RCRA surface impoundments. Witco also conducted a study to identify additional waste reduction opportunities and is implementing many of the study recommendations.

Merck Stonewall Plant (signed: December 15, 1997)—Merck & Co., Inc., will reduce sulfur dioxide and nitrogen oxide emissions at its Elkton, VA, pharmaceutical plant to protect visibility and reduce

acid rain in nearby Shenandoah National Park. EPA and Virginia agreed to a facilitywide air pollution cap that will ensure that Merck's emissions remain at least 20 percent below 1992 and 1993 levels, and eliminate the need for permit reviews for every process change. Merck is converting its coal-fired powerhouse to cleaner-burning natural gas, a $10 million capital investment not required by regulations.

Jack M. Berry, Inc. (signed: August 8, 1996; project closed: June 2, 1999)—This project was designed to produce a comprehensive operating permit to better integrate operation and compliance procedures at the company's citrus juice-processing facility in LaBelle, FL. A 1997 change in operational management at the facility led to termination of the agreement. The new permit would have relieved Berry of multiple permit renewal applications. Although the permit was not completed, Berry did meet commitments to reuse wastewater, reduce air pollution emissions, and reduce solid waste disposal.

Molex Incorporated (signed: August 8, 1998)—Molex is focusing on improving metal recovery by upgrading the wastewater treatment facility at its electroplating facility in Lincoln, NE. The new treatment system generates separate sludge for nickel, copper and tin/lead, although at higher operational and compliance costs. Previously, these metal-bearing wastewater streams were combined for treatment. By keeping them separate, Molex expects to reduce metal loadings to Lincoln's wastewater treatment plant by 50 percent and sell the sludge directly to recyclers. Nebraska has granted Molex a temporary exemption from hazardous waste storage, handling, and shipment rules.

Lucent Technologies (signed: August 19, 1998)—Lucent's Microelectronics Group is testing whether a comprehensive environmental management system (EMS) can produce superior performance in a more efficient, transparent, understandable and flexible way. The EMS will consolidate all Federal and State requirements into one permit. Regulators will participate in setting environmental goals and tracking performance, with input from environmental organizations, community groups, employees and others. The project is being phased in at Lucent facilities in Allentown and Reading, PA, and Orlando, FL.

Massachusetts Department of Environmental Protection (signed: October 6, 1998)—Massachusetts' Department of Environmental Protection (DEP) is streamlining permitting and reporting requirements for entire small business sectors, such as dry cleaners, photo processors and printers. DEP's Environmental Results Program replaces individual permits with a facilitywide, performance-based, self-certification program. Company executives can certify annually that they are meeting environmental performance standards. In exchange, each sector is expected to achieve superior environmental performance through pollution prevention.

Atlantic Steel Redevelopment (signed: Phase 1-April 13, 1999; Phase 2-September 7, 1999)—Jacoby Development, Inc., wants to turn a 138-acre brownfield site previously owned by Atlantic Steel into a mixed business/residential development. This development, located in downtown Atlanta, GA would include a bridge that would link motorists, bicyclists and pedestrians to an interState highway and to a nearby passenger rail system. However, because Atlanta does not meet certain clean air standards, the city cannot receive Federal funding or approval for transportation projects. EPA has agreed to measure the project's benefits to clean air by comparing this site's benefits to some similar likely sites in the region thereby allowing construction of the bridge. An EPA analysis shows that absorbing some of Atlanta's future growth at the Atlantic Steel site would result in fewer automobile emissions from automobile travel.

Exxon Company USA (signed: May 25, 1999)—Exxon is implementing a clean up of the Sharon Steel Superfund site in Fairmont, WV, in half the time a normal cleanup would take. In exchange, Exxon has asked for streamlined hazardous waste removal processes and flexibility in wetlands mitigation, reporting requirements and risk assessment criteria and analyses. Exxon also will work with stakeholders and community groups to find developers interested in commercial or industrial redevelopment of the site.

