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Social Aspects of Siting RCRA Hazardous Waste Facilities

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Introduction

It has been almost 20 years since EPA began the Resource Conservation and Recovery Act (RCRA) hazardous waste permit program. During that time, valuable lessons have been learned about how communities deal with siting and permitting concerns. Although proposed hazardous waste facilities have been granted or denied RCRA permits based on technical evaluations, some businesses have succeeded or failed based on the level of communication and trust built with the neighboring communities.

Local communities often have understandable concerns about why their site was selected and how the facility will affect their quality of life. These concerns encompass a broad array of issues that range from health and environmental effects to social and economic impacts. Social and economic issues are not evaluated during the RCRA permitting process, but this does not diminish the legitimacy of the community's concerns and the need to address them promptly, honestly, and thoroughly when siting a facility.

EPA encourages facility owners and operators as well as state, tribal, and local governments to get to know and collaborate with communities from the beginning of the site exploration process. Early collaboration can stimulate creative solutions to concerns and facilitate site selection and permitting.

At the request of the Waste and Facility Siting Subcommittee of the National Environmental Justice Advisory Council (NEJAC), this booklet has been developed for industries and for government agencies that interact with communities when hazardous waste facilities are sited. It offers examples of quality of life concerns raised by environmental justice communities when facilities are sited. However, the primary purpose of this booklet is to share experiences and creative mechanisms that have been developed in order to work effectively with communities, as well as encourage businesses and government agencies to address community concerns early, collaboratively, and compassionately.

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A Tale of Two Sites

It was the best of times...

The XYZ Company wants to construct a new hazardous waste treatment facility.

- The company notifies prospective states in its marketing region. It notifies the states' environmental and commerce agencies and holds a meeting with the agencies to discuss matters, including availability of property.
- After narrowing options to three properties, the XYZ Company identifies and approaches key local government and community leaders and requests an open meeting to introduce concepts and obtain advice about local interests and sensitive social and environmental issues.
- After investigating issues raised and exploring potential remedies, the company turns again to the state and local leaders, who call a public meeting.
- Prior to the meeting, the XYZ Company prepares a press release, establishes a liaison office, grants interviews to the local press, and answers citizens' calls.
- The XYZ Company announces the meeting with posters, local newspapers and newsletters, and through community groups and organizations.
- At the meeting, the XYZ Company displays information posters. It asks attendees to flag where they live, work, or play. The meeting proceeds with a presentation and questions and answers. The company asks for volunteers to serve on advisory committees.
- Following the meeting, the company grants the press another interview and mails letters to attendees thanking them for their input, summarizing issues raised, outlining future activities, listing volunteers, etc.
- The company modifies its plans based on community negotiations.
- Dialogue progresses and collaboration continues through successful permitting, construction, and operation of the facility.

It was the worst of times...

The ABC Company wants to construct a new hazardous waste treatment facility.

- The company begins by having someone scout property in a county of the chosen state.
- The company scout contacts commercial real estate agencies and requests anonymity and confidentiality as inquiries are made about taking options on land.
- After finding an affordable site that appears to meet company criteria, such as cost, environmental suitability, transit, and utility access, the ABC Company takes out an option on the property.
- The local news media learn of the land option, attempt to contact the ABC Company, obtain secondhand information, and print a story.
- In response to the article, the ABC Company contacts local government officials to confirm its interest. Government officials have already received calls from citizens expressing concerns.
- The ABC Company and local government hold a public meeting to answer community questions.
- Attendees arrive at the meeting with a preconceived notion of the facility and its impacts on the quality of community life.
- The meeting fails to communicate the ABC Company's information.
- Citizens begin writing their county commissioners, legislators, governor, and congressional representatives, seeking to block the facility's construction.
- The ABC Company abandons its plans for the site; the state agency is held responsible for the situation and does not have the information to respond to the Legislature and Governor's Office.

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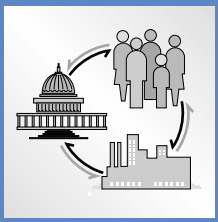

Going the Extra Mile

- *A Sound Investment in Society*
- *A Smart Business Strategy*

Traditionally, businesses and government agencies involved in siting know and strive to comply with regulations. But what incentives are there to go beyond the "letter of the law"? As demonstrated in the "Tale of Two Sites," taking extra steps to work with the community can benefit businesses and government, as well as the community. By integrating the cultural/social and economic needs of a community into early site planning, businesses and government can encourage sustainable resources and reduce the negative physical, social, and economic effects of site activities. By establishing partnerships with communities–for example, through a good neighbor agreement–businesses and government can speed up the permitting process and promote constructive dialogue between communities and businesses.

Businesses that take the time to find out about a community's quality of life concerns and engage the community in an ongoing dialogue may

- save on construction costs (it's easier to redesign than to rebuild)
- reduce expenses of possible litigation or enforcement
- speed up the permitting process
- build trust with the community
- discover innovative solutions to problems.

