

US EPA ARCHIVE DOCUMENT



UNION CARBIDE CORPORATION

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August 7, 1995

Regulatory Reinvention Pilot  
FRL- 5197- 9, Water Docket, Mail Code 4101  
U. S. Environmental Protection Agency  
401 M Street, S.W.  
Washington, DC 20460

AUG 11 1995

RE: Project XL Application - Union Carbide Corporation

Dear Sir/Madam:

The Union Carbide Corporation Taft Plant is pleased to submit the enclosed application for a "Project XL" for our facility. Union Carbide proposes the demonstration of a performance-based multi-stakeholder developed alternative to the current regulatory system that will reduce costs to the facility and the regulatory agencies, and will provide the basis for achieving significant measurable advances in environmental performance.

This proposal is submitted in cooperation with representatives of the Louisiana Department of Environmental Quality and three offices of the U.S. Environmental Protection Agency (Office of Policy, Planning and Evaluation; Region VI; and the Office of Enforcement and Compliance Assurance). We have also drawn upon the participation and advice of a multi-stakeholder group, including local and national environmental representatives, that convened in January of 1995 to undertake a Best Management Practices initiative as part of the EPA Sustainable Industries Project.

We believe that our application outlines areas for "cleaner, cheaper, smarter" alternatives to environmental regulation and are looking forward to working with the agency, the state of Louisiana, and our multi-stakeholder group during the implementation of our Project XL opportunity.

We appreciate the agency's willingness to consider regulatory flexibility alternatives such as Project XL. Please refer any specific questions on information contained in this application to the members of the project team, led by Jim Dement. He can be reached at (203)794-5506.

Sincerely,

W. T. Gray, Jr.  
Taft Plant Manager

15 pp + 4 att (7 pp)

# Project XL Application

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*Union Carbide proposes to demonstrate a performance-based multi-stakeholder-developed alternative to the current regulatory system that will reduce costs to the facility and the regulatory agencies, and will provide the basis for achieving significant measurable advances in environmental performance. The demonstration will take place at our Taft, Louisiana facility, where we have already made significant progress in developing a Best Management Practices program.*

## **Introduction: Environmental Management and Regulatory Flexibility**

In a time of increasingly complex industrial processes, expanding interest in environmental quality, and a demanding global economy, the design of effective and efficient environmental regulations that are optimal for each industry is ever more difficult. The benefits of environmental regulation are clear, but the opportunity to improve future industrial environmental performance through more flexible means is an exciting prospect for Union Carbide.

Examination of alternative approaches to command and control regulatory structures, such as the Dutch Covenant system and the international business protocol for environmental performance, ISO 14000, implies that the private sector could potentially achieve superior performance at less cost. Corporate *Environmental Management Systems* (EMS) and *Best Management Practices* (BMP) help achieve this goal. By demonstrating that industry is capable of assuming a responsible role for environmental stewardship, regulatory flexibility may become a realistic option in the United States.

Environmental protection has historically been accomplished by minimizing the release of pollutants to the environment with "command and control" regulations. Command and control regulations were developed incrementally, adjusting to new demands, generally from single-media laws, as the need arose. As a result of these regulations, water bodies are significantly cleaner, air quality has improved, and a system has been implemented to track hazardous wastes shipped off-site. Despite the progress the nation has made in environmental protection, problems persist and may require highly innovative solutions. Command and control regulations may constrain such innovation by restricting the ways in which the private sector manages its own environmental performance.

State and federal agencies are turning to pollution prevention as a means of environmental protection. Regulatory agencies have difficulty setting requirements for pollution prevention because it is not possible for them to specify exactly how each of the numerous industrial and commercial facilities could comply. In the face of technological complexity, regulatory agencies are forced to rely on the regulated facilities themselves to identify methods for pollution prevention or risk reduction. Environmental policy development seems to be moving toward a more collaborative process in which the regulatory agencies set performance standards and facilities are granted greater flexibility to determine how they will meet these standards, keeping in mind the environmental

management hierarchy (source reduction, followed by recycling/reuse, then treatment and/or disposal). However, if facilities are to be granted greater flexibility, agencies, the public, and workers must be provided with sufficient information to judge performance. Corporate "best management practices" may offer a context within which flexibility is provided in exchange for improved performance.

Union Carbide proposes to demonstrate a performance-based multi-stakeholder-developed alternative to the current regulatory system that will reduce costs to the facility and the regulatory agencies, and will provide the basis for achieving significant measurable advances in environmental performance. The demonstration will take place at our Taft, Louisiana facility, where we have already made significant progress in developing a BMP program.

This proposal is submitted by the Union Carbide Corporation, in cooperation with representatives of the Louisiana Department of Environmental Quality (DEQ) and three offices of the U.S. Environmental Protection Agency (Office of Policy, Planning, and Evaluation; Region VI; and the Office of Enforcement and Compliance Assurance). In developing this proposal, Union Carbide also drew upon the participation and advice of a multi-stakeholder group, including local and national environmental representatives, that convened in January 1995 to undertake a Best Management Practices initiative as part of the EPA Sustainable Industries Project.

To enable the facility to achieve its performance objectives, Union Carbide proposes that the appropriate regulatory agencies grant flexibility to identify and implement alternative means of compliance with regulatory goals. This agreement would be documented in a Final Project Agreement that the facility will negotiate with the EPA and DEQ, in consultation with other stakeholders, within six months of its selection for participation in Project XL.

