
IMPROVING DIALOGUE: A Case Study of the Community Advisory Panel of Shell Oil Company's Martinez Manufacturing Complex

by

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Table of Contents

Acknowledgments	iv
Preface	ii
Executive Summary	iv
OVERVIEW	1
Methodology	3
BACKGROUND ON MARTINEZ	5
Shell's Visibility	5
Martinez Characteristics	8
Challenges Facing Shell	9
Genesis of CAP	11
CAP's Mission	12
Sensitizing Shell	13
ACCOMPLISHMENTS OF THE SHELL COMMUNITY ADVISORY PANEL . 15	
Communicating Shell's Performance	15
Reassuring Fenceline Neighbors	16
Keeping Track of Shell's Activities	17
Reorienting Shell's Philanthropy	17
Feedback on Clean Fuels Project	18
Community Problem-Solving	20
Improving Risk Communication	21
Improving Communication at Public Hearings	22
COMMUNITY ADVISORY PANEL STRUCTURE	25
Budget	25
Selecting the CAP's Membership	26
Learning About Plant Operations	27
Monthly Discussions	30
CAP Access to Top Management	37
Communicating Informally with Company	38
Information Exchange between CAP and Company	40
LESSONS LEARNED	43
Factors Contributing to CAP's Success	44
Sustaining the CAP -- What is Required?	48
REFERENCES	51
APPENDIX A: METHODOLOGY	55
APPENDIX B: QUESTIONNAIRE	59
APPENDIX C: SURVEY RESULTS	63

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Preface

The chemical industry has faced a loss of public confidence over the past several decades. People increasingly fear industrial accidents and contamination from wastes, they are more sophisticated at understanding the risks of chemicals and, with the help of advocacy organizations and information provided under federal statutes, are capable of fighting companies in the courts and in agency hearings. As a result, it is difficult for chemical companies to locate new industrial facilities and to expand their plants.

In response to this crisis of confidence, the Chemical Manufacturers Association (CMA) adopted a program called "Responsible Care." The goals of this program are to improve environmental performance, to foster communication with the public, and to increase citizen participation. The industry hopes that improved environmental performance, better communication, and more participation will reduce fear and rebuild lost trust, and thereby enable chemical plants to operate with greater public acceptance. Adherence to the Responsible Care guidelines is mandatory for all of the CMA's approximately 190 members, who represent more than 90% of the country's chemical production capacity (Reisch, 1994:8).

One recommended method of carrying out the Responsible Care program is the establishment of community advisory panels (CAPs). CAPs are groups of plant neighbors and others interested in or affected by plant operations. CAPs are assembled by one or more companies, and meet regularly with plant officials to discuss issues of concern to the community. CMA estimates that there are more than 215 CAPs operating in the United States (Reisch, 1994:8). Though establishing a CAP is not a mandatory element in the Responsible Care program, CMA's encouragement caused CAPs to diffuse rapidly throughout the chemical industry, including to companies that are not members of CMA.

Unfortunately, there is a limited understanding of how CAPs function and what effect, if any, they have on chemical plants. With the exception of anecdotal literature and a CMA-sponsored, non-random survey of CAP member attitudes (The Wirthlin Group, 1992), almost no empirical data exist. A greater understanding of the factors associated with successful CAPs can help existing panels to function more effectively, and help companies that wish to initiate new CAPs.

This report, together with a companion report about the Vulcan Chemical Company, examines how CAPs function, based on data collected from detailed case studies. These two reports conclude that advisory panels can improve relationships between companies and communities, as well as influence plant operations.

Executive Summary

This report examines how the Shell Oil Company's Martinez Manufacturing Facility's CAP functions, and explores the factors that made the Shell CAP effective. It is based on extensive interviews with company officials and CAP members, as well as a questionnaire and analysis of documents and reports.

Findings

As a result of CAP suggestions, managers at Shell say that they now think about how CAP members (and, by extension, the public) might react before making major decisions. Company officials anticipate and try to address community concerns as they plan facility modifications.

The support of Shell's senior officials helped to ensure that the CAP's recommendations were carried out. The support of the refinery's plant manager was critical to the CAP's success. The presence at CAP meetings of company officials who have the authority to carry out the CAP's suggestions gave members the potential to influence the company.

CAP members and company officials consider Shell's CAP to be a success based on three critical factors: (1) impact on company behavior; 2) good communication; and (3) trust.

Impact

Shell's CAP accomplished a great deal since it was formed in 1990. These accomplishments include the following:

Report Card Meeting

The CAP members persuaded Shell to organize a public meeting at which representatives of all of the agencies that regulate the company (1) tell the public how Shell performed within the past year with respect to their agencies' regulations; (2) discuss positive actions that Shell took, as well as problem areas, and (3) give the public an opportunity to ask questions of the regulators and to make recommendations about future permit conditions. This "report card" meeting was very successful at communicating information about Shell's performance to the public, according to CAP members and company officials.

Reassuring Neighbors of Plant Conditions

Because of CAP suggestions, Shell provides advance notice to the refinery neighbors about any anticipated changes in plant performance that might, for example, cause increased noise. This early warning is designed to reassure those who live near the facility that any unusual conditions they might observe are not the result of a problem at the facility.

Environmental Calendar

Shell notifies the CAP members and the public about meetings between the company and regulatory agencies and upcoming permit hearings by distributing an "environmental calendar." The calendar lists pending meetings and hearings over the upcoming three months, so that members of the public can obtain more information or attend specific meetings.

Corporate Philanthropy

Shell's CAP strongly urged the company to channel more of its philanthropic donations to local, Martinez-based nonprofit organizations. In response, Shell discussed corporate philanthropy with the CAP members and attempted to shift its donations to local groups.

Feedback on Major Projects

The CAP persuaded Shell to hold a meeting, in advance of required public presentations, to discuss the company's plans for a significant expansion of the refinery. This public meeting enabled local residents to learn early about Shell's plans and to ask questions of the company before commenting formally at public hearings on the project.

Problem Solving

The CAP was involved in helping to find solutions to local conflicts. When the company angered fence line neighbors by covering its property with an objectionable erosion-control material, the CAP members and company officials intervened and reached an acceptable compromise.

Improving Communication

The CAP regularly advised Shell on how to communicate with the local community. The advice often involved commenting on prospective presentations or brochures that Shell wished to present to the community. CAP members gave specific advice on how to make presentations more understandable to lay members of the public.

Communication

Members and company officials communicate with each other effectively.

Full and open communication, cohesion among members, clear goals and objectives, and organized and efficient meetings characterize Shell's CAP. Communication by CAP members and company officials is a two-way process; participants and plant officials feel no reluctance to express their opinions.

A neutral facilitator helped the CAP to run smoothly and to remain organized.

Although no longer considered absolutely necessary, the facilitation of the CAP by a neutral, third-party professional facilitator was cited by many members and company officials as a reason the meetings were organized, productive, cooperative, and cordial.

The CAP was able to address conflicts and modify the CAP's function.

The CAP's ability to work through internal conflicts was an extremely important factor in its success.

Trust

Shell's fundamental motivation for initiating its CAP was to improve the company's relationship with the community. Shell was rebounding from negative publicity over a 1988 oil spill and other incidents at the plant. In addition, demographic shifts in Martinez, and the impending construction of its Clean Fuels facility, may have caused company officials to feel somewhat vulnerable to changes in community perceptions. However, these public image problems were not intractable.

In fact, during the period in which the CAP was formed, *Shell had a relatively good public image within the Martinez community*, according to subjective assessments by company officials and a 1992 random survey of Martinez residents.

Information sharing between Shell and the CAP increased.

Over time, Shell learned to share increasing amounts of information about its operation with the CAP. The CAP members feel that the full disclosure of information about Shell's facility is an important indication that Shell is honest and that it values its members' opinions. If the CAP believes that it is continuing to receive accurate information, its trust in Shell is likely to remain high.

Expertise on the CAP, and Shell's offer to pay for independent technical assistance, increased trust in the company.

The CAP members included a scientist, people with expertise in environmental affairs, and those with contacts in the community that they can call on for advice. The presence of these experts and members with contacts helped the CAP to understand the technical information that they were presented in the meetings. In addition, Shell offered the CAP funds to hire outside technical consultants if the CAP members feel they have insufficient technical knowledge. While the CAP has not requested funds for a consultant, the standing offer indicates that Shell wants the CAP to have a thorough understanding of the issues discussed in the CAP meetings.

Potential Problems

Although the CAP is successful, the members must grapple with several potentially thorny problems. Maintaining interest among the members of Shell's CAP has been difficult. Stability within the CAP, while enabling members to understand the facility better, may also contribute to apathy, burnout, or even complacency among the members. Recently, therefore, the CAP began to address the issue of how to maintain interest in the CAP among members. The CAP voted to add new members to introduce new perspectives into CAP discussions. It also discussed whether to impose limits on the length of membership so that the membership rotates. All of the company officials suggested that some degree of turnover might help to increase the company's exposure to different perspectives and ideas.

Achieving two-way communication between the Shell CAP and the community proved to be extremely difficult, although the CAP significantly improved Shell's communication with Martinez residents. While the CAP members chose not to serve as a direct communications link between the company and the community, some members suggested that they would like to find a way to improve communication between the CAP members and the public.

Shell's CAP was in place during a period in which the facility did not have a major accident or spill. In fact, the CAP may have helped Shell to avoid such problems by sensitizing senior management to the community's concerns. It is unclear, however, what problems might emerge if a crisis occurred at the facility. Given the trust that developed between Shell and the CAP, it is likely that they will continue to have an open and cooperative relationship. However, the CAP process has not yet been tested under this strain.

1

OVERVIEW

The Shell Oil Company's refinery in Martinez, California, faced very little community concern for most of its 80-year history. Shell provided Martinez with good industrial jobs, and people in the community showed little concern about activity behind the plant's fence.

Over the past decade, however, Shell's relationship with its neighbors changed. The burgeoning environmental movement raised the public's awareness of the health risks associated with industrial facilities. Federal environmental laws increased public access to information about chemicals, as well as the legal ability to delay or to scuttle industrial projects.

Shell's neighbors changed over the past decade, too. California's growing economy and expensive housing market made the traditionally blue collar Martinez attractive to young professionals. Office workers from San Francisco and nearby suburbs flocked to the city and its surrounding unincorporated land. These new residents, unlike the refinery workers of a generation past, were likely to be more concerned about suburban amenities than factory jobs.

A huge oil spill in 1988, which fouled local wetlands, made the ecological risks associated with Shell's refinery more salient to local residents. Therefore, as Shell began to plan a billion-dollar facility upgrade and expansion, plant officials had every reason to be concerned about the public's reaction. In the words of the community relations manager, there was some concern about community reactions because "people already

have an enormous refinery in their midst, and we are about to build a billion dollars of more refinery." If the community opposed Shell, the company would be faced with a long, contested, and costly permitting process. If Shell failed to gain prompt approval of the facility expansion, it would be unable to produce the cleaner burning gasoline required to be sold in California under the Clean Air Act. A hostile relationship with the community could have proven to be economically disastrous.

Using information from the Chemical Manufacturers Association (CMA), and with the encouragement of local politicians, Shell formed a community advisory panel (CAP) in 1990 to enhance its relationship with the residents of Martinez. Shell's CAP was established according to CMA principles, with a goal of fostering two-way communication between the plant and the surrounding community. The CAP process was designed to demystify the refinery and to promote positive relations between Shell and its neighbors by enabling plant officials to understand better the public's concerns, and by explaining to a cross section of Martinez how the facility operates.

By all accounts, the advice and occasional prodding by Shell's CAP members significantly increased the company's public accountability. For example, Shell now sponsors an annual public meeting at which regulatory agencies grade the company on its performance. Shell publishes a quarterly calendar showing all the environmental hearings and permit meetings that the company is scheduled to attend. Shell held public gatherings to describe its proposed facility expansion months before they were required by law. Due to CAP member suggestions, the company now targets more of its philanthropic donations to local charities. The CAP also provides opinions about important quality of life issues, such as landscaping around the facility, that can often be overlooked by plant engineers. And, in the words of the facilities support superintendent, "the CAP has made us less afraid of the public."

The goal of this report is to explain how the Shell CAP accomplished these changes in its five-year existence. Following a background description of the Martinez community, we review each of the CAP's major accomplishments. We then examine the details of how the CAP was formed, its organizational structure, day to day procedures, and major issues that members and company officials believe influenced the panel's work. Because, like all innovations, Shell's CAP learned from both positive and negative experiences, we explored some challenges that faced the panel, and how they were addressed.

Methodology

We investigated CAPs as part of a multi-year study of community advisory panels in the chemical industry. Through a snowballing process involving company officials, professional facilitators, environmental activists, and public officials, we identified 17 firms that sponsored CAPs considered well run and effective. We then conducted brief screening interviews with an official from each of these companies, asking for background information on the CAP, and specific examples of how the CAP influenced or helped the sponsoring company. Based on the company's assessment of the CAP's success and effectiveness, and our assessment of the significance of the examples they provided, we selected Shell and Vulcan Chemicals for in-depth analysis.¹

We developed protocols to guide interviews with company officials and CAP members. The protocols included open-ended questions concerning the formation of the CAP, its organizational structure, the relationship of the CAP to the company, how members are selected, how the CAP interacts with the community, and how it evaluates its performance.

We then conducted detailed (one to two hour) interviews with four company representatives and four CAP members from each of the two firms. Each interview was taped, summarized, and analyzed. In addition, we administered a 46-item questionnaire to each CAP member as well as to the four company officials who were interviewed. The survey used Likert-scaled questions, in which respondents were asked to select a number that reflected their response along a scale from one to five ("never" to "very frequently," "very poorly" to "excellent," "disagree" to "agree"). The survey was designed to elicit information on CAP activity and the perceptions of CAP and company performance. In the text, mean responses to questionnaire questions are reported, along with standard deviations. Except where explicitly shown, the means reported are for combined responses of both company officials and CAP members. The actual survey is reproduced in Appendix B, and the survey responses are in Appendix C. Finally, documents such as agenda, meeting minutes, and newspaper clippings were collected and analyzed. (See Appendix A for complete methodology).

Figure 1. Titles of Persons Interviewed

Plant Manager
Community Relations Manager
Facilities Support Superintendent
Complex Superintendent

CAP members

¹Vulcan Chemical's Community Involvement Group is described in a companion report.

