

GETTING TO MAYBE: SOME COMMUNICATIONS ASPECTS OF SITING HAZARDOUS WASTE FACILITIES

*by Peter M. Sandman**

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I. Foreword

Professor Sandman's article must be given a great deal of attention by community leaders, government officials and industry representatives. It begins to develop an innovative approach to the dilemma of where to site unwanted hazardous waste facilities. If its proposals and recommendations (or appropriate modifications thereto) are followed, a successful facility siting process could emerge which would result in: an acceptable, more environmentally sound waste facility; a stronger, more empowered community; a government with credibility in the host community; and a developer who will be able to build its facility with minimal delays and few additional expenses. If a process other than the one Sandman develops is utilized, a waste facility may be sited but it will be one which falls short of having all the safeguards for which a community group could have negotiated. It will also be a site decided upon only after a long delay caused by litigation, and a site realized at a great financial cost to the community, the government and the developer. Such a process would also result in a serious loss of trust in government and industry by the host community.

In defining the dilemma, community leaders ask three difficult questions whenever a new waste facility is proposed: (1) Do we really need it? If so, then (2) can it be made safe? And if this answer is also "yes", then (3) will it remain safe?

None of these questions are trivial, and none have obvious answers as proponents and regulators of new waste facilities often suggest. Environmentalists (including myself) have concluded that a few new facilities are probably needed, although there must first be a serious move toward source recycling and source reduction. While many of us often share the host community's concerns about the site selection process, we do not know which types are the most appropriate or where they should be located. Many environmentalists also believe that new technol-

ogy exists which allows us to conclude that the initial design of a new facility could be made safe. I believe that once built and operating, a new waste facility will only remain safe if there has been continuous and comprehensive community oversight and monitoring during the facility's entire construction, operation and maintenance phases.

It is relatively easy for *me* to answer these questions. I currently do not live in a community which may become the home for such a facility and, in addition, I work full-time on environmental affairs and study waste generation and waste disposal issues very closely. But what about community residents who have full-time jobs and full-time family responsibilities to whom this subject is so foreign? How should they find the answers? I do know one thing: they must find the answers for themselves. They should not rely on government and industry. While they may ask traditional environmentalists like myself for some advice, they still need their own sources and data. Let us try to understand the community's perspective for a moment (Sandman's article does this in much greater detail) so we will be in a position to attempt to resolve the dilemma.

A. *The Community's Perspective*

Before the disasters such as Love Canal and Chemical Control, citizens were not very involved in, nor knowledgeable about, the siting of landfills and other hazardous waste disposal practices. The public trusted the government and its experts. Most assumed they were protected against these types of disasters. But, with the serious health problem discovered by residents living near Love Canal, and with the extensive human exposure to toxic fumes caused by the fire at Chemical Control, the public quickly began to feel betrayed by their government. They lost confidence, developed a good deal of cynicism and distrust, and realized that they now had to play a major role in the decision-making process for future waste disposal facilities.

The community, of course, does not have the resources to compete with the government and the developer when it comes to obtaining the technical resources needed to fully assess a proposed waste facility. While the present hazardous waste facility

siting law¹ does provide for some resources to be given to the local government for its use to review a proposed waste facility,² community acceptance of a new waste facility is extremely unlikely. Community residents have no real incentive to support it; they usually have been severely let down in the past, and in all likelihood, they believe that their community already bears more of the burden than it should when it comes to hosting unwanted facilities. These misfit facilities include: sewage treatment plants, prisons, old and polluting factories. By choosing to fight the proposal, the community can muster a large amount of resources and can cause long delays before a final decision to build or not to build is reached.

The problem which remains, then, is how to get the community to the negotiating table? How do you convince the community to temporarily forego their efforts to block a proposal and agree to discuss possible solutions which will be acceptable to them, to the developers and to the State? Sandman's article suggests a significant portion of the answer. Let me give the reader a glimpse of what is to come with several concise thoughts about this question. It should be kept in mind that the community negotiating team can call off the negotiations at any time and institute a full scale effort to block the proposed facility. This tactic should only be employed after the community decides that the developer is not negotiating in good faith or if the developer is not willing to meet the community's bottom line.

B. *Resolving the Dilemma*

The basic presumption that underlies the negotiation process is that the developer is willing to sit down with the community. This presumption is strong, given that there is virtually no risk involved since the negotiations are not binding until each side agrees to be bound. Furthermore, the community will surely oppose the proposed facility without prior negotiation. The community must also consider what the benefits of negotiation may be. I will discuss several areas of concern which should be nego-

¹ N.J. STAT. ANN. §§ 13:1E-49 to -91 (West Supp. 1985); see also Lanard, *The Major Hazardous Waste Facilities Siting Act*, 6 SETON HALL LEGIS. J. 367 (1983), and Goldshore, *Hazardous Waste Facility Siting*, 108 N.J.L.J. 453 (1981).

² See N.J. STAT. ANN. § 13:1E-59 (West Supp. 1985).

tiated but which would not be mandated by the DEP if negotiation was absent.

1. *Oversight*: The developer should provide resources to the community to enable it to hire its own experts to participate in any changes to the proposed plans. The community should also require regular and frequent (but unannounced) access to the facility by a committee of community residents and by the community's professional experts, paid for by the developer, but hired by and working for the community.

2. *Operation and Maintenance*: The developer would agree to a procedure whereby the community experts' suggested improvements and/or changes to the planned operation and maintenance of the facility would be reviewed and implemented as appropriate.

3. *Emissions Offsets*: A community with foresight would require the developer to pay for new pollution control equipment to reduce the emissions of neighboring old facilities so that even with the increase of emissions from the new waste disposal plant, the overall emissions in the community would be lesser than if the plant were not built at all.

4. *Stipulated Penalties*: Any violations of operating permits could not be contested. Rather, the fines would go immediately into a community trust fund which would be administered by community leaders for use in monitoring the community environment.

5. *Insuring Property Values*: This would guarantee that property values near the facility would not be affected by their proximity to the facility by having the developer insure against this.