Specific areas for environmental improvement will be determined in the stakeholder negotiation process. Based on the demonstrations proposed in this application, Union Carbide anticipates the following environmental performance improvements: consolidating state and federal air regulations where redundancy or conflicts can be eliminated, freeing up resources for innovative pollution prevention; reducing chances of spills and worker exposure in handling, storage, and testing of hazardous waste; focusing on a management system to prevent spills and leaks rather than the traditional emphasis on procedural requirements; shifting resources from low-risk wastewater management to groundwater remediation or other greater risk reducing opportunities; and improving qualitative and quantitative environmental metrics to measure progress.

# **Background: The Taft Plant and the Best Management Practices Workgroup**

In August of 1994, Union Carbide volunteered to participate in a pilot project to test an information-based performance-oriented approach to negotiated regulation. The goal was to achieve sustainably high levels of environmental performance through regulatory flexibility. The process was designed to involve multiple stakeholders and consider the opinions, concerns, and perceptions of those affected by the facility's environmental performance. The project became known as the Best Management Practices pilot of the EPA's Sustainable Industries Project.

The premise of the Best Management Practices pilot is the careful analysis of industry practices and regulatory programs to reveal opportunities for achieving cleaner and cheaper environmental management at the facility level. Union Carbide, EPA, and other stakeholders have designed a project for the Union Carbide plant in Taft Louisiana to test this proposition.

## **The Taft Plant**

The Taft complex is an integrated petrochemicals and plastics manufacturing operation, with approximately 1200 employees (Appendix B). The plant site occupies 1900 acres, and contains fifteen individual production units, with an aggregated output on the order of five billion pounds per year. The plant produces a variety of ethylene chain chemicals, including ethylene, ethylene oxide, ethylene glycol and other ethylene derivatives, butanol, acrylates, and polyethylene resin. Applications for these materials include textiles, paints, plastic products, detergents, pharmaceuticals, antifreeze, lubricants, and a host of other consumer and industrial products.

The plant has had an active program of emission, waste, and risk reduction, and has invested in new process technology that achieves environmental performance and energy conservation superior to the conventional technologies they replace.

Both Union Carbide and the Taft Plant have well-developed Health, Safety and Environmental Management Systems (EMS). These systems integrate the requirements of the Chemical Manufacturers Association's Responsible Care® initiative and Union Carbide's internal standards. Union Carbide Corporation and Taft Plant EMS are designed, implemented, and maintained at all management levels to provide assurance that Union Carbide Corporation complies with governmental and internal requirements.

The EMS establishes performance requirements for achievement of continuous improvement in Health, Safety, and Environmental (HS&E) performance. In this proposal, Union Carbide's EMS serves as a basis for a future framework that will allow regulatory flexibility in exchange for demonstrated environmental performance and potential health benefits to the community.

## Elements of the Union Carbide Environmental Management System

- Senior management commitment
- Line management accountability
- Mandatory, worldwide policies, procedures, and performance standards
- Corporate auditing against mandatory standards and program requirements
- Location self-audits
- Compliance assurance reviews
- Compensation incentives tied to environmental performance
- Engineering and operating standards
- Risk management systems

## **The Best Management Practices Workgroup**

Union Carbide and EPA have been sharing ideas regarding the use of EMS to support regulatory flexibility for almost one year. In January 1995, EPA convened a multi-stakeholder group to review the Union Carbide Best Management Practices pilot. The group, which includes representatives from other corporations, national and local environmental groups, industry trade associations, state government, and the EPA offices of OPPE, OECA, and Region VI supported the pilot's premise and agreed to proceed with the project (see Community and Stakeholder Participation under the Fulfilling Project XL Criteria section, and Appendix C: BMP Workgroup). Subsequently, a subset of the workgroup visited the Taft facility. During this visit the group toured the plant and viewed the process units that are the subject of the demonstration alternatives described in the following section of this application. While in Louisiana, the group also worked to further define the objectives of the pilot -- a process that resulted in the formation of subgroups and the assignment of specific research tasks. The Best Management Practices workgroup is answering four questions:

- 1) What information is needed to implement an alternative flexible regulatory system that is verifiable and meets the needs of facility and company employees, the community, regulators at the local, state, and national levels, and other stakeholders?
- 2) What applicability do existing and emerging environmental management systems (such as Responsible Care® and ISO 14000) have for a more flexible regulatory system?
- 3) What are the barriers and constraints in the current regulatory system that need to be overcome, and what are the environmental and economic gains of overcoming them?
- 4) How would a new, more flexible, performance-based system protect human health and the environment while improving efficiency at a facility such as the Taft plant?

As a group, the stakeholders have already invested significant time and interest in this project. This commitment and the progress in trust building that has accompanied the workgroup activity, as demonstrated in the attached letter of support, makes the Union Carbide pilot a unique springboard for Project XL. Letters of support from the BMP workgroup, EPA Region VI, and the Louisiana Department of Environmental Quality can be found in Appendix A.