2

BACKGROUND ON MARTINEZ

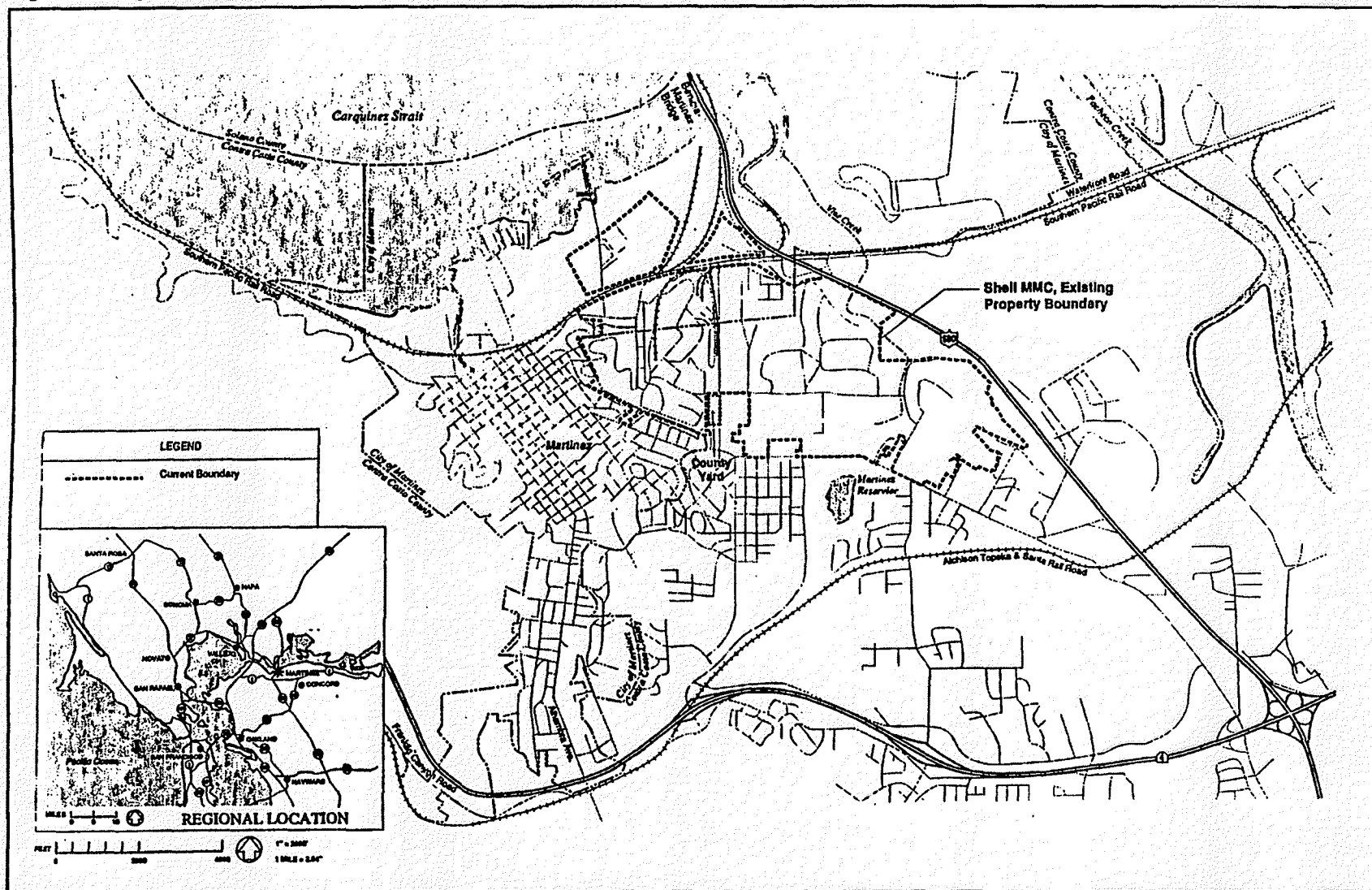
Shell's Visibility

Of all the industrial facilities in and around Martinez, Shell's complex is by far the most noticeable. It is impossible to drive along the town's major streets without seeing the refinery. Its western edge literally abuts the government and business district, with several blocks of single-family residential homes between the refinery and the city's shopping streets (Contra Costa County, 1993:4-5). Residential neighborhoods and commercial establishments also border the plant on the southeastern side of the facility (see figure 2).

Shell's prominent location next to the downtown means that the residents of Martinez are extremely familiar with the facility. A 1992 survey conducted for Shell by the Charlton Research Group found that 87% of Martinez residents were very familiar or somewhat familiar with the Shell Martinez refinery, compared with only 68% for Chevron Oil, which is in nearby Richmond, and 21% for Rhone Poulenc, which, although located next to Shell, is isolated from the city by railroad tracks (Charlton Research Company, 1992).

The plant manager says that "Shell has a good reputation in the community, especially for an oil company situated in the middle of a city in California." As Earle and Lindell (1983) have shown, proximity to and familiarity with an industrial facility may often result in increased confidence and reduced fears about the facility. The public's familiarity with the Martinez Manufacturing Complex (MMC) may partly explain why company officials assert that Shell Oil did not have to be very defensive about its operations in Martinez.

Figure 2. Map of Martinez, CA with Shell Martinez Manufacturing Complex (MMC) boundaries. (Source: Contra Costa County, 1993)



Furthermore, Shell's neighbor, Rhone-Poulenc Basic Chemicals, was the target of substantial local protests against a proposed hazardous waste incinerator. By comparison, Shell experienced less conflict with the community. This may help to explain why Shell's facility is considered far more beneficial to Martinez than Rhone-Poulenc, according to the 1992 survey. Whereas 36 percent of randomly sampled Martinez residents said that Shell had a mostly beneficial effect on the community, and an additional 42% said the effect was neutral, only 37% of respondents judged Rhone Poulenc as having either a beneficial or neutral effect on Martinez (Charlton Research Company, 1992).

An additional factor contributing to the community's positive perception of Shell is the company's importance as an employer. Almost 900 people work at the MMC. In addition, an average of 400 contractors are employed by Shell. The Clean Fuels Project (CFP) now underway will require a total of approximately 1,700 construction workers, and will result in 200 new, permanent jobs (Shell Oil Company, Martinez Manufacturing Complex, no date).

The city is populated with many loyal Shell retirees, who often take part in highly visible community activities. Shell collegially calls its retired employees "alumni," and in 1986 helped to form an alumni organization. The organization currently has 400 members out of a total retiree population of approximately 800. According to the plant manager, retirees and company officials "do a lot of social things together, as well as community work." Shell alumni established a company museum on Shell's grounds, "which hosts approximately one thousand school children a year who visit and tour the plant," according to the plant manager. Alumni also tutor elementary school children, help with a wide range of community events, fund two scholarships, and provide tours of the complex for the students and others (Shell Oil Company, Martinez Manufacturing Complex, no date).

Shell has a strong presence in the community because it is involved in many community relations efforts, in addition to the Community Advisory Panel (CAP). In particular, Shell actively supports educational programs. For example, the company participates in a program called "Busi-Kids," which involves the adoption of a junior high school science class by the company. In addition, Shell gives tours to students, donates equipment to schools, and works with teachers to improve the local science curriculum. The company also is host to a citywide science fair, and was involved in computerizing all the schools in the district, according to the community relations manager.

According to the facilities support superintendent, in addition to Shell's educational work, the company is active in other local philanthropic efforts:

Shell is involved in a number of boards of directors and associations that impact the community. A couple of times a year we do something that makes the community

better, [like] cleaning the beach, or painting a homeless shelter. Those activities were more hit and miss before the CAP, but we're doing more now.

Martinez Characteristics

Martinez, California (population 31,800) is a predominantly white, middle class community in north-central Contra Costa County, which is part of the San Francisco Bay Area. Census data suggest that the city is fairly homogenous and prosperous in comparison to the rest of California. According to the 1990 census, for example, 87.7 percent of its residents are white, compared to 69 percent for the entire state. Crime in Martinez is lower than the state average (4,056 per 100,000 compared with California's 6,746 per 100,000). Educational achievement is better than the rest of the state.² Only 5.9 percent of Martinez residents were below the poverty level in 1989, compared with a 12.5 percent poverty rate statewide. Martinez unemployment stood at 5.2 percent in 1990 compared with 7.5 percent for the state. Finally, median household income in Martinez was 45,964 in 1990, while the state average was 35,798 (Slater and Hall, 1993).

Part of the city's prosperity is due to a solid industrial base. Because it is located on the Carquinez Strait, an important shipping channel linking the San Joaquin Valley to the San Francisco Bay, Martinez has been home, since the turn of the century, to many other large oil and chemical firms besides Shell (such as Union Oil, Standard Oil, Bull's Head Oil, and others) (Bridges, 1971).

The Shell Oil Company built its first American refinery in Martinez in 1915. Shell's Martinez plant was described as the earliest modern (continuously-run) refinery in the U.S. (Bridges, 1971:13). During the past 80 years, the facility grew into the sprawling, 1,000 acre MMC, a technologically advanced refinery that converts approximately 140,000 barrels of crude oil a day into gasoline, jet fuel, diesel, and various oils, and petrochemicals.

The MMC was upgraded and expanded often in the past several decades. In 1983, Shell invested \$800 million to modernize the refinery. In 1992, Shell applied for permits to rebuild the facility, at a cost of \$1 billion, to produce cleaner burning, reformulated gasoline that complies with the Clean Air Act. This "Clean Fuels Project" was the largest facility modification ever undertaken by Shell's Oil Products Division in the United States.

²In Martinez, 88.3 percent of the population have at least a 12th grade education, while 29.3 percent have 16 years or more of education. The average for California is 76.2 percent for 12 years or more of education, and 23.4 percent for 16 years or more.

Besides its industrial base, Martinez also has a strong government and service sector. The city is the seat of Contra Costa County, and therefore houses many of the county's government offices. As a result, the downtown is active with government workers, employees of related services, and merchants. The presence of government agencies, as well as chemical plants, enables Martinez to boast a higher rate of professional, managerial, and technical employees per 1,000 workers (40.5) than the state average (32.3) (Slater and Hall, 1993).

Despite the presence of large chemical and oil facilities, Martinez is an aesthetically pleasing community. It is nestled in the temperate Alhambra Valley, and the landscape includes rolling hillsides and verdant open space. The surrounding county remains mostly rural and suburban, with 75 percent of the land dedicated to agriculture, to wetlands, to parks, and to general open space (Contra Costa County, 1993:4-1). Martinez also offers easy access to regional and national recreational areas. Because of its location and proximity to San Francisco, the city and surrounding county have experienced a boom in housing construction.

Challenges Facing Shell

While Martinez residents may be pleased with Shell's contribution to the local economy and community life, the public remains concerned about the potential for an accident at the plant, and adverse health effects from the refinery's emissions. According to CAP members, local residents are "suspicious and concerned for their health," even if the plant is not always on their minds. As one member stated: "As the plant operates daily with no problems, the community sees it merely as something they drive by. However, I think it is in everyone's mind what would happen to them if there were a major event."

Local media attention to hazardous waste issues in Contra Costa County, such as a recent front page article in the local *West County Times* entitled, "Living under a toxic cloud of fear," may exacerbate such concerns (Morris, 1993). And, although a recent study shows that Shell workers do not face elevated cancer mortality rates compared with the general population, other scientific reports suggested that the industrialized part of the county has an elevated cancer rate in comparison to the less developed, suburban portion (Tsai, et al., 1993:415-421). While one CAP member suggested that all these studies of cancer rates in Martinez ignore important confounders and may have other methodological flaws, they nevertheless raise questions about the impacts of the chemical facilities that are found in and around Martinez.

Despite Shell's generally positive reputation in Martinez, several factors over the last decade prompted the company to think more seriously about improving communication with the community. For one thing, local demographics steadily changed. Once mainly

working class, Martinez has become populated with more affluent residents who do not work for Shell. As housing prices in and around San Francisco rose sharply in the late 1970s and early 1980s, people began flocking further from San Francisco in search of affordable housing. Communities like Walnut Creek, Antioch, and Concord boomed. Young professionals from San Francisco also began to move into Martinez. This trend accounts for the 40.9 percent increase in population between 1980 and 1990 (Slater and Hall, 1993).³

These new residents, with no personal or family ties to Shell Oil, were a potential source of conflict with the company, according to one CAP member. Those who reside in Martinez, but work in neighboring suburbs like Walnut Creek, or in San Francisco, may not feel as positively about the industrial facilities in the community as those who more closely associate the plants with their economic well-being.

There have been serious, headline-grabbing accidents in Martinez associated with Shell. On April 23, 1988, approximately 400,000 gallons of Shell oil spilled into the Carquinez Strait, damaging wetlands and killing wildlife. At the time, a Shell spokesperson called it "the worst disaster in the company's 75-year history" (Ture, 1989). The spill was substantial enough that, beyond paying the cleanup costs, penalties, and damages, Shell was required to contribute \$11 million to a natural resources fund to improve the local environment (Abreu, 1991). One CAP member noted that Shell managers often found themselves "behind the eight ball," responding to negative publicity about spills, particularly the 1988 incident, and smaller accidents that occurred from time to time. For example, in September 1989, an explosion at the facility "touched off a spectacular fire . . . shooting flames more than 100 feet into the evening sky and spewing tall columns of dense smoke visible 40 miles away. . . ." (L.A. Times, 1989).

Besides these incidents, Shell was embroiled in an attention-grabbing political controversy concerning the installation of a vapor recovery system on the waterfront. This facility, which incinerates (and thus reduces the emissions of) petroleum vapors displaced from oil tankers during refueling, operated for over a year before local officials realized that it required a city permit, because it exceeded a municipal height limit (Abreu, 1991). Some residents used the opportunity created by the need for a local permit to lobby the City Council to require Shell to write an environmental impact review of the project. Although Shell ultimately received its permit and was not required by the City to write an environmental impact report, the issue received extensive local newspaper coverage.

By 1992, Shell filed permit applications for its billion dollar Clean Fuels Project. The scale of the expansion, which is currently underway, was described by the community relations manager as the equivalent of constructing a new refinery. Shell is concerned

³By contrast, over the same period, the state's population increased by only 20.3 percent.

about reducing community opposition to the project, because a protracted permitting process or legal challenges would drive up the costs of the facility and delay production of the reformulated fuel.

Genesis of CAP

While these factors were inducements to improve overall community relations, the decision to form a CAP at Shell was the result of a number of different forces. The most important, according to all of the company officials, was the Chemical Manufacturers Association's (CMA) Responsible Care program. As the complex superintendent explains, the CMA Responsible Care literature prompted Shell officials to think about ways to improve community outreach. And, according to the facilities support superintendent, the Responsible Care program provided the idea for, and legitimized, the community panel.