6. *Protection Against Transportation-Related Accidents*: This would require specifying routes for trucks to use to and from the facility and provide for immediate fines for any transportation-related accidents (stipulated penalties) and for any time a truck fails to use a specified route.

These are only a few of the ways a community group can effectively participate in the decision-making process for hazardous waste facilities. The benefits accrue to all interested parties. The community is empowered to make meaningful and educated decisions about the proposed facility and is protected against improper operation and maintenance of the facility. On the other

hand, the developer is able to build and operate its facility without long and costly delays and litigation. Finally, the State is able to continue its efforts to ensure that hazardous waste is disposed of as safely as possible and is not forced to exercise its powers of eminent domain and override local ordinances. Of course, we all have to get to the table. Peter Sandman's *Getting to Maybe* should help us get there.

II. Introduction

The United States generates roughly fifty million metric tons of non-radioactive hazardous wastes annually.³ While much can be done to reduce this figure, a healthy economy will require adequate facilities for transporting, treating, storing and disposing of hazardous wastes for the foreseeable future. Current facilities are far from adequate; new ones and safer ones must be sited and built. The alternatives are dire—economic and technological slowdown on the one hand, or “midnight dumping” and similar unsafe, illegal and haphazard disposal practices on the other.

The principal barrier to facility siting is community opposition: “not in *my* backyard.” Experience amply justifies this opposition. Communities have learned, largely from the media, that hazardous waste facilities endanger public health, air and water quality, property values, peace of mind and quality of life. They have also learned, largely from the environmental movement, that they can mobilize politically to block the siting of a facility, eminent domain statutes notwithstanding.

Technical improvements have reduced, though not eliminated, the risk of “hosting” a hazardous waste facility. State governments have learned how to regulate facilities more effectively. Responsible hazardous waste generators have come to terms with the need to reduce waste flow and handle remaining wastes properly. Responsible environmentalists have come to terms with the need to accept some waste and some risk in its disposal. A government-industry-environmentalist consensus is emerging in behalf of state-of-the-art facility design, development and siting. However, this consensus is not enough. The community typically rejects the consensus, and may well enforce its dissent through

³ See *Superfund Strategy* (Apr. 1985) (Office of Technology Assessment).

its exercise of a *de facto* veto.⁴

The comments that follow are predicated on several assumptions: (1) A facility can be designed, managed and regulated so that risks are low enough to justify community acceptance (without this, the task of siting is unethical); (2) Community acceptance is more desirable and more feasible than siting over the community's objections (without this, the task of meeting with a community is unnecessary); and (3) The positions of the siting authority and the developer are sufficiently flexible—legally, politically and economically—to permit meaningful concessions to community demands (without this, the task of gaining community approval is unachievable).

III. Acknowledge the community's substantial power to slow or stop the siting process.

Despite the preemption and eminent domain provisions of New Jersey's Major Hazardous Waste Facilities Siting Act,⁵ many observers are convinced that a facility cannot be sited over a community's objections. The resources in the community's hands are many: legal delay, extralegal activities, political pressure, legislative exemption, gubernatorial override. The subtitle of one of the leading books on the siting problem testifies to the conviction of authors David Morell and Christopher Magorian that the community has something close to a veto. The book is entitled *Siting Hazardous Waste Facilities: Local Opposition and the Myth of Preemption*.⁶ Moreover, in a January 25, 1985 interview with *The New York Times*, Department of Environmental Protection (DEP) Commissioner Robert E. Hughey agreed. "Siting," he said, "will be fought everywhere. I think everything else but this has an answer."⁷ At the Seton Hall Symposium on siting, Douglas Pike of Envirocare International acknowledged the veto power of communities when he stated: "We have to operate as if there is no eminent domain."

⁴ BLACK'S LAW DICTIONARY (5th ed. 1979) defines "de facto" as a "phrase used to characterize a state of affairs which must be accepted for all practical purposes but is illegal or illegitimate."

⁵ N.J. STAT.ANN. § 13:1E-81 (West Supp. 1985) ("Eminent domain").

⁶ D. MORELL & C. MAGORIAN (1982).

⁷ Carney, *D.E.P.: The Record and the Problems*, N.Y. Times, Jan. 27, 1985, § 11 at 6.

Ironically, nearly everyone is impressed by the community's power of opposition—except the community, which sees itself as fighting a difficult, even desperate uphill battle to stop the siting juggernaut. From a communication perspective, this is the worst possible state of affairs. Suspecting that the “fix” is in, the community judges that it simply cannot afford to listen, to consider alternatives, to negotiate modifications. Intransigence looks like its best shot, perhaps its only shot. But suppose the Commission and the developer were to acknowledge *to the community* its considerable power: “Look, we probably can't site this thing unless you agree, and there are plenty of chances for you to stop it further on down the pike. Why don't we put the possible battle on ice for now and explore whether there is any possible agreement. If the talks fail, you can always go back to the fight.” It will not be easy, of course, to persuade the community that this is not a trick, that it is forfeiting nothing by negotiating now, that it can switch its stance from “no” to “maybe” while protecting the road back to “no.” It will take some effort not to *overstate* the community's power. Though more powerful than it thinks, the community is not omnipotent, and the risk of override is real. The goal is to let the community know, publicly, what other participants already know privately: that it will be extremely difficult to site a facility over community objections, and that the siting authority would greatly prefer not to try. Formal acknowledgments of community power, such as a developer's pledge to honor a community referendum on any agreement that might be negotiated, are sometimes possible. But even an informal acknowledgment will reduce intransigence and encourage open discussion.

Acknowledging the community's substantial power will have three other desirable impacts. First, it will reduce community resentment of what is seen as a power imbalance, an outrageous imposition of state control over local self-determination. This resentment and the deep-seated feeling of unfairness that accompanies it are major factors in community rejection of hazardous waste facilities. Residents look at New Jersey's siting law and note that in the final analysis, state action prevails over local preference. Angrily, they resolve to resist. Open acknowledgment of *de facto* power will lessen the anger at the imbalance of *de jure*

power.⁸

Second, acknowledging community power will reduce fear about the health effects of a hazardous waste facility. One of the best documented findings in the risk perception literature is that we fear voluntary risks far less than involuntary ones. According to one study people will accept *one thousand times* as great a risk if it is chosen than if it is imposed by others.⁹ Therefore, to the extent that the community feels itself in control of the siting decision, the risks of the facility become much more acceptable and much less fear-arousing.

