

# **ENVIRONMENTAL UNIONS**

## **Labor and the Superfund**

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## CHAPTER 3

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### Moving Congress to Mandate Worker Protection

Corporations and their allied politicians can easily manipulate social decision making regarding the organization and regulation of production, simply by threatening to eliminate jobs if they don't get their way. Congressional Superfund reauthorization debates often pitted demands for corporate responsibility to ensure the members of the working class a clean environment in which to live and raise their children and grandchildren against the jobs the corporations could provide for workers.

For example, Rep. Jack Fields (R-TX) worried about the 74,000 people "directly and indirectly" employed by his state's petrochemical industry. He wanted Congress to ensure that the industry was "not taxed out of competition with foreign petrochemical importers. We need a clean environment and I am committed to that goal. But I'm also committed to protect the jobs of Houston-area workers" (U.S. Congress. Senate, 1990, vol. 3, p. 1537).

Similarly, Rep. Fred J. Eckert (R-NY) represented a district in which 60,000 people worked for petrochemical companies—Eastman Kodak, Du Pont, Olin Corp., Jones Chemical, and Dow Chemical. He worried that they would be "thrown out of work as a result of being taxed out of business" (U.S. Congress. Senate, 1990, vol. 5, p. 4079). No congressperson from a state that was predominantly either petrochemical producing or petrochemical using wanted a policy that might cause political dissatisfaction among the state's employers or jeopardize jobs in their districts. Nonetheless, the public demanded cleanups. The driving force remained the need to pass a bill providing a balanced funding mechanism. Rep. Eckert concluded, "The bottom line is a . . . bill that moves the clean-up of hazardous waste forward without costing thousands of workers their jobs" (U.S. Congress. Senate, 1990, vol. 5, p. 4080).

Beyond the "job blackmail" used against the working class, members of Congress referred to the hazardous waste crisis and the widespread use of hazardous materials in industry and commerce as a collective responsibility—not just that of the industries that were profiteering from having externalized hazardous waste management costs, but also the public's. Rep. Tauzin, then a Democrat from oil- and chemical-producing Louisiana, observed:

The truth is, we all are [responsible]. We have benefited from the products of our great manufacturing establishments in America. . . . We have all caused each other harm and neglect because we have not taken care of the wastes that have

been produced in the manufacture of those products. (U.S. Congress. Senate, 1990, vol. 5, p. 4030)

We may have "all caused each other harm," but we weren't all reaping the financial profits from the harmful modes of production. In addition, the health consequences of exposure to hazardous wastes were devastating and/or frightening communities around the country. The pressure was on Congress to end the hazardous waste crisis. Ronald Reagan's Republican Party, which worked with the president to undermine hard-won environmental protection measures, was scrambling to show that its members were protectors of the environment while they were also strengthening the economy. The party was facing U.S. voters who thought that the Reagan administration's attack on workers' jobs, the government safety net, public health, and environmental and consumer protection had gone too far. The Republicans' control of the Senate for the first time since the 1950s was probably going to be lost, as well as House seats, and the Superfund law was seen as one way to cut their losses.

Within this setting, the AFL-CIO and some of its affiliated unions coordinated a successful effort to win strong worker health and safety protection and training language in an environmental protection law, the Superfund Amendments and Reauthorization Act of 1986 (SARA). It brought together, somewhat serendipitously but mostly in a well-organized way, labor's various strategies of 1979 through 1985 to get federal agencies to establish protections for HAZWOPER workers, as well as the building trades' desire for hazardous waste worker health and safety training for their members. Labor understood that the hazardous waste remediation and management industries were emerging in direct relationship to the hazardous waste crisis that was steadily unfolding in the United States. Labor urged that Congress not ask American workers to put their lives on the line cleaning up and responding to hazardous materials/waste sites and incidents without being provided with essential measures of protection.

This is a history of action "within the beltway," of the lobbying potential available through labor's collective resources. Although a relatively small network of individuals understand how to maneuver the political/legal system of Washington, it is their position as representatives of a movement that facilitates their access to the apparatus.<sup>1</sup> What follows is a description of how labor unions, having sufficient economic, political, professional, scientific, and grassroots resources, were able to win government measures to improve working class life—in this case, workplace health and safety protections and environmental protection and quality.

### THE AFL-CIO AND THE SUPERFUND REAUTHORIZATION EFFORT

The legislative process to reauthorize the Superfund law began in the Senate in April 1984,<sup>2</sup> and it climaxed in Reagan's signing SARA into law on October 17, 1986.<sup>3</sup> The tax that supported the Superfund, established under CERCLA, was set to expire in September 1985. In light of that deadline, and mobilizing against the subversion of Congressional intentions by the Reagan administration and the EPA,

environmentalists and key members of Congress began to work in earnest on bills to reauthorize CERCLA. The Democratic congressmen addressing these issues were Florio and John Dingell (D-MI). Both had helped pass CERCLA, but they had disagreed vehemently over some central issues. The contentious aspects mostly related to rights that the law would establish for citizens interested in challenging the production and waste management practices of industrial facilities within their communities or states. Florio was a primary supporter of environmentalists' concerns. Dingell backed a range of other concerns, including those of manufacturers. He spoke up particularly for the priorities of automakers, as automaking was an industry that was based in his home state. In 1984, Florio was preparing for a renewed fight over Superfund, particularly with Dingell. Both were members of the House Committee on Energy and Commerce, which had prime jurisdiction over environmental legislation. Dingell chaired the committee and Florio chaired an important subcommittee. Florio hoped that his role as a leader on environmental concerns would help make him the next governor of New Jersey.

Florio came to Howard Samuel and asked for support from labor on Superfund. Samuel assigned David Mallino, Sr., to work on it. Mallino was a policy analyst who had worked for the AFL-CIO and affiliated unions for years, and had previously lobbied Congress for a federalized workers compensation program. He knew influential members of Congress. As Mallino (1997) immersed himself in Superfund issues, he realized that "there was absolutely no concern in that bill over the health and safety of the people who were going to do the clean-up work." Mallino decided that he would push to have "a health and safety program as an integral part" of the Superfund bill. At that point, Mallino the policy specialist wanted to see the development of a health and safety program with an appropriate set of corresponding standards. "I hadn't even thought about a training program at all," he said.

Mallino discussed the idea with IUD staff at the AFL-CIO. The lobbyist for the IUOE told him that J. C. Turner, the union's president, was "potentially interested" because he saw hazardous waste site clean-up work as a "jobs opportunity." Turner was a member of the AFL-CIO Executive Committee and chaired its standing committee (an executive policy panel) on health and safety. When Mallino sought a formal mandate to pursue the inclusion of worker protection language in the Superfund bill, Turner backed him to secure legislation that would protect workers engaged in hazardous waste operations. Interestingly, Mallino was unaware of the language that had been written and included in CERCLA (Section 301[f]) by Seminario (1997). Also, it seemed that no one with whom Mallino spoke was familiar with the letters that Taylor of the AFL-CIO had sent to agency heads in November 1979 or with the interagency effort on hazardous waste worker protection.

Mallino had talked with Donald Elisburg, an attorney and former assistant secretary of employment standards in the Department of Labor (DOL) during the Carter administration. Elisburg had worked as counsel to the Senate Labor Committee and addressed health and safety issues. After leaving government in 1981, Elisburg represented the Laborers International Union of North America (LIUNA) and other building trades unions on health and safety. He worked with the IUD on high-risk worker notification and asbestos matters. Elisburg and Mallino were

associated with Robert Connerton, general counsel for LIUNA. Elisburg, Warren Anderson, director of the L-AGC Education and Training Fund, and James "Mitch" Warren (who became the fund's director), shared ideas about Mallino's effort to secure worker protections in the Superfund reauthorization. They realized that a worker training grant program could be incorporated into the legislation (NIEHS, 1997).

At the same time, Ben Hill, the IUOE's director of health and safety, discussed the legislative effort with Turner, also of the IUOE. Hill believed that worker training was needed. The union already had a facility in New Jersey that was training some hazardous waste workers.

Mallino soon learned about labor's earlier efforts: Seminario explained the history to him. Mallino and Seminario agreed to work together on the issue. Mallino would coordinate primarily the political effort and Seminario would develop the substance of the legislative language they would propose.<sup>4</sup> Key union players met regularly to devise their plan. They included Sheldon Samuels from the IUD, Duffy, Hill, Seminario, and Elisburg. No industrial unions were involved at that point, but Samuels represented their interests. Some industrial unions became involved later when the need for a community right-to-know law was discussed. According to Duffy,

This is the first time that public employees, with us, the building trades, and the IUD, were actually working on an issue. We had the insight that we knew we had a window of opportunity to do this, if we could do it quietly, and could make a big difference. [We picked] an amount [of money] that would be palatable [to] Congress and wouldn't stick out like a sore thumb. There was no backstabbing or cutting up the pie beforehand.

Mallino understood that as long as a Superfund reauthorization bill was debated, a solid argument could be made for protecting the clean-up workers. He was aware that Dingell and Florio were fighting heatedly over what a Superfund bill would say. Mallino calculated that bringing worker protections into the struggle could greatly diminish the chances of passage, so he sent the provisions through a different set of committees.

While Mallino represented the IUD, he was close to the building trades and stayed in contact with Turner. The building trades had a "long-standing and good relationship" with House and Senate members of both parties in the public works committees. So Mallino worked with the House Committee on Public Works and Transportation and the Senate Committee on Environment and Public Works, as well as the Subcommittee on Health and Safety of the House Committee on Education and Labor. The last-mentioned was chaired by Rep. Joseph Gaydos (D-PA), who had not only a longstanding interest in worker health and safety but also a close working relationship with Mallino.

Mallino understood committee jurisdiction issues and made certain that the authority and jurisdiction of those responsible for occupational health and safety were not usurped.

### 1985 CONGRESSIONAL HEARINGS: THE ISSUES AND ACTORS

In spring 1985, Congress held hearings on the health and safety of hazardous waste workers. The House Committees on Public Works and Transportation and on Education and Labor took testimony about worker protection at Superfund sites

(U.S. Congress, House of Representatives, 1985b, 1985c). The House Committee on Government Operations held a hearing to investigate OSHA's role in protecting hazardous waste workers (U.S. Congress, House of Representatives, 1985a). Finally, although this was not directly related to waste sites and Superfund, the House Committee on Education and Labor looked into "Worker Health and Safety in the Manufacture and Use of Toxic and Hazardous Substances," an inquiry that addressed related issues (U.S. Congress, House of Representatives, 1985d).

The hearing transcripts and a hearing-based committee report facilitated an examination of the social "actors" involved and a review of the contentious aspects of the bill. The primary actors were union representatives. In the case of construction, each union represented a specific trade or craft and not the industry as a whole. The unions, although sharing common concerns, offered different ideas about addressing workplace hazards and government protections.

The industrial unions had limited participation in the hearings. The IUD was represented, but its representatives focused mostly on building trades issues.<sup>5</sup> First, Turner, as head of the IUOE and chair of its standing committee on health and safety, assumed leadership on this issue. Second, Mallino worked closely with Turner and other building trades representatives and saw it largely as a building trades issue.<sup>6</sup> Third, because of CERCLA's focus on hazardous waste sites, most union representatives assumed that the issues were primarily those of the building trades. Finally, the IUD's role was more closely allied with efforts by the labor and environment coalition in securing provisions for communities' right-to-know and chemical emergency preparedness. Even within the building trades, though, not all unions were interested in the work. It was viewed as in the jurisdiction and interest of the operating engineers, the laborers, and the teamsters.