Shell also was influenced by the fact that many companies within the chemical industry already formed CAPs. It is common for companies to adopt programs and technologies considered to be the latest organizational innovations in their industry. In Shell's case, according to the community relations manager, there was a feeling that CAPs were a trend in the chemical industry, and the company wanted "to lead the parade instead of following. . . ."

Although the plant manager was familiar with CMA's literature on CAPs, the suggestion that the Martinez plant should form a CAP was initially made by a local political official. Shortly after assuming his current position in 1993, the plant manager held a meeting with County Supervisor Nancy Fahden to discuss a range of issues concerning plant and community relations, including the Clean Fuels Project. At that meeting, Supervisor Fahden suggested forming a CAP, and the plant manager agreed. While it is not clear whether the plant manager decided to form a CAP before this meeting, this was his first public commitment to initiate the CAP.

Finally, the plant manager's personal involvement in forming Shell's CAP was a key factor in nurturing the CAP in its infancy. Because Shell's plant manager personally championed the CAP idea, he devoted his own time to attending CAP meetings, directed the top plant officials to spend their time organizing the group, and dedicated company resources to the CAP. Without his commitment, according to other company officials and the CAP members, the CAP might not have gotten off the ground.

CAP's Mission

The Shell CAP has not codified its objectives in any formal bylaws or rules. The only document that discusses the CAP's goals is a brief mission statement. According to this document, the CAP is "to be a forum for productive two-way communication between the Martinez community and the Shell Martinez Manufacturing Complex (MMC)." More specifically, the CAP's goal is to "solicit input and advice from the community about issues and concerns relating to MMC operations." The mission statement also pledges that "Shell will communicate with and seek advice from the Panel relative to MMC activities and plans that may impact the community" (Shell Oil Company. *Community Advisory Panel, Martinez Manufacturing Complex*. undated photocopy).

However, CAP members and company officials suggest that the CAP does not routinely solicit input from Martinez residents. Instead, the goal of productive two-way communication has been construed to mean that the CAP members and company officials speak to one another, not that the CAP transmits information from the community to the company. Members tend to talk informally to a limited number of people, and may not do so regularly. While some members may speak about Shell to different people in the community, most feel that their communication to the rest of the community is quite limited. For example, one CAP member stated:

I don't think there is any communication between any community members other than my family and those I know who know I am on the CAP. I don't have an audience or group of people sit down with me and say "tell Shell this," or have Shell say to me "tell your group that." I'm not sure if there is a lot of communication going on between the community and the CAP and Shell and the CAP and the community. The CAP is a well-rounded group of people in Martinez who are concerned and who Shell can use to bounce ideas off and tell them what is going on. Maybe some of that information does get out, but not in a planned manner.

Another member added: "There is no group I report to, and there is no way, short of running into people at Safeway, or inviting phone calls into my house (which I wouldn't be keen on) to get the word out." In fact, the plant manager specifically said that the CAP's role is "not . . . to communicate to the broader community."

However, one member pointed out that "a number of CAP members are well-embedded in the community, and talk to all sorts of [people and organizations] outside of their close friends and family."

Sensitizing Shell

In practice, according to both company officials and members, the CAP's main objective is to sensitize the company to the issues that ordinary people in the community might find most troubling or salient. The purpose of sensitizing the company, according to the plant manager, is "to make sure that we at Shell behave a little better."

The CAP members sensitize Shell by stating their opinions or by making suggestions to the company. In the CAP meetings, for example, the members are asked for their reactions to issues facing the company. According to company officials, by saying how they feel, the members provide the company with information about what the community is thinking.

The CAP also is a way for the company to test specific messages on the members and to get their reactions before communicating them to the rest of the community. The issues for which Shell uses the CAP as a sounding board vary widely, including pretesting public presentations, getting comments on testimony that the company wants to present to the City Council, and asking for feedback on how the company should explain information concerning major facility changes, such as the Clean Fuels Project.

As the complex superintendent explains:

We show them things and get their reaction as to whether it is good or lousy communication. In the process of getting environmental permits, for example, we said many times that this is what we're doing and how we're handling it, and they either said that it was okay or that we needed to do something differently.

3

ACCOMPLISHMENTS OF THE SHELL COMMUNITY ADVISORY PANEL

Communicating Shell's Performance

A large chemical facility like the Shell refinery must receive permits from a wide range of agencies, from the county's Water Board to the Fire Department. Hence, it is difficult for an ordinary citizen, with limited time and a cursory understanding of the regulatory process, to find out whether a company is in compliance with applicable environmental and health and safety regulations. As one company official noted, "maybe a super-environmentalist knows how to get to the right regulators, but the ordinary citizen does not."

CAP members were concerned that the regulatory agencies often do not communicate with one another. Moreover, as the CAP meetings are closed to the public, some CAP members were dismayed over the lack of any formal process for letting the community know how the company was performing. Nevertheless, most members wanted communication to occur directly from the company to the community, not through the CAP. Finally, the CAP rejected a proposal made by Citizens for a Better Environment (CBE), a local environmental organization, for Contra Costa County to create a position called "community inspector" -- a citizen-appointed watchdog with access to company data. However, members felt that an alternative mechanism to disseminate information on the company's performance was warranted.

As the facilities support superintendent explains, "there was, and still is, a significant concern in the community about whether Shell is obeying the law, and what regulators think about Shell." Following a CAP discussion of this issue, the members suggested that Shell assemble representatives of all of the regulatory agencies at a public meeting for the agencies to: (1) tell the public how Shell performed within the past year with respect to their agencies' regulations; (2) discuss Shell's positive efforts and problem areas, and (3) provide the public with an opportunity to ask questions of the regulators and to make recommendations about future permit conditions.

Shell invited agents from the Water Board, the Coast Guard, Fish and Wildlife, the Fire Department, and other agencies that issue permits to Shell. According to the facilities support superintendent, "without the CAP, we would never have said 'Let's invite the regulators in, invite the whole community in and you guys give us this big report card.' We didn't have a clue as to what these guys were going to say."

One CAP member said that she and other CAP members felt that the "report card" meeting was very effective at communicating information about Shell to the public: "They all gave their assessment of Shell, good, bad, or whatever. The die hard skeptics think the agencies and Shell are in cahoots, but I think it was important. The CAP encouraged it to happen, and a lot of CAP members were there."

One member explained that the "report card" meeting was designed to encourage Shell to communicate information to the public, and thereby to improve the public's trust in Shell. The company plans to hold report card meetings annually, but it is too early to evaluate their success. Nevertheless, Shell's willingness to hold such a meeting probably contributed to the fairly high marks that members and company officials gave to Shell for its performance in establishing trust with the community (mean = 4.29, s.d. = 0.91).

Reassuring Fenceline Neighbors

Refineries regularly go through production process changes called "turnarounds." These routine disruptions are often noisy and require the flaring of gases. To plant neighbors, turnarounds can be quite frightening. In the words of the complex superintendent, during a turnaround "we have a lot of off-gassing and run a lot of compressors, so there is more noise, and the community senses that something different is going on." Distinguishing the turnaround from an accident may be difficult for someone outside the plant. According to the complex superintendent, the engineers at Shell traditionally did not pay attention to how turnarounds were perceived by ordinary citizens, because turnarounds are a normal part of the plant's operations. The plant operators understand that the process is controlled and not particularly dangerous. As the complex superintendent noted, when "running a plant this size you tend to lose sight of what, to us, are trivial events, but what to neighbors might be scary."

The CAP discussed what happens during turnarounds, and consequently sensitized the company to pay attention to the concerns of neighbors before and during these events. Now, the company provides information to the plant neighbors in advance, and attempts to address any concern that might arise during the process. According to the complex superintendent, Shell "makes a real effort through [the community relations manager] to tell the neighbors about turnarounds, by contacting them and explaining that they'll hear the noise of machines running, and that this is normal, and they shouldn't get nervous."

Keeping Track of Shell's Activities

The CAP worked with Shell to devise a method to enable the CAP and interested members of the public to keep track of the many environmental meetings and public hearings in which Shell participates or testifies. The CAP asked the company for this information after members heard that the company was "off negotiating with the water district over something," according to one member. CAP members felt that substantive meetings about environmental issues should be held with their knowledge, so that they could know what was being discussed, provide opinions if appropriate, and attend if the meetings were open to the public.

In response to the CAP's concern, Shell began printing an environmental calendar, a list of all of the meetings and hearings the company plans to attend over the upcoming three months. These calendars are distributed to the CAP members, who are free to share them with others.

According to one member, the environmental calendar "was a direct response of the company to the CAP's desire not to be surprised about meetings." Since it was started, he added, "I have not heard of a single incident where there was a meeting that was not listed."

Reorienting Shell's Philanthropy

Corporate donations can significantly affect social services, education, and the overall quality of life of a small city like Martinez. From its inception, the CAP was keenly interested in Shell's support to local nonprofit organizations.

Shell asked CAP members for ideas to improve the company's donation policy. The company gave CAP members a list of organizations funded by Shell. After reviewing the list, members strongly urged the company to channel a much higher portion of its donations to groups in the City of Martinez, and to give less to charities in other communities.

Shell also solicited suggestions from members for funding specific projects, but this attempt to involve the CAP in choosing the recipients of grants proved to be unworkable. The community relations manager explained that, because of the diverse interests of members and the wide range of suggested charities, Shell found it impossible to honor everyone's request. The company felt that it was better not to ask members than potentially to cause conflict by choosing one person's favorite charity and rejecting another's.

However, despite Shell's decision not to honor specific requests for Shell's philanthropic funds, the company began to adjust its donations to provide more money to Martinez organizations. One CAP member described the process:

When I first got on the CAP, I asked where the money that Shell donates was going. The community relations manager came back with that list. I immediately saw it and moved to change it to put more of an emphasis on Martinez groups. Since then, the CAP has suggested that Shell have a formalized way of granting these donations to give preference to Martinez. And, every year Shell comes back to us and shows us where the money has gone and how decisions were made. That has been a positive influence.

Shell's 1993 donation list showed \$94,516 in contributions to a wide range of local organizations, from the Boys and Girls Club of Martinez (\$6,000) to a \$250 grant for the Martinez Opera.⁴ CAP members also encouraged Shell to invest more in the Martinez schools. And, the plant manager thinks that involving the CAP had positive results:

We were doing very little in the schools three or four years ago. A lot of the driving force behind getting Shell to invest in educational programs was from the CAP itself or from individual members of the CAP. They did this by talking with us about what Shell should be doing in education.

Feedback on Clean Fuels Project

The Clean Fuels Project, a billion-dollar plant expansion, is Shell's most significant new investment, and potentially its most controversial plant modification. As the community relations manager notes:

The old timers who have lived here a long time are fine with the refinery because at some point it put bread on their table. But . . . the younger professionals who commute to San Francisco wish Shell would fold up its tent. So we have these two types of people to communicate with.

⁴Shell Oil Company. 1994. Xeroxed list of 1993 company donations.

Accordingly, Shell spent a substantial amount of time with the CAP learning about the project and soliciting feedback from CAP members on many issues related to the project's development. The agenda usually included updates on the status of the CFP, Shell's progress in obtaining permits, how the selection of construction contractors was progressing, and other related issues, according to one member.

The community relations manager explained that "the CAP had a briefing on the project six months before it ever went public. They were asked to keep it under their hats because there were lots of uncertainties and changes. Nobody talked about it and it never showed up in the paper." The CAP members felt responsible for keeping the information under wraps, and no one expressed any reluctance in doing so.

At one of the very early meetings on the CFP, the CAP suggested that the company should communicate about the project to the citizens of Martinez as early in the process as possible, even before officially required public hearings. More specifically, the CAP encouraged Shell to voluntarily host what the community relations manager called a "y'all come meeting," an informal gathering for the company to explain what it planned to build, and for the community to voice its concerns and ideas.

According to the community relations manager, the meeting gave Martinez residents "a chance to ask questions about the CFP and to get concerns addressed, before they had to show up at any public meeting. It was a chance to exchange information." As the facilities support superintendent explained, if the CAP did not push the company to be a host to these early meetings, "it is entirely possible that we would not have had any public meetings on the CFP at all, until we had come up to something like an environmental impact report review that is officially mandated."

To publicize the meeting, Shell mailed out 11,000 invitations to residents of Martinez. The company also placed advertisements for the meeting in local newspapers. When Shell was ready to have its first public meeting on the CFP, the company "ran it by the CAP and CAP members responded with suggestions and comments." According to the facilities support superintendent:

The CAP's involvement really got us dealing with the public in a much more open forum, not waiting for a state mandate. Early, and often, we gave enough opportunities to tell people what we were up to. Five years ago, I don't believe we would have had the courage to do that. Industry's approach was to try to pretend that the public is not here. This works until you have an event, but then you haven't established relationships that you need in order to work your way out of the problem.

Besides prompting Shell to hold additional informational meetings about the CFP, the CAP also addressed specific design issues. For example, the CAP gave comments to Shell on the location of the project. The facilities support superintendent explained: "We were looking for concurrence about variables, like where it would be sited. We didn't let

the CAP decide where it would be located, but we let the CAP talk about it and say what were the pluses and minuses, and got their feedback."

One member said that the CAP's recommendations on landscaping near the new facility and Highway 680 were taken into consideration by the company: "They brought in pictures of proposed landscaping, and we said this would look different if you did it that way, and that would look better if you put these trees over here, and I think they took that into consideration." As another member noted, "we asked about traffic control. We wanted to know if the CFP would disrupt the area, and how Shell was going to accommodate the additional people from construction companies coming from out of state."

Despite the CAP's role in encouraging the informational meeting, the members did not actually participate. The CAP members believed that the panel's proper role was to observe the meeting, to make sure that the appropriate questions were asked, and that the responses were honest. In doing so, the CAP also provided credibility to the company. According to one member, "The CAP was there to see if [the public's questions] were going to be answered. Most of the people who show up know who we are, and by us being there, they know we're not telling them stories -- that this is what it is about."

Community Problem-Solving

The CAP addressed very specific problems facing Martinez. In one such incident, the CAP, the company, and fenceline neighbors, stopped an erosion control technique used for many years by the company, but which neighbors found offensive. Shell, like other refineries, traditionally used asphalt to control erosion on its property. The company sprays a thin layer of asphalt on the hillsides. However, when Shell applied asphalt to a hill located behind the property of a Martinez resident, who also happened to be a local environmental activist, it turned her vista of rolling hills black, and she complained.

According to a CAP member:

She went out one day with a neighbor and noticed that the company was turning the hillside black. She then called the community relations manager, who immediately called the local residents together, with a few people from the CAP, to go and look at the hill. Once they observed what was occurring, the community relations manager called the company and said "stop." So they stopped. At the next CAP meeting there was discussion about this. It was an example of communication between the company, CAP, and community, and it wasn't just talk, but communication to get action.