Third, acknowledging community power will put the dialogue on a more frank footing than the classic "one-down/one-up" pattern that tends to dominate siting discussions. Under this pattern a community tries to prove itself the equal of the developer and the siting authority, while secretly feeling that it is not. The developer and the authority adopt a parental "the-decision-is-not-yours-but-we-value-your-input" attitude, while secretly fearing the community's *de facto* veto. Negotiations are much easier when the parties are acknowledged equals.

IV. Avoid implying that community opposition is irrational or selfish.

Nothing interferes so thoroughly with the settlement of a dispute as the suggestion from either side that the other is being irrational or selfish. Yet developers, siting authorities and their expert consultants often aim this charge at community opponents. The acronym "NIMBY"—Not In My Back Yard—has become a sarcastic code, implying that opponents approve of siting in principle but oppose it in their neighborhoods for insupportable reasons. Some community groups, by contrast, still use the phrase as an anthem of their battle to prevent the Love Canals of the future. For example, Nicholas Freudenberg's book on how to organize community opposition is entitled *Not In Our Backyards*.¹⁰

⁸ BLACK'S LAW DICTIONARY (5th ed. 1979) defines "de jure" as "descriptive of a condition in which there has been total compliance with all requirements of the law." Here the term refers to the actual legal authority of the state to site a facility over the objection of a municipality, whether or not that approach will ever be taken.

⁹ STAFF, *Social Benefit Versus Technological Risk*, 165 SCIENCE 1232-38 (1969).

¹⁰ N. FREUDENBERG (1984).

But the sarcastic meaning prevails. Opponents now take offense when developers or siting authorities start talking about “the NIMBY syndrome”—and they are correct to be offended.

Some opponents disapprove of siting new facilities anywhere, but choose to fight only in their own communities where their stake is greatest and their power base strongest. Some argue that source reduction and recycling can eliminate the need for new facilities, or that facility siting should be conditioned on policies that will reduce the waste stream, or that expansion of existing facilities is a wiser alternative, or that we should wait for improvements in waste treatment technology. Some take the position that the type of facility proposed is unduly dangerous, or that the site chosen is environmentally inappropriate, or that the developer’s record is unsatisfactory. Others assert that equity dictates a different location. Rural dwellers argue that they should not serve as host to a facility because they did not produce the waste in the first place. Urbanites argue, on the other hand, that they have suffered enough pollution already. These are *all* coherent positions that deserve respectful responses. Dismissing them as a manifestation of the NIMBY syndrome is not fair, accurate nor strategically wise.

Similarly, community distrust of risk estimates by experts is not irrational. The experts generally work for interests with a stake in reassuring answers. Even with total integrity, non-resident experts in pursuit of a site can be expected to reach less cautious conclusions than residents with no special interest in siting. Moreover, there is ample precedent in the last several decades of siting experience to justify fears of a lack of integrity, or of incompetence or callousness. At best, the field is new and risk estimates are inherently uncertain. It is rational to distrust the experts even without any expertise of one’s own. People who are trying to sell a hazardous waste facility are no different from people who are trying to sell, say, insulation for a home. One does not have to understand what they are saying technically to suspect that they are not to be trusted.

Furthermore, many siting opponents have acquired impressive expertise of their own. They have sifted the evidence in pursuit of technical arguments to support their position. In some cases, the opponents have become impressively knowledgeable. When pro-siting experts dismiss *all* objections as ignorant be-

cause *some* are without foundation, they are fighting *ad hominem*, inaccurately and unfairly.

It is important to note that many siting questions have no technical answers: How much risk is too much? What should you do when the answers are uncertain? These are “trans-scientific” questions, sometimes couched in technical language but unanswerable by technical methods.

Sociologists divide people into the categories “risk-averse” and “risk-tolerant.” What separates them is a fundamental values difference. The risk-averse believe that if you are not sure of what you are doing you should not do anything, that meddling usually makes things worse. The risk-tolerant believe that problems should be solved incrementally, that the new problems caused by their tinkering will be solved later by someone else’s tinkering. Neither position is unreasonable, and neither can be supported or refuted by technical information.

It takes courage for community activists to pit their newly acquired knowledge and deeply felt values against the professional stature of the experts. Unsure of their technical ground, these activists defend it all the more tenaciously, sensitive to the merest hint of disrespect. They deserve respect instead and they will not listen until they feel they have it.

V. Instead of asking for trust, help the community rely on its own resources.

Most of the people working to site a hazardous waste facility consider themselves moral and environmentally responsible people. Many are incredibly dedicated to meeting society’s need for a decent facility. They also view themselves as professionals, as careful specialists who know what they are doing. In both of these roles they feel that they deserve at least trust, if not gratitude. They experience community distrust—sometimes even community hatred—with great pain. The pain often transforms into a kind of icy paternalism, an “I’m-going-to-help-you-even-if-you-*don’t*-know-what’s-good-for-you” attitude. I suspect that much of the rhetoric about community irrationality, selfishness and the “NIMBY syndrome” has its origins in hurt feelings. It is entirely reasonable for socially responsible experts to want to be

trusted, to feel that they deserve to be trusted, and to resent the fact that they are not trusted.

It is sometimes said that the solution to the siting problem is to build trust. To be sure, the siting authority and the developer must make every effort not to trigger still more mistrust. For example, any hint of *ex parte* discussions between the siting authority and the developer must be avoided. But just as it is reasonable for siting experts to expect to be trusted, it is also reasonable for local citizens to withhold their trust, to insist on relying on their own judgment instead. The Commission must not only accept this, but also encourage and facilitate it.