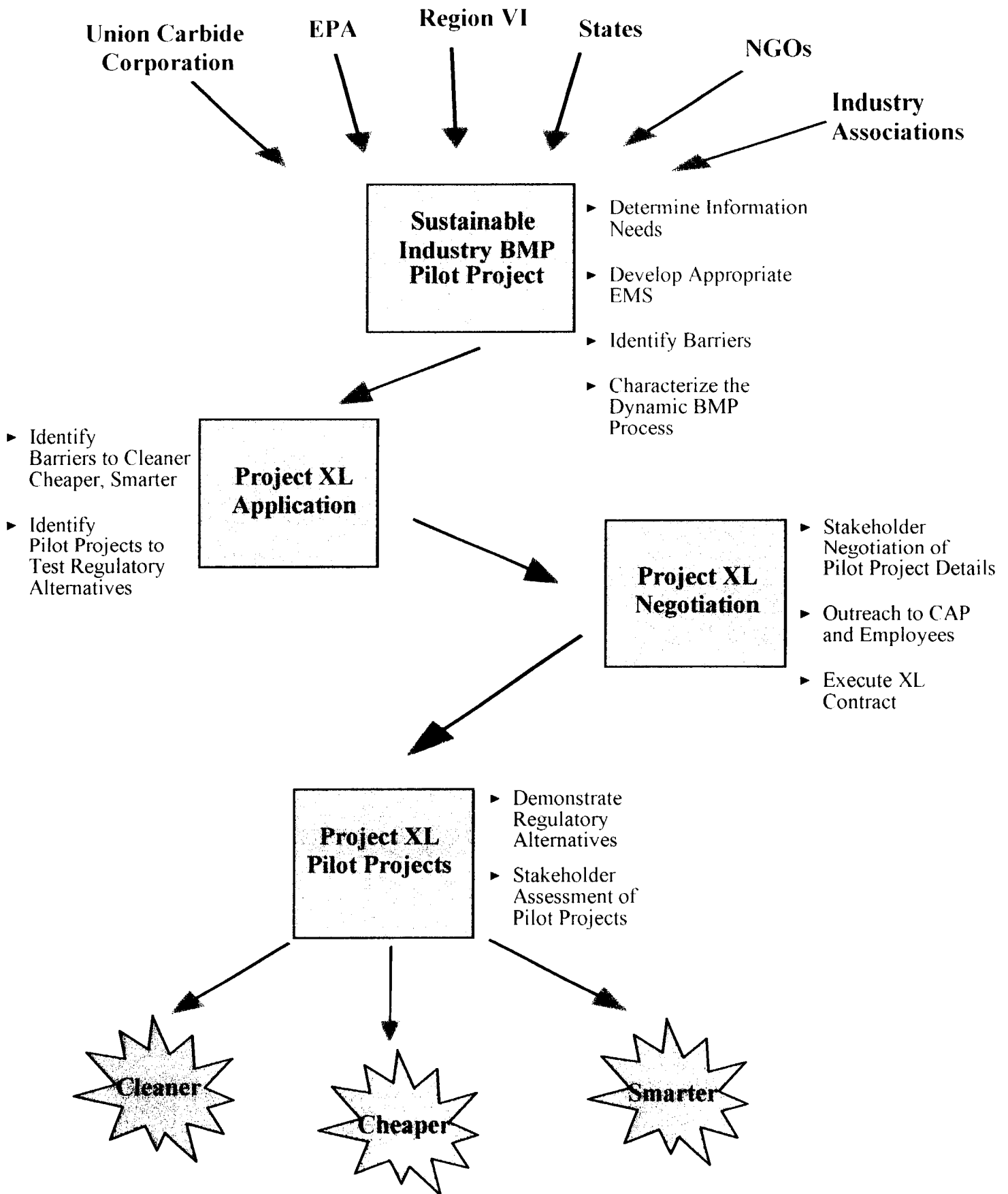
## Methodology: The Project XL Process

Union Carbide will initiate the Project XL process by developing a Final Project Agreement with the EPA and involved stakeholders. The memorandum will outline the areas in which we will demonstrate cleaner, cheaper, and smarter alternatives to environmental regulation. Each alternative to regulation will be designed in consultation with the facility, the EPA, local and state government, environmental groups, local citizen representation, and local emergency responders, as appropriate.

The BMP Workgroup and other stakeholders will be an integral part of the Project XL process. The role of the stakeholders will be most pronounced in the design and implementation of an enhanced EMS, building on the practices already in place at the Taft facility. The EMS will address the concerns of the facility, regulatory agencies, environmental groups, state authorities, community, employees, and emergency responders. Once in place, the framework of the EMS will guide the procedural steps of the demonstration of regulatory flexibility and improved environmental metrics. The EMS will draw heavily from Responsible Care® and ISO 14000 to assure environmental performance. Union Carbide will consider ways in which pollution prevention can be accomplished through process optimization, thus using the EMS to bridge production efficiency and environmental concerns.



# UNION CARBIDE'S PLAN FOR CLEANER, CHEAPER, AND SMARTER ENVIRONMENTAL PERFORMANCE



## **Demonstrations: Six examples of cleaner, cheaper, and smarter alternatives**

Union Carbide has identified, in conjunction with the Best Management Practices workgroup, a list of possible demonstration opportunities for Project XL. Based on the number and kinds of potential opportunities that have been identified to date, a phased implementation is proposed. After negotiating the Final Project Agreement with the EPA and the stakeholder workgroup, an initial 12 month phase will examine the feasibility of approximately six demonstration alternatives. The demonstrations provided below illustrate the types of projects that would be undertaken in the initial phase of this project. These demonstrations are not intended to be exclusive of alternative or additional ideas that may arise as the project progresses.

Union Carbide proposes to implement alternatives to regulatory requirements at the Taft Plant whose principal benefits are reduced regulatory burden, cost savings, and paperwork reduction. Consistent with the "cleaner, cheaper, smarter" goals of Project XL, the Taft plant will commit to continuous improvements in environmental performance, such as a strengthened EMS; reduction of emissions, wastes, and/or risk; and investment in environmentally beneficial projects that would not otherwise have been undertaken. The first four of the following six demonstrations cite specific projects and environmental performance criteria. Definition of the mechanics and environmental performance criteria for the final two demonstrations, which are more broad in nature, will be determined in the stakeholder negotiation period leading to the Final Project Agreement. The specific environmental benefits expected in return for regulatory flexibility in each demonstration will be determined through the stakeholder negotiation process. Union Carbide will disclose the amount of savings attributable to regulatory flexibility that is reinvested in improved environmental performance.