Eventually, the company and community reached a mutually agreeable compromise. Shell restored the property that was sprayed black. The community relations manager recounts that "I had maintenance the next morning out there picking it off like chocolate from an ice cream cone." And, Shell agreed not to use the asphalt on hills that are visible from peoples' homes. Both CAP members and this particular homeowner were satisfied with this compromise.

As another CAP member pointed out, this was not an example in which the CAP was consulted on this method of erosion control in advance. However, the CAP's role in the outcome of the conflict was important. By engaging in dialogue and problem solving among company representatives, the CAP, and other community members, Shell was able to resolve amicably what would otherwise have been an extremely contentious fight. Not surprisingly then, in questionnaire responses, Shell received a good rating for its performance in involving the CAP in problem solving (mean = 4.0, s.d. = 1.13), and in resolving concerns raised by the CAP (mean = 4.44, s.d. = 0.73).

Improving Risk Communication

According to plant officials, the CAP helped Shell turn a potential communications nightmare into a "non-event." Under the California Air Toxics Hot Spots Information and Assessment Act of 1987 (Assembly Bill 2588), chemical companies are required to communicate to the public the cancer risk from facility emissions. With the help of a consulting firm, Shell developed a communications plan to present this information in written and verbal form to the residents of Martinez. According to the community relations manager, "we ran it by the CAP first, and they said, in no uncertain terms, that it was just garbage."

While the law required Shell to disclose the impact to a hypothetical, maximally exposed individual, the company also was allowed to explain that, under ordinary circumstances, the risk would be lower. Shell's presentation to the CAP included both estimates.

The CAP advised the company not to discuss both levels, because that would look like a "cop-out." The CAP urged Shell to avoid the appearance of minimizing the calculated risks of emissions by communicating both exposure scenarios. CAP members told the Shell officials that, in their opinion, people would understand that the worst case risk estimate was based on a hypothetical exposure level that was unlikely to occur, and that presenting two estimates was more likely to enrage people and to make them suspicious, than to reassure them.

Shell heeded the CAP's recommendation, and when it conducted the public meeting and mailed information to residents, the reaction, according to the community relations

manager, was a "total non-event." She added, "I think we could have easily stirred up the troops had we done it the other way."

In addition to their advice concerning the reporting of a maximally exposed individual's risk, the CAP gave Shell general suggestions about the presentation's content. The plant manager explained that "we went to them with our presentation and tried it out on them. We used them as guinea pigs. We let them react to it, and then tell us what was good and not good. We did it a few times until they thought it would be received well by the public." The facilities support superintendent also recalled: "We wrote a very technical letter to explain everything. The CAP took a look at the letter and said, you're not communicating anything at all; we can't even understand this. So, we revised the letter."

According to the plant manager, the CAP helped Shell to better communicate the information the company was required to provide under the California statute. "Most of us are engineers," he noted, "and when we start to communicate risk, it comes out like an engineer talking and part of it is defensiveness." Instead, the CAP helped Shell "to work it into ordinary English and to work the defensiveness out of it."

This example was recalled by Shell officials as a way in which the CAP reduced the public's fears about the cancer risk from the plant. It is curious, therefore, that both company officials and CAP members did not strongly agree with the statement that the CAP "has helped the community feel less concerned about plant operations" (mean = 2.8, s.d. = 1.15). It is possible that, while the CAP's assistance may have reduced fears in the case of the toxic hot spot information, members and Shell officials are less sanguine about the broader impact of the CAP on community attitudes about the plant. Or, it may be that the CAP viewed this help as indirect.

Improving Communication at Public Hearings

According to company officials, the CAP helped Shell to improve communication about the construction of the vapor recovery system. Under state and federal air quality laws, refineries must prevent the emission of the volatile organic compounds discharged through the refueling of ships. Under orders from the Bay Area Air Quality Management District, Shell constructed a device (called "marine basin recovery unit," or "thermal oxidizer") to burn these vapors. According to the community relations manager, "Shell had to have it in by a certain date and the City wouldn't hear the thing, so it was up and running for two years before we ever had our land use permit from the City."

The media portrayed the plant as being operated illegally: "Every time an article about it would come out in the press, it would say that Shell has been running this plant

without a permit, and it made us sound like really bad guys," the community relations manager added.

According to the community relations manager:

The company kept the CAP abreast of the issue so they knew exactly what was happening. We told them we were having trouble with obtaining City approval, and they gave us ideas. I don't mean they got it through for us, but they were helpful in communicating to the other side of the fence.

However, according to one CAP member, the company did not keep the CAP informed of the really important concerns about the facility until the issue blew up within the community. Quite apart from the procedural issue of operating a facility without local approval, some Martinez residents were concerned about the combustion byproducts, and the fact that the facility was built in a floodplain (Abreu, 1992). However, the issue that the company discussed with the CAP, according to one member, was not the technology, or the emissions from the facility, or its location, but the color of the facility. "Should it be blue to blend in with the sky, or green to blend in with the hills?" As this member explains, "if you were to stand back and look at that question without context, you'd think these guys were pulling a fast one, because the location of the incinerator was in a flood plain." However, the CAP did not realize the extent of public controversy over the environmental impacts of the facility. "The discussion was about the color, and no one brought up any other aspect about it," according to the member.

In the end, though, this member testified at a City hearing in favor of allowing Shell to keep the unit in place. He explained that "in that case, I took Shell's position. It now is there so you should leave it there. I did a lot of technical analysis on that one, and concluded that the incinerator makes a lot of difference in [reducing] air pollution from the facility."

At a critical council meeting, "Shell packed the chambers with its own employees," according to the member, to gain approval of the "thermal oxidizer." Because of the large number of people living in Martinez who work or who have worked at Shell, the company is able to put political pressure on the city government. As one member explained, "If Shell calls out the troops, they can really call out the troops."

Conflict over the thermal oxidizer revealed to Shell the value of discussing all potentially thorny issues with the CAP as early as possible. That was one of the first issues that the CAP dealt with, and the company learned that "if it wants to use the CAP it has to tell us what the real issues are." One member noted that:

at the CAP meetings, we gave them a hard time for not telling us the full scope of the issues. The company persuaded us that they were not being dishonest about the issue,

but rather misread the community's concerns about the issue. It was a positive learning experience. The CAP felt the company screwed up. The question for us is, do you keep beating on that or do you let it pass?

Despite the flap this incident caused, CAP members and officials rated Shell's performance in keeping the CAP apprised of problems rather highly (mean = 4.56, s.d. = 0.73). And, CAP members and officials responded that they strongly disagree with the statement that "there are some important issues which do not get discussed by the CAP" (mean = 2.06, s.d. = 1.24). It is not clear whether the assessment in the questionnaire responses suggests that the CAP disregarded this incident, thinks that it shares blame with the company for failing to ask the right questions, or feels that the issue was adequately discussed (although many controversial aspects emerged only after the public's outrage escalated). Alternatively, the questionnaire responses may reflect Shell's improvement, between the time of this incident and the survey, in keeping the CAP apprised of problems.

4

COMMUNITY ADVISORY PANEL STRUCTURE

The Shell CAP was formed in September 1990. The panel consists of twelve residents from the greater Martinez area, who meet monthly (except during August) with the plant manager, the complex superintendent, the facilities support superintendent, the community relations manager, and the environmental/ conservation manager. The meetings are closed to the public and the media, although outside guests are occasionally allowed to attend. A professional facilitator paid for by Shell runs all of the meetings. When certain technical issues are discussed, the facility staff members who are experts on those issues make presentations to the CAP.

Budget

Shell does not keep a separate CAP budget. Funds for expenses such as food at the meetings, photocopying, and the facilitator come from the plant's general operating budget. Shell agreed, in principle, to pay for other expenses, such as a technical consultant, if requested by the membership and agreed upon by Shell. However, since the CAP members have never made such a request, it is unclear how it would be evaluated by Shell.

Selecting the CAP's Membership

Members were selected in two separate stages. When the plant manager decided to form the CAP, he asked the Mayor and a County Supervisor to suggest five potential members. Three people were named by the Supervisor and two were named by the Mayor. These five core members then were asked to recommend an additional seven potential members. According to the plant manager, the company and core group developed a list that included a downtown businessperson, a member of the school board, Shell retirees, an employee of the County emergency services department, two self-identified environmental activists, and a high school student. The members were chosen so that, besides representing different interests, the three neighborhoods surrounding the plant would be represented. Shell consented to each of the seven members recommended by the core group of five.

It is impossible to assemble twelve individuals who represent all of the diverse interests, positions, and communities of a small city. However, the consensus among those interviewed was that the CAP membership adequately reflects the composition of Martinez. Members pointed out that while the CAP did not have precisely the same demographic or socioeconomic composition as the broader Martinez population, different locations and interests were reasonably well-represented.

Based on the questionnaire responses, however, the members are predominantly male, older, well-educated, and solidly upper middle-class. Of the respondents, four are female and eight are male. Only one member is less than 30, six range in age from 40 to 59, and five are 60 or older. Most of the members have at least some college training. Three have graduate or professional degrees. Incomes are mostly in the range of \$50,000 and above. The CAP is politically diverse. One member reports that he or she is "very liberal"; four say they are "liberal," four report being politically "moderate"; and two say they are "conservative."

Several concerns were raised about the CAP membership. For example, the plant manager expressed reservations about including two Shell alumni on the CAP. These members were selected by the supervisor and the Mayor in the first group of members. The plant manager said that, because the alumni tend to be supportive of the company, their comments may not accurately reflect the community's sentiment about the plant. Moreover, because they are knowledgeable about plant processes, he feels that alumni are less likely than lay people to notice when Shell's presentations are too complicated or are filled with jargon. One member believed, however, that "Shell wanted to have strong retiree representation. These guys are totally loyal to Shell, but don't have much technical background."

Members and company officials wonder whether the CAP represents only the more activist Martinez residents. As one member noted, "any community is mostly people who are silent. As far as I can see, the CAP does a pretty decent job representing those who are likely to become involved in Shell issues."

From the complex superintendent's perspective too, the CAP members represent "the more activist end of the spectrum of the community." He based this assertion on the observation that there is poor attendance at public meetings on certain issues that the CAP deems to be extremely important and worthy of public attention. From his point of view, CAP members are not random, average citizens, but rather those who are dynamically involved in public affairs, who belong to different organizations, and who are politically active in venues such as the school board. This raises the question in his mind of whether concerns enunciated by the CAP really are issues about which the community cares.

However, based on questionnaire results, his view is not shared by all company officials. On average, company officials neither agreed nor disagreed with the statement, "only a small number of local citizens are concerned about environmental issues" (mean = 3, s.d. = 1.15). And, the company officials strongly agreed (mean = 4.25, s.d. = 0.5) with the questionnaire statement that "our CAP understands the extent of public concern about environmental issues."

CAP members seem to be generally concerned about the environment. For example, in the questionnaire responses, members strongly disagreed with statements that "the benefits of consumer goods are more important than the pollution caused by their production and use" (mean = 1.86, s.d. = 1.06) and "some chemical risks can't be controlled" (mean = 1.86, s.d. = 1.12). Responses by company officials were similar to member responses for the statement about "benefits of consumer goods" (mean = 2.0, s.d. = 1.0) and the statement about "chemical risks" (mean = 1.67, s.d. = 1.15).

Learning About Plant Operations

Members commented that the CAP was presented with a large amount of technical information. The company's performance in providing data to CAP members was rated highly by CAP members and company officials, with a mean of 4.75 (s.d. = 0.45). As one member explained, the CAP gets "tons of technical stuff." Data are presented on slides and overheads. "People can write down what they want, but we don't get much on paper. But, if you wanted a hard copy of something, Shell would give it to you -- no problem with that."

Another member said:

anything we ask for they bend over backwards [to provide]. I've got more information on selenium than you can ask for. Some of it is too complicated to understand, including tables of chemical things that we don't understand. Environmental impact reviews (EIRs) are at our beck and call.

As the facilities support superintendent noted, "we don't share (and they don't have much interest in) financial information, but aside from that, we share any sort of performance data that they're interested in." In addition to providing written background material, Shell presents safety statistics and an environmental report at most meetings. When there is a problem at the plant, Shell tries to notify CAP members as soon as possible. The community relations manager notes that "if there is an incident of any kind, I'm responsible for calling all the people on the CAP, so that they hear from us before they hear about it from their neighbors."

The CAP members' capacity for understanding the technical information discussed at meetings varies widely from member to member. The education of the membership ranges from a professor who is trained in physics, to a retired homemaker who is a community activist, to people in business and management. Many members are well-educated, as the questionnaire results show.

Nevertheless, company officials expressed concern that members may not understand enough of the information they are being presented to give useful feedback to Shell, and to communicate accurately to their neighbors the information learned at meetings. In response to a question in the survey about how well the CAP has performed in terms of understanding technical information, company officials gave the CAP a lower mean response (mean = 3.25, s.d. = .50) than CAP members (mean = 4.08, s.d. = 1.24).

However, Shell also feels that having members on the CAP with different levels of technical background is helpful. The facilities support superintendent feels "that kind of mix is very important" for communicating to diverse members of the community. He added that "if you want to communicate to [average citizens] you need a sounding board that tells you whether they agree, disagree or even understand your position."

CAP members expressed concern that they do not have the expertise to ask the right questions. For instance, on a very technical issue, such as how much selenium Shell should be allowed to discharge to the Carquinez Strait, one member expressed concern about the ability of other members to understand the problem well enough to ask probing questions. One member said that:

because so few people understand it, there aren't a lot of questions being asked. We're given information that we don't know a lot about, so we don't know whether we need to be concerned about it or not, and we're only given one point of view.

This member pointed out that nobody on the CAP testified against the regulatory agency's decision to allow Shell 4.5 years to reduce selenium discharges to its permitted level, though local environmental activists were opposed to the extension. Another CAP member said that "few of the members have the technical background to understand the data they're presented. With respect to chemicals, there's only one person on the CAP who understands."

On the other hand, the CAP members feel comfortable seeking technical assistance from other members and from colleagues who are not on the CAP. Members said that they relied on various people for technical support. Some defer on technical issues to the CAP member who holds a Ph.D. in science. For instance, one member notes that he is "the one that's got all the answers. We kind of look to him for guidance. What we can't get from him we ask Shell to further explain to us." Other members use personal and professional contacts to get information or to evaluate information provided by Shell. One member, for instance, said:

I can go out to the [water filtration] plant and ask our biologist "well what about this?" If he's skeptical, I'll go back to Shell and ask questions. For us to absorb all this information, forget it. It is too much. But, as far as being reassured myself and being able to tell my friends and neighbors, it's okay.