Local agencies (e.g., zoning and planning departments, siting boards, health departments) and state government play critical roles in facility site selection: they are caretakers of area resources, facilitators of constructive community dialogue, and protectors of the community's health. They are also creators and administrators of the community development plan and permit decision makers. By getting involved, state and local governments will find that

- soliciting public involvement is "good government"
- stakeholders listen and respect their views and ideas
- decisions are more likely to be accepted and supported
- more informed and balanced policies and permit decisions are made
- innovative and more technically sound solutions to siting and permit issues are found
- public health and the environment are preserved as well as citizens' social and cultural welfare
- the risk of community-based legal action may be reduced.

Integrating a community's social character and needs into site selection and planning can complement and enhance RCRA permit activities.

Early, Open Dialogue Can Prevent Legal Actions

Stakeholders may avoid drawn-out court proceedings if they

- seek out and address the social concerns of the community
- become involved in alternative dispute resolution and mediation when appropriate.

Mechanisms to Address Community Concerns

When facilities and agencies demonstrate that local citizens will share in the economic benefits of a facility, it becomes easier to build trust and create dialogue. This can be done by hiring a local caterer for public meetings or using local print shops for written materials. Once a facility is in place, it can continue to build trust by recruiting at local high schools and colleges. Sometimes local job skills are mismatched with facility needs. Some facilities have been successful by offering training courses to help local citizens develop the needed skills.

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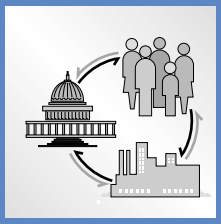

Environmental Justice

"...fair treatment for people of all races, cultures, and incomes, regarding the development and execution of environmental laws, regulations, and policies."

–U.S. EPA Environmental Justice Grants web site. http://es.epa.gov/oeca/oej/epagrantoffer.html

In recent years, national attention has been focused on the concern that minority and low-income communities carry a disproportionate share of the burdens and consequences of the siting of hazardous waste facilities near or within their communities. Research has shown that these communities have been disproportionately chosen as potential sites for RCRA facilities (Bryant and Mohai, 1992; Bullard, 1994; United Church of Christ, 1987). In addition, numerous communities have raised such concerns to EPA.

Environmental Justice at EPA

EPA is working to ensure that all segments of society have a healthy and safe environment. Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, helps to achieve that goal. Executive Order 12898 directs federal agencies to make achieving environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health and environmental effects of their program, policies, and activities on minority populations and low-income populations.

Environmental justice communities also lack access to information and government or business decision-makers. To correct this situation, EPA conducts outreach, works with communities, and encourages all stakeholders to work collaboratively to address social and economic concerns as part of their activities.

For further information on environmental justice, see

- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, *http://www.epa.gov/docs/oejpubs/execordr.txt.html*
- EPA's Office of Environmental Justice activities, *http://es.epa.gov/oeca/main/ej/index.html*
- EPA's Office of Civil Rights, on ensuring compliance with nondiscrimination laws, *http://www.epa.gov/civilrights/extcom.htm*
- EPA's Office of Solid Waste Environmental Justice website, *http://www.epa.gov/epaoswer/osw/ej/index.htm*

Many years of experience have led EPA to conclude that community concerns are best addressed when government agencies or companies make early and proactive efforts to understand the nature of community concerns and address them. This can be best accomplished if there is a robust understanding of the often complex range of social and economic factors that accompany disproportionate and adverse environmental impacts.

Environmental Justice and State/Local Programs

Tribal, state and local environmental agencies also are working to address environmental justice issues, partly as a result of responsibilities under their own laws and under Title VI of the Civil Rights Act of 1964. Under Title VI and EPA's implementing regulations, recipients of EPA financial assistance may not take actions that are intentionally discriminatory or have a discriminatory effect based on race, color, or national origin.

Historically, siting boards, zoning and permitting agencies, and industry have often not considered such factors as quality of life and aesthetic, historic, cultural, economic, or social impacts. Although ecological and health impacts are generally considered by environmental agencies, the evaluations may not be oriented toward the issues confronting minority and/or low-income communities. In particular, they may fail to consider the cumulative nature of such impacts.

EPA firmly believes that addressing quality of life concerns represents an important part of good business and good government. Siting boards, zoning and permitting agencies, and industry can greatly enhance the quality of all programs. Although these concerns are often most pronounced in environmental justice communities, they are by no means limited to such communities. Quality of life is a universal concern of all communities, regardless of race, income, culture or level of education.

Additional reading

Bryant, Bunyan and Paul Mohai. (1992) *Race and the Incidence of Environmental Hazards: A Time for Discourse*. Boulder, CO: Westview Press, 1992.

Bullard, Robert D., ed. (1994) *Unequal Protection: Environmental Justice and Communities of Color*. San Francisco: Sierra Club Books.

United Church of Christ Commission for Racial Justice (1987) *Toxic Wastes and Race in the United States: A National Study on the Racial and Socio-Economic Characteristics of Communities Surrounding Hazardous Waste Sites.* New York: United Church of Christ.

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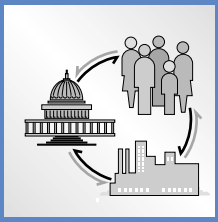

What Are Quality of Life Concerns?

