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Project XL Stakeholder Involvement Evaluation
Draft Final Report

For Participant Review and Comment

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May 2, 2000

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This evaluation report was prepared based on interviews with over seventy-five participants in Project XL stakeholder processes. The names of these individuals are noted in Appendix A of this report.

Consultant support was provided under Contract 68-W4-0001 between EPA and RESOLVE, Inc. and Contract 68-W-99-010 between EPA and Marasco Newton Group, Ltd. Under subcontract to RESOLVE and Marasco Newton Group, Michael Elliott of the Southeast Negotiation Network, Atlanta, Georgia, served as principal investigator and author. Research assistance was provided by Tony Giarrusso and Alison Nichols.

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Table of Contents

Credits i

Table of Contents ii

Introduction 1

- Stakeholder Involvement in Project XL 1
- How do Stakeholder Involvement Processes Fit Into Project XL Decision Making? 2
- Approach to Evaluating Stakeholder Involvement for Project XL 3
- Brief Overview of the Eight XL Projects 4
- Organization of this Report 9

Findings and Conclusions 10

1. The Need for Flexibility 10
2. Stakeholders' Expectations and Concerns 15
3. Barriers to Effective Stakeholder Involvement 23

Case Studies 26

Andersen Corporation 27

Atlantic Steel Summary 33

CK Witco 44

ExxonMobil 49

HADCO 57

Intel 62

New England University Laboratories 67

Vandenberg Air Force Base 77

Appendices 81

Appendix A (List of Interviewees) 82

Appendix B (Research Method) 85

Appendix C (Glossary) 87

Introduction

Stakeholder Involvement in Project XL

The U.S. Environmental Protection Agency initiated Project XL in March 1995. Project XL seeks to promote innovative initiatives that improve environmental performance at reduced cost. Sponsors of projects range from manufacturing facilities and university labs to municipalities and military installations. Each sponsor proposes an environmental management project that requires some flexibility in environmental regulations or procedures. All projects are therefore individually designed by project sponsors and reviewed by EPA personnel for inclusion into Project XL. If the project is approved, flexibility is afforded to project sponsors on an experimental basis, conditional on demonstration of expected environmental benefits.

EPA seeks to ensure that modification of regulatory requirements or procedures will truly meet local needs while protecting the environment. To this end, EPA requires meaningful and organized participation on the part of stakeholders in all XL projects. Stakeholder involvement is a collaborative working relationship between sponsors – the organizations who propose the XL project – and people who believe they or their community could be affected by the project. EPA defines stakeholders as

- communities near the project,
- federal, state, tribal or local governments,
- businesses,
- environmental and other public interest groups, or
- similar entities.

Such participation helps ensure that negotiations around specific projects remain open and accountable to the communities in which they are located. Stakeholder involvement requirements also help ensure that stakeholders with an interest in the proposed project have an opportunity to learn about the nature of the project, identify issues that may have escaped the notice of project sponsors and regulators, and provide feedback regarding their concerns.[1]

To assist project sponsors and stakeholders, EPA provides guidance as to who constitutes a stakeholder and what constitutes meaningful and organized participation. In the April 1997 *Federal Register* notice, EPA delineated stakeholders into three categories:

- direct participants: stakeholders who work in partnership with the project sponsors to develop the project agreement in detail, either because they have legal authority to issue permits and rules necessary for implementation of the project (e.g., federal, state, local or tribal agencies or authorities) or because they have a strong interest in the

[1] April 23, 1997 Federal Register Notice.

involvement was a Superfund site, and the suggestions were made in reference to the citizen involvement requirements of Superfund, rather than Project XL.

EPA encourages, but does not require, involvement of stakeholders in the development of the proposal. Only one of the eight project sponsors discussed in this report actively involved stakeholders in developing the project proposal and the stakeholder plan. Thus, decisions about how to involve stakeholders are often made before stakeholders are involved in the process.

The most active phase of stakeholder involvement occurs during the development of the Final Project Agreement (FPA). The FPA serves as the agreement amongst the signatories and delineates the specifics of the XL project. The FPA is negotiated amongst these "direct participants." Signatories typically include the project sponsor, EPA, and local and state agencies. Signatories can also include other stakeholders, although this is uncommon..

Stakeholders are also involved in monitoring implementation of the FPA, and possibly in renegotiating clauses in the FPA as conditions change. Citizen and environmental stakeholders are typically less actively involved in this phase of the XL project.

Approach to Evaluating Stakeholder Involvement for Project XL

In September 1998, a report entitled *Evaluation of Project XL Stakeholder Processes* was prepared by RESOLVE, Inc. This report provided a review of the design and conduct of the stakeholder processes at four of the initial XL projects to reach Final Project Agreements. For each XL project reviewed, the report describes how stakeholders were involved in the drafting and/or implementation of the Final Project Agreement, the stakeholder involvement model used by company sponsors, and the level of stakeholder satisfaction with the process.

Following completion of this initial evaluation, evaluators with the Southeast Negotiation Network evaluated the eight XL projects presented in this report in 1999. The assessment evaluates six new XL projects and further evaluates two projects previously documented by RESOLVE. The cases were selected to clarify the purposes, techniques and impacts of stakeholder involvement at the various stages of decision-making.

At the start of the evaluation, the evaluation team selected two XL projects that were developing their project agreements, two that had recently finalized their project agreements, and four that had been implementing their project agreements for one year or more. For projects in the process of developing their project agreements, the analysis focused on the initiation and early dynamics of the stakeholder process. These case studies included:

- Atlantic Steel, and
- New England University Labs

For projects that had recently signed the Final Project Agreement (FPA), the analysis focused on stakeholder satisfaction and the effectiveness of stakeholder involvement in the process. These case studies included:

urban community and involving a wide range of development issues, governmental procedures, and constituencies. The stakeholder involvement process used by Jacoby focused on public meetings, with informal negotiations between Jacoby and specific stakeholders around issues of particular concern to those stakeholders.

- **CK Witco** is a chemical specialties manufacturer. The facility is located on an 1,300 acre site in rural West Virginia. The CK Witco XL project seeks to reduce air emissions and to promote waste minimization in order to reduce hazardous air emissions. CK Witco's stakeholder involvement process included community outreach, and the inclusion of two community representatives on the project negotiation team.

- **ExxonMobil** (Sharon Steel Superfund Site) involves the cleanup of a Superfund site. The proposal describes an alternative strategy for investigation, risk assessment, remedy selection and remediation of the site. Using an administratively streamlined process, ExxonMobil hopes to clean up the contaminated site in half the time of traditional cleanups and at less cost. Additionally, ExxonMobil is working with stakeholders to locate businesses interested in redeveloping the site. ExxonMobil involved stakeholders through a community advisory committee.

- **HADCO** is a leading manufacturer of printed wiring boards (PWB) and electronic interconnection products, located in New Hampshire, New York and elsewhere. As a PWB manufacturer, HADCO generates wastes that are classified as hazardous waste under the Resource Conservation and Recovery Act (RCRA). Since the wastewater sludge produced by HADCO's operations is classified as hazardous under RCRA, it must be shipped to a third-party processor before it can be sent to a smelter for reclamation of the valuable copper contained within. HADCO seeks a conditional delisting of the sludge that would allow them to bypass the third-party processor and ship the wastes directly to an approved smelter. Efforts to involve stakeholders proved difficult, and little participation was achieved in this project.

- **Intel**, a large semiconductor manufacturer, produces Pentium microprocessors and other state-of-the-art computer chips. Located in Chandler, Arizona, in the Phoenix metropolitan area, the FAB-12 facility is a state-of-the-art facility. The FPA provides for a facility-wide cap on various air pollutants. The facility-wide cap replaces individual permit limits for different air emissions sources. The FPA also limits water use and waste generation. Intel designed and implemented a consensus building process to involve stakeholders in the design and implementation of the FPA.

- **New England University Labs** seek to develop flexible performance-based standards for managing university laboratory hazardous waste. The project is designed to develop and implement an integrated Environmental Management Plan (EMP) for managing hazardous lab waste at three universities (Boston College; University of Massachusetts, Boston; University of Vermont). These laboratories typically use small quantities of many different chemicals. A management plan to control their use and disposal offered environmental advantages relative to the traditional regulatory requirements set forth in the Resource Conservation and Recovery Act (RCRA). The New England University Labs employed two distinct stakeholder involvement

Table 1 provides an overview of the primary characteristics of these XL projects.

Table 1
Eight XL Projects Evaluated: Location, Status and Format of Participation

XL Project & Location	Year of Initial Project XL Proposal and Project Status as of June 1999	Activity of Project Sponsor	Environmental Benefit of Project	Format for Participation
Andersen Corp. Bayport, MN (rural)	1997 FPA recently finalized	window manufacturing	reduce air emissions; reuse waste materials	Direct dialogue within a 15-person Community Advisory Committee composed mostly of citizens
Atlantic Steel Atlanta, GA (urban)	1998 Developing FPA	redevelopment of 138-acre brownfield site located in a central city	redevelop brownfield site; minimize transportation-induced air pollution and urban sprawl	Public meetings, with written and oral comments; several interactive workshops sponsored by stakeholders other than the project sponsor
CK Witco (OSi Specialties) Sistersville, WV (rural)	1995 FPA finalized over one year previously	chemical specialities manufacturing	reduce air emissions; pollution prevention	Public meetings and an informal XL project team that included two citizens
ExxonMobil Fairmont, WV (rural)	1998 FPA recently finalized	Superfund remediation	more timely and efficient Superfund cleanup	Direct dialogue within a 25-person stakeholder panel composed mostly of citizens
HADCO Owego, NY Derry and Hudson, NH (small town)	1995 FPA finalized over one year	printed wiring board manufacturing	hazardous waste delisting; material reuse	Primarily direct negotiations between project sponsor and government agencies
Intel Chandler, AZ (suburban)	1995 FPA finalized over one year previously	computer chip manufacturing	pollution prevention; reduce air emissions; increase water reuse	Direct dialogue and consensus building within a stakeholder negotiation group that included four citizen members

third, can we identify specific characteristics of stakeholder involvement processes that contribute to or block effective involvement and satisfaction with that involvement?

These questions frame our evaluation of the Project XL stakeholder involvement processes. What, then, are our findings and conclusions with respect to these questions?

Organization of this Report

The remainder of this report first presents the findings and conclusions that emerged from our evaluation of the XL project stakeholder involvement processes. Following this discussion, the report presents more detailed project descriptions and assessments for each of the eight XL project studied. A list of interviewees, a description of the research method, and a glossary of terms is presented in the appendices.

Findings and Conclusions

The findings and conclusions of this report are presented with reference to the three major questions raised above. First, we examine the need for flexibility in the design of stakeholder involvement processes, and the implications of this on EPA policy and guidance efforts. Second, we examine the degree to which involvement processes afford stakeholders opportunities to participate consistent with their expectations, concerns and stake in the outcome. And, third, we identify specific characteristics of stakeholder involvement processes that contribute to or block effective involvement and satisfaction with that involvement.

1. The Need for Flexibility

To what degree should EPA policies and guidance documents prescribe specific approaches to stakeholder involvement? The eight case analyses indicate that projects are highly diverse in context and levels of complexity and concern. For stakeholder processes to respond effectively to these varying conditions, the policies developed by EPA need to provide for a wide latitude of processes. At the same time, this flexibility increases the responsibility of EPA project coordinators to ensure that the design and implementation of stakeholder processes are consistent with the objectives of meaningful involvement.