### **Demonstration 1: Leakage Prevention and Response**

#### **Proposal**

Union Carbide proposes the use of an alternative performance-based management standard for ensuring the integrity of secondary containment structures for hazardous waste in place of current management and performance requirements. An example performance standard would be: "Ensure that leakage from primary containment (tank or drum) does not contaminate the soil, groundwater, or surface water." The workgroup process would be used to develop qualitative and quantitative metrics to support this performance standard.

## **Rationale**

The existing rules on secondary containment and interpretations of the performance standards of those rules have imposed high costs on facilities. For example, existing rules require concrete containment to be crack free, which is functionally impossible due to the nature of concrete and incorrectly implies that all cracks contravene the management standard that secondary containment must contain the waste spilled. Also, secondary containment rules have been interpreted by the regulatory agencies to require sealed or coated concrete on all surfaces, regardless of the material stored, type of concrete or available management alternatives to reduce risk of a release. Related rules require removal of liquid hazardous waste from secondary containment structures within 24 hours of a spill. Union Carbide would demonstrate that a management/performance standard could provide protection equivalent to these requirements. Union Carbide estimates cost savings of more than \$200,000 per major facility from implementation of alternative requirements for secondary containment structures. Union Carbide believes that these alternatives could lead to environmental improvements by facilitating rapid response to spill cleanup and a coordinated response to crack management.

## **Demonstration 2: Waste Storage**

### **Proposal**

Union Carbide proposes using "Wrangler Box" technology, roll-off boxes, or other appropriate containers having greater than 55-gallon capacity for the satellite accumulation of hazardous wastes for periods of three days or less. Currently, satellite accumulation of hazardous wastes is limited to 55-gallon containers or smaller.

### **Rationale**

Containers greater than 55 gallons trigger "less than 90 day" storage requirements under RCRA. However, the smaller containers are not suitable for transport and incineration. Therefore, wastes from satellite accumulation areas must be re-packaged in other containers prior to shipment off-site.

We estimate that this proposal would allow the Taft facility to save approximately \$100,000 by not having to install additional containment facilities, etc. Additionally, by using Wrangler Box (or similar) technology for the accumulation of satellite wastes, Union Carbide will avoid double handling, reduce emissions and the potential for spills of hazardous substances, and minimize worker exposure to these chemicals.

## **Demonstration 3: Waste Analyses**

### **Proposal**

Eliminate redundant waste analysis requirements for materials treated in a permitted/interim status Treatment, Storage, Disposal, or Recycling (TSDR) facility. Instead of detailed chemical analysis, the facility can establish a general waste classification to ensure proper and safe treatment, shipping, and disposal requirements, in accord with DEQ, EPA, and DOT regulations.

## **Rationale**

Analyses of wastes at the facility are often redundant, since similar analyses are performed by the TSDR operator. The treatment facility's permit specifies what types of waste the facility can treat. The TSDR operator must show, prior to final disposal, that any material meets the land disposal restrictions. Therefore, detailed analysis by the shipper to identify concentrations of the hazardous constituent is redundant.

The performance standard would ensure that the waste is adequately treated, and knowledge of the constituents is adequate (via TSDR permit requirements, and the general waste classification). Since no change would occur in the methods of treatment and disposal, the potential for adverse environmental consequences would be unaffected. A positive environmental result would be the reduction in laboratory waste (lab packs) as a result of fewer analyses.

It is estimated that cost savings of approximately \$250,000 would result from reduced and streamlined analysis.

## **Demonstration 4: Transfer Line Integrity**

### **Proposal**

Union Carbide proposes an alternative to the current Boiler and Industrial Furnace (BIF) regulations, which require that the BIF transfer lines be "walked" on a daily basis to verify their integrity. In lieu of walking the lines every day, Union Carbide proposes to implement a comprehensive BIF line test and inspection program. The performance standard would be to implement and maintain a program that is at least as stringent as the existing program for product piping.

### **Rationale**

We estimate that the proposed test and inspection program will save two hours per day of work at each major facility, or about \$18,000 per facility per year. Furthermore, by implementing thorough and regular testing of the transfer lines, this program will do more for the actual *prevention* of leaks, rather than emphasizing leak detection, as is currently the case.

## **Demonstration 5: Wastewater Treatment**

### **Proposal**

Union Carbide proposes to adopt best management practices to assure protection of human health and the environment at its wastewater treatment facilities. This BMP-based compliance approach would be implemented in lieu of future wastewater land disposal restrictions (Phase III and Phase IV LDR) and treatment standards for contaminated groundwater and accidental spills. Proper qualitative and quantitative metrics for monitoring and assessing what constitutes protection of human health and the environment will be determined by the multi-stakeholder workgroup. Union Carbide could apply a portion of the savings derived from this demonstration to accelerated groundwater remediation at the plant, or other risk reduction project.

## **Rationale**

The proposed Phase III and Phase IV LDR will apply hazardous waste landban standards to wastewaters currently treated in surface impoundments, potentially resulting in their closure and replacement. Union Carbide risk assessments show that the impoundments at the Taft facility protect human health and the environment to RCRA standards. This is further supported by EPA's decision to grant these impoundments an Aggressive Biological Treatment (ABT) variance for toxicity characteristic (TC) hazardous wastes. However, the variance would no longer be relevant after the Phase III and IV LDR become effective. Thus, without an opportunity for regulatory flexibility, Union Carbide could be forced to close impoundments currently considered protective, or implement partial treatment at source. Union Carbide would like to demonstrate a BMP-based program focusing on continued protection of human health and the environment, while avoiding the costly effort of closing and replacing these impoundments. A portion of the cost savings from the regulatory flexibility demonstration could be directed to the remediation of groundwater, or other risk reduction project that would result in a greater reduction in risk than that achievable by the proposed regulation.