Quality of Life reflects the values a community places on its cultural, social, and natural resources. Local residents strive to preserve those resources for current and future generations. Businesses and state and local governments should recognize and respect these often intangible values and integrate them into their planning.

"Our quality of life outweighs the business profit." This is a common sentiment expressed by communities being considered as potential hazardous waste facility sites. Each community (and even each stakeholder) defines quality of life differently. "Quality of life" is difficult to define and measure but is critically important to communities involved in RCRA hazardous waste siting and permitting.

Location Concerns–Preserving the Community's Use of Its Space

How near a facility is to homes, parks, schools, retirement centers, hospitals, and other public areas where people live, work, garden, learn, and play can be a concern. Residents and other community members want to know about

- exposure to hazardous substances through air, water, soil, and food (for example, garden vegetables)
- the likelihood of exposure to sudden, accidental environmental releases.

Facility-related vehicle traffic could present a problem to a nearby community if transportation routes are through "sensitive" community areas (e.g., schools). Concerns include

- threat of spills
- proximity of primary evacuation routes to facility
- incidental exposure to sudden releases
- exhaust from idling trucks.

Nuisance Concerns–Preserving the Enjoyment and Value of Property

Some hazardous waste facilities can present nuisance concerns to a neighboring community such as noise and odors that

- decrease outdoor activities
- discourage development of neighboring property
- devalue surrounding land and personal property.

Air emissions can be a nuisance when they deposit on homes, automobiles, and laundry and impair scenic views.

Citizens may also be concerned that a facility will change the look of their community for the worse.

Cultural and Social Concerns–Preserving the Community's Sense of Belonging and Security

How the community uses its land (e.g., fishing, gardening, or cultural purposes) is important to know. For example

- Do they garden in the area or fish in nearby streams, thus increasing their exposure to potential toxic releases by eating contaminated food?
- If so, do they depend on this food for sustenance or income?
- Will the facility deny or eliminate their access to social activities linked to land use? Disturbing or denying access to areas may be viewed as an attack on the community.
- Will the facility affect or diminish culturally and socially significant areas (e.g., sacred sites, historic structures)?

Economic Concerns–Promoting Economically Sound Resource Protection

Communities want to improve their economy and, therefore, are sensitive to the impact of new businesses on local human, economic, and natural resources.

- Will RCRA facilities devalue residents' investment in their community and discourage future investors?
- Will new development bring new employment that does not match residents' job skills?
- Will the new facility displace people from existing jobs?
- Will the community feel it has lost economic value while others have gained?

Mechanisms to Address Community Concerns

At some facilities, real estate tools that can quantify the effect of a RCRA facility on housing value have been used for properties bordering the facilities. Agreeing to compensate homeowners if housing values are reduced can be a powerful way to alleviate quality of life and environmental justice concerns.

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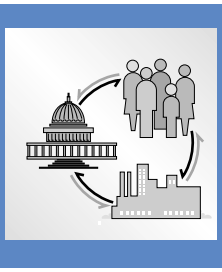

Identifying and Addressing Quality of Life Concerns

EPA strongly encourages tribal, state, and local permitting agencies to provide the most effective and constructive opportunities for all stakeholders to communicate concerns, exchange information, and reach mutually acceptable understandings as early as possible.

An open dialogue among stakeholders is required to identify and address community quality of life concerns. Dialogue helps to develop an understanding of the core issues of all parties involved and facilitates the exchange of information so that stakeholders can make informed decisions. Although public meetings are required during the prepermitting and permitting phases under the RCRA Expanded Public Participation Rule, it is always best to approach communities and address their concerns as early as possible, preferably in the initial stage of the process. Because community concerns vary greatly, solutions will vary; this is why it is important to get to know the community and its concerns before proceeding with siting plans.

Identifying and Getting to Know a Community

The starting point for effectively communicating with a community is to give the community the opportunity to define itself. At the same time, initial research should include gathering background information to identify issues and conditions affecting that community.

A basic knowledge of who the community is and what helps shape the community may suggest ways to approach and work with the community.

Many types of information may be reviewed to better understand who community members are and what shapes their community:

- maps of community boundaries for residential and commercial use
- demographics, including education level, culture, and languages spoken
- existing use of the land
- existing traffic patterns
- emissions from existing industrial sources
- environmental permitting history of the community (not just RCRA)
- identification of key community members and institutions (e.g., local health and community centers, schools, religious institutions).

Some of this information is available through local, state, and federal agencies. However, such data serve only as an introduction to the community. RCRA facilities operate within a real-life context. To know and understand the real issues requires getting to know those who live there.

Community Layout–Understanding the layout of a community is important to understanding the community itself. Maps can provide information on geologic and environmental considerations, planned types of development, property owners, natural and man-made features, and neighborhood/town/city layout. However, communities may define themselves in cultural and social terms. For example, people who attend a place of worship near a proposed RCRA facility may be considered part of the community even though they do not live there. Thus, maps can be useful tools on which citizens can define areas of concern.

Community History and Values–Community members may have strong feelings about past decisions on land use. For some communities, their quality of life has been deeply impacted by these historical events and decisions. It is therefore critical to gain an understanding of these issues from the community's standpoint.