The IAFF was the main other union that pushed for worker protections. Duffy had worked on these issues since 1979. Because of the incident in Elizabeth, New Jersey, in 1980, he had worked with New Jersey's Congressional delegates, four of whom had key committee positions with jurisdiction over Superfund reauthorization. Duffy's efforts greatly influenced the process of securing worker protections. The concerns of the IAFF and the building trades unions coincided, but the IAFF was unable to get what it wanted most, which was OSHA protection for municipal firefighters (government workers). The IAFF's interests collided with those of another set of actors—Congressional representatives who defended the interests of government employers. Government employers who were not yet required to comply with OSHA regulations did not want such a mandate. Unless a state had a state OSHA plan that covered public workers, these workers did not fall under OSHA's protections.

Employers at the hearings were primarily involved in site remediation and mostly focused on winning protections from the potential liabilities of the work. The members of Congress who testified largely supported labor's needs. The House was controlled by the Democrats, who traditionally supported worker protections. No Republican committee members were overtly hostile to providing protections, but some wanted a more limited approach. Some congressmen testified or commented in support of labor's arguments. Florio spoke in support of protecting waste site workers (U.S. Congress, House of Representatives, 1985a, p. 2).

Several House committees held hearings that addressed hazardous waste worker protections or included them among other issues. Gaydos decided that the House Committee on Education and Labor would hear worker protection issues. His goal was to develop a record of support for protective provisions. The House Committee on Public Works and Transportation hosted Superfund hearings. Its chair was Rep. James Howard (D-NJ), and the hearings subcommittee's chair was Rep. Robert Roe (D-NJ). Much attention was given to the needs of workers in Superfund site remediation. Mallino worked closely with Roe.

The House Committee on Government Operations conducted hearings because of the interests of key members. Rep. Barney Frank (D-MA), chair of the Subcommittee on Employment and Housing, wanted to hold OSHA accountable to its mandate. According to Stuart Weisberg,<sup>7</sup> former staff director of Frank's subcommittee, and Rep. Tom Lantos (D-CA), this subcommittee probably conducted more oversight of OSHA in the late 1980s than any other committee of Congress (Weisberg, 1998). It ensured that language supported by the hearings was part of the bill.

The role of the Committee on Government Operations was to create a bully pulpit to raise issues and build momentum for legislative action. Even the committee Republicans supported protections, according to Weisberg. The committee's report, for instance, was unanimously approved (U.S. Congress. House of Representatives, 1985e; Weisberg, 1998).

Cleanup of the average toxic waste site, said the IUOE's Turner, required "at least fifty highly trained and skilled workers . . . [demanding] at least one million jobs for the 20,000 or more sites involved . . . [and] other jobs will be created in the engineering, design, and equipment production sectors" (U.S. Congress. House of Representatives, 1985a, p. 15). The IAFF counted "170,000 paid professional fire service employees in the U.S. and Canada" (U.S. Congress. House of Representatives, 1985b, p. 45).

The focus of the hearings included the following: (1) the health and safety hazards of hazardous waste operations; (2) the failure of OSHA and the EPA to address worker health and safety; (3) the need for an OSHA standard; (4) health and safety training; (5) ER in HAZMAT incidents; and (6) health and safety protection for government workers.

### 1. The Health and Safety Hazards of Hazardous Waste Operations

The unions and associated professionals testified to the range of risks faced by site workers. Dr. Ruth Ruttenberg, an OSHA economist under Carter who testified for a nonprofit public research group, explained the results of a study of the eight largest publicly owned hazardous waste management companies at that time.<sup>8</sup> Her data concerned OSHA's inspections and enforcements at sites operated by the firms. The OSHA citations for exposures to hazardous substances indicated either incomplete OSHA data or inconsistent inspection patterns for the companies. "I think probably what we are faced with is a serious gap between what the OSHA record shows in terms of inspections and the actual risks that workers are facing in hazardous waste sites," she observed (U.S. Congress. House of Representatives, 1985a, p. 173).

Ruttenberg pointed to the inadequacy of air monitoring at hazardous waste facilities. She told the story of a 17-year-old employee at a North Carolina waste site who

had died in minutes after suffering an acute exposure. The youth was a summer employee whose employer did not require him to wear the necessary personal protective equipment. "When one looks at some of the deaths that have occurred from acute exposure, [they] are temporary workers [and] summer teenage employees" (U.S. Congress. House of Representatives, 1985a, p. 190). Suzanne Kossan of the International Brotherhood of Teamsters (IBT) described site workers' increased risks, stating that "The lost workday injury rate for hazardous waste operations is 11.4 cases per hundred workers versus 4.3 cases for the national average" (U.S. Congress. House of Representatives, 1985a, p. 60).

Duffy explained the hazards for firefighters and the lack of protection afforded to them. He showed a slide of a front-page photograph from the *New York Times*, taken at the site of the Chemical Control fire at Elizabeth, New Jersey. It showed a

firefighter rowing a boat for a federal investigator. The federal investigator is taking water samples . . . in full protective garment. No part of his body is



Responders at the Scene of the Chemical Control Corp. Fire, photo that Rich Duffy Presented at Congressional Hearings.

exposed whatsoever. . . . [The firefighter] . . . has a pair of polyester pants on; his boots are rolled down; he has an open turnout coat on and a dress hat and the only hand protection he has is the calluses on his palms. (U.S. Congress. House of Representatives, 1985a, p. 46)

For Duffy, showing the picture was a tactical act. The unions and members of Congress repeatedly referred to it as the justification for legislating worker protection and training. The unions' main demand was that workers should get the same protection that EPA employees got.

Duffy had this wonderful picture that they had blown up on posters. It probably was the thing that made our case. . . . When they testified, they said, here is our problem. . . . This EPA guy knows that he is going to go on a very hazardous island. The guy taking him to the island is a worker that happens to be a firefighter. He has no goddamn idea, and he is going out there essentially in this blue collar. This is why we need a training program and OSHA standard. . . . [The firefighters'] take on this was that their people absolutely needed to have high quality training, and there was no provision in the current bill to do that. (Mallino, 1997)

In testimony, the Associated General Contractors (AGC) supported worker protections. The AGC delivered the position of both union contractors and the building trades unions: prevention of occupational injuries and illnesses was necessary in order to conduct the work in the most efficient manner.

It is paramount in cleaning up these sites that no additional safety or health problems be created for the surrounding communities and that the clean-up workers are protected from safety and health hazards that are inherent in this type of work. [It is necessary] to ensure that the work is performed as economically as possible. . . . Safety and economy are not competing goals but in fact complement one another because the more economically the work is performed, the more funds will remain available for future clean-ups. (U.S. Congress. House of Representatives, 1985b, p. 1719)

Federal support for health and safety protection in the construction industry was a basis for union contractors' successful competition against nonunion contractors. For the building trades, it meant more jobs for their members.<sup>9</sup>

## 2. The Failure of OSHA and the EPA to Address Worker Health and Safety Issues

The AFL-CIO Safety and Health Department and the IUD, the unions, and Democratic members of Congress who were friendly to labor all used the hearings to document the failures of the Reagan administration's OSHA and EPA when it came to protecting workers. While Congress debated the EPA's failures with regard to implementing the CERCLA and RCRA programs, the unions focused on OSHA's failures as well.

The Teamsters brought T. Louis Brown Jr., a shop steward in Local Union Number 270, to testify. Brown worked at a facility that processed petrochemical wastes. His plant had never received OSHA inspections, he said, even when the government

knew of potentially hazardous conditions, as when 80 tons of waste asbestos from the military were brought there. Since 1984, OSHA had done only six inspections at Superfund sites and 11 inspections at licensed disposal sites, the Teamsters said (U.S. Congress. House of Representatives, 1985a, pp. 54-56).

Seminario used the hearings to gain support for mandates to force OSHA to make stronger efforts to protect waste workers. She assailed the agency's failure to comply with the mandate established in Section 301(f) of CERCLA. The agency had failed to draft regulations or establish an enforcement program for hazardous waste operations. Seminario criticized OSHA for omitting most waste sites from targeted inspection programs. "There has been no leadership asserted by OSHA in this particular area," she said (U.S. Congress. House of Representatives, 1985a, p. 85).

The AFL-CIO described the responsibilities that OSHA had failed to meet after CERCLA passed. Union representatives criticized OSHA, the EPA, and the Coast Guard for weak efforts under the interagency memorandum of understanding. The agencies, they said, had spent most of 4 years arguing over jurisdiction and the content of protection provisions. They criticized OSHA for being the least responsive agency: "OSHA has taken the position that since EPA is the lead Superfund agency, OSHA will not schedule routine inspections at sites cleaned up under the Superfund, even though these represent the most dangerous sites" (U.S. Congress. House of Representatives, 1985b, p. 5).

Duffy criticized the EPA's lack of support for worker protection. He described the union's experience at the American Electric Corporation warehouse in Jacksonville, Florida, where firefighters had responded to a HAZMAT fire that involved large quantities of PCB oil. At the site, EPA personnel failed to warn firefighters of potential health hazards. The EPA disregarded

obvious unsafe actions by not only the firefighters, but the private clean-up contractor and the workers they hired for site mitigation. . . . The EPA personnel on-scene decided . . . to follow the administration's policy, which is to get big government off industry's back and allow for the industry to clean up by themselves. (U.S. Congress. House of Representatives, 1985b, p. 44)

OSHA and the EPA were represented at the Government Operations and Education and Labor Committee hearings. Robert A. Rowland, an assistant secretary of labor, said the agency had a field directive instructing inspectors to enforce existing standards at waste sites. OSHA had also trained 100 compliance officers to respond in emergencies. The EPA paid for the training (U.S. Congress. House of Representatives, 1985a, pp. 96-102).

John Miles, then Director of Field Operations for OSHA, made points for the agency. OSHA saw worker protection at hazardous waste sites as the responsibility of the EPA and the Coast Guard. OSHA was part of the interagency National Response Team and followed the terms of the National Contingency Plan established pursuant to CERCLA. The plan called for contractors to comply with existing OSHA standards for industry in general and construction. The standards for chemical exposures were difficult to enforce because hazardous waste site work was conducted outdoors, where ambient conditions generally prevented the kinds of exposure levels that

could develop indoors. Miles asserted that OSHA could investigate only workplaces where there were employees. Since Superfund cleanup was a slow process, with only 300 sites under response actions at the time, OSHA had little opportunity to investigate sites. But OSHA might have visited hazardous waste facilities as part of targeted inspections in the chemical industry, he said.

Miles and Rowland presented the agency's opinion that a new standard was unnecessary (U.S. Congress. House of Representatives, 1985b, pp. 146-164).

OSHA was criticized by the committees but argued that OMB had restricted its budget. Gaydos was frustrated by the frequent changes in OSHA's leadership. Hearing the argument about budget restrictions, he growled angrily,

I don't know if it is attributable to lack of funds or the lack of will, or is it a changing of the Director too often? . . . Granted you have limited funds. But I don't see the Secretary of Labor . . . kicking and screaming and asking for more funds down there at the OMB. . . . I have asked . . . do you need more money? And they said no. (U.S. Congress. House of Representatives, 1985b, p. 158)

### 3. The Need for an OSHA Standard

The unions pushed to persuade Congress that an OSHA standard was necessary to protect hazardous waste workers. Robert A. Georgine, of the AFL-CIO, called for the enforcement of existing OSHA industrial and construction standards at waste sites, but did not call for a new OSHA standard. Ruttenberg explained why a standard was needed:

Hazardous waste management regulations are led by environmental politics, even though worker exposure is usually far more intense, extensive, and hazardous than community exposure. It is not only the employees at hazardous waste sites, but transportation workers, emergency personnel, including firefighters, etc., who need adequate protections. We know that significant health risks exist. (U.S. Congress. House of Representatives, 1985a, p. 188)

The AFL-CIO Safety and Health staff urged Congress to order OSHA to promulgate a "comprehensive, permanent standard, within a specified period of time, for example, two years" (U.S. Congress. House of Representatives, 1985b, p. 6). The department, the IBT, and the IUOE detailed a nine-point program of needed protections. The IUOE wanted the EPA to administer the training program. It also wanted rules addressing the risks of continuous handling and transport of hazardous waste materials and the introduction of new technologies and equipment. The IBT wanted NIOSH to administer the training and called for the extension of the OSHA Hazard Communication Standard to cover hazardous wastes. The AFL-CIO included rules for ER operations and decontamination and sought site hazard analyses and health and safety plans.

