

USING DISPUTE RESOLUTION TECHNIQUES TO ADDRESS ENVIRONMENTAL JUSTICE CONCERNS: CASE STUDIES

Prepared by the Consensus Building Institute for the
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ENVIRONMENTAL JUSTICE CONCERNS**
Case Studies

Prepared by
The Consensus Building Institute
Cambridge, MA

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INTRODUCTION

A leak at a petrochemical plant releases a plume of sulfuric acid across 15 square miles, sending 24,000 people to the hospital. A refinery releases more than 100 tons of a toxic substance over four communities for 16 days, causing neurological disorders, skin reactions, and eye problems. A neighborhood built over abandoned crude oil storage pits and exposed to hydrocarbons for 20 years experiences a wave of cancer and lupus cases. A railroad tanker car parked several yards from homes and a community center releases 3,300 gallons of hydrochloric acid into the air, causing the evacuation of 300 people.

For better or worse, these kinds of accidents and discoveries of contamination open a window of opportunity in which environmentally overburdened communities can engage with the industrial facilities in their midst. The crises offer rare glimpses into the routines and standard operating procedures that allow facilities to function in close proximity to residential neighborhoods, conform to permit and other regulatory requirements, promote a perception that the risks they present are within acceptable limits, and avoid state- or citizen-sponsored threats to the legitimacy of their operations. Advocates of environmental justice are learning how to take advantage of these moments, for they represent clear yet fleeting chances to improve environmental conditions, alter community-corporate relations, and consider more holistically the interests of those who reside in what are typically low-income communities of color.

But do such opportunities actually result in change for the better? Do these crises encourage improvements to plant safety, preparedness, emergency response capabilities, or citizen roles in mitigation, monitoring, and decision making? Traditionally, residents in overburdened communities have responded to these kinds of crises with litigation, with mixed results.

This report looks at other means of redress: it contains six case studies that point to the growing use of “alternative dispute resolution” approaches within environmental justice communities, and illustrates the varying results achieved through these means. Our goal is to make sense of early efforts by residents to negotiate with the owners and operators of these facilities, to consolidate lessons learned and to present advice regarding community-corporate negotiation for future generations of activists, community-based organizations, regulators, elected officials, and researchers.

The case studies were commissioned by the U.S. Environmental Protection Agency's Office of Environmental Justice. The Office is interested in developing a better understanding of the many potentials and pitfalls of using a variety of dispute resolution mechanisms to resolve environmental disputes in communities faced with either a growing threat of pollution or the aftermath of an industrial accident.

The cases represent the results of six months of field research, including site visits, interviews with almost 80 residents and key informants, archival research (primary sources and print media), and the analysis of environmental data from government agencies. Three regions representing clusters of dangerous industries were chosen for the six cases: Contra Costa County, California; Houston, Texas; and North Denver, Colorado. Within each region, two cases were chosen for which substantial documentation of environmental burdens, dispute histories, and the negotiations that took place was available. Each case

presents information regarding the geography and social forces at work within the community, antecedents to conflict with area industries, the development of a specific dispute, and steps taken to resolve the dispute. A final chapter offers a discussion of lessons learned by the communities in the many months they have spent organizing, pursuing litigation, experimenting with conflict resolution, and implementing the agreements that resulted.

The Limitations of Litigation

When a window of opportunity opens following an industrial accident or the discovery of contamination, residents face clear choices about how best to pursue their interests. The cases selected in this report involve communities that have pursued justice through a wide range of means. The search for court-ordered remedies in these situations is well-represented here, in the form of toxic tort, community right-to-know, and Clean Air Act litigation. But litigation has potentially disruptive effects, and residents often find it difficult to achieve legal redress through environmental justice claims.¹ While a few recent legal victories are encouraging,² the record of environmental justice litigation paints a less-than-optimistic picture. The coupling of civil rights concerns with claims of environmental harm has, with few exceptions, failed to produce legal remedies for alleged environmental injustices over the past 20 years.³ It is thus important to consider the underlying costs of environmental justice litigation.

- ▶ The use of litigation as a primary strategy for combating environmental injustices ignores the significant resources (time, money, opportunity costs) required to advance a legal claim and the uneven playing field in which these claims tend to be addressed.

- ▶ Questions of legal standing and the need to have a “live controversy” result in few environmental justice cases being decided on the merits. In other words, the underlying causes of resident discontent are often superceded by the need to rule on strictly procedural matters.

- ▶ Litigation heightens the dependency experienced by victims of environmental injustice,⁴ by requiring that they rely on experts and outside help as opposed to local knowledge.⁵

- ▶ Litigation can increase the sense of isolation experienced by victims of environmental injustice, because it focuses on a few select plaintiffs rather than the diverse interests of an entire community. The fact that environmental justice litigation can be analyzed through the use of a limited set of categories (e.g., the Equal Protection clause of the Constitution,

¹ G.P. Macey and L.E. Susskind, “The Secondary Effects of Environmental Justice Litigation,” *Virginia Environmental Law Journal* 20, no. 3 (2001): 431-478.

² For example, the Fourth Circuit Court of Appeals recently ruled that the case of *Franks v. Ross*, regarding the siting of a landfill in a minority area in North Carolina, can proceed. Its claims regarding an ongoing pattern of intentional discrimination by Wake County in its siting of landfills are allowed under Title VI, according to the Supreme Court’s interpretation of *Alexander v. Sandoval*, 532 U.S. 275 (2001).

³ In one exception, *North Carolina DOT v. Crest Street Community Council*, 479 U.S. 6, 8, 9, 11 (1986), the parties agreed that the extension of the East-West Freeway would constitute a Title VI violation, and a negotiated settlement rerouted the freeway.

⁴ See G.P. Lopez, *Rebellious Lawyering: One Chicano’s Vision of Progressive Law Practice*. (San Francisco: Westview Press, 1992).

⁵ L.W. Cole, “Empowerment as the Key to Environmental Protection: The Need for Environmental Poverty Law,” *Ecology Law Quarterly* 19 (1992): 618-683.

⁶ D.L. Anderton, et al., "Hazardous Waste Facilities: Environmental Equity Issues in Metropolitan Areas," *Evaluation Review* 18 (1994): 123-140.

Title VI of the Civil Rights Act of 1964, and Title VIII of the Civil Rights Act of 1968) suggests that the many and varied accounts of injustices told by local residents are standardized for the filing of a legal claim. Thus, the power and organizing potential of unique stories of environmental harm are neutralized.

▶ Legal victories do not automatically translate into successful agency or industry change or effective monitoring of such changes. Community organizing efforts may be hindered through reliance on legal representation, leaving no constituency with the power to demand enforcement of court orders. Legal tactics also eliminate scarce resources that could be used to further community organizing.

▶ Coupling civil rights claims with existing environmental laws runs the risk of ignoring some wronged parties. A study of demographic conditions in communities that hosted a toxic waste site reported that such areas consist of pockets of white industrial workers living next to the facilities, surrounded by larger communities of color.⁶ Efforts to build coalitions between these groups have been limited, given the predominant use of Title VI and Equal Protection claims, which focus on race.

To be sure, some of these difficulties emerge regardless of the methods used by environmental justice communities to advance their claims. Indeed, the limits to community-corporate negotiation in such a setting can at times mirror some of the drawbacks of litigation. And it is without question that a steady tide of lawsuits has helped to draw national attention to the claims of environmental justice communities, influenced policy at all levels of government, and at times even made possible the use of other dispute resolution techniques (as in three of the cases presented here). Rather than viewing the two as mutually exclusive, litigation and alternative methods of dispute resolution should all be considered as options available to local residents and their representatives. The complexities faced by overburdened, low-income communities of color will rarely be addressed through a single approach.

A Range of Alternative Approaches

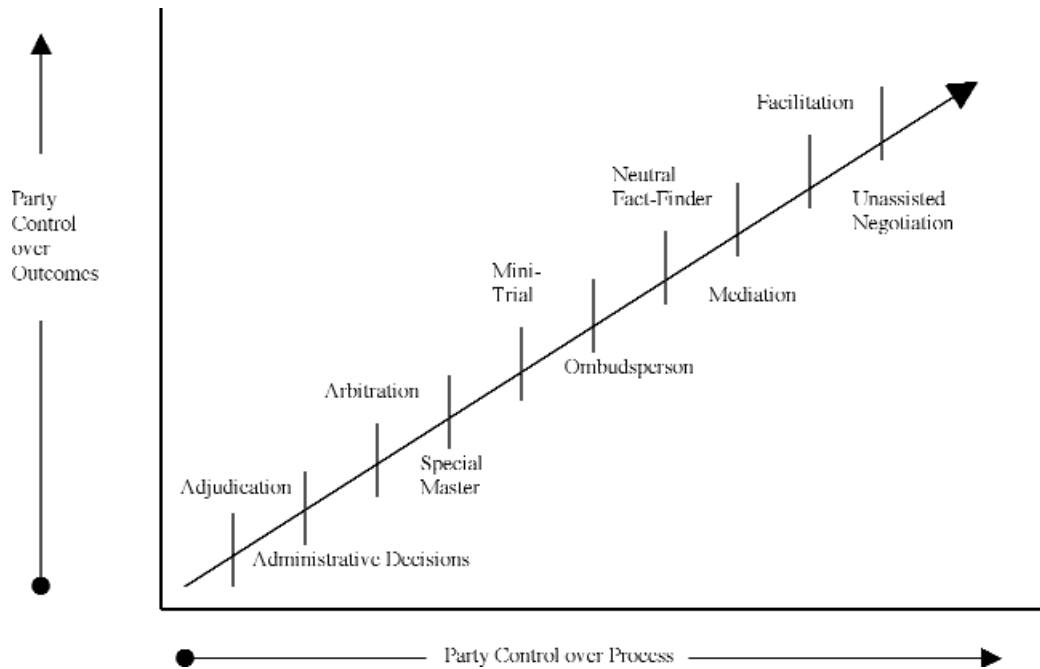
The six cases that follow are arranged along a continuum of dispute resolution options that differ in their process flexibility and the amount of control the parties retain over outcomes. Process flexibility reflects the extent to which parties can shape agendas, the scope of the dialogue, and the selection of representatives. Control over outcomes represents whether parties have the dis-

cretion they need to reject options or proposed settlements. Figure 1 shows this continuum; it is followed by descriptions of the dispute resolution options and their use in the six case studies.

Adjudication: Adjudication refers to the involuntary, binding (though subject to appeal), and highly formalized resolution of disputes through the use of the court system. Adjudication relies on a judge and/or a jury who are imposed on rather than selected by the disputants, and who hear proofs and arguments from both sides and make (at least in theory) a principled, reasoned decision. Parties make reference to legal precedent and use formalized and highly structured modes of interaction. In litigation, parties are not negotiating. They bring their case before an authority who will, on matters of law, precedent, and judgment, render a decision that is binding and enforceable by the courts.

Administrative Decisions: Administrative processes include actions taken by federal and state agencies and regulators. They are bound by formal protocols and rules for determining relevant issues, violations, penalties, and settlements. Sometimes an administrative process must allow for citizen participation, as when public hearings and comments are used in determining appropriate mitigations for a facility’s operating permits. Other times, as when an agency files an administrative action against a facility, conflicts over the interpretation of environmental statutes and permits are resolved without public involvement.

Figure 1: Continuum of Dispute Resolution Processes



Arbitration: Arbitration is an alternative to litigation that started in the 13th century when English merchants sought to have their disputes resolved according to their own customs rather than by public law. In arbitration today, parties turn over the decision-making process to a private individual with stature, experience, and standing who can exercise authority (similar to a judge in a courtroom). The decision is final, the proceedings are private, and decisions are typically made at a faster pace than in the court system, with lower costs to

all involved. However, the arbitrator may be difficult to select or agree to, and may abuse his or her discretion. Courts sometimes call upon parties to use arbitration in order to relieve court congestion. Many contracts, including 95% of all labor contracts, contain arbitration provisions.

Court-Appointed Special Master: The use of a special master is typically suggested or mandated by a judge and can be useful in certain complex, multiparty disputes. The judge cites certain rules of civil procedure governing uncertain or unusual situations, where the court's resources or ability to adequately assist in the allocation of resources or settlement dollars is limited. The special master tends to hear the concerns and review the evidence of both sides and craft allocation procedures that will result in as fair an outcome as possible. Results are usually binding. Special masters are sometimes criticized for having too much discretion in resolving a dispute.

Mini-Trial: A mini-trial is an adjudication-like presentation of arguments and proofs combined with negotiation. Summary presentations are made by attorneys to a panel consisting of a neutral advisor and people from all sides with settlement authority. After presentations, those with settlement authority (usually executives, as this is used often in business disputes) try to negotiate a resolution. If they fail, the neutral advisor is asked to predict what the likely outcome will be if the issues are adjudicated. Mini-trials give parties a quick view of the merits of their case. Using this information, parties are often inclined to negotiate a sensible resolution to their claims.

Ombudsperson: An ombudsperson is an official appointed to hear parties' complaints and conduct independent fact-finding investigations with the goal of correcting past abuses of an organization. Often, the ombudsman is located within the chain of command of a corporation and reports to the head of the organization. Ombudspersons can also be found in universities and government agencies (such as the IRS).

Neutral Fact-Finder: In a process that can be voluntary or involuntary, depending on the dispute, parties ask a neutral with specialized subject matter expertise to investigate specific concerns. The outcome is a report or testimony that is nonbinding, but can be admissible at trial. The process itself is private but at times it can be disclosed to the court.

Mediation: Mediation refers to negotiations that are carried out with the help of a neutral, independent party. While mediators lack the power of judges and arbitrators, they can skillfully shape (for better or for worse) the dynamics of a negotiation. Mediators are particularly useful in multiparty disputes, where the simple management of face-to-face meetings is not enough to move the parties toward a viable agreement. Mediators work both at and away from "the table," sometimes in public, sometimes in private meetings with one or more parties. Good mediators will first assess a conflict before agreeing to involve themselves. This will give them the opportunity to determine how and when they can be of most help, or if their services are not likely to be helpful at a given time. Mediators may:

1. encourage information exchange and provide new information;
2. help parties to understand each other's interests;
3. help to reframe certain issues in ways that hold the potential for integrative solutions;
4. keep an appropriate balance of emotional expression, sharing of concerns, gathering and interpreting information, and problem solving;

5. work with parties to test their assumptions and help them realistically assess their alternatives should an agreement not be reached;
6. encourage parties to brainstorm and explore creative solutions before committing to any particular settlement; and
7. suggest solutions or potential agreements that meet the interests of all parties.

Mediators are bound by a professional code of ethics to exercise neutrality insofar as the issues at hand, but they remain advocates for a fair negotiation process.

Facilitation: Facilitation is the skillful management of conversations and meetings. Particularly in multiparty disputes, getting people to gather information, express their views and concerns, appreciate what others are saying, and even defend their views under certain conditions can be difficult. Facilitation can be used to improve the flow of communication and to avoid unnecessary impasses. Facilitators are selected and agreed to by the parties, who voluntarily enter into discussions managed by them. Facilitation does not involve intervention before or after discussions to help shape an agreement, and can therefore be limited in its usefulness when disputes are complicated.

Unassisted Negotiation: Unassisted negotiation involves conversations between two or more individuals or organizations who believe that they can meet their interests by dealing directly with each other. No neutral assistance (i.e., mediation, facilitation) is used. Parties leave it to the group or to one or more people at the table to structure the conversations.

Each of these dispute resolution methods provides different opportunities for parties to communicate with one another for the purpose of persuasion, which is the common definition of negotiation. The methods differ in terms of the degree of party control over how communication is structured, and to what end.

A recent informal survey of environmental justice disputes revealed that some of the above dispute resolution processes have yet to be applied, including arbitration, neutral fact-finding, and mini-trials. Cases in this report were chosen to represent the remaining processes, as summarized in Figure 2.

Three of the cases involved adjudication leading to assisted negotiation (mediation or special master). The other half involved administrative processes leading to unassisted negotiation.

Meeting Integrative Potential

Well-prepared environmental justice advocates who have engaged their client communities in developing clear objectives and maintaining cohesiveness can step in at moments of crisis and be helpful. The case studies in this report reveal a common set of activities that should be carried out in preparation for engaging a dispute resolution process: ensuring proper representation, structuring the dialogue so that it can transition from a discussion of the causes of the problem to broader, community-wide issues, preparing constituencies to be able to make tradeoffs, and organizing the community to implement and monitor agreements.

Preparation must also address administrative actions that are likely to be underway before the opportunity to pursue dispute resolution emerges. Indeed, multiple administrative, legislative, and/or adjudicative processes are often initiated or ongoing *prior* to any accident or resident involvement. These processes help to shape the degree to which residents can address organizational and regulatory practices that are implicated by an accidental release. Environmental justice advocates must be aware of existing parallel processes, their potential to shape norms of settlement, and their constraining power over what is discussed at the negotiating table. Preparation therefore includes working with agencies to establish a “division of labor” that seeks to maintain flexibility over the timing and agenda-setting of community-corporate deliberations. Such preparation activities, carried out prior to a given negotiation, are vital to protecting the interests of an overburdened community.

Once negotiations commence, a set of basic criteria must be met to continue to safeguard a community’s influence over a dispute resolution process and its outcomes. Some criteria apply also to the preparation phase, while others are unique to the negotiation phase. For instance, it was found that community representatives who were able to encourage dialogue both within a negotiation and across a range of parallel dispute resolution processes were able to better achieve the interests of their constituencies. It is also important that resident-negotiators be able to judge tradeoffs between, on the one hand, proposals addressing industry practices (which a facility owner may reject) and, on the other hand,

Figure 2: Dispute Resolution Processes Illustrated in the Case Studies

Case	Location	Facilities Involved	ADJ	ADM	SPM	MED	FAC	UNA
1	Swansea-Elyria communities in North Denver, CO	Vulcan Materials rail terminal	X	X		X		
2	North Denver and Commerce City, CO (Swansea-Elyria residents were plaintiffs)	Conoco petroleum refinery	X	X		X		
3	Kennedy Heights Subdivision in Southeast Houston, TX	Former crude oil storage pits previously owned by Gulf Oil (now Chevron)	X	X	X			
4	Manchester, Smith Addition, and Harrisburg communities near the Houston Ship Channel in Houston, TX	Rhone Poulenc sulfuric acid regenerator/incinerator		X				X
5	North Richmond communities in Contra Costa County, CA	Chevron Richmond petroleum refinery		X				X
6	Unincorporated communities of Crockett and Rodeo as well as Bayo Vista public housing development and the town of Tormey in Contra Costa County, CA	Unocal San Francisco petroleum refinery		X			X (post-agreement)	X

ADJ = adjudication; ADM = administrative decisions; SPM = special master; MED = mediation; FAC = facilitation; UNA = unassisted negotiation

financial and community development contributions to communities (which industry may favor). Negotiators also need to focus on surpassing the broader community's least favorable outcome, rather than what appears to be a minimally acceptable settlement within a negotiation.

⁷ Integrative negotiation occurs when parties structure an agreement that creates more joint value than if they merely allocated existing resources or worked independently on a set of problems underlying the dispute.

As conflict resolution techniques gain greater acceptance by government agencies and the private sector, residents may be subjected to interpretations of “consensus-building,” “mutual gains,” “win-win,” and other models of dispute resolution that are elegant in theory but potentially devastating in practice.

In theory, the potential for an “integrative” negotiation⁷ increases as the number of parties and issues increases. In other words, parties should be able to search for ways of structuring a deal that will benefit each side more than the simple division of one or more assets. In environmental justice negotiations, parties most certainly have different interests (e.g., security, certainty, recognition, economic gain), as well as interests that they value differently.

As an example, residents may want security from accidental releases, while facility managers may desire security in the form of continuous production. Residents may want stability in the form of steadily reduced emissions, fewer episodes, and more predictable facility operations. Managers may value stable relations with agency monitors and rule enforcers and a stable internal culture. Managers may have different conceptions of time, influenced by the urgency of needed environmental improvements, deadlines, or levels of risk aversion. Residents may give greater weight to costs imposed on future generations than their private counterparts. Each side may assign different odds to the anticipated outcomes of a negotiation. For example, if facility managers believe that certain raw material costs will increase while a community group anticipates they will decrease, they might both agree to tie financial contributions to the plant's future profit margins. In addition, parties may have access to different kinds of information, skills, or capabilities that can be combined to form the basis of an agreement. It is clear, therefore, that the possibilities for reaching an integrative settlement among multiple parties are fairly unbounded in theory.

In practice, however, few negotiated agreements reflect the depth of integrative potential that the range of issues and interests would suggest. The theoretical notion of “integrative potential” emerges as particularly fragile during conflicts with industrial facilities, their owners, and regulators. This is because the models assume that all parties will have access to adequate resources, a desire to expand available resources, mediation or facilitation services that are truly impartial, sufficient time and access to information to engage in constructive problem-solving, and the ability to generate and enter into contracts that can protect gains

made by all sides. As we will see in the cases, these conditions are often not met.

The concluding chapter uses lessons learned from the six cases to craft a realistic set of steps that can be used to evaluate available methods for their true integrative potential. The central lesson suggested by these cases is that dispute resolution techniques are most helpful when used to supplement existing efforts, help a community leverage its comparative advantages, and ensure the flexibility required for dialogue to progress from immediate concerns to anticipated challenges to solutions that are truly integrative. These cases offer clear signs that community leaders are learning how to use the full range of alternative dispute resolution methods.