In addition, each community has a unique set of values that is based on cultural traditions, geographic location, personal dynamics, and local institutions. These values need to be understood and respected in order to understand what "quality of life" means to each community.

Mechanisms to Address Community Concerns

Providing amenities packages, including landscaping, lighting, and local park areas, may address some basic concerns of community members with regard to the proposed RCRA facility. In addition, facilities have provided health services in response to local health needs independent of discussions of site impacts on local health.

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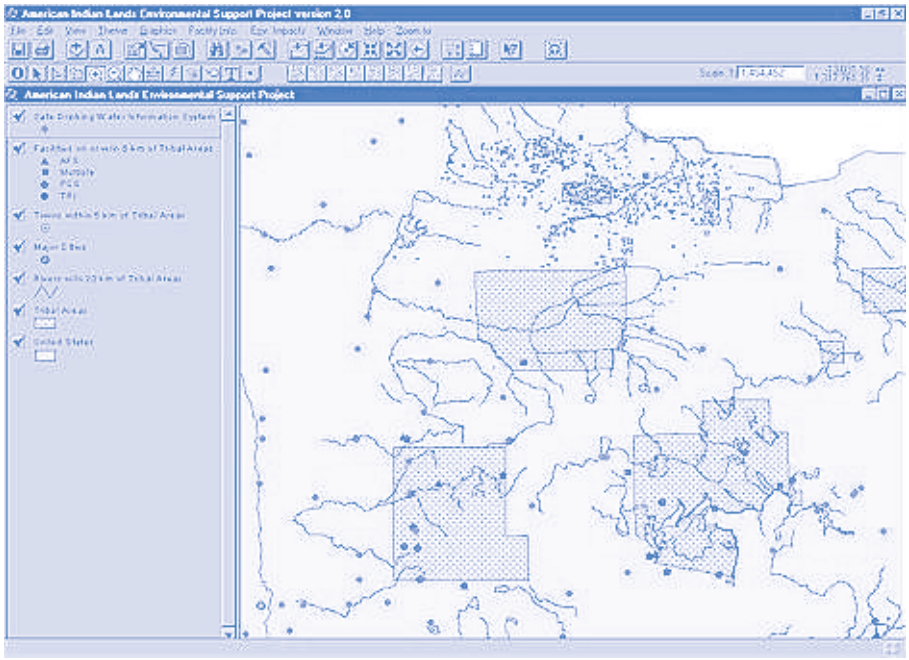


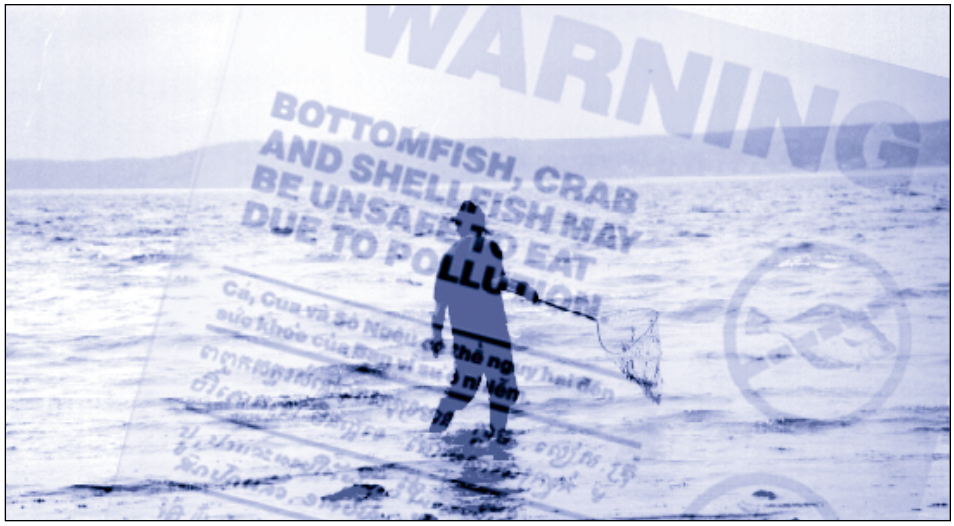
A geographic information system (GIS) is an excellent tool for overlaying information on maps to make comparisons and gain a greater understanding of a community.

Demographics–A community's demographics includes variables such as age, income, language, education, population, ethnicity, household size, and employment status. A study of these factors will reveal information about social and economic conditions as well as the cultural basis for some of the community's concerns and needs (e.g., high level of unemployment or fixed-income populations). Identifying ethnic and socioeconomic characteristics of a potentially affected community may be helpful in determining if there are potential environmental justice considerations. Such research is also helpful in developing an outreach strategy. Mapping systems can be used to identify potential environmental justice areas by overlaying demographic, land use, permitting, and environmental data.