Andersen Corporation (signed: June 30, 1999)—Andersen will test innovative performance requirements linked to production rates at its window and patio door manufacturing plant in Bayport, MN. Andersen's per-unit air emission rate will be tied to incentives that penalize higher emissions and reward reductions in volatile organic compounds. In exchange for accepting these per-unit emission lim-

its, Andersen can make production changes without obtaining prior approval. If successful, these production-linked incentives may change how EPA regulates emissions from certain industries.

New York State Department of Environmental Conservation (signed: July 12, 1999)—New York's Department of Environmental Conservation proposes to allow public utilities to centralize management of hazardous wastes generated at remote locations (such as manholes), thus removing wastes from remote locations more quickly, minimizing unnecessary paperwork, and saving time and labor. Hazardous waste laws require that all wastes, no matter how small, be transported directly to a permitted treatment, storage and disposal facility within 90 days. Record-keeping is linked to each site of generation. By centralizing collection, record-keeping and management of these wastes, New York hopes to increase public safety and reduce traffic problems around these sites.

Project XL Accomplishments

Project XL has a growing track record of producing benefits for the environment, for participating project sponsors, and for the communities in which they're located. Each XL experiment is tackling significant environmental problems in a new way, giving EPA, States, businesses and communities knowledge needed for the 21st Century. As a whole, these XL projects are exceeding their environmental commitments. The benefits of individual XL projects are summarized below, using data primarily from the seven projects that have been in implementation since July 1998 or earlier (Jack M. Berry, Intel, Weyerhaeuser, HADCO, Witco, Vandenberg AFB, and Merck). The results from seven projects in operation for just one year, show significant benefits. As we move from seven to fifty projects, from one year to several years of implementation, and then to broadly applying the lessons learned throughout EPA, the benefits of Project XL should increase exponentially.

Good for the Environment

XL projects have reduced air pollution, water use, and disposal of solid and hazardous wastes. Figure 1 shows some of the cumulative environmental benefits of only three XL projects underway in 1997 and 1998. Putting some of these gains into an everyday context, in one year, these three XL projects have conserved enough water to fill more than 1,300 Olympic-sized swimming pools. They have reduced volatile organic compound emissions equivalent to taking more than 160,000 cars off the road for a year. And they have recycled enough solid waste to fill 167 average-size garbage trucks — a convoy that would stretch for nearly three quarters of a mile.

For some projects, the sponsors must make significant capital investments before they can realize the experiment's full environmental benefits. Therefore, as existing experiments mature and new projects come on line, XL's positive environmental impact will continue to grow. In fact, the gains demonstrated so far are small compared to the environmental benefits that will accrue over time.

Figure 1—Combined Intel, Weyerhaeuser and Witco Project XL Results for 1997–1998

- Eliminated (*) 20,853 tons of criteria air pollutants (nitrogen oxide, sulfur dioxide, particulate matter, carbon monoxide)
- Eliminated (*) 2,636 tons of volatile organic compounds
- Recycled 2,089 tons of solid waste
- Recycled 690 tons of non-hazardous chemical waste
- Recycled 613 tons of hazardous waste
- Reused 1,069 million gallons of water
- Reused 311 tons of methanol

(*) Reductions in emissions are calculated by subtracting actual emissions from the established project baselines.

Good for Business

Project sponsors are reducing costs and improving their competitiveness through XL's operational flexibility. Sponsors are benefitting from expedited or consolidated permitting, reduced record-keeping and reporting, and the flexibility found through facilitywide emission caps. In addition, sponsors have enjoyed improved administrative efficiency, industry recognition, better relationships with their communities and stakeholders, better use of employee expertise and improved relationships with regulators. Many of these benefits also improve the bottom line. For example:

Intel: continues to avoid millions of dollars worth of production delays in the competitive quick-to-market semiconductor industry by eliminating 30 to 50 permit reviews a year.

Weyerhaeuser: expects to avoid $10 million in future capital spending, is now saving $200,000 a year by recovering and reusing lime muds, and will continue to save $176,000 in administrative costs annually by consolidating reporting requirements in the short term.