Duffy demanded a standard to protect firefighters and additional research into the types of protective clothing needed, and he also covered other aspects of ER work. He cited the experience of firefighters at a particular incident:

So what that particular company did, they went downtown to day workers and hired the people you see here on my right. They had absolutely no training on chemical site mitigation, no training in site clean-up, and were allowed to go on-scene to perform this clean-up without any protection. (U.S. Congress. House of Representatives, 1985b, p. 44)

The Committee on Government Operations issued a report that recommended action by OSHA. Drafting substance-specific exposure standards for hazardous waste operations and ER was not possible, members noted, but more was needed than existed at that time. They called for prompt action to develop a comprehensive rule, an accelerated OSHA enforcement program, "serious consideration" of extending OSHA coverage to municipal firefighters, and a broader scope for the Hazard Communication standard to include the hazardous waste industry. The committee stressed that coverage of firefighters for response at hazardous waste sites was a separate matter from coverage of public workers in general (U.S. Congress. House of Representatives, 1985e, pp. 12-13).

A final point that was significant for the WETP was a comment from the IUOE. John Brown said that strong federal standards would "drive the fly-by-night contractor away from this [, a contractor] . . . who will do a lousy job . . . [and contaminate] the soil that he is removing and the soil where he is going to, and the worker himself, and the community as a whole" (U.S. Congress. House of Representatives, 1985b, pp. 123-124).

### 4. Health and Safety Training

The building trades unions and the firefighters were the strongest advocates for a government grant-funded training program. Seminario certainly supported the concept, but the strategy was put forward by various unions. The IBT called for a training grants program that would award \$2 million to universities and \$8 million to labor organizations to train workers and other public groups (U.S. Congress. House of Representatives, 1985a, p. 73). Ben Hill of the IUOE asked that Congress amend the Superfund law to require health and safety training. He supplied legislative language that he had developed by modifying language in the Mine Safety and Health Act of 1977. It included minimum amounts of training and 8 hours of annual refresher training. Training should be conducted during working hours, he said, with full pay for employees, and employers should certify that they had properly trained each worker (U.S. Congress. House of Representatives, 1985a, pp. 70-71).

Duffy testified that firefighters needed training and that adequate ER training did not exist in the United States. Firefighters needed certificates to document minimum classroom and field training that was specific to their HAZMAT ER roles. Duffy called for general site worker training specific to each trade, on-scene training specific to each site, and ER training for firefighters. Duffy discussed the success of the training developed by unions, worker representatives, and employers under the OSHA New Directions program and said the Superfund ought to support similar work (U.S. Congress. House of Representatives, 1985b, p. 121).



Gerard Gallagher, Jr., the vice president of Ecology and Environment, Inc., a remediation firm, reported that the company's worker protection costs "run about \$15,000 to train and equip an individual" (U.S. Congress. House of Representatives, 1985a, p. 189). Gallagher's firm gave 5 days of training, which covered multiple topics, including protective respiratory instruction and practice in several levels of chemical protective clothing. Gallagher said that others in the industry considered the worker protection provided by his firm to be "state of the art . . . in the private sector . . . [and] the minimum that you can provide" (U.S. Congress. House of Representatives, 1985a, p. 191). When training and protection carry such high costs, Ruttenberg said later, a stable workforce is required to secure the investment.

## 5. ER to HAZMAT Incidents

The decade of the 1980s was a time when previously disposed of hazardous wastes were discovered as they exploded, caught fire, or caused adverse health outcomes in humans, plants, and animals. Catastrophic accidents had occurred at petrochemical facilities. The circumstances led to an increase in the number of workers involved in HAZMAT incidents. Industrial unions, such as OCAW and the International Chemical Workers Union (ICWU), testified in favor of what later were called process safety management regulations (U.S. Congress. House of Representatives, 1985c).

Duffy was the most vocal advocate for emergency responder health and safety protections and certainly the only person asking for these protections for emergencies at hazardous waste operations. Firefighters were exposed to HAZMAT risks through a lack of concern or knowledge among private employers. During one emergency, an EPA hazardous waste site response contractor's employee identified himself to firefighters as an EPA toxicologist. He advised that medical exams would not be necessary and that no decontamination of clothing or equipment, other than normal washing, was needed. The incident occurred at the second worst hazardous waste site in Michigan, where a range of toxic substances had been stored (U.S. Congress. House of Representatives, 1985b, p. 42).

Firefighters usually responded to HAZMAT incidents in their normal fire gear, Duffy said. But firefighter protection required research on the types of materials that would provide adequate safeguards against chemical exposure and the effects of multiple chemical exposures on protective clothing (U.S. Congress. House of Representatives, 1985b, p. 44). Duffy also pointed out that the lack of training of ER personnel, firefighters in particular, could put the public at significant risk.<sup>10</sup>

## 6. Health and Safety Protection for Government Workers

Above all else, Duffy strongly believed that firefighters' health and safety would not be adequately protected unless employers were required to comply with the OSH Act and OSHA regulations (Duffy, 1997). Often at hearings, he urged Congress to extend OSHA protection to public employees. He testified that a recent Supreme Court decision (*Garcia v. San Antonio Transit Authority*) had determined that all of the Fair Labor Standards Act applied to public employees who had previously been excluded. He asked the committee to investigate whether that decision could

support changes in the OSH Act to protect "firefighters and other public employees" (U.S. Congress. House of Representatives, 1985a, p. 84).

## THE UNIONS REPRESENTING HAZARDOUS WASTE OPERATIONS WORKERS

At the time of the hearings, only three unions were aware that they represented members who worked in the hazardous waste management or remediation industries.<sup>11</sup> The three unions mentioned or testifying at the hearings were the IUOE, LIUNA, and IBT.

The Teamsters were not then part of the AFL-CIO but participated in the legislative effort. Only the Teamsters, according to Seminario, had a good relationship with the Reagan administration. They were given a position on the National Advisory Committee on Occupational Safety and Health (NACOSH), which represented labor in an advisory capacity to OSHA, by the administration in the same period when the AFL-CIO was taken off the committee. "So, for things like getting a standard, they could get support that the rest of the unions could not. They always worked collaboratively with the AFL-CIO and the other unions," Seminario said.

The IUOE had the only hazardous waste worker training center among the unions. LIUNA was not listed in the contents of these hearings, but its viewpoints likely were represented by Mallino, who worked closely with Elisburg and LIUNA's general counsel, Connerton. LIUNA had trained laborers for hazardous waste work in Iowa. By November 1984, it had developed a resource and information manual for the courses (Iowa Laborers' Heavy Highway Training Fund, 1980). From the start, the IUOE, LIUNA, and IBT were strong proponents of what became Section 126 of SARA, which developed into the WETP.

OCAW had brought the issue of hazardous waste site exposures to the AFL-CIO in 1979 but was not involved in the SARA effort. OCAW, Sheldon Samuels said, supported the IUD's work to secure protections, but it was not engaged in independent action (Samuels, 1998).

## THE LEGISLATIVE HISTORY OF WORKER PROTECTION PROVISIONS IN SARA

By the end of the hearings, the members of a core group of union representatives was developing the language that they wanted secured in the Superfund reauthorization bill. Seminario, Hill, Elisburg, Mallino, Samuels, and Duffy were the main drafters. The group decided to include a training program plan and \$10 million to support it. Its members pursued a single OSHA standard for the health and safety protection of hazardous waste employees, which would include ER workers.

Eleven mandatory worker protection provisions were established for inclusion in the OSHA standard. The group set a timetable for the issuance of an interim standard and then a final standard. The standard would apply to government employees engaged in ER and hazardous waste operations. Specific requirements were set, including the number of hours of training. The group also included training certification requirements.



Most of the draft language concerned hazardous waste operations, but some of it was broader. The broader terms affected workers involved in HAZMAT ER and concerned the scope of the training program. The training standards would apply to ER personnel—"workers who are responsible for responding to hazardous emergency situations who may be exposed to toxic substances in carrying out their responsibilities" (U.S. Congress. Senate, 1990, vol. 4, pp. 227-228). Grants would cover "the training and education of workers who are or may be engaged in activities related to hazardous waste removal or containment or emergency response" (U.S. Congress. Senate, 1990, vol. 4, p. 228). While only hazardous waste operations were covered, the term was not defined, leaving it open to interpretations set within the context of the new Superfund bill. For the most part, the language that was signed into law was the same as the draft language.

Mallino followed Congress's progress toward passing a bill. The Republicans had controlled the Senate since 1980 and it was now a year before the 1986 elections. The Reaganites' poor performance on environmental issues was a looming campaign issue that the Democrats intended to use to their advantage. That summer, a bill, S-51, which had been introduced on January 3, 1985, by Senator Stafford as the Superfund Improvement Bill of 1985, began moving quickly. By September, Republicans were eager to pass a bill to show that the party had moved from the positions it had taken during Reagan's first term. Mallino shifted his attention to the Senate.

### Senator Metzenbaum's Role

Mallino went to Senator Howard Metzenbaum (D-OH) and his staff for support in securing worker protections in S-51. Mallino presented the draft language. He had missed the marking up of the bill, so he asked Metzenbaum to offer the language as an amendment from the Senate floor. Metzenbaum's staff and Mallino discussed the difficulty of presenting it this way and worked out a plan. The problem was that the Democrats were the minority party and did not chair committees. They assumed that Senator Orin Hatch (R-UT), then chair of the Senate Labor Committee, would object to the language and prepared for that likelihood. Metzenbaum and his staff discussed the matter with key Senate committee chairs before offering the amendment, and Hatch did object. An agreement was made with Hatch that much of the language would be removed, except for a few provisions.<sup>12</sup>

Amendment No. 677 (submitted on September 24) to S-51 called for OSHA to promulgate standards for the health and safety protection of employees in hazardous waste operations, which included ER. The standards were to be issued within a year of the enactment of the Superfund Improvement Act. The amendment also authorized "The cost of training such employees, in an amount not to exceed \$10 million per year" (U.S. Congress. Senate, 1990, vol. 2, p. 1221). Metzenbaum discussed the need to protect clean-up workers and firefighters. He criticized OSHA for its failure to establish "any enforcement program to inspect hazardous waste sites . . . [or to] develop regulations on environmental monitoring, medical surveillance or the training of workers involved in hazardous waste operations" (U.S. Congress. Senate, 1990, vol. 2, p. 1222). Metzenbaum said that clean-up workers should receive the

same level of protection that the EPA gave its own personnel on waste sites. He used the same arguments that labor had presented at the hearings.

The ranking members of all pertinent committees, including the Labor Committee, had indicated their support for the legislation, Metzenbaum said. Stafford then noted that the mandate in CERCLA to develop worker protection standards had not been met, even though 5 years had elapsed. Deadlines must be set, he argued, for proposing and promulgating standards for appropriate worker protections.