1.1 EPA policies and guidance documents provide considerable latitude in the design of XL project stakeholder involvement processes.

Guidance documents set a goal that the process of strategy development "engages those parties affected by environmental regulations and policies in an unprecedented effort to find solutions that work better." EPA Project XL guidance documents describe three levels of possible involvement for stakeholders to participate in an XL project:

- direct participants who engage in the day-to-day negotiations,
- commentors who have a direct interest in the project but who do not participate in day-to-day negotiations or project development, but instead provide written or oral comments, and
- the general public, who are to be provided clear access to information on project development and results.

Thus Project XL envisions a range of possible roles, with differing levels of participation. At one extreme are stakeholders who "negotiate," while at the other extreme are stakeholders who have "clear access to information." In the middle, commentors have access to information and can present their perspectives. Alternatively, we can describe these three roles as each based on the following forms of communication:

- two-way communication (including weakly consultative, strongly consultative, joint problem solving, and consensus building processes),

provide overall guidance while permitting considerable latitude in process design therefore seems appropriate.

1.3 EPA policy, while providing flexibility to process design, does not delineate criteria for determining which stakeholders should be afforded what levels of involvement. This can engender significant tension when the expectations of the stakeholders for involvement in the process exceed the willingness of project sponsors to involve these stakeholders.

Given the broad policies established by EPA, how does EPA ensure that individual XL projects meet the fundamental goal of involvement processes, namely to develop a collaborative working relationship between Project XL sponsors and people who believe that they or their communities might be affected by these projects? What happens when the expectations of the sponsors differs significantly from the expectations for involvement held by stakeholders?

Project XL stakeholder involvement processes are designed and implemented by the project sponsors. Project sponsors are the companies or governmental agencies who seek the regulatory flexibility afforded by XL projects. Within the eight XL projects evaluated for this report, over half of the sponsors developed involvement processes that primarily sought to share information with stakeholders, while a smaller number sought to promote dialogue or to build consensus with stakeholders. In most cases, the differences in levels of involvement bear a reasonable relationship to the context and preferences of the stakeholders for participation. But the cases also show that the predilections of the sponsors to involve stakeholders, as well as the ability of the sponsors to design and manage more complex forms of participation, also play an important role in shaping the levels of participation.

As we will discuss in more detail below, given the broad criteria set forth in EPA policy, sponsors design stakeholder involvement processes primarily to meet the sponsors' need to build relationships of cooperation with their communities, public agencies, and the EPA. The need to build cooperative relationships therefore depends not only on the issues raised by the XL project and the community's concerns with these issues, but also on the capacity of the sponsors to design effective participation processes (in a situation where most sponsors have never designed a community involvement process before), as well as the sponsor's assessment of the political need for cooperation.

At the same time, the broad criteria embedded in EPA policy helps contribute to overly high expectations on the part of some stakeholders as to their influence over project decisions. No XL project sought the consensus of all stakeholders in developing the Final Project Agreement. Most limit the core negotiations to the company, government agencies and possibly a few key stakeholders. Only one was broadly inclusive in a process clearly designed to build consensus. Yet, when a project involved stakeholders who believed that they had a large stake in the outcome, it was not uncommon for these stakeholders to expect considerable influence over the outcome.

These differences between sponsor and stakeholder expectations are by no means unique to Project XL. Differences in interests often lead to differences in perception and expectations in stakeholder involvement processes. Yet two aspects of this problem stand out. First, greater

1.5 EPA minimum standards for stakeholder involvement, particularly as interpreted by the regional XL project coordinators, appear to be the most important external impetus to the sponsor for designing more meaningful processes of participation.

Often, EPA personnel felt that more full participation would have been desirable. These personnel actively encouraged greater efforts to reach out to additional stakeholders, at times suggesting specific types of stakeholders that could be included. From time to time, EPA personnel also suggested when and why projects sponsors should hold meetings, as well as the format for those meetings. Project sponsors usually implemented EPA suggestions, at least in part.

But while EPA project coordinators felt that they could encourage more extensive forms of participation, the project sponsor remained solely responsible for the design and implementation of the stakeholder involvement process. EPA personnel felt free to enforce minimal standards of acceptability, but hesitant when it came to insisting on levels of participation not clearly required in the guidance documents. Several reasons exist for this hesitancy.

- First, Project XL is a voluntary program, and as such the project proponent is voluntarily accepting responsibility to design the project agreement and to initiate and maintain the stakeholder involvement process.

- Second, the stakeholder processes may well be subject to the Federal Advisory Committee Act (FACA) if initiated and managed by EPA. FACA requirements would be cumbersome and difficult to apply in the experimental projects that XL is designed to attract.

- Third, Project XL coordinators are more concerned with developing strategies that improve the environment while lowering costs of compliance than they are with promoting stakeholder involvement in environmental decision making for its own sake. Participation helps legitimize the projects and provides forums where concerns can be raised. Beyond assuring that the process is open and transparent, then, EPA personnel mostly seek to assure that XL projects do not generate high levels of opposition. In the absence of controversy, EPA project coordinators are less likely to strongly encouraged more extensive forms of participation.

What can be done to balance these conflicting concerns within EPA? To begin with, EPA has already made significant progress in clarifying the role of stakeholder processes in XL project development, and in providing clearer guidelines for process design and implementation. In September 1998, EPA released its first report of XL stakeholder involvement entitled *Evaluation of Project XL Stakeholder Processes*. Based on this report and additional stakeholder input, in 1999 EPA released the *Project XL Stakeholder Involvement: A Guide for Sponsors and Stakeholders*. These documents , as well as in the future this report, will help EPA personnel and project sponsors clarify the goals and processes employed to promote stakeholder involvement.

In addition, together with the project sponsors and the regional EPA project coordinators, more active EPA Headquarters review of the stakeholder process designs may help build institutional capacity to promote more effective involvement. Currently, few project coordinators

Table 2

Relationship Between Desire to Participate and Focus and Format of Participation

XL Project		Stakeholder Desire to Participate	Focus of Involvement Process	Format for Participation
Andersen Corp.		moderate	Information sharing and consultation	Direct dialogue within a 15-person Community Advisory Committee composed mostly of citizens
Atlantic Steel (Jacoby)		very high	Information sharing, with some *ad hoc* negotiations with specific stakeholders	Public meetings, with written and oral comments; several interactive workshops sponsored by stakeholders other than the project sponsor
CK Witco (OSi Specialties)		low	Information sharing	Public meetings and an informal XL project team that included two citizens
ExxonMobil		moderate	Information sharing, with some focus on joint problem solving	Direct dialogue within a 25-person stakeholder panel composed mostly of citizens
HADCO		very low	Government agency negotiations	Primarily direct negotiations between project sponsor and government agencies
Intel		very high	Consensus building	Direct dialogue and consensus building within a stakeholder negotiation group that included four citizen members
New England University Labs	**National Process**	high	Joint problem solving	Problem solving workshops and an email list server involving research labs
	Local Processes	low	Information sharing	informal meetings with university personnel and various forms of public outreach to communities located around the universities
Vandenberg AFB		low	Information sharing	Presentations to pre-existing environmental citizen committees

project sponsors initiated community advisory panels to focus community involvement on issues raised about the projects. Although the panels were clearly advisory, they allowed for ongoing information-sharing and dialogue between community representatives and the companies. Most interviewees indicated that while they had originally expected a more consensus-oriented process, the emphasis on information sharing and consultation were acceptable. However, a few participants indicated that the advisory nature of their involvement discouraged participation on their parts, or discouraged other stakeholders from actively participating, thereby muting opposition to the project.

The most vocal concerns about the participation process were raised in the Atlantic Steel and Intel processes. Both projects raised issues of significant concern to stakeholders and, in response, stakeholders made large demands for participation. In neither case were the expectations of stakeholders met. Interestingly, of the eight processes studied, the Intel process was probably the most effectively designed process and the most oriented toward consensus building. In this case, dissatisfaction seems to spring primarily from stakeholder concerns about the degree to which their participation affect the specifics of the project agreement, as well as more general concerns about the appropriateness of affording regulatory flexibility to Intel, rather than from concerns about the design and implementation of the participation process per se. Atlantic Steel, on the other hand, generated considerable objections to the design and implementation of the participation process because while it offered opportunities for information sharing and comments, it did not meet the expectations of stakeholders for more meaningful involvement.

Finally, in one process (the national New England Labs process) stakeholders came to a high level of consensus with the project sponsors. However, EPA requested important revisions to the proposed agreement proposed by the sponsor. Participants in the national process consisted largely of representatives of university and private research labs. Interviewed participants were largely supportive of the involvement process, including the interactive workshops and list serve email systems. However, a number of stakeholders expressed dissatisfaction with the outcomes of the process and the resulting FPA. For the most part, these participants felt that EPA had limited the project agreement by too narrowly restricting the flexibility afforded to the project, thereby limiting the value of what the labs considered to be an "experiment." In addition, the long negotiations between the project sponsors and EPA created difficulties with managing the national participation process.

From these cases, we can conclude that satisfaction with the participatory process in these projects depended primarily on three variables:

- the willingness of project sponsors to involve stakeholder at a level consistent with the stakeholders' concerns and expectations,
- the consistency between the stakeholder's expectations as to their influence over decision-making and the stakeholder's perception about their actual impact, and
- the level and efficiency of effort required to participate.

These variables are explored more fully in Table 3 below.

As is shown in Tables 2 and 3 above, project sponsors rarely design interactive processes of participation in communities unless demand for participation is moderately high. In communities where desire to participate is low, sponsors have little incentive to actively engage stakeholders. Even if they try, response is sporadic. Typically, XL projects in which stakeholder interest in participating is low are located in rural communities or are dispersed across many communities. These facilities are often physically isolated from neighbors, with relatively little potential for negative impacts as a result of the XL project.

On the other hand, projects that elicit a high degree of community concern and that have greater potential for negative impacts on stakeholders do not necessarily develop processes that encourage greater participation. Stakeholder involvement is also linked to the local and regional politics of the project. Sponsors of complex and potentially conflictual projects (such as Atlantic Steel) may well design processes that bifurcate stakeholder in ways that allows for more direct involvement of parties with the power to block the project, and less direct involvement of impacted stakeholders who lack that power. Project sponsors have incentives to bifurcate participation processes because 1) the financial and time resources needed to design and implement a well-integrated participation processes increases with the number of stakeholder groups and the complexity of the issues and 2) integrated processes may provide a forum that legitimizes concerns of groups that may otherwise have little voice in the process.

From the cases examined, sponsors are most likely to design interactive, dialogue-based forums for participation when:

- the proposed project affects a clearly recognizable community of stakeholders,
- those stakeholders are capable of organizing, and
- the stakeholders are important constituencies of the project sponsor.

2.4 In several projects, it was clear that neither the project sponsors nor EPA personnel involved in the projects had specific training or experience in developing stakeholder involvement processes. In these cases, project sponsors designed involvement processes that lacked clear structure and objectives, were reactive rather than proactive, and fostered stakeholder expectations that were inconsistent with process design.

Challenges to the design and implementation of participation processes are many. XL projects often involve specialized issues, technical knowledge and dispersed impacts. Stakeholder groups can be varied and unfamiliar with each other. The project and timetable are often difficult to predict and manage. The goals of processes also vary.