CASE 1: VULCAN MATERIALS MEDIATION (SWANSEA & ELYRIA, CO)

Case 1: Vulcan Materials Mediation (Swansea & Elyria, CO)

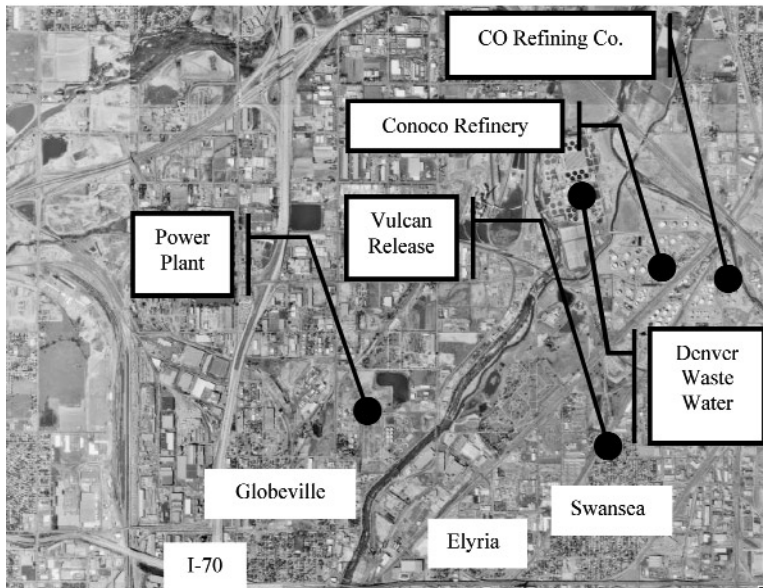
Just north of Interstate 70 in Denver, Colorado, lies a group of neighborhoods whose residents have repeatedly come together to discuss why the environment in which they live may be causing them harm. About 450 acres in the neighborhoods of Swansea, Elyria, Globeville, Cole, and Clayton were recently proposed for inclusion on the Superfund National Priorities List (NPL).⁸ Roughly 17,500 people live in the area, of which 69% are of Hispanic origin, 21% are African-American, and 3% are American Indian, Alaskan Native, Asian, or Hawaiian.⁹ Inside and immediately surrounding the proposed Superfund site are about 150 industrial land uses, including four separate NPL sites, three lead smelters, two oil refineries, and numerous hazardous waste sites. (See Figure 3.) Much of the area is contaminated with soil concentrations of lead, arsenic, and zinc that are well above what the federal government considers safe.¹⁰

⁸ Environmental Protection Agency, *Draft Report for the Vasquez Boulevard and I-70 Site, Denver, CO, Residential Risk-Based Sampling, Stage I Investigation* (Denver: Environmental Protection Agency, April 1999).

⁹ Agency for Toxic Substances and Disease Registry, *Public Health Assessment for Vasquez Boulevard and I-70, Denver, Denver County, Colorado, EPA Facility ID C00002259588* (Atlanta: ATSDR Division of Health Assessment and Consultation, April 2002).

¹⁰ *Ibid.*, Appendix B.

Figure 3: The Swansea and Elyria Communities and Surrounding Industries



At times literally within the shadow of I-70, the residents of Swansea and Elyria persevere. These working-class communities retain high rates of homeownership, are highly organized, and remain proud of the neighborhoods they strive to maintain. This is the story of how one group of citizens, the Cross-Community Coalition (CCC), sought to turn a “routine” industrial accident into an opportunity for a large corporation to recognize and appreciate the concerns of local residents. The CCC’s struggle to hold the Vulcan Materials Company accountable also presents an opportunity to examine the role of mediators in assisting environmental justice groups whose interests cannot entirely be met through traditional means.

¹¹ Vulcan Chemicals, *SARA Title III, Tier II Report, Colorado Emergency Planning Form* (Reporting Period Jan. 1-Dec. 31, 1994).

¹² A site visit on 6 March 2002, by the author was used to generate this description.

¹³ *Supra* note 11.

¹⁴ *Supra* note 11, under "Additional Emergency Planning Information."

¹⁵ Vulcan Chemicals, CERCLA Section 104 Information Request, to Prevention Section, Emergency Response Branch, US EPA, 1 May 1995.

¹⁶ *Ibid.*

¹⁷ *Ibid.*

¹⁸ A. Cortez, "Anger Spills Over: Residents Vent Their Frustration with Evacuation," *Denver Post*, 31 March 1995, p. B-2.

¹⁹ Denver Office of Emergency Preparedness, *Hydrochloric Acid Leak*, 29 March 1995.

²⁰ Notes to Meeting with Public Concerning HCL Release, 30 March 1995 (compiled by author).

²¹ Although this case focuses on the Vulcan Materials Company, the General American Transportation Corporation (GATX) was also involved at various points because it owned the tankers. Vulcan leased them from GATX.

The Incident

In the mid-1990s, Vulcan regularly stored more than 36,000 gallons of hydrochloric acid (HCL) in railroad tanker cars at a rail terminal in northern Swansea.¹¹ (See Figure 4.) The terminal was just eight feet from a barbed wire fence that separated the tankers from a playground and the Swansea Community Center.¹² HCL is a corrosive, hazardous material with potentially acute health effects if released.¹³ The facility maintained no release-detection systems at its terminal, and emergency response equipment was limited to "absorbent tubes kept on-site to contain small spills."¹⁴

On March 29, 1995, at approximately 2:40 p.m., the sole employee stationed at the terminal discovered that muriatic acid (35% of which was hydrochloric acid) had eaten a hole in the bottom of one of the tank cars parked at the terminal.¹⁵ As what would amount to 3,300 gallons of the substance wafted out of the tanker toward neighboring homes, the employee notified the local fire department.¹⁶ The National Response Center was not notified until later that evening.¹⁷ Residents only slowly became aware of the significance of the incident. Some who understood the dangers involved rushed to evacuate family members and elderly residents, but they were stopped by local police, who blocked access to the neighborhood. The fire department did eventually evacuate the area, but more slowly than many people thought reasonable, in part because the firefighters could not speak Spanish.

Thankfully, the vapor cloud that hung above the accident site, and that could have proven fatal if inhaled, shifted to the east and avoided the populated areas of Swansea.¹⁸ A few dozen residents were transported to the Denver Coliseum the evening of the spill, and 300 people within a 20-30 block area were eventually evacuated.¹⁹ As the threat subsided, residents began to discuss the existence of tanker cars in their community. At community meetings thereafter, other issues surfaced: (a) the lack of institutionalized safeguards to both prevent and respond to accidental releases, (b) the failure of companies such as Vulcan to disclose and communicate the risks posed by their handling of hazardous materials, and (c) city-citizen relations, since the incident left residents feeling mistreated.²⁰ Initially, the companies responsible for the incident were unresponsive to residents' concerns.²¹

The Lawsuit

Eventually, the community's efforts to learn the circumstances surrounding the release of hazardous chemicals would become the focus of litigation against Vulcan and other parties.²² The pri-

mary cause of action for the citizen suit, filed on behalf of the CCC and several residents, was the Emergency Planning and Community Right to Know Act (EPCRA).²³ Among other provisions, EPCRA allows for citizens to file suit when an owner or operator of a facility fails to complete certain forms or submit data or emergency notices.²⁴ Under this provision of EPCRA, which up to that point had not been used as a cause of action against a company,²⁵ Swansea and Elyria residents argued that those responsible for the release of a hazardous substance must submit a written follow-up emergency notice to the Denver Office of Emergency Preparedness and the Emergency Management Unit at the Colorado Department of Public Health and Environment. Violations and associated penalties for not submitting a follow-up notice were to accrue on a daily basis. By the time the plaintiffs' civil suit was filed, 396 days had passed since the HCL release. The policies of the Environmental Protection Agency (EPA) called for the highest level of penalty (\$25,000 per day) for such untimely notifications, meaning the defendants faced potential civil penalties of up to \$9.9 million, not including the cost of attorneys and expert witnesses.

Mediation was proposed by Vulcan Materials after a court ruled that the citizens' suit could go forward.²⁶ It was the first time a community was granted standing to sue in an EPCRA case. The parties filed motions for an extension of time to answer the citizens' complaint while attempting to engage in mediation. The residents agreed to mediation in part because they knew it would provide a better forum in which to address their real grievances, rather than focusing on unfiled paperwork, as the lawsuit would do. An experienced mediation firm, CDR Associates, was chosen jointly by the two sides to provide neutral assistance throughout the process.

The Parties and Their Interests

Residents of Swansea and Elyria were represented in the mediation by the executive director of the CCC, the president of United Swansea, and two attorneys from the Land and Water Fund of the Rockies. (Two or three other plaintiffs attended but did not actively participate in the mediation process.) The groups were well organized and had experience in taking action against other area industries.²⁷ For this case, the representatives had met with CCC members, the Swansea neighborhood association, and other residents, to gain approval of their involvement in the mediation. Among their main objectives for the mediation was for Vulcan to take responsibility for its mistakes and learn about the neighboring communities. The residents also expected Vulcan to offer a settlement, although they agreed that any settlement monies would not be divided among the plaintiffs, but rather would be

²² Plaintiffs' Complaint, *Neighbors for a Toxic Free Community et al. v. Vulcan Materials Company et al.*, CA 95-D-2617 (N.Co. 1995); Administrative Complaint and Notice of Opportunity for Hearing, *United States Environmental Protection Agency Region VIII v. Vulcan Materials Company*, CERCLA-VIII-95-25.

²³ Section 326, 42 U.S.C. § 11046.

²⁴ 42 U.S.C. §§ 11045 and 11046.

²⁵ Section 326.

²⁶ Memorandum Opinion and Order, *Neighbors v. Vulcan*, CA 95-D-2617 (N.Co. 1997).

²⁷ The Cross-Community Coalition brought significant experience with environmental problem-solving to the dispute with Vulcan Chemical, having formed Neighbors for a Toxic Free Community in 1987 in response to neighborhood contamination caused by the ASARCO Globe plant. Work on this and other site-remediation projects solidified the CCC's links to the EPA and other agencies, as well as to public interest firms such as the Land and Water Fund of the Rockies. The CCC had established mechanisms for rapid communication with local residents, and facilitated community planning efforts that could be used to fashion proposals for future negotiations.

²⁸ Interview with Swansea resident, 5 March 2002, in Swansea.

²⁹ *Ibid.*

³⁰ Mediation notes recited during interview with mediator, 7 March 2002, in Boulder.

³¹ Cross-Community Coalition, *Swansea Community Park Project Proposal* (Denver, CO: Cross-Community Coalition, no date).

used to serve the broader community. As one resident explained: “We [didn’t] want to sit down here and say, ‘There was a spill, give us money.’ We want[ed] them to walk out of this room and understand that there are living human beings here and children and a community and a way of life that was disrupted and that money isn’t the answer.... That’s what we wanted, that somehow or another we should become human to these people.”²⁸

Vulcan was represented in the mediation by the manager of public affairs and the director of logistics of its Chemicals Group, as well as two attorneys. The employee who was on site the day of the accident took part in the first meeting. At the outset, Vulcan was primarily interested in protecting its reputation, protecting shareholder value (and not setting a bad precedent) by limiting the settlement amount, and apologizing to community members. Future accidents at the Swansea site were not of concern to Vulcan (or the residents), because the company had closed the terminal between the time of the spill and the mediation. (In fact, they had made plans to close it several months before the spill occurred.) So, the mediation process could go forward with a focus on redressing the community’s complaints and ensuring safety at Vulcan’s other rail terminals.

The Mediation Process

On September 19, 1997, the first day of the mediation, the parties agreed to operate under a number of ground rules. Among them were agreements not to speak to the media during the mediation, to have attorneys present but allow the parties themselves to negotiate directly with each other, and to disallow comments made during the mediation to be used in any subsequent legal proceeding.

The two sides discovered fairly early on that they had something in common. One of the reasons Vulcan chose to close the site was their concern over gang activity and reports of people shooting at the tanker cars while intoxicated. Residents, it turned out, were also very concerned about this problem. One said, “Don’t you know that one of our greatest fears in life is that one of these gang members is gonna take a shot at one of those tanker cars and it’s gonna blow up?”²⁹ This realization of shared interests, along with the Vulcan representatives’ admission of error and the company’s decision to close the terminal, freed the two sides to begin working toward solutions that would benefit the whole community.

After an initial offer Vulcan made to the plaintiffs (\$10,000) was resoundingly rejected, the parties began to draft principles of settlement. The principles included items such as the following:

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The community should know of Vulcan's apology in that it shows respect to the people of the community. This experience should somehow inform other communities and be a model for improving processes (preventive as well as emergency preparedness) that would be helpful to both sides. Parties should consider a supplemental environmental project as part of settlement.³⁰

At this point, residents proposed a strong vision for a suitable remedy. At the corner of 51st and Steele Streets in Swansea was the last piece of green space (roughly two acres) in the area, behind which stood residential homes. Residents suggested that the parcels be converted to a neighborhood park, so that a buffer zone separating homes and industry could be created through use of shrubs and fencing. Their proposal included demo-

Figure 4: Railroad Tanker Cars near the Site of HCL Release



graphic data, information on land use trends and toxics release data for the zip code, and a diagram of the proposed park with two options for acquiring the site.³¹ The parties agreed to gather more data between the first and second mediation sessions, in order to more carefully consider the park option.

Between meetings, the plaintiffs contacted the owners of the property, sought city approval for

the purchase of the site, held another round of community forums, and conducted a door-to-door survey. Through this last activity they found that 265 children lived within a two-block radius of the park (80% of whom were under 12). Among them were 88 children from a nearby mobile home park who played in streets that were major truck routes because their development lacked even a foot of green space. Meanwhile, Vulcan looked at the property, talked to realtors to determine a fair amount to contribute toward its purchase, tried to figure out how to ensure that a park would be sited in perpetuity on the plot, and approached the City Council about the idea.

The Agreement and Implementation

On October 13th, the parties met for a second session. The community residents had entered the mediation in agreement over the priorities of relationship-building and prevention of future accidents. Still, they had discussed the need to have a “walk-away” figure, which was in the range of \$75,000-100,000. This would purchase a significant portion of the land and could be leveraged by the plaintiffs to seek a grant and City Council assistance for the remainder of the funds. After both sides presented their information regarding park feasibility, the senior Vulcan representative declared that she wanted to make a final offer. Against the advice of her lawyers, she made a very generous offer—one that surpassed the residents' best hopes. Publicly, Vulcan agreed to provide \$125,000 toward

³² Interview with mediator, 7 March 2002, in Boulder.

³³ *Supra* note 28.

³⁴ L. Granado, *A Blueprint for Community Relations and Involvement* (Denver, CO: Cross-Community Coalition and Vulcan Chemicals, 1997).

³⁵ Interview with Vulcan corporate official, 21 May 2002, via telephone.

the purchase of the park. In a separate confidential agreement, the company provided an additional undisclosed sum. As one person explained it, “[The Vulcan representative] felt as though what [Vulcan] had done had caused harm in a way that their lawyers couldn’t get. She got it, and she just wanted to do it, so she did it.”³² The plaintiffs accepted the offer.

As part of the agreement, Vulcan also agreed to pay the residents’ legal fees of up to \$35,000, and the residents agreed to drop the lawsuit. Furthermore, the parties agreed to work together to develop a blueprint for Vulcan for future community relations.

To implement the agreement, the CCC obtained grant funds in the amount of \$180,000 to cover the additional cost of the land. The funds from Vulcan sat in escrow for several years and accrued interest, leaving the community in need of just \$18,000 before they could purchase the property at fair-market value. Through the City Council, the CCC convinced the Parks and Recreation Committee to give them the remaining funds. The parcel has been purchased, and the National Park Service is helping the CCC and city brownfields workers to determine if the site is contaminated. Amazingly, the site, located within an area that is almost universally contaminated by some level of lead or arsenic, appears to be free from these substances.³³ Groundbreaking on the park will take place in the near future.

Meanwhile, the plaintiffs and Vulcan worked to draft *A Blueprint for Community Relations and Involvement*, a guide to community outreach that has been widely distributed.³⁴ The document includes detailed steps for companies just starting to communicate with their host communities, including guiding principals for community involvement that mirror many of the lessons learned during the mediation process. Vulcan took at least some of the recommendations listed in the *Blueprint* seriously; they shut down several other rail terminals and are working to become more actively involved in the communities in which they operate.³⁵

Lessons Learned

It is hard to imagine a similar outcome emerging from discussions with a broader cross-section of stakeholders. Much of what Swansea residents were able to accomplish in the Vulcan mediation hinged upon their resolute demands for recognition, information, and signs of behavioral changes that would decrease the odds of a similar event occurring in the future. A bilateral negotiating table encouraged the kinds of frank discussions that these objectives would suggest, without the need to focus on the exigencies of emergency planning or the company’s legal responsibilities to the EPA. Other external events, such as the recent deci-

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sion to close down the terminal, encouraged integrative bargaining in that they pointed to common security interests and allowed the parties to look beyond an isolated accident to the operation of similar terminals elsewhere and the needs of a broader, environmentally overburdened community.

The *Neighbors v. Vulcan* mediation also benefited from a relatively clear monetary value for its zone of possible agreement. While the possibility of fines ranging from zero to \$9.9 million may seem like a vast range, the expected values of plaintiffs' success on the merits and the EPA's settlement guidelines lowered what was considered an *appropriate* penalty to a range that could be measured in the hundreds of thousands and included both the community's target level and the company's resistance level. Residents encouraged Vulcan to settle near their reservation level with a strong proposal for community improvement that could be easily quantified and that did not threaten the company's operations or represent the potential for residents to target the firm in the future. Extremely important yet cost-effective measures, including the development of a community-relations blueprint and consideration of the viability of other terminal operations, further expanded the boundary for settlement.

The manner in which *Neighbors v. Vulcan* was settled suggests that environmental justice organizations can and should consider, prepare for, and *shape* a mediated process so that their comparative advantages are leveraged to the fullest extent possible. These advantages include: (a) knowledge of community needs and the ability to mobilize consent around new ideas and proposals, (b) an understanding of the interconnectedness of environmental hazards, the dynamics behind their common location within a given place, and ways in which they can be mitigated or reduced, (c) an intimate understanding of how common mistakes and accidents that are taken for granted in industrial society affect people's daily lives, and (d) connections to local officials and political leaders that may not be shared by industries, particularly those managed from out of state. Traditional means of resolving environmental disputes (i.e., hearing processes, adjudication) do not give community groups a chance to make use of these advantages, because they concern a narrowly constructed set of questions of fact or law that minimize the value of brainstorming, joint fact-finding, and inventiveness and restrict the parties to considering an isolated incident. If carefully structured, mediation can give community representatives a chance to think about and address broader challenges, regardless of the outcome of the matter at hand.

**Case 2:
Conoco Mediation
(Swansea & Elyria, CO)**

The Conoco Petroleum Refinery (Figure 5) is located in Commerce City, Colorado, 1.5 miles northeast of the Denver neighborhood of Swansea. The refinery, which handles 57,500 barrels of oil per day, uses a process that separates hydrocarbons from crude oil and converts them into products. A number of toxic substances are released during this refining process, including volatile organic compounds such as benzene, toluene, and xylene.

Figure 5: The Conoco Refinery in Commerce City, CO



Neighbors of the Conoco Refinery, including those in Swansea and nearby Elyria, periodically complained of noxious odors emanating from the plant. The complaints peaked in September 1996 when a disruption in refinery operations resulted in a flaring that contained substantial amounts of sulfur dioxide (SO₂).³⁶ Conoco would later be accused of violating the Federal Clean Air Act (CAA) for flaring certain gases in violation of permit conditions.³⁷ The Colorado Public Interest Research Group (COPIRG), a state-level advocacy organization, together with residents of

Swansea and Elyria, jointly filed a citizen suit against Conoco under the CAA. The case was ultimately referred to mediation.

The mediation process differed in many respects from the Swansea residents' experience negotiating with the Vulcan Materials Company. This mediation was bounded by, and to some degree hampered by, several complicated, parallel regulatory and legal proceedings involving the Conoco Refinery. Also, the lawsuit and the mediation were "lawyer-generated," rather than driven by the parties themselves. As we shall see, the result was a settlement that addressed some, but not all, of residents' concerns, and that lacked the creativity of the Vulcan Materials agreement.

The Problem

COPIRG had begun to look at stationary sources of air pollution across Colorado in 1990.³⁸ Conoco appeared in their analyses as

³⁶ Jerry Heyd, Refinery Manager, Conoco to Hugh Davidson, Air Pollution Control Division, CDPHE, Re: Tri-County/APCD meetings with Conoco on August 13 and 29, 1996, 12 September 1996.

³⁷ *Complaint, COPIRG Citizen Lobby, Lorraine Granado, and Michael Maes v. Conoco, Inc.*, CA 98-30 (N.Co. 1998).

38 Interview with former COPIRG president, 4 March 2002, in Denver.

39 *Ibid.*

40 Interview with former attorney, Land and Water Fund of the Rockies, 6 March 2002, in Boulder.

41 State of Colorado Department of Health, Air Pollution Control Division, Emission Permit 91AD180-3 issued to Conoco, Inc. (initial approval).

42 Jerry Heyd, Refinery Manager to Bob Jorgenson, Colorado Department of Health, Re: Claus Sulfur Recovery Unit NSPS Subpart J Applicability, 24 September 1993.

43 *Ibid.*

44 CDPHE estimates can be found in Robert Jorgenson to Dave Ouimette Re: Conoco problems with Sulfur Plants, Inter-Office Communication, 17 October 1996.

one of the major sources of air pollution, particularly criteria air pollutants.³⁹ An attorney at the Land and Water Fund of the Rockies, based in Boulder, was also investigating the refinery's activities.⁴⁰ His research focused on the refinery's sulfur-recovery operations.

The Conoco refinery contained two "sulfur recovery units" (SRUs) in which a catalyst is used to break hydrogen sulfide into elemental sulfur, which then solidifies and can be sold. Not all hydrogen sulfide is converted. Some is sent to a "tail gas incinerator" and either flared or burned. This results in a release of sulfur dioxide into the atmosphere during normal operations. Conoco was issued a permit in 1991 to construct and operate a second SRU in order to handle acid gas from a new gas oil hydrodesulfurizer (GOHDS) as well as sour water stripping derivatives.⁴¹ This structural change was part of a larger project to produce low-sulfur diesel fuel.⁴² The second SRU experienced operational difficulties, including a period in April 1996 where it was shut down for 20 days. When the SRU shut down, a gas stream was sent to a flare where it generated SO₂. Venting SO₂ into the atmosphere posed a nuisance and potential health problems to neighboring communities.

One of Conoco's permits limited the emissions of SO₂ from SRU#2 to 85 tons per year and 19.6 pounds per hour, and required that "all gas from the sour water stripper...be processed through the Claus sulfur recovery unit."⁴³ During maintenance, however, Conoco would shut down its GOHDS while continuing to operate. This would continue to generate a sour water stripper gas stream (containing an estimated 5 tons/day of SO₂) that would be sent to a flare and vented into the atmosphere.⁴⁴ The attorney from the Land and Water Fund documented 16 incidents of SRU#2 shutdowns and sour water stripper flarings between July 1995 and July 1996 as part of his preliminary analysis. COPIRG joined with the Land and Water Fund attorney to investigate a possible suit under the CAA. They also sought out members of the affected community.

They were not the only ones interested in Conoco's activities, however. Before COPIRG and local residents filed a citizen suit, the Environmental Protection Agency (EPA) Region VIII office and the Colorado Department of Public Health and Environment (CDPHE) stepped in, initiating what the former President of COPIRG would refer to as "four games of chess" that were played (and solved) nearly simultaneously among federal, state, and local interests.