Information policy is an excellent case in point. As noted earlier, one need not understand a technology in order to distrust experts with a vested interest. One, however, *must* understand the technology in order to decide whether the experts are right despite their vested interest. There is wisdom in the Siting Act's provision of research grants to the community at two stages in the siting process.¹¹ Methods should be found for the Commission to help the community inform itself even earlier in the process, when positions are still relatively fluid. The advantage of an independently informed community is not only that citizens will understand the issues, but that they will be *satisfied* that they understand the issues, and thus feel less pressure to construct a rejectionist front. A community that believes it has the knowledge to decide what should be done and the power to do it can afford to be reasonable. A community that believes it lacks sufficient knowledge and power, even if it has them, must conclude that the indiscriminating veto is the wisest course.

Similarly, communities want to know that if a facility is built they will not need to rely on outside experts for monitoring and enforcement. Many mechanisms can provide this autonomy:

- (1) training of local health authorities, and citizen activists, to monitor effluents;
- (2) funding for periodic assessments by consultants accountable to the community;
- (3) duplicate monitoring equipment in a public place,

¹¹ N.J. STAT. ANN. § 13:1E-59.d. (West Supp. 1985); *see also* N.J. STAT. ANN. § 13:1E-60.c.(4)(West Supp. 1985).

so citizens can check, for example, the incinerator temperature for themselves;

(4) establishment of a trust fund, with trustees acceptable to the community, to supervise compensation in the event of accident, so citizens need not rely on the state courts.

Do not underestimate the depth of community disillusionment. Modern society depends on letting experts decide. When experts fail to decide wisely we are jolted into belated and reluctant attention. We feel betrayed. We are angry because we must now pay attention. We feel guilty for having relinquished control in the first place. We do not know what to do but are convinced we cannot trust others to decide for us. Above all, we fear that others will impose their unwise decisions on us even now that we are paying attention.

When the community grimly demands its autonomy, it is too late to ask for trust. Experts must instead presume distrust while helping the community exercise its autonomy wisely.

VI. Adapt communications strategy to the known dynamics of risk perception.

When people consider a risk, the process is far more complex than simply assessing the probability and magnitude of some undesired event. Departures from statistical accuracy in risk perception are universal and predictable. Communications strategy can therefore take the departures into consideration. It is crucial to understand that the following patterns of risk perception are "irrational" only if one assumes that it is somehow rational to ignore equity, uncertainty, locus of control and the various other factors that affect, not "distort," our sense of which risks are acceptable and which are not. Rational or not, virtually everyone considers getting mugged a more outrageous risk than skidding into a tree on an icy highway. And virtually everyone is more frightened by a hazardous waste facility than by a gasoline storage tank. Our task is not to approve or disapprove of these truths, but to understand why they are true and how siting communication can adapt to them.

The points in the following section deal with why communities fear hazardous waste facilities more than technical experts

judge that they "should," and how communication can be used to reduce the discrepancy. It might be possible to employ this counsel to the exclusion of all else in this article, hoping to pacify community fears without acknowledging, much less honoring, community power. Such an effort would, I think, fail abysmally. Communications strategy must be part of fair dealing with the community, not a substitute for it.

Patterns of Risk Perception

1. *Unfamiliar risks are less acceptable than familiar risks.* The most underestimated risks are those, such as household accidents, that people have faced for long periods without experiencing the undesired event. The sense of risk diminishes as we continue to evade it successfully. Thus, the perceived riskiness of a hazardous waste facility is, in part, a reflection of its unfamiliarity. Stressing its similarity to more familiar industrial facilities can diminish the fear; so can films, tours and other approaches aimed at making the facility seem less alien. Even more important is to make the wastes to be treated seem less alien. Detailed information on the expected waste stream—what it is, where it comes from and what it was used to make—should reduce the fear level considerably.

2. *Involuntary risks are less acceptable than voluntary risks.* As mentioned earlier, some studies show acceptance of voluntary risks at one thousand times the level for involuntary risks.¹² Eminent domain, preemption and the community's general feeling of outside coercion thus exacerbate the level of fear. Acknowledging the community's power over the siting decision will lessen the fear and make siting a more acceptable outcome.

3. *Risks controlled by others are less acceptable than risks under one's own control.* People want to know that they have control over not only the initial decision but also the entire risky experience. To some extent this is not possible. Once a facility is built it is difficult to turn back. But credible assurances of local control over monitoring and regulation can be expected to reduce risk perception by increasing control. Similarly, trust funds, insurance policies, bonds and such contractual arrangements can put more control in local hands. Quite apart from any other advan-

¹² See Starr *supra* note 9.

tages, these arrangements will tend to diminish the perception of risk.

4. *Undetectable risks are less acceptable than detectable risks.* A large part of the dread of carcinogenicity is its undetectability during its latency period. As a veteran war correspondent told me at Three Mile Island, "In a war you worry that you might get hit. The hellish thing here is worrying that you already got hit." While it is not possible to do much about the fear of cancer, it is possible to make manifest the proper, or improper, operation of the facility. For instance, a local monitoring team, or a satellite monitoring station in the City Hall lobby, can make malfunctions more detectable, and can thereby reduce the level of fear during normal operations. Not coincidentally, these innovations will also improve the operations of the facility.

5. *Risks perceived as unfair are less acceptable than risks perceived as fair.* A substantial share of the fear of hazardous waste facilities is attributable to the fact that only a few are to be sited. A policy requiring each municipality to manage its own hazardous waste would meet with much less resistance. A more practical way of achieving equity is to negotiate appropriate benefits to compensate a community for its risks and costs (this is, of course, after all appropriate health and safety measures have been agreed to). In a theoretical free market, the negotiated "price" of hosting a facility would ensure a fair transaction. The point to stress here is that compensation does not merely offset the risk faced by a community. It actually *reduces* the perceived risk and the level of fear.