Witco: expects to save $800,000 over five years through its negotiated hazardous waste deferral.

Merck: expects to avoid millions of dollars in production delays by eliminating repetitive permit reviews and getting their products to market quicker.

In addition, within the first year of the project HADCO saved transportation costs by reducing sludge shipments as a result of installing a new sludge dryer. Vandenberg AFB reduced costs by testing each air pollution source using a less expensive protocol negotiated with the Santa Barbara County Air Pollution Control District.

Good for Communities

Project XL was designed to increase understanding between regulated industries and the communities and citizens they affect. Although not always easy, efforts to reach out to environmental groups and community stakeholders have yielded many rewards. Companies are reporting information in new ways to increase community understanding and trust, and stakeholders have had real input into project agreements. Among the benefits to communities:

> "Project XL must succeed! Giving us a place at the table as decisions are made that affect our communities has proven to be highly beneficial—not only for communities but for industry as well."
>
> —Pam Kaster
> President,
> Citizens for a Clean Environment
> and XL project stakeholder

- A cleaner local environment.
- Forging a real, informed trust with the project sponsor.
- Offering input into a company's environmental decisions.
- Improving access to information through the Internet, direct reports from the facility or local library holdings.
- Receiving reports in easy-to-understand formats.
- Understanding a local facility's operations better, and sometimes those of an industry as a whole.
- Receiving help with community projects, such as computer donations and property set-backs.

EPA is proud of Project XL's track record of producing meaningful benefits. Even at this early stage, XL has shown that prudent experimentation and regulatory flexibility can yield economic gains for businesses and government, better understanding by citizens, and a cleaner environment.

Changing How EPA Works

While individual projects have produced meaningful results, Project XL's value goes far beyond the immediate environmental gains and cost-savings to individual project sponsors. The innovative ideas being tested are also helping EPA to re-examine how it regulates and to find better ways of encouraging environmental improvements.

In order to transfer these ideas, EPA is changing some of its everyday functions, such as permitting, rule-making, and information management. Although it is early, Project XL is definitely influencing the way EPA thinks about the next generation of environmental protection.

Writing More Flexible Regulations

Project XL is allowing EPA to test new approaches that might not otherwise be considered in Federal regulations, and to test and confirm the flexibility that already exists in environmental rules.

The Weyerhaeuser project allowed EPA to design and test two additional compliance options in a new air and waste water regulation affecting the pulp and paper industry (the Pulp and Paper Cluster Rule). One option allows mills to meet stricter wastewater discharge limits by installing advanced technologies. In exchange, mills can receive public recognition; additional compliance time; and reduced monitoring, inspections and penalties. Another option allows kraft pulping operations to eliminate specific requirements for production vents if they clean up condensates in other parts of the mill. Many of the air pollutants that come from production vents originate in these condensates. If the condensates are cleaner, air coming out of the vents will be cleaner, too. We expect this new rule to eliminate 59 percent of toxic air emissions from U.S. pulp, paper and paperboard mills. Chloroform discharges to water will fall 99 percent; dioxin and furan discharges will be reduced by 96 percent.

The Molex and HADCO experiments are testing several waste reduction, metal recycling and recovery options that are now restrained by Resource Conservation and Recovery Act (RCRA) regulations. Many printed wiring board manufacturers and electroplating facilities face similar environmental constraints. As a result of these experiments, EPA may learn how problems can be addressed throughout these industrial sectors.

3M Idea Impacts EPA Rule

Although 3M Corporation's XL proposal did not reach final agreement, one of its ideas was incorporated into Federal rules for magnetic tape manufacturers. Based on the 3M proposal and other industry input, EPA decided to offer companies an alternative compliance option for balancing hazardous air pollutant emissions from solvent storage tanks with emissions from other process equipment.

Taking Fresh Approaches to Permitting

Permits are EPA's primary tools for translating environmental statutes and regulations into the requirements a facility must follow. Although they are successful tools for protecting the environment, opportunities to improve on their limitations are being examined in four of the initial seven XL projects: Intel, Weyerhaeuser, Merck and Jack M. Berry.