Yet, despite the variation of contexts and goals, XL participation processes need to exhibit several characteristics if they are to promote acceptance of project agreements and satisfaction with participation processes. These include:

- clear presentation of the intent of the sponsor as to the purpose of the process and its impact on decision making,

At the same time, we should note that EPA now uses guidance resources more extensively with newer XL projects. In addition, as noted above, EPA has significantly refined its guidance documents for supporting involvement process design and implementation. These materials were published at the same time as this evaluation project was conducted, and hence were not available to the eight XL projects discussed in this report.

Table 4

Design of the Participation Process

XL Project	Stakeholders systematically identified?	Issues systematically identified?	Process goals and steps clearly articulated?	Process facilitated by neutral?
Andersen Corporation				
Atlantic Steel Site (Jacoby)				
CK Witco (OSi Specialties)				
ExxonMobil (Sharon Steel Superfund Site)				
HADCO				
Intel				
New England Labs (national process)				
New England Labs (local processes)				
Vandenberg Air Force Base				

scale:  low  moderately low  moderate  high very high

that low stakeholder interest is correlated with less organized participatory processes, but which is cause and which is effect remains difficult to determine for these limited number of cases.

3.3 Efforts to keep the XL project meetings focused exclusively on XL issues created considerable frustration on the part of stakeholders when those stakeholders were primarily concerned with community issues associated with, but not directly caused by, the XL project.

At times, stakeholders, sponsors and EPA cannot easily distinguish between issues that are under the prerogative of XL and those that are not. For example, conceptual models of urban design were included in the analysis for the Atlantic Steel project, while specifics about urban design were excluded for discussion because they were viewed as beyond the scope of the XL process. At other times, Project XL participatory processes provide an opportunity for stakeholders to raise concerns that are not directly related to the XL project. For example, stakeholders from local communities in the New England Labs project were primarily concerned with university impacts on neighborhoods (such as student activity and noise) rather than the management of hazardous wastes in the labs. Similarly, stakeholders in the Andersen project voiced general concerns over the impact of Andersen on its neighbors. In each of these cases, stakeholders were frustrated by the inability of the process to address issues of concern.

By comparison, in the ExxonMobil case, the process allowed discussion of and worked to address ancillary community concerns. This contributed to overall stakeholder satisfaction. However, this approach raises its own concerns. A state agency representative, for example, felt that the process should have been more focused on issues central to Project XL, in order to reduce the amount of time taken up by the process.

3.4 Most processes did not actively involve national groups. Moreover, in those projects where national groups were included, the interaction between the local and national groups was very limited.

National stakeholder groups were explicitly concerned with three of the XL projects explored in this report: Intel, Atlantic Steel, and New England Labs. In all of these cases, national groups were involved as commentors, and did not participate in stakeholder involvement or public meetings. While the comments made by national groups were at times useful to local stakeholders in clarifying issues, in none of these cases did national and local stakeholders participate together.

In the Intel project, a national group requested more active participation as a participant on the stakeholder negotiation team. Participation by the national stakeholders was allowed on a limited basis. The national organization, however, refused to sign a confidentiality agreement with Intel, a requirement for participation that was agreed to by all local stakeholders. This effectively blocked participation by the national group.

In Atlantic Steel, the sponsor worked directly with larger environmental groups to determine and address their concerns outside the local public meeting process. Finally, in the New England Labs project, the sponsor designed three distinct participation processes, one for national stakeholders, one for university stakeholders, and a third for local community stakeholders.

Case Studies

Andersen Corporation

Project Background

Andersen Corporation, a window and door manufacturing company, is located in Washington County, Minnesota. The manufacturing facility is located near the towns of Bayport and Stillwater, with 3,500 and 15,000 residents respectively. About half of the adults in this region either currently work or have worked for Andersen in some capacity.

In early 1998, Andersen submitted an XL project proposal to the EPA. The final project agreement was signed on June 30, 1999. Under the agreement, Andersen will reduce their air emissions of volatile organic compound (VOC) emissions per standard unit of production. This performance-based regulatory approach seeks to provide incentives for Andersen to improve their environmental performance. Specifically, The agreement encourages Andersen to:

- manufacture more of its windows from wood fiber and vinyl to reduce its use of virgin materials;
- experiment with the recovery of window components by removing paint, processing any lead in the paint for reuse, and using the recovered wood to produce new windows;
- substitute low-solvent processes for solvent-based coating and wood-preservative processes to reduce air emissions; and
- develop greater production efficiencies and emission improvements.

Although the Andersen XL project is currently in implementation, this analysis focuses upon stakeholder satisfaction and the effectiveness of the stakeholder involvement process used during the development of the FPA.

Stakeholders interviewed for this report are listed in Appendix A. Interviewees included participants representing the community, Andersen Corporation, EPA, and the Minnesota Pollution Control Agency.

Stakeholder Involvement Process

Andersen Corporation designed the stakeholder involvement plan in the fall of 1997. Andersen sought to establish a process for informing and involving a variety of people and organizations interested in the company's Project XL initiative.

In October 1997, Andersen began seeking participation of stakeholders. Four articles in local newspapers described the XL project. These articles also made known Andersen's search for community representatives to the project. An XL project public information repository was made available at the local library. This repository was mentioned in the news articles and

stakeholder process was designed to share information between the company and community. Some members also felt that because the CAC included members who had previously complained about the company, the CAC provided a vehicle for working out some problems between the community and the company. At the same time, members also felt that Andersen was not accountable to the CAC, and that the CAC needed more latitude to set the overall goals of the stakeholder process, and to alter them as the project progressed.

Both the EPA and Andersen representatives stated that the CAC was very effective in disseminating information about the project to the community. EPA stated that the goals of the stakeholder process were primarily designed to share information with the community but with the added intention of improving community relations with the company. Several CAC members believe that the CAC would continue even if the XL project were discontinued. Andersen and EPA reiterated this.

Issues Raised at Meetings

All interviewees stated that the majority of issues raised at the CAC meetings were appropriate and adequately addressed. However, several issues raised were not related to the XL project (odor from the plant, traffic, noise, etc). While Andersen addressed these issues, several CAC members questioned the adequacy of their response. CAC members felt that the above issues were important and Andersen could have better responded to the concerns.

Several CAC members also stated that EPA and Andersen seemed to be more concerned with each other than with issues raised by the CAC. For example, CAC members stated that the EPA was only concerned with legal and technical issues while Andersen was only concerned with what the EPA demanded. These members believed that the CAC role was limited to commenting on what EPA and Andersen had already worked out.

The majority of CAC members felt that the right people were involved to effectively represent stakeholder interest. However, one CAC member stated that representatives of Bayport merchants, the school district, and the St. Croix River Valley Boundary Commission were needed if the CAC was to effectively represent a broad array of stakeholder interests.

Roles of the CAC in the Development of the Project XL Agreement

The CAC was not involved in development of the initial project proposal. Opinions differed as to the impact of the CAC on the development of the FPA. Some members felt their role was significant, while others did not.

According to EPA, Andersen originally established the CAC to review and comment on the FPA, but that over time the CAC developed stronger roles for themselves. The EPA felt that comments made by CAC members were taken seriously. Both EPA and Andersen stated that Andersen would not continue on any part of the XL agreement without support of the CAC.

Satisfaction with the Stakeholder Process and Suggestions for Improvement

Both the EPA and Andersen were very satisfied with the stakeholder process. EPA was very content with Andersen's efforts to include stakeholders and manage the CAC in the XL project. Andersen had no suggestions for improving the process while EPA suggested including a technical expert on the CAC. Andersen felt that the stakeholder process provided an excellent, regular forum for discussion. They felt that this forum was beneficial to both the company and community. The EPA felt that the ability of Andersen to listen and react to community concerns was a great benefit of the process.

All except one of the CAC members expressed a general satisfaction with the stakeholder process. The majority of CAC members felt that Andersen did a fine job of publicizing and garnering support for the XL project. They stated that the process allowed substantial opportunity for input. All information on the project was also open and available to the public. The process provided a way for the community to get to know Andersen on a personal basis and help to resolve misgivings associated with the company. The CAC was seen as a dynamic group that understood the key concerns and could provide input.

Most members stated that they had nothing to which to compare the process. Without a context, they felt satisfied. Some members felt that they went into the process believing that the CAC would hold decision-making power in developing the project. They later felt that, given the complexity of the project, these attitudes were unrealistic. Several members felt that the end result of the stakeholder process (increased awareness of Andersen's activities, better rapport with the company, and full disclosure of info) was very satisfying. The CAC members observed that initially CAC and Andersen did not share a similar vision for the role the CAC would play in the project. This lack of understanding initially created a reluctance on the part of individuals to participate as CAC members.

A few CAC members also expressed concerns about the management of technical issues. Two CAC members felt that the CAC was not prepared to address technical issues and therefore were not able to effectively comment on technical issues.

Also, one CAC member objected to the lack of Andersen critics on the CAC, and felt that the CAC was formed simply to fulfill an XL requirement. The interviewee further felt that the EPA and Andersen had too much control over the decision-making process, and that while the CAC was given an opportunity for input, the impact of that input was low. Despite this interviewees concern about the XL initiative, the CAC member was somewhat satisfied with the accomplishments made. The member felt that the full access to information afforded to the CAC was very important and helped build some confidence in the process.

CAC members and the state agency representative felt that the project did not progress efficiently, and that this hampered the stakeholder process. They felt that the EPA slowed down the process immensely. Most CAC members did not understand the reasons for these delays. The state agency representative identified problems associated with the EPA review process that led to commenting from multiple EPA staff, as well as the distance between EPA's regional and headquarter offices that led to confusion about who was responsible for decisions at EPA. CAC

Atlantic Steel Summary

Project Background

In 1998, Jacoby Development, Inc. proposed redevelopment of an 138-acre brownfield owned by Atlantic Steel. Although many years of steel manufacturing left the site contaminated, the site is highly desirable for urban redevelopment because of its proximity to Atlanta's central and midtown business districts. The developer's proposal includes a high-density mix of residential and business uses.

While well situated, the project site suffers from poor accessibility. The site adjoins Interstate 75/85 and the Midtown district of Atlanta, but is directly accessible from neither. Furthermore, I-75/85 blocks the site from the existing MARTA (Metropolitan Atlanta Rapid Transit Authority) rapid rail transit system. The project plan therefore includes a multi-modal bridge that would cross I-75/85 at 17th Street (17th Street bridge). The bridge is designed to connect the site to Midtown and a nearby MARTA mass transit station, as well as to provide access to the interstate. Jacoby will undertake redevelopment of the site only if the bridge is constructed. In addition, the City of Atlanta conditioned its rezoning on construction of the 17th Street bridge.

The bridge is a major transportation project, requiring federal funds to complete. Atlanta, however, is currently not in conformance with the requirements of the Clean Air Act, and cannot use federal funds for new construction until it develops a plan to bring the region into conformance. The proposed redevelopment of the brownfield site, however, is seen as environmentally beneficial both because it would result in the clean-up of the existing contamination, and because its plan and location promise reductions in air pollution relative to alternative projects that it is likely to displace.

Project XL provides a vehicle for enabling federal transportation funds to be used in the project. Jacoby has worked with representatives of EPA, the State of Georgia, local authorities, and public stakeholders to develop a site-specific Project XL Agreement that will allow construction of the bridge.