Identification of Populations with Health Sensitivities–Sensitive people are those that show an adverse effect to a toxic substance at lower doses or show more severe or more frequent adverse effects after exposure than the average person. Biological sensitivity may result from age (e.g., children), gender (e.g., lactating females), genetics, dietary and health deficiencies (e.g., calcium deficiency), or other factors. There is concern that releases from or activities associated with RCRA facilities may increase risks to sensitive populations. Although the state of scientific knowledge and regulatory consideration of these issues is still evolving, it is prudent to identify areas that are being used by sensitive populations such as schools, hospitals, recreation areas and unofficial playgrounds, and address possible impacts on their users. Possible risks to these sensitive people can be minimized or avoided entirely if the issues and facts are fully understood and considered before making final decisions.

See the following web sites for information on sensitive populations:

- U.S. Census Bureau, American Fact Finder (facts such as age distribution, education,and ethnicity, etc. about specific geographical areas). *http://factfinder.census.gov*
- National Institute of Environmental Health Sciences. *http://www.niehs.nih.gov*
- National Toxicology Program (NTP) Chemical and Safety Data (information on different chemicals and the hazards that they may pose). *http://ehis.niehs.nih.gov/ntp/docs/chem_hs.html*
- HazDat Database (information on hazardous waste from Superfund sites and its effects on communities). *http://www.atsdr.cdc.gov/hazdat.html*
- National Center for Health Statistics (various health statistics from across the country). *http://www.cdc.gov/nchs*
- State and Local Health Departments. *http://www.cdc.gov/other.htm*
- U.S. EPA's Sociodemographic Data (used for Identifying Potentially Highly Exposed Populations). *http://www.epa.gov/ncea/sociodeg.htm*



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Identification of Potentially Highly Exposed Populations–Some populations can experience greater risk than the general population through higher than average exposure. Potentially highly exposed populations can be identified by factors such as geographic area of residence, age, gender, occupation, commuting patterns, lifestyle, race or ethnic origin, income level, or other demographic factors. Exposure and risk among these populations may differ from that of the general population as a result of cumulative exposure from multiple sources or pathways, food consumption patterns, or behavioral or cultural factors. Although much anecdotal and circumstantial evidence suggests that some subgroups may be more at risk from environmental pollution than the general population, little direct evidence exists on actual exposures and risk levels for other than a few specific chemicals or physical agents in the environment.

Many factors—both social and environmental—make it difficult to identify patterns or clusters of adverse health effects that can take significant time to become apparent. Existing exposures (especially cumulative exposures) may not have been assessed previously or their effects observed. Thus, it is important to consider a community's existing condition and activities before selecting a site. Communities with data that indicate relatively high incidences of noncommunicable disease (e.g., asthma), cancer, infant mortality, low birth weight, or birth defects may be concerned about the impact of a future RCRA facility. However, communities whose current data on cumulative exposures, risks, and disease rates are incomplete may also be concerned about the addition of a new facility. Responding to community concerns about these issues may involve additional data collection, assessment, and

discussion, including identifying opportunities for reducing existing exposures in potentially highly exposed populations.

Land Use–Official land use generally planned and governed by the tribal government, the local county, the city, or town may give permitting agencies and RCRA facilities information on the character of the community that residents wish to develop. However, zoned or planned land uses may not show how different parcels of land are actually used.

A clear understanding of land use areas in a community requires a three-step process

1. Examine zoning/planned use and actual use. A community's use of its space is not always based on property lines, zoning areas, and plans. Customs, religion, language, nation of origin, race, education, and social standing can be important factors that indicate how a community uses its space.
2. Examine customary uses (e.g., local fishing, gardening, and sacred/cultural sites). Representatives of permitting agencies and facilities should talk to community members and/or periodically visit locations near the site to determine what activities are taking place.

EPA has developed a number of environmental databases that may be helpful when assessing cumulative impact:

- Resource Conservation and Recovery Act Information System (RCRIS)
- Toxic Release Inventory (TRI)
- Biennial Reporting System (BRS)
- Comprehensive Environmental Response, Compensation and Liability Act Information System (CERCLIS)
- Aerometric Information Retrieval System (AIRS)
- Permit Compliance System (PCS) in the Wetlands, Oceans, and Watersheds (OWOW) and Storage Retrieval Database (STORET)

Data on existing community health and environmental conditions are an important input to cumulative risk assessment. The data should be used as a tool to alert the assessor to subgroups that may experience greater exposures than the general population. The data also should be used to help the assessor determine the number of individuals who may be subjected to increased exposures. When possible, assessors are encouraged to collect site-specific data to help confirm if any groups are experiencing high exposures. A comprehensive risk analysis method must also be used to properly characterize the effects of cumulative exposure.

For additional information, visit EPA's database website at *http://www.epa.gov/epahome/dmedia.htm*

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3. Understand the community's visions and values for the future. Through contact with the community, representatives should also determine what values the community places on the land. For example, siting a hazardous waste facility in certain areas may change the character of rural or agricultural communities because of the types of roads, sewer designs, and waterline changes needed for suburban development.

Zoning–The choice of locations for siting RCRA facilities is limited by local zoning and planning decisions; this may also limit possibilities for addressing or resolving some of the community concerns. Although local zoning decisions must be respected, additional factors may need to be considered to determine the appropriateness of a site for hazardous waste facilities:

- Determine existing and potential community concerns.
- Involve local governments in decision-making dialogue.
- Allow local governments to suggest alternatives based on the community's long-term plans.
- Consider the effects of industrial growth on the community.
- Consider the potential for environmental justice issues.

