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The Tacoma Smelter and EPA

EPA Brings Community Deliberation to Jobs versus Environment Dispute in Tacoma

The Tacoma Smelter and EPA. In a famous dispute that deeply divided the community of Tacoma, Washington in the early 1980s over jobs and environmental health, EPA administrator William Ruckelshaus decided to bring the hard choices and uncertainties over controlling arsenic emissions to the public. Regional EPA staff convened public workshops in which smelter workers, local residents, and environmentalists discussed their values and fears face-to-face. The process has helped to build community capacities for workforce retraining, more diversified economic growth, and environmental dispute resolution in subsequent years. **Case study plus.**

Case Study Plus: The Tacoma Smelter and Civic Discovery

Case prepared by Carmen Sirianni, who is a member of the CPN Managing Editorial Team.

In 1983, William Ruckelshaus returned to head the EPA under President Reagan, after two years of bitter controversy over the president's previous administrator. He was quickly confronted with a jobs versus environment dispute that was polarizing not only the community of Tacoma, Washington, but the nation. He recognized that the public's expectation of "participatory democracy" had become part of the fabric of environmental regulation since he had served as EPA's first administrator in 1970-74 under President Nixon. And he recognized, as well, that controversies such as the one brewing in Tacoma would become increasingly common, and should not be settled by those in Washington, D.C. who do not themselves bear the risks and do not have to live and work with each other—and with the consequences of top-down regulatory action. The community itself must confront the scientific uncertainties and difficult choices. Beyond this, Ruckelshaus had little idea where the now famous "Tacoma process" would lead.

The occasion was the process of establishing national arsenic emissions standards for copper smelting and glass manufacturing. Tacoma was the home of the only copper smelter in the nation to use ore with high

arsenic content, and accounted for 25 percent of inorganic arsenic emissions nationwide. Having just returned to the EPA under pressure of a court order to establish such standards in compliance with the Clean Air Act of 1980, Ruckelshaus committed himself before the National Academy of Sciences to establishing a participatory process for risk management:

> To effectively manage the risk, we must seek new ways to involve the public in the decision-making process. Whether we believe in participatory democracy or not, it is part of our social regulatory fabric. Rather than praise or lament it, we should seek more imaginative ways to involve the various publics impacted by the substance at issue. They need to be involved early on and they need to be informed if their participation is to be meaningful.[1]

Ruckelshaus chose Tacoma as the place for public deliberation about acceptable risk. The issue in Tacoma itself centered around which kind of available pollution control technologies to require. The most expensive of these could perhaps further reduce the risk of cancer deaths due to arsenic emissions below the estimated two per year achievable with secondary hooding. But they would not reduce them to zero and would be so costly that the smelter would likely have to close. This would leave its 600 employees and some 500 others without jobs in a county already experiencing 11 percent unemployment, lead to a loss of 20 million dollars in goods and services, 2 million dollars in taxes, and make the nation completely dependent on imported sources for arsenic. The EPA's proposed standard would take all these factors into account, but the Puget Sound Air Pollution Control Agency and local environmental groups would not.

In the face of increasing scientific uncertainties about establishing clear thresholds of safety from carcinogens, and vehement criticism of EPA from all sides in the debate over jobs versus the environment, Ruckelshaus decided to postpone a decision until EPA Region 10 administrators could convene a series of public workshops before the legally required formal public hearing. These would give Tahomans a chance to understand the risk analysis process and to deliberate about costs and benefits of different levels of regulatory control. Perhaps a consensus would emerge, some thought, though EPA denies ever intending that consensus was the goal, or that assembled citizens would have the power to vote directly on different alternatives. As Ruckelshaus told a press conference, "For me to sit here in Washington and tell the people of Tacoma what is an acceptable risk would be at best arrogant and at worst inexcusable."

For his decision, however, he was criticized vehemently in editorial pages around the country, and by a broad range of environmental groups. The *New York Times* compared him to the Roman Caesars who would ask the amphitheater crowds to signal thumbs up or thumbs down whether a defeated gladiator should live or die. The head of the local Cascade Chapter of the Sierra Club said "it is up to the EPA to protect public health, not to ask the public what it is willing to sacrifice not to die from cancer."[2]

Ruckelshaus himself quoted Thomas Jefferson in defense of his decision to involve the public in deliberating about the difficult issues of environmental hazards:

> If we think the people 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.