1. EPA Region VIII "overfiled"⁴⁵ on previous CDPHE enforce-

ment actions on March 18, 1997, claiming that in a previous consent order between the state and Conoco the state did not adequately interpret regulations concerning inspections, record-keeping, hazardous waste discharges, notices to the state, and penalties associated with certain counts of violating the Resource Conservation and Recovery Act (RCRA).⁴⁶

2. The CDPHE filed Compliance Advisories under RCRA and the Colorado Hazardous Waste Act regarding the presence of benzene in one of Conoco's wells and the contamination of groundwater.⁴⁷ It also continued to work with Conoco on adjustments to its construction permits.

3. COPIRG and local residents filed a citizen's suit under Section 304 of the CAA, focusing on the refinery's sulfur emissions.⁴⁸

4. Conoco continued to adapt to a series of regulatory and site-specific changes, while working with the CDPHE to ensure that its operations were in line with permit specifications.

⁴⁵ By "overfiling," the EPA was reasserting its jurisdiction over the federal CAA. It had previously handed implementation of the act to the CDPHE (as is allowed by the law), but sought to take that control back because it felt the state agency was being too lenient on polluting industries.

⁴⁶ Complaint, Compliance Order, and Notice of Opportunity for Hearing, RCRA (3008) VIII-97-03, In the matter of Conoco, Inc., 18 March 1997.

⁴⁷ Compliance Order on Consent, 98-08-07-02, RCRA (2008)-VIII-98-03, In the matter of Conoco, Inc., 7 August 1998.

⁴⁸ See *supra* note 37.

Thus Conoco had to deal with regulatory and legal problems coming from the EPA, the CDPHE, and the citizen-filed lawsuit all at the same time. Not surprisingly, the company sought solutions that would resolve all of these issues simultaneously.

The Lawsuit

The citizen suit was brought under the CAA for Conoco's alleged sulfur dioxide emissions. The problem, according to the original complaint, began when Conoco installed the second SRU. The unit malfunctioned on numerous occasions, causing Conoco to perform maintenance while diverting gas to its main flare. In addition to alleging violations of permit emissions requirements, the plaintiffs alleged that Conoco was not continuously monitoring and recording the concentrations of sulfur dioxide that it was discharging into the atmosphere, and that Conoco failed to process all gas from the sour water stripper in the SRU. Relief sought included declaratory judgment, a compliance order (including monitoring), penalties of \$27,500 per day for each violation under the CAA, and \$100,000 for beneficial mitigation projects. COPIRG asked two of the residents involved in the Vulcan Materials mediation to join them as plaintiffs in the case. Residents of Commerce City were not invited to become involved in the litigation or the mediation process that followed.

Two weeks after the plaintiffs in *COPIRG et al. v. Conoco* gave notice of their intent to sue, EPA Region VIII and Conoco made a joint request for a stay of litigation.⁴⁹ The parties believe that it is at this point that Conoco began to contemplate and design a settlement that would satisfy the demands of the EPA, the CDPHE,

49 Joint Request for Stay of Litigation, RCRA (3008) VIII-97-03, In the matter of Conoco, Inc., 18 November 1997.

50 Orders Granting Extension, RCRA (3008) VIII-97-03, In the matter of Conoco, Inc.: 15 April 1997, 19 June 1997, 22 January 1998, and 17 March 1998.

51 Joint Motion to Vacate Scheduling Orders, *COPIRG Citizen Lobby, Lorraine Granado, and Michael Maes v. Conoco, Inc.*, CA 98-N-30 (N. Co 1998).

52 Interview with Environmental Director, Conoco Refinery, 7 March 2001, in Commerce City and Interview with Air Program Leader, Conoco Refinery, 22 March 2001, via telephone.

53 Draft Settlement Discussions between COPIRG and Conoco, 10 March 1998, Suggested Meeting Agenda.

54 Draft Settlement Discussions between COPIRG and Conoco, 10 March 1998, Responsibilities of the Parties.

55 Minutes of Settlement Discussions, 31 March 1998, between COPIRG and Conoco.

COPIRG, and the residents all at once. Importantly, the parties to the EPA RCRA action had to request motions for an extension of time, and were given several tight deadlines for submitting an executed Consent Agreement to the court.⁵⁰ The parties to the citizen suit thus entered settlement negotiations *after* Conoco had begun to try to link settlements in the two cases and the court had set tight deadlines relevant to such a linkage. Conoco would ultimately resolve the above two actions as well as CDPHE's RCRA action over groundwater contamination with essentially the same supplemental environmental project (SEP).

The district court hearing *COPIRG et al. v. Conoco* tried to order the parties to attempt settlement negotiations in January 1998. The parties did not seem particularly interested in following the judge's timeline, however, and they filed a joint motion to vacate the judge's scheduling orders. They also continued discussions with an environmental attorney they had selected jointly to serve as mediator (although residents did not have any input into the selection process).⁵¹

The Parties' Interests

Conoco was represented in the mediation by the plant manager, senior counsel, and the environmental manager. At the outset, Conoco sought to demonstrate that the company was operating within the parameters of relevant permits. As the mediation process proceeded, their interests shifted to determining how to meet the plaintiff's demands through a settlement that also addressed their other legal troubles. In addition, the company wanted to work with the community on an environmental project; develop more productive relations; improve the efficiency and legitimacy of refinery operations; and be viewed as a good corporate citizen. During this period, Conoco was also seeking to adapt to each of the legal actions through the efforts of managers, engineers, and environmental professionals. The tasks facing the company were extremely challenging, from both technical and managerial standpoints.⁵²

The plaintiffs included COPIRG, which was represented by the organization's president and counsel, as well as the presidents of the Cross-Community Coalition (CCC) and United Swansea neighborhood groups. Although on the same "side" in the negotiation, COPIRG and the residents had rather different interests. COPIRG was primarily interested in reducing SO₂ emissions from the refinery, as well as setting a precedent around specific permitting and broader regulatory concerns. The residents wanted Conoco to reduce its emissions as well, but they were also interested in joint exploration of methods to eliminate possible odor sources, on-site monitoring, and the hiring of a community technical consultant to review technology options for SRU upgrades and evaluate

engineering work performed by Conoco. Above all, the residents wanted assurances that heavy flaring would not continue, and a notification system in case it did. Yet as we will see, the parallel legal activities encouraged a near exclusive focus on the sulfur recovery problem.

The Mediation Process

The mediation commenced with a meeting at the refinery, where Conoco proposed a SEP to resolve the sulfur emissions problem. Less than a month later (March 10, 1998), the parties held another preliminary meeting, at which they discussed process issues and the background of the controversy.⁵³ The scope of settlement discussions was limited to the factual background and alleged violations, actions that Conoco could take to resolve the alleged violations, and the drafting of a settlement that would codify actions required of Conoco and the plaintiffs for resolving the issues at hand.⁵⁴ The timeframe, established during the next meeting, was surprisingly short: 3-4 meetings over a span of weeks. The mediation progressed through a combination of shuttle diplomacy and face-to-face sessions.

A scientist with experience in refinery emissions joined via telephone for at least one meeting. Her role was to ensure that proposed alternatives were feasible and would meet the plaintiffs' objective of reducing sulfur emissions.

At a March 31st meeting, Conoco's environmental manager presented the refinery's efforts to reduce sulfur emissions.⁵⁵ Sources of sulfur dioxide and sour water, fate and transport, historic emissions, odor dynamics, and other aspects of the broader problem were presented. The mediator, an experienced environmental attorney, modeled the discussions after scoping processes conducted under the National Environmental Policy Act (NEPA) in which project alternatives are scoped and then compared in terms of their environmental and economic impact. The plaintiffs relied almost entirely on Conoco's information in order to evaluate the company's proposals.

At the next meeting, an interim agreement was crafted. This agreement maintained a certain level of ambiguity around the process and extent of sulfur dioxide emissions reductions, transferred some of the monitoring, modeling, and emissions investigatory work from the company to the plaintiffs, and included stipulations that served to shield the company from further liability. It also de-linked the establishment of a performance measure (SO₂ emissions reductions) from any community-driven evaluation process, for which plaintiffs had advocated. Thus, the interim agreement gave Conoco a level of flexibility that was necessary to pursue negotiations with EPA Region VIII, which by this time began to focus on the SO₂ emissions reduction SEP.

The plaintiffs characterize the mediation as a relatively straightforward process that lacked the "human element" of the Vulcan process. The process overall seemed driven by Conoco as well as forces beyond the mediation itself. Information flowed primarily in one direction: from Conoco to the plaintiffs, who felt as though Conoco was "selling" a preferred option from the outset. The effect of this arrangement was to give residents a sense that "there wasn't much to discuss," which discouraged attempts to reconfigure the process around their objectives (i.e., monitoring, modeling, community awareness, and an informed, community-driven process of selecting engineering alternatives).

56 Settlement Agreement and Release between COPIRG Citizen Lobby, Michael Maes, Lorraine Granado, and Conoco, Inc., 29 April 1999.

57 Interview with Swansea resident, 8 March 2002, in Swansea.

58 See Quarterly Status Reports, Docket Numbers RCRA (3008) VIII-97-03 and RCRA (3008) VIII-98-03, Conoco Sulfur Dioxide Emissions Reduction Project.

59 Brian Lever, Refinery Leader, to John Works, Technical Enforcement Program, EPA Region VIII, Re: Sulfur Reductions SEP Completion Report, Docket Numbers RCRA (3008) VIII-97-03 and RCRA (3008) VIII-98-03, 29 June 2001.

60 Interview with COPEEN coordinator, 4 March 2002, in Swansea.

61 COPEEN, *Annual Report* (Denver: COPEEN, 2000).

The Agreement

The plaintiffs and Conoco reached an agreement regarding a “notice of dismissal” in May 1998, which then guided the development of the final settlement agreement. The settlement agreement was signed in April 1999.⁵⁶ The notice of dismissal described a sulfur dioxide SEP that Conoco and the EPA were “contemplating entering into,” which would reduce SO₂ emissions at the refinery by 200 tons per year. The agreement stipulated that, should the SEP go forward, Conoco would keep the plaintiffs informed about the project. In the notice of dismissal, Conoco also pledged to try to secure the participation of a local resident in its Industrial Council. In the final settlement agreement, the parties agreed to organize a Community Right-to-Know project, in order to collect and disseminate information about emissions in the community and evaluate options to reduce such emissions. Conoco agreed to pay a lump sum of \$72,000 for this project, in addition to plaintiffs’ legal fees.

“I think we let them off the hook too easily,” said one resident participant about the outcome of the mediation. “[W]e really didn’t get anything that we were looking for.... We did want some type of air monitoring, we did want some type of notification system.... [We didn’t pursue these because] I think that there were so many different people involved in the process, they were so willing to give up what they were giving up, and they were really pushing on a timeline....”⁵⁷

Implementation

The plaintiffs in *COPIRG et al. v. Conoco* were kept abreast of developments in implementing the SEP through periodic reports. A deadline of October 1, 2000, was set for completing construction, testing, and implementation. A representative of the CCC attended further meetings with refinery staff and three community involvement groups in order to help residents oversee the implementation of sulfur dioxide emissions reductions, while planning an appropriate Community Right-to-Know project. The SEP is proceeding on schedule, leading to improvements to the #1 SRU and its associated tail gas incinerator and allowing sour water stripper overhead gas to be processed in the #1 SRU.⁵⁸ The refinery’s startup, shut down, and malfunction emissions fell from an average of 322 tons per year (1994-1998) to 18.4 tons in 2000. Conoco’s overall expenditures for the construction phase of the project totaled more than \$2 million.⁵⁹

The settlement money was spent on a Right-to-Know project organized by the Colorado People’s Environmental and Economic Network (COPEEN), an environmental advocacy group operating

under the CCC.⁶⁰ This project sought to “develop accurate and thorough information around who the major polluters are in the area, what sort of toxics they emit, and the possible detrimental health effects of those pollutants.”⁶¹ Residents also appointed a representative to the Industrial Council, but were dissatisfied with the format of the meetings as well as the lack of authority for those not on the Council’s executive committee.

Lessons Learned

The sequencing of events prior to the residents’ involvement in settlement talks strongly influenced their bargaining power. Settlement negotiations had commenced months prior between the EPA and Conoco. The CDPHA had been involved in detailed discussions over permitting for the #2 SRU with the refinery, encouraging Conoco to modify its permit to address emissions that occurred during planned process unit turnarounds. And since 1990, refinery and environmental managers at Conoco had been working on a series of environmental initiatives, including attempts to address sulfur dioxide emissions through trend and incident analysis. These efforts created a certain momentum that superceded residents’ attempts to pursue monitoring technologies for advanced warning and set precedents for other community-corporate relations (as they had done with Vulcan). The short timetable, parallel processes, and heavily institutionalized methods for addressing certain elements of underlying problems made it difficult for the parties to engage in creative problem solving. What limited time was available for problem solving during the handful of meetings with the mediator was also limited by the scope of residents’ technical assistance, consisting of an engineer who participated by phone and assessed Conoco proposals. Under these circumstances, it is not surprising that residents sensed a company-driven process designed to “sell” a preferred option to a variety of parties. Fortunately, some of the residents’ concerns (regarding sulfur dioxide emissions, for example) were indeed resolved by the convergence of the citizen suit and the EPA and CDPHE RCRA actions.

The limitations of the dispute resolution process itself had important effects on the outcome. The inclusion of residents from Commerce City, for example, would have brought greater knowledge about Conoco’s past activities to the table. Also, limited agendas and a clear ordering of issues encouraged the negotiators to focus on sulfur dioxide and the technical feasibility of solutions to the flaring dilemma. Sulfur emissions was the primary topic of discussion, while permit violations was secondary, and the need for monitoring and notification was tertiary or ignored. Benzene emissions and potential groundwater contamination, which encouraged state action in the first place, were not fully addressed. Also, a mediator who operates by modeling the NEPA alternatives analysis approach will encourage biases that are similar to those that NEPA engenders: technical and engineering forms of knowledge predominate, and social and experiential knowledge is subsumed. The fact that the plaintiffs had only partially overlapping interests also caused problems. COPIRG had to answer to a statewide constituency eager to win legislative victories and set precedent through administrative changes and legal rulings. Residents desired these as well, but *only* if they served to enhance their sense of security, knowledge of emissions sources and effects, and ability to plan for and respond to emergencies or episodes. In thinking about future conflicts over plant emissions, the question of whether or not the mediation space can be expanded to include broader issues and concerns that more closely match a party’s interests should be explored. When considering this question, it is also important to ask whether the joint filing of a citizen suit will impede a group’s or coalition’s ability to do so.

CASE 3: CHEVRON MASS TORT SETTLEMENT WITH A SPECIAL MASTER (KENNEDY HEIGHTS, TX)

**Case 3:
Chevron Mass Tort Settlement with a Special Master
(Kennedy Heights, TX)**

In the 1920s, the Pierce Junction oil well in Houston, Texas was connected by a pipeline to a series of open pits, including three unlined, earthen storage tanks southeast of the city known as the Mykawa Tank Farm. These pits could each hold 300,000 barrels of crude oil.⁶² The northeast (NE) and northwest (NW) pits at Mykawa were operational and covered with lumber roofing,

while the southeast (SE) pit simply filled with brine.⁶³ The storage tanks were partially destroyed in 1927 by a hurricane that broke apart the wooden roofs covering the tanks. Because of the damage, as well as marginal production at the Pierce Junction field, Mykawa owners Gulf Production Company (Gulf Oil) ceased operations at the tank farm.

Figure 6: Kennedy Heights Subdivision and Approximate Crude Oil Storage Tank Locations



It's unclear exactly how the Mykawa Tank Farm was used for the next 30 years, but in the early 1960s Gulf Oil decided to sell the land. For six years, Gulf was unable to sell the site.⁶⁴ Finally, in 1968, they found a buyer in John Lester, the president of Log Development Company.⁶⁵ Lester was interested in "acquiring the site for a Negro residential and commercial development."⁶⁶ Log Development did not remove the remnants of stored crude oil,⁶⁷ as had been suggested by the appraiser when it was assumed that it would become a "white subdivision."⁶⁸ Instead, Lester simply had the berms along the sides pushed inward, filling the pits.⁶⁹ He built the Kennedy Heights subdivision on top of the Mykawa Tank Farm soon thereafter. (See Figure 6.)

The name of the subdivision, its location, a savvy marketing campaign, and documents obtained from Log Development suggest

⁶² Statement showing amount of tankage capacity location and quantity of crude petroleum owned by the pipeline, 30 November 1924, received 15 December 1924, by the Texas Railroad Commission.

⁶³ Deposition upon written questions of James F. Stephenson, *John R. Simmons et al. vs. Chevron U.S.A., et al.* (C.A. No. 95-14770).

⁶⁴ P.J. Maddison to R.B. Gillies, Re: Exchange of Properties, Pierce Junction Earthen Tank Farm, Chocolate Bayou Road, Houston, Texas, 14 November 1967.

⁶⁵ State of Texas, County of Harris, Conveyance of property from Gulf Oil Corporation to Log Development Company, Inc., 29 January 1968.

⁶⁶ *Supra* note 64.

⁶⁷ The contents of crude oil storage tank bottoms include a mixture of crude oil, water, and other substances commonly referred to as basic sediment and water, or BS&W.

⁶⁸ Affidavit of John R. Lester, *Dorothy Adams, et al. vs. Chevron, et al.* (C.A. No. H-96-1462).

⁶⁹ Verdicts Forecast, *Kennedy Heights Case Narrative* (<http://66.12.145.114/vf/narrative/html>, 1997) (Accessed 4 December 2002).

⁷⁰ Interview with Kennedy Heights resident, 20 April 2002, in Houston.

⁷¹ Interview with Kennedy Heights resident, 20 April 2002, in Houston.

⁷² Interview with Kennedy Heights resident, 15 April 2002, in Houston.

⁷³ Taken from the inscriptions made on the inside cover of a Bible owned by a resident of Kennedy Heights.

⁷⁴ Pas-Key Construction Service, Inc. *Report on Water Project No. 10086* (Houston: Pas-Key Construction Service, 1992).

⁷⁵ Railroad Commission of Texas Oil and Gas Division, *Comments on Chevron's Comprehensive Work Plan for Kennedy Heights Subdivision* (Austin: Railroad Commission of Texas, 23 October 1996).

that in the end, the homes were targeted at below-middle-income African-American residents. The subdivision quickly filled with families realizing the American dream of owning their own home. However, several aspects of the subdivision seemed “off” to the new residents. Sidewalks and backyards began to buckle and sink. Residents noticed putrid smells and strange colorations in their tap water. One remembered digging as a child in soil that was orange, purple, blue, and red in parts.⁷⁰ Another recounted how a pear tree in the backyard would never grow pears on one side of the tree, and how several dogs who had dug in that area had died soon thereafter.⁷¹ A number of residents fell ill to diseases that were not in their family histories, including multiple forms of cancer as well as lupus.⁷² Perhaps the most common complaint was that water lines would repeatedly rupture. One resident made note of 18 water pipe ruptures in 12 years.⁷³

In spite of countless complaints made to the city for 20 years, Houston’s Capital Projects Department did not begin major work on pipe excavation and replacement until the early 1990s. A contractor was sent to excavate a site on Murr Way in order to replace some of the waterlines. On September 18, 1991, the contractor shut down the site when a worker collapsed during the excavation process.⁷⁴

That event began a long process of assessing contamination in Kennedy Heights, which ultimately led to a court case and then a court-ordered mediation between residents and several defendants, including Chevron, which had merged with Gulf Oil. The results of the mediation were in many ways a terrible disappointment for Kennedy Heights residents. Thus this case is presented as a cautionary tale of how an opportunity to negotiate can signal a loss, rather than a gain of control over outcomes for an environmentally overburdened community.

Assessment of the Contamination

Assessments of the site were undertaken at various times over the course of at least a year by Chevron, the Texas Railroad Commission (RRC), the Texas Water Commission, the city of Houston, a contractor hired by the pipe excavation company, a contractor hired by the residents, the American Home Dream Corporation (a developer interested in building 53 new units in Kennedy Heights), and eventually the Environmental Protection Agency (EPA). The results of these assessments were conflicting and contentious.

Chevron conducted testing for subsurface methane, as that was one of the major concerns residents had raised. Residents voiced numerous questions about Chevron’s assumptions and methods,

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however.⁷⁵ Among the concerns was that Chevron tested soil at 4-10 feet deep, even though pockets of liquid and residual hydrocarbons were thought to be up to 26 feet below ground. Also, Chevron tested at only three sites in the neighborhood.⁷⁶ (They later added a fourth site.)

Methane testing ended with samples showing a maximum of 23,000 ppm of methane at 5 feet. RRC personnel reported that surrounding tests indicated that such comparatively high concentrations were localized.⁷⁷ By the close of the investigation, the highest concentrations of total petroleum hydrocarbons (TPH) found by Chevron and the RRC were 29,000 ppm and 24,000 ppm, respectively. Exploration Technologies, Inc. (the consulting firm hired by the residents) found levels as high as 32,060 ppm, in addition to “liquid product” (crude oil) at several locations.⁷⁸ It is difficult to draw conclusions directly from these numbers in terms of required regulatory action, particularly since the finding of liquid product was never officially verified by the RRC. A 1993 RRC rule provided for the cleanup of “non-sensitive” areas when TPH levels exceeded 10,000 ppm.⁷⁹ Kennedy Heights was a “sensitive” area, implying that a lower threshold should be applied.⁸⁰ However, the rule did not apply to spills that took place before November 1, 1993.

Chevron then undertook a second, more comprehensive investigation of the site. While certain compounds (such as TPH, arsenic, and mercury) were found at levels exceeding regulatory standards, the RRC determined, through analysis of a risk assessment performed by Chevron, that the levels of contamination did not pose a sufficient threat to human health to warrant remedial action.

Meanwhile, resident John Simmons, who headed the Kennedy Heights Civic Association at the time, began an investigation of his own, finding enormously high rates of cancer and lupus through an informal survey of the subdivision’s 325 homes.⁸¹ As a result, a group of residents filed suit against a series of named defendants, including Chevron and Gulf and their subsidiaries, developers, construction companies, investors, and investment trusts. And they began to piece together a story for trial: during periods of depressurization, contaminants entered the water pipes. The contaminants included several known animal carcinogens, including a number of aromatic hydrocarbon compounds. One of the areas of the body affected by exposure to polycyclic aromatic hydrocarbons is the immune system.⁸² Lupus, a disease in which the immune system loses its ability to tell the difference between foreign substances and its own cells and tissues, was prevalent in Kennedy Heights at a rate several times the national rate.⁸³

⁷⁶ J. Tintera to B. Loudermilk, Special Counsel, Re: Status of Kennedy Heights Investigation, Harris County, Texas (no date).