## **Demonstration 6: Air Pollutants**

### **Proposal**

Union Carbide proposes to undertake activities to reduce air emissions and/or waste generation in order to provide greater emission, waste or risk reductions than would occur under implementation of federal and state air pollution regulations. To pursue these activities, Union Carbide would require the flexibility to achieve reductions in ways other than those specified in existing federal and state air regulations.

### **Rationale**

Both the federal and Louisiana state governments have recently issued regulations requiring significant reductions in the quantity of air pollutants emitted by petrochemical facilities (HON NESHAP and the State Air Toxics Program). Union Carbide is currently planning its implementation strategy for these regulations. However, many provisions in these two rules are inconsistent or redundant. Union Carbide would like to demonstrate that equivalent or better environmental protection can be achieved in the absence of costly efforts to prove compliance with each regulation, which includes duplicative monitoring, reporting, and recordkeeping. Taking into account the costs of achieving sufficient emission reductions to ensure conformance with the requirements of the two rules, Union Carbide estimates that the flexibility to pursue an equally effective alternative approach that avoids the duplicative costs of the two rules would result in savings currently estimated at \$1 million.

# Fulfilling the Project XL Criteria

## Environmental Results

Each demonstration provides equal or greater environmental results than the current regulatory framework. The environmental results affect each media currently regulated and consider human exposure, environmental quality, risk reduction, and consideration of the environmental management hierarchy (source reduction, followed by recycling/reuse, then treatment and/or disposal). Our six demonstrations provide the following environmental performance improvements:

- Consolidating state and federal air regulations where redundancy or conflict can be eliminated, freeing up resources for innovative pollution prevention;
- Reducing chances of spills and worker exposure in handling, storage, and testing of hazardous waste;
- Focusing on a management system to prevent spills and protect the environment rather than focus on procedural requirements;
- Shifting resources from low-risk wastewater management to groundwater remediation or other greater risk reducing opportunities;
- Improving quantitative and qualitative environmental metrics to measure environmental performance.

## Cost Savings and Paperwork Reduction

In the six demonstrations we describe in this application, regulatory flexibility will reduce costs and paperwork requirements substantially. The initial six demonstrations discussed, and the example alternatives listed in Appendix D, have a substantial potential cost savings. A significant streamlining of the paperwork and records retention requirements would also be accomplished.

## Community and Stakeholder Participation

The existing Sustainable Industries BMP Workgroup forms the basis for stakeholder involvement for this project (current list of workgroup members is attached). To satisfy the need for local community involvement, Union Carbide will request the participation of the plant's independent Community Advisory Panel (CAP). Union Carbide also plans to seek involvement from the plant's employee advisory committee, or other representative cross-section of plant employees. Union Carbide is open to other additions to the stakeholder group as the Project XL process proceeds.

Both this application and the actual development of the project will directly involve the stakeholder workgroup. The specific process for stakeholder involvement will be determined by the BMP Workgroup.

## Innovation/Multi-Media Pollution Prevention

Our six demonstrations address a variety of environmental media, including air, water, and hazardous waste. Demonstrations will take advantage of opportunities to reduce workplace exposures, and avoid cross-media transfers. The ability to substitute emission, waste, and/or risk

reduction activities plant-wide for single-media command-and-control requirements advances the sophistication of multi-media pollution prevention at the Taft Plant. This corresponds with the tenets of Responsible Care®, corporate policy, and the plant EMS.

The major contribution of this project will be testing the extent to which the removal of regulatory barriers and the use of improved quantitative and qualitative metrics can achieve a cleaner, cheaper, and smarter alternative for environmental performance.

## **Transferability**

The appeal of this proposal is that all of the above-mentioned demonstrations and most of the opportunities identified so far have broad applicability both to large and small facilities. Extending our Environmental Management System to deal with the demonstration requirements will increase its integrity and transferability. The BMP Workgroup members from Dow Chemical and BASF report that many of the demonstrations being considered are directly applicable to their facilities. In addition, EPA is considering concurrent Sustainable Industry Projects that will apply this methodological approach to medium-sized plastics plants in Indiana and to geographically concentrated chemical facilities in New Jersey.

## **Feasibility**

Each of the six initial demonstrations is technically and administratively feasible if sufficient regulatory flexibility is provided. Final determinations of feasibility will be made with stakeholder involvement to insure that the demonstrations satisfy the objectives of cleaner, cheaper, and smarter environmental management.

## **Monitoring, Reporting, and Evaluation**

The method of verification and reporting will be determined by the BMP Workgroup. As mentioned earlier, the workgroup is identifying stakeholder information needs, and methods to demonstrate progress.

Specific mechanisms for performance measurement and ongoing stakeholder involvement will be negotiated as part of the final agreement. Central to this process will be two goals: (1) proposed changes or additional verification and reporting mechanisms be consistent with the "cleaner, cheaper, smarter" philosophy; and (2) agencies, the public, and workers receive sufficient information to verify performance.

## **Shifting of Risk Burden**

Several of the demonstrations provide reduction of workplace exposure. Union Carbide is committed to a process of continuous improvement in environmental performance, and has identified measures to reduce risk below current baselines. Implementation of the projects listed will result in greater risk reductions than the current regulatory requirements considered for modification in this project.