Recognizing Potentially Cumulative Impacts on a Community

Existing permitted and nonpermitted activities and potential polluting sources may be of concern to the community. To identify these activities

- Examine the history of all permitted activities in the area (not solely RCRA permitting), including the environmental history.
- Ask the community about the relative burden of existing facilities.
- Consider the location of these sources relative to the community, particularly sensitive areas such as neighborhoods, schools, and public areas or where there are high rates of infant mortality, cancer, and asthma, for example.
- Look beyond the potential/proposed site. Be aware of the potential impacts from other stationary and mobile sources.

- Learn how the community uses its space.
- Consider all information, not just technical impacts.
- Talk to the community to understand its concerns and record its oral history of the community's health (e.g., their perspective on the incidence of asthmatic children or cancer mortalities).

Mechanisms to Address Community Concerns

Memoranda of Understanding or Good Neighbor Agreements reassure communities that quality of life commitments will be honored. When these agreements are drawn up to be legally enforceable, they promote trust between the community and facility because the community is secure in knowing that protective actions cannot later be ignored.

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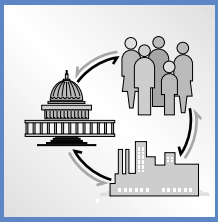

Conducting Effective Stakeholder Communication

To understand the character and concerns of a community, establish a strong interaction with the community prior to the RCRA permitting process. Going beyond the minimum required interactions between agencies, facilities, and the public can be advantageous. Promoting productive and ongoing dialogue and addressing stakeholder concerns can greatly smooth any environmental permitting process by reducing conflict, delays, and permit challenges.

Important elements of effective communication include understanding the following:

- how the community communicates with its members and others
- how the community gets its information (e.g., church bulletins, ethnic radio, ethnic or local paper, word of mouth, and languages commonly used).

Resources for effective outreach and communication include the following:

- *The Model Plan for Public Participation*. EPA National Environmental Justice Advisory Council. Contact EPA Office of Environmental Justice. *http://es.epa.gov/oeca/oej/nejac/publicat.html*
- *American Society for Testing & Materials (ASTM) Standard Guide to the Process of Sustainable Brownfields Redevelopment*. (ASTM Standard E-1984-98). Contact ASTM Subcommittee E50.03. *http://www.astm.org*
- *RCRA Public Participation Manual*. (EPA 530-R-98-007). Contact the RCRA Information Center. *http://www.epa.gov/epaoswer/hazwaste/permit/pubpart/manual.htm*
- *Improving Dialogue with Communities: A Risk Communication Manual* for Government. New Jersey Department of Environmental Protection. 1988.
- *Public Participation and the Environment: What Works*. Caron Chess and Kristen Purcell, 1997. Center for Environmental Communication, Rutgers University, 31 Pine Street, New Brunswick, NJ 08901-2883.
- *Constructive Engagement Resource Guide: Practical Advice for Dialogue Among Facilities, Workers, Communities, and Regulators*. (EPA-745-B-99-008). June 1999. Contact EPA's National Service Center for Environmental Publications.

Enhancing Stakeholder Dialogue

Communicate Early–EPA strongly encourages permit applicants and authorities to reach out to communities **in advance** of site selection and permit filing. Often, notifying the public and holding hearings after a site has been chosen and technical design decisions have been made provokes distrust among communities, industry, and permitting authorities. Early, honest communication develops credibility for all parties and can lead to cooperative problem solving instead of stand-offs and delays.

During the Initial Phase–Community members offer a variety of useful information that may influence siting decisions:

- historic land uses (official and unofficial)
- existing environmental conditions
- conflicting land uses (e.g., use of a stream for fishing, use of a vacant lot for community vegetable gardening)
- vision of sustainable uses of land, water, and air resources
- acceptable alternatives or modifications to proposed plans
- religious, cultural, or other special values of the land.

As a result, facility plans are less likely to encounter opposition and be delayed because of permit challenges.

During the Design Phase–Design issues that may benefit from community involvement include

- facility risk management plan
- visibility and buffering of site
- location of outfalls (if any)
- hours of operation

Mechanisms to Address Community Concerns

During and after the permitting process, communications can become strained. It pays to discuss and agree upon protocols for communication early to avoid delays due to disputes. For instance, parties might agree to have a trained facilitator or mediator present during discussions.

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- inclusion of pollution prevention activities
- truck routing – community knowledge of congested areas and alternate routes.

Businesses may be concerned about incurring open-ended costs if they promise to address quality of life issues not addressed by regulation. Such concern can be alleviated by working with communities to define and prioritize quality of life issues that are most important and agreeing on a schedule for resolution. Likewise, any compensation agreements can be defined and their limits set.

Central objectives of an effective communication plan:

- Build trust
- Keep the dialogue open
- Hold effective public meetings
- Devise effective outreach methods.