When asked whether Shell does an adequate job of explaining technical information, the members responded "yes," and suggested that the CAP did not feel the need for additional technical counsel. The questionnaire response to a question of how well the company performed on the task of explaining technical information to CAP members was 4.44 (s.d. = 0.63), which is consistent with the interview responses.

The consensus seems to be that the CAP can function without outside help, because the members' interests are diverse and because different members are knowledgeable about different issue areas. As one member explains:

I think everyone has a little bit of knowledge. There's a person on a sanitary board and she knows everything about biological oxygen demand (BOD) and things like that, and one of the members knows everything technical. There's a person who is involved with preserving hills and who is concerned about the size and location of new structures.

Another reason the CAP members do not feel the need for technical assistance is because they trust the information that Shell provides. Technical consultants to advisory panels do not merely explain technical information; they also check and validate or criticize the information that the company provides. In the case of Shell's CAP, members feel that Shell provides accurate and complete information, because the very usefulness of the CAP depends on access to and an understanding of information about the company. While the CAP members may disagree with the company's technical analysis, or rely on

each other to ask probing questions, members generally trust that they are not being lied to. As one member stated, "all of us feel that we are being told the truth by Shell. If I asked a question that was really controversial, they would answer it."

From the company's point of view, if Shell were dishonest, the entire CAP process would fail. The facilities support superintendent explained:

If the company isn't honest on a technical issue, the CAP will find out sooner or later. And, the first time Shell lies to the CAP, the organization will disband. Its purpose is to give Shell legitimate impact based on the issues that are before us. If the company doesn't give the community members adequate information, the CAP will not be able to do that. If the CAP members don't trust us, there's no reason for the CAP to be here.

When several other CAPs in the county approached the Shell CAP with a proposal to join together and hire a technical consultant to work for all of the county's CAPs, Shell's CAP agreed to "write back to the other CAP that we don't want to play in that game," according to the community relations manager. As one member explained, the company persuaded the CAP to reject the idea by reaffirming its pledge to provide the CAP with consultants, if necessary. The member said, "Shell's position was that if you think you need technical assistance, specify who you want and we will get them."

However, while the CAP decided to reject the proposal for a multi-CAP technical consultant, CAP members certainly were not unanimous on the issue of whether technical assistance is needed. As another member explained: "I can see the need for an independent source of information. If we are only relying on the company, it would be very easy for them to skew information. Technical assistance would be the way to go."

Monthly Discussions

Setting the Agenda

The meeting agenda are set through an informal discussion process and group consensus. Shell and the CAP members propose ideas for meeting topics. For example, at the end of a meeting when the agenda is about to be set, Shell may tell the CAP about a particular topic and ask whether the members want to be briefed about it. The facilitator then will canvass the room to find out if the members want to discuss this issue, and if so, she and the community relations manager schedule it for a future meeting. If nobody objects (and all the interviewees suggested that objection to an agenda item would be highly unlikely) the item is added.

As noted above, an important question for the Shell CAP was whether the members have enough information about the facility to understand which issues should be discussed. As the CAP matured, and members became more familiar with the potential controversies facing the plant, they were better able to suggest topics. According to one member, in the beginning of the CAP, Shell developed the agendas, but "now we ask for specific items to be put on."

However, other members felt that because company officials know more about the facility than the CAP, Shell still may effectively control the agenda. For instance, while one CAP member said that Shell always solicited ideas from members, she added "if we don't know what is going on in [the plant] it is often hard to say [what we want to hear]." The facilities support superintendent acknowledged that he wished "the CAP were more inquisitive, instead of [Shell] all too often picking the topics."

Yet, responses were positive to survey questions about how well the CAP understands the risks from the plant, how well the CAP understands the concerns of the community, and how well it raises important issues. For example, the members agreed with the statement "CAP members have all the information they need to understand risks associated with plant operations" (mean = 3.66, s.d. = 0.98). Both members and company officials gave the CAP high grades on the question of how well the CAP has performed in the tasks of understanding community concerns (mean = 4.62, s.d. = 0.5) and raising important issues to the company (mean = 4.31, s.d. = 0.70).

The agenda is never fixed in stone. If there are too many items for one meeting, the facilitator seeks a consensus on setting priorities for the order that issues are discussed. When issues are particularly timely or salient, they are added and other issues are pushed aside. For example, when a chemical company in nearby Richmond released oleum as it was being unloaded from a tank car, a plume of the toxic chemical moved across the western part of Contra Costa County. There was substantial press coverage of the accident, as well as a public hearing sponsored by the local Member of Congress. According to one member, the Shell CAP responded by expressing concern to the company that the same incident could occur in Martinez. As a result, Shell brought the people responsible for rail car handling to the CAP's next meeting to discuss Shell's procedures for moving hazardous material.

Keeping the Meetings Focused

According to the plant manager, Shell decided to use a neutral, third-party facilitator because it was recommended by CMA. The complex superintendent noted that when the company initially conceived of the CAP, Shell contemplated using its own staff to facilitate the meetings. However, the company was concerned that it might be perceived as trying to steer the discussion in a particular direction, and thereby might lose credibility with the members. To company officials, therefore, the use of a facilitator was

designed to avert accusations by CAP members that the company was dominating the discussions.

Company officials and members unanimously agree that the use of a facilitator is essential to the CAP's success. According to the plant manager, a facilitator is crucial to the effectiveness of a group with very different opinions: "When you have a diverse group, you need a facilitator. It allows people not to worry about meeting etiquette." The complex superintendent pointed out that the facilitator keeps the meetings on track. He noted that it is important for someone to be able to say, "hey, you're drifting off the subject." The community relations manager noted that the facilitator also ensures that the members do not dwell excessively on any particular point, that they pay attention to each other, and that all members have the opportunity to speak.

The facilitator also was viewed favorably by CAP members. As one member explained, "I don't think this could happen as efficiently as it does without a facilitator. There's too much cantankerousness on either side. She makes sure both sides get heard." All of those interviewed gave the facilitator high marks for her skills in running the CAP meetings.

Several members noted, however, that the CAP members get along so well that they could probably run the meetings themselves, if necessary. And, when asked about any negative aspect of using a facilitator, one member said that "she keeps checking in and trying to draw conversation out of people who aren't communicating. That may or may not be good. They may not have anything to say, and it can break up an existing conversation."

Shell contracts for the services of the facilitator with a private firm in San Francisco. The cost -- \$350 per hour, or \$1,200 per meeting -- was the only negative aspect of using a facilitator that company officials mentioned.

The facilitator runs the entire meeting. The day before the meeting, the community relations manager completes, prints out, and faxes to the facilitator a copy of the agenda that was agreed-on at the previous CAP meeting. The community relations manager prints up the agenda because she is responsible for scheduling the Shell staff who make presentations to the CAP.

At the meeting, the facilitator keeps everyone focused on the appropriate agenda topic and brings closure to issues so that the CAP does not spend too much time on any one item. She also makes sure that all of the members have an opportunity to speak. The facilitator initially took the minutes, as well. However, it turned out to be too cumbersome for her to take notes and to facilitate simultaneously. Therefore, a hired scribe assumed the task of recording notes and writing the meeting minutes.

Providing Feedback to Shell

The CAP makes nearly all of its decisions by consensus. And, according to the CAP members, the collegiality of the group makes gaining a consensus on an issue easy. According to one CAP member, "if [members] disagree it seems to be very polite; they aren't disagreements that stifle a person's comments."

The members present their own reactions to Shell's proposals, which may or may not be similar to the opinions of other Martinez residents. Because the members come from different neighborhoods, and have different interest group affiliations, Shell believes that their feedback will provide a balanced perspective on community attitudes, and serve as a general indicator of the community's pulse. However, no one from the company expects the feedback to be as precise as a random survey of the population.

Partly to avoid formulating positions that could be divisive to the group, the CAP does not testify at public hearings, write comments on environmental impact reviews as a group, or take official positions on controversial issues facing Shell. On a rare occasion, the group votes on an administrative issue. For example, the facilitator might ask for a show of hands about whether to participate in a research project, or whether to allow an observer at a particular meeting.

The one occasion when the CAP actually voted on a highly controversial issue created so much conflict among members that the CAP decided never to take another position unless the decision was unanimous. In this case, a local advocacy group, Citizens for a Better Environment (CBE), proposed the creation of a county wide position, called a "community inspector." This person would have access to information at Shell and other chemical companies, and would be responsible for reporting to the public the performance of the companies in Contra Costa County.

There were several public meetings held in Martinez on this issue. Shell discussed CBE's proposal with the CAP. According to the facilities support superintendent:

We thought it would add another layer of bureaucracy, and raised questions about who this person is accountable to, who is the community, who hires and fires them, etc. We went through the reasons we thought this made California that much more difficult to do business in.

Shell then asked the CAP to vote on whether the members supported or opposed the idea of a community inspector. The members who were present voted to oppose CBE's proposal. Conflict arose, according to the facilities support superintendent, when Shell repeated the CAP's position at several public meetings.

This was the only time we represented the CAP as having a position that supported us. It turned into a mess, because three or four CAP members who were not present

when the decision was made were at a meeting where we stated that the CAP opposed the community inspector. One of the CAP members, who agreed initially that it wasn't a good idea, did some independent research and changed her mind, so she stood up and said, "Yes, I opposed the community inspector, but you guys didn't give me all the data, so now I support it." It was a very embarrassing situation.

The company looked like it did not understand the position of its own CAP, and to some CAP members, it appeared that Shell was using the CAP to bolster its own position.

At the next monthly meeting, the CAP had what was described as a very important discussion about this conflict. Members and company officials came to realize that problems may arise if a CAP consisting of diverse members attempts to take positions on controversial issues. The members came to believe that if the CAP were to take positions on issues facing the company, such as whether a permit should be issued, or the adequacy of a proposed project, then the CAP would become politicized. Members would be responsible for explaining to the community why they took particular positions. And, according to one member, "none of the CAP members wanted that responsibility. They felt that if something needs to be communicated, Shell has other vehicles for communication."

Consequently, Shell agreed never again to ask the CAP to take a public position. The discussion about this issue also led to a debate among CAP members about what the CAP is -- its purpose and its mode of operation. According to one member, the CAP agreed that it:

would never take a position on anything unless the decision was unanimous, so that members didn't have to worry about missing a vote. Practically, that meant that the CAP will not take very many positions. This is fine with Shell because the company feels the reason for the CAP is to sensitize the company to the community's concerns.

Shell, too, does not want the community members to take the information that the company presents to them, and then serve as a conduit of that information to the community. For one thing, the company feels that is a responsibility that Shell must assume because, according to the facilities support superintendent, "it is too big a task for twelve people."

The CAP does not want to be responsible for conveying company information to the community because the members view that as Shell's responsibility. The CAP, instead, assumed a watchdog position, making sure that Shell conveys the information correctly, credibly, and in an understandable format. Another reason is that the CAP does not want the responsibility of digesting and accurately communicating highly technical information. Again, CAP members and company officials both view that as Shell's responsibility.

After the community inspector issue was resolved, the CAP decided that its role should simply be to feed information to the company. The company could listen to various opinions from different members, balance it all, and choose a particular course of action. The CAP would not be bound by a particular position. If Shell were to choose not to listen to CAP members (or if the company listened to the CAP and the outcome was problematic) Shell, not the CAP, would bear the responsibility.

Because of the conflict, the company is very careful to represent CAP members' opinions as merely individual comments, not the group's consensus. For example, at its February 14, 1994 meeting, the CAP decided not to join Rhone-Poulenc in hiring an independent consultant. In replying to the Rhone-Poulenc CAP, however, the community relations manager was careful to stress that it was the consensus only of those present at that particular CAP meeting that a consultant was not a good idea. Accordingly, the minutes of the meeting report that: "After discussing this issue, [the community relations manager] asked the CAP if they wanted to participate. A poll was taken of those present and the consensus was that they did not feel the need for a consultant."

Members and company officials often hear each other's viewpoints, and then agree to disagree. For example, one member recounted a difference of opinion between the company and himself regarding the types of valves used at the refinery:

Through the CAP there have been exchanges such that [the plant manager] understands that I think they have a poor policy on putting in certain types of seals. I understand that [his] position is that they want to put in those seals. Our understanding is excellent. We communicated through the CAP to the point that we understand where we disagree. That's as far as you want to go on the CAP and then move on to something else. We're not going to resolve that issue through the CAP.

According to one member, when the CAP raises an issue it gets put on the agenda, and Shell always brings in knowledgeable people to discuss it. If a CAP member is dissatisfied with Shell's explanation, he or she follows up individually by meeting with those Shell staff members who are experts on the issue. However, he points out, "it is not the same thing as reaching consensus. It is a consensus on what should be discussed, not on what you should do after you discuss it."

Neither the CAP members nor company officials view the CAP itself as a vehicle for solving the company's operational or environmental problems. In the questionnaire, the mean response to a question about how frequently the CAP is involved in negotiating specific pollution control and/or prevention strategies with the company was a low 2.12 on a scale from 1 (never) to 5 (very frequently).

Discussing Issues Privately

In deciding whether to hold open or closed meetings, the CAP helped to define its role further. At its July 1991 meeting, CAP members proposed inviting the media to subsequent meetings. However, the plant manager said that "if the press were there I'd be censored, and if there were no press I could talk pretty openly." His statement was a deciding factor in keeping the meetings closed. The members agreed that it was preferable for the plant officials to be open with the CAP, even if the public would be excluded, than to have less forthright information in the CAP meetings. One member said that, "if the plant manager feels uncomfortable about having the public there, you ought to take that seriously . . . If you have newspaper people around, it changes the dynamics in a bad way."

Another concern of members was that open meetings might become "dog and pony shows," and become less focused than the smaller, closed meetings. A CAP member raised the point that at open meetings, people can talk about issues that are far off the published agenda, moving the discussion of the entire group off track.

The debate within the CAP about whether the meetings should be open or closed resulted in self-evaluation between members and company officials about the heart and soul of the CAP. The CAP members reaffirmed that they wanted to remain an advisory body to give feedback to Shell and to help Shell communicate information to the community. The members did not want the CAP to become a forum to answer questions from the public or to receive public comments. The members wanted to continue to receive privileged information from the company, to have frank debate with officials, and to prevent posturing by both sides.

However, some members expressed regret about the decision to keep the meetings closed. One CAP member, for example, said:

I would like the public to sit in and not participate, but at least view what is going on. If we truly are a conduit to the community, this would be a way to get the message out. Barring that from happening, I would like to see press releases, or updates, or a recap of the meeting in the newspaper so the community would know what we were doing.