Facilitywide Limits: Merck, Intel and Weyerhaeuser each are testing facilitywide permits that limit their total emissions. During 1997 and 1998, Weyerhaeuser remained under its caps, reducing by 12 to 20 percent its actual emissions of particulate matter, sulfur dioxide, nitrogen oxides, carbon monoxide and volatile organic compounds. Meanwhile, Merck's facilitywide air permit allows its Stonewall Plant to change operations without having to wait for individual permit reviews. Merck also has the option of reducing its facilitywide caps instead of implementing specific control technologies that might be prescribed by future regulations. Taking a lesson from the Merck experiment, EPA allowed limited preapproval for some types of production changes in 1998 regulations for controlling air emissions from pharmaceutical plants. The Agency is considering using preapproval and "cap permits" more extensively in the future.

Consolidated Permits: The Jack M. Berry facility must contend with separate air, water and consumptive use regulations, including separate commitments to EPA, the Florida Department of Environmental Protection and the South Florida Water Management District. Berry's XL project proposed to consolidate these permitting requirements into a single comprehensive operating permit. Although the project has been closed due to a change of the plant's operational management, the Berry concept and process are being documented here so that other interested parties can consider this approach for further testing under Project XL.

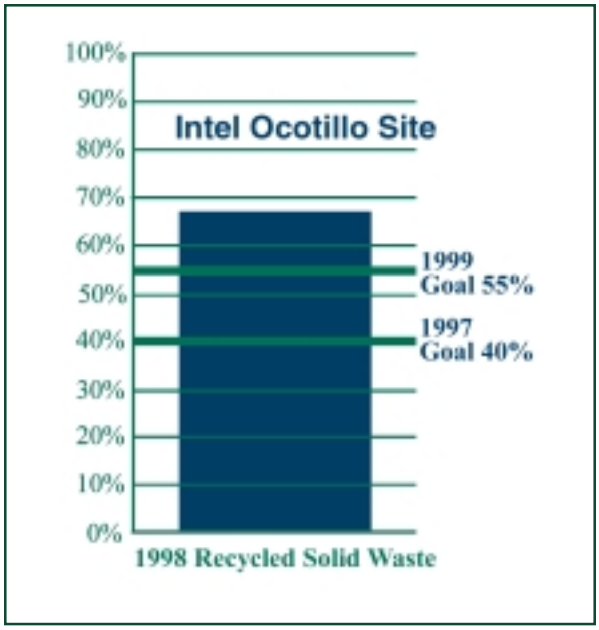
Making Information Less Burdensome and More Understandable

The EPA of tomorrow will rely on environmental data and information that are less burdensome for

facilities to collect and report, easier for regulators to review, and easier for citizens to obtain and understand. XL experiments are yielding lessons that can help guide the Agency's new information management office and its efforts to improve environmental information.

Better Public Access: Intel is improving public access to information by: (1) using stakeholder input to re-design reports on its environmental performance; and (2) making these reports publicly available on the Internet. Based on Intel's success, we are asking future XL projects to develop similar Internet reporting with interested stakeholders.

Streamlined Reporting: EPA, States and local regulators routinely collect data from companies to ensure compliance with the Clean Air Act, Clean Water Act, and other environmental laws. Under XL, Intel is consolidating routine reporting into four quarterly reports and one annual report. Weyerhaeuser has consolidated Federal, State and local air and water reporting into two reports a year. Merck's requirements for record-keeping and reporting grow more stringent as its actual emissions approach the facilitywide cap. Berry would have been allowed to use simpler, non-standard forms to report its environmental performance to multiple jurisdictions.



Exploring New Ideas in Enforcement and Compliance Assurance

One of EPA's most important responsibilities is ensuring that companies comply with the laws that protect human health and the environment. Through Project XL, we are testing new tools, such as self-certification, to encourage the regulated community to move beyond compliance with environmental laws. Self -certification can have many effects. For example, it can reduce reporting burdens, and reduce labor-intensive inspections and allow States to reinvest those resources into higher priority environmental problems.