Due to the complexity of the project and the numerous processes and analyses necessary to implement it, EPA and Jacoby adopted a two-phased approach to the Project XL Agreement. The Phase 1 Agreement between EPA and Jacoby set out the intentions of Jacoby and EPA related to development and implementation of this project. Signed on April 13, 1999, the Phase 1 Agreement detailed the project and the intentions of each party, and described areas where further details or additional discussions between EPA, Jacoby and stakeholders were needed.

The Phase 2 Project Agreement, which also served as the Final Project Agreement between EPA and Jacoby, addressed these concerns. The agreement was signed on September 7th, 1999.

project, offered conditional support for the project. The focus of concern was primarily on the scale, interconnectivity and design of the project, rather than on the appropriateness of the project itself.

Stakeholder involvement was an important part of the concept and rezoning considerations since the project began in early 1997. Multiple public meetings, discussion groups, individual contacts, and a full public notice and review process were held during the rezoning of this property. The City of Atlanta Planning Department, Georgia Department of Transportation, Atlanta Regional Commission, nine neighborhood organizations, and several other groups such as the Midtown Alliance and Georgia Tech all participated in this process. These groups collaborated on the concept, design, and conditions put in place in the rezoning document, which replaced the existing industrially zoned land use classification with a mixed-use classification that allowed for residential, retail, office, and hospitality uses. After the public input and review, the rezoning was approved by all of the involved neighborhoods, the City of Atlanta Zoning Review Board 9-0, recommended to the City Council by the Zoning Committee 5-0, and passed by the Atlanta City Council 15-0.

The Stakeholder Involvement Plan was intended to supplement previous activities and described the basic methods by which additional input would be solicited and received particularly as it related to Project XL.

Goals of the Stakeholder Process

The goals of the early stakeholder input and the Stakeholder Involvement Plan was to ensure that interested stakeholders were afforded the opportunity to participate in the development of this project and to provide the stakeholders with the information they needed to participate in decisions on the future of the Atlantic Steel Redevelopment.

The following were objectives of the plan as stated by Jacoby:

- identify stakeholders and their role in this project,
- describe methods of communication between the project sponsor and the stakeholders,
- ensure all stakeholders have an opportunity to participate in the project,
- promote stakeholder involvement in the development of the FPA, and
- assure all previously involved stakeholders that discussions, agreements, and contracts, particularly relating to zoning conditions, remain fully intact.

Roles of Stakeholders Involved in the Process

Stakeholders included individuals, government agencies, neighborhood organizations, academic centers, and companies with an interest in the progress of the Atlantic Steel

XL process and one each before the public comment period for the Phase 1 and Final Project Agreements), an urban design workshop conducted by the US EPA, and another workshop sponsored by the Georgia Conservancy to help residents of the most affected neighborhood (Home Park) clarify their own goals and desired outcomes in regards to this project.

Community and environmental stakeholders had no direct role in the development of the FPA.

Aside from public agencies, most other interviewees felt that their roles were never clearly defined. The community groups and non-profits stated that the EPA or Jacoby should have better explained the roles of the stakeholders at the beginning of the project. The state and city agencies, on the other hand, were more confident in applying their traditional regulatory roles to the XL process.

Many interviewees stated that the EPA's role in the process was never well defined. They would have liked to have been better informed on the allocation of responsibility between EPA and Jacoby. For example, some stakeholders stated that while there were not enough public meetings, they did not know whether to blame EPA or Jacoby.

Outreach to Stakeholders

The stakeholder involvement plan developed by Jacoby called for contacting potential stakeholders prior to and during development of the FPA and to set up an advisory committee of direct participants. Jacoby never established such a committee. Jacoby did established a project mailing list to inform interested stakeholders of opportunities to comment or participate during project development and implementation.

The plan proposed using the following methods to contact and inform additional potential stakeholders.

Local Newspapers: The stakeholder plan called for display and legal ads in the major local newspapers to inform the general public of public meetings and comment periods. Ads appear to have been completely ineffective at reaching public participants. More effective were newspaper articles in local newspapers, written by reporters. As of June, 1999, approximately 12 articles were published. These articles focused primarily on transportation and economic development issues. One article briefly discussed the EPA urban design workshop. None of the articles referenced or informed citizens of the public meetings.

Cable Television: The stakeholder plan called for notices of public meetings and comment periods to be sent to the community access cable station, and to tape and broadcast the public meetings on the community access station. However, this part of the plan was not implemented.

Newsletters / Fact Sheets: The plan also called for publishing fact sheets and mailing these newsletters to everyone on the project mailing list. The plan suggested that newsletters would provide status reports, timelines, mileposts, contacts, and future meeting times and locations. This plan was partly implemented. A project mailing list of 60 people was developed. At EPA's

Jacoby placed meeting announcements in the legal section of the local newspaper a week or two before they were held, and mailed notices to persons who had indicated an interest in the project. However, local community stakeholders often did not receive these mailings, and therefore called other community members to keep informed.

Participants at these meetings included residents of adjacent neighborhoods, the Federal Highway Administration (FHWA), Georgia Department of Transportation (GA DOT), Jacoby Development), Atlantic Steel, EPA Region IV and Washington, the Georgia Conservancy, the developer's consulting firms, the surrounding neighborhoods, other special interest stakeholders and the general public.

Typically, each of the general meetings included a number of presentations, primarily by the developer and the US EPA, with time for questions and comments. For example, at the first meeting, presentations were made by the project sponsor (opening remarks and a detailed presentation of the Atlantic Steel project), EPA's Region IV's Air Quality Division (a brief overview of EPA's Project XL), the Georgia Conservancy (an overview of air quality problems in the Atlanta Region and the Conservancy's Smart Growth Initiative), the EPA Region IV Atlantic Steel XL Project Coordinator (a summary of EPA's Project XL program and criteria), and EPA headquarters (explanation of the air quality performance methodology that will be used). The meeting concluded with a question and answer session. After close of the meeting, Atlantic Steel and EPA project information remained on display, with additional questions answered one-on-one.

The public meetings held in February and June 1999 took place upon completion of the draft Phase 1 Agreement and the draft Final Project Agreement. The meetings were designed to inform the public of what was involved in the draft agreements, to solicit comments on the agreements and to inform attendees of their right to comment during the public notice period. Once again, the meetings were primarily organized around formal presentations. A court stenographer was employed to record the proceedings.

Home Park Charrette

In November 1998, the Georgia Conservancy sponsored a community development workshop in Home Park, the residential neighborhood adjacent to the Atlantic Steel project. Urban design faculty and students of Georgia Tech and the Inter-professional Community Design Collaborative facilitated the workshop. This charrette was not directly related to the XL project. However, a large part of the workshop focused on how to integrate the XL project redevelopment with neighborhood plans. Prior to the workshop, most Home Park residents did not want to incorporate the development into their plans for the neighborhood. They preferred to isolate the neighborhood from the project. However, as a result of the workshop, the Home Park Civic Improvement Association (HPCIA) concluded that Atlantic Steel needed to be a part of the neighborhood. Several community goals regarding the Atlantic Steel project came out of the workshop. They included:

- Protect and develop neighborhood edges, particularly along the Atlantic Steel boundary with residential uses that carefully provide transition from existing lower to proposed higher densities.

All interviewees stated that substantial issues were raised throughout the process. Most interviewees felt that every possible issue was raised. However, the majority of interviewees stated that these issues were not adequately addressed due to the size of the project. The EPA and the developer stated that the issues often raised at public meetings were not specific to the XL project and therefore were not addressed. The community groups, non-profits, and state and city representatives stated that determining which issues pertained to the project and which did not was very difficult. These groups felt that the EPA and Jacoby should have done a better job clarifying pertinent issues.

All interviewees stated that the right people were involved in the process to effectively represent stakeholder interests. All interviewees stated that the number and diversity of stakeholders as well as the inter-agency communication were outstanding. No groups had ever seen such effective inter-agency coordination prior to this project.

Overall, the community groups and citizens living closest to the development site felt that they should have had more input into the process. Community residents interviewed felt that the stakeholder process did not meet their expectations. Community residents interviewed who attended the public meetings stated that the meetings provided no forum for input. They felt that the meetings were informational at best, and that EPA had decided prior to any public meetings that the project would be approved regardless of any concerns raised by citizens. Most community concerns focused on the impact of the project on the community and the integration of the project into the community (rather than on the design and impact of the bridge).

Environmental and other non-residential interviewees generally felt that the formal public meetings, which tended to focus on providing project updates, offered limited opportunity for effective feedback. In general, the larger groups (Environmental Defense Fund, the Georgia Conservancy, the Sierra Club, Midtown Alliance) did not attend the public meetings. Instead, they provided their feedback through more informal meetings or through written communications. In this context, these groups felt that the developer met with their groups and provided other avenues for feedback. From their perspective, the developer sought to incorporate their feedback into the design of the project, and that the conceptual designs for the project evolved as a result of community input. However, since the design remains at a conceptual level of detail, the impact of these design changes on the project will depend heavily on future design choices.

The EPA staff felt that the stakeholder process effectively shared information with all concerned parties. The EPA and state agencies were also very satisfied with the amount and level of communication and dedication between state and federal agencies. The City of Atlanta noted that while the process was designed solely to share information, the project was too large and complicated to create a more interactive forum for problem solving with stakeholders.

At the same time, the community groups and non-profits stated that their level of involvement was not adequate to make any impact on the project. They reiterated that it appeared that the project would go forward regardless of any of their concerns. They felt that the level of coordination between all regulatory agencies involved was evidence that the outcome of the project was pre-determined.

discussions with EPA or Jacoby. This level of involvement was relatively efficient, and they did not seek more direct participation.

Other interviewees were not satisfied with the stakeholder involvement process. They felt that the stakeholder process was unclear from the beginning, did not provide a sufficient forum for input, and was managed as a formality. The stakeholders were especially concerned about the organization of the stakeholder participation process. The non-profit groups, state agencies and city of Atlanta, and community residents felt that the stakeholder participation process had few advantages. While they felt that the Atlantic Steel XL project should be developed, the stakeholder participation process had added little and was not effective. The state and city agencies felt that the process had not adequately identified or reached out to community stakeholders. Interviewees recognized that the complexity and scope of the project inhibited efforts for substantial stakeholder participation, but felt that Jacoby did not sufficiently recognize the need for meaningful participation, nor did the company act effectively to improve the process in response to community concerns.

At the same time, many of these stakeholders felt that the developer was generally approachable and concerned about public opinion.

Almost all interviewees stated that there were too many people, agencies, and issues involved in this project. Several people stated that it was difficult to stay focused on XL related issues. Many interviewees also stated that it was almost impossible to determine which issues were XL related and which were not. Many interviewees felt that the EPA should have clarified these ambiguities.

The non-profits and community residents felt that the short notice of public meetings and lack of timely information from Jacoby and EPA were major weaknesses of the project. They stated that it was often difficult to tell what phase the project was in at any given time. They felt that either EPA or Jacoby should have better informed them of the project status. They also felt that more continuity between meetings was needed if the issues were to be addressed seriously.

Suggestions for improving the process varied. Many interviewees focused on the need for considerably more public notice for the meetings. The community groups felt that they had the largest stake in the project due to their proximity to the development yet were not sufficiently included. Aside from Jacoby, all interviewees stated that the process should have been better organized from the beginning. These interviewees stated that there should have been more initial clarity and explanations concerning the developer and EPA roles in the project.

CK Witco

Project Background

CK Witco (formerly Witco and OSi Specialties Inc.) is a specialty chemical manufacturer. The XL project focuses on CK Witco's 1,300-acre West Virginia chemical manufacturing plant. The plant produces a broad range of silicone and silicane products.