In the midst of wide media coverage, both local and national, EPA administrators convened three public workshops, attended several others called by independent groups such as the Steelworkers' local from the smelter, held a formal public hearing a few months later, and put copies of the administrative record on file at local libraries to facilitate broader access and ongoing discussion. The three EPA workshops, held in local public schools on three August evenings over a ten-day period, were designed with help from local environmental groups, the public health department, and a consulting firm with a public participation specialist.

Combined attendance was about eight hundred. Administrators first presented how agency scientists arrived at various risk estimates, and then broke down the larger meetings into three smaller groups to promote face-to-face dialogue, as three top-level EPA staff and other state environmental and public health officials rotated through each of them. Experienced facilitators, who were not identified with any agency or position, recorded all questions on flip charts and led the discussions. And two professors from local universities gave closing remarks on the process of risk assessment and risk management.

While much of the public discourse did focus on various technical issues, participants were also concerned with issues of equity and values, and were intensely personal in their questions and their accounts. These ranged from the likelihood of their children getting cancer and not being able to eat vegetables from their own gardens, to what it means to be without a job when no one wants to hire or retrain middle aged workers. As Steelworker representatives testified, they were quite aware of cancer risks, since it was the disproportionate death rates of their own members

that provided the conclusive proof of the dangers of arsenic emissions. But the smelter had also provided them with what they referred to as "a good life," and this was suddenly about to be snatched away from them.

At the formal hearing several months later, the Steelworkers union presented national data on greater increased death and illness rates that result from prolonged unemployment as compared to arsenic emissions. And national groups like the American Lung Association coordinated the local coalition favoring more stringent emission standards. Six other national environmental groups also focused attention on Tacoma, and the mayor convened an all-day televised workshop with invited experts fielding written questions from the audience.

This process was one of "civic discovery,"[3] and facilitated social learning in a number of ways. Despite substantial administrative costs, regional EPA staff felt that the process educated them not only about alternative solutions, but helped build regular contacts with the public for further engaged participation. They took much pride in being "way out ahead in real participatory government and public involvement" even before this series of public workshops became a special part of EPA lore known as the "Tacoma process." Public comment forms elicited input on how to further improve the workshop agenda, and on the kind of information and discussion that would be most helpful in future ones. The workshops also enabled local administrators to educate headquarters staff in Washington about what it meant to be on the front line in such disputes, and how important it was for local staff to control the process and reframe the discourse in terms that were not purely scientific.

The head of the Sierra Club chapter, who had been so critical initially, admitted at the end that the Clean Air Act requires public involvement so that the public can appreciate how difficult such regulatory decisions are, and so that no easy villains are scapegoated. This was an important step away from the rights orientation embodied in the Clean Air Act of 1970, which explicitly prohibited weighing other costs. In a subsequent Roper poll some 58 percent said they appreciated the chance to have input into the deliberations. The participants in the workshops and hearings, as well as many who followed the lively coverage in the print and broadcast media, had a chance to hear the real voices of those who experienced the risks and benefits, hopes and fears, in different terms.

The workshops occurred without disruption, despite the intense feelings of many, and concerns among staff that security precautions would be required. Placards polarized around "Jobs!" and "Health!" at one workshop were followed by some saying "Both!" at the next. As Ruckelshaus later noted, "Even the residents of Vashon Island, who were directly exposed to the pollution and yet had no employment or financial

stake in the smelter, began to ask whether there was a means of keeping the smelter going while reducing pollution levels. They saw the workers from the smelter—encountered them in the flesh and blood—and began incorporating the workers' perspective into their own solutions."[4]

The smelter itself was forced to shut down in 1985 before new emissions standards were issued because of declining world market prices, and it became part of the Commencement Bay Superfund cleanup effort. But, partly as a result of the face-to-face process of public deliberation, residents of Tacoma had begun redefining the goal as creating a more diverse local economy, and had already begun attracting and developing more environmentally safe businesses. Ten years later, Colin Conant, Executive Director of the Private Industry Council for Tacoma, looked back on these early efforts of the Dislocated Workers Project for those laid off by the Asarco smelter:

We created a model for retraining the workforce, and the community got behind it. We got many people involved on advisory committees: the labor union, United Way, the Private Industry Council, Asarco, the Economic Development Board, employees, and the State Employment Security Department. People might do it that way now, but back then nobody was. The support made a big difference in how people adjusted. It could have been much more psychologically disruptive. There were far fewer casualties than there might have been without so many people and organizations backing us up. Since Asarco's closing, there have been several more closings in the area and we basically applied the same model. We learned a lot from how we did it then.[5]

In addition, the Asarco experience helped build civic capacities for handling other environmental disputes, such as that at the Simpson Paper Mill, which was polluting local water supplies. The Asarco model was refined, all stakeholders were brought in, and no lawsuits resulted. As then mayor Doug Southerland noted, "What really came out of this [Asarco effort] was a process and a group of people who were used to looking at an issue together without taking a litigative approach."[6]

The process of deliberation in Tacoma was far from ideal in many ways. The workshops were rather hurriedly planned under pressure of a court order to establish emissions standards. The haste was particularly unfortunate in view of the several years of conflict and caricature on both sides of the dispute about risk from the smelter, which had preceded these face-to-face discussions. The workshops were also rather large, even when they broke up into three smaller groups, with an average of 75 in each, and sometimes double that number. This served empathy better than deliberation—and for some the size even seemed to contribute to further polarization.

EPA staff were open and forthcoming, but were not really prepared to help frame the nontechnical aspects of the discussions in ways that would produce communication among participants about underlying values. Nor, does it seem, were the others who helped design the workshops. The media played a democratizing role to the extent that it tended to treat both lay and expert perceptions of risk as legitimate. But they sometimes portrayed scientific uncertainty as dramatic incompetence, thus reducing the chances of a more fruitful dialogue between cultural and technical rationalities. Some of the participants not only expected considerably more deliberation and voting in a town meeting format, but wanted to know about the whole range of other pollutants and not just lung cancer from arsenic.[7]

Some see Tacoma as revealing serious flaws in the public decision-making model. Accompanying the hearings was a survey of participants conducted by a psychology doctoral student and partially funded by the Tacoma-Pierce County Health Department, which revealed that most residents vastly misstated EPA's estimate of cancer risks despite the agency's considerable attempts to inform them. Indeed, people had a tendency to substitute informal risk analysis, based on their own or family members' experiences, for formal analysis based on scientific estimates. And their factual knowledge of formal risk estimates and proposed standards did not, in any case, determine their own risk estimates or their positions on desired levels of regulatory control.[8]

In light of this, and the difficulties of developing a public "voting" mechanism capable of measuring the intensity as well as the direction of people's preferences, one commentator suggests instead that a modified expert decision-making model is the best solution for such regulatory problems. In this model, agency staff would ask the public hypothetical questions that explicitly set out tradeoffs between different levels of pollution control, and people would respond based solely on the accurate information in the questions, rather than on the basis of their own informal risk estimates. This method would also permit regulators to target more accurately the full range of potential victims and beneficiaries, including those who were geographically distant.[9]

But this search for the mechanism of public choice that can produce more rational results based on accurate information misses exactly what is at the heart of civic discovery. The question is not how to reflect and weigh *existing* preferences in the light of scientifically accurate information about tradeoffs, as important as the latter might be to inform decision making. Nor is it to expect that answers to hypothetical questions in a survey can tell us how to act as moral agents in real human relationships in our communities. The question, rather, is how to

facilitate deliberation so that people can reflect on their preferences in the process of listening to others, seek alternative solutions in view of a broader conception of the common good, and build a civic culture that can sustain a tradition of public deliberation and active collaboration about such difficult issues. These other techniques might help in this, but they are not a substitute for public work together, which is usually messy and imperfect.

As Krimsky and Plough argue, the real challenge of risk communication and decision making is to find ways for the cultural and technical models of rationality to mutually inform one another, rather than for the technical approach to preempt the cultural. If this is so, then we must continue to explore ways of making the regulatory process conducive to ongoing local deliberation where diverse values and informal risk estimates are respected, and inevitable scientific uncertainties are recognized and tolerated as part of an honest process of discovery.

Despite the flaws of the Tacoma process, it was an important early step that helped to trigger other community problem solving capacities on environmental dispute settlement, worker retraining, and economic diversification. And it also enhanced capacities for learning within EPA itself on how to approach comparative risk and risk communication in a more open and deliberative fashion, and set an example of participatory democracy for a number of other EPA programs that have since emerged in the late 1980s and 1990s.[10]

Further Reading

In addition to the references below, you might consult the following:

Barry Rabe, *Beyond Nimby: Hazardous Waste Siting in Canada and the United States* (Washington, DC: Brookings, 1994), which presents detailed cases of public deliberation in facilitating siting as a way to move beyond the dilemmas posed by "Not In My Backyard."