6. *Risks that do not permit individual protective action are less acceptable than risks that do.* Even for a very low-probability risk, people prefer to know that there are things they can do, as individuals, to reduce the risk still further. The proposed protective action may not be cost-effective, and the individual may never carry it out, but its availability makes the risk more acceptable. Discussion of hazardous waste facility siting has appropriately focused on measures to protect the entire community. Some attention to individual protective measures may help reduce fear.

7. *Dramatic and memorable risks are less acceptable than uninteresting and forgettable ones.* This is generally known as the "availability heuristic": people judge an event as more likely or frequent if it is

easy to imagine or recall.¹³ The legacy of Love Canal, Kin-Buc, Chemical Control and the like has made hazardous waste dangers all too easy to imagine and recall. A corollary of the availability heuristic is that risks that receive extensive media treatment are likely to be overestimated, while those that the media fail to popularize are underestimated. The complex debate over media handling of hazardous waste goes beyond the scope of this article.

8. *Uncertain risks are less acceptable than certain risks.* Most people loathe uncertainty. While probabilistic statements are bad enough, zones of uncertainty surrounding the probabilities are worse. Disagreements among experts about the probabilities are worst of all.

Basing important personal decisions on uncertain information arouses anxiety. In response, people try either to inflate the risk to the point where it is clearly unacceptable or to deflate it to the point where it can be safely forgotten. Unfortunately, the only honest answer to the question "Is it safe?" will sound evasive. Nonetheless, the temptation, and the pressure, to offer a simple "yes" must be resisted. Where fear and distrust coexist, as they do in hazardous waste facility siting, reassuring statements are typically seen as facile and self-serving. Better to acknowledge that the risk is genuine and its extent uncertain.

9. *Cross-hazard comparisons are seldom acceptable.* It is reasonable and useful to compare the risks of a modern facility to those of a haphazard chemical dump such as Love Canal. The community needs to understand the differences. It is also reasonable and useful to compare the risks of siting a facility with the risks of not siting a facility—midnight dumping and abandoned sites. This comparison lies at the heart of the siting decision. On the other hand, to compare the riskiness of a hazardous waste facility with that of a gas station or a cross-country flight is to ignore the distinctions of the past several pages. Such a comparison is likely to provoke more outrage than enlightenment.

10. *People are less interested in risk estimation than in risk reduction, and they are not interested in either one until their fear has been legitimized.* Adversaries who will never agree on their diagnosis of a

¹³ Slovic, Fischhoff, Layman & Coombs, *Judged Frequency of Lethal Events*, 4 JOURNAL OF EXPERIMENTAL PSYCHOLOGY: HUMAN LEARNING AND MEMORY 551-578 (1978).

problem can often agree readily on how to cope with it. In the case of facility siting, discussions of how to reduce the risk are ultimately more relevant, more productive and more satisfying than debates over its magnitude. Risk reduction, however, is not the only top priority for a fearful community. There is also a need to express the fear and to have it accepted as legitimate. No matter how responsive the Commission is to the issue of risk it will be seen as cold and callous unless it also responds to the *emotional* reality of community fear.

VII. Do not ignore issues other than health and safety risk.

The paramount issue in hazardous waste facility siting is undoubtedly the risk to health, safety and environmental quality. But this is not the only issue. It is often difficult to distinguish the other issues so they can be addressed directly—especially if legal and political skirmishes have thrust the risk issue to the fore.

Negotiated compensation is especially useful in dealing with these other issues. Moreover, negotiation helps to distinguish them from the risk issue. It is not uncommon, for example, for a community group to insist in adversary proceedings on marginal protective measures at substantial expense. In negotiations where other issues can more easily be raised, the group may reveal that it is also worried about the possible fears of prospective home purchasers and the resulting effect on property values. The developer may find it easy to bond against *this* risk. The homeowners have thus protected their property at a cost that the developer, who plans to establish an excellent safety record, expects will be low. It is extremely useful, in short, to probe for concerns other than risk, and to establish a context, such as mediated negotiation, where such concerns can be raised.

Aside from health risk, the impacts of greatest concern are: (1) the decline in property values; (2) the inability of the community to keep out other undesirable land uses once one has been sited; (3) the decline in quality of life because of noise, truck traffic, odor and the like; (4) the decline in the image of the community; (5) the overburdening of community services and community budgets; and (6) the aesthetically objectionable quality of the facility.

Apart from these possible impacts, a number of non-impact issues may create adverse community reaction to a proposed facility:

1. Resentment of outside control, including the threat of preemption and eminent domain.
2. The sense of not being taken seriously; resistance to one-way communication from planners and experts who seem to want to "educate" the community but not to hear it; perceptions of arrogance or contempt.
3. The conviction that the siting process is unfair, that "the fix is in."
4. The conviction that the choice of this particular community is unfair, that the community is being asked to pay a high price for the benefit of people who live elsewhere, and that it would be fairer to ask someone else to pay that price. This feeling is especially strong in communities that are poor, polluted or largely minority. These communities see their selection as part of a pattern of victimization.
5. Support for source reduction and recycling instead of new facilities.

Another issue that often surfaces is whether the facility will accept non-local waste. In a recent Duke University poll of North Carolina residents, only seven percent approved of allowing out-of-state waste to be disposed of in their county.¹⁴ By contrast, thirty-eight percent would allow waste from other North Carolina counties and forty-nine percent would allow waste from within the county.¹⁵ Technically, it may well be impractical to require each community to cope with its own waste. Psychologically, however, this is far more appealing than central facilities, for at least three reasons: (1) It seems intrinsically fairer to have to dispose of one's own waste than to be forced to dispose of everyone else's; (2) A strictly local facility will not earn a community an image as the hazardous waste capital of the state or region; and (3) Local wastes already exist, either stored on-site or improperly dumped, and a new local facility thus represents no net increase in local risk. Enforceable guarantees to limit "imported" waste

¹⁴ D. MORELL & C. MAGORIAN, *SITING HAZARDOUS WASTE FACILITIES: LOCAL OPPOSITION AND THE MYTH OF PREEMPTION*, at 74 (1982).

¹⁵ *Id.*

should alleviate in part at least one source of opposition to a facility.