CK Witco's plant is located six miles north of Sistersville. Five other towns are located in the vicinity of the plant, including Ben's Run, Friendly, Middlebourne, Paden City, and St Mary's. The population of these communities totals approximately 1,500 people. Both Tyler County (location of the plant) and Pleasants County (the down-river county) are predominantly rural, with populations totaling 10,000 and 7,500 respectively.

Since the arrival of Union Carbide in the 1950's, these communities have relied on the manufacturing industry, including CK Witco, for employment. Over 50% of Tyler and Pleasants county citizens are employed in the manufacturing sector, six hundred of these by CK Witco at the Sistersville plant.

Through its XL project, CK Witco's chemical plant is testing alternative methods of pollution prevention, waste minimization and air emission reductions. CK Witco installed an incinerator that will destroy 98 percent of the air emissions from a process unit and will 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 CK Witco's two hazardous waste lagoons. CK Witco also conducted a study to identify additional waste reduction opportunities and is implementing many of the study's recommendations.

The initial project proposal was submitted to EPA in September 1995. The final project agreement was published in the Federal Register in June of 1997 and signed in October. The project is now in the implementation phase.

This analysis focused upon the stakeholder involvement process leading up to the signing of the FPA and during its implementation. At the time of these interviews, the facility was managed by CK Witco's corporate predecessor: OSi Specialties, Inc. (OSi). Consequently, this report hereafter refers to the corporation as OSi.

Stakeholders interviewed for this report are listed in Appendix A. Interviewees included participants representing the community, OSi, the OSi union, EPA, and the West Virginia Division of Environmental Protection.

Stakeholder Involvement Process Before Signing the FPA

OSi did not involve stakeholders in developing either the stakeholder involvement plan or the initial project proposal. Community members became involved in the OSi project beginning in December of 1995, after EPA accepted the initial proposal and the FPA was under development.

Role of the Stakeholders in the Development of the Project XL Agreement

The community representatives felt that their primary role was to provide information and reaction for OSi consideration. This role was agreeable to all parties involved, including OSi, EPA, West Virginia Division of Environmental Protection (WVDEP), and the citizens themselves. As stated above, the community stakeholders became involved only after the FPA was largely developed. (The kick-off meeting occurred in July 1996, after the June publication of the draft FPA). Two union employees of the plant were involved earlier. Because these employees also lived in the surrounding communities, they felt that they represented the community in the development of the FPA. EPA representatives believe that stakeholders should be involved earlier in the process. However, company representatives and the two community representatives from Tyler and Pleasants counties felt that stakeholders did not have the specialized knowledge necessary to become involved in proposal development.

EPA and OSi Roles in the Stakeholder Process

The company designed the stakeholder involvement plan and was responsible for the mailings, the news and radio ads, the library repository, the door-to-door alarm update, and all public meetings.

EPA provided overall guidance to the project. EPA attended all meetings and provided support. EPA had no direct role in the stakeholder process other than verifying that OSi met the stakeholder requirements for an XL project. One community representative felt that EPA and OSi worked in unison to create opportunities for community involvement. All interviewees felt that both the company and EPA were effective in their roles despite the lack of public participation.

Management of Technical Issues

Interviewees stated that the technical issues were clear and understandable to all involved. The technical issues focused on air emissions and health concerns. The community did not raise any specific technical concerns. Several interviewees believed that potential concerns were addressed through an informational interview held by OSi on public radio. The community representatives believed residents knew they could contact OSi and obtain answers to technical questions if they so desired. The community representatives believed that residents deeply trust OSi.

Differences in Interests or Perspectives between Stakeholders

All interviewees agreed that no substantial differences existed amongst the interests and perspectives of the stakeholders. The EPA stated that the project was very clear-cut. All interviewees stated that OSi was very receptive to any stakeholder questions that were raised.

of this type. Although the two representatives did not give specific suggestions for improving community participation, their concerns focused on increasing community involvement. They both believed that OSi did everything possible to involve the community. They would however like to see EPA become involved with local leaders prior to initiating a project. They believed that local leaders understand the public concerns better than the EPA. One representative stated that the key to participation comes from understanding the local culture.

The company representatives, while satisfied with the project, were dismayed by the lack of community involvement. They felt that the company did as much as it could to involve the community. Company representatives felt that they might have increased community participation by putting public notices in the local churches, but this was not attempted.

The company representatives also felt that this project was a good way for both EPA and OSi to learn how to work with each other. One union representative felt that EPA benefitted greatly by seeing how a company can gain the trust of a community through effective communication.

The EPA and WVDEP were impressed with OSi's initiative and respect in the community. They stated that OSi's relationship with the community serves as a model for other companies. They felt that OSi did everything it could to involve the community. However, they felt that the representation of two communities out of six possible communities provided for insufficient community participation. They suggested that Project XL should require a minimum level of community participation (such as one person per community).

ExxonMobil

Project Background

The Sharon Steel Corporation - Fairmont Coke Works Superfund Site is located in Fairmont, West Virginia. Fairmont sits along the I-79 industrial corridor. Fairmont is a town of 15,000 located in a county of 58,000. Approximately 1,000 residents live within a one-mile radius of the Superfund site.

Domestic Coke Corporation (Domestic Coke) purchased the original 44.6 acres of the current site in 1918. Domestic Coke was a wholly owned subsidiary of Standard Oil of New Jersey, the corporate predecessor to ExxonMobil Corporation. Domestic Coke conveyed the land to the U.S. Department of War, who built the Fairmont Coke Works and operated the plant between 1918 and 1920. The land with improvements was reconveyed to Domestic Coke in 1920. Domestic Coke made additional land purchases to bring the total acreage of the coke plant to approximately 103 acres. All process units were located within an approximately 50-acre parcel at the center of the site. The rest of the site consists of a wooded hillside that descends to the Monongahela River. The site is one of the few large areas of flat, developable industrial land along I-79 in West Virginia.

In 1948, Sharon Steel Corporation purchased the business and operated the coke plant. The coke plant was closed in 1979 following Sharon Steel's reported failure to comply with Clean Air Act and Clean Water Act regulations. In 1991, Sharon Steel was liquidated under jurisdiction of bankruptcy court, with the land transferred to FAC, Inc., a subsidiary of Sharon Steel. In June 1998, Green Bluff Development, Inc. (a subsidiary of Exxon) bought the site.

On November 30, 1999 Exxon merged with Mobil to become ExxonMobil Corporation. Since this report focuses on activities conducted before this date, the report refers to the corporate entity as Exxon Corporation.

EPA began evaluating the site for inclusion on the National Priority List (NPL) in 1987. The site was listed on the NPL on December 23, 1996. Because of Sharon Steel's bankruptcy and Exxon's prior ownership, Exxon signed a Comprehensive Administrative Order on Consent (AOC) with EPA in September, 1997. The AOC sets out procedures to conduct a Remedial Investigation and Feasibility Study (RI/FS) and Risk Assessment for the site. In 1998, Exxon was the only potentially responsible party with an AOC for this site.

Exxon submitted its XL proposal on September 1998. The proposal described an alternative strategy for investigation, risk assessment, remedy selection and remediation of the site. Using an administratively streamlined process, Exxon hoped to clean up the contaminated site in half the time of traditional cleanups and at less cost. Additionally, Exxon planned to work with other stakeholders to locate businesses interested in redeveloping the site. The Final Project Agreement was signed on May 24, 1999.

Although the Exxon XL project is currently in implementation, this analysis focuses upon the stakeholder process used in development of the FPA.

- Start and end on time. (Keep meetings to two hours. End at 7:30 p.m.)
- Send minutes, agendas, updates a week in advance of meeting.
- Provide breaks.
- Speak up!
- Always provide opportunity for input from guests.
- Publicize all meetings one week ahead.
- Give ample lead-time for public input.
- Strive to reach consensus input and recommendations through full discussion.

The meeting agendas were originally drawn up by the consultants but eventually were set by panel members with input from the consultants.

Outreach

At the end of 1998, several panel members gave presentations about the Exxon XL project to various community groups in the area (Kiwanis Club, PTA, etc.). These presentations were designed and run solely by panel members. They felt responsible for sharing information with the community. Presentations provided the best means for accomplishing that objective.

In early 1999, several community outreach efforts were conducted to gather input on the project. A one-half page advertisement was placed in the local paper describing and asking for input on and concerns about the project. The ad included an 800-telephone number and an e-mail and mail address where comments could be sent.

A tri-fold pamphlet was also sent out to all residents living within one mile of the site. Eight hundred pamphlets were mailed. The pamphlets were designed to gather feedback from the community about the project and any community concerns that may have been overlooked by the panel. The pamphlet contained the following questions:

- How should the property be used in the future to meet the needs of the citizens of Fairmont?
- What suggestions do you have for making information about the site more accessible to the general public (e.g., direct mail, newspaper articles, TV, radio announcements, etc.)?
- Exxon wants the input and support of people who have a specific interest in the environmental impact of the cleanup. If you have a specific interest, how would you like to be informed of the project?

The community interviewees felt that they served primarily as liaisons between the community and Exxon. Exxon would present progress reports at the meetings and the stakeholders would make comments based on what they perceived to be in the community's best interests. Panel members felt that it was their responsibility to keep the community informed of project progress.

Panel members also felt that the process afforded them the opportunity to work out problems and community concerns between Exxon and the community. Most community grievances were related to the time frame of the cleanup and past alleged wrong-doings by Exxon (burial of toxic waste on site). All comments and grievances were noted by the facilitator and passed on to Exxon. Exxon would then address concerns at the following meetings. However, some members felt that there was no way to verify the accuracy of responses by Exxon to concerns raised by the panel, since all the information and analysis was generated by the company.

While some interviewees felt that the panel provided the greatest benefit to Exxon, and was used as a public relations tool, all panel members who were interviewed also felt that the process was effective at providing information and clarifying community concerns. All interviewees stated that the right issues were raised and adequately addressed throughout the process. Most panel members felt that the right people were in the process to effectively represent stakeholder interests. The panel members stated that the panel was a good cross-representation of the community (citizens, business owners, and government officials). One stakeholder would have liked more county government representation, but noted that the opportunity to join the panel was made available and apparently county officials were not interested. Another member would have liked more neighborhood representation.

Roles Of Stakeholders in Development of Project Agreement

The stakeholders had no role in the development of the initial XL proposal. Stakeholders also had a relatively small role in the development of the FPA (timeline, goals, wording of FPA). According to the interviewees, suggestions made by the panel did not lead to substantive changes in the FPA, although panel members also felt that Exxon was generally responsive to community concerns.

Exxon originally established stakeholder roles, with panel members primarily acting as liaisons between the community and Exxon. The roles were designed to allow community concerns to be heard and addressed by Exxon. All stakeholders felt that this was accomplished.

The majority of stakeholders initially belived that they would have more input into the drafting of the final FPA than they were afforded. They felt the emphasis of the panel on information sharing, the time involved, and the members' lack of technical expertise did not permit more active involvement. The EPA stated that the panel gave as much input as they could, given their limited technical knowledge.

All stakeholders stated that the EPA acted to support and guide the XL project process. Stakeholders were satisfied with the EPA's role in the project. They felt that the EPA

Stakeholder Roles after Signing of the FPA

Since signing the FPA, the panel has continued to meet. The panel largely functions as a 'watchdog'. Panel members will continue to monitor the project, albeit from a distance.