Before the vote on the bill, Hatch explained that he was "sympathetic with the need to protect employees involved in hazardous waste operations . . . [but maintained] . . . unqualified opposition to any amendment which would expand the scope of the OSH Act or goes beyond the Senate position," and asked that the House uphold the Senate's positions "in the conference committee" (U.S. Congress. Senate, 1990, vol. 2, pp. 1286-1287). It was important, he stressed, to the Senate Labor and Human Resources Committee and the Department of Labor. Hatch may have communicated with the administration, or at least the secretary of labor, over the matter.

Nonetheless, Mallino wanted something to pass that "smelled like a health and safety program" (Mallino, 1997), so that if and when a Superfund bill went to the conference committee, he could get Senate members to agree to the House's language. Once S-51 contained protection provisions (Section 121 [g]), Mallino worked with House members on the language he wanted.

### The Eckart-Lent Bill in the House

On June 20, 1985, a bill (H.S. 2817) to amend CERCLA was introduced to the House by Reps. Dennis Eckart (D-OH) and Norman Lent (R-NY). By November, the bill contained several sections that were part of the policy initiative to secure worker protections, create a health and safety training program, and support the expansion of construction union employment in the remediation industry. A major fight over other provisions had taken place in the House Energy and Commerce Committee. As a result, the bill lacked a consensus that was adequate to make it law. The bill moved to the next committee with jurisdiction, the House Committee on Public Works and Transportation. Rep. Roe became the chair of the committee during the deliberations on H.R. 2817. Mallino worked closely with Roe to include the protections and training that labor sought.

On November 12, 1985, the Committee on Public Works and Transportation submitted its report; it was the last House committee to do so. During the first session of the 99th Congress, other House committees worked on the bill: Energy and Commerce, Ways and Means, Judiciary, Merchant Marine and Fisheries. Committees have specific jurisdictions, which provide power for their chairs. Mallino respected these jurisdictions. The problem was that he was "inserting OSHA into an environmental bill." The Education and Labor committee handled matters involving OSHA, but neither Gaydos nor Mallino wanted that committee to get involved in the Superfund bill. Mallino suggested to Gaydos that after the hearings, letters asserting the Education and Labor Committee's jurisdiction might be exchanged between Rep. Augustus Hawkins (D-CA), Education and Labor chair, and Rep. Howard, Public Works and Transportation chair.

The November 12, 1985, reporting of H.R. 2817 by the House Committee on Public Works and Transportation opened with the letters. Hawkins and Gaydos said that

Since the Occupational Safety and Health Act is within the exclusive jurisdiction of the Committee on Education and Labor, the [worker protection] provisions thereby fall exclusively within our committee's jurisdiction. In order to preserve and protect this jurisdiction, we respectfully request that you insert a copy of this letter in your committee report on H.R. 2817, acknowledging that we continue to have such jurisdiction. (U.S. Congress. Senate, 1990, vol. 4, pp. 2512-2513)

Howard indicated his agreement.

H.R. 2817 was the first House Superfund reauthorization bill that contained the new protection and training provisions. They appeared in two sections—Section 111 of CERCLA, subsequently H.R. 2817—and were titled “Uses of the Fund.” They authorized Superfund to pay the costs of the worker training and education grants, up to \$10 million annually for 5 years. (The two sections of CERCLA were section 111(c)(6) which provided funds to support the worker protection activities in Section 301[f].) Section 128 established the worker protection and training provisions, including the training grants program.

The language of Section 128 was specific and represented a substantial departure from what the AFL-CIO Safety and Health Department wanted in terms of OSHA standards. Since 1970, labor had supported the proposal and promulgation of standards through the process established in Section 6 of the OSH Act. Through the provisions of the various Superfund reauthorization bills, labor pressed Congress to mandate an OSHA standard. This fact concerned Hatch, since a Congressional mandate amounted to a change in the scope of the OSH Act. The AFL-CIO, for the most part, had held consistently to the provisions that labor had fought for and won in the OSH Act. It was industry that had vigorously fought to change the OSHA legislation, either directly or through appropriations riders. Now, with a recalcitrant administration, a half-decade of noncooperation and hostility from OSHA, an emergent and dangerous industry, and the allure of job expansion for building trades workers, the AFL-CIO attempted to secure a Congressional mandate for OSHA.

Section 128 included the issuance of a standard, pursuant to Section 6 of the OSH Act. In addition, minimum general requirements addressed the following aspects of hazardous waste operations: site analysis, training, medical surveillance, protective equipment, engineering controls, maximum exposure limits, an informational program, handling, a new technology program, decontamination procedures, and ER. Specific training standards for off-site training (40 hours and a minimum of 3 days of field experience) were set up. Also included were training for supervisors, certification and enforcement of training requirements, and training of ER personnel (broadly defined as “workers who are responsible for responding to hazardous emergency situations who may be exposed to toxic substances in carrying out their responsibilities” (U.S. Congress. Senate, 1990, vol. 4, p. 2736); a deadline for interim regulations (the issuance of interim final rules within 60 days of the

enactment of the Superfund legislation); and a grant program. Section 128 listed the grant purposes, the grant program administration, and the eligible grant recipients:

nonprofit organizations which demonstrate experience in implementing and operating worker health and safety training and education programs and demonstrate the ability to reach and involve in training programs target populations of workers who are or will be engaged in hazardous waste removal or containment or emergency response operations. (U.S. Congress. Senate, 1990, vol. 4, p. 2736)

The bill also stipulated that CERCLA would be amended by the new section.

The 99th Congress was unable to pass the legislation by the end of its first session. On December 5, 1985, the House passed a resolution to substitute H.R. 3852 for H.R. 2817. The new bill was a compromise. Four hours of debate were permitted; amendments were limited. Each of the four committees that had jurisdiction controlled an hour of debate. Only two representatives commented on the worker protection and training provisions in Section 128.

Rep. Thomas Petri (R-WI), a member of the committees on Education and Labor and Public Works and Transportation, raised questions about amending the “OSHA statute by extending its jurisdiction to cover local and state workers” (U.S. Congress. Senate, 1990, vol. 5, p. 4107). Coverage should be extended only through a statutory process, he said, not by regulation, especially since it would have a “potential fiscal impact on all levels of local government” (U.S. Congress. Senate, 1990, vol. 5, p. 4108). Petri also opposed mandating the terms of a regulation and cited the requirement to set maximum levels of exposure.

Rep. Rod Chandler (R-WA) raised the same issues later in the day. Mandating the terms of an OSHA standard was, he said, in “direct contradiction to the OSH Act” (U.S. Congress. Senate, 1990, vol. 5, p. 4343), by circumventing the rulemaking process set forth in Section 6 of the OSH Act. “A Superfund bill is not the appropriate place to amend OSHA,” he said (U.S. Congress. Senate, 1990, vol. 5, p. 4343). He honored the agreement to limit amendments, but asked that the conference committee members use the Senate language for this section. These concerns were the ones first voiced by Hatch.

House action continued on the bill until December 16. On December 10, the House agreed to a bill that included the House bill with Senate amendments. It also included additional House amendments. It became H.R. 2005. The final comment on the House floor about Section 128 came from Rep. Gaydos, who said that the section was so important that if it had not been included in the bill, he would have added it as an amendment. He restated that the Committee on Education and Labor and the Subcommittee on Health and Safety maintained jurisdiction over the matter. Although the EPA had responsibility for Superfund site remediation and had established elaborate protection measures for its employees, OSHA had failed to apply them for the protection of remediation workers. Section 128 was “a major step forward in ensuring that those workers handling and being exposed to toxic and hazardous substances at Superfund sites be offered every possible safeguard” (U.S. Congress. Senate, 1990, vol. 5, p. 4356).

The amendments in H.R. 2005 renumbered the sections, and the worker protection requirements became Section 126 and applied to state and local government employees. NIOSH would run the grants program, which would receive \$10 million a year for 5 years.<sup>13</sup>

### WORKER PROTECTION LANGUAGE THROUGH THE CONFERENCE COMMITTEE

The second session of the 99th Congress convened on January 21, 1986. One major bill that had bipartisan support was Superfund. The taxing authority for the Superfund had expired in September 1985. Until the passage of the act, \$198 million in emergency appropriations kept the program active (Barnett, 1994, p. 200). The Senate bill included a broad-based tax, which the House would not accept. Therefore, action on H.R. 2005 remained stalled until summer.

#### Expansion of OSHA

Though the bill was stalled, various interests were jockeying for different provisions to be included in or removed from the bill. The worker protection and training provisions in H.R. 2005 came under pressure from the Republicans on February 10, when the conference committee received a letter from eight minority members of the House Committee on Education and Labor (Jeffords et al., 1986). They called the expansion of the OSH Act to state and local employees "egregious" and strongly opposed it. They supported the need for an OSHA standard but opposed mandating the terms of a standard. "This specificity effectively denies the public their right to participate in the development of standards in the rulemaking process" established in the OSH Act. They urged that the conference committee adopt the Senate's language.

On March 5, Secretary of Labor William E. Brock sent a letter to Stafford, calling on him to support the administration's opposition to what it saw as objectionable provisions in the Senate and House versions of the worker protection language (Brock, 1986). Brock opposed any "statutory requirement to develop specific health and safety rules." He was willing to accept the Senate provisions over the House language, as a compromise measure to "avoid expanding the scope of the OSH Act." He urged that OSHA be permitted to use its statutory rulemaking process to

determine the need for, and scope of, regulations. . . . The House language is especially onerous. It not only prejudices the need for a standard, but prescribes detailed specifications. [It] is inconsistent with the OSH Act's requirements that final regulations be based solely on the evidence contained in the public record. (Brock, 1986)

Brock objected to "mandating coverage of state and local employees" and reminded Stafford that a decision required consideration by the authorizing committees in Congress. He opposed the inclusion of worker protection measures in the bill (Brock, 1986).

The administration's attempt to weaken worker protections must have carried some weight. A response was sent on March 5 from the chairs of the House

Committee on Education and Labor and the Health and Safety Subcommittee to Dingell, chair of the House Committee on Energy and Commerce and the conference committee chair (Hawkins & Gaydos, 1986). The letter was copied to Curtis Moore, Stafford's counsel, stating simply, "Curtis—House Demos to the rescue!!" (Maerki, 1986) Hawkins and Gaydos supported the full House language:

Based upon our experience with the administration of the OSH Act, we know that without such a legislative directive, there may never be an administrative effort to protect employees engaged in toxic waste clean-up. . . . We supported . . . [the] provision . . . with the understanding that it would be accomplished by a free-standing amendment, outside the legislative ambit of the Superfund Act, thereby preserving the jurisdiction of the Committee on Education and Labor over the OSH Act. (Hawkins & Gaydos, 1986)

Hawkins and Gaydos supported the expansion of the standard's provisions to all state and local government employees, since OSHA coverage was already provided to employees in the 25 states and territories with state OSHA plans. They further strengthened their position that they maintained full jurisdiction over worker health and safety in general and specifically in the OSH Act (Hawkins & Gaydos, 1986).

#### Conference Committee Compromises

By March 18, the committee had agreed on the language for Section 126. Mallino protected most of the language in the House bill. Some compromises were made to satisfy the administration and some Republicans, but the primary ones were that the section would be free standing, not an amendment to CERCLA, and that the funding provision would be established as a use of the Superfund, rather than from the general fund.

The conference committee addressed four remaining issues: public worker protection, the specificity of the language, the requirement for 40 hours of training, and the phasing in of the regulations. The issues were raised by the chief counsel, Jack Clough, who reported a staff recommendation to "require EPA to promulgate a standard identical to the OSHA standard, to be applied to the roughly twenty-five states that have no state OSHA program" (U.S. Congress. Senate, 1986, pp. 00001021606–00001021613). The DOL had accepted the compromise.