Build Trust–As a result of past siting decisions, a history of distrust has built up in many communities, leaving some feeling burdened by industrial facilities. To overcome the legacy of distrust, permit applicants and permitting agencies must seek to begin and develop a dialogue with the community very early in the siting/permitting process. Effective steps would be to

- Approach the community early in the process.
- Respond to community concerns and explain clearly how concerns will be addressed (e.g., routine releases, spill response, truck operating hours).

There is no doubt in my mind that when a neighborhood or community becomes informed and involved, they will do a far better job of deciding what is right for their children, for their air, for their water, than any government agency.

–EPA Administrator Carol Browner
http://www.epa.gov/docs/oejpubs/strategy/strategy.txt.html

- Arrange open houses and tours for neighbors at hours fitting community needs.
- Hold events, such as training sessions, dinners, or picnics, to bring plant employees together with members of the community.
- Annually review the status of relations with the community to ensure the facility is addressing any concerns related to protection, resources, rights, and lands.
- Obtain annual feedback from the community on how the facility is performing environmentally.
- Annually review state or local agency's performance to ensure that the facility fulfills its obligations.
- Maintain an open and accessible channel of communication with the community.

Keep the Dialogue Open–Developing trust through early dialogue is only the beginning. To maintain communication

- meet regularly to ensure that everyone understands the issues
- be honest
- be direct and open
- respond to all comments

In addition, a Community Advisory Panel (CAP) that reflects local diversity can be formed. CAPs can provide insight and external input and may oversee administration of amenities or compensation agreed upon as part of siting discussions. For instance, a CAP might be formed to administer funds allocated for planning, education grants, or job training programs.

Hold Effective Public Meetings–Effective public meetings inform and address the concerns of community members. Such meetings also send a message to community members that they have a part in the actual decision-making process. Goals are best achieved when community organizations cosponsor the meetings and help establish the meeting's goals, agenda, and outreach. To ensure effective meetings

- Engage a facilitator who is experienced or trained in working with communities and in addressing environmental justice concerns.

Mechanisms to Address Community Concerns

An industry may agree to provide pull-off areas for trucks so they don't have to idle in line, increasing exhaust emissions. Agreements can also be arrived at with the community concerning truck routes, truck traffic, and turning off motors.

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- Include an assortment of tools that attendees can use to share their concerns, such as maps with color-coded pins, handouts, brief surveys, and individual comment cards.
- Where possible, arrange seating to promote an atmosphere of equal participation. (This might mean having community members at the head table, or even avoiding the head table layout entirely.)

Public meetings are often designed so that many members of the public are given time to speak and raise questions. More constructive, however, are meetings designed so that members of the public can engage in substantive dialogue with agencies and permittees. During these meetings

- Break out into small discussion groups to facilitate productive discussion.
- Reassemble all attendees so that small groups can report their views to everyone.

Devise Effective Outreach Methods– Communities, agencies, and other stakeholders may have different ideas on what constitutes public participation. An agency or industry may feel that it has fulfilled its public participation obligations while the potentially affected community may not. To ensure effective public outreach

- Schedule meetings at convenient times and locations for community members.
- Announce meetings through community channels, such as church bulletins and local papers.
- Announce meetings in common languages.
- Provide easy-to-understand information to community members.
- Provide publications and speakers in the appropriate languages other than English.

Providing Technical Assistance Puts All Stakeholders on a Level Playing Field

Community members can readily become legitimate participants when they understand the issues at stake, their roles, and the regulatory processes. Individuals responsible for informing and responding to the community should have the appropriate knowledge, training, and ability to provide clear explanations of technical issues. They should

- Inform the community of technical and legal considerations by using understandable terms, familiar language, and similar experiences.
- Explore what type of information needs to be made available to the public and how that information is to be presented, including languages other than English.
- Provide information on regulatory processes, technology performance, and stakeholder rights.
- Present relevant technical and regulatory information available from RCRA facilities and permitting agencies as simply as possible—in a language people will understand.
- Collect and maintain pertinent technical information in a publicly accessible place, such as the local public library or community center.

Independent Consultants–Under some circumstances, the community may require impartial independent technical assistance to ensure unbiased, informed opinions and information. Many case studies report successes when grants are awarded for this purpose. Success is attributed to

- creating the same degree of credibility as other stakeholders
- lowering frustration levels, because consultants can "translate" community quality of life concerns into terms that are commonly used within the siting or permitting process.

Community Monitoring–After the facility is permitted and constructed, some communities have obtained resources to perform their own emissions monitoring. This type of monitoring is comparable to the "riverkeeper" concept used in water quality scenarios. At first the idea may make

Permitting can progress with strong community support when public outreach and participation are carefully planned and implemented from the beginning. Community participation and consent can be critical to business development. For example, a city's community development agency can build a neighborhood working group to meet periodically in open meetings to discuss prospective business plans. The working group can identify and report its concerns and call on the city and business to implement actions. Once the city and prospective businesses negotiate or agree on what's to be done, the site's development and permitting may move forward with stronger public support.