Weyerhaeuser's XL agreement allows the mill to provide an annual compliance self-certification report instead of monthly discharge monitoring reports for its wastewater permit. EPA provided this flexibility because the company had established a 10-year history of meeting all required discharge levels, and because of its commitments to superior environmental performance.

In Massachusetts' Environmental Results Program, printing and photo processing representatives have helped create a self-certification program linked to stringent State performance and operating standards. Certifications are signed by the company owner, president, CEO or other high-ranking official, and are subject to penalties for perjury if the facility is not in compliance. Facilities not in compliance will be required to specify interim milestones toward achieving compliance by a certain date. This will give companies more flexibility to choose cost-effective compliance strategies that can further improve environmental performance and prevent pollution. Meanwhile, all companies participating in Environmental Results Program will remain subject to regular State inspections and enforcement.

Promoting New Concepts in Environmental Stewardship

XL is testing environmental management systems, and promoting pollution prevention and recycling as new ways for showing a company's commitment to environmental stewardship.

Environmental Management Systems (EMS): An EMS can be used to manage compliance, help boost efficiency, cut waste, improve worker safety, and bring attention to environmental matters not covered by regulations. Weyerhaeuser's XL experiment is using an EMS and standard work procedures that will take steps toward creating a "Minimum Impact Mill." Lucent's EMS provides a platform from which a consolidated multi-media permit can be developed, and it allows regulators to participate in setting annual goals and targets.

Pollution Prevention and Recycling: Witco is implementing a waste minimization/pollution prevention plan that will identify additional pollution prevention opportunities. Witco also is generating less sludge by reusing and recycling methanol. Elsewhere, Vandenberg Air Force Base is reducing its air emissions through a performance-based Environmental Management System and pollution prevention techniques.

Understanding the Needs of Multiple Stakeholders

Stakeholder involvement has proven to be one of the most challenging features of Project XL. EPA and project sponsors are learning valuable lessons about opening up the decision-making process and inviting stakeholders to participate. Environmental advocates, community groups and individual citizens have told us what does and does not promote meaningful participation. Among their views:

- The sponsor and stakeholders must establish clear ground rules for their roles and responsibilities.
- EPA must clarify its role, as well as the role of the sponsor, in managing a stakeholder group.
- Identify local and national stakeholders' needs early in the project's development.
- Local groups and national environmental groups should work together early in the process to define their roles as participants in the XL project. These early discussions should help to avoid disconnects later in the process.

> "Absolutely key to [EPA's] success is forging strong partnerships—businesses, communities, environmentalists, public health groups, government at all levels—pooling time, talent and resources to find protective, common-sense, cost-effective solutions."
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> —Carol Browner
> EPA Administrator

Table 1: Witco Corp. Waste Minimization/ Pollution Prevention Solutions at Sistersville Plant

Waste Minimization/Pollution Prevention Solutions	Potential Cost Savings	Potential Waste/Emission Reductions
One-time pollution prevention projects (1998)	$42,000 (one-time)	26,000 lbs (one-time)
Methanol recycling (annually)	$16,000/year	1,100,000 lbs/year
Other pollution prevention options (annually)	$620,000/year*	730,000 lbs/year
TOTAL savings potential (annually)	$636,000/year*	1,830,000 lbs/year

*Witco has not yet assigned the expense of implementing these projects, and when it does the net cost savings will be less.

The lessons learned from XL projects will assist EPA as we increase opportunities for stakeholders to be involved in our programs, improve stakeholder processes throughout the Agency, and share information about successful stakeholder involvement strategies.

Increasing EPA's Capacity to Innovate

While EPA has made many improvements over the years in how we manage internal processes, Project XL has revealed additional opportunities for improving the way EPA operates. By beginning to address some of the internal challenges, Project XL has helped to increase EPA's capacity to innovate. Already, Project XL has led to discreet changes in internal guidance and operating procedures. These changes support EPA's commitment to test and incorporate innovative solutions to environmental problems.