Satisfaction with the Stakeholder Process and Suggestions for Improvement

Exxon expressed great satisfaction with the stakeholder process. This interviewee stated that the panel provided an excellent means of gathering and disseminating information about the project to the community. The interviewee also stated that the stakeholder process opened a direct line of communication between the company and the community, something not attempted prior to the project. The interviewee had no suggestions for improving the process.

The EPA was also very satisfied with the stakeholder process. The EPA felt that Exxon was very open to panel suggestions and committed to working with the community. To improve the process, the EPA suggested conducting more initial public meetings to identify stakeholders and including technical experts on the panel. The EPA felt that one public meeting was not adequate for identifying stakeholders. The EPA also felt that most community members did not have the necessary background to make substantive comments concerning technical issues.

The state regulatory agency representative felt the stakeholder involvement process was over-designed, allowing for too much involvement by too many people. Monthly meetings allowed special interest groups to maintain their momentum between meetings and thereby tie up regulatory time. Quarterly meetings would have been more efficient.

All stakeholder panel members expressed satisfaction with the stakeholder process. Most panel members stated that the process was a very positive experience. These interviewees stated the stakeholder process afforded them the opportunity to establish direct links between the community and Exxon. The stakeholder process gave the community confidence in Exxon. The panel members now feel that if they have concerns about anything that Exxon is doing, they have contacts at Exxon who will adequately address those concerns. They can now put faces to the names. Exxon has effectively been 'humanized' by their efforts in the stakeholder process. They are no longer viewed by the community as a faceless corporation.

Almost all the interviewed stakeholders were very satisfied with the outcome of the process. They felt that the process afforded them the opportunity to gather, analyze, and disseminate information to the community. The also stated that this process was an effective way to create a good working relationship and open line of communication between the community and Exxon.

Some of the strengths specifically noted by the panel members included:

- Meetings provided an open forum for public participation in the project.
- Active membership on the panel helped to keep public interest in the project high.

HADCO

Project Background

HADCO Corporation is a leading manufacturer of printed wiring boards (PWB) and electronic interconnection products. The company is headquartered in Salem, New Hampshire but has additional operations in the United States and Malaysia. The original sites involved in the HADCO XL project were the Salem, Hudson, and Derry sites in New Hampshire, the Owego site in New York, and a site in California. HADCO dropped the California site because of the difficulties in applying the proposed regulation to that state. The Salem site was eventually dropped because HADCO was in the process of moving its headquarters and the facility was having difficulty maintaining sludge constituent levels that were necessary for delisting. The project involved HADCO, EPA Regions I and II, EPA Headquarters, and representatives from the New York State Department of Environmental Conservation (NYSDEC) and the New Hampshire Department of Environmental Services (NHDES).

As a PWB manufacturer, HADCO generates wastes that are classified as hazardous waste under the Resource Conservation and Recovery Act (RCRA). Since the wastewater sludge produced by HADCO's operations is classified as hazardous under RCRA, it must be shipped to a third-party processor before it can be sent to a smelter for reclamation of the valuable copper contained within.

Since the 1970's, HADCO has made changes in its manufacturing processes and believes that the sludge created as a by-product of its operations is now less toxic and no longer needs to be regulated as a hazardous waste. The HADCO project sought to reduce the regulatory burden of RCRA while promoting waste recycling throughout the PWB industry. HADCO, through Project XL, sought a conditional delisting of the sludge that would allow them to bypass the third-party processor and ship the wastes directly to an approved smelter. This action would save costs and decrease the risks associated with shipment of the wastes over long distances. It was determined through the course of the project that the sludge could be eligible for a conditional delisting in NH and for a solid waste variance in NY.

The initial project proposal was submitted to EPA in July 1995 and was accepted March 1996. The draft Final Project Agreement (FPA) was submitted to EPA in November 1996. The FPA was reviewed and revised and the final FPA was published in the Federal Register on October 2, 1997.

Since the FPA was approved, HADCO has been sampling their sludge according to the FPA and communicating with EPA and the state agencies regarding the samples. HADCO has decided to go with a solid waste variance in New York. To complete the delisting petition for New Hampshire, EPA must have details of contracts with smelters who will receive the waste. As of May, 1999, HADCO had not yet submitted them. Representatives from HADCO noted that they are waiting for details from the smelters that were needed to complete the contracts.

This analysis focused on the stakeholder involvement process used during the implementation of the FPA, but also includes references to the stakeholder process leading up to

that since this was the first XL project to involve multiple jurisdictions, it would have been prudent to plan the structure in more detail before it actually started.

Most participants said that their individual roles played out as expected, but generally required more time and attention from them than they had anticipated. With the exception of having insufficient involvement from community stakeholders, respondents generally believed that the right people were at the table. HADCO invited participation by the smelters who were scheduled to receive the delisted sludge, but these companies chose not to participate. HADCO representatives felt that their presence would have been helpful. The presence of attorneys who represented an hazardous waste processor tended to focus attention onto the specifics of regulatory requirements and therefore had an important impact on the FPA. Most said they did not envision the time it would take to work out the details and the wording of the FPA.

Role of the Stakeholders Since the Signing of the FPA

As noted above, to complete the delisting petition for New Hampshire, EPA must have details of contracts with smelters who will receive the waste. As of May, 1999, HADCO had not yet submitted them.

Since the FPA was signed, all participants have been involved in reviewing and commenting on sample data to ensure that a conditional delisting or a solid waste variance can be supported. No stakeholder meetings or other stakeholder communication were conducted between the signing of the FPA and May 1999. Most participants said that there has been no need for additional stakeholder involvement until the sample data are approved and HADCO has more information to share.

Differences in Interests and Perspectives between Stakeholders

No real differences in interests have emerged among the participants since the FPA, but several came up during the negotiation and near the end of the process. Some disagreements existed between Region II and New York on requiring toxicity testing of the sludge before allowing a delisting. New York felt that the toxicity tests should be done before making a determination on the allowance of a delisting, but HADCO officials felt that all necessary information regarding toxicity was in the comprehensive report incorporated into the FPA.

Until near the signing of the FPA, the New York agencies were unaware of EPA's requirement for HADCO to reinvest all savings into its pollution prevention and recycling programs. This requirement was seen as excessive and unnecessary, although HADCO accepted the condition since so much time and effort had been spent in reaching the FPA.

At times HADCO designated certain information as proprietary, but some participants felt this was inappropriate given that XL is supposed to be a transparent process.

The third-party processor felt that some of the wording contained within the FPA effectively precluded their company from competition among potential waste recipients and was

participant felt that the stakeholder participation helped keep the process "honest." Another said that the idea of offering flexibility through innovation and finding new ways of doing business was worthwhile.

On the other hand, respondents thought that the time commitments needed to participate were excessive. Several interviewees also indicated that stakeholders with a narrow view or special interests should not be fully involved in decision-making, particularly if they have financial interests in the decision. These respondents viewed special interests as causing unnecessary delays in the process.

Participants felt the process addressed almost all issues that should have been addressed. HADCO representatives questioned why the issue of toxicity testing was not mentioned until after the FPA was drafted. They felt it would have been more constructive to discuss it earlier in the process. The definition of "conditional delisting" was discussed, but not to the satisfaction of some parties.

Some participants felt that more effort should be made to secure stakeholder involvement, and it was suggested that teleconferencing be available to help attain that end. Another suggested that since most companies were not experienced in eliciting stakeholder participation, a better way to identify potential stakeholders was needed. At the same time, it was suggested that all involved should be able to add something to the process instead of inviting participants simply for the sake of having people at the meetings. Stakeholders should be knowledgeable of the project goals and the means available for reaching the goals, and should have some technical knowledge of the issues.

Intel

Project Background

Intel, a large semiconductor manufacturer, produces Pentium microprocessors and other state-of-the-art computer chips. Located in Chandler, Arizona, in the Phoenix metropolitan area, the FAB-12 facility uses the company's 0.35-micron manufacturing process to produce 8" silicon wafers. The facility covers 1,500,000 square feet of building area, occupies 720 acres of land, and initially employed over 2,000 high-skill, high-wage workers. At the time of construction, the facility was the largest private construction project in the state with an estimated capital cost of $1.3 billion.

The initial project proposal was submitted to the Arizona Department of Environmental Quality (AZ DEQ) and EPA on June 30, 1995. Meetings for developing the Final Project Agreement (FPA) were held between January 24, 1996 and July 23, 1996. The stakeholder involvement process was based on consensus building amongst stakeholders. The FPA was signed on November 19, 1996, and the project has been in implementation since that time.

The FPA provides for a facility-wide cap on various air pollutants. The facility-wide cap replaces individual permit limits for different air emissions sources. The FPA also limits water use and waste generation. The FPA sets standards that would exceed or, at a minimum, fully comply with applicable emissions standards. Although the initial proposal was developed solely for the FAB-12 facility, Intel envisioned expanding the contract to cover other Intel operations in the Chandler area. These proposals would be contingent upon demonstrating the feasibility and the utility of the new system.

The Maricopa County Bureau of Air Pollution Control is responsible for oversight of most aspects of the agreement. The Bureau uses FPA criteria to review specific changes proposed by Intel. The engineers and field compliance people go over proposed changes and collect supplemental data. Interviewees report that procedures have basically been implemented according to the FPA.

This report focuses on the Intel XL Project's stakeholder involvement since the signing of the FPA on November 19, 1996, but includes references to the stakeholder process leading up to the FPA. The report is an addendum to the description of Intel's project presented in the RESOLVE, Inc. report "*Evaluation of Project XL Stakeholder Processes*" (September 1998).

Stakeholders interviewed for this report are listed in Appendix A. Interviewees included participants representing the community, Intel, EPA, the city of Candler and county of Maricopa, and the Arizona Department of Environmental Quality.

Stakeholder Involvement Before Signing the FPA

Intel organized a Stakeholder Team to draft the FPA within a consensus building process. The Team served as a multi-interest executive committee (plenary group) with working groups

Stakeholder Involvement Since Signing of the FPA

Intel remains responsible for managing the participation process since the FPA was signed. Intel schedules and sponsors the stakeholder and public meetings, distributes the quarterly report, and maintains a web page with up-to-date information. EPA provides information and obtains data when needed and is involved in reviewing the reports.

As required by the FPA, Intel holds quarterly stakeholder meetings and semi-annual public meetings. The company also produces quarterly reports regarding emissions and air and water quality as affected by its operations. The stakeholder team reviews and discusses the quarterly reports before they are made public to ensure that the reports are comprehensible to the public. The team also reviews the reports to ensure that Intel is meeting the superior environmental performance as directed by Project XL.

The stakeholders use the quarterly meetings to discuss potential revisions to the FPA. An example is the team's decision to revise the company's goal of "100% water reuse" to "95% water reuse" because of the technical difficulties with meeting the original goal. This decision was reached by a unanimous agreement among stakeholders. Another issue addressed by the stakeholder team regards the amount of notice that should be given to the stakeholders before Intel makes a process change.

Since the FPA was signed, some stakeholders have felt that their involvement has been limited. As an example, they cite Intel's decision to change from using arsenic to arsene gas in one of its processes. This decision was made without consultation. Several interviewees felt that the issue should have been discussed with the stakeholders before the decision was made, although most felt that the issue itself was not a great threat to public safety. Most interviewees also noted that Intel made great efforts to alleviate stakeholder concerns regarding the change.