Senator Lincoln Chafee (R-RI) assailed the "micro-managing" of the rulemaking process, and cited the requirement of a set number of training hours. Chafee acknowledged an earlier compromise, which required OSHA to address all the elements listed in the legislation but then be permitted to change the standard if doing so was substantiated by the hearing evidence. The compromise said that a challenge could be made. Chafee worried that it would produce a lawsuit against OSHA, tying up resources in a court battle. Clough and Dingell explained that challenges to the proposed rules would be made under the Administrative Procedures Act, as applied by OSHA. Chafee accepted this.

The conference committee's staff recommended that the committee clarify the stipulation for 40 hours of training. The training was to apply only to employees, supervisors, and managers who worked with hazardous substances. The committee

agreed to either 40 hours of training or its equivalent. Dingell was receptive if the labor unions agreed, which they did. Discussion defined equivalent training as including what "existing employees might have already received from actual, on-site experience" (U.S. Congress. Senate, 1990, vol. 6, p. 5075).

The last issue was the time allowed for employers to comply with the final OSHA rule. The staff recommended that the interim rules should remain in effect for a full year after the promulgation of the final rule. All agreed.

In the final hours, one more change was made to Section 126. The House language, submitted by Mallino and written primarily by Seminario, had always stated that NIOSH would administer the \$10-million training grant program. The language that eventually came out of the committee, however, said that NIEHS would run the program. Of all the compromises and substitutions agreed in the conference committee, this change had the greatest impact (see Appendix 1 for the language of Section 126).

### THE SWITCH FROM NIOSH TO NIEHS

Millar, director of NIOSH under Reagan, had worked to block the passage of the High-Risk Occupational Disease Worker Notification and Prevention Bill, which subsequently was not passed by the Congress. Samuels and Mallino were the AFL-CIO staffers who had worked to secure its passage. The vote on the notification bill occurred shortly before the close of the conference committee on H.R. 2005. The effort made on both bills involved Seminario.

Samuels held strong views about NIOSH after experiences with the agency during the 1970s. He had coordinated the IUD's work with the OSHA Environment Network for the passage of the Toxic Substances Control Act (TOSCA) in 1976. He did not want to see NIOSH run programs established under that law. "TOSCA was considered to be an extension of the OSH Act, and the only reason it was not located in the Department of Labor and NIOSH is because we didn't trust NIOSH or OSHA," Samuels said. But this may not have been the only reason; Samuels has said that environmentalists preferred that the EPA administer the law.

Seminario was frustrated with NIOSH during the Reagan years, but saw OSHA and NIOSH as the two agencies that the unions had won with passage of the OSH Act. For her, the long-term strategy of her AFL-CIO department included assigning responsibilities to these agencies and holding them accountable for implementation. Seminario wanted both agencies to see the unions as their primary constituency. Placing a \$10-million program at NIOSH might help strengthen NIOSH's relationship with organized labor. In addition, Seminario had worked on these issues with Melius, the HHE director at NIOSH. She knew that he had conducted HHEs in support of the IAFF's pursuit of protection for firefighters involved in HAZMAT ER.

Mallino was involved in both the high-risk worker notification bill and the Superfund effort. He respected Seminario's role. Politically, he needed her support to get the hazardous waste worker protection and training language. "We weren't going to go run a renegade operation, so we brought her in and essentially told her what we wanted to do," he said. Seminario was involved through the entire effort.

However, in the last days of the fight for the worker notification bill, Mallino and Samuels discovered that NIOSH's Millar had spoken at a briefing for corporate lobbyists about how to lobby against the bill. Both Mallino and Samuels were furious about this. They understood that the agency would have to testify in support of the administration's positions. Neither, however, could tolerate support for industry lobbying. NIOSH was "actively lobbying against the bill and we didn't trust or want anything to do with them. They had never given a grant to a union. We knew that all we would be doing was fighting for funding for the universities and for the employers" (Samuels, 1998). They decided to remove NIOSH from its potential position as the agency administering the Superfund training grant program.

Samuels had worked with Dr. David Rall, the director of NIEHS, on asbestos and other issues. Rall had been the chair of an interagency effort on environmental health science, from which he provided government support for Dr. Irving Selikoff and the unions on asbestos issues. Samuels suggested that Mallino write NIEHS into Section 126 and take NIOSH out. Mallino accomplished the change between 10 p.m. and 2 a.m. on the last night of the conferees' sessions. It involved agreement by Reps. Dingell and Roe, as well as Senators Stafford, Metzenbaum, and others. The primary support came from Rep. David Obey (D-WI), who was the ranking member of the House Appropriations Committee's Subcommittee on Labor and Health and Human Services. He was very close to Rall. Obey had helped to write the OSH Act in 1970 and had always, according to Mallino, been one of the major congressional supporters of OSHA and NIOSH. As Mallino saw it,

David Obey was probably the biggest friend of NIOSH, that an institution ever had. But he was pissed off at NIOSH because of what NIOSH had become under the Reagan administration. He told me that I could tell members of Congress that if NIOSH gets this program, it will never be funded, because he would do everything that he could to de-fund it.

Rep. Roe submitted the change to the committee. The Republican committee members' staff did not oppose it. Mallino accomplished the change without consulting Rall. He informed Obey and asked that Rall be protected in the event of a political attack.

Moore called Rall the next morning to tell him that NIEHS would direct a \$10-million-a-year worker training grant program. Rall had his legislative aide contact Melius at NIOSH. Melius then informed Millar, who was neither pleased nor upset. Millar then received a call from Rall, and Millar told him that he could accept what had happened (Melius, 1998; Rall, 1997).

Samuels also called Rall. Rall stated his interest in working with labor on the program. Samuels said that what he wanted for labor was "a fair shake and peer review" (Samuels, 1998). He explained to Rall that he wanted NIEHS to select proposal reviewers who were peers of the people who wrote the unions' proposals. He wanted reviewers who understood worker health education, such as university labor educators and occupational health professionals who were supportive of labor's goals. Dr. Rall agreed with the strategy (Mallino, 1997; Melius, 1998; Rall, 1997; Samuels, 1998; Seminario, 1997).

After Reagan signed the SARA bill, Lautenberg declared in the Senate, "We plan for the worst but insist on the best prevention. That legislation survived the conference. It's an enormous achievement" (U.S. Congress. Senate, 1990, vol. 7, p. 5631). And it had an enormous impact on the WETP.

### CONCLUSION

This legislative victory required the resources of multiple social movements, skilled individuals, committed political allies, fiscal resources, an understanding of the politics and events of the moment, and, to some extent, the luck of misfortune. That is, often public fears stemming from industrial disasters could be used to move political action to avert, or appear to avert, similar disasters in the future. The Labor and Environment Coalition won strong community right-to-know and emergency preparedness provisions. Separately, labor won a health and safety training grant program and a mandate on OSHA and the EPA to issue worker health and safety regulations for industries that employed HAZWOPER workers.<sup>14</sup>

After the passage of SARA, labor successfully gained Congressional support to amend the legislation several times, affecting liability, certification, and funding issues. By 1989, it was obvious that \$10 million a year was insufficient to support the WETP training program. A key amendment increased the program's funding to \$20 million annually.

The successful passage of the worker protection provisions in SARA was coordinated by one of labor's skilled legislative strategists, demonstrating the importance of devoting social movement resources to such efforts. Dave Mallino, Sr., knew how to build a body of evidence to support the case for including worker protection measures in a reauthorized Superfund law. Working mostly with Democratic congressional allies, but also capable of addressing the concerns of Republicans, he maneuvered between the jurisdictional arenas within the House of Representatives and between the House and the Senate. The case was made that the Reagan administration's regulatory agencies had grossly failed to protect workers and that a legislative mandate was not only warranted but appropriate. Legal and ideological challenges had to be overcome, particularly regarding the scope of the OSH Act itself (whether it would apply to public sector workers) and the use of a Congressional mandate to move a regulatory agency.

We see the state being used as an arena for social conflict. Multiple social actors were represented. The lack of opposition from the hazardous waste management industry proved beneficial, and the lack of input from the manufacturing and processing industrial sectors was fortuitous. Mallino coordinated a multiunion effort. The building trades and the firefighters had different objectives, but collaborated to gain what was possible within the political environment. Professionals and scientists were brought in to strengthen labor's case, but interestingly, no testimony was sought from academic occupational health and safety training centers. Almost invisible in the efforts to secure worker protections were the environmentalists. Even though Peg Seminario and the Labor and Environment Coalition engaged in an extended effort to secure community right-to-know and emergency planning

measures, the environmental organizations were not recruited to help pass the health and safety protection provisions.

Legislators and their aides took sides largely along party lines except in the Senate, where more liberal Republicans opposed a conservative Republican president in order to preserve environmental protection and demonstrate support of organized labor. Regulatory agency bureaucrats defended the administration's policies in the face of strong criticism. Lower-ranking bureaucrats staked out positions that were neither supportive of their agencies nor supportive of their constituencies, as seen in John Miles's argument that stronger enforcement of existing standards was all that was necessary, betraying both labor, which needed better protection, and employers who opposed enforcement efforts.

The SARA provisions that mandated the OSHA HAZWOPER standard and the WETP may have been the last major national health and safety victory in the mold of the old liberal era. In some ways, they mark the end of the reform era and the beginning of health and safety in the neoliberal era. The philosophical vestiges of the liberal era's (by then broken) social contract between capital and labor called for giving a little something to labor in exchange for dirty work and agreeing to let capital remain in charge of decisions about the means and modes of production and the investment and distribution of wealth. A mom and apple pie argument about protecting workers who put their lives on the line to respond to or remediate hazardous and toxic conditions was defensible. Ten million and then 20 million dollars a year for a training grant program was chump change. Worker protection regulations on an industrial sector whose pricing structures and credibility were based on regulatory compliance were not a particularly difficult pill to swallow.

The provisions, however, ushered in health and safety training in the neoliberal era. Unlike the New Directions training program, which funded activists to be the eyes and ears of OSHA and to mobilize health and safety activists throughout the industrial sectors, SARA would support training for a more limited set of workers and settings. It would frustrate some health and safety activists who didn't want to be pigeon-holed into training that was focused on a standard rather than on developing strategies for gaining the power to create healthy and safe workplaces. But labor was hemorrhaging steadily. Leadership support for health and safety activists and issues had always been inconsistent, depending on specific individuals and sectors, but now many in labor saw holding onto eroding membership and jobs as a much higher priority than any other issues in workers' lives.

### APPENDIX 1: Worker Protection Provisions of SARA

Public Law 99-499, 100 STAT. 1690

99th Congress

Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### TITLE I

(29 USC 655)

Sec. 126. WORKER PROTECTION STANDARDS.

(a) **PROMULGATION.**—Within one year after the date of the enactment of this section, the Secretary of Labor shall, pursuant to section 6 of the Occupational Safety and Health Act of 1970, promulgate standards for the health and safety protection of employees engaged in hazardous waste operations.