## Conclusion

Union Carbide is applying for selection as a Project XL pilot to further the process initiated under the Sustainable Industry Project. Union Carbide's intention for the pilot project at the Taft facility is to demonstrate that improved environmental performance is possible at lower costs to the regulated facility, and possibly to the regulating agencies, when flexibility is provided for innovation and adaptation to site-specific characteristics. Through this project, Union Carbide also hopes to improve communication with stakeholders and increase the public's understanding of Union Carbide plant operations. Union Carbide is confident that greater public understanding of its operations will result in improved public confidence in Union Carbide as a corporate neighbor.

Participation in Project XL will help Union Carbide, and the already formed BMP workgroup, meet their goals for enhanced environmental performance. Participation in Project XL will give stakeholders a valuable opportunity to be involved in the establishment of a new direction for environmental policy. In addition, participation in Project XL offers EPA and Union Carbide more flexibility in selecting demonstration alternatives. Finally, participation in Project XL should result in expeditious adoption of policies to allow continued implementation of actions demonstrated to be "cleaner, cheaper, and smarter" than line-by-line compliance with existing regulations. With these positive environmental and economic opportunities in mind, Union Carbide respectfully submits this application for selection as a Project XL.



# SUSTAINABLE INDUSTRY PROJECT BEST MANAGEMENT PRACTICES WORKGROUP

20 July 1995

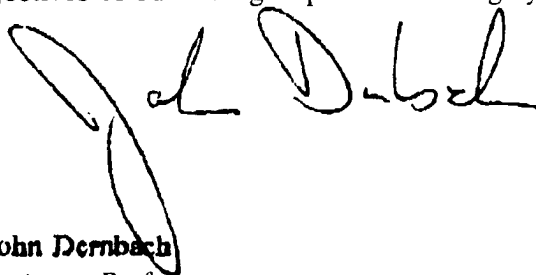
We the undersigned support Union Carbide's application to the Project XL Program, sponsored by the Environmental Protection Agency. As members of the EPA Sustainable Industry Project's "Best Management Practices" workgroup, we have been working over the course of this year to facilitate a stakeholder developed and supported alternative regulatory program for the Union Carbide facility in Taft, Louisiana.

The premise of the Best Management Practices project is the careful analysis of industry practices and regulatory programs to reveal opportunities for achieving cleaner and cheaper environmental management at the facility level. EPA, Union Carbide, and the stakeholders listed below have designed a project for the Union Carbide plant in Taft Louisiana to test this proposition.

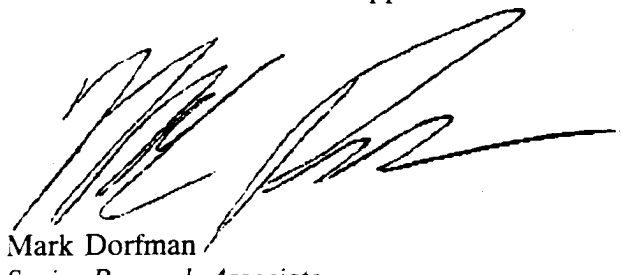
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- What information is needed to implement an alternative flexible regulatory system that is verifiable and meets the needs of the facility and company employees, the community, regulators at the local, state, and national levels, and other stakeholders?
- What applicability do existing and emerging environmental management systems (such as ISO 14000) have for the design of a more flexible regulatory system?
- What are the barriers and constraints in the current regulatory system that need to be overcome, and what are the environmental and economic gains of overcoming them?
- How would a new, more flexible, performance-based system protect human health and the environment while improving efficiency at a facility such as the Taft plant?

We believe that Union Carbide's participation in Project XL is a logical step in fulfilling the objectives of our workgroup and encourage your serious consideration of the application.

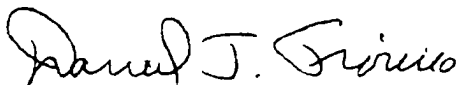


**John Dernbach**  
*Assistant Professor*  
*Widener University Law School*

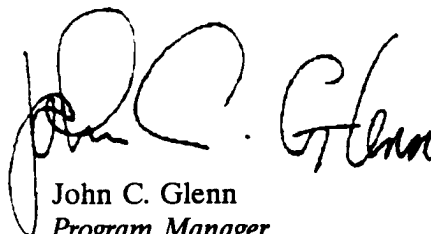


**Mark Dorfman**  
*Senior Research Associate*  
*Inform*

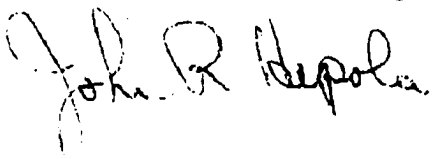
**SUSTAINABLE INDUSTRY PROJECT  
BEST MANAGEMENT PRACTICES WORKGROUP  
(Continued)**



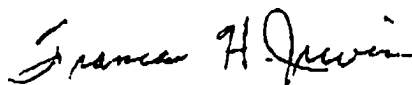
Daniel J. Fiorino  
*Director, Wastes & Chemical Policy Division,  
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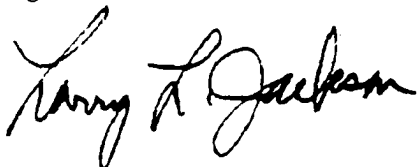
John C. Glenn  
*Program Manager  
Louisiana Department of Environmental  
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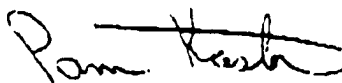
John R. Hepola  
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Frances H. Irwin  
*Director of Pollution Prevention  
World Wildlife Fund  
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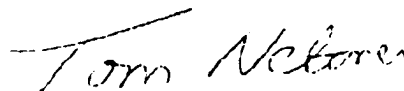
Larry L. Jackson  
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*President  
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*Vice President, Regulatory Affairs  
Chemical Manufacturers Association*