VIII. *Make all planning provisional, so that consultation with the community is required.*

A fatal flaw in most governmental public participation is that it is grafted onto a planning procedure that is essentially complete without public input. Citizens quickly sense that public hearings lack real provisionalism or tentativeness. They often feel that the important decisions have already been made, and that while minor modifications may be possible to placate opponents, the real functions of the hearing are to fulfill a legal mandate and to legitimize the *fait accompli*. Not surprisingly, citizen opponents meet what seems to be the charade of consultation with a charade of their own, aiming their remarks not at the planners but at the media and the coming court battle.

This scenario is likely even when the agency sees itself as genuinely open to citizen input. For legal and professional reasons, experts feel a powerful need to do their homework *before* scheduling much public participation. In effect, the resulting presentation says to the citizen: "After monumental effort, summarized in this 300-page document, we have reached the following conclusions. . . . Now what do you folks think?" At this point it is hard enough for the agency to take the input seriously, and harder still for the public to believe it will be taken seriously. Thus, Siting Commission Chairman Frank J. Dodd complained that the siting hearings "have turned into political rallies. The last thing that was discussed was siting criteria. It was how many people can you get into an auditorium to boo the speakers you don't like and cheer for the ones you support."¹⁶

The solution is obvious, though difficult to implement. Consultations with the community must begin early in the process and must continue throughout. Public participation should not be confined to formal contexts like public hearings, which encourage posturing. Rather, participation should include informal briefings and exchanges of opinion of various sorts, mediated where appropriate. The Commission must be visibly free to ad-

¹⁶ Goldensohn, *Opponents, Officials Charge Politicizing of Waste Site Debate*, Star-Ledger (Newark, NJ), Dec. 2, 1984, at 12.

just in response to these consultations, and must appear visibly interested in doing so. Above all, the proposals presented for consultation must be provisional rather than final—and this too must be visible. A list of options or alternatives is far better than a “draft” decision. “Which shall we do?” is a much better question than “How about this?”

This sort of genuine public participation is the moral right of the citizenry. It is also likely to yield real improvements in the safety and quality of the facilities that are built. As a practical matter, moreover, public participation that is not mere window-dressing is probably a prerequisite to any community’s decision to forego its veto and accept a facility. This is true in part because the changes instituted as a result of public participation make the facility objectively more acceptable to the community. Public participation has important subjective advantages as well. Research dating back to World War II has shown that people are most likely to accept undesirable innovations, such as rationing, when they have participated in the decision.¹⁷

Much in the Siting Act and in the behavior of the Commission represents important progress away from the traditional “decide- announce-defend” sequence, whereby an agency ends up justifying to the public a decision it has already made. Holding hearings on siting criteria instead of waiting for a site was progress.¹⁸ The money available for community research is progress.¹⁹ There is also progress evidenced in a recent statement by Commission Executive Director Richard J. Gimello that hearings have persuaded him that two incinerators would be wiser than the one originally proposed in the draft hazardous waste management plan.²⁰ However, there is a long history of “decide-announce-defend” to be overcome before we achieve what communication theorists call “two-way symmetric communication” and politicians call “a piece of the action.”

¹⁷ M. KARLINS & H. ABELSON, *PERSUASION*, at 62-67 (2d ed. 1970).

¹⁸ See Dodd, *The New Jersey Hazardous Waste Facilities Siting Process: Keeping the Debate Open* in this issue.

¹⁹ See *supra* note 11.

²⁰ See *Response to Comments on “Draft” Hazardous Waste Facilities Plan Issued September 1984* (Mar. 26, 1985) (copies available from the Siting Commission, CN-406, Trenton, NJ 08625).

IX. *Involve the community in direct negotiations to meet its concerns.*

The distinction between community input and community control is a scale, not a dichotomy. Planning expert Sherry Arnstein describes an eight-rung "ladder of public participation," as follows: manipulation; therapy; informing; consultation; placation; partnership; delegated power; citizen control.²¹ She adds:

Inviting citizens' opinions, like informing them, can be a legitimate step toward their full participation. But if consulting them is not combined with other modes of participation, this rung of the ladder is still a sham since it offers no assurance that citizen concerns and ideas will be taken into account.²²

A really meaningful participation program, Arnstein argues, involves some framework for explicit power-sharing with the community.²³

In hazardous waste facility siting, today's community has two kinds of power: (1) the legally guaranteed right to provide input at many stages of the siting process; and (2) the political ability to delay, harass and quite possibly stop that process. The first, as Arnstein points out, is not enough to reassure a community that feels little trust for those at whom the input is directed.²⁴ That leaves the other source of power, the *de facto* veto.

This sort of analysis has led many observers to propose siting legislation that accords greater power to the community. Indeed, one state, California, makes siting virtually contingent on community acceptance.²⁵ Others, such as Massachusetts and Connecticut, do not go so far as to provide a *de jure* community veto, but do require the community to negotiate with the developer, with binding arbitration in the event of deadlock.²⁶ Still other states permit local regulation of the facility, but grant to a state agency the authority to override community regulations that make siting impossible.²⁷ As Morell and Magorian note, "expanded public participation proce-

²¹ S. ARNSTEIN, *A Ladder of Citizen Participation*, in *THE POLITICS OF TECHNOLOGY*, at 240-43 (1977).

²² *Id.*

²³ *Id.*

²⁴ *Id.*

²⁵ See Duffy, 11 B.C. ENV. AFFAIRS L. REV. 755, 755-804 (1984).

²⁶ *Id.*

²⁷ *Id.*

dures in a preemptive siting process are a far cry from such a balance of state and local authority."²⁸

While New Jersey's Siting Act does not require negotiations with the community, it certainly does not foreclose the option—an option far more useful to the community than mere input, and far more conducive to siting than the *de facto* veto. The most productive option is probably negotiation between the developer and the community, with or without a mediator. If they are able to come to terms, the Commission could incorporate these terms in its own deliberations while still retaining its independent responsibility to protect health and environmental quality. If they are *unable* to come to terms, the Commission could retain its preemptive capabilities and the community its political ones. For the community, then, the incentive to negotiate is the likelihood that it can secure better terms from the developer than it can get from the Commission in the event of deadlock. For the developer, the incentive is the considerable possibility that there will be no facility at all unless the community withdraws its objections.