John Hird, *Superfund: The Political Economy of Environmental Risk* (Baltimore: Johns Hopkins University Press. 1994), and especially his proposal in chapter 9 for ways to make public deliberation at the state and local level an essential feature of Superfund reform.

Notes

[1]William Ruckelshaus, *Science, Risk and Public Policy*, speech before the National Academy of Sciences, June 22, 1983 (Washington, D.C.: U.S. Environmental Protection Agency, 1983).

[2]These quotes are from Esther Scott, "Managing Environmental Risks:

the Case of ASARCO," Kennedy School of Government, Harvard University, Case Program, 1988, pages 1 and 6. See also Sheldon Krimsky and Alonzo Plough, *Environmental Hazards: Communicating Risks as a Social Process* (Dover, Mass.: Auburn House, 1988), chapter 5; Reich, "Policy Making in a Democracy," 147-50; Henry Lee, "Risk Management and Public Participation: A Case Study of the ASARCO Smelter," Cambridge, Harvard University, 1984.

[3]Robert Reich, "Policy Making in a Democracy," in *The Power of Public Ideas*, ed. Robert Reich (Cambridge: Harvard University Press, 1988), 123-56. For a compelling critique of cost-benefit analysis and decision techniques that complements Reich's, see Stuart Hill, *Democratic Values and Technological Change* (Stanford: Stanford University Press, 1992), chapter 2.

[4] Quoted from a later interview by Reich, in "Policy Making in a Democracy," 149.

[5] Quoted in Ronald Heifitz, *Leadership Without Easy Answers* (Cambridge: Harvard University Press, 1994), 95.

[6] Ibid.

[7] See Krimsky and Plough, *Environmental Hazards*, 203-216, 302; and the evaluation by the public participation consultant, Susan Hall, "Arsenic and Old Smelters: Community Involvement in Risk Assessment," in *Hazardous Wastes and Environmental Emergencies* (Washington, DC: Hazardous Materials Control Research Institute, 1984), 435-38.

[8] Brian Baird, "Tolerance for Environmental Health Risks: the Influence of Knowledge, Benefits, Voluntariness, and Environmental Attitudes," *Risk Analysis* 6:4 (1986), 425-35. He notes further that those attending the workshops clustered at either extreme of the attitudinal continuum, rather than being representative of the local population, and that at these extremes respondents also varied as to how voluntary or involuntary they perceived the risks from the smelter to be—both of which raise significant questions for deliberative democracy. Baird, it should be noted, was also president of Tahomans for a Cleaner Environment, and a prominent environmental spokesperson during the dispute.

[9] Gregory Call, "Arsenic, ASARCO, and the EPA: Cost-Benefit Analysis, Public Participation, and Polluter Games in the Regulation of Hazardous Air Pollutants," *Ecology Law Quarterly* 12:3 (1985), 567-617, especially 595ff.

[10] Krimsky and Plough, *Environmental Hazards*, 302ff. This study was itself funded by the EPA to help sort out the issue of public participation in risk communication, a task also urged by a National Academy of Sciences report of 1983, and later by EPA's own Science Advisory Board. Krimsky's important activist and deliberative role in the DNA controversy in Cambridge, Massachusetts in the 1970s was well known. See Sheldon Krimsky, *Genetic Alchemy: the Social History of the Recombinant DNA Controversy* (Cambridge: MIT Press, 1982); and "Regulating Recombinant DNA Research," in Dorothy Nelkin, ed., *Controversy: the Politics of Technical Decisions*, second ed. (Beverly Hills: Sage, 1984), 251-80. See also Daniel Fiorino, "Environmental Risk and Democratic Process," *Columbia Journal of Environmental Law* 14:2 (1989), 506ff.; and "Technical and Democratic Values in Risk Analysis," *Risk Analysis* 9:3 (1989), 293-99; Heifitz, 96-97; and author's interview with Deborah Martin, Office of State, Regional and Local Planning, U.S.Environmental Protection Agency, March 1994, who also generously supplied materials on current comparative risk projects.

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