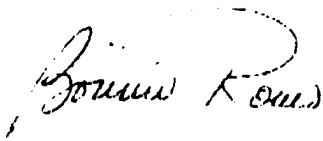
Tom Neltner  
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**SUSTAINABLE INDUSTRY PROJECT  
BEST MANAGEMENT PRACTICES WORKGROUP  
(Continued)**



**Jerry L. Newsome**  
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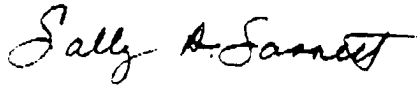
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**Sally Sasnett**  
*Representative, Office of Enforcement &  
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United States Environmental Protection Agency*



# State of Louisiana

## Department of Environmental Quality



Edwin W. Edwards  
Governor

William A. Kucharski

July 17, 1995

Ms. Carol Browner  
Administrator  
U. S. Environmental  
Protection Agency  
401 M St. SW.  
Room W-1200  
Washington, DC 20460

Dear Ms. Browner:

The State of Louisiana is an active participant on both EPA's Common Sense and Sustainable Industries initiatives. We would like to go on record as supporting Union Carbide's application to the Project XL program. The Louisiana Department of Environmental Quality recognizes the need to modify our current environmental regulatory structure to make it more effective and efficient. The current rigid command and control structure served the country well when it was first conceived, but is no longer efficient enough in today's parts per million or even parts per billion environments.

The Department is willing to incur the extra expenses and personnel requirements to work with EPA and Union Carbide's on Project XL. We sincerely hope that you will consider this project. If you have any questions, please feel free to call me at 504-765-0741.

Sincerely,

William A. Kucharski  
Secretary

WAK/JCC/jcg



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6  
1445 ROSS AVENUE, SUITE 1200  
DALLAS, TX 75202-2733

AUG 03 1995

**MEMORANDUM**

**SUBJECT:** Union Carbide's Application to Project XL Program

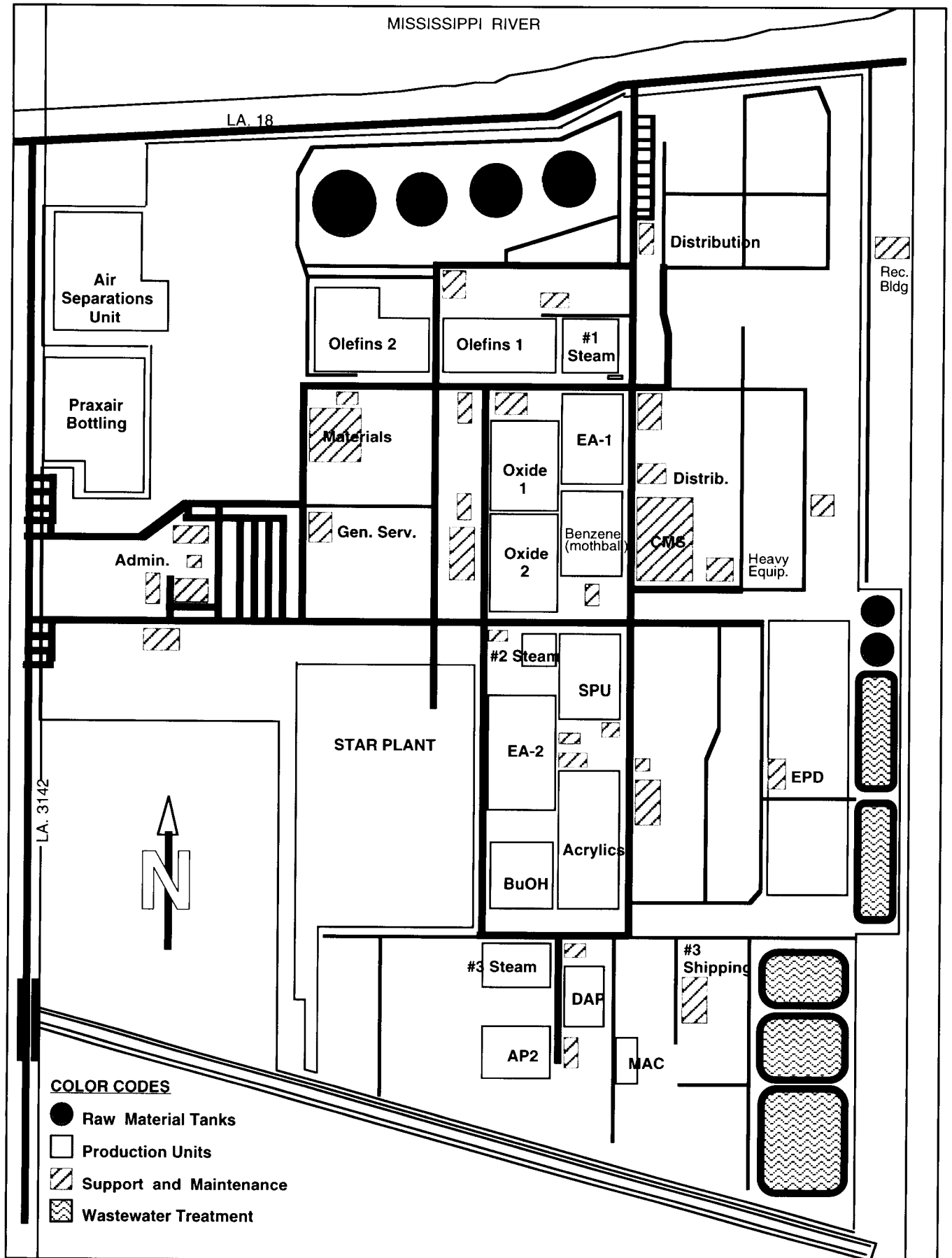
**FROM:** A. Stanley Meiburg *A. Stanley Meiburg*  
Acting Regional Administrator (6RA)

**TO:** David Gardiner, Assistant Administrator  
Office of Policy, Planning, and Evaluation (2111)

This memorandum is a statement of support from Region 6 of the U.S. Environmental Protection Agency for Union Carbide's application to the Project XL program. We are familiar with Union Carbide's recent work in this area through our involvement in their Best Management Practices Pilot, under the Sustainable Industries Project, at their facility in Taft, Louisiana.