What is negotiated? What the community has to offer is of course its acceptance of the facility. What the developer has to offer is some package of mitigation (measures that make an undesirable outcome less likely or less harmful), compensation (measures that recompense the community for undesirable outcomes that cannot be prevented) and incentives (measures that reward the community for accepting the facility). The terms are value judgments. For example, a developer is likely to see as an incentive what the community sees as mere compensation. The distinctions among the three nonetheless have great psychological importance. Communities tend to see mitigation as their right. Compensation for economic costs is seen as similarly appropriate, but compensation for health risks strikes many people as unethical. Incentive offers, especially where health is the principal issue, may strike the community as a bribe.

Of course some forms of mitigation, compensation, and incentives are built into the Siting Act; among the most notable provisions are the five percent gross receipts tax²⁹ and the provision for

²⁸ D. MORELL & C. MAGORIAN, *supra* note 14, at 102.

²⁹ N.J. STAT. ANN. § 13:1E-80.b. (West Supp. 1985).

strict liability,³⁰ which permits compensation for damage without proof of negligence. Clearly a still more attractive package is needed to win community support. What can help the parties in negotiating the package? I suggest training in negotiation for community representatives. An impartial mediator might also be provided, perhaps from the Center for Dispute Resolution of the Public Advocate's Office. Finally, a clear statement from the Siting Commission on how it will deal with a settlement if one is achieved would be useful.

Much will depend, of course, on the delicacy and skill of the developer. Compensation, in particular, should be tied as closely as possible to the damage to be compensated. A straight cash offer may be hotly rejected, whereas a trust fund to protect water quality would be entirely acceptable. Similarly, cash for damage to health is much less acceptable than cash for damage to community image. Where possible, compensation and incentive proposals should come from the community or mediator to avoid any suggestion of bribery. Some risks, of course, are so terrible that they are, and should be, unacceptable regardless of the compensation. No negotiation is possible unless the community agrees that a hazardous waste facility does not pose an unacceptable risk.

A great advantage of negotiation is that it encourages an openness about goals and concerns that is inconceivable in an adjudicatory process. Citizens concerned about property values may find themselves in a hearing talking instead about safety—but in a negotiation they will talk about property values. Similarly, a developer in an adjudicatory proceeding tends to understate risk. In a negotiation the community will insist that if the risk is so low the developer should have no objection to bonding against it. Suddenly both the developer and community will have an incentive to estimate the risk accurately. This pressure to be open affects not only the compensation package but the actual facility design as well. If developers must contract to compensate those they injure, they will be more likely to take the possibility of injuries into account in their planning than if they are merely instructed to “consider” social costs.

³⁰ N.J. STAT. ANN. § 13:1E-62 (West Supp. 1985) (“Joint and several strict liability of owners and operators”).

X. Establish an open information policy, but accept community needs for independent information.

Former EPA Administrator William D. Ruckelshaus was fond of quoting Thomas Jefferson: "If we think [the people are] not enlightened enough to exercise their control with a wholesome discretion, the remedy is not to take it from them, but to inform their discretion." Ruckelshaus usually added, "Easy for him to say."

Part of the problem of informing the public about hazardous waste facility siting is that the skills required to explain technical information to the lay public are uncommon skills. They are especially uncommon, perhaps, among those who possess the requisite technical knowledge. There are techniques to be learned: a standard called "communicative accuracy" to help determine which details may be omitted and which may not; various sorts of "fog indexes" to measure readability and comprehensibility; and other ways of simplifying, clarifying and dramatizing without distorting. The range of media available for the task also extends well beyond such standbys as pamphlets and formal reports.

The desire to explain technical issues in popular language is at least as difficult to acquire as the ability to do so. Experts in all fields prefer to confine their expertise to fellow professionals; "if laypeople misunderstand me I will have done them a disservice, and if they understand me what will have become of my expertise." All fields ostracize their popularizers. When the information is uncertain, tainted with values, and potent ammunition in a public controversy, the case for professional reticence becomes powerful indeed.

Nonetheless, it is essential to the success of the siting effort that information policy be as open as humanly possible. Unless legally proscribed, *all* information that is available to the Commission should be available to the community. The Commission should also make available simplified summaries of key documents and experts to answer whatever questions may arise. It is particularly important that all risk information be available early in the siting process. Failure to disclose a relevant fact can poison the entire process once the information has wormed its way out—as it invariably does. The standard is quite simple: any

information that would be embarrassing if disclosed later should be disclosed now.

Even the most open information program, however, can expect only partial success. Individuals who are uninvolved in the siting controversy will not often bother to master the information, since there is nothing they plan to do with it. Individuals who are heavily involved, on the other hand, generally know what side they are on, and read only for ammunition. This is entirely rational. If changing one's mind is neither attractive nor likely, why endure the anxiety of listening to discrepant information? When many alternatives are under consideration, as in a negotiation, information has real value and helps the parties map the road to a settlement. When the only options are victory and defeat, objective information processing is rare.

Even in a negotiation, information carries only the limited credibility of the organization that provides it. As a rule, the parties prefer to provide their own. The Siting Commission would be wise to facilitate this preference. Rather than insisting that *its* information is "objective" and berating the community for distrusting it, the Commission can guarantee that all parties have the resources to generate their own information. The information should be generated as early as possible, while positions are fluid. Finally, the Commission should make sure the community has a real opportunity to use the information it acquires—ideally in negotiation. Information without power leads only to frustration, while the power to decide leads to information-seeking and a well-informed community.

XI. Consider developing new communication methods.

There are a wide variety of all-purpose methodologies for developing means to facilitate interaction, communication, trust and agreement. Some are a bit trendy or "touchy-feely"; some are potentially explosive—all require careful assessment and, if appropriate at all, careful design and implementation in the hands of a skilled practitioner. The list that follows is by no means exhaustive. These are tools that are available to the Siting Commission, to a developer, to a community group, or to anyone interested in making negotiation more likely or more successful.