⁷⁷ J. Tintera, electronic mail to Kennedy Heights, Re: Kennedy Heights Status Update, 16 February 1996.

⁷⁸ Bore Hole Locations, Pit Number 1, Prepared for O’Quinn, Kerensky, McAninch & Laminak, 15 August 1995.

⁷⁹ Railroad Commission of Texas, *Guidelines for Spills, Releases, and Risk Based Decision Making for Oil Field Related Sites in Texas* (Austin: Railroad Commission of Texas, 21 June 2001).

⁸⁰ G. Flynn and B. Dawson, “Relocation of Residents Proposed: Kennedy Heights Area Contaminated,” *Houston Chronicle*, 8 August 1995, p. A1.

⁸¹ A survey taken by Simmons showed that there were 113 cases of cancer, brain tumors, lupus, and birth defects in the subdivision’s 325 homes. Cable News Network, *Houston Residents Sue Chevron over Health Problems* (<http://www.cnn.com/US/9705/26/toxic.controversy/html>, 1997) (Accessed 30 November 2002).

⁸² R. Clapp, *Report of Richard W. Clapp* (1 October 1996).

⁸³ *Ibid.*

84 Plaintiffs' Summary of the Case, *Adams et al. v. Chevron U.S.A., Inc. et al.*, 96-CV-1462 (S.D. Tex. 10 September 1997).

85 Order Granting Motion to Consolidate Cases, *Adams et al. v. Chevron U.S.A., Inc. et al.*, 96-CV-1462 (S.D. Tex. 6 August 1996).

86 Plaintiffs' Original Complaint, *Adams et al. v. Chevron U.S.A., Inc. et al.*, #96-CV-1462 (S.D. Tex. 6 May 1996).

87 Plaintiffs' Second Amended Complaint, *Adams et al. v. Chevron U.S.A., Inc. et al.*, #96-CV-1462 (S.D. Tex. 1 October 1996).

88 Affirmative Defenses and Answer to the First Amended Complaint, *Adams et al. v. Chevron U.S.A., Inc.*, H-96-1462 (S.D. Tex. 12 July 1996).

89 For much of this work, the plaintiffs retained Charles Howard & Associates, experts in the development and use of computer techniques for water management. Howard used EPANET, a computerized water distribution system simulation developed by the EPA, to model the fate and transport of contaminants to plaintiffs' homes. C.D. Howard, Charles Howard & Associates, Ltd. to C.D. Shaw, O'Quinn, Kerensky, McAninch & Laminack, 30 September 1996. Chevron questioned many of the assumptions underlying the model as well as Howard's choice of inputs. For example, Chevron claimed that the model was not scientifically valid because, among other things, it was not designed to model oil contamination but rather soluble substances such as chlorine, and it was not calibrated in response to field measurements. The defendants further disagreed with the model's assumptions regarding the amount of contaminated water to enter the pipes and the amount to stick to pipe surfaces and remain after post-repair flushing of the system. Summary of the Case Submitted by Defendants, *Adams et al. v. Chevron U.S.A., Inc. et al.*, H-96-1462 (S.D. Tex. 10 September 1997).

90 Order, *Adams et al. v. Chevron U.S.A., Inc. et al.*, H-96-1462 (S.D. Tex. 21 August 1997).

The Lawsuit

The original lawsuit, *John R. Simmons et al. v. Chevron U.S.A.*, was filed in state district court on March 24, 1995.⁸⁴ In August 1995, plaintiffs' property claims were bifurcated from the personal injury case and set for trial on January 8, 1996. Judge William Bell recused himself from the case, which was reassigned to Judge Tony Lindsay, who was disqualified for ownership of Chevron stock. The case was transferred to Judge Lamar McCorkle. At that point, the state court cause of action was removed to federal court (under Judge Sim Lake) and eventually consolidated into *Adams et al. v. Chevron et al.* under Judge Kenneth Hoyt.⁸⁵

Plaintiffs in the *Adams* case alleged that the three pits upon which the Kennedy Heights Subdivision had been built were utilized, stored, removed, and filled in an unreasonably dangerous and unlawful manner.⁸⁶ They claimed that chemicals from these operations had volatilized and remained in the soils and groundwater in toxic and explosive quantities, exceeding federal and state regulatory limits. It was argued that the defendants failed to disclose or falsely represented the historical uses of the site and the presence of residual contamination in order to obtain government financing that would facilitate the purchase of the property from Chevron.⁸⁷ Residents sought damages for physical, mental, medical, property, and punitive damages, as well as attorneys' fees, expert fees, and other costs. The primary defendant, Chevron, argued that no liability existed for any of the alleged damages, many of which they claimed were speculative, due to risks assumed by plaintiffs, related to conditions that Chevron did not have control over, barred under the statute of limitations, and barred because they were not addressed by plaintiffs in a manner consistent with the National Contingency Plan for dealing with contaminated sites.⁸⁸

After 31 days of testimony in the case by plaintiffs' witnesses, and cross-examination by attorneys predominantly for Chevron, it became clear that it was going to be very difficult for the plaintiffs to prove scientifically that the contamination *caused* their physical ills. Doubt was also cast on the plaintiffs' witnesses who were charged with generating a computer model and theorizing about how toxicants moved from waterlines to residents' sinks and bathtubs.⁸⁹ As they neared completion of their presentation of the case in August 1997, Judge Hoyt recused himself (after weathering a series of accusations of bias from Chevron) and declared a mistrial.⁹⁰

Elements of the Dispute Resolution Process

After the mistrial, the final judge to be assigned to the case, David Hittner, considered several options regarding how to move forward. He indicated his intent to uphold previous rulings regarding the admissibility of evidence under the *Daubert* doctrine,⁹¹ and to hold *Daubert* hearings regarding water contamination and property value claims. He further planned to convene hearings for a number of defendants' motions to exclude testimony.⁹² This further diminished the plaintiffs' confidence about their ability to prevail in the case.

Ultimately, in September 1997, Judge Hittner ordered the case to mediation. Trial transcripts show that attorneys for the plaintiffs supported the idea of mediation, as they believed it would speed up the allocation of property damages and help some families to relocate.⁹³ Plaintiffs' attorneys listed a number of acceptable mediators, and Chevron approved their first choice. The mediator began to carry out his tasks as ordered, and was later appointed "special master" under rule 53(b) of the Federal Rules of Procedure.

The special master began by meeting with roughly 1,700 plaintiffs in groups of 20-30. He explained that he intended to first help the parties develop a "settlement model"—a way to distribute the settlement monies. Then he would help the parties negotiate a settlement amount. If a certain percentage of the plaintiffs agreed with the final deal, the settlement would go forward.⁹⁴

Some of the plaintiffs expressed concern over the apparent use of these meetings as a means of cajoling settlement by raising doubts about evidence and the plaintiffs' chances at trial. One resident said that the special master informed them that, because of recent tort reforms in Texas, it was unlikely they could win their case.⁹⁵ The special master explained his thinking:

You have to sometimes tell the people the hard truth. I do it early, not later. ...[M]y notion with these people was if you all don't understand the law and the consequence of the law, then I'll never be able to work a settlement with you. And you all need to understand that 9 chances out of 10, [the plaintiff's attorney] is gonna get poured out on summary judgment, he's never even gonna get evidence on, and for some reason if you get the one chance in ten that you get a trial, the 5th Circuit will take it away, ten out of ten times. There is no basis for this lawsuit.... The only solution that Chevron was ever gonna agree to was just an aggregate dollar amount. I had to deal with the allocation of it.⁹⁶

⁹¹ The case of *Daubert et al. v. Merrell Dow Pharmaceuticals, Inc.* established the standard whereby scientific evidence in torts claims is admissible. Evidence is admissible only if the principle upon which it is based is "sufficiently established to have general acceptance in the field to which it belongs." 509 U.S. 579, 113 S.Ct. 2786.

⁹² Hearing before the Honorable David Hittner, *Adams et al. v. Chevron U.S.A., Inc.*, H-96-1462 (S.D. Tex. 19 February 1998).

⁹³ Hearing before the Honorable David Hittner, *Adams et al. v. Chevron U.S.A., Inc. et al.*, H-96-1462 (S.D. Tex. 18 September 1997).

⁹⁴ Status Hearing before the Honorable David Hittner, *Adams et al. v. Chevron U.S.A., Inc.*, H-96-1462 (S.D. Tex. 2 June 1998), pp. 6-7.

⁹⁵ Interview with Kennedy Heights resident, 20 April 2002, in Houston.

⁹⁶ Interview with special master, 16 April 2002, in Houston.

⁹⁷ Special Master's Report, *Adams et al. v. Chevron U.S.A., Inc.*, H-96-1462 (S.D. Tex. 24 March 2000).

⁹⁸ Adams Plaintiffs, Kennedy Heights Litigation, Total Personal Award map (no date), obtained from the special master of *Adams et al. v. Chevron U.S.A., Inc. et al.* during interview, 16 April 2002.

⁹⁹ Hearing before the Honorable David Hittner, *Adams et al. v. Chevron U.S.A., Inc.*, H-96-1462 (S.D. Tex. 25 August 1999), p. 8.

Ultimately, a settlement amount of \$12 million was agreed to. This figure was determined through positional bargaining between attorneys for both sides, with the assistance of the special master in terms of information regarding appropriate amounts based on computer-generated settlement models developed by his associates.

Complete records of the development of the settlement model and the final settlement were either privileged or unavailable for review. However, it is clear that the model involved, at a minimum, two primary variables: "property" (a function of distance from the NE and SE pits) and "personal" (a composite of time spent in the subdivision, the monetary value of certain diseases suffered, and other considerations).⁹⁷ Property awards were determined for each address and divided among the number of plaintiffs who claimed to have lived at the address. The special master made an effort to ensure that those living on top of the NE pit had sufficient resources to allow them to purchase a home elsewhere. The exposure pathway claimed by plaintiffs (ingestion, inhalation, or absorption of contaminated water) was not factored into the model. Nor was it considered that the stigma of living in a community that had been repeatedly labeled a "toxic waste dump" had substantially reduced the value of *all* homes in Kennedy Heights. Ultimately, certain residents on Murr Way in the vicinity of the NE pit were offered personal awards far above the average settlement value (some in excess of \$50,000 and a few above \$100,000).⁹⁸ Even today, residents who lack a clear understanding of the model or who feel that it was not fairly constructed are embittered by rumors of settlement offers received by their neighbors. (See Figure 7.)

A final question remains: why did the plaintiffs' attorneys agree to settle the case for \$12 million? First, it had become apparent over time that Judge Hittner would make swift rulings on certain aspects of the case should mediation fail. In a hearing in August 1999, he explained:

There is a major legal question that I was ready to decide for the last two years on the legal matter as to the basic liability at all of Chevron due to, I guess, the intervening purchase of Log Development. Then, of course, there was the *Daubert* hearing, the expert witness hearing as to the water itself first; and then if we got past that, as to the cause, you know, for the folks with their physical ailments.⁹⁹

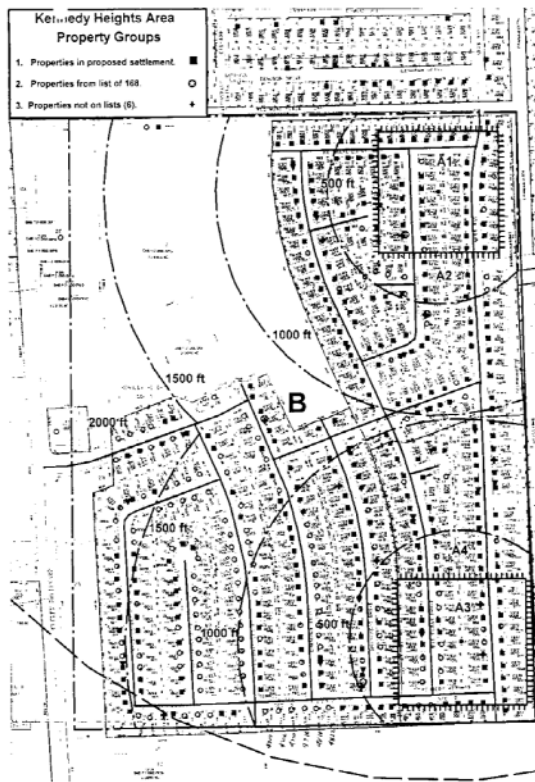
Plaintiffs' attorneys, in a letter to residents in March 1999, explained another source of pressure on their side to settle—the case of *Hicks v. Humble Oil*, in which an oil company was found not legally responsible for any of the illnesses of residents who

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built upon a crude oil storage site.¹⁰⁰ In that case, however, residents had known that the site had been used to store crude oil. Residents in Kennedy Heights continue to claim that they received no notice of the presence of the pits under their properties.

In the end, plaintiffs' attorneys entered into a master settlement on July 28, 1999. The maximum amount of funds to be paid by the defendants was set at \$12 million (later raised to an aggregate amount of \$12.9 million), including \$4 million for plaintiffs' trial counsel for partial reimbursement of expenses and \$400,000 (later raised to \$650,000) for the special master.¹⁰¹ A total of 3,150 residents settled. An additional 589 did not. The court granted Chevron's motions for summary judgment and dismissed remaining plaintiffs' claims with prejudice on October 1, 2002.¹⁰² Log Development was also granted summary judgment based on limited immunity under the Texas Business Corporation Act, due to their bankruptcy and dissolution.¹⁰³

Figure 7: Kennedy Heights Plaintiffs Represented on a Settlement Allocation Map



The EPA performed an Expanded Site Inspection in Kennedy Heights starting in August 1998, and sampling of the sub-surface soil, groundwater, and soil gas commenced in June 2000.¹⁰⁴ TPH levels of up to 16,500 ppm were detected at a depth of 4-6 feet. Traces of VOCs were also found in soil samples, as were traces of contaminants in the groundwater samples. EPA contractors documented hydrocarbon odors at several sampling locations when opening soil core barrels. Visible hydrocarbons were present in a monitoring well and

in one of the soil samples. The EPA concluded, however, that "the soils do not present a risk to the residents from exposure to TPH by direct contact with soil."¹⁰⁵ They determined that the site did

¹⁰⁰ J.M. O'Quinn, O'Quinn & Laminack to Kennedy Heights Residents, 1 March 1999.

¹⁰¹ Master Settlement Agreement for Plaintiffs Represented by O'Quinn & Laminack, *Adams et al. v. Chevron U.S.A., Inc.*, H-96-1462 (S.D. Tex. 28 July 1999). Amounts were increased by the time the special master filed his report in March 2000. Special Master's Report, *Adams et al. v. Chevron U.S.A., Inc.*, H-96-1462 (S.D. Tex. 24 March 2000).

¹⁰² Final Judgment, *Adams et al. v. Chevron U.S.A., Inc.*, H-96-1462 (S.D. Tex. 1 October 2002).

¹⁰³ *Ibid.*

¹⁰⁴ *Ecology and Environment, Inc., Expanded Site Inspection, Final Report, Prepared for U.S. Environmental Protection Agency, Region 6 (Houston: Ecology and Environment, Inc., May 2001).*

¹⁰⁵ *Ibid.*, p. 5-2.

106 N. Welsh, "Making Deals in Court-Connected Mediation: What's Justice Got To Do With It?" *Washington University Law Quarterly* 79 (2001): 787-861.

107 N. Welsh, "The Thinning Vision of Self-Determination in Court-Connected Mediation: The Inevitable Price of Institutionalization?" *Harvard Negotiation Law Review* 6 (2001): 1-93.

108 W.B. Rubenstein, "A Transactional Model of Adjudication," *Georgetown Law Journal* 89 (2001): 317.

109 T.R. Tyler, "Conditions Leading to Value-Expressive Effects in Judgments of Procedural Justice: A Test of Four Models," *Journal of Personality and Social Psychology* 52 (1987): 333-339.

110 M. Levin, "The Propriety of Evaluative Mediation: Concerns about the Nature and Quality of an Evaluative Opinion," *Ohio State Journal of Dispute Resolution* 16 (2001): 267-296.

111 *Ibid.*

not qualify for listing on the Superfund National Priorities List.

Lessons Learned

Recent research into court-centered mediation reveals that the procedure, when utilized in civil litigation, is drifting toward bilateral negotiation between attorneys, with clients playing a minimal role or none at all.¹⁰⁶ The original vision of mediation as guided by the principle of self-determination, where parties actively participate, choose and control decision-making norms, create options for settlement, and control the final decision regarding whether or not to settle, has given way to norms of settlement aimed at case evaluation and closure.¹⁰⁷ This trend is viewed positively by those who view mediation as a means of efficiently managing mass tort and other forms of complex litigation.¹⁰⁸ In contrast to that model, the notion of "procedural justice" proceeds from an understanding of certain needs expressed by disputants, particularly disadvantaged parties. These disputants value the opportunity to tell their story, control over the telling of their story, knowledge that their story has been considered fairly by a mediator, and signals from a neutral that would suggest that a public institution such as the judiciary values and respects them as members of society.¹⁰⁹

It is clear that the orientation of the mediator in *Adams v. Chevron* influenced not only the decision to settle, but also the judgments of residents who had for years sought closure of their claims and perceptions of where they lived. The Model Standards for the Conduct of Mediators, developed by associations of attorneys and mediators, emphasize self-determination, mediator impartiality, and the role of professional advice.¹¹⁰ Let's consider each as they relate to *Adams v. Chevron*.

Self-determination is upheld if the parties' right to decide is protected, parties are not unfairly influenced into settlement, material facts are not misrepresented, and the parties are encouraged to conduct the deliberations in a nonadversarial, respectful manner.¹¹¹ In *Adams v. Chevron*, meetings with the mediator focused on matters of "legal consequence," meaning the deliberations were imbalanced in the direction of using claimants' legal standing to reduce what they would be willing to accept in the way of monetary settlement. While there is no evidence that the mediator misrepresented information in this case, he still undertook the task of translating years' worth of preparation, testing, studies, and findings into a compact picture of why, in his view, contamination did not exist in Kennedy Heights.

Impartiality requires that a mediator disclose any circumstance that could lead to bias or prejudice in the case. There is no evi-

dence that the mediator in *Adams v. Chevron* favored one side over the other. However, his reading of the case and formulation of a view of the extent of contamination, which went beyond his reading of the plaintiffs' likelihood of success at trial, meant that any questions that he raised regarding residents' accounts would be biased in the direction of his conclusions regarding the subdivision. Plaintiffs, who were asked during their meetings with the mediator to suggest what they felt were the "facts" of the case, only to see many of them crossed out on a board, had to spend considerable time either defending their understanding of the facts or coming to terms with the mediator's interpretation.

Regarding professional advice, a mediator who elects not to refer parties to sources of neutral, professional advice and undertakes these tasks himself assumes increased responsibilities. This does not mean that a mediator who is also an attorney cannot provide assessments based on the law, as occurred in this case. However, this role should be undertaken *at the request of the parties* and with a clear explanation of whether the advice is based on a personal reading of the facts of the case and the law or some special knowledge of how a particular judge will rule. In the case of *Adams v. Chevron*, it is difficult to determine whether information about tort reform, court rulings, and the like were used to provide a realistic account of plaintiffs' options or simply to encourage timely settlement. What is clear is that very strong statements about the facts of the case were based on readings of evidence by the mediator, not by a toxicologist, epidemiologist, environmental engineer, or physician.

The mediator in *Adams v. Chevron* did consider how those living over the NE pit could meet their primary interest (safety) by securing resources that could be applied toward their relocation. And despite Chevron's denials of any real exposure pathway that could have resulted in disease among the residents, the mediator allocated part of the settlement toward families suffering from certain diseases that he felt could have been caused by the contaminants. But as the literature on procedural justice would suggest, the *manner* in which these allocations were arrived at can be just as important as the acceptability *per se* of a monetary award to an individual claimant. To this day, uncertainties surrounding the mediation process fuel not only anger and resentment regarding settlement amounts, but fear and anxiety over what may or may not linger in the soils of Kennedy Heights.

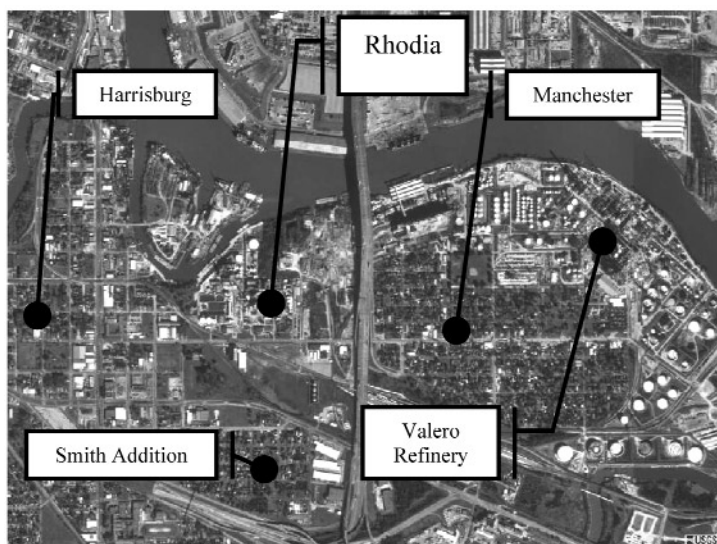
CASE 4: RHONE-POULENC COMMUNITY AUDIT NEGOTIATION (MANCHESTER, TX)

Case 4: Rhône-Poulenc Community Audit Negotiation (Manchester, TX)

The Houston Ship Channel, one of the busiest, most prosperous ports in the world, is home to the largest concentration of petrochemical operations in the United States.¹¹² Oil tankers, cargo ships, liquid petroleum gas carriers, and other bulk carriers move continuously up and down the narrow channel, their huge engines burning “bunker oil,” the cheapest, dirtiest fuel available.¹¹³ The channel itself has some of the most polluted water on Earth, a mixture of industrial wastes and sewage that has at least twice caught fire.¹¹⁴ The region surrounding the channel includes numerous, predominantly Hispanic residential developments. The town of Manchester, for example, is a working-class Hispanic community sandwiched between the Channel (to the North), a refinery (now owned by Valero, to the East), a railroad yard (to the South), and a sulfuric acid processing facility (to the West) owned by the French multinational Rhône-Poulenc. (See Figure 8. The subsidiary that owns the plant was recently renamed Rhodia).¹¹⁵

Manchester, as well as nearby Harrisburg and Smith Addition, faced many challenges over the years. Matters of concern includ-

Figure 8: The Rhodia Facility and Surrounding Communities



ed the illegal disposal of tires and household hazardous wastes, graffiti, unnecessary stoppages of residents by the local police, abandoned homes, and cluttered lots. Accidents and spills at nearby industrial plants had become almost routine.¹¹⁶ And more than 1,000 boxcars (40% of which carried dangerous or flammable cargo) lumbered across the tracks at Central and Manchester Avenues every day, sealing off the only points of entry for emergency services into Manchester.¹¹⁷

¹¹² T. Freemantle, “Ships Fouling the Air: State Regulators Have Few Remedies for Pollution Issue,” *Houston Chronicle*, 21 July 2002, p. 1A.