(b) **PROPOSED STANDARDS.**—The Secretary of Labor shall issue proposed regulations on such standards which shall include, but need not be limited to, the following worker protection provisions:

- (1) **SITE ANALYSIS.**—Requirements for a formal hazard analysis of the site and development of a site specific plan for worker protection.
  - (2) **TRAINING.**—Requirements for contractors to provide initial and routine training of workers before such workers are permitted to engage in hazardous waste operations which would expose them to toxic substances.
  - (3) **MEDICAL SURVEILLANCE.**—A program of regular medical examinations, monitoring, and surveillance of workers engaged in hazardous waste operations which would expose them to toxic substances.
  - (4) **PROTECTIVE EQUIPMENT.**—Requirements for appropriate personal protective equipment, clothing, and respirators for work in hazardous waste operations.
  - (5) **ENGINEERING CONTROLS.**—Requirements for engineering controls concerning the use of equipment and exposure of workers engaged in hazardous waste operations.
  - (6) **MAXIMUM EXPOSURE LIMITS.**—Requirements for maximum exposure limitations for workers engaged in hazardous waste operations, including necessary monitoring and assessment procedures.
  - (7) **INFORMATIONAL PROGRAM.**—A program to inform workers engaged in hazardous waste operations of the nature and degree of toxic exposure likely as a result of such hazardous waste operations.
  - (8) **HANDLING.**—Requirements for the handling, transporting, labeling, and disposing of hazardous wastes.
  - (9) **NEW TECHNOLOGY PROGRAM.**—A program for the introduction of new equipment or technologies that will maintain worker protections.
  - (10) **DECONTAMINATION PROCEDURES.**—Procedures for decontamination.
  - (11) **EMERGENCY RESPONSE.**—Requirements for emergency responses and protection of workers engaged in hazardous waste operations.
- (c) **FINAL REGULATIONS.**—Final regulations under subsection (a) shall take effect one year after the date they are promulgated. In promulgating final regulations on standards under subsection (a), the Secretary of Labor shall include each of the provisions listed in paragraphs (1) through (11) of subsection (b) unless the Secretary determines that the evidence in the public record considered as a whole does not support inclusion of any such provisions.
- (d) **SPECIFIC TRAINING STANDARDS.**—
- (1) **OFFSITE INSTRUCTION; FIELD EXPERIENCE.**—Standards promulgated under subsection (a) shall include training standards requiring that general site workers (such as equipment operators, general laborers, and other supervised personnel) engaged in hazardous substance removal or other activities which

expose or potentially expose such workers to hazardous substances receive a minimum of 40 hours of initial instruction off the site, and a minimum of three days of actual field experience under the direct supervision of a trained, experienced supervisor at the time of assignment. The requirements of the preceding sentence shall not apply to any general site worker who has received the equivalent of such training. Workers who may be exposed to unique or special hazards shall be provided additional training.

(2) **TRAINING OF SUPERVISORS.**—Standards promulgated under subsection (a) shall include training standards requiring that onsite managers and supervisors directly responsible for the hazardous waste operations (such as foremen) receive the same training as general site workers set forth in paragraph (1) of this subsection and at least eight additional hours of specialized training on managing hazardous waste operations. The requirements of the preceding sentence shall not apply to any person who has received the equivalent of such training.

(3) **CERTIFICATION; ENFORCEMENT.**—Such training standards shall contain provisions for certifying that general site workers, onsite managers, and supervisors have received the specified training and shall prohibit any individual who has not received the specified training from engaging in hazardous waste operations covered by the standard. The certification procedures shall be no less comprehensive than those adopted by the Environmental Protection Agency in its Model Accreditation Plan for Asbestos Abatement Training as required under the Asbestos Hazard Emergency Response Act of 1986.

(4) **TRAINING OF EMERGENCY RESPONSE PERSONNEL.**—Such training standards shall set forth requirements for the training of workers who are responsible for responding to hazardous emergency situations who may be exposed to toxic substances in carrying out their responsibilities.

(e) **INTERIM REGULATIONS.**—The Secretary of Labor shall issue interim final regulations under this section within 60 days after the enactment of this section which shall provide no less protection under this section for workers employed by contractors and emergency response workers than the protections contained in the Environmental Protection Agency Manual (1981) "Health and Safety Requirements for Employees Engaged in Field Activities" and existing standards under the Occupational Safety and Health Act of 1970 found in subpart C of part 1926 of title 29 of the Code of Federal Regulations. Such interim final regulations shall take effect upon issuance and shall apply until final regulations become effective under subsection (c).

(f) **COVERAGE OF CERTAIN STATE AND LOCAL EMPLOYEES.**—Not later than 90 days after the promulgation of final regulations under subsection (a), the Administrator shall promulgate standards identical to those promulgated by the Secretary of Labor under subsection (a). Standards promulgated under this subsection shall apply to employees of State and local governments in each State which does not have in effect an approved State plan under section 18 of the Occupational Safety and Health act of 1970 providing for standards for the health and safety protection of employees engaged in hazardous waste operations.



## (g) GRANT PROGRAM.—

- (1) GRANT PURPOSES.—Grants for the training and education of workers who are or may be engaged in activities related to hazardous waste removal or containment or emergency response may be made under this subsection.
- (2) ADMINISTRATION.—Grants under this subsection shall be administered by the National Institute of Environmental Health Sciences.
- (3) GRANT RECIPIENTS.—Grants shall be awarded to nonprofit organizations which demonstrate experience in implementing and operating worker health and safety training and education programs and demonstrate the ability to reach and involve in training programs target populations of workers who are or will be engaged in hazardous waste removal or containment or emergency response operations.

## ENDNOTES

1. Sheldon Samuels explained to me what happens when representatives of the AFL-CIO Industrial Union Department (IUD) lobby Congress. "We'd go up on the Hill and they'd say, IUD, but who do you represent besides yourself? That was always the question to every department and to the AFL-CIO itself, because the people on the Hill understand the labor movement. They understand that very often the AFL-CIO and its departments do not speak for the unions because labor on almost every issue splits. That's the nature of the labor movement. And we were able to say we have the support and we'd name the unions and we'd always be able to say we've got support."
2. U.S. Congress. Senate, 1990. The history of SARA's passage is summarized from the preface, vol. 1., pp. v-vii.
3. The effort in the 99th Congress was initiated by the Senate Environment and Public Works Committee, which reported S. 51 on March 7, 1985. That bill was passed by the Senate on September 26, 1985. (It became H.R. 2005 due to a constitutional requirement that tax bills originate in the House [U.S. Congress. Senate, 1990, vol. 1, p. v].) In the House, the bill was H.R. 2817, approved by the Energy and Commerce Committee. This bill was amended by several other committees and the final language was set forth in a compromise bill, H.R. 3852, which was passed on December 10, 1985, and then inserted into the Senate-passed bill, H.R. 2005.
4. This occurred in late 1984 or early 1985. The information was collected through interviews. No interviewee could remember exact dates and no paper documentation was discovered.
5. These explanations were provided by key informants for this study: Seminario, Mallino, Samuels, and Elisburg.
6. It may be that at least some industrial unions assumed that an IUD effort would duly represent their efforts, and therefore, they didn't need to allocate resources to the effort. The possibility was suggested in a discussion with Rafael Moure, who was an industrial hygienist with OCAW when Mallino worked on these issues through the IUD.
7. Much of the information in this section was obtained in an interview with Weisberg.
8. The Council on Economic Priorities is a New York-based nonprofit organization established to research and disseminate unbiased information on the practices of U.S. corporations.
9. Other contractors supported strong health and safety measures but may have called for Superfund sites to be exempt from the requirement to pay prevailing wages, under the Davis-Bacon Act. William Wallace, representing the American Consulting Engineers Council (and was the director for hazardous and solid wastes, CH2M Hill), presented

- six points the council wanted Congress to address in Superfund reauthorization. The council called for "the entire pool of qualified response contractors [to] be eligible to compete for contracts" (U.S. Congress. House of Representatives, 1985b, p. 1699).
10. Duffy cited a 1980 incident in Somerville, Massachusetts, in which firefighters followed guidelines for responses to releases of phosphorous trichloride. Because they had not received appropriate training, they did not know that when the guidelines called for the application of copious amounts of water, it meant much more water than for a normal fire. The result was the formation of a large acid cloud (U.S. Congress. House of Representatives, 1985a, pp. 86-87).
11. Ken Allen, in an interview with the author, said that hazardous waste management and hazardous waste remediation are two separate industries, at least they were in the late 1990s. Some other people I interviewed have agreed with him, while others have considered hazardous waste remediation as a segment of the hazardous waste management industry. Allen, in his role of working with construction contractors to bid on remediation work, understands the separation between the industries as existing because of the difference in the employers/companies conducting the remediation work.
12. Sen. Lautenberg (D-NJ) was on the committee. He supported the IAFF. Because Richard Duffy was from New Jersey, he gave the senator information about every HAZMAT incident to which NJ firefighters had responded. Lautenberg's staff gave strong support, largely due to their relationship with Duffy and the IAFF (interview with Richard Duffy).
13. Section 21 of the OSH Act established provisions for NIOSH and OSHA to support training activities of professionals, workers, employers, and agency staff. The act permits NIOSH to provide grants for training but is not clear as to whether NIOSH-funded training should be limited to professionals. (NIOSH policy is that it can support worker training programs.) The act does not state that OSHA can award training grants but does say that the agency can "provide" for the establishment of training programs. OSHA has used Section 21(c) as the authority for its training grants programs.
14. SARA, Section 126 (g) (2), required NIEHS to establish and administer a national training grants program. Its task was managing "grants for the training and education of workers who are or may be engaged in activities related to hazardous waste removal or containment or emergency response." The law also ordered OSHA to develop and promulgate a standard to protect workers in hazardous waste operations and ER. OSHA was obligated to address 11 worker protection provisions, including worker training. OSHA published interim regulations on December 19, 1986 (Hazardous Waste Operations and Emergency Response; Interim Final Rule, Fed. Reg. 51: 45654-45675), and a proposed final rule on August 10, 1987 (Hazardous Waste Operations and Emergency Response; Notice of Proposed Rulemaking and Public Hearings, Fed. Reg. 29620-29654). The rule's training requirements became the basis for the formulations on training that were later developed by NIEHS awardees.

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## CHAPTER 4

### A Fair Shake and Peer Review

Placing the training program in NIEHS under the direction of David Rall created an opportunity to establish a program unencumbered by the historical efforts of industry and conservative politicians to minimize the capacity of OSHA and NIOSH to protect workers. Certainly the grant proposal review and administrative procedures of the National Institutes of Health (NIH) bureaucracy could be used to redirect the program from the goals and purposes intended by its labor authors. The program's appointed leaders, however, were scientists and professionals allied with and part of the workers' health and safety movement. They had already worked with labor and were familiar with its health and safety strategies and with both the successes and the demise of the OSHA New Directions program, the programmatic predecessor to the WETP. They sought to craft a program that could financially support the movement while advancing high-quality worker health education and training.

The breadth of activities supported by the OSHA New Directions program could not be replicated by a training grant program limited to hazardous waste operations and emergency response. Many in the movement were reluctant to submit a proposal to the new program, concerned by the likely limits of its scope. Yet, in an economy rooted in the production and use of synthetic chemicals, most industrial sectors employed workers with potential for exposure to hazardous waste materials. Only limited worker-oriented health and safety training was available for that substantial and diverse workforce. The NIEHS representatives met with health and safety movement leaders in unions and in academia to encourage them to apply for training grants. They were keenly aware that many health and safety movement organizations were struggling due to the loss of OSHA New Directions funds. They realized that this financial and political loss meant that at least for the moment the movement would need to accept a limited scope of activity. They believed, though, that the new program could be used to create a model form of training that would greatly advance all workplace health and safety training.

The NIEHS leadership saw that organized labor and the health and safety movement had been unprepared and unable to resist the Reagan administration's efforts to eliminate the OSHA New Directions program's funding for labor. They were determined to organize a program that created a national constituency that could resist future efforts to destroy the new program's capacity to support labor. They sought to set up a worker health education intervention that would create new standards of quality, content, and performance for worker health and safety training. Also,

they sought to establish a programmatic foundation for an integrated and cohesive network within the U.S. health and safety movement, capable of defending the program against efforts to weaken or end it.