For example, to further senior management involvement in advancing innovative efforts, EPA established the Reinvention Action Council (RAC). This senior-level body was created to ensure quick decision-making and adequate resources to move projects along. The RAC's success in resolving problems in Project XL led to expanded responsibilities for the Council. Today, the RAC helps advance progress for new and existing reinvention priorities.

To address State concerns, EPA and the Environmental Council of the States (ECOS) negotiated an agreement that provides a way to test innovative ideas based on State interests and priorities. The ECOS-EPA agreement outlines principles and a process to clarify how EPA and States will put these good ideas to the test, in a broader context that includes Project XL.

The Office of Enforcement and Compliance Assistance set up a streamlined process for screening the compliance history of companies that want to participate in Project XL. The new screening guidance ensures that EPA and project sponsors are not simultaneously in cooperative and adversarial positions. The Project XL experience helped to develop the screening guidance now used by the growing number of voluntary programs throughout EPA.

In the past, EPA offices have been organized along "media lines," working separately to carry out air, water, waste and toxics programs. Project XL, however, requires a "multi-media" approach. To bridge this gap, EPA has created a new model for Project XL cross-agency teams. EPA's new process for operating in these teams is set forth in the *Manual for EPA Project XL Teams*. This system has helped teams make decisions faster. These lessons will guide EPA as we continue to experiment with solutions that cross traditional media lines.

Looking Ahead

Since it was announced, Project XL has been held to a very high standard. Expectations were great for this program which attempts to venture into the future of environmental protection. Despite the challenges, it has grown into an efficient and effective program that is producing environmental, economic and community benefits.

Although we are approaching our goal of running 50 different XL experiments, EPA's need to test new tools and new solutions will not end. Our stakeholders will continue to have innovative ideas for achieving cleaner, cheaper and smarter environmental protection. And EPA is committed to providing a vehicle for testing and implementing those concepts.

Meanwhile, we will be hard at work testing, evaluating and judging the success of the XL experiments and incorporating their lessons into EPA's daily work. This important phase of Project XL coincides with a renewed Agency-wide effort to learn from this and other reinvention efforts and open new doors for experimentation.

From Pilot to Practice

Project XL's greatest opportunity, and its greatest challenge, is taking successful ideas from individual pilot projects to system-wide practice. From its inception, XL was designed to use site-specific experiments to produce new solutions with broad applicability. EPA is now focused on identifying successful innovations learned from Project XL, and making changes in our current system of environmental protection, that help put Project XL's lessons into full practice.

EPA is also developing the next phase of Project XL. This "second generation" of the XL program will continue to be shepherded by EPA's Office of

Policy and Reinvention, but will continue to reflect the commitment Agency-wide to adopt and implement these innovative ideas. This next generation of environmental protection will provide even stronger incentives for good performance and going beyond compliance by developing approaches such as a new "performance track." Lessons learned in Project XL will be integral to developing these high performance alternatives.

Continuing to Search for New Solutions

Since its inception, Project XL has had to adapt to meet the needs of the environment, EPA, and all stakeholders. Despite achieving the goal of 50 projects, EPA will still retain the capacity to do cross-agency, cross-media experimentation, and retain the Office of Policy and Reinvention as a primary gateway into EPA for new ideas that improve environmental protection.

As we design the program's next phase, we will take into account the current program's advantages successes and its hard-earned lessons. We will build on our experience to identify and use the most compelling incentives for participation, and the best internal mechanisms for testing new environmental solutions.

EPA remains committed to the basic principles of Project XL. Project XL results indicate that we can create better environmental outcomes when all affected parties work together toward a common goal. EPA will continue to provide opportunities for testing environmental solutions that can address complex issues and result in higher quality public health and environmental protection.

> "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 take to protect the environment. The new system, as envisioned by Project XL, is to work cooperatively and focus on the results: a cleaner environment; a faster, less costly system; and more input from the community."
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> —Gordon Moore,
> Chairman Emeritus, Intel