¹¹³ Bluewater Network, *A Stacked Deck: Air Pollution from Large Ships* (San Francisco: Bluewater Network, 17 July 2000).

¹¹⁴ B. Tutt, “Did Channel Really Catch Fire?” *Houston Chronicle*, 4 September 1993, p. 37A.

¹¹⁵ The Harrisburg/Manchester area in 1990 included 3,895 people (81% Latino and 10% African-American). More than half of the households had incomes below \$25,000, though the area maintained a rate of homeownership (80%) above that of the city at large (63%). City of Houston Department of Planning and Development, *Super Neighborhood Resource Assessment, Harrisburg/Manchester* (Houston: City of Houston Department of Planning and Development, June 1999).

¹¹⁶ e.g., M. Kreps and B. DiSessa, “Pipeline Inferno Fizzles; Residents Return to Homes,” *Houston Chronicle*, 29 November 1988, p. 13A. Also, interview with Smith Addition residents, 19 April 2002, in Smith Addition.

117 S. Brewer, "Idling Trains Strain Patience of Motorists: Officials Seek Answers from Union Pacific," *Houston Chronicle*, 9 February 1998, p. 13A (MetFront); C. Vaughn, "Rail Plans Raise Resident Concerns," *Houston Chronicle*, 17 January 2002, p. 1 (This Week).

118 J. Campbell, "Residents Vent Anger at Chemical Firm," *Houston Chronicle*, 22 November 1991, p. 38A.

119 Rhone-Poulenc actually accounted for a very small fraction of these emissions. In 1991, TRI emissions from the facility totaled 19,000 pounds, compared with 500,000 pounds from the Valero refinery.

120 Interview with Houston City Councilperson, 17 April 2002, in Houston.

121 TU newsletters (*Exxon: How to be a Bad Neighbor*, January 1990; *Sanctions Sought for Information Denial*, Spring 1992; *Refinery Inspection by Environmental, Church, and Labor Representatives - A Texas First!*, November 1990).

122 Jill Burris, Field Investigator, Region 12, TNRCC to File, Re: Rhodia, Incorporated, 18 June 1999.

In the early 1990s, despite the many hardships they faced, a number of Manchester residents came together and became the first community to negotiate a "good-neighbor agreement" (GNA) using a company's permit application as a leverage point. While the outcome of the negotiation was not an unqualified success, it did represent progress for the community and the company and provides several important lessons regarding such negotiations.

The Inception of the Negotiation Process

In the early 1990s, local precinct judge Carol Alvarado received word from a union worker at Rhone-Poulenc that the company was pursuing a permit amendment. The facility needed to reclassify several hazardous waste materials that were already being recycled on-site.¹¹⁸ Alvarado began to organize residents to speak out against the proposed permit change.

Interestingly, environmental conditions at Rhone-Poulenc had actually improved a great deal by the early 1990s, when federally mandated Toxics Release Inventory (TRI) data became publicly available and the facility, like many around the nation, voluntarily decreased its emissions. During that same time, however, Manchester residents' perception of Rhone-Poulenc had worsened. Truck traffic, in particular, had become more visible, and local accidents involving haulers of hazardous chemicals had increased. These incidents raised the community's awareness of environmental risks in general, and helped spur them to act against Rhone-Poulenc, which they perceived as a visible source of those risks.

In January 1991, proposed actions regarding the Rhone-Poulenc facility appeared on the agenda of the Texas Water Commission (TWC). The proposed permit change was listed as a Class 2 modification, which requires a company to issue a notice in the local paper and hold a public hearing. While Rhone-Poulenc considered its proposed changes "nothing of consequence," the dozens of residents that attended initial TWC meetings called for a Class 3 format. Class 3 applications undergo a formal discovery and evidentiary hearing process and in some respects mimic legal proceedings. Alvarado and the others ultimately convinced the TWC to switch the permit modification proposal to a Class 3 format.

The first hearing, held on June 30th, began with a hearing examiner explaining that the focus of the meeting would be restricted to the proposed permit changes. Local residents had other plans, however. Areas of concern, some of which barely overlapped with Rhone-Poulenc's operations (let alone the proposed changes), were many and diffuse, including railway traffic and blockages to the streets, chemical releases to air, water, and soil,¹¹⁹ truck traf-

CASE 4: RHONE-POULENC COMMUNITY AUDIT NEGOTIATION (MANCHESTER, TX)

fic on residential streets, citizen participation in site-specific decisions and awareness of potential risks posed by the site, and emergency preparedness. While Rhone-Poulenc did not have the ability to address some of the concerns, they agreed to meet with a small group of residents to discuss conditions for their dropping all opposition to the proposed modifications. Thus the informal negotiation process began.

The Parties and Their Interests

A group of about 25 Manchester residents became involved in or supported the negotiations with Rhone-Poulenc. Most had lived in Manchester for most or all of their lives, and had watched as relatives who worked at the local plants died of cancer.¹²⁰ Newer arrivals to the town, mostly immigrants from Central and South America, were less involved in the negotiation process. Five to six community members took part directly in the negotiations. The residents were not completely of one mind about their objectives and interests. In general, however, they sought to increase their knowledge of (and ability to respond to) facility emissions and episodes; eliminate blockages of access roads by railroad cars; regulate truck traffic along residential streets, address health effects, and improve relations with the facility. In some ways, residents' demands and arguments were not as strong as they might have been, because they had become so accustomed over the years to living with

Figure 9: Rhone Poulenc Facility seen from Manchester under 610 Bridge



risks that would be unfathomable to most communities.

Community members were assisted in their efforts by the president and a staff member of the statewide environmental group Texans United (TU). TU had been involved in two previous, unsuccessful attempts to negotiate good-neighbor agreements.¹²¹ They were eager to try

again, building on the lessons they learned and the criteria they developed for an appropriate case. They had been looking for a close-knit community, a serious problem, a facility that was not unreasonably complex, and a "winnable fight" that would have repercussions for other industries in the region. Rhone-Poulenc and the Manchester community seemed to meet these requirements.

The Rhone-Poulenc facility (Figure 9) had been used since 1955 to regenerate sulfuric acid from spent sulfuric acid, sulfur, and bauxite.¹²² It began to use waste-derived fuel in 1976 in order to provide energy for the regeneration process, which required that a certain amount of wastes be added to an acid-producing furnace. (The facility did not receive a Resource Conservation and Recovery Act (RCRA) permit for this activity until March 1987). In 1985, the 46-acre site began to shift ownership frequently; it had five owners in five

123 “As Companies Merge, So Do Their Corporate Nameplaces,” *Houston Chronicle*, 9 January 1990, p. 4 (Business).

124 Interview with former Plant Manager, Rhone-Poulenc Basic Chemicals, 1 April 2002, via telephone.

125 *Supra* note 120; Interview with Manchester resident, 22 April 2002, in Manchester; Interview with Manchester resident, 12 August 2002, via telephone; J. Zuniga, “A Community’s Work for Safety Pays Off: Chemical Company’s Siren Alarm Warns Area Residents of Toxic Leaks,” *Houston Chronicle*, 16 July 1995, p. 29A.

126 R. Haines, “Cities Near Plants Address Fears,” *Houston Chronicle*, 3 January 1993, p. 1C.

127 31 TAC 305.147 and Section X TWC permit No. HW-50095.

128 The GNA specified Dr. Ralph Cooper, one of the original drafters of RCRA, as the initial auditor. His report focused on several regulatory compliance and best management practice issues where Rhone Poulenc stood to improve. For example, he recommended that the company (1) pay particular attention to leaks of sulfur and evident equipment corrosion; (2) revise and strengthen its written emergency response plan; and (3) conduct a more detailed analysis of the sources of acid losses to wastewater. These recommendations point to the existence of ways to reduce accidental emissions and the need to more purposefully counter the corrosive nature of the materials used at the facility. Independent Auditor’s Report under 31 TAC 305.147 and Sec. X TWC Permit No. HW-50095.

129 Interview with Rhodia environmental professionals, 23 April 2002, at Rhodia in Manchester.

years, culminating in the purchase of the company by Rhone-Poulenc Basic Chemicals in January 1990.¹²³ In their negotiations with the community, Rhone-Poulenc was concerned about timing—its customers were already shipping waste to the Manchester facility that would in several months be reclassified. It was also worried that its hazardous waste incinerator would become a target of the community’s concern. In addition, the company wanted to improve and structure relations with the community, and to help the community understand the nature of the risks posed by the facility. The plant manager and a staff attorney represented the company in the negotiations.

All parties understood that the permit would be granted eventually, regardless of the level and form of opposition. This knowledge led both sides to envision what the status quo would be like following the conclusion of the permitting process. The plant manager anticipated a newly organized community that would seek to block future efforts to modernize the facility. Residents—lacking sufficient legal and technical resources to mount independent, post-hearing resistance to the facility—understood that informal talks with facility management offered the greatest potential for meeting their interests.

The Negotiation

Prior to the negotiations, TU and local residents carried out an informal discovery process in order to focus their objectives. The information available to residents and TU was limited, however. Among other things, TU experts were unable to determine how the company could further reduce emissions at its facility, as a review of their fugitive emissions showed that state regulations were already fairly stringent.

The Manchester residents and TU and Rhone-Poulenc representatives met about five times, either at a local Catholic church or at the facility itself. The discussions were not facilitated, and no ground rules or agendas were ever developed. The company wrote the first drafts of all single-text documents produced.

Discussions focused on two kinds of proposals. The first involved arrangements whereby the facility would create, share, or help the community gather information. A second was more controversial: duties that the facility would owe the community under various circumstances.

Residents and TU were divided on one of the latter kinds of proposals, regarding how to approach resident health. Residents were strongly in favor of canvassing the neighborhood and collecting information on disease symptoms. TU was against the idea, as it didn’t want to enter into an indeterminate cycle of talks

over survey design, administration, analysis, and interpretation. Plant representatives opposed the proposal outright, believing the information would be inconclusive or simply misrepresentative of the sources of various symptoms.

After 4 or 5 negotiating sessions, the plant manager approached community leaders with an ultimatum. He said in essence: "You know, we've met with you for a while.... But some of the stuff you're asking for is so far out that we're never going to be able to agree to it. If you don't back off on all this, then we're going to drop everything and go back to the public hearing, and not only will you not get anything out of this but, based on some of your demands, which even the community looks on as ridiculous, you're going to come out the bad guy...."¹²⁴ While the effects of such statements cannot be verified, a final agreement was signed shortly before the next official hearing was to occur.

The Agreement and Its Implementation

The resulting good-neighbor agreement was hailed as a "first" in terms of real access to a chemical facility. However, it did not depart from standard practice as radically as was suggested in the media coverage. The GNA became part of the permit modification proposal, which was approved by the Texas Water Commission on December 16, 1992. The elements of the agreement and its implementation are as follows.

Accidents/Emergency Preparedness. Rhone-Poulenc agreed to make specific improvements to the local emergency notification system. As a result, the company purchased a radio station, established an alarm system that could be heard within a five-mile radius (at a cost of \$250,000), and began weekly tests of the system.¹²⁵ While the system has proven effective in encouraging residents to shelter in place during the few accidents that have occurred, the idea of a public warning system was actually being negotiated between residents and city officials of a number of nearby cities before the GNA was reached.¹²⁶ While the GNA secured a system for Manchester residents more quickly than elsewhere, it is clear that pressure for public warning systems was building throughout the region.

Citizen Audit. Rhone-Poulenc was already subject to an independent auditor's assessment under Texas law when it incorporated an independent annual environmental and safety audit program in the GNA.¹²⁷ The only difference between what was previously required and the GNA provision concerned the involvement of local residents in the process. Citizens were to physically inspect the plant, review documents, and interview plant personnel. Manchester residents selected an expert to take part in the first audit. He did so, and developed a thorough list of possible health and safety improvements, some of which Rhone-Poulenc implemented.¹²⁸ Each year, in accordance with state regulations, the plant has issued a public notice for selection of an independent auditor and held a public meeting, with little or no attendance. There has never been another independent audit of the facility.¹²⁹

Community Advisory Council (CAC). The GNA included specific instructions for the establishment of a CAC. The CAC was set up as planned; it met monthly at first and now meets quarterly. At each meeting, two reports are provided to CAC members: a report from the Environmental Manager and the state-mandated Discharge Monitoring Report. Leaders from Manchester, Smith Addition, and Harrisburg sit on the CAC and praise the company's sustained involvement in local issues and projects. For instance, Rhone-Poulenc has provided an annual \$10,000 college scholarship to a local high school student, cleaned sidewalks, paint-

130 J. Zuniga, "Chemical Plant is Neighboring," *Houston Chronicle*, 4 June 1994, p. 27A; N. Pickler, "Residents Help Build Playground at Park," *Houston Chronicle*, 29 June 1997, p. 38A; "Plant Workers Make Sidewalk Safer for Southeast Area Pupils, Parents," *Houston Chronicle*, 9 May 2001, p. 7 (This Week).

131 B. Dawson, "75 Facilities Promise to Cut Emissions under State Plan," *Houston Chronicle*, 11 December 1992, p. 36A.

132 Toxic air releases were 24,218 pounds in 1992 and 25,765 pounds in 2000. (Rhodia did not have any water, land, or underground injections of toxicants in these years). At the same time, total production-related waste fell from 14,429,232 pounds in 1992 to 9,261,910 pounds in 2000. See www.scorecard.org/env-releases/facility.tcl?tri_id=77012STFFR8615M#data_summary.

ed homes, provided a block of funds to be allocated to various groups, and improved Pizer Park, across the street from the plant.¹³⁰ Some residents have resigned from the CAC, frustrated by its focus on projects that benefit individuals or segments of the community rather than facility changes that would benefit all residents.

Truck Traffic/Railroad Tracks. As part of its implementation of the GNA, Rhone-Poulenc created a routing system to keep truck traffic away from JR Harris Elementary School and to minimize residents' exposure to the movement of hazardous materials. These positive changes were made in consultation with the CAC. While not included in the GNA, the company also appeared with residents in support of a grade separation and an overpass across the railroad tracks.

Information. Much of the GNA involved the one-time or monthly provision of information already mandated by state law, such as hazard assessments, dispersion modeling, and a consequence analysis. The exception, an agreement to "review the feasibility of a citizens' health survey," has never been attempted. Facility management admits that the sum promised in the GNA, \$4,000, was a fraction of what would be needed for a cross-sectional epidemiological study of Manchester and a carefully selected control community. Residents continue to express their concerns regarding the prevalence of cancer in the area. To date, the CAC has been unable to mobilize sufficient support to initiate serious talks with the company about such a study.

Lessons Learned

Within a negotiation space that was narrowly construed by time constraints, limited expertise regarding facility operations, limits to pollution reduction in areas such as fugitive emissions, and clear resistance by the facility to anything other than information sharing, an advisory committee, and early-warning capabilities, residents had little opportunity to explore their full range of concerns. It is also fair to say that many of these concerns extended beyond the scope of Rhone-Poulenc's operations, and would have necessitated the involvement of other parties to ensure their adequate consideration.

It is clear that the GNA process was unsuccessful in negotiating emission and waste reductions. Soon after the GNA was signed, Rhone-Poulenc and other industries announced that they would take part in the TWC's Clean Industries 2000 program.¹³¹ As a result, Rhodia's toxic emissions have not been significantly reduced, but its total production-related waste has fallen dramatically.¹³² This fact, along with current projects at the facility such as "layers of protection analysis" and mechanical integrity programs, suggest some potentially missed opportunities in the GNA discussions in terms of

CASE 4: RHONE-POULENC COMMUNITY AUDIT NEGOTIATION (MANCHESTER, TX)

how the facility produced and handled its waste streams.¹³³

After the GNA was signed, some residents, particularly senior citizens, felt as though an opportunity had been squandered. Carol Alvarado, sensing this undercurrent of disappointment, announced in 1997 that she wanted to engage nearby industries in talks about ways to reduce routine emissions, through a focus on production, technology, purchasing, and updating equipment.¹³⁴ Now the community, without Alvarado and other seasoned leaders, has had to press for improvements at Rhodia with a more transient, preoccupied, and in some respects assured population than what had endured high-profile accidents in the past. The new civic club leader, who is employed by Rhodia to help maintain Pizer Park, believes that the plant and other area facilities are responsive to the community's requests. In 2000, Rhodia successfully renewed its RCRA Permit. CAC approval was used in part to request an exemption from the required installation of a hydrocarbon and opacity monitor.¹³⁵

Residents negotiating future GNAs must ask themselves: Were the conditions of Manchester, Smith Addition, and Harrisburg improved because of the GNA? In developing the agreement with Manchester residents, facility management was able to anticipate regulatory changes and respond to regional trends in a manner that appeared groundbreaking. Indeed, from the standpoint of community-corporate relations at the time, it was. Still, these relations were created at little or no cost to the company over the years when compared with what could have been expected of the facility. In an unstructured, unassisted negotiation setting, Rhone-Poulenc was able to take bits and pieces of resident concerns and create an acceptable proposal given anticipated constraints. Future community-corporate negotiations will be judged by the extent to which they can secure and perpetuate resident involvement in real facility change that goes above and beyond the projected status quo.

133 Layers of protection analysis is a systems design approach to isolating opportunities for releases, understanding how protective devices or materials can fail, and ensuring that backups and secondary forms of containment are in place. A related initiative, mechanical integrity, is a records maintenance and analysis approach whereby equipment standards for things that can degrade or be corroded over time (pumps, gaskets, valves, pipelines) are researched. Equipment that is determined to be high-risk or found to be no longer maintained at an appropriate frequency is then addressed. These programs were not in existence when negotiations began.

134 B. Dawson, "Living with Pollution Part I: Communities in Industrial Sections of Houston Grapple with Pollution with Varying Success," *Houston Chronicle*, 3 August 1997, p. 1A.

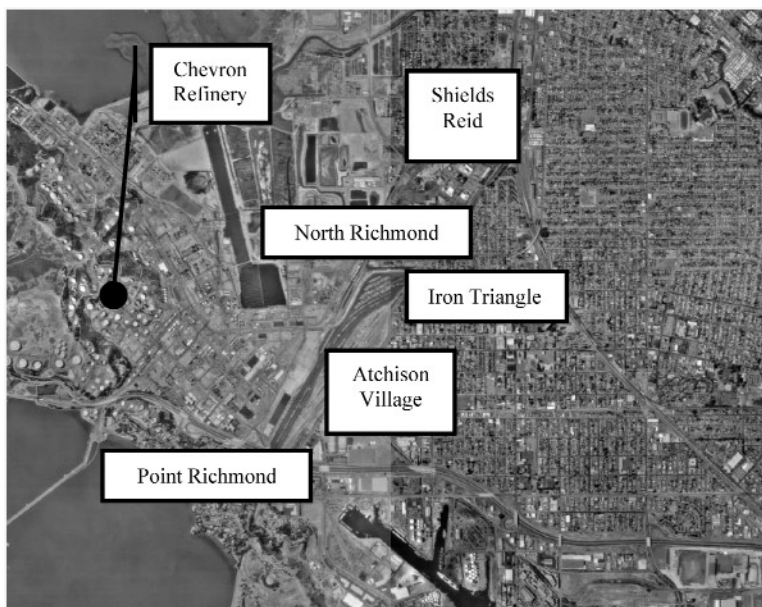
135 Interview with Rhodia environmental professionals, 23 April 2002, at Rhodia in Manchester; Order, Application of Rhodia Inc. for a Regulatory Flexibility Order Exempting Rhodia from the Requirements of 30 Tex. Admin. Code Sec. 111.127, 7 July 2000.

CASE 5: CHEVRON MEMORANDUM OF UNDERSTANDING (RICHMOND, CA)

Case 5: Chevron Memorandum of Understanding (Richmond, CA)

The city of Richmond, California, is situated on the east side of the San Francisco Bay, about 12 miles north of Oakland. It is home to roughly 350 petrochemical facilities, including a sprawling, 2,900-acre refinery owned by Chevron. (See Figure 10.) The Chevron refinery is the largest polluter of the San Francisco Bay and an emitter of more than 300,000 pounds of toxic waste per year. From 1992-1994, the facility averaged 45 accidental releases and spills annually.¹³⁶ The refinery does provide the town with significant economic benefits; 20% of Richmond's general fund revenues and 44% of the jobs were made possible, directly or indirectly, through the operation of the refinery.¹³⁷

Figure 10: Select Richmond Communities and the Chevron Refinery



Richmond's residents are primarily poor or middle-class. About 50% are African-American, 15% are Latino, and 8% are Asian-American.¹³⁸ Individuals in Richmond and the surrounding county have one of the nation's highest mortality rates for various forms of cancer.¹³⁹ The coincidence of industry and minority residential neighborhoods caused an environmental organization in 1989 to draft one of the first empirical studies of environmental inequity, entitled *Richmond at Risk*.¹⁴⁰

In 1993, Chevron proposed to upgrade its refinery to comply with new gasoline requirements called for in the regulations of the federal Clean Air Act (CAA). The regulations, along with the California Air Resources Board's Phase 2 reformulated gasoline rules,

¹³⁶ Personal communication, Bay Area Air Quality Management District, 20 July 2001.

¹³⁷ M.D. Hannan, General Manager, Chevron U.S.A. Products Company, Richmond Refinery to City of Richmond Festival by the Bay, 13 January 1994.

¹³⁸ Bureau of the Census (1990). Census data for zip code 94801.

¹³⁹ F. Austin, V. Nelson, B. Swain, L. Johnson, S. Lum, and P. Flessel, *Epidemiological Study of the Incidence of Cancer as Related to Industrial Emissions in Contra Costa County, California. United States Environmental Protection Agency Project Summary*, EPA-600/S1-84-008 (Cincinnati: Center for Environmental Research, July 1984).