These mechanisms were discussed in meetings, but were rejected.

The information that the company shares with the CAP members is not proprietary, except occasionally when the company tells the CAP information ahead of its public release. For example, when the CAP was told about the Clean Fuels Project, they were asked to keep the information under wraps.

Members prefer not receiving proprietary information, because they do not want to be held responsible for keeping information confidential. They also exercise self-restraint in deciding which information to share. Printed handouts are acceptable to distribute. However, as one member pointed out, Shell does not want CAP members to "give out the wrong information," so she does not share information that she does not feel fully comfortable discussing. According to this member, Shell told the CAP members that if they are confused or have questions, the company will explain an issue, but "don't give out the wrong information . . . We'd rather give it out at a public meeting." For example, one member explained that with respect to the conflict over selenium discharges:

Sometimes they say "there are a lot of things we're telling you that may cause people to panic" -- like the selenium numbers, how they're going to handle it, and what the tradeoffs will be. It is hard to explain that to the public, because you can shut down some plants and keep discharging selenium from others. How do you go tell the public this when you can hardly explain it to yourself. You know what they mean, but people say you're lying and they're going to kill us. I'd rather have Shell tell it themselves, because they can explain what they're going to shut down, what are the tradeoffs, what will be going where.

CAP Access to Top Management

An important factor that makes the Shell CAP work well, according to the members and company officials, is the dedication of the plant's top management. The three chief facility managers at the Martinez facility attend nearly all the CAP meetings. The plant manager reports that he attends about 80% of the meetings; the facility support superintendent and the complex superintendent also attend approximately 10 of the 11 meetings held in a year.

Their attendance, according to one member, shows that they take the CAP and what the community members say very seriously: "When the top management of an organization puts in a lot of time, it tells me they think the CAP is important. That's the strongest signal because top management time is a valuable asset." This member recounted walking out of another chemical company's CAP meeting because only the public relations official attended: "I said (to the other company) 'where's the management?' 'It isn't worth my time if you don't want to send your management.'"

Another CAP member remarked that the management seemed receptive to suggestions made at the meetings. "[The plant manager] is so receptive to what the CAP is saying . . . he never says 'that is not a good idea.' It is always, 'that is something we have to look at,' or 'that is something we hadn't thought about.'" To this member, access

to Shell's top management indicates that "they are hearing what community members have to say, and so we've got to be influencing them."

This is consistent with questionnaire responses that give high ratings to the company's performance on tasks such as "understanding CAP members' concerns" (mean = 4.44, s.d. = 0.512) and "resolving concerns raised by the CAP" (mean = 4.44, s.d. = 0.727).

Communicating Informally with Company

Shell and the CAP developed a comfortable relationship that makes it possible for company officials and members to interact outside the formal monthly meetings. This interaction generally occurs in two ways. The first is that the company often tries to connect members to technical people if the CAP members have questions that can't readily be answered in CAP meetings because they are too complex or too arcane. For example, one member recalls that when he had questions about the size of proposed stormwater retention tanks, he was put directly in touch with the Shell engineer who was in charge of determining the size of the tanks.

Shell needed to build retention tanks to stop discharging untreated wastewater during storms. Because the tanks are large and along the waterfront, they were a potential eyesore for the community. Hence, Martinez residents discussed Shell's proposal years before the CAP was formed. When the CAP was formed, one of its members decided that he wanted to be sure that the size the company selected was appropriate.

After meeting with the Shell engineer who designed the tanks, and reviewing his statistical analysis, it became clear to this member that Shell did, indeed, conduct a "detailed study on rainfall," and designed the smallest appropriate tank size. The CAP member said, "I came away with the feeling they did their homework. The Shell engineer spent three hours of technical discussion with me. I was convinced."

In general, according to a CAP member:

When members raise issues, the company says "we'll brief you on them." If an issue sparks someone's interest, that person will say "I want more information." Then, the company will say, "Go talk to this particular expert about it." At the next meeting, the person on the CAP will say either "I'm satisfied with the issue," or "I'm still bothered by it." We get general briefings and any person interested in more detail can go back and get it.

Besides this between-meeting interaction, community members and company officials interact informally in other ways. The plant manager will occasionally mail notes to CAP members if an issue of importance comes up between meetings. CAP

members are not afraid to speak with top company officials when they have something on their minds. Members can pick up the phone and contact plant officials when they have a problem or a significant question. According to one member, "If a Shell official happens to know about something I want to know about I call him up, and he does the same with me."

Another CAP member recounted two occasions when he contacted Shell between meetings. One was a school board issue, as he was an elected school board member. There was excavated soil at the Alhambra school campus needed to be disposed of. "I called the facilities support superintendent," said the member, "and he was wonderfully receptive. I asked him if Shell could accept that dirt, and I don't think he even spent any time thinking about whether it was going to add money to their construction work, but he said 'yeah, I think we can find room for it.'"

Another time, the CAP member, who also is a county maintenance supervisor, wanted some advice from Shell on how to train his staff in safety techniques. "I work with many blue collar people who work with their hands, and it is similar to those who work at Shell in that it is somewhat dangerous work," the member explained:

And [at Shell] they have an awesome safety program which is looked at around the world as one of the best. So I asked to get some information on their program back to our county safety people. And the plant manager said something like, "Give us however many people you want, and we'll spend a whole day with them at our facility; we'll show them our plans, paperwork, and our program, and take them around the facility and show them how we train them."

Since the CAP members also are involved in other organizations, interactions often occur in different venues. For example, the community relations manager serves on an emergency response notification committee with one CAP member. CAP members also occasionally testify as individuals at public hearings on issues such as the adequacy of the company's environmental impact reviews.

In addition to these other forms of interaction between CAP members and company officials, the CAP is regularly involved in corporate functions. Members are invited to presentations of safety and environmental awards, to the annual dinner Shell hosts for its employees, to openings, and to other functions.

The facilities support superintendent raised the question of whether familiarity breeds complacency. He voiced a concern that:

As the CAP members learn more about our business, communicating with them becomes easier, which you could argue might even have a drawback. As they understand us better, maybe they become almost too much of an insider. It becomes too easy to communicate with them, and they become less critical of the

communication flow. [The positive side is that it] is easier to dialogue with them, and there is a slow turnover in people.

The questionnaire asked how frequently CAP members speak to each other outside the CAP meetings. Given the level of informal interaction between members and company officials between meetings, one might expect a similar level of interaction among the members. However, the questionnaire results show that the CAP members do not frequently speak with fellow members between meetings (mean = 2.69, s.d. = 1.35).

Information Exchange between CAP and Company

According to CAP members, much of the meeting time involves information exchange about the facility, as opposed to advising and making recommendations. Most meeting agenda include presentations from Shell about how the plant works, and what policy issues are facing the facility. In response to a question about how frequently the Shell CAP is involved in "learning about how the plant works," the mean (4.38, s.d. = 0.806) was higher than responses to all other activities listed in the questionnaire.

One member described the meetings as "kind of boring, but in an okay way. We get a lot of information from Shell and talk about some of the issues, but there aren't major controversies or surprises. There is a quiet question and answer period." At one meeting, for instance, the agenda items were as follows: (1) a discussion of stormwater diversion tanks with a staff engineer; (2) a briefing on the marine vapor recovery system permitting; (3) an update on the clean fuels project environmental impact review; (4) a discussion of future public meetings with regulators; and (5) a report from a community member about a Community Awareness and Emergency Response conference in Monterey.

According to the company officials, the information presented to CAP members is not filtered through the plant manager or public affairs representative. Shell invites its employees who are experts on a particular issue to speak directly to the CAP. One member explained that when the CAP was discussing the transportation of hazardous substances by rail:

They actually brought in the people who route the cars, who actually call up the railroad and say we need "x" number of cars tomorrow. Then they brought in the guy who works for the railroad and runs the switch yard, so we had working level guys [present information to us].

Following this meeting, the CAP asked Shell to invite union leaders to speak about labor issues and drug testing of railroad yard employees. One member noted that "when

the union leaders were there, we were able to ask them questions and see how their answers compared with the company's answers."

The issues discussed by the CAP range from plant safety to broad environmental concerns to corporate philanthropy, corporate communication, and Shell's involvement in Martinez's schools. The CAP very frequently discusses general environmental issues (mean = 4.62 s.d. = .62) and makes suggestions regarding safety and environmental issues (mean = 3.69, s.d. = .95), according to the questionnaire results. Less time is spent discussing issues other than safety, environmental or economic issues (mean = 3.19, s.d. = 1.22).

According to the complex superintendent, CAP topics tend to involve environmental issues that can affect Martinez residents, such as: "Is something going to blow up and do something to my family? What will personally impact me?" The complex superintendent explained that after one of Shell's tanks caught fire, the CAP spent time discussing tank fires and the process for managing tank safety.

Some issues are so important to the CAP members and company that they get discussed much more frequently than others. One such "big ticket" item is the Clean Fuels Project. The complex superintendent said that the CAP discusses all aspects of the project, from permitting to Shell's plans for the site.

Another frequently addressed issue is Shell's discharge of selenium into the Carquinez Strait. As the plant manager explained, the discharge of selenium was a very controversial issue in Martinez. According to him:

We put a little out in our wastewater, like five or six pounds a day in ten million gallons of water. The environmentalists have made an issue about it like we were wiping out the fish and the ducks. The truth of the matter is that it has been discharged for fifty years. Only in the last two or three have we been able to measure it.

Of course, there is a great deal of debate about the environmental impacts of selenium discharges, and releases to the Carquinez Strait were the subject of scientific and policy analysis. As a result of the controversy about how much selenium should be permitted to be discharged into the waterway, Shell "talked a lot to the CAP to explain our position and the position of the regional water quality board," according to the plant manager.

Shell also explains to the CAP the causes of any water or air permit violations that it receives. If the company has "environmental violations, we'll invite people to come in and talk about that," according to the complex superintendent. The questionnaire results indicate that Shell performed well in the task of "informing the CAP about changes in the facility," (mean = 4.69, s.d. = 0.60) and "keeping the CAP apprised of problems" (mean = 4.56, s.d. = 0.73).

Besides discussing environmental concerns, Shell's distribution of donations to different organizations and community groups is an important topic for CAP members, according to all of the interviewees. Curiously, despite the importance that the members and company officials attached to discussing philanthropy, the questionnaire results show that the CAP infrequently discusses other economic issues. In response to a question about how frequently the CAP discusses issues about "the economic relationship between the company and community" the mean for this activity (mean = 3.19, s.d. = 1.22) was ranked seventh of nine different categories of activities.

The CAP also discusses a wide range of quality of life and community assistance issues, or as one member described it, "stuff that isn't technical, and that doesn't depend on how the plant operates, but which impacts Martinez." For example, in one case, the CAP reviewed and made suggestions concerning Shell's plans for landscaping the road that runs through the refinery. In another instance, as noted previously (see Communicating Informally with Company section) a CAP member was able to secure Shell's assistance in disposing of a school district's excavation material.

Communication between the company and the community is a significant issue for the CAP. CAP members advise Shell whether letters or brochures they plan to send to the public are clear, whether presentations are understandable, and how the community might react to the information being presented. The facilities support superintendent explained that the CAP tells Shell when to simplify things, how to improve messages, and which terms are too technical. As one member notes, Shell sometimes presents information at a community meeting in a way that "makes a lot of sense to them, but doesn't to us on the CAP." He added that the CAP makes suggestions and gives constructive criticism to help Shell to improve its presentations to "the community, or the City Council, or planning commission."

5

LESSONS LEARNED

CAP members and company officials consider Shell's CAP to be a success. As a result of CAP suggestions, managers at Shell say that they now think about how CAP members (and, by extension, the public) might react before making major decisions. Company officials anticipate and try to address community concerns as they plan facility modifications. And, by discussing all major aspects of the plant's operation with the CAP, the plant managers open themselves up to criticism and frank advice by a cross section of the community in a forum that is collegial, instead of solely at public meetings. As one member pointed out, earlier attention to how the public feels may help to minimize future contentious issues.

The CAP's suggestions and comments persuaded Shell to communicate better with the surrounding community. Shell now makes public presentations before formal public hearings, produces literature that a lay audience can more easily understand, and pays greater attention to alerting its neighbors of changes in plant conditions. By fostering successful communication efforts, the CAP made Shell officials less fearful of communicating with the public. Each successful attempt at communication may make it easier for Shell to communicate the next time. As one member points out, company officials "learned that being sensitive to the community makes Shell's . . . life easier." Ultimately, Shell's heightened attention to communicating with the surrounding community may result in a better performing facility.

One measure of a CAP's success is whether the company changes its performance in response to community concerns. The Shell CAP had a number of specific accomplishments. The CAP:

- persuaded Shell to let the community know what important environmental meetings it attends through an environmental calendar;
- encouraged Shell to hold a public meeting for regulators to give the company a "report card" indicating its performance in the previous year;
- convinced the company to provide advanced notification of major production changes that result in increased noise;
- helped Shell to channel more philanthropic dollars to locally based nonprofit organizations;
- helped Shell to communicate about plans to modify and expand the refinery; and
- worked with Shell to solve local conflicts.

Factors Contributing to CAP's Success

Relatively Good Image in Community

Shell's fundamental motivation for initiating its CAP was to improve the company's relationship with the community. Shell was rebounding from negative publicity over its 1988 oil spill and other incidents at the plant. In addition, demographic changes in Martinez, and the impending construction of its Clean Fuels facility, may have made company officials feel somewhat vulnerable to changes in community perceptions.

However, these public image problems were not perceived as intractable. In fact, during the period in which the CAP was being formed, Shell had a relatively positive public image within the Martinez community, according to subjective assessments by company officials as well as by a 1992 random survey of Martinez residents. Several Shell officials said that they were glad that they formed the CAP in a period of stability, rather than during or immediately following a crisis. If the CAP was formed in the midst of an accident, it is possible that the members would mistrust Shell, rendering the CAP-inspired efforts of Shell to communicate with Martinez residents less successful.

Good Communication

Full and open communication, cohesion among members, clear goals and objectives, and organized and efficient meetings are characteristics of Shell's CAP. Communication by CAP members and company officials is a two-way process; participants show no reluctance to express their opinions, yet members and officials listen to what the other has to say. The discussions are uninhibited, yet members treat each other with a great deal of

respect in meetings. Members and company officials feel sufficiently comfortable to speak to each other outside the CAP meetings too, although such communication does not happen very often.

Successful communication among the CAP members may result, in part, from the fact that the members, while from diverse backgrounds, share a belief in cooperation. They consider the CAP to be a legitimate mechanism for increasing corporate responsibility.