### NIEHS STARTS A TRAINING PROGRAM<sup>1</sup>

NIEHS was founded in November 1966 as the Division of Environmental Health Sciences of the National Institutes of Health (NIH), which at that time was part of the federal Department of Health, Education, and Welfare (HEW). In January 1969, the division was elevated to the status of a national institute. NIEHS is a toxicology research agency that conducts biomedical research to promote an understanding of human disease mechanisms. The institute investigated environmental contaminants, including polychlorinated biphenyls (PCBs), polybrominated biphenyls (PBBs), heavy metals, and others. Its research included studies of target organs and the effects of contaminants on them. That work was part of an intramural research program. Simultaneously, the agency maintained an extramural research program, which supported work by scientists at U.S. colleges and universities, as well as environmental health centers, and training and career development programs (NIEHS, 1986b).

The National Toxicology Program (NTP) was based in NIEHS to coordinate toxicological studies within HEW. The executive council of the NTP consisted of administrators from regulatory agencies, including the EPA, OSHA, the Food and Drug Administration (FDA), and the Consumer Products Safety Commission. The executive council helped to ensure that all NTP activities related to the needs of the regulatory agencies. Thus, NIEHS began a limited involvement in occupational health issues.

Dr. David P. Rall, who had worked previously with the AFL-CIO, was appointed the agency's director in 1971, replacing Dr. Paul Kotin. Rall was the director of NIEHS when the WETP arrived there. He accepted responsibility for the training program, and viewed it as fitting with NIEHS's mission. NIEHS already gave grants to train scientists. Rall did not believe that training workers would be more difficult, only more costly (Rall, 1997).

### Discussions With Representatives of Labor

For the most part, labor had not worked with NIEHS before, nor had many unions worked with Rall. Samuels and Rall had common experience, but not in such a way as to provide an experiential basis for understanding how the agency would manage the training program. Rall was contacted early by labor representatives to discuss how the program would be developed and run. Samuels indicated that he wanted the NIH peer review process applied to the application process, but that reviewers should represent the interests of labor. He urged that the peer review team be composed of people who were strong supporters of labor-based health and safety training programs, people who would understand what the unions would propose. In Samuels's words, they wanted, "a fair shake and peer review" (Samuels, 1998).<sup>2</sup> In addition, the agency was asked to establish the internal competence necessary to run the program, not as a research program, but as it was outlined in SARA (Seminario, 1997).

Most of the unions had never worked with NIEHS. The IAFF had a strong relationship with NIOSH through Dr. Melius on health and safety issues. The AFL-CIO Safety and Health Department also had a stronger relationship with NIOSH than with NIEHS. The AFL-CIO representatives sought assurances of support and cooperation from Rall, which he gave them. They also said that since they had coordinated the effort to pass Section 126 of SARA, they expected that a significant portion of the funding would go to unions.

Section 126 of SARA was written so that labor unions would be in a strong position as candidates for its funding. The section states that

Grants shall be awarded to nonprofit organizations which demonstrate experience in implementing and operating worker health and safety training and education programs and demonstrate the ability to reach and involve in training programs target populations of workers who are or will be engaged in hazardous waste removal or containment or emergency response operations. (SARA, Section 126)

Both the unions and Congress expected rapid implementation; Rall had to find someone to run the program. Because of his public health beliefs and the imperative that the program should address the needs of those who had secured the legislation, he wanted someone with whom he could work closely and who was sympathetic to the needs of organized labor. He recruited Dr. John Dement, initially on a 90-day assignment. Dement directed NIEHS's internal health and safety programs. He was an officer in the Public Health Service and had worked at NIOSH before being assigned to NIEHS.

In addition to program management, NIEHS had to arrange grants, contracts, and financial management. Dr. Anne Sassaman had been recruited to NIEHS from the NIH Heart, Lung, and Blood Institute in Bethesda, Maryland, in July 1986 to direct the grant funding programs under SARA for which the agency would be responsible. Sassaman may have been recruited by Rall in anticipation of another program that was included in the Superfund reauthorization—the Superfund Basic Research Program. This was planned as a grant program that would fund research at universities, medical schools, and schools of public health on the human health impacts of uncontrolled hazardous waste sites. After SARA passed, Sassaman had only 10 months to solicit proposals and distribute funds to both the basic research and the worker training programs.

Carol Matheny was later recruited to the WETP from the National Institute for Arthritis (NIA), where she served as a biomedical research grants management specialist. With experience as an assistant administrative officer at the NIA, Matheny was "the only senior specialist with enough experience to handle the new program" (Matheny, 1998). She was instructed to outline budgetary and administrative guidelines. Her duties were to assess the financial management and evaluation systems for the grantees, as well as assist in planning, development, and implementation, both at NIEHS and for the grantees. She came into the program "cursing" (Matheny, 1998). Matheny's and Sassaman's support was invaluable in dealing with union awardees who had limited federal grant experience.

## Review of Existing Worker Training Programs

Dr. Dement was familiar with OSHA's New Directions health and safety training and with the public health literature on this kind of training. He knew professionals, scientists, academics, and labor representatives in the health and safety movement. He knew how he wanted to organize a health and safety training grants program and he discussed ideas with experts in the field.

Dr. Eula Bingham had initiated New Directions during her tenure as director of OSHA. She, Rall, and Dement had talked about the organization of a national health and safety training program. An early concern of Dement's was that New Directions had not been organized in a way that fostered cohesiveness among its awardees. Dement and others believed that a lesson to be learned from New Directions was that it had failed to build an adequate constituency for both the agency and the program. New Directions grants were structured so that funding would end for most awardees after 3 years, by which time awardees were expected to have developed the internal competency to continue their health and safety programs without federal funding. As a result, in the view of the NIEHS strategists, when awardees completed their funding cycle, they did not necessarily perceive themselves as constituents of OSHA.

Aware of the changing power of labor in national politics and the impact of the deregulation efforts of the Reagan administration, Dement and others believed that a training grants program could and should be organized to promote greater support from and cohesiveness among its recipients. Dement and others also wanted to maintain closer links with other federal agencies.

Dement talked with health and safety educators in university-based labor education programs. Those programs had successfully used New Directions to establish health and safety education for workers and unions. Dement talked with them to determine whether a role for them in the WETP was appropriate. He and Rall worried about the ability of the unions to address many of the more technical health and safety issues related to hazardous waste and ER. They were concerned, too, about building NIH and NIEHS support for the program and believed that this support would be more likely if the awardees represented a mixture of unions and university programs, rather than only unions.

Dement communicated with health and safety directors and personnel at some unions that would likely be involved. He spoke with Margaret Seminario, for one. Seminario had decided that those unions eligible for the program would be able to represent their needs and interests without her continuing support. From that point on, her participation in the program was largely peripheral.

Another segment of the labor movement that was potentially eligible to participate was the network of occupational safety and health advocacy organizations that had been created around the country since the mid-1970s. These organizations were (and are) known as COSH groups—coalitions, committees, or councils on occupational safety and health. The leadership communicated with COSH representatives as well.

Dement and Rall conferred with those federal agencies that were involved in any way in worker health and safety training. NIOSH, the EPA, OSHA, FEMA, and the Agency for Toxic Substances and Disease Registry (ATSDR) participated.

Dement and Rall also met with some industry representatives (Dement, 1987; Dement & Vandermeer, 1987).

## Establishing the Program

After doing this groundwork, Dement and Rall began to shape the program as they would present it in the request for applications (RFA). It would address the needs of the building trades and the IAFF. It would build on earlier federal support for health and safety training as established in OSHA's New Directions program. Also, it would use the successful practices and processes that NIH and NIEHS had developed to support successful grant programs, for example, the NIH process for peer review of proposals, and the NIEHS and NIH emphasis on building program cohesiveness (Lange, 1997).

Rall confronted two immediate obstacles. The Office of Management and Budget (OMB) stated that \$10 million was an excessive amount for training workers who, OMB believed, should have already been trained by their employers. The OMB examiner finally accepted the need for training, with an assurance from Rall that all workers would be trained within 5 years (Rall, 1997). The second obstacle was the EPA, which opposed the requirement to "pass through" Superfund monies for distribution to NIEHS for the WETP. The EPA attempted to achieve a legislative change that would reestablish the program at the EPA. Rall's intervention helped to block this tactic. Representatives of the IUD and the Laborers Union talked with EPA officials about funding NIEHS for the training program and OSHA for the development of the interim standard as well as the proposed rule. They may also have discussed with EPA officials the issue of keeping the WETP at NIEHS. (Elisburg, 1998; Rall, 1997; Samuels, 1998).

## Soliciting Comments

On December 15, 1986, Dement distributed a draft description of the NIEHS training grants program to potentially interested parties. The cover letter stressed the language of Section 126 of SARA about grant recipients: they had to be nonprofit organizations that could demonstrate the ability to access the target worker populations and that had experience running worker health and safety training programs. The cover letter also gave notice of a public meeting on January 12, 1987, to which interested parties could provide oral and written comments (NIEHS, 1986a).

The notice of the meeting was published in the U.S. Federal Register on December 19. It explained the meeting and the guidelines for oral presentations to NIEHS, and said that written documentation could be left with NIEHS staff. Written comments were accepted through January 18. The notice described the proposed NIEHS program and listed the targeted populations as workers doing the following types of work:

- Waste handling and processing at active and inactive hazardous substance treatment, storage and disposal facilities.
- Cleanup, removal, containment or remedial actions at waste sites.
- Hazardous substance ER.

- Hazardous substance disposal, site risk assessment and investigation, remedial actions or cleanup by state and local personnel.
- Transportation of hazardous wastes. (51 Federal Register, 1986a, p. 45556)

The notice stated that the training programs would satisfy the requirements to be established by OSHA in its rulemaking process. NIEHS encouraged single applications from multiple nonprofit organizations "to maximize worker group coverage, enhance the effectiveness of training, and bring together appropriate academic disciplines and talents." The notice said that NIEHS recognized the need "for close coordination between grantees, governmental agencies and other training providers in developing training curricula" (51 Federal Register, 1986a, p. 45558). NIEHS planned to hold a 3-day meeting soon after the awarding of grants. That meeting was viewed as critical by Dement, Rall, and others who viewed the demise of New Directions as due at least partially to its failure to build a constituency for the agency and the program. NIEHS intended to structure the WETP in such a way as to increase the potential for constituency building as a vehicle for protecting the program from future attacks.

The notice listed seven criteria under the heading, "Characteristics of Hazardous Waste Worker Training Programs." These were as follows:

- Demonstrated ability to identify, describe, access and train target populations . . .
- Past success in development and implementation of training . . .
- An experienced program director . . .
- Sufficient program staff with demonstrated training experience . . . Appropriate technical expertise including but not limited to toxicology and industrial hygiene.
- Facilities and equipment [for] . . . training activities, including hands-on instruction.
- A specific plan for preparing [a] course curriculum, distributing course materials, conducting direct worker training, and conducting program evaluations.
- A Board of Advisors . . . representing user populations, labor, industry, governmental agencies, academic institutions or professional associations with interest and expertise in worker training and hazardous waste operations. The board [was to] meet regularly to evaluate training activities and [would] provide advice to the Program Director. (51 Federal Register, 1986a, p. 45558)<sup>3</sup>

The criteria established the types of programs that would be supported under the NIEHS umbrella. They reflected the guidance that Dement and Rall had been given in their talks with individuals and organizations in labor, government, and worker health and safety education. The acknowledgment of the need for strong programmatic leadership and staffing recognized the difficulty that awardees would face in developing curricula and training for workers in an industry only just then emerging, an industry in which the specific hazards were not yet fully known. The criteria also acknowledged that the programs required sophisticated technical and scientific support, since the nature and health and safety impacts of many chemical components of hazardous wastes were far from known and not well understood. Matters were even more complicated because of the potential for diverse mixtures of chemicals at waste sites, which many in the field labeled "chemical soup."