¹⁴⁰ Citizens for a Better Environment, *Richmond at Risk: Community Demographics and Toxic Hazards from Industrial Polluters* (Oakland, CA: Citizens for a Better Environment, 1989).

141 R.C. Scherr, G.A. Smalley, and M.E. Norman, "Clean Air Amendments Put Big Burden on Refinery Planners," *Oil and Gas Journal* 89, no. 23 (1989): 35-38; G.R. Hadder, "Future Refining Impacts of the Clean Air Act Amendments," *Energy* 17, no. 9 (1992): 857-868.

142 Environmental Science Associates, *Chevron Reformulated Gasoline and FCC Plant Upgrade Project, Draft Environmental Impact Report, Prepared for the City of Richmond* (San Francisco: Environmental Science Associates, August 1993).

143 B. Kisiulik, "Toxic Cloud Looks Like a Rainmaker," *The Recorder*, 28 July 1993, p. 1.

144 R. Rosen, "Toxic Racism: Disaster in the Works: The Fight Moves from Saving Wilderness to Saving Low-Income, Minority Communities," *Los Angeles Times*, 5 September 1993, p. M5; E. Hallissy, "New Study Details Injuries from Spill: Richmond Residents Suffered Stress, Physical Ailments," *San Francisco Chronicle*, 4 December 1993, p. A21.

145 J. Pelline, "Chevron's Richmond Plan May Hurt PG&E," *San Francisco Chronicle*, 5 October 1989, p. B1.

146 P. Lee, "Pumping Life into Chevron," *Los Angeles Times*, 4 December 1989, p. D1.

Figure 11: General Chemical Facility Co-located on Chevron Richmond Refinery Property



required changes in the composition of motor fuels, which in turn forced modifications to the petroleum refineries that produced those fuels.¹⁴¹ Chevron said that the upgrades would generate 3,500 construction jobs and increase property tax contributions by \$18 million. As the permit approval process moved from the city Planning Commission to the City Council to the Air Quality Management District (AQMD), three environmental organizations (together dubbed the Mitigation Task Force), sought to initiate a dialogue with the applicant.

The Problem

The Mitigation Task Force and Richmond citizens had several experiences negotiating "good-neighbor agreements" with area industrial plants. Chevron offered the next proving ground for this model of citizen-driven environmental regulation. On August 11, 1993, a Draft Environmental Impact Report (DEIR) was distributed for public review.¹⁴² The document, prepared by Environmental Science Associates for the City of Richmond, outlined the scope of the proposed "Chevron Reformulated Gasoline and FCC Plant Upgrade Project." The project was announced just two weeks after a major accident occurred at a General Chemical facility co-located on the Chevron site; a safety valve on a railroad car ruptured, sending a cloud of sulfuric acid over parts of Richmond and 13 other communities.¹⁴³ (See Figure 11.) The plume extended 15 miles, sending more than 24,000 people to hospitals and clinics and resulting in lingering health effects.¹⁴⁴

CASE 5: CHEVRON MEMORANDUM OF UNDERSTANDING (RICHMOND, CA)

Because of the recent spill, Chevron's record, and a growing confidence among environmental groups that had worked closely with several of the company's competitors, Chevron's project attracted particularly acute opposition. The environmental groups were most concerned about the project's scope. It clearly encompassed more than a response to new state and federal clean fuels regulations. Chevron had been discussing plans for a major plant modernization program as early as 1989,¹⁴⁵ and this project, slated to cost more than \$1 billion, was vaunted as an effort to improve efficiency, cut costs, and widen profit margins while making a more environmentally friendly gasoline.¹⁴⁶ The use of reformulated gasoline *would* decrease emissions of carbon monoxide, hydrocarbons, nitrogen oxide, and sulfur oxide within the county;¹⁴⁷ however, these decreases would be offset by an increase in refinery emissions caused by the proposed upgrades to the refinery.

A broad cross-section of local government agencies, Richmond residents, local businesses, and area and regional environmental organizations provided written comments on the DEIR and gave oral testimony at a hearing in September 1993.¹⁴⁸ Only two public agencies raised concerns regarding the project's potential to increase emissions. By contrast, neighborhood councils and regional environmental groups broadened the scope of environmental impacts that they considered important and inadequately addressed. Some, for instance, described the project's disproportionate impacts on a "sacrificial pocket" of residents near the site.¹⁴⁹ The inadequacy of public services was also mentioned as a priority by the commenting organizations. A number of individuals represented organizations with an interest in the jobs promised by the project.

Systematic opposition to the refinery's proposal was mobilized by the Mitigation Task Force, a coalition of the West County Toxics Coalition (WCTC), People Do!, and Citizens for a Better Environment (CBE). The WCTC is an environmental justice organization established in 1980 over concerns stemming from the Chevron refinery and other industrial land uses.¹⁵⁰ People Do! is composed of residents of Point Richmond, a white, middle-class neighborhood that constitutes one of the four communities closest to the Chevron refinery. And the CBE is a nonprofit environmental group composed of organizers, scientists, and attorneys.

The three groups offered extensive commentary on the DEIR and developed (along with other neighborhood groups) a "community/environment improvement package" (Proposal 1). This package of proposed mitigations was used to frame discussions with Chevron in the fall of 1993, which quickly fell apart, and it was then presented to Richmond's Environmental Assessment Panel in

¹⁴⁷ *Supra* note 142, p. I.16.

¹⁴⁸ Environmental Science Associates, *Chevron Reformulated Gasoline and FCC Plant Upgrade Project, Volume I: Comments and Responses, Prepared for the City of Richmond* (San Francisco: Environmental Science Associates, November 1993).

¹⁴⁹ S. Eeles to Jim Farah, Director, Planning Department, City of Richmond, Re: Comments – Chevron Reformulated Gasoline and FCC Plant Upgrade Project, 27 September 1993.

¹⁵⁰ Interview with Member, West County Toxics Coalition, 5 June 2002, in Richmond.

¹⁵¹ West County Toxics Coalition, Citizens for a Better Environment, and People Do!, *Media Release: Richmond Neighborhood Coordinating Council Unanimously Endorses Grassroots Effort to Clean-up Chevron Fuels Project (Proposal 1)* (Richmond: Citizens for a Better Environment, 7 December 1993); Citizens for a Better Environment, *Additional Conditions of Approval, Final Draft (Proposal 2)*, (Richmond: Citizens for a Better Environment, 15 December 1993).

153 Richmond Planning Department, *Staff Report to Richmond Planning Commission regarding Conditional Use Permit Application CU 93-40* (Richmond: Richmond Planning Department, 16 December 1993).

154 N. Kaufman to Mayor Corbin and Members of the City Council, Re: Conditional Use Permit for the Chevron Refinery Reformulated Gasoline and FCC Plant Upgrade Project, 23 December 1993.

155 City of Richmond, Minutes to Richmond City Council meeting, 24 January 1994.

156 City of Richmond, CU 93-40 Conditions of Approval Per City Council Decision of 24 January 1994.

152 Among the items included in Proposal 1 but omitted from Proposal 2 were a long-term health assessment of fenceline communities; the installation of sirens to notify residents of accidents; public education on disaster notification; and the elimination of the 150-ton per-year increase in VOCs by using bellows valves, hermetically sealed control valves, and other means.

December 1993. The package was then rewritten, and the revised version (Proposal 2) was submitted to the Planning Commission.¹⁵¹ Proposal 2 called for Chevron to lead a clean-up program for open space, the shoreline, and roadways surrounding the refinery; provide funds for a community foundation to fund public safety, education, health, and economic programs; take accident prevention measures; achieve no net increase in emissions; eliminate routine flaring; and install a fenceline remote-sensing monitor, among other provisions.¹⁵²

Permit Approval

A flurry of activity preceded the Richmond Planning Commission's hearing on December 16, 1993. The Mitigation Task Force submitted Proposal 2 to the Commission. And Chevron responded to Proposal 1, which had been presented at the Environmental Assessment Panel. In doing so, Chevron made numerous concessions (or reaffirmations of steps already underway) before the hearing. At the same time, the Planning Commission's staff issued a report to the Commission proposing wide-ranging mitigation measures. Taken collectively, Chevron's concessions and the planning staff's report were responsive to a number of the demands made by citizens and organizations throughout the EIR process. Examples include landscaping the tank farm area and Castro Street, improvements to Point San Pablo, contributions to the city's Urban Forest Management Program, experimentation with fenceline monitoring, job creation, the installation of a community alert system, use of best available control technology (BACT), traffic reductions, minimized exhaust emissions, and the reduction of hydrocarbon emissions through a variety of measures.¹⁵³

Still, the planning staff rejected important elements of the Mitigation Task Force's demands, on the basis of the need for a "nexus" between conditions of approval and the project's impacts. The city argued that it was not allowed to impose conditions that would shift public benefits to those who could only "speculatively" benefit from them. Thus, conditions such as the community development fund were not included in the planning staff's report to the Commission.

At the Planning Commission hearing on December 16, 1993, a motion was made several minutes after public testimony ended. It called for approval of the staff report along with additional conditions, which constituted all of the Task Force's demands in Proposal 2 with the exception of site relocation of a telecommunications facility from Nicholl Knob. A provision relating to job training was added. While some of the commissioners believed that the community development fund and the proposed study of clean alternative energy sources also failed the nexus test, the motion passed by a vote of 6-3.¹⁵⁴

The refinery appealed the Commission's decision to the City Council. Even before the City Council held a hearing on the case, Chevron proposed additional mitigation measures, such as contributing \$2 million toward a community health center, establishing a mentoring program, and more. Ultimately, the City Council voted on January 24, 1994 to overturn the Planning Commission's decision, by a vote of 8-0 with one abstention.¹⁵⁵ The Council then approved the planning staff's initial recommendations as well as Chevron's mitigation plan.¹⁵⁶ Chevron's new construction permit was thus approved.

The Dispute Resolution Process

Interestingly, the Mitigation Task Force claimed victory immediately following the Council's decision, citing similarities between some of their demands and elements of the Chevron proposal. In addition, one of the environmental lawyers involved devised the idea of appealing the Air Quality Management District's approval of an air permit for the project, arguing that the permit did not require the best available control technology. It was clear to members of the Task Force that the AQMD favored granting the permit, although a scheduling conference suggested that the appeals process could take 5-6 months. Such a process would leave Chevron scrambling to have its reformulated fuels available by state- and federally imposed deadlines. Members of the Task Force worked together to develop a clear understanding of their most pressing concerns, including open space and landscaping, social services, fence-line monitoring, low-emission valves, and emissions reductions. They further knew that the hearing process alone would not allow for a discussion of most of these issues. These factors led the Task Force members and Chevron to propose entering negotiations over the project before the hearing process began.

The negotiating group included representatives of the three environmental organizations in the Mitigation Task Force, Chevron's general manager, and several other representatives of the refinery. Attorneys, while absent from the initial discussions, provided assistance in drafting language and attended subsequent meetings. The exact substance of the discussions remains unclear, as attorneys considered the discussions privileged and community members did not recall the specific order of proposals made and rejected.

The technical knowledge and sophistication of the Task Force leaders made it possible to exclude the attorneys from certain conversations, giving Chevron the opportunity to present numerous ideas in addition to the mitigation measures developed by the Task Force. The conversations also benefited from a lack of intrusion by either the AQMD or outside officials. The AQMD's attorneys made it clear that they supported the talks and any mutually accepted outcome that did not contradict the District's regulations.

The Agreement and Its Implementation

The negotiating group ultimately developed a Memorandum of Understanding (MOU) that included five sections. Section 1 dealt with environmental quality, open space, and visual quality, including provisions for a bike trail and \$100,000 to remove non-native vegetation in a key area. Section 2 concerned job training, a health clinic, and other social services, including an "expected total" of \$5 million over five years for nonprofit agencies providing social services. Section 3 concerned a fence-line monitoring pilot system. Section 4 dealt with low-emission valves; Chevron agreed to evaluate the success of current valves in

157 Memorandum of Understanding Between The Community Groups, West County Toxics Coalition, People Do!, and Citizens for a Better Environment, and Chevron Richmond Refinery, 31 May 1994.

158 See A. Standen, "Chevron's Spheres of Influence: Activists Accuse Richmond Oil Refinery of Illegally Thwarting Environmental Reviews, and a Beholden City of Passing the Buck," *East Bay Express*, 25 September 2002; J. Kay, "Refineries Top Polluters on EPA List in Bay Area: Discharges Taint Air, Water, and Land," *San Francisco Chronicle*, 24 May 2002, p. A11; "Lawsuit Says Chevron Permit Violates Law," *San Francisco Chronicle*, 20 August 2002, p. A19; "Chemical Leak Forces Local Residents Indoors for Several Hours," *Associated Press State and Local Wire*, 1 February 2002.

159 Residents concerned with the health of those who relied on the Richmond Marina (a Superfund site) for food and other constituencies received little attention during negotiations with Chevron, which was responsible for 99% of the toxic water emissions in the area at the time. The permitting processes in question led to proposals for low-emission valves and fence-line monitoring, with less consideration of criteria air pollutants and particulate matter releases that were more reasonably associated with high asthma rates (up to 90%) and absenteeism in nearby schools.

reducing fugitive emissions and to install at least an additional 350 bellows valves. Section 5 reiterates Chevron's commitment to the Environmental Protection Agency's (EPA) 33/50 program, for which the company had agreed to reduce company-wide emissions of 17 designated toxic chemicals by 33% by the end of 1992 and 50% by the end of 1995 (compared with 1988 emissions). Chevron agreed to make information about the program available to the environmental groups, including future refinery reports of 33/50 chemical emissions.¹⁵⁷ In return for these concessions, the Mitigation Task Force agreed to withdraw its appeal before the AQMD and to release all rights to challenge the permit.

The final MOU was composed of many of the concessions Chevron had already made during the Planning Commission and City Council phases of the permitting process. The employment offerings, which amounted to only a guarantee of 100 jobs over two years, paled in comparison to the Task Force's initial demands. The health center and other concessions were already offered, in large part, by the company prior to the City Council's decision. Community right-to-inspect, technical assistance, reduced flaring, and other demands were not met.

Reviews of the permit were carried out annually (1995 and 1996) and then once every five years (starting in 2001). The Planning Commission found the refinery in compliance with its permit conditions on all three occasions. By contrast, members of the Mitigation Task Force and the broader community found Chevron's commitment to North Richmond's environmental quality lacking. Residents continue to raise concerns about linkages between refinery operations and health, education, and quality of life. The focus on high-tech experiments and visual and open space improvements did very little to stem the tide of refinery emissions or to improve the emergency response capabilities of local residents beyond what the company had already committed to. High-profile accidents continue to occur at the Chevron refinery, and public distrust of the facility remains intact.¹⁵⁸

Lessons Learned

The focus of the Task Force's permit appeal on BACT issues at the refinery encouraged a level of discussion that was amenable to the sharing of information and technical problem solving. The utility of various low-emission valves and remote-sensing technologies was the focus of much of the conversation, and indeed these items were quickly included in draft versions of the MOU. When problem solving did not focus on technical matters, it assumed a division of labor according to the specific interests of Task Force members: People Do! worked on open space and visual quality, the WCTC worked on job training and social services in North

CASE 5: CHEVRON MEMORANDUM OF UNDERSTANDING (RICHMOND, CA)

Richmond, and the CBE focused on BACT issues and emissions reductions. Fortunately, some interests of the broader community had already been incorporated into Proposals 1 and 2, from which some of the provisions in the MOU were derived. At the same time, portions of these proposals, such as commitments to no net increases in waterborne emissions and a number of emergency preparedness and response measures, were not included in the final MOU. Those constituents with the most to lose from their exclusion, including the parents of elementary school children and subsistence fishers, were not able to influence or may even have been unaware of the negotiations surrounding to the AQMD appeals process.¹⁵⁹

It would be inaccurate to consider the outcome of this negotiation a “good-neighbor agreement.” In fact, the context of the negotiations constricted consideration of the broader terms of the facility’s continued existence in its given locale, which is the cornerstone of a community-corporate compact. By the time the MOU was signed, commitments were linked to *existing* institutions and modes of communication. Still, the coalition should be commended for its dedication of thousands of hours to the permitting process, and for securing needed resources for the community. Each stage of the permitting process illustrated how community representatives can effectively bargain with corporate entities. But by doing so, they have given us a window into the limits of the permitting process, even when the monetary scope of a project lies in the hundreds of millions, to include broader interests and invent means of addressing them. And the implementation phase suggests that even the results of incremental bargaining can be difficult to enforce, if the mechanisms for improved monitoring, verification, communication, enforcement, and broader relationships are not adequately addressed.

CASE 6: UNOCAL GOOD-NEIGHBOR AGREEMENT (CROCKETT & RODEO, CA)

Case 6: Unocal Good-Neighbor Agreement (Crockett & Rodeo, CA)

Residents of Crockett and Rodeo, California, awoke one morning during Labor Day weekend in 1994 to a strange sight. Homes, cars, yards—everything was covered in “brown, goopy spots,” which it would later be discovered had rained down on the communities for 16 straight days from the neighboring Unocal refinery.¹⁶⁰ The substance, known as Catacarb, was used to strip sulfur from refined gasoline in the refinery’s uncracker unit.¹⁶¹ Known to cause health problems, its release from a 140-foot processing tower was nevertheless sanctioned by refinery management. As a result, Crockett and Rodeo residents (including those in Bayo Vista, a public housing authority bordering the refinery) suffered from short-term and long-term gastrointestinal problems, skin reactions, eye dysfunction, nerve damage, memory loss, numbness, post-traumatic stress, and chronic fatigue.¹⁶²

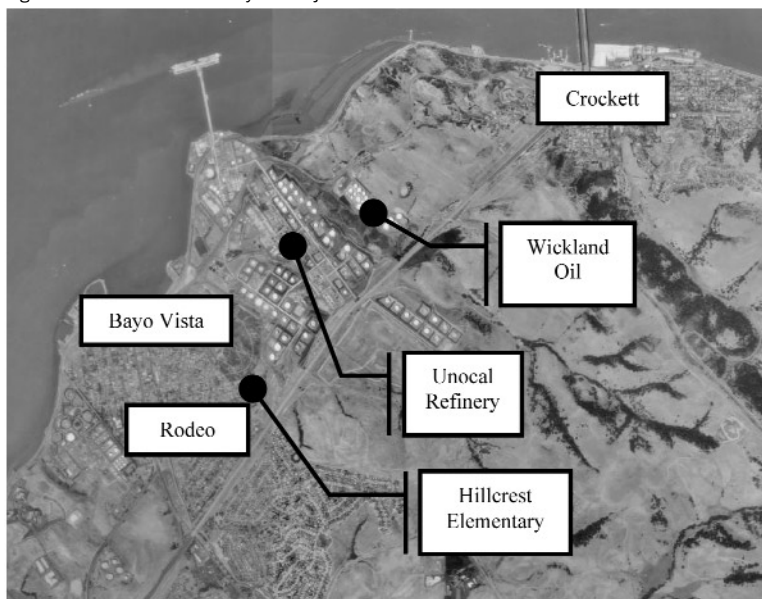
¹⁶⁰ T. Woody, “Sixteen Long Days of Delay and Indifference,” *The Recorder*, 4 October 1995, p. 17.

¹⁶¹ Director of Enforcement, Bay Area Air Quality Management District to Air Pollution Control Officer, Re: Unocal refinery 8/22/94-9/6/94 Catacarb Release, 23 September 1994.

¹⁶² These ailments were mentioned in interviews with residents of Crockett, Rodeo, Tormey, and Bayo Vista. See also K. Hunt, “Hundreds Suffer after Toxic Gas Leak,” *San Francisco Examiner*, 18 December 1994, p. C-7.

¹⁶³ T.D. Beamish, *Silent Spill: The Organization of an Industrial Crisis* (Cambridge, MA: MIT Press, 2002).

Figure 12: The Unocal Refinery and Adjacent Communities



It was not Unocal’s first high-profile spill. The company is perhaps most noted for allowing its operations in Central California, near San Luis Obispo, to contaminate the Guadalupe Dunes with approximately 20 million gallons of petroleum thinner over a period of 38 years. This “accident” remains the largest petroleum spill in U.S. history, and is expected to take 20 years to clean up.¹⁶³

164 Contra Costa County Planning Commission, Agenda, Tuesday, 4 October 1994 – 7:30 p.m.

165 Contra Costa County Community Development Department, Notice of Preparation: Notice of Scoping Session, Environmental Impact Report for the Proposed Unocal Reformulated Gasoline Project, 9 December 1993.

166 Contra Costa County, Response to Comments Document for the Unocal Corporation Reformulated Gasoline Project, Land Use Permit 2038-93, September 1994.

167 Interview with CAP facilitator, 29 August 2002, via telephone.

168 Crockett-Rodeo Coalition, Activities Since the Catacarb Release on September 6, 1994 (Crockett and Rodeo, CA: Crockett-Rodeo Coalition, 13 November 1994).

169 Contra Costa County Planning Commission (1994). Agenda Item #7, Tuesday, 18 October 1994, Unocal Corporation (Applicant and Owner).

170 Contra Costa County Planning Commission (1994). Agenda Item #6, Tuesday, 15 November 1994, Unocal Corporation (Applicant and Owner).

171 J. Collins and D. Lewis, *Hydrogen Sulfide: Evaluation of Current California Air Quality Standards with Respect to Protection of Children*, Prepared for California Air Resources Board, 1 September 2000.

172 R. Burnson, "Residents Sue Unocal for \$1 Billion over Leaks," *Contra Costa Times*, 23 September 1994, p. 1.

173 E. Hallissy, "Unocal Will Settle Suits for \$80 Million," *San Francisco Chronicle*, 15 April 1997, p. A-1.

174 "Off the Ticker," *San Francisco Examiner*, 19 November 1996, p. C-1.

The Catacarb incident in Crockett and Rodeo, which are located 23 miles north of Oakland (see Figure 12), came when Unocal was in the midst of seeking the county Planning Commission's approval for a land use permit. The company needed the permit in order to upgrade its facilities to process reformulated gasoline, much like Chevron in the Richmond case. Not surprisingly, the Catacarb incident strongly increased residents' interest in the permit application, and ultimately resulted in a negotiation between citizens and Unocal. This case shows how a relatively large group of residents took control over the negotiations and were able to negotiate a wide-ranging, multi-million-dollar agreement in less than three months. It also reveals how the implementation of an agreement can be as important, and as problematic, as its negotiation.