Because Intel has been granted regulatory flexibility, other area industries have requested the same flexibility but without going through the process. Many stakeholders strongly object to the potential for state and local regulators to consider this allowance.

Most interviewees feel that their role in the process was consistent with what they had expected, but that the time commitment was unanticipated. The citizen stakeholder who commented on Intel's decision to move from consensus decision making to advisory roles for citizens had expected a more active role than the interviewee felt was achieved. Most stakeholders felt that the right people were involved in the process, but many commented on the need for more citizen participation. However, those who had been involved with similar processes noted that it is always difficult to get citizens involved.

The Stakeholder Team has discussed the possibility of transferring elements of this project to other industries in the Phoenix area, but concluded that this would be difficult because of the uniqueness of each XL project.

Differences in Interests and Perspectives between Stakeholders

Satisfaction with the Stakeholder Process and Suggestions for Improvement

The participants were all at least fairly satisfied with the stakeholder process, but one stakeholder was dissatisfied with the structure and the difficulty of completing a large task in a short amount of time. Some dissatisfaction also existed over the inability of more citizens and environmental representatives to be involved in the process. Respondents noted that the time requirements were an important barrier to potential participants, as well as a source of difficulty for their own participation. Insufficient resources were also cited as a barrier. One participant noted that a smaller company could not participate in a process as complex as this. The time involvement was a source of dissatisfaction for a number of participants, and an agency representative noted that their agency would not be able to commit such tremendous resources to all permitting processes.

Stakeholders praised Intel's efforts to make the process viable, including the provision for conference calls in lieu of meetings. The company was commended for its endeavor to make the community aware of the process and in using the Internet to do so. The dialogue and information sharing that resulted from the process was seen as a major strength, particularly in the current dialogue regarding worker health and safety. Another strength was the decision to use the Arizona Ambient Air Quality Standards to set an absolute maximum amount of exposure to VOCs, particulates, NO_x concentrations, etc.

Stakeholders expressed concern that all parties at the table were not equals, even though equality was a premise of the original process. Most stakeholders felt that more citizen participation would have improved the process. Some issues emerged from the lack of clarity around groundrules, and most participants said that groundrules should be written instead of being based on a verbal agreement.

All participants felt that all issues that should have been addressed were discussed.

Suggestions for improving the process generally centered around finding ways to get more citizen involved and obtaining funds for educating participants on technical issues. Groundrules and deadlines should be established up front, with full understanding of the rules by all participants. Scoping should be revisited at some point during the process to make sure that important issues are being addressed.

New England University Laboratories

Project Background

The Laboratory Consortium for Environmental Excellence (LCEE) is an umbrella organization for university-based environmental and safety officers. Eight New England universities participate in LCEE, including the Amherst and Boston campuses of the University of Massachusetts, Boston College, Harvard University, Northeastern University, Trinity College, Tufts University, and the University of Vermont.

In September 1997, LCEE submitted an XL proposal to EPA to develop flexible performance-based standards for managing university laboratory hazardous waste. The Final Project Agreement was approved on September 28, 1999.

The project is designed to develop and implement an integrated Environmental Management Plan (EMP) for managing hazardous lab waste at three universities. These laboratories typically use small quantities of many different chemicals. A management plan to control their use and disposal offered environmental advantages relative to the traditional regulatory requirements set forth in the Resource Conservation and Recovery Act (RCRA). The RCRA process involves a substantial amount of paperwork, sometimes for a small amount of infrequently generated waste. Under the EMP, environmental professionals will seek opportunities for reusing materials within the university. The universities will not be required to make a RCRA hazardous waste determination until the laboratory wastes reaches a central on-site location. The FPA requires reductions in waste generation and material reuse as a result of providing regulatory flexibility.

While the FPA is now signed and the project is being implemented, this analysis focuses upon the initiation and early dynamics of the stakeholder process used in project development.

Stakeholders interviewed for this report are listed in Appendix A. Interviewees included participants representing the communities, environmental groups, the university sponsors, other universities, EPA, and state environmental agencies.

Overview of the Stakeholder Involvement Processes

The stakeholder process developed for the New England Labs project differed from that of other XL projects. This project involved several parallel stakeholder processes: one focused on national constituencies, and a series of processes designed to address the concerns of local stakeholders more locally concerned with each of the university campuses. These processes aimed to involve three distinct constituencies:

- national constituencies with an interest in the environmental management of university laboratories,

Stakeholders have continued to be involved at different levels. Although the scope of the project initially appeared to be broad in its applicability, schools in some states realized that implementation would be difficult due to particular nuances in their schools or in their state regulations. Participants also believed that the various EPA regional offices managed issues of laboratory waste differently, with some regions applying specific standards more stringently than others. Thus, some participants determined that the issues identified by the New England schools were less problematic for their universities.

The project was eventually narrowed to include three schools in New England: The University of Vermont, (UVM) Boston College (BC), and the University of MA-Boston(UMass-Boston). These three schools and the LCEE worked with the EPA and state agencies, and other stakeholders, to develop the FPA.

Involvement in the Process

Interviewees felt that the stakeholder process was well designed and implemented. Respondents felt that participants felt free to speak and contribute to the discussion. At the same time, most respondents felt that the participants were operating under too many constraints. A number of participants at the meetings sought to shift the focus of the XL project from regulation of specific wastes to comprehensive environmental management plans for the labs. Lab-based interviewees believed that EPA was too cautious, preferring to adapt existing regulatory language as little as possible. Many respondents believed EPA's conditions precluded creativity and innovation. Interviewees questioned why EPA placed these restrictions on a pilot project that could be stopped at any time if it did not yield the desired results. Many lab-based stakeholders believed that minor issues became major points of contention and that this was contrary to the purpose of Project XL.

Most stakeholders felt that their level of involvement was appropriate, given that many of them participated only in the Florida meeting and through the listserve. Interviewees were generally frustrated, however, with the length of time that passed between the end of the national meetings (March 1998) and the signing of the FPA (September 1999). One interviewee observed that more groundwork could have been done between EPA and LCEE before holding the Florida meeting in order to coordinate efforts more effectively.

Most interviewees felt that there were no barriers to participation, but representatives from some schools would have participated more fully had they been closer to Boston, which was the location of a number of smaller meetings (predominantly between the LCEE institutions). Environmental groups noted that they lacked both the funds and the time to participate in a longer process.

Most interviewees believed that the right people were at the table, but some felt that environmental groups, representatives from EPA Headquarters, and smaller universities should have been better represented. An EPA representative noted that participation by environmental groups was insufficient, and that the project sponsors and EPA needed to work more effectively at promoting such participation. Another interviewee suggested that EPA should fund involvement by non-profit organizations, since such organizations do not have the resources to participate otherwise.

Meeting Management

ML Strategies and the LCEE schools developed the agenda for the Florida meeting. At the same time, interviewees said that the process allowed for additional issues to be raised. Members had little to say about groundrules; some said none were developed, while others said groundrules existed but were not of major concern. Most viewed ML Strategies as the primary facilitator, responsible for not only keeping the meeting running smoothly but also for building agreement amongst the various labs as to an appropriate direction. One interviewee viewed the EPA representative as the primary facilitator. All agreed that ML Strategies kept the process moving and kept participants encouraged and focused on the goal. It appears that everyone was comfortable in speaking about issues they viewed as relevant.

Satisfaction with the Stakeholder Process and Suggestions for Improvement

Most interviewees were satisfied with the stakeholder process, but some were dissatisfied with what they perceived to be EPA's unwillingness to innovate much beyond the traditional regulatory model. These interviewees reasoned that as a pilot project, Project XL should allow for more experimentation.

Most interviewees approved of bringing interested parties together and believed that participants were all able to contribute effectively. No one reported dissatisfaction with his or her participation in the stakeholder process. One member wondered if, given the breadth of the issues, the diversity of the stakeholders involved was too narrow.

Several interviewees noted that EPA had little sense of deadlines, and that the numerous rewritings of the project agreement was inefficient. Interviewees also noted that EPA seemed too concerned with worst-case scenarios.

Interviewees applauded the process for attempting to give labs a more efficient way to manage waste, for encouraging group membership that was largely appropriate for the issues, for focusing on long-term goals, and for including the input of lab directors and environmental managers from across the nation. Interviewees viewed the meetings as constructive engagements with people sharing viewpoints, and felt these meetings were meaningful and important experiences. Some interviewees said that the project accomplished what labs have been trying to achieve since 1984: establishing performance-based standards for university labs.

Interviewees believed that most issues had been addressed. Exceptions included EPA's position on the types of allowable treatment within labs and storage areas, the definition of what constituted a "lab unit", and issues associated with on-site storage and the "arbitrary" 90-day limit for storing waste.

Local Stakeholder Involvement Processes

Overview of Local Community Processes

The XL project applied to three New England academic institutions, including Boston College (BC), University of Massachusetts – Boston (UMass-Boston), and the University of

solicited interest in participating in the stakeholder involvement process. Twelve faculty, administrators and staff volunteered to be on the stakeholder panel.

An initial meeting was held in February 1998. This meeting was primarily informational and focused on explaining XL projects in general as well as specifics related to the project at UMass. Stakeholders were also asked what roles they would like to take as participants in the project. The group decided on a commentary role. No subsequent meetings have been held.

The twelve stakeholders are periodically sent e-mails as project updates occur. They are encouraged to review the documents and send their comments to the university's project lead. The project lead also made two presentations describing the project to an environmental compliance group on campus. The group was asked for their input on the project. No comments were received from either group.

The project lead feels that the stakeholder panel is comprised of a solid cross-section of faculty, staff, and administrators, but remains concerned that the project is attracting little community interest. The interviewee feels that the stakeholders will become more involved once the project is being implemented.

Internal to UVM

UVM has not held any formal internal stakeholder meetings. The project lead contacted and met with several groups and individuals on campus. The project lead sent updates to each of these internal groups and asked for comments. Interviewees stated that the campus stakeholder process was designed to share information, and that the right groups were involved in the process. All participants in this processes were technically proficient.

The project lead at UVM was also responsible for formulating and maintaining an e-mail list server. The list server was designed to keep national and local stakeholders informed and to obtain input from those stakeholders. The list server was established in October 1998 and as of May 1999 had 150 members. The list server membership includes national and campus-specific stakeholders, as well as people not affiliated with the project but who were interested in regulatory issues. Project progress reports were e-mailed monthly to members. The UVM project lead responded to concerns that come in through the list server.

E-mail comments on the progress reports have been minimal. According to the managers of the list server, more comments were received at professional conferences than through the list server. The majority of comments focused on health and safety management in a laboratory setting. Commentors often expressed concerns that the difficulty of organizing a centralized Environmental Management Plan may prove to be more difficult than complying with RCRA on college and university campuses. Aside from this question, however, most commentary on the project has been supportive.

External to Boston College

In late 1997, BC's project lead identified 10 external stakeholders. The stakeholders were asked to participate based on their community involvement, their technical skills, and their interest

Goals of Internal and External Stakeholder Processes

All interviewees stated that the objective of the local stakeholder processes was to share information between the project coordinators, internal stakeholders, and the community. Most interviewees felt that the process accomplished that objective. However, each university's project lead felt that the specifics of the XL project were too complicated for the external stakeholders to understand and this caused the external groups to become disinterested. Several external stakeholders reiterated this point.

The internal processes were designed to increase awareness amongst laboratory personnel. All interviewees felt that this goal was reached. Interviewees also agreed that all interests were effectively represented on the internal panels.