1. *Delphi methodology.* This is a formal technique for encour-

aging consensus through successive rounds of position-taking. It is appropriate only where the grounds for consensus are clear—for helping the community clarify its concerns, for example, but not for helping it reach agreement with the developer.

2. *Role-playing*. Playing out the stereotyped roles of participants in a controversy can help all sides achieve better understanding of the issues. Under some circumstances this can greatly reduce the level of tension. There are many variations. Most useful for facility siting would probably be exaggerated role-playing, in which participants burlesque their own positions. This tends to produce more moderate posturing in real interactions. Counter-attitudinal role-playing, in which participants take on each other's roles, tends to yield increased appreciation of the multi-sidedness of the issue. Both require some trust, but much can be learned even from role-playing without the "enemy" present.

3. *Gaming-simulation*. This is a variation on role-playing, in which the participants interact not just with each other but with a complex simulation of the situation they confront. Game rules control how the participants may behave and determine the results—wins, losses, or standoffs. Participants learn which behaviors are effective and which are self-defeating. As with any role-playing, the participants may play themselves or each other, and may undergo the game in homogeneous or heterogeneous groups. Massachusetts Institute of Technology has recently developed a hazardous waste facility siting gaming-simulation.

4. *Coorientation*. This is a tool to help participants come to grips with their misunderstanding of each other's positions. A series of questions is presented to all participants, individually or in groups. First they answer for themselves, then participants predict the answers of the other participants (those representing conflicting interests). Responses are then shared, so that each side learns: (a) its opponent's position; (b) the accuracy of its perception of its opponent's position; and (c) the accuracy of its opponent's perception of its position. The method assumes that positions taken will be sincere, but not that they are binding commitments.

5. *Efficacy-building*. This is a collection of techniques designed to increase a group's sense of its own power. In some cases this includes skills-training to increase the power itself. In

other cases, the stress is on increasing group morale, cohesiveness, and self-esteem. To the extent that community intransigence may be due to low feelings of efficacy, then efficacy-building procedures should lead to increased flexibility.

6. *Focus groups.* A focus group is a handful of individuals selected as typical of a particular constituency. This focus group is then asked to participate in a guided discussion of a predetermined set of topics. Often the focus group is asked to respond to particular ideas or proposals, but always in interaction with each other, not in isolation as individuals. The purpose of the focus group methodology is to learn more about the values of the constituency and how it is likely to respond to certain messages—for example, a particular compensation package in a siting negotiation. Focus groups do not commit their constituency, of course, but in the hands of a skilled interviewer and interpreter they yield far better information than survey questionnaires.

7. *Fact-finding, mediation, and arbitration.* These are all third-party interventions in conflict situations. Fact-finding concentrates on helping the parties reach agreement on any facts in contention. Mediation helps the parties find a compromise. Arbitration finds a compromise for them. These approaches assume that the parties want to compromise, that each prefers agreement to deadlock or litigation. They have been used successfully in many environmental conflicts, including solid waste siting controversies. The Center for Dispute Resolution of the Public Advocate's Office offers these services, as do several specialized environmental mediation organizations.

8. *Participatory planning.* This is the label sometimes given to a collection of techniques for making public participation more useful to the decision-maker and more satisfying to the public. To a large extent the value of public participation is in the agency's hands. It depends on how early in the process participation is scheduled, how flexible agency planners are, and how much real power is given to the community. Even if these questions are resolved in ways that make participation more than mere window-dressing, the success of the enterprise still depends on technique: on how people are invited, on how the policy questions are phrased, on what speakers are allowed to talk about, what issues for how long, on who moderates the meeting, etc.

Many techniques of participatory planning, in fact, do not involve a meeting at all.

9. *Feeling acceptance.* A classic misunderstanding between communities and agencies centers on their differing approaches to feeling; citizens may sometimes exaggerate their emotions while bureaucrats tend to stifle theirs. Not surprisingly, “irrational” and “uncaring” are the impressions that result. Feeling acceptance is a technique for interacting with people who feel strongly about the topic at hand. It involves identifying and acknowledging the feeling, then separating it from the issue that aroused it, and only then addressing the issue itself.

10. *School intervention.* In situations where strong feelings seem to be interfering with thoughtful consideration, it is sometimes useful to introduce the topic into the schools. Primary school pupils, in particular, are likely to approach the issue less burdened by emotion, yet they can be relied upon to carry what they are learning home to their parents. It is essential, of course, to make sure any school intervention incorporates the views—and the involvement—of all viewpoints in the community. Any effort to teach children a single “objective” agency viewpoint will bring angry charges of indoctrination. Existing curricula that are themselves multi-sided can augment the local speakers.

11. *Behavioral commitment.* People do not evolve new attitudes overnight; rather, change comes in incremental steps. The most important steps are not attitudes at all, but behaviors, preferably performed publicly so as to constitute an informal commitment. The behavioral commitment methodology, sometimes known as the “foot in the door,” asks people to take small actions that will symbolize, to themselves and their associates, movement in the desired direction. Among the possible actions which can be taken: to request a booklet with more information, to urge rational discussion on the issue, to state that one is keeping an open mind, to agree to consider the final report when it is complete, to agree to serve on an advisory committee, to meet with citizens concerned about Superfund cleanup, etc.

12. *Environmental advocacy.* In a large proportion of successfully resolved siting controversies in recent years, respected environmentalists played a crucial intermediary role. Environmental organizations may need to play that role in New Jersey’s hazardous waste facility siting. By counseling caution on industry

assurances while agreeing that new facilities are needed and much improved, environmentalists position themselves in the credible middle.

A credible middle is badly needed on this issue, but it will take time. Now is not the time to ask *any* New Jersey community to accept a hazardous waste facility. From “no” to “yes” is far too great a jump. We should ask the community only to consider its options, to explore the possibility of a compromise. Our goal should be moderate, fair, and achievable: getting to maybe.