Pre-Negotiation

Prior to the Catacarb incident, only a handful of area residents had expressed concern over Unocal's permit application for its reformulated gas project. The company was proposing to construct two new refinery components (a hydrogen plant and a steam boiler plant) and modify three existing processing units. In addition, the project included the construction of up to 10 new storage tanks, an increase in shipping (to transport reformulated gasoline components between San Francisco and Los Angeles), and additional pipelines and drain systems.¹⁶⁴

A draft Environmental Impact Report (EIR) had been prepared in June 1994.¹⁶⁵ Following a 45-day review and public comment period that was extended to July 25, 1994, a final EIR was prepared to respond to environmental issues raised by a few agencies and residents.¹⁶⁶ The final EIR was prepared by September 1994, but does not reflect concerns raised by the Catacarb incident.

After the accident, however, several community meetings were held that galvanized citizens' interest in opposing the permit application. The first such meeting was held September 13, 1994, just three weeks before a scheduled Planning Commission hearing at which the Zoning Administrator would ask the county to certify the final EIR and approve Unocal's land use permit. The community meetings gave Unocal and local regulatory agencies a chance to explain the conditions leading to the Catacarb release. Their answers to dozens of questions, however, were perceived by residents as evasive and contradictory.

This further encouraged the towns to mobilize support for opposition to the permit and for "good-neighbor" negotiations. As in Richmond, negotiations were promoted by the nonprofit group Citizens for a Better Environment (CBE). These early meetings

also shifted the response of certain county governing bodies from ambivalence or denial to strong support for residents' concerns.¹⁶⁷

As a result, the county's Board of Supervisors on September 20 authorized the creation of a Citizens' Advisory Panel (CAP) to serve as a refinery oversight committee,¹⁶⁸ and the Planning Commission delayed action on the reformulated gas project.¹⁶⁹ But perhaps most important, the Planning Commission requested that Unocal and community representatives work toward a settlement and deemed that "good faith negotiations toward a 'good-neighbor agreement' (GNA), as determined by the Zoning Administrator, shall be a condition of approval of the land use permit."¹⁷⁰

Thus, Unocal had no choice but to negotiate with residents. Interviewees mentioned five other points of leverage that fueled the subsequent community-corporate negotiations. First, Unocal replaced some of its refinery management, including the General Manager. Residents were able to discuss the Catacarb incident more readily with the new employees, who were not complicit in the 16-day release. Second, a 90-minute release of hydrogen sulfide near the Hillcrest Elementary School on September 15 shifted even more of the community's focus toward the school's proximity to the refinery's storage tanks.¹⁷¹ A growing tide of litigation, though unrelated to the demands of residents negotiating directly with Unocal, crested on September 23 with the announcement of a \$1 billion toxic tort claim involving more than 1,000 claimants.¹⁷² While settlement of the case for \$80 million with what would become 6,000 plaintiffs did not occur until April 1997, the company was encouraged to limit liability by working directly with a comparably small number of residents through direct negotiation.¹⁷³ Unocal also felt it was cost-effective to make long-range commitments in a GNA; the company had decided to sell its downstream operations, so the GNA commitments could be transferred to the new owner along with general liability.¹⁷⁴ Finally, Unocal's relatively late start in pursuing permits for its reformulated fuels project meant that it could not afford the kinds of delays that protracted litigation or administrative processes would require.

The Negotiation

Between mid-September and December 1994, a group of several dozen residents met with representatives of the refinery in 14 formal negotiation sessions, as well as numerous informal gatherings and conference calls. The refinery representatives included the acting General Manager, legal counsel, a public relations specialist, and environmental professionals. The residents' negotiating team included individuals from several area neighborhoods, the CBE, and the local Shoreline Environmental Alliance.

At the outset, community members presented Unocal with a list of their wants and needs. These included fence-line monitoring, a community warning system, a health risk assessment, funding for health services and medical needs, emissions reductions, long-term financial contributions to the towns, vocational training for students at a local school, and the relocation of the Hillcrest Elementary School, among others. Unocal agreed to discuss most of these issues, but let it be known that several were "non-starters," including school relocation.

To organize the discussions, the residents split the issues into 10 committees, on such topics as health risk and medical monitoring, emergency response and community warn-

175 Reports from Committees in Crockett-Rodeo Coalition Negotiation Packet, 13 November 1994.

176 Good-Neighbor Agreement, Agreement in Principle between Crockett-Rodeo Coalition, Shoreline Environmental Alliance, Citizens for a Better Environment, and the Unocal Corporation, 20 December 1994.

177 J. Wilkes, General Manager, Unocal San Francisco Refinery to Community Advisory Panel Members, 1 November 1995.

178 R. Bowler, *Health Study of a Community Exposed to a Chemical Spill* (San Francisco: San Francisco State University, 29 March 1996).

179 Health Committee to the Steering Committee, Re: the Shoreline Environmental Alliance, 20 February 1996.

180 Interview with Crockett resident, 11 November 2002, via telephone.

181 A. Greenberg, Community Technical Representative to the Work Group regarding Unocal Catacarb release, to Dr. Susan Mearns, Montgomery Watson, Re: Final health risk assessment, 15 December 1995.

182 Interview with Crockett resident, 7 June 2002, in Crockett.

183 Citizens for a Better Environment, *Refinery Fenceline Monitoring Using Light Beams to Detect Chemicals at the Fenceline of the Tosco, Rodeo Refinery* (Richmond: Citizens for a Better Environment, no date).

184 Petris Technology, *Saf-T-Net Innovative Data Access and Management* (Houston: Petris Technology, 31 January 1998).

185 Fenceline Monitoring Committee to Debbie Sanderson, Contra Costa County Community Development Department, 12 April 1999.

186 Contra Costa County, Community Development Department Approved Permit, Conditions of Approval for Land Use Permit #2038-93 (Unocal Corporation Reformulated Gasoline Project), 20 December 1994.

ing, and school safety. Between 2 and 10 residents participated on each committee.¹⁷⁵ By allowing small groups of highly dedicated and qualified people (for instance, the health committee included a chemistry Ph.D.; the vegetation and parks committee included an arborist) to further explore these issues, the committee structure made it more difficult for Unocal to ignore or postpone certain proposals. Interviewees credit the committees for ensuring that most of their initial demands were accounted for in the final agreement, even though residents, who in some cases had just completed 10 years' of negotiations with other companies, gradually dropped out of the process.

The GNA that was reached "in principle" on December 20, 1994, and finalized the following April was astounding in its scope and size. All told, Unocal made \$15 million in financial commitments. This included \$4.5 million in transportation improvements, \$3 million in direct monetary contributions to the communities, \$2.5 million for fenceline monitoring, \$1.5 million for vocational training, \$600,000 for improvements to (though not the relocation of) Hillcrest School, \$488,000 for a health risk/epidemiological study, \$120,000 for a medical clinic, and \$90,000 for emergency preparedness and community warning, among other provisions.¹⁷⁶

The large amount of money involved, however, masks somewhat what the residents had to give up. Interviewees agree that there was often pressure to "take some of the environmental and safety improvements away" in exchange for more money. Thus, for example, the CBE's demand for involvement in Unocal's annual audits was traded for an increase in funding to the communities. Also, Unocal displayed a propensity to replace *proposals* that directly addressed problems that had been identified with *processes* for considering residents' concerns. Thus the GNA includes outlines for studies of health risk, an assessment of school risk attributability, reports on the viability of fenceline monitoring, and reports on emergency response audits. Most disappointing to several representatives was the lack of commitment to "preventing future Catacarbs." Less than one percent of the GNA's financial allotment was dedicated to such efforts.

Implementation

Implementation of the GNA yielded several positive outcomes. For example, Unocal funded an extension of the Cummings Skyway, to alleviate truck traffic through Rodeo (particularly for the transportation of coke) and to provide an efficient means of entering and exiting Crockett. Also, the refinery consolidated its deliveries of anhydrous ammonia and scheduled them to avoid peak traffic periods.¹⁷⁷ By all accounts, these projects have been completed successfully.

CASE 6: UNOCAL GOOD-NEIGHBOR AGREEMENT (CROCKETT & RODEO, CA)

Another positive outcome was the confirmation of certain health effects from Catacarb. Principle investigator Rosemarie Bowler conducted a study that found (after controlling for household cluster effects, gender, education, and race) an increased reporting of symptoms among those exposed to Catacarb, including headaches and respiratory, visual, gastrointestinal, and dermatologic problems.¹⁷⁸ Bowler's study would later be characterized by residents as "the only study that reflects injury to the community."¹⁷⁹

Many other elements of the implementation were much more problematic, however. The difficulties often related to a lack of clarity or definitions in the original agreement, or questions about how to enforce the agreement. One resident describes an issue with a school safety assessment as an example:

We had something in the GNA about analyzing the grammar school building for its safety of the students—the defects in the building, windows, or whatever. Something about...a risk analysis. We did not define this.... And they were able to [do] an offsite consequence analysis and bring something forward from some consultant and then to have Unocal say, "Well, but we don't agree, we don't accept this, we're going to have another one done," and string it out. And in the end it went nowhere.¹⁸⁰

Another case involved a human health risk assessment carried out by Montgomery Watson. Community representatives spent countless hours commenting on and offering corrections to various versions of the risk assessment, which they found confusing and felt used faulty modeling techniques, statistical methodologies, and assumptions. In the end, the study failed to emerge from joint community-corporate investigation. This was the only study that could have provided the chemical analysis needed for proper symptom treatment guidance, but it had to be disavowed by community members.¹⁸¹

Fenceline monitoring proved to be particularly troublesome to implement. The idea was to keep track of toxic air pollutants as they crossed refinery property, but there was much debate over how to accomplish this. Ultimately, it was determined that a single resident of Crockett would receive software so that continuously updated levels of various chemicals could stream across his or her computer screen in real time. But even as of June 2002, the person who receives the data stream has no means of recording it.¹⁸² Thus, he can only check the computer screen, showing concentrations of 36 chemicals as they cross beams of light on the refinery's property lines.¹⁸³ Raw spectral data, received monthly by another resident, are converted by a company in Houston, Texas, into a visible picture of plumes and estimated concentrations downwind.¹⁸⁴ Unfortunately, it is difficult to compare concentrations on the screen to regulatory standards. It has also proven a challenge to link the system to emergency response networks. In April 1999, members of the fenceline committee entered their grievances with the monitoring system into the public record through the Community Development Department, arguing that the data were unreliable and prone to false negatives, false positives, and poor detection limits.¹⁸⁵ In response, a new committee was formed to further evaluate the system.

Improvements have been made in reducing emissions from the refinery. Unocal's land use permit stipulated that it must reduce fugitive emissions from 2,787 lbs/day to 2,000 lbs/day.¹⁸⁶ By February 1996, Unocal reported that its fugitive monitoring showed emissions of less than 2,000 lbs/day.¹⁸⁷ In 2000, the Environmental Protection Agency (EPA)

¹⁸⁷ J. Wilkes, General Manager, Unocal San Francisco Refinery to Community Advisory Panel members, 1 February 1996.

¹⁸⁸ Environmental Protection Agency, Envirofacts Data Warehouse, *Tosco San Francisco Refinery*, Rodeo (http://oaspub.epa.gov/enviro/multisys2.ge_t_list?facility_uin=110000483487, accessed 13 November 2002).

reported that fugitive emissions at the refinery, then owned by the Tosco Corporation, totaled just 67 lbs/day, suggesting that improvements encouraged by the GNA continued long after the initial installation of bellows valves.¹⁸⁸ However, overall releases of toxic chemicals at the refinery increased substantially following the refinery's receipt of its clean fuels permit. These releases then fell by one-third between 1996 and 2000.

Lessons Learned

On one level, the Unocal GNA represents a high-water mark in the evolution of community-corporate compacts, in that it incorporates much of what had been learned through previous negotiations. Without question, the agreement is an improvement over what would have been required by the permitting body alone. The GNA negotiations offered residents a forum in which to discuss issues that did not share a nexus with proposed project impacts. The most important source of residents' bargaining power in this case, once negotiations commenced, was their ability to generate clear proposals and to build constituencies around them through a committee structure. The committee structure made it difficult for Unocal to ignore or postpone consideration of certain proposals, though it did label several as "non-starters." Several clear successes were ultimately achieved from the GNA.

Still, the agreement did not yield some of the more important concessions (proposed by residents) that lacked a nexus to the clean fuels projects. These rejected proposals represent the limits to which GNA negotiations can outperform the permitting process. Most readily excluded from the negotiations were questions regarding normal operating procedures of the refinery and establishing new roles for local residents in plant inspection, pollution patrols and citizen monitoring, and early warning and notification. Fully 56.4% of the financial commitments in the GNA represented previously agreed-to conditions of permit approval. The only items that represented a substantial improvement over existing permit conditions encompassed direct financial contributions to the towns and to vocational training, both to be paid over a period of 15 years. In addition, the Bayo Vista public housing development, which borders the refinery to the south, did not meet its residents' primary concerns through GNA negotiations.¹⁸⁹

This GNA and the Richmond MOU suggest that there is much that can be agreed to and achieved above and beyond the scope of traditional environmental permitting efforts. These efforts certainly represent more inclusive and effective means of generating conditions of approval than standard notice and comment cycles. Yet the goal of environmental justice communities should not stop at merely outperforming existing administrative options. The Unocal

CASE 6: UNOCAL GOOD-NEIGHBOR AGREEMENT (CROCKETT & RODEO, CA)

agreement in particular points to stark limits to what an industry will be willing to consider, however constrained it is by timing, media attention, and the threat of litigation.

189 Residents of Bayo Vista noted that certain oversights during the GNA's implementation, such as failure to provide transportation to the medical clinic, consider particulate matter monitoring for Rodeo, or ensure that a fair portion of the GNA's financial assistance be provided to address human services needs in the housing authority, were of far greater concern to them than the specifics of the health study or air-quality monitoring protocols. Some residents in Bayo Vista have used a portion of their litigation settlement money to purchase air filtration systems for their homes to reduce particulate matter, which is suspected of contributing to the high rates of asthma among Bayo Vista children. Kids Against Environmental Pollution, *State of the Neighborhood: Bayo Vista Youth Health Survey* (Rodeo, CA: Kids Against Environmental Pollution, December 2001).

Negotiating Environmental Justice Agreements

The six case studies represent a striking range of contexts from which environmental injustice claims can emerge. In Swansea and Elyria, Colorado, industry became concentrated in the area because of the construction of I-70 and the placement of railroad switching and holding stations away from downtown. In Manchester, Texas, refinery and ship workers built homes on small lots near their places of employment. Richmond, California's diverse population was attracted by the acceleration of shipbuilding and other opportunities that emerged during the Second World War. In Rodeo, California, residents of the Bayo Vista public housing development speculated that their units were made available after military housing was abandoned and signs of soil contamination were discovered. Those in the Kennedy Heights neighborhood of Houston, Texas, considered attempts to secure government assistance for a land exchange, shoddy construction, and city neglect of the waterlines as contributing to their exposure to hydrocarbons. The diversity of these communities' histories, ranging from the isolation and targeting of certain neighborhoods by industry to efforts to live in close proximity to jobs offered by petrochemical plants, is evident in these cases.

Regardless of their differences, however, the communities introduced in this report share a distinct similarity: residents were placed under circumstances that called for strong leadership, organizing, data gathering, and communication within a relatively brief window of opportunity. The chance to question the practices of area industries and regulatory agencies arose suddenly, and was rendered short-lived by parallel administrative actions, efforts by corporations and plant management to avoid media attention and stave off litigation, and an array of competing problems that demanded the attention of the communities. While the cycle of environmental justice disputes (i.e., the time between the occurrence of the accident or the discovery of the contamination and the achievement of a settlement) ranged in the cases from four to 108 months, the length of time reserved for negotiation averaged less than two months. (The latter figure excludes the outlier Kennedy Heights, in which a 22-month process masked the fact that the special master only met with residents one or two times during that period.) Six to eight weeks is a very short period of time within which to question, gain access to information regarding, and experiment with solutions to complex issues such as chemical transport and offloading procedures, sulfur recovery unit (SRU) shutdown procedures, record-keeping, regional early-warning programs, and off-site monitoring.

Figure 13 provides an overview of the windows of opportunity for negotiation that opened in each case, and the forces that helped to foreclose adequate consideration of the industrial practices that were called into question.

Parallel Tracks and Strategic Alliances

As the six cases reveal, multiple administrative, legislative, and adjudicative processes are often initiated or ongoing prior to any accident or resident involvement. These parallel processes are a root cause of the narrow windows of opportunity available to environmental justice communities, and they may limit the extent to which residents can address the everyday operations of the facility in question.

USING DISPUTE RESOLUTION TECHNIQUES TO ADDRESS ENVIRONMENTAL JUSTICE CONCERNS: *Case Studies*

Figure 13: Windows of Opportunity, and Their Limits

	Vulcan Materials Mediation (Swansea & Elyria, CO)	Conoco Mediation (Swansea & Elyria, CO)	Chevron Mass Tort Settlement with Special Master (Kennedy Heights, TX)	Rhone-Poulenc Community Audit Negotiation (Manchester, TX)	Chevron Memorandum of Understanding (Richmond, CA)	Unocal Good- Neighbor Agreement (Crockett & Rodeo, CA)
Window of Opportunity	HCL release (air)	SO ₂ releases (air), benzene contamination (groundwater)	Potential hydrocarbon contamination (water)	SO ₂ release (air)	Several releases at Chevron; sulfuric acid release (air) at co-located General Chemical	Catacarb release (air)
Extent of Accident/ Contamination	3,300 gallons; 20-30 blocks evacuated (300 residents)	Between .02 and 113 tons of SO ₂ released during 16 incidents	Potential exposure spans 20 years; disease clusters near NE pit; pipes affect entire subdivision	30 plant workers sent to hospital (20 across the channel)	Plume extends 15 miles; 24,000 residents go to hospitals, clinics	16-day, 100-ton release affecting neighboring towns; serious injuries reported
Organizational Routines/ Oversights Implicated	Lack of safeguards to prevent, respond to release; failure to disclose, communicate risks; coordination problems among city agencies	SRU shutdown procedures; inspections; record-keeping; notices to state; inadequate monitoring of resident exposures	Cleanup of sediment and water; responsibility for notification regarding pit bottoms; failure to address rupturing waterlines; no clear protocol for cleanup in sensitive areas	Chemical transport/offloading procedures and risks; release containment; off-site monitoring needs and information sharing	Adequacy of the region's early-warning systems; accident prevention and disaster plans; need for intensified monitoring	Industry incentives; internal decision-making errors; emergency response/warning systems; off-site monitoring needs and information sharing
Factors affecting Timing and Length of Window of Opportunity	None	Parallel state and federal administrative actions; timeline established by judge in citizen suit and mediator; cycle of federal attention to industries and corporate response	State (Texas Railroad Commission) protocols for soil, groundwater testing; timeline established by judge in toxic tort suit and special master	Timing of Class 3 modification process; cycle of regional industry trends	Disjointed permit approval process with different timelines for Planning Commission, City Council, and Air Quality Management District approval; federal clean fuels requirements	Parallel Air Quality Management District and federal administrative actions; permit approval process at county level; federal clean fuels requirements
Time from Accident/ Complaint to Agreement and Window for Negotiation	31 months (1 month for mediation)	21 months (to notice of dismissal) (2 months for mediation)	108 months (22 months for mediation)	11 months (1.5 months for negotiation)	9 months (2 months for negotiation)	4 months (2 months for negotiation)

NEGOTIATING ENVIRONMENTAL JUSTICE AGREEMENTS

Figure 14: Parallel Processes and their Effects on Dispute Resolution

	Vulcan Materials Mediation (Swansea & Elyria, CO)	Conoco Mediation (Swansea & Elyria, CO)	Chevron Mass Tort Settlement with Special Master (Kennedy Heights, TX)	Rhone-Poulenc Community Audit Negotiation (Manchester, TX)	Chevron Memorandum of Understanding (Richmond, CA)	Unocal Good-Neighbor Agreement (Crockett & Rodeo, CA)
Administrative Processes	Administrative complaint under the federal Comprehensive Environmental Response, Compensation, and Liability Act (EPA Region VIII)	Region VIII overfiles on previous CDPHE actions; State issues compliance advisories under the Resource Conservation and Recovery Act (benzene in groundwater)	Hearings conducted by the RRC during the environmental sampling/testing phase	Permit modification (TWC)	Construction permits (county), air permits (AQMD)	Construction permits (county), air permits (AQMD)
Legislative Processes	EPCRA regulations	Colorado Clean Air Act regulations	Changes in state legislature to rules governing cleanup of petroleum spills	State/federal reclassification of certain wastes; TRI data released starting 1987	Clean Air Act's reformulated fuels requirements, deadlines	Clean Air Act's reformulated fuels requirements, deadlines
Adjudicative Processes	Citizen suit (EPCRA § 326)	Citizen suit (CAA § 304)	Toxic tort claims, 3000+ claimants	None	Various claims vs. General Chemical	Toxic tort claims, 1000+ claimants
Effects of Parallel Processes on Negotiations	None	Restricted agenda, timing, and options considered; privileged one alternative over others; allowed industry to resolve several administrative actions with one SEP	Left uncertain the standards of cleanup; restricted representation; limited scope and rules of acceptable evidence and joint data gathering; narrowed role of claimants during mediation	Restricted representation, environmental burdens considered; allowed industry to anticipate and incorporate future administrative actions in agreement	Restricted representation, agenda, timing, options considered, and their priority (according to rational nexus arguments, administrative bodies' preferences, and status of interveners)	Encouraged uneven representation; accelerated deliberations; privileged certain alternatives over others

First, an accident calls attention to existing legislation and standards. In Swansea, a hydrochloric acid (HCL) release brought attention to the failure of companies such as Vulcan Materials to disclose and communicate the risks posed by their handling of hazardous materials (as required by the Emergency Planning and Community Right to Know Act, or EPCRA). Sometimes, the search for relevant standards proves less than rewarding, as when residents of Kennedy Heights learned that there were no statewide rules governing the cleanup of petroleum spills in “sensitive areas,” and in Crockett and Rodeo when a paucity of data on Catacarb exposure was uncovered after the release at Unocal.

Second, existing administrative processes can result in a *de facto* division of labor among government agencies. After Conoco was targeted for SO₂ releases and benzene contami-

nation, the Environmental Protection Agency (EPA) and the Colorado Department of Public Health and Environment (CDPHE) initiated various independent and overlapping efforts. These actions allowed Conoco to fashion a proposed supplemental environmental project (SEP) even before citizen complaints led a statewide public interest group to sue the company. In Richmond, residents sought to make sense of a series of accidents at Chevron as a permitting dispute progressed through the Planning Commission, City Council, and Air Quality Management District's hearing processes. Each forum involved unique considerations of nexus, political realities, and questions of standing.