Finally, the notice proposed the criteria for the review of submitted applications. At this point, all matters were open to comment and change. The criteria presented in the notice did, however, represent the program structure and process deemed most appropriate and workable by Rall and Dement after consultation with multiple parties. The detailed and specific nature of the proposal, despite the fact that it had been prepared in such a short time, revealed the expertise that Dement brought to the program.

The terms of the notice showed how the placement of the program at NIEHS influenced its development. Although the content of the notice reflected the series of discussions held by Dement and Rall, the programmatic processes set forth in the notice also directly reflected NIH operations and priorities. Because NIH did not have "standing regulations coverage for the new grants under section 126" (Pearl, 1987), the WETP would be different from other NIEHS programs, and some adjustments to U.S. Public Health Service (PHS) procedures were required, as evidenced by specific program regulations.

The public meeting to discuss the WETP was held on January 12, 1987; its conveners described the background and the plans for moving forward and requested comments from interested parties. The agenda included presentations by Rall; Thomas Seymour, director of the Office of Fire Protection Engineering and Safety Standards at OSHA; and representatives from the EPA, FEMA, ATSDR, and NIOSH. Dement presented an overview of the program, with plans, priorities, and schedules. Public discussion took up the afternoon, after which Sassaman closed the meeting.<sup>4</sup>

Seymour discussed the interim rule for hazardous waste operations and ER, which OSHA had issued on December 19 and which was to become effective on March 16, 1987. OSHA wanted uniform national training developed, tied to the final rule that would be proposed in 12 months, and a procedure for certification of trained workers.

Tom Sell of the EPA described the training carried out by the EPA under RCRA, CERCLA, and SARA. He acknowledged that the EPA had given only limited worker training to date, but said it did offer hazardous materials (HAZMAT) incidents training with an extensive curriculum and course offerings. Representatives of other federal agencies discussed their involvement.

Dement reviewed the program description. Two types of grants would be offered: planning and program. Program grants would last for 5 years, with annual reapplication and renewal required. Proposals had to include hands-on and demonstration aspects of training. NIEHS would require and facilitate coordination and sharing among the grantees. Dement talked about the upcoming meeting in North Carolina, after the issuing of awards, for the purpose of reaching agreement on curriculum content, and said an annual grantees meeting would be required. He went over the grant application review process. A review for technical merit would be conducted by an ad hoc committee without government officials. A second review panel would include government and public representatives, who would look at relevance and program coordination. Applications were due on May 1 and awards would be made in late September 1987.

The discussion clarified certain issues. They included target populations, specifying that RCRA TSDF and private facility ER workers were covered; funding for capital equipment purchases; confirmation that the collection of fees would be permitted as long as the fees were used to support the awardees' training; the potential need for medical exams before training; insurance for trainers; and the payment of stipends for workers, travel, and related expenses.

### TARGET POPULATIONS AND THE INITIAL AWARDS

The January 12 meeting made one thing very clear to the representatives of labor who had worked to gain the Congressional mandate for the program: university programs were going to present significant competition. As Richard Duffy of the IAFF said, "I, probably on more than one occasion during that meeting and afterwards, said 'Hey, this wasn't your gig. We pushed this through ourselves.' I think everybody thought, 'Why did we put it in NIEHS?'" This attitude became a point of conflict in the program.

OSHA had issued an interim final rule for Hazardous Waste Operations and Emergency Response (51 Federal Register, 1986b). In developing the regulation, OSHA used various materials as a basis, including the EPA's health and safety manual for its employees engaged in field activities (which is cited in Section 126 of SARA), existing OSHA standards, and the four-agency *Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities*. In the preamble to the interim rule, OSHA said that Congress intended a standard with "broad scope and application" (51 Federal Register, 1986b, p. 45655). The agency justified its action: "This interpretation is reinforced because SARA is a freestanding statutory provision and not an amendment to CERCLA. The clear Congressional intent then is to provide protection to employees whenever they deal with hazardous wastes" (51 Federal Register, 1986b, p. 45655). Nevertheless, OSHA decided to exclude workers employed at small-quantity generator facilities, that is, employers who had less than 90 days of hazardous waste accumulation.<sup>5</sup>

NIEHS chose to follow OSHA's lead in determining appropriate target populations. One health and safety professional with whom Dement and Rall had early discussions was Franklin Mirer, director of health and safety for the United Auto Workers (UAW). Mirer argued against NIEHS's exclusion of small-quantity generators. "I violently disagreed with them," he said (Mirer, 1998). OSHA had excluded hazardous waste materials from coverage under its hazard communication standard. With the exclusion from coverage of small-quantity generators, many workers regularly exposed to hazardous wastes would get no training at all. Mirer pointed to examples of industrial workers with significant hazardous waste exposures who would be excluded from the training. One example was workers who pumped sludge from the bottom of waste pits. Mirer did not prevail at this time and NIEHS did not broaden its proposed target populations.

Dement and Rall encountered opposition to any expansion of the target populations to include a broad range of industrial workers. The union representatives who had worked to achieve the OSHA standard and the NIEHS training program had intended their efforts to primarily address workers engaged in hazardous waste

operations such as remediation, treatment, storage, disposal, transportation, and ER at hazardous waste sites and major HAZMAT incidents. They believed that \$10 million would be adequate to support a training effort. By no means did the representatives discount the health and safety needs of workers in other industrial settings, but they had to safeguard the interests of the workers for whom they had won the protections. As Dement later said, "The construction trades didn't want to see the money used for generator sites. That is an astronomical expansion of the program, theoretically. Almost any industrial site generates hazardous waste" (Dement, 1997).

Labor representatives were alarmed by the number of university programs represented at the public meeting. Some feared that NIEHS would provide more funds to universities than labor thought appropriate to the building of what it viewed as its natural constituency (Dement, 1997; Duffy, 1997; Elisburg, 1997; Seminario, 1997). Section 126(g)(3) had been carefully worded by the labor representatives involved in securing worker protections in SARA so that labor unions would be the most qualified applicants. The term "nonprofit" and the phrase "demonstrate the ability to reach and involve . . . target populations of workers" were construed to define unions as the most appropriate grant recipients. "It wasn't necessarily viewed that it was going to be exclusively unions," Seminario said, "but there was a real sense that it had to be put in the hands of people who could actually reach folks."

### Letters of Intent, Applications, and Peer Review

NIEHS published a program announcement on February 17, 1987, along with a request for applications. Approximately 145 letters of intent were received. Seventy-eight grant applications were submitted. Two review teams were organized, made up of representatives of labor, industry, academia, government, occupational medicine clinics, and ER organizations. Some independent professionals were included. The technical expertise of committee members included toxicology, industrial hygiene, labor education, and hazardous waste management. Professionals and scientists friendly to labor made up approximately half of the members of each committee. The committees were chaired by Dr. Frank Goldsmith, dean of the School for Labor Studies, Empire State College-SUNY, and Dr. James Melius, who by then had moved to New York State's Department of Health. The two vice chairmen were Dr. Knut Ringen of the National Cancer Institute and Basil Whiting, formerly with the Ford Foundation and OSHA's New Directions (NIEHS, 1987c). Dement and Melius worked to develop the final review criteria. Emphasis was placed on supporting the acceptability of the unions' proposals (Melius, 1998). Fifty applications were reviewed; 22 of them were recommended for approval and assigned priority scores based on established criteria for assessing technical merit.<sup>6</sup>

Reviewers paid attention to the ways in which each proposal related hazardous waste operations and ER activities to the criteria. Other important considerations included the extent of an organization's prior experience in training workers, and the organization's prior delivery and development of hands-on technical worker training. Reviewers also considered the appropriateness of the proposed ratio of staff to students.



The criteria, when considered by a team strongly supportive of labor-based worker health and safety training, enabled a fair assessment to be made of proposals submitted by unions. The criteria also gave NIEHS measures for program quality and excellence, in keeping with the NIH grant programs' well-established reputation for excellence (Dement, 1997; Dobbin, 1997).

### The Awards

The second-level review of the 22 recommended applications resulted in the selection of 11 applications, which received awards on September 15, 1987. The secondary review criteria were as follows: (1) quality of the application, based on priority scores; (2) worker population coverage; and (3) geographic coverage, in an attempt to provide training for all target populations in all EPA regions (NIEHS, 1987a). Of the 11 funded applications, 5 were targeted to specific populations. Five university consortia, each consisting of multiple organizations, won awards. Consortia received awards and were encouraged for three primary reasons: (1) to minimize the duplication of curriculum development efforts; (2) to expand the geographic and worker population coverage; and (3) to reduce grant administrative costs (Dement & Vandermeer, 1987). All 11 awards were issued as program grants on the evidence that sufficient expertise and capacity existed for full programs across the nation addressing all target populations.

These organizations, representing more than 40 institutions, obtained grants:

1. The International Association of Fire Fighters. Target populations: ER personnel and first responders nationwide.
2. The International Chemical Workers Union. Target populations: industrial fire brigades and hazardous waste treatment, storage, and disposal facility workers. The awardee was a consortium that included the United Steel Workers of America, the University of Cincinnati, and the Greater Cincinnati Occupational Health Center.
3. The International Union of Operating Engineers. Target population: operating engineers in hazardous waste operations (heavy equipment operators in construction).
4. The Laborers-AGC Education and Training Fund. Target population: laborers engaged in hazardous waste cleanup. (This was the only joint labor-management trust fund that received an award.)
5. The Oil, Chemical and Atomic Workers Union. Target populations: hazardous waste treatment, storage, and disposal workers.
6. The Seattle Fire Department. Target populations: ER personnel and first responders. The Washington State Fire Training Service was a participant in this award.
7. The University of Alabama at Birmingham, Center for Labor Education and Research. Target populations: heavy equipment operators, laborers, waste transportation workers, and government personnel involved at hazardous waste sites. The Deep South Educational Resource Center was a participant in this award.

8. The University of California at Los Angeles (UCLA), Institute of Industrial Relations, Labor Occupational Safety and Health Program (the California Consortium).<sup>7</sup> Target populations: Superfund site workers; state and county ER personnel; waste transportation and waste site assessment personnel.
9. The University of Cincinnati, Department of Environmental Health (the Midwest Consortium).<sup>8</sup> Target populations: waste dump site workers and supervisors; treatment, storage, and disposal workers; ER personnel; and waste transporters.
10. The University of Lowell (now the University of Massachusetts Lowell), Department of Work Environment (the New England Consortium).<sup>9</sup> Target populations: waste site clean-up workers; ER personnel; treatment, storage, and disposal workers; and waste transporters.
11. The University of Medicine and Dentistry of New Jersey, Robert Wood Johnson Medical School (the New Jersey/New York Consortium).<sup>10</sup> Target populations: waste site clean-up workers and supervisors; site assessment personnel; waste, treatment, storage, and disposal facility workers; and waste transporters.

NIEHS justified funding the university consortia for specific reasons. First, they submitted strong applications. The reviewers understood that although the universities might not be able to access targeted workers as effectively as the unions could, those selected had developed strong track records for training workers in earlier efforts, especially under OSHA's New Directions program. The universities offered excellence in three key areas—