The external processes were designed to reach out to and educate the surrounding communities. However, community interest in the specifics of the XL project was low. Several interviewees felt a greater effort made to include other parties in the external process was needed. The project leads all stated that community residents were primarily interested in issues neighborhood impacts such as noise, traffic, and student housing, issues that were not related to the XL project.

Stakeholder Roles

Local community stakeholders did not assist in developing either the initial proposal or the FPA. The internal and external group roles were advisory. All interviewees stated that the stakeholders were free to develop more active roles in the projects. However, all stakeholder groups decided to keep their roles as advisory.

The EPA played very small roles in the stakeholder process at the university and community level. One EPA official did participate in an external stakeholder meeting at Boston College.

Management of Technical Issues

All interviewees stated that technical issues were adequately addressed. The majority of internal stakeholders were familiar with the technical language and content of the project prior to their involvement.

External stakeholders stated that they were not concerned with the technical content of the project. They focused more generally on the potential impacts of the project, and trusted the universities' experts to appropriately interpret the technical background for them.

Vandenberg Air Force Base

Project Background

The Vandenberg Air Force Base conducts and supports missile launches, operates the Western Test Range and responds to worldwide military contingencies. The base covers more than 98,000 acres and is the Air Force's third largest military installation. Vandenberg AFB is located in Santa Barbara County, 15 miles from the nearest municipality, Lompoc (population 35,000). The base is within 55 miles of Santa Maria and Santa Barbara and 150 miles northwest of Los Angeles.

Under Title V of the Clean Air Act and the California permitting process, Vandenberg AFB would be designated as a major source of ozone precursor emissions. Because of the Metropolitan Region's air quality problems, the designation would require the base to obtain new permits for up to 300 previously unregulated emission sources. Through both the ENVVEST[2] and Project XL programs, the base sought to substantially reduce ozone precursor emissions, sufficient to be redesignated as a minor source. This would result in a substantial reduction in compliance costs. Vandenberg AFB sought to fund these emission reduction projects using money that would otherwise be spent complying with administrative requirements of Title V, such as permitting, record keeping, monitoring, and training.

The initial project proposal was submitted to the Department of Defense and EPA in December 1995. The Draft Project Agreement was developed and submitted to the EPA in March 1996. The Final Project Agreement FPA was signed and published in the Federal Register in November 1997. The project is now in the implementation phase.

This analysis focused upon the stakeholder involvement process leading up to the signing of the FPA and during the implementation of the FPA.

Stakeholders interviewed for this report are listed in Appendix A. Interviewees included participants representing the community, Vandenberg Air Force Base and EPA.

Stakeholder Involvement Process

The Stakeholder Involvement Plan was developed in July 1996 by a legal consultant hired by Vandenberg AFB. The plan was part of the draft FPA. Stakeholders were not involved in the development of the plan nor were they involved in the development of the draft FPA.

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[2] As part of the Administration's reinvention initiatives, EPA and the Department of Defense (DoD) signed a Memorandum of Agreement in 1995 that established how the two agencies would interact during implementation of DoD's Environmental Investment (ENVVEST) program. The ENVVEST program emphasizes regulatory compliance through pollution prevention and provides an alternative to prescriptive regulatory requirements through a performance-based environmental management system designed to attain superior environmental results.

Goals of the Stakeholder Process

All interviewees stated that the goal of the stakeholder process was to share information about the project with the community. While the process was not designed to resolve issues between the base and the community, very few issues were raised. The only concerns expressed were those of an environmental group and they were allayed through direct discussions with Vandenberg staff. All interviewees felt that the ENVVEST/XL project would benefit the surrounding communities.

Role of the Stakeholders

The CAB and CAC members serve as community representatives on standing committees. They saw their roles as providing information to the community and feedback to the AFB. These roles were not created through the ENVVEST/XL project but were extensions of their duties on their respective committees. As such, the specifics of the ENVVEST/XL project were only a small part of their overall responsibilities.

Vandenberg and EPA roles in the Stakeholder Process

As stated previously, Vandenberg hired a legal consultant to develop the stakeholder involvement plan. Vandenberg personnel were responsible for the invitations to the workshop, the media and newspaper spots, and both of the public meetings. EPA advised Vandenberg on Project XL requirements, assisted Vandenberg in the development of their project, attended all meetings, and provided support. Vandenberg personnel continue to brief the CAB and CAC boards quarterly on the status of the project.

Management of Technical Issues

CAC interviewees were already familiar with the technical language surrounding the project, since their council work frequently pertained to environmental and technical issues. Two CAB members stated that even though they were not familiar with the language used in the project, they felt that Vandenberg personnel explained everything in a comprehensible manner. EPA also stated that the Vandenberg staff presented technical issues effectively.

Differences in Interests and Perspectives Between Stakeholders

All interviewees stated that, other than the concerns raised by EDC, stakeholders did not express any substantial differences in interests or perspectives.

Appendices

Appendix A

List of Interviewees by Project

Andersen

Abrahamson, Wally	Community Advisory Committee
Barwick, Brian	EPA Region V
Birnbaum, Nancy	EPA Headquarters
Hogberg, Kirk	Andersen Project Lead
Kellison, Jim	Community Advisory Committee
Klein, Bill	Community Advisory Committee
Ronchak, Andrew	Minnesota Pollution Control Agency
Van Zee, Ron	Community Advisory Committee
Weissner, Carol	Community Advisory Committee

Atlantic Steel

Brian Leary	Project Lead, CRB Realty (Jacoby)
Michelle Glenn	EPA Region IV
Tim Torma	EPA, Headquarters
Bernadette Smith	Home Park Community Improvement Association
Tim State	Home Park Community Improvement Association
Mike Brandon	Chairman, Home Park Community Improvement Association
Shannon Powell	Midtown Alliance
Brian Hagar	Sierra Club
Mike Replogle	Federal Transportation Director, Environmental Defense Fund
Dan Cohen	City of Atlanta, Principal Planner, Current Planning
Connie Cooper	Facilitator (Cooper / Ross Consulting)
Randy Roark	Urban designer and manager of the Home Park Charrette (Georgia Tech)

ExxonMobil

Bass, Thomas	West Virginia Division of Environmental Protection
Bledsoe, Barry	Community Liaison Panel

Brannegan, Dan	Pfizer, Inc.
Deady, Karen	Director, Environment, Health and Safety, University of Massachusetts, Boston
DelaHunt, John	The Colorado College
Frantz, George	EPA Region I
Hawkins, George	Stony Brook Watershed Association
Howard, Suzanne	Project Lead, Boston College
Butler, Kathleen	Community resident, University of Vermont
Kelly, Anne	EPA Region I
Miller, Jim	Massachusetts Department of Environmental Protection
Shoener, Ed	Ecologia
Stuart, Ralph	Project Lead, University of Vermont
Thomann, Wayne	Duke University
Thompson, Fay	University of Minnesota
Walker, Sherri	EPA Headquarters
Zehra Schneider Graham	University Project Lead, University of Massachusetts, Boston

CK Witco

Barnhart, Jesse	CK Witco employee and union leader
Birnbaum, Nancy	EPA Headquarters
McKnight, Jim	Stakeholder
Peters, Eric	Pleasants County Resident
Pontivedos, Lucy	West Virginia Division of Environmental Protection
Termini, Beth	EPA Region III
Tucker, Okey	former CK Witco Project Lead

Vandenberg

Dougherty, Jack	Santa Barbara, CA resident
Higgins, Mike	Waste Water Authority, Santa Barbara County
McVay, Monty	Vandenberg Project Lead
Satillo, Mark	Environmental Defense Center
Segal, Sarah	EPA Region IX

Appendix B

Research Method

For each case, principal parties to the stakeholder process were interviewed using a semi-structured interview protocol. The interviews were designed to clarify the actors and events of each case, and to explain not only what conditions existed, but how and why they emerged. Interviews were conducted with participants in the stakeholder involvement process, including citizen representatives, environmentalists, project sponsors, local and state officials, and EPA officials. A list of interviewees is presented in Appendix A.

In each interview, the research team explored the interviewee's:

- perceptions as to the organization of the process,.
- involvement in the process, including their decision to participate, how they were invited to participate, and any involvement in their community or with the facility before this process began;
- perceptions as to whether the stakeholder participation process was well designed and implemented, including whether it afforded the stakeholder a real opportunity for input, whether the level of involvement and the timeframe of involvement were appropriate, and whether there were any barriers to effective participation;
- perspectives as to what the stakeholder process was trying to accomplish, including whether the process goals were appropriate and successfully accomplished, and whether the process focused on the right issues, addressed those issues adequately, and brought together the right people in the process to effectively represent stakeholder interests;
- roles of the stakeholders, and that of the company and EPA, in the development of the Project XL agreement, including whether the roles were developed by the company alone or in conjunction with other stakeholders, the stage in the decision making process at which stakeholders became involved, whether the roles were consistent with what the stakeholders envisioned when they decided to participate, and the effectiveness of these roles; and
- overall satisfaction of stakeholders with the stakeholder involvement process, including their perceptions about the major strengths and weaknesses of the stakeholder involvement process and suggestions for improving the process.

The interviews also explored the interviewee's perspectives concerning

- how technical issues were addressed in the stakeholder process and if this enabled technical information to be understandable to all participants;

Appendix C

Glossary

Brownfield: Abandoned, idled or under-used industrial and commercial facilities or sites where expansion or redevelopment is complicated by real or perceived environmental contamination.

Clean Air Act: The Clean Air Act is the comprehensive Federal law that regulates air emissions from area, stationary, and mobile sources. This law authorizes EPA to establish National Ambient Air Quality Standards to protect public health and the environment.

Clean Water Act: The Clean Water Act sets the basic structure for regulating discharges of pollutants to waters of the United States. The law gives EPA the authority to set technology-based effluent standards on an industry basis and continues the requirements to set water quality standards for all contaminants in surface water.

Conditional Delisting: Use of the petition process to have a facility's toxic designation rescinded.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): CERCLA is the legislative authority for the Superfund program which funds and carries out EPA's solid waste emergency and long-term removal and remedial activities. These activities include establishing of the National Priorities List (NPL), investigating sites for inclusion on the list, determining their priority, and conducting and/or supervising cleanup and other remedial actions.

Comprehensive Operating Permit (COP): A COP replaces existing permit systems with a single operating and regulatory permit for a facility that encompasses Federal, State and local permitting requirements.

F006 Listing: A hazardous waste that is wastewater treatment sludge produced from nonspecific electroplating processes and operations.

Final Project Agreement (FPA): The FPA outlines the details of the project and each party's commitments. The project's sponsors, EPA, State agencies, Tribal governments, other regulators, and direct participant stakeholders negotiate the FPA.

Hazardous Air Pollutants: Air pollultants that are not covered by the National Ambient Air Quality Standards but that may have an adverse effect on human health or the environment.

Hazardous Waste: By-products of society that can pose a substantial or potential hazard to human health or the environment when improperly managed. Hazardous waste possesses at least one of four characteristics (ignitability, corrosivity, reactivity, or toxicity), or appears on special EPA lists.

National Ambient Air Quality Standards (NAAQS): Standards established by EPA under the Clean Air Act applicable to outdoor air quality throughout the country.

Variance: Government permission for a delay or exception in the application of a given law, ordinance, or regulation.

Volatile Organic Compound (VOC): Any organic compound that easily evaporates and participates in atmospheric photochemical reactions, except those designated by EPA as having negligible photochemical reactivity.