It can take a good deal of time to identify and maneuver through available administrative forums and remedies, as when residents of Kennedy Heights sought assistance from the city, the Texas Water Commission (TWC), the Texas Railroad Commission (RRC), the EPA, and state health officials. Often the ordering and combination of available administrative remedies itself will limit the extent to which residents' sense of harm and the true complexity of environmental burdens are addressed. For example, Manchester residents, having identified a wide range of concerns stemming from facility operations, were at first only allowed to consider those linked to the TWC's contested hearing process.

Even more important, administrative actions and legal remedies can open only narrow windows on industrial practices of concern to residents. Issues tangential to Vulcan's HCL release (but important to residents) were not relevant to the EPCRA suit, for example, which could only encourage fines and require the submittal of appropriate documents after the fact. Proposals such as community-led inspections were deemed beyond the scope of Chevron's reformulated fuels project in Richmond. Similar restrictions on residents' ability to question industrial practices were noted in each case.

Figure 14 demonstrates the effects of parallel processes on the results of each negotiation.

Clearly, the complexity of environmental burdens and the variety of ongoing administrative actions can severely limit the potential joint gains available to parties in environmental justice disputes. In all but one of these cases, externally imposed (and at times immovable) deadlines, legally mandated agency actions and responsibilities, and parallel enforcement actions narrowed the integrative potential of the negotiations. The one exception was the Vulcan Materials mediation involving Swansea and Elyria, Colorado. In this case, questions concerning standard operating procedures of a chemical company and local agencies were addressed in part by agency officials, an administrative complaint by EPA Region VIII settled matters of Vulcan's responsibility to the government, and a mediation process encouraged consideration of additional routines, relationships, and the neighborhood's experiences with broader environmental burdens.

To limit the negative effects of parallel processes on negotiations, organized communities should remain open to alliances with officials, workers, and other groups so that an appropriate division of labor is encouraged. This division should seek to maintain flexibility over the timing and agendas of community-corporate deliberations. It is also important to consider how the parallel processes will shape the norms of settlement for potential negotiations. Finally, community-based organizations should work with allies in local and state government and legal consultants to anticipate future regulatory changes and avoid agreements that offer little more than restatements of what will soon be expected of facility managers. Advocates must pay particular attention to permit changes, federal and state prior-

ities for clusters of industries within their jurisdiction, and best available control technologies for desired emissions reductions and safety improvements.

Being Prepared

While ongoing, parallel processes certainly shape agendas, timing, and available options for settlement, much of what is *not* accomplished during negotiations can be traced to a lack of adequate preparation by community organizations themselves. An analysis of the preceding six cases reveals that environmental justice advocates should undertake the following activities prior to a dispute resolution process, in order to maximize joint gains: identify and secure appropriate representatives to take part in the negotiation; agree to necessary trade-offs and options should settlement prove unattainable; locate, agree to, and finance impartial negotiation and/or technical assistance; and set an appropriate agenda, ground rules, and timing for discussions with other representatives. These steps should be undertaken with an understanding of the scope of parallel processes and the capabilities of strategic partners.

Representation. In the case studies, local residents were represented either by existing leadership, self-selection, or standing as part of an administrative action (e.g., those contesting an air permit) or lawsuit (e.g., Kennedy Heights plaintiffs). The use of existing leaders proved most effective, particularly when, in the case of Swansea and Elyria, the leaders could communicate rapidly with residents and had engaged in prior neighborhood planning efforts. The industry representatives in each case (with the exception of Kennedy Heights) looked for evidence of the legitimacy of resident-negotiators, and expressed concerns about unidentified groups yet to surface.

Residents' wide range of experiences with pollution and contamination rendered complete representation of the multitude of interests nearly impossible. Of greater importance was the ability of negotiators to accept and plan for changes in representation during and after negotiations. This proved difficult to accomplish. For example, in Manchester, Texas, the addition of residents from nearby Harrisburg and Smith Addition to the implementing body of a community audit agreement biased interpretations of post-settlement actions and shifted attention to community development projects. The committee structure responsible for most elements of the Unocal good-neighbor agreement in Crockett and Rodeo, California, gave way to a disparate group of organizations that became involved in implementing the agreement—including community foundations, the Bayo Vista resident council, the Shoreline Environmental Alliance, and a community advisory panel. Thus representation in the cases was both uncertain (given the transient, uneven nature of environmental burdens and the interests encouraged by them) and unstable (given the organizational structures employed at various points during and after negotiations).

In addition, the Conoco and Kennedy Heights mediations reveal that wholesale exclusion *and* inclusion of groups of residents can yield equally vexing challenges. In the Conoco case, the mediator interpreted Commerce City residents as no different from those who lived in Swansea and Elyria. This discounted Commerce City's level of previous interaction with the refinery, additional human resources that could have been made available for citizen monitoring or SEP implementation, and possible concerns over groundwater contamination, which received less attention in the final settlement. The inclusion of current and former residents of Kennedy Heights in a mass tort case led to the division of scarce set-

tlement resources across individuals, and low-cost efforts such as waterline replacement and water quality monitoring, which would have lessened per-person settlement amounts, were not considered.

The cases also reveal that care should be given to identifying the most vulnerable segments of the population and their unique interests. Vulnerable populations in the cases included residents of a mobile home park in Swansea, fence-line public housing residents near Unocal, students attending elementary schools near Rhone Poulenc, the Chevron refinery, and Unocal, those reliant on subsistence fishing near Chevron, and elderly and very young residents of Kennedy Heights (who experienced higher disease rates). These groups tend to face the greatest number of barriers to self-organization, and have the most to lose from agreements that fail to consider their needs. They are also the likeliest to emerge toward the end of a negotiation process as it becomes clear that their interests have not been met.

Preparing Constituencies. Once relevant interests have been identified and represented, residents must be prepared for the kinds of tradeoffs that they will be asked to make. Tradeoffs may be necessary, for example, between proposals for community involvement, monitoring, and emergency preparedness on the one hand (all of which are likely to be rejected by industry) and financial and community development offers on the other (which will be difficult for some residents to turn down). Desired proposals should be explicitly incorporated into a “community resistance level,” which is the least favorable outcome that is needed to satisfy the community. Otherwise, resident negotiators may fall victim to external timelines and pressures from parallel actions.

Even when industry agrees to items like resident involvement in monitoring, tighter enforcement, and early-warning systems, uneven implementation can be expected. Therefore, residents should explore ways to increase involvement in these activities, focusing on those that can be carried out without targeting the facility in question or that do not rely on company personnel or even the company’s cooperation. Resident negotiators should establish early on whether or not enforcement agencies are willing to lend legitimacy to their proposals, or whether they, too, oppose a realignment of responsibilities (which they may perceive as questioning their monopoly over enforcement.)

Residents must also forecast the level of community organization necessary to implement and monitor their constituents’ desired arrangements. They must learn what kinds of institutional arrangements will be needed to receive and distribute funds, operate new technologies, receive and process new forms of information, participate in data-gathering efforts, and express and resolve grievances. Each of these activities should be considered before entering into negotiations.

Securing Needed Assistance. Two forms of assistance proved useful to environmental justice advocates in the cases: technical assistance and neutral process assistance. Those providing technical assistance should, at the outset, help representatives determine the facility in question’s *relative* influence over environmental quality, broadly defined, in the given area. Too often, residents become so focused on the facility responsible for an accident that they fail to assess the broader picture. This can result in demands and expectations that are either too strong, or not strong enough.

For example, residents of Manchester, Texas, focused a great deal of their time and atten-

tion on Rhone Poulenc after an accidental release and minor permit modification. Yet this facility represented less than 1% of toxic emissions from area facilities, so residents' attention might have been more fruitfully directed elsewhere. By contrast, residents of Swansea and Elyria, Colorado, may not have demanded enough from the Conoco facility, which represented more than half of the toxic air emissions and nearly all of the toxic water emissions in that area. In that case, problems with sulfur emissions and multiple actions by the state and the EPA led residents to accept investments in a sulfur recovery unit and reductions in sulfur emissions that would eventually be dwarfed by a future settlement with the U.S. Department of Justice. Benzene emissions to groundwater and residents' desire to learn about other emissions sources at the refinery and their effects on human health were subsumed by a focus on sulfur emissions.

In Richmond, California, residents' concern over a construction permit representing potential increases in toxic emissions at Chevron and a recent accident at General Chemical led to proposals for low-emission valves and fence-line monitoring. This effort ignored the trend of rapidly increasing toxic releases to waterways. Those who fished from the Richmond Marina (a Superfund site) received little attention during negotiations with Chevron, which was responsible for roughly 99% of the toxic water emissions in the area. Also, the group gave less consideration to criteria air pollutants and particulate matter releases, which were more reasonably associated with high asthma rates (up to 90%) and associated absenteeism in nearby schools.

So, the first role of a technical assistant should be to ensure that events at one or more facilities do not magnify one set of environmental-quality problems and result in unwarranted demands, while ignoring larger problems. To get a sense of a facility's relative influence, an organized community should identify historical trends of emissions and episodes, which are available in public records. The next task for technical assistants should be to help environmental justice advocates consider where further improvements are possible, given the type of facility and industry trends (past and projected). They should also help advocates to consider the effects of improvements on vulnerable populations.

A neutral party—a mediator or facilitator, usually—can provide invaluable process assistance. The neutral should have experience in environmental dispute resolution, with documented cases and clients who are able to provide references. They should be willing to work with environmental justice advocates to secure needed technical assistance, and to help shape the negotiation process to fit the needs and constraints of constituencies. They should spend adequate time with each party discussing their interests and concerns prior to the start of negotiations, and share with them insights into the other stakeholders' interests and possible directions for the proposed dispute resolution process. Experienced neutrals like to establish clear (yet flexible) timetables, rules of entry and exit (protecting parties' options in other venues), and mechanisms for adding new parties and dealing with breaches of any agreed-upon ground rules.

Payment for a neutral should be arranged to minimize the burden on community-based organizations, while protecting the impartiality of the neutral. For instance, a fund can be established whereby different sums of money are deposited by each party according to their ability, and the fund is jointly administered by all parties.

While there remains a dearth of experienced professional mediators of color, some have been operating in environmental justice communities for years, and there is a growing push to create a database and referral service for neutrals with environmental justice experience.

Agendas, Ground Rules, and Timing. In preparing to resolve a dispute, an organized community should work with the neutral to set an agenda, establish ground rules, and agree to the timing of deliberations with other parties. The Cross-Community Coalition (CCC) in the Vulcan Materials case provides a good example of how to work with a mediator on these preparatory tasks. The CCC worked with CDR Associates to lodge their most important items of consideration on the mediation's agenda and to ensure that artificial deadlines imposed by parallel processes did not limit the consideration of important options.

In preparing an agenda, the neutral and the environmental justice advocates should discuss all the relevant questions that arise when a community puts forward its primary interests and demands action. For example, do these interests demand attention, legitimacy, investigation, investment, organization, or a combination of these? What additional outside assistance is needed for the necessary activities? Which parties can potentially fulfill some of these needs, and how will they have to work together? What additional costs will be borne by other parties (particularly industry and government) should these interests be met? Are there ways to reduce these costs or to offer additional resources (particularly through cooperation and focus on a community-based organization's comparative advantages) to mitigate other parties' concerns? Which parties have not had a chance to adequately express their primary concerns? What elements of a negotiation or the process in which it occurs may make it difficult for certain parties to engage in answering these questions? Discussing these questions with a neutral can lead to proposed additions to the agenda and ground rules to ensure that parties will be willing to participate, experiment with the creation of proposals without the pressure to commit before they are comfortable, and exit the process without negative repercussions should their interests not be met.

Procedural and Strategic Choices

As the cases make clear, rarely will a single dispute resolution process address all of a community's concerns or be offered exclusive of other processes. Community representatives must be skilled in the art of anticipating how different dispute resolution options will expand or limit their control over process considerations and outcomes. There is no one best process; in fact, in the cases, whether negotiations were assisted or unassisted did not greatly influence residents' control over the dialogue or the outcomes. In two of the three assisted processes (Kennedy Heights and Conoco), residents appeared to have less control over agendas and outcomes than in the unassisted negotiations with Unocal and Rhone Poulenc. In those cases, and during the Vulcan Materials mediation, residents showed significant, though varying, degrees of control over what was discussed, when, and in what order.

Even when they could influence the agenda (through discussions with mediators or participation in hearing processes), community representatives did not always use that opportunity to their advantage. In the context of an environmentally overburdened community, a negotiation must shift between retrospective concerns (e.g., the specifics regarding an accident, the history of residents' sense of harm, and how a given facility contributes to residents' perceived environmental quality) and prospective concerns (problem-solving and relationship-building). Community concerns often necessitate numerous shifts between the two forms of dialogue and means of incorporating new knowledge from one into new considerations of the other. Thus, the ideal sequence of dispute resolution processes will be one that residents feel will allow for such transitions. These transitions can be broken

down into three types:

From understanding the root causes of a recent incident and the relatively immediate problems that it raises, to understanding community-wide concerns that may or may not be related to the incident (with efforts to demonstrate a nexus between the two);

From presentations of community narratives regarding environmental burdens and claims of industry responsibility, to problem-solving on the two levels described in #1;

From problem-solving informed by sufficient technical assistance, information sharing, and joint specification of research questions and assumptions, to relationship-building that anticipates the changing representational needs of the community.

Most venues illustrated in the cases were not designed to facilitate these transitions. Some focused only on appropriate mitigations to a project while others were limited to a small number of agency-proposed projects or remedies. Negotiations were most productive when facility management and residents jointly identified isolated engineering problems (sour water strippers, fence-line monitor placement) or community-based problems (buffer zones, resident notification) to solve. When such problem-solving proceeded from an understanding of community-wide concerns and served as a means of building relationships, the results were positively evaluated (as in the Vulcan Materials mediation). When problem-solving ignored broader concerns (in the Conoco mediation in Swansea and the Chevron case in Richmond) or was not linked to proper oversight or relationship-building (as with Rhone Poulenc in Manchester and Unocal in Crockett and Rodeo), outcomes were not so favorably interpreted by some of the factions that emerged during and after negotiations.

With criteria for transitioning dialogue established, a community can review available dispute resolution processes according to the kinds of shifts needed to meet their constituencies' interests, both within and across processes. The Cross-Community Coalition followed a progression from resident-organized meetings with agencies to legal action focused on the provision of information to mediation that allowed for shifts from community legitimacy and sense of harm to area-wide environmental burdens and industry-wide concerns for relationship building at other railroad terminals. In contrast, Kennedy Heights residents moved from state-mandated environmental testing and related hearings to toxic tort litigation and court-mandated mediation focused on a single topic. None of those three latter activities offered the kinds of transitions necessary to empower a community and offer assistance to its most vulnerable populations.

Once an initial process choice is made, two related strategic concerns become apparent for representatives of environmental justice communities. Despite the range of technical assistance available, community negotiators in the cases invariably fashioned inventive proposals for improving emergency preparedness, community-corporate relations, facility operations, pollution monitoring, citizen involvement, and aesthetic improvements. Residents proved particularly innovative in identifying how accidents would affect the community at-large as well as its most sensitive members, and how they could work with facility management to decrease notification times and increase the speed of information sharing in the event of an emergency. Unfortunately, it was often these comparatively low-cost proposals, for odor and spill patrol teams, citizen monitors to participate in activation of public notification systems, and other attempts to fundamentally change community-corporate relationships, that were rejected by industry. Many of these proposals were inex-

pensive solutions to some of the root causes of residents' concerns.

While it is difficult to know for sure why companies often rejected these proposals, while at the same time making substantially more expensive investments in the form of financial contributions and community development projects, their hesitancy can be linked in part to the uncertainty surrounding these initiatives. Particularly when one is negotiating with the owners of a complex facility such as a refinery, which has an established hierarchy, working groups, and procedures for handling emissions and accidents, costs to the firm have to be measured in ways other than the sheer monetary value of a proposed change. A company will attach a value to changes to organizational culture, lack of control over information, and the costs of legitimizing residents' ability to understand the source and content of accidental releases as they occur, rather than through after-the-fact interpretations.

It was also found that regulators are unwilling to encourage fundamental changes in how they interacted with industry or the public. For example, the experience of Crockett and Rodeo residents with fence-line monitoring suggests that agencies are hesitant to give up their monopoly over air-quality monitoring, or admit that they are doing a less-than-adequate job.

Thus, it was often the case that residents were left in a position to consider tradeoffs between proposals for (a) citizen involvement and changes to organizational practices and (b) financial contributions, isolated landscaping and equipment changes, and slight improvements over existing practices based on anticipated regulatory or industry shifts. It was often noted by residents that they had difficulty placing a dollar value on the true worth of their proposals, particularly when their implementation could be accomplished at minimal expense. By the time it became clear that trades would have to be made, external time pressures and the actions of regulators encouraged residents to accept concessions that clustered at the lower end of the bargaining spectrum.

This predicament was related to residents' difficulty agreeing to and being hard-headed about their "next best option" should a given process fail. The uncertainty or undesirability of community representatives' best alternatives to a negotiated agreement was common. Potential penalties from lawsuits, even if achieved, could not be used to improve affected communities. Permits were going to be issued eventually, even though delays posed some risk to applicants. In the face of external pressures caused by parallel processes or difficulties in understanding the true nature of threats to environmental quality, residents assigned greater value to small, certain advances than should have occurred had they been subjected to dispassionate analysis and comparison.

In addition, residents focused on reservation levels, or the minimum acceptable settlements *within the negotiation*, to the exclusion of the broader constituency's "community resistance level"—the least favorable outcome needed to satisfy one's constituencies. The chief strategic dilemma found in the case studies can therefore be followed back to the preparation stage, where constituents should be identified and sufficient time allotted to reaching agreement over a community's resistance level. From there, representatives will be able to consider the appropriate chain of dispute resolution processes and have a benchmark from which acceptable tradeoffs within a given negotiation can be judged. Agreement within a community on a resistance level will also force resident-negotiators to

seek out necessary transitions of dialogue to the broader concerns that a resistance level represents. This pre-negotiation exercise provides a discipline that can be extremely helpful during moments of uncertainty or immense pressure to settle.

Conclusion

By examining some of the foundational cases of environmental justice dispute resolution, we have identified several guidelines that environmental justice advocates can use when representing overburdened communities. Diverse constituencies, changing and at times biased perceptions of environmental quality, and leaps from one dispute resolution process to another (i.e., testing to litigation to special master) will make it difficult to gauge whether negotiation (when the brief opportunity to engage other parties materializes) can meet a community's interests at any given time. But the cases demonstrate that the road has already been paved by a number of at-risk communities, which share many of the same challenges that other advocates will face. The collective experience of these organized communities suggests that when preparing for that brief window of opportunity to negotiate, the following guidelines should be considered.

1. Work with agency officials, facility workers, and other groups to establish an appropriate division of labor, maintaining flexibility over the timing and agenda-setting of negotiations.
2. Such strategic alliances should consider how parallel processes could shape the norms of settlement for potential negotiations and anticipate how industry may respond to future regulatory changes. Avoid agreements that offer little more than a restatement of what will soon be expected of facility managers or what will become standard industry practice.
3. Identify and secure the representation of relevant interests, paying particular attention to the most vulnerable segments of the population and their unique concerns.
4. Prepare these constituencies for the kinds of tradeoffs that they will be asked to make, and forecast the level of community organization necessary to implement and monitor the desired arrangements.
5. Secure needed technical and neutral process assistance, paying close attention to a facility's relative influence over environmental quality, the representative set of changes that could be encouraged at the facility, and the qualities and desired tasks of a professional neutral.
6. Work with the neutral to develop parameters for negotiation, including an agenda, ground rules, and timing for deliberations with other parties. Pay attention to the questions that arise in the context of a community demanding action following an accident, as discussed above.
7. In choosing and maneuvering among a variety of dispute resolution processes, evaluate each process from the standpoint of its ability to encourage the three types of transitions of dialogue discussed previously.
8. Once an initial process choice is made, anticipate tradeoffs that will occur between desired changes and proposals that are more commonly accepted by industry. Consider the broader community's resistance level (the least favorable outcome needed to satisfy one's constituencies), rather than the more frequently used reservation

level(s) (the minimum acceptable settlement within the current negotiation). This information will enable the consideration of an appropriate chain of dispute resolution processes, acceptable tradeoffs, and necessary transitions of dialogue to the broader concerns that resistance levels represent.

To obtain considerable advancement for broader constituencies and the most isolated and vulnerable segments of the population, future negotiators will have to find ways to circumvent the obstacles identified by those who have already maneuvered through a broad range of dispute resolution options. If they succeed, then we may begin to witness the potential for dispute resolution to improve the lives of thousands of citizens who call the environmentally overburdened corners of the country “home.”

About the Organizations

The **Office of Environmental Justice** is the entity within EPA with the primary responsibility for coordinating the Agency's efforts to integrate environmental justice in all policies, programs and activities. OEJ also works with all stakeholders to constructively engage in and collaboratively address environmental issues and concerns. For more information, visit: www.epa.gov/compliance/environmentaljustice.

The **Consensus Building Institute** (CBI) is a not-for-profit organization located in Cambridge, Massachusetts. CBI is dedicated to designing, convening, and facilitating processes that are inclusive, fair, efficient, and result in wise and stable agreements. CBI provides mediation and facilitation of complex, public-sector disputes, helps stakeholders to build consensus on public policy issues, delivers training in mutual gains negotiation and consensus building, and evaluates collaborative efforts. CBI works both in the United States and internationally. The organization is skilled in working with both public-sector agencies and the communities affected by their decisions and actions. CBI specializes in helping parties resolve complex issues involving air and water quality, Superfund cleanup, land use, facility siting, affordable housing, federal lands management, energy, sustainability, and trade and the environment. For more information, visit www.cbiding.org.

Justice and Sustainability Associates (JSA) is a management consulting firm specializing in sustainable development, environmental justice, and smart growth. JSA assists individuals, organizations, and systems to be more just and sustainable through public participation; civic engagement; network building; organizational, strategy, and leadership development; policy research; and policy analysis. JSA is dedicated to ensuring that all of its work is infused with the dynamic of culture and the practice of cultural competence. JSA is established as a leader in facilitating and encouraging public participation in community development issues, using the Internet as a public space for civic involvement. For more on JSA, see www.publicspace.justicesustainability.com.