Union Carbide has demonstrated a sincere effort to develop an environmental management system acceptable to a range of stakeholders that may facilitate the transition to cleaner, cheaper, and smarter environmental regulation in the future. EPA Region 6 believes that Union Carbide's participation in Project XL is a positive step towards reinventing environmental regulation.

If you have any questions, please call me, or a member of your staff may call Ms. Bonnie Romo of my staff at (214) 665-8323.



APPENDIX B: DIAGRAM OF TAFT, LA FACILITY

**APPENDIX C: BEST MANAGEMENT PRACTICES WORKGROUP**

<u>WORK GROUP MEMBER</u>	<u>TITLE</u>	<u>AFFILIATION</u>
John Dernbach	Assistant Professor	Widener University Law School
Mark Dorfman	Senior Research Associate	Inform
Frances H. Irwin	Director of Pollution Prevention	World Wildlife Fund (for identification purposes only)
Pam Kaster	President	Citizens for a Clean Environment
Daniel J. Fiorino	Director, Wastes & Chemical Policy Division, Office of Policy, Prevention & Evaluation	United States Environmental Protection Agency
Jerry L. Newsome	Regulatory Impact Analyst, Office of Policy, Prevention & Evaluation	United States Environmental Protection Agency
Sally A. Sasnett	Representative, Office of Enforcement & Compliance Assurance	United States Environmental Protection Agency
John R. Hepola	Chief, Air/Toxics & Inspection Coordination Branch	United States Environmental Protection Agency, Region VI
Bonnie Romo	Environmental Engineer	United States Environmental Protection Agency, Region VI
John C. Glenn	Program Manager	Louisiana Department of Environmental Quality
Larry L. Jackson	Manager, Health, Environment & Regulatory Affairs	Dow Chemical Company
Ric A. Olson	Senior Environmental Associate, Health, Environment & Regulatory Affairs	Dow Chemical Company

**APPENDIX C: BEST MANAGEMENT PRACTICES WORKGROUP  
(Continued)**

<b><u>WORK GROUP MEMBER</u></b>	<b><u>TITLE</u></b>	<b><u>AFFILIATION</u></b>
Eric Males	Director of Wastes	Chemical Manufacturers Association
Bob Rosen	Director, Issue Management & Advocacy	BASF Corporation
James Dement	Assistant Director of Environmental Affairs	Union Carbide Headquarters (CT)
Kim Harvey	RCRA Engineer	Union Carbide Taft Facility, LA
Tom Jones	Program Manager	Union Carbide Taft Facility, LA
Peter Molinaro	Assistant Director of Government Affairs	Union Carbide Washington, D.C.
James Cummings-Saxton	Principal	Industrial Economics, Inc.
Meg Kelly	Associate	Industrial Economics, Inc.
Daphne McMurrer	Associate	Industrial Economics, Inc.



**Appendix D**

**EXAMPLES OF  
ALTERNATIVE DEMONSTRATIONS  
FOR PROJECT XL**

<b>Proposal</b>	<b>Rationale</b>
<p>1. Apply RCRA organic emission standards only where measures of equivalent effectiveness are not undertaken; or, waive if facility demonstrates voluntary source reductions equal to or greater than what RCRA standards would have required.</p>	<p>Easier for regulated community to understand requirements, leading to improved compliance with current regulations. Easier for EPA to verify compliance.</p>
<p>2. Cross-reference RCRA hazardous waste spill reporting with SARA and eliminate duplicative regulations.</p>	<p>Easier for regulated community to understand requirements, leading to improved compliance with current regulations. Easier for EPA to verify compliance.</p>
<p>3. Cross-reference RCRA and Clean Air Act requirements and eliminate RCRA standards for waste streams or equipment that are covered by NESHAP's. Do not apply RCRA fugitive emission requirements to equipment already subject to Federal or State leak detection and repair program.</p>	<p>Easier for regulated community to understand requirements, leading to improved compliance with current regulations. Easier for EPA to verify compliance.</p>
<p>4. Allow flexibility in Clean Air Act requirements for demonstration of materials removal.</p>	<p>Allows alternatives to be used that may generate greater environmental performance by tailoring demonstration to specific process and site.</p>
<p>5. Allow process changes that do not increase wastewater emission performance to not trigger wastewater NSPS.</p>	<p>Tying wastewater emissions control requirements into all projects that are considered a modification under the NSPS is cost prohibitive for some projects, including voluntary pollution reduction projects.</p>
<p>6. Technology-based Clean Water Act regulation does not allow source reduction initiatives.</p>	<p>Source reduction innovation should be allowed if performance standards are maintained.</p>
<p>7. Enforcement shield needed for self-auditing, especially when company has demonstrated effective, good faith effort to correct deficiencies in a timely manner.</p>	<p>More rigorous internal standards for environmental performance and regulatory compliance will be encouraged.</p>
<p>8. Make DOT placards the only requirement of solid waste transporters.</p>	<p>Eliminates duplication of RCRA and DOT requirements, reducing paper handling and substantial administrative costs.</p>