Neutral Facilitator

The facilitation of the CAP by a neutral, third-party professional facilitator was cited by many members and company officials as a reason the meetings are organized, productive, cooperative, and cordial. Shell's use of a facilitator seems to ensure that the meetings follow the agenda, that most members have the opportunity to participate, that unclear information is explained, and that pertinent questions and issues are not ignored. Furthermore, the facilitator spares a CAP member from the task of running the meeting and keeping track of agenda items.

As one member points out, however, the CAP could probably function successfully at this point without a neutral facilitator. Because the members of the CAP have a good rapport with each other, and the meetings are not contentious, it is quite possible, according to this member, for the CAP to operate on its own.

Data Sharing

Over time, Shell learned to share increasing amounts of information about its operation with the CAP. In fact, Shell's environmental calendar was created in response to the concern of CAP members that they were not informed about important meetings that the company was attending with regulatory agencies. The case of the thermal oxidizer made company officials realize the importance of discussing all pertinent aspects of an issue with the CAP early in the process. As a result of the conflict over the company's failure to discuss certain pertinent issues about this facility, Shell was urged to share a greater amount of information with the CAP about projects, particularly regarding concerns, such as odors and emissions, which are likely to be sensitive to the community.

The CAP members felt that the full disclosure of information about Shell's facility is an important indication that Shell is honest and that it values its members' opinions. As long as the CAP feels that it is continuing to receive accurate information, its trust in Shell is likely to remain high. All of the members were satisfied that Shell would provide them with sufficient information about their facility. If Shell were to withhold information from the CAP, members suggested, the company's credibility and the CAP process would be undermined. Both members and company officials acknowledged that the CAP process would break down if inaccurate or misleading information were given to the members.

Management Support

The support of refinery's plant manager is critical to the CAP's success. The presence, at the CAP meetings, of company officials who have the authority to implement the CAP's suggestions gives members the potential to influence the company. Because officials such as the plant manager and the facility's chief engineers attend most meetings, CAP members feel that Shell is serious about the CAP process, and that the meetings are worthwhile.

Shell gives its CAP access to a wide range of company officials besides those who typically attend the monthly meetings. If CAP members have questions or concerns that involve certain plant officials who do not attend the CAP meetings, these officials are usually invited to make a presentation at a subsequent CAP meeting. The access to company officials enables CAP members to communicate with, and learn from, key Shell managers. However, the Shell officials pointed out that they are careful not to dominate the CAP meetings by inviting too many company officials at any single meeting.

One member suggested that having the CAP in place may prove to be extremely helpful as the facility's senior management move to new positions or retire. The CAP may provide new managers a mechanism to reach out to critical community groups. That depends in part on whether the new managers are as open and supportive of the CAP as the current managers.

Expertise

The presence on the CAP of a scientist, members who have expertise in environmental affairs, and members with contacts they can call on for advice, helps the CAP to understand the technical information that they are presented in the meetings. These members serve as a resource to others on the CAP, but also help to increase trust in the information that Shell presents. The members who were interviewed said that the experts on the panel can identify inconsistencies, ask for clarification, or critique conclusions that the company may reach.

Furthermore, Shell pledged extensive resources to the CAP to help members to understand the issues facing the plant. The company told CAP members that if they ever need the help of a technical advisor, Shell would pay for a private consultant. In fact, the company promised to provide whatever resources the CAP needs, within reason, to do its job.

Although the CAP has not requested an independent technical consultant, its ability to do so may have made members more comfortable with the information that they are provided. The standing offer may increase trust that if an issue becomes mired in controversy, the members would have the resources to hire someone to interpret and to evaluate the issue for them.

To some degree, the CAP members have not asked for technical assistance because some members have significant expertise, and because they trust the information they receive.

Ability to Address Conflicts

The CAP's ability to work through internal conflicts is an extremely important factor in its success. For example, the CAP members were angered when Shell officials represented to the public that the CAP was opposed to a proposal to create a community inspector position within the county. However, this issue was discussed and resolved at the next CAP meeting by agreeing to a policy of not taking official positions on issues unless the CAP members are unanimous.

CAP members began to realize that the panel's original goal of engaging in two-way communication with the community was difficult to accomplish, and might compromise the independence of CAP members if they were perceived as Shell's formal spokespersons. The CAP decided that all communication about the facility should come directly from Shell, and that CAP members would not be responsible for formally disseminating information. The CAP members still informally communicate with friends and colleagues about Shell.

Environmental Group Pressure

One member pointed out that the CAP contributed to the fact that Shell's Clean Fuels Project has had what he calls "negligible community opposition." On other issues, like the erosion control project, CAP members helped to resolve community concern.

However, the CAP has not stopped local environmental organizations (e.g., Citizens for a Better Environment (CBE), Audubon, Communities for a Safe Environment (CSE)) from trying to gain even greater accountability from Shell. Shell recently signed an agreement with CBE to reduce volatile organic air pollution from the refinery, to install a pilot air pollution monitor along the fence line that uses remote sensing technology, and to continue regular dialogue on the project with CBE as it develops. By keeping pressure on the company to maintain good relations with the surrounding community, organizations such as CBE give companies like Shell a compelling reason to maintain and support a CAP.

Furthermore, Shell's CAP was in place during a period in which the facility did not have a major accident or spill. In fact, the CAP may have helped Shell to avoid such problems by sensitizing senior management to the community's concerns. It is unclear, however, what problems might emerge if there were a crisis at the facility. Given the trust that developed between Shell and the CAP, it is possible that they will continue to have an open and cooperative relationship if there is a serious mishap at the plant. However, the CAP process has not yet been tested under this strain.

Sustaining the CAP -- What is Required?

Shell's CAP should grapple with several potentially thorny problems. These include member burnout, and lack of communication with the community and between the CAP and the rest of the refinery.

Maintaining Member Interest

It took the Shell CAP several years for members to become knowledgeable about the refinery's technology, for communication and trust to be developed, and for organizational problems to be resolved. Shell's CAP matured over time, and is now institutionalized within the company. This was possible, in part, because the CAP membership remained stable since the panel was formed. However, stability within the CAP, while enabling members to understand the facility better, may also contribute to apathy, burnout, or even complacency among the members.

Recently, therefore, the CAP began to address the issue of how to maintain interest in the CAP among members. The CAP voted to add new members to introduce new perspectives into CAP discussions. It also discussed whether to impose limits on the length of membership so that the membership rotates. All of the company officials suggested that some degree of turnover might help to increase the company's exposure to different perspectives and ideas. However, there was a general sentiment against requiring current members to leave. Finding some way to encourage turnover, without creating instability or alienating existing members, is important as Shell's CAP matures. Otherwise, the CAP's energy may wane, and the CAP members may lose their enthusiasm for the process.

Improving communication between the CAP and the community

The major objectives of the Shell CAP are to improve communication and to provide feedback on Shell's proposals and presentations. The accomplishments described above clearly indicate that the CAP helped Shell to communicate with the public better than ever. Moreover, informal mechanisms exist for members to discuss Shell with their colleagues and neighbors.

However, according to the community relations manager, the CAP did not develop "a good way to get information from the CAP member to his or her constituency. Nobody has figured out how to do that." The two formal mechanisms for the CAP to receive information from community members -- a post office box and a phone line in Shell's voice mail system to which only CAP members have dial-up access -- are rarely used. Except for paid advertisements about CAP meetings, local newspapers seldom cover the Shell CAP. The only other written material about the CAP is a quarterly Shell

publication that contains a synopsis of the CAP meetings, which is mailed to 11,000 plant neighbors.

While the CAP members chose not to serve as a direct communications link between the company and the community, two members suggested that they would like to find a way to improve communication with the public. By developing a regular and ongoing dialogue about Shell between CAP members and others within Martinez, the CAP members may be in a better position to understand the community's concern about certain issues, and other residents may have a greater say in the issues discussed by the CAP.

Enhancing communication about the CAP within Shell

The interactions between the CAP and the company occurred primarily through the senior management. There is not much communication about the CAP throughout the Martinez complex, according to the community relations manager. Except for CAP briefings from officials who work in different parts of the plant, the CAP and these other company officials have no regular form of interaction. The CAP might learn more about issues facing the plant, and Shell might be able to integrate CAP suggestions and concerns better, if the CAP had more frequent contact with line workers and mid-level managers.

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APPENDIX A: METHODOLOGY

The first phase of our two-year research project involved a literature review on citizen participation and community involvement in environmental decision-making. We also surveyed the so-called gray literature, including trade journals and chemical industry documents, for analysis of community advisory panel structure and performance. We found that most of the existing case studies of citizen participation were about public committees which advised government agencies, not private industry, and that the trade journal reports of CAPs were merely anecdotal. The one survey of CAP member perceptions, conducted by The Wirthlin Group for CMA, was based on a non-random sample, and failed to include a description of its methodology (The Wirthlin Group, 1992).

Given the paucity of data on CAPs, we chose to conduct in-depth case studies of two successfully operating community advisory panels, one at a refinery in California, the other at a chemical plant in Kansas. We wanted to illustrate how community advisory panels are organized, what issues they work on, and what they achieved. The long-range goal of the case study research is to provide descriptive data which can be used to refine and develop detailed hypotheses that we will test in a broad, national survey of CAPs.

Initial Case Selection

To select the cases, we conducted screening interviews with industry representatives, consultants, academics, environmental advocates, and facilitators who have worked with CAPs. In these interviews, we solicited suggestions of CAPs considered well run or particularly effective. Through a snowballing process, in which the initial interviews led to conversations with other experts, we identified a total of 17 panels that were considered to be successful.

Screening Protocol

Next, we developed a screening protocol and interviewed company officials connected to the 17 panels to uncover:

- (1) basic information about the formation of the CAP;
- (2) what issues were discussed at CAP meetings;
- (3) who from the company attends the meetings;
- (4) how effective the CAP is perceived to be, and in what respect, and;

(5) whether suggestions or feedback from the CAP were helpful to the company.

Selection Criteria

Several selection criteria were used to pick two of the seventeen potential cases. Our criteria were based, in part, on CMA's guidelines for establishing a successful CAP and on National Academy of Sciences definitions of effective two-way communication.

We wanted panels in which there was an emphasis on communication between the company and CAP. We also considered it important for the CAP to be relatively mature, e.g., underway for several years. Because we were interested in how CAPs function and what they achieve, we were concerned that very young panels might be focused on organizational rather than substantive issues. We also screened out cases that we thought were so unique or anomalous as to not be generalizable. We avoided studying any company involved in a risk communication study in the past. Finally, we needed full permission and cooperation of both the company and the CAP members.

Our most important screening criterion was overall effectiveness or usefulness. We tried to select CAPs that influenced communication, company policy, or operations. We also wanted to examine CAPs that the company considered important enough to warrant the involvement of top plant management. Notes from the screening interviews were summarized. Based on the screening interviews, Shell's Martinez Manufacturing Complex, and Vulcan Chemical's Wichita facility were selected.

Interview Protocol Development

We developed two protocols to guide interviews with company officials and CAP members, and to improve reliability. The protocols use a series of open-ended questions to elicit information on the formation of the CAP, its organizational structure, the relationship of the CAP to the company, how members are selected, how the CAP interacts with the surrounding community, and how it evaluates its performance.

While we adhered, during the interviews, to the issues covered in the protocol, we often probed specific issues more deeply. The protocols also contained follow-up probes, which frequently helped to generate additional questions during the interview.

Selection of Interviewees

Because we were interested in obtaining multiple perspectives on the effectiveness of the CAP, to improve reliability, we conducted interviews with four company officials who were integrally involved in the CAP. We asked to speak to the plant manager, and the chief of community affairs/public relations. In addition, we requested interviews with two other plant officials, such as the environmental manager or operations manager, who attend the meetings regularly.

We asked the CAP itself to select four of its own members to be interviewed. We provided general guidelines for them to make their selection. To ensure diversity, we asked them to select members who, overall, represented diverse political opinions, different lengths of time on the CAP, and varying degrees of involvement in the CAP discussions. We also asked to speak with a member who is considered an environmentalist. We felt that member self-selection would be the best way to obtain diversity among those interviewed and to elicit cooperation from those who would be interviewed, self-selection was preferable to selection by the company, by the facilitator, or randomly. Although we did not specifically request it, the Shell CAP actually voted for the four members who they believed would reflect the diversity of the panel.

Interview Process

We conducted in-depth (one to two hour) interviews with the company representatives and four members from Shell's CAP. The interviews with company officials were held on the company premises. To reduce any possible nervousness or discomfort, the CAP members were allowed to be interviewed either at home, in their office, or at the Shell facility. Each interview was taped to ensure accuracy and to capture details. The tapes were summarized, and the summaries were analyzed and incorporated into this report.

Questionnaire Development

A questionnaire was developed and administered to company officials and CAP members. The purpose of this questionnaire was to gather additional data on CAP performance, attitudes toward the CAP and toward the company, and the values and concerns of the company officials and CAP members.

The questionnaire is divided generally into six different parts. The first part (questions 1-9) asks questions about the frequency with which the CAP is involved in different activities. Frequency is measured on a five-point Likert scale that ranges from "Never" to "Very Frequently."

The second section asks for an evaluation of how the CAP performed on a series of tasks, such as understanding information and communicating to the community. The third section asks for evaluations of the performance of the company on a variety of tasks, such as explaining information to the CAP and establishing trust with the community. Both sections measure performance on a five-point Likert scale with endpoints ranging from "very poorly" to "excellent."

The fourth section of the questionnaire provides five statements about citizen concern for the environment, CAP understanding of environmental issues, and three questions designed to measure how respondents view risk. Agreement or disagreement is measured on a five-point Likert scale ranging from "strongly disagree" to "strongly agree."

The fifth section contains a series of statements about the CAP's performance and influence, and is measured on a five-point Likert scale ranging from "strongly disagree" to "strongly agree." Finally, the sixth section asks demographic questions (sex, age, education, income), professional affiliation, political viewpoint, CAP attendance, and an overall rating of the CAP's performance.

The questionnaires were hand delivered to all CAP members and company officials who were interviewed. Additional questionnaires were mailed to those CAP members who were not interviewed. Thirty-one responses were received out of a total of 34 members and company officials from both Shell's CAP and Vulcan Chemical's CIG. Follow-up questionnaires were mailed to the three members who did not return their initial questionnaires, yet no additional responses were obtained from the second mailing to these members.

Because of the small, non-random sample size, only mean responses and standard deviations are reported. While t-tests of the differences of means between company and CAP member responses were run, those results were not significant at a .10 probability level, which is not surprising given the small sample size.