Mechanisms to Address Community Concerns

Keeping the doors of communication open is a two-way process. One effective mechanism for communication is a facility newsletter that informs community members about RCRA facility-related information, such as accidental releases, site tours, community outreach programs, and emergency response procedures.

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the facility uncomfortable, i.e., turning over monitoring to the public, but it may be worth the time invested to promote good community relations.

Councils of Government–Local councils of government are good resources for providing planning guidance and identifying consultants (if independent technical assistance is sought by the community).

Accelerating Progress by Learning from the Community

Agencies and permittees must recognize that community values and feelings are a legitimate aspect of environmental health issues. Residents are often very aware of subtle changes that take place around them. Ignoring factors that influence public perceptions of risk, labeling them as irrational, or discounting public concerns may lead to hostility between community members, the facility, and the permitting or siting agency. Public trust can disintegrate if it appears that community concerns are not being taken seriously.

Agencies and RCRA facilities often focus on risk-based technical information from monitoring data, reports, and risk assessments; yet the public may be more likely to take into account public perceptions and cultural values. For instance, the threat of loss of enjoyment and the potential devaluation of their property resulting from nuisances may be as serious and as important as health concerns to a community. A community may also be uncomfortable with the "look" of the facility—it may not fit with how residents view their community's general appearance.

Analytical methods are being developed to help incorporate quality of life concerns into a technical decision-making framework. Local universities may be able to provide researchers familiar with the application of these methods.

A Checklist on Siting Facilities

Address the fundamentals

- ❒ Integrate cultural/social and economic needs of a community into early site planning
- ❒ Establish partnerships with communities
- ❒ Take time to find out about a community's quality of life concerns
- ❒ Learn about environmental justice programs that may apply at the site

Be prepared to answer questions on

- ❒ Routine environmental exposure
- ❒ Threat of spills and likelihood of exposure from accidental releases
- ❒ Evacuation routes and alternate routes
- ❒ Noise and odor
- ❒ Influence on outdoor activities
- ❒ Influence on development of neighboring property
- ❒ Devaluation of surrounding land and personal property
- ❒ Gardening and fishing activity nearby—recreational or subsistence
- ❒ Effect on property of cultural and social significance
- ❒ Displacement of existing jobs or potential for new jobs and skills match

Collect information on

- ❒ Community boundaries—residential and commercial
- ❒ Demographics
- ❒ Education level of residents
- ❒ Cultural background and values of residents
- ❒ Actual land use
- ❒ Relative burden of existing facilities, e.g., existing emission sources and cumulative impacts
- ❒ Environmental permitting history
- ❒ Key community members and institutions
- ❒ Existing contamination information
- ❒ Areas used by high-risk populations (schools, hospitals, recreation areas)
- ❒ History of all environmentally permitted activities
- ❒ Oral history of community's health
- ❒ Location of sites of special cultural, religious, or historical importance

Develop effective communication plan based on

- ❒ How the community members communicate with each other
- ❒ How the community gets its information
- ❒ Building trust with a two-way, open dialogue, responding to all comments and questions
- ❒ Holding effective public meetings
- ❒ Early on, devising and using an effective outreach strategy
- ❒ Providing technical assistance to community members
- ❒ Reaching out before site selection

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Resources for Further Information

For further information on the environmental justice and public participation issues discussed in this brochure, see the following sources:

Publications:

Chemistry Cleans Up A Factory, *New York Times*, July 18, 1999.

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* *http://www.epa.gov/docs/oejpubs/execorder.txt.html*.

Community Advisory Panels within the Chemical Industry: Antecedents and Issues, F. Lynn and C. Chess, *Business Strategy and the Environment*, Summer 1994, 3, Pt. 2, pp. 92-99. An examination of potential problems with corporate CACs, based on research on government citizen advisory committees.

Industry Relationships with Communities, C. Chess and F. Lynn, in K. Fisher et al. (eds.), *The Greening of Industry Network: Resource Guide and Annotated Bibliography* (Washington, DC: Island Press, 1996), pp. 87-110. A discussion of the relationship between the chemical industry and communities, including mediations, community advisory committees, and good neighbor agreements.

Interim Guidance for Investigating Title VI Administrative Complaints Challenging Permits *http://es.epa.gov/oeca/oej/titlevi.html*

Telephone Contacts:

- Office of Solid Waste, Permits and State Programs Division (703) 308-8404
- RCRA Hotline (800) 424-9346 (TDD 533-7676)
- Office of Environmental Justice (800) 962-6215
- RCRA Information Center (703) 603-9230

Web Sites:

- Environmental Justice *http://www.epa.gov/oeca/main/ej/index.html*
- Office of Solid Waste *http://www.epa.gov/epaoswer/osw/index.htm*
- Envirofacts (RCRIS, AIRS, etc.) *http://www.epa.gov/enviro/index_java.html*
- Environmental Atlas *http://www.epa.gov/ceisweb1/ceishome/atlas*
- Technical Outreach Services for Communities (TOSC) *http://www.toscprogram.org/*
- U.S. Department of Justice, Civil Rights Division *http://www.usdoj.gov/crt/*
- USEPA, Office of Civil Rights, *http://www.epa.gov/civilrights*

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