Document Analysis

Before the interviews, we asked the community relations manager at the company to send us background information on the CAP, as well as information on the company. This information helped to familiarize us with the company and the panel, and helped us to incorporate specific questions in the interviews related to issues that the company and the CAP addressed. During the interviews, we also requested background material related to issues or programs mentioned by the interviewee. These documents included letters, agendas, announcements, minutes of meetings, evaluations, and news clippings.

The combination of quantitative data, background documentation, and interviews with different company officials and CAP members provided convergent information, helped to ensure the reliability of the data, and illuminated discrepant information. By using multiple sources of information we attempted to limit researcher bias.

We did not interview community representatives, government officials, or environmental advocates (other than those who were on the CAP) about their interactions with the CAP. Nor did we investigate actual performance of the facilities, as measured by emissions data or compliance with state and federal standards. We chose, instead, to focus on the internal dynamics of the CAP -- what characteristics enabled the CAP to work productively, and what the participants perceived as the outcome.

APPENDIX B: QUESTIONNAIRE



Center for Environmental Communication
Cook College • P.O. Box 231 • New Brunswick • New Jersey 08903-0231
908/932-8795 • FAX: 908/932-7815

Thank you for agreeing to participate in our research on community advisory panels (CAPs). Please help us by taking a few moments to fill out this brief questionnaire. Your answers are very important to us, and everything that you answer will be strictly confidential. The results of this survey will only appear in summary form.

When you have completed filling out the questionnaire, please return it to us in the enclosed postage-paid envelope.

Please indicate how often the Shell CAP is involved in each of the following activities. For each activity, please CIRCLE A NUMBER on the scale that represents the frequency. The number 1 means the CAP never is involved in the activity; the higher the number, the more frequently the CAP is involved in the activity. If you do not know, check the "don't know" option. The ends of the scale -- "never" and "very frequently" -- are provided as a reference and should not be circled as a response.

1	Discussing general environmental issues	Never	1	2	3	4	5	Very Frequently	☐ don't know
2	Making suggestions to the company regarding safety or environmental issues	Never	1	2	3	4	5	Very Frequently	☐ don't know
3	Communicating about the company to the surrounding neighborhood	Never	1	2	3	4	5	Very Frequently	☐ don't know
4	Learning about how the plant works	Never	1	2	3	4	5	Very Frequently	☐ don't know
5	Monitoring or tracking odors, chemical releases or chemical use	Never	1	2	3	4	5	Very Frequently	☐ don't know
6	Communicating with CAP members outside of meetings	Never	1	2	3	4	5	Very Frequently	☐ don't know
7	Discussing issues about the economic relationship between the company and the community	Never	1	2	3	4	5	Very Frequently	☐ don't know
8	Discussing issues other than safety, environmental, or economic issues	Never	1	2	3	4	5	Very Frequently	☐ don't know
9	Negotiating specific pollution control and/or prevention strategies with the company	Never	1	2	3	4	5	Very Frequently	☐ don't know

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Please circle the number that indicates how you think *the CAP* has performed on the following tasks. Numbers along the scale represent an increase, from very poorly to excellent, in how well you think the CAP has performed.

10	Understanding technical information	Very Poorly	1	2	3	4	5	Excellent	☐ don't know
11	Communicating with company officials	Very Poorly	1	2	3	4	5	Excellent	☐ don't know
12	Understanding community concerns	Very Poorly	1	2	3	4	5	Excellent	☐ don't know
13	Raising important issues to the company	Very Poorly	1	2	3	4	5	Excellent	☐ don't know
14	Communicating to the rest of the community	Very Poorly	1	2	3	4	5	Excellent	☐ don't know

Please circle the number that indicates how you think *the COMPANY* has performed on the following tasks. Numbers along the scale represent an increase, from very poorly to excellent, in how well you think the company has performed.

15	Explaining technical information to CAP members	Very Poorly	1	2	3	4	5	Excellent	☐ don't know
16	Understanding CAP members' concerns	Very Poorly	1	2	3	4	5	Excellent	☐ don't know
17	Establishing trust with community	Very Poorly	1	2	3	4	5	Excellent	☐ don't know
18	Providing data to CAP members	Very Poorly	1	2	3	4	5	Excellent	☐ don't know
19	Informing CAP about changes in the facility	Very Poorly	1	2	3	4	5	Excellent	☐ don't know
20	Resolving concerns raised by CAP	Very Poorly	1	2	3	4	5	Excellent	☐ don't know
21	Keeping CAP apprised of problems	Very Poorly	1	2	3	4	5	Excellent	☐ don't know
22	Involving CAP in problem-solving	Very Poorly	1	2	3	4	5	Excellent	☐ don't know

Please circle the number which indicates the extent to which you agree or disagree with each of the following statements. Circling #3 indicates that you are neutral about the statement; lower numbers indicate more disagreement, and higher numbers indicate more agreement with the statement. Circle "don't know" if you do not know whether you agree or disagree with the statement.

23	Only a small number of local citizens are concerned about environmental issues	Strongly Disagree	1	2	3	4	5	Strongly Agree	☐ don't know
24	Our CAP understands the extent of public concern about environmental issues	Strongly Disagree	1	2	3	4	5	Strongly Agree	☐ don't know
25	The benefits of consumer products are more important than the pollution caused by their production and use	Strongly Disagree	1	2	3	4	5	Strongly Agree	☐ don't know
26	Some chemical risks can't be controlled	Strongly Disagree	1	2	3	4	5	Strongly Agree	☐ don't know
27	People usually overestimate the risks associated with the industrial use of chemicals	Strongly Disagree	1	2	3	4	5	Strongly Agree	☐ don't know

Please circle the number indicating how much you agree or disagree with each of the following statements. Circling #3 indicates that you are neutral about the statement; lower numbers indicate more disagreement, and higher numbers indicate more agreement with the statement. Circle "don't know" if you do not know whether you agree or disagree with the statement.

28	The CAP has increased public understanding of plant operations	Strongly Disagree	1	2	3	4	5	Strongly Agree	[] don't know
29	The CAP has helped the community feel less concerned about plant operations	Strongly Disagree	1	2	3	4	5	Strongly Agree	[] don't know
30	The CAP has enabled citizens to communicate their concerns to the company	Strongly Disagree	1	2	3	4	5	Strongly Agree	[] don't know
31	The company has become a better neighbor since the CAP was formed	Strongly Disagree	1	2	3	4	5	Strongly Agree	[] don't know
32	CAP members have all the information they need to understand risks associated with plant operations	Strongly Disagree	1	2	3	4	5	Strongly Agree	[] don't know
33	The CAP has influenced the company	Strongly Disagree	1	2	3	4	5	Strongly Agree	[] don't know
34	The CAP has improved living conditions in the community	Strongly Disagree	1	2	3	4	5	Strongly Agree	[] don't know
35	Overall, the CAP works well	Strongly Disagree	1	2	3	4	5	Strongly Agree	[] don't know
36	I understand the chemical industry's Responsible Care program	Strongly Disagree	1	2	3	4	5	Strongly Agree	[] don't know
37	The opinions of CAP members and company officials have become more similar since the CAP started	Strongly Disagree	1	2	3	4	5	Strongly Agree	[] don't know
38	There are some important issues which do not get discussed by the CAP	Strongly Disagree	1	2	3	4	5	Strongly Agree	[] don't know

The following background information about yourself is very important to us and will be kept strictly confidential. Please circle the appropriate number for each of the following:

39 Sex: 1....Female 2....Male

40 Age: 1....under 30
2....30-39
3....40-49
4....50-59
5....60 and over

41 Your education:

1....some high school	5....college degree
2....high school degree	6....some graduate work
3....vocational school	7....graduate or professional degree
4....some college	

42 Your approximate annual income:

- 1....less than \$10,000
- 2....10,000 -- 19,999
- 3....20,000 -- 29,999
- 4....30,000 -- 39,999
- 5....40,000 -- 49,999
- 6....50,000 -- 59,999
- 7....60,000 or more

43 Please circle which of the following best describes your affiliation:

- | | |
|-------------------------------------|------------------------------------|
| 1....elected official | 8....media |
| 2....law enforcement | 9....neighborhood or civic group |
| 3....fire service | 10....local environmental group |
| 4....emergency management | 11....national environmental group |
| 5....environmental or health agency | 12....chemical industry |
| 6....medical organization | 13....private citizen |
| 7....academia | 14....other (please specify) _____ |

44 Do you consider yourself to be politically

- 1....very liberal
- 2....liberal
- 3....moderate
- 4....conservative
- 5....very conservative
- 6....no opinion

45 Approximately how many CAP meetings have you attended within the past twelve months? _____

46 Please circle the number which corresponds to your overall evaluation of the CAP's performance:

- 5...excellent
- 4...very good
- 3...acceptable
- 2...poor
- 1...very poor
- []...don't know

Please use the space provided to tell us anything else you would like us to know about the CAP.

APPENDIX C: SURVEY RESULTS

Respondents were asked to indicate how often the Shell CAP is involved in each of the following activities. For each activity, the response categories range from 1 (the CAP never is involved in the activity) to 5 (the CAP is very frequently involved in the activity).

	Question		Mean	Standard Deviation
1	Discussing general environmental issues	Total Member Official	4.63 4.67 4.50	0.62 0.65 0.58
2	Making suggestions to the company regarding safety or environmental issues	Total Member Official	3.69 3.92 3.00	0.95 0.90 0.82
3	Communicating about the company to the surrounding neighborhood	Total Member Official	3.44 3.67 2.75	1.03 0.98 0.96
4	Learning about how the plant works	Total Member Official	4.38 4.58 3.75	0.81 0.51 1.26
5	Monitoring or tracking odors, chemical releases or chemical use	Total Member Official	3.31 3.75 2.00	1.45 1.29 1.15
6	Communicating with CAP members outside of meetings	Total Member Official	2.69 2.67 2.75	1.35 1.56 0.50
7	Discussing issues about the economic relationship between the company and the community	Total Member Official	3.20 3.27 3.00	1.26 1.27 1.41
8	Discussing issues other than safety, environment, or economic issues	Total Member Official	3.19 3.25 3.00	1.22 1.22 1.41
9	Negotiating specific pollution control and/or prevention strategies with the company	Total Member Official	2.13 2.50 1.00	1.59 1.68 0.00

Respondents were asked to indicate how they think the CAP has performed on the following tasks. For each task, the responses range from 1 (very poorly) to 5 (excellent).

	Question		Mean	Standard Deviation
10	Understanding technical information	Total	3.75	0.77
		Member	3.92	0.79
		Official	3.25	0.50
11	Communicating with company officials	Total	4.81	0.40
		Member	4.92	0.29
		Official	4.50	0.58
12	Understanding community concerns	Total	4.63	0.50
		Member	4.67	0.49
		Official	4.50	0.58
13	Raising important issues to the company	Total	4.31	0.70
		Member	4.41	0.67
		Official	4.00	0.82
14	Communicating to the rest of the community	Total	3.00	1.25
		Member	3.36	1.12
		Official	2.00	1.15

Respondents were asked to indicate how they think the company has performed on the following tasks. For each task, the responses range from 1 (very poorly) to 5 (excellent).

	Question		Mean	Standard Deviation
15	Explaining technical information to CAP members	Total	4.44	0.63
		Member	4.58	0.51
		Official	4.00	0.82
16	Understanding CAP members' concerns	Total	4.44	0.51
		Member	4.58	0.51
		Official	4.00	0.00
17	Establishing trust with community	Total	4.29	0.91
		Member	4.50	0.97
		Official	3.75	0.50
18	Providing data to CAP members	Total	4.75	0.45
		Member	4.83	0.39
		Official	4.50	0.58
19	Informing CAP about changes in the facility	Total	4.69	0.60
		Member	4.83	0.39
		Official	4.25	0.96
20	Resolving concerns raised by CAP	Total	4.44	0.72
		Member	4.50	0.80
		Official	4.25	0.50

21	Keeping CAP apprised of problems	Total	4.56	0.73
		Member	4.67	0.65
		Official	4.25	0.96
22	Involving CAP in problem-solving	Total	4.00	1.13
		Member	4.25	1.06
		Official	3.00	1.00

Respondents were asked to indicate, on a scale from 1 to 5, the extent to which they agree or disagree with each of the following statements. Lower numbers indicate more disagreement and higher numbers indicate more agreement. Number 3 indicates a neutral position.

	Question		Mean	Standard Deviation
23	Only a small number of local citizens are concerned about environmental issues	Total	3.00	1.25
		Member	3.00	1.34
		Official	3.00	1.15
24	Our CAP understands the extend of public concern about environmental issues	Total	4.20	0.86
		Member	4.18	0.98
		Official	4.25	0.50
25	The benefits of consumer products are more important than the pollution caused by their production and use	Total	1.87	1.06
		Member	1.83	1.11
		Official	2.00	1.00
26	Some chemical risks can't be controlled	Total	1.87	1.13
		Member	1.92	1.16
		Official	1.67	1.15
27	People usually overestimate the risks associated with the industrial use of chemicals	Total	2.89	1.41
		Member	2.42	1.31
		Official	4.25	0.50
28	The CAP has increased public understanding of plant operations	Total	3.47	1.19
		Member	3.72	1.10
		Official	2.75	1.26
29	The CAP has helped the community feel less concerned about plant operations	Total	2.80	1.15
		Member	2.73	1.27
		Official	3.00	0.82
30	The CAP has enabled citizens to communicate their concerns to the company	Total	4.06	1.18
		Member	4.33	0.98
		Official	3.25	1.50
31	The company has become a better neighbor since the CAP was formed	Total	4.50	0.63
		Member	4.42	0.67
		Official	4.75	0.50
32	CAP members have all the information they need to understand risks associated with plant operations	Total	3.63	0.89
		Member	3.67	0.98
		Official	3.50	0.58

33	The CAP has influenced the company	Total	3.81	1.22
		Member	3.83	1.27
		Official	3.75	1.26
34	The CAP has improved living conditions in the community	Total	3.00	1.46
		Member	3.18	1.40
		Official	2.50	1.73
35	Overall, the CAP works well	Total	4.81	0.40
		Member	4.75	0.45
		Official	5.00	0.00
36	I understand the chemical industry's Responsible Care program	Total	4.21	1.12
		Member	3.90	1.20
		Official	5.00	0.00
37	The opinions of CAP members and company officials have become more similar since the CAP started	Total	3.63	1.14
		Member	3.58	1.24
		Official	3.75	0.96
38	There are some important issues which do not get discussed by the CAP	Total	2.06	1.24
		Member	2.25	1.36
		Official	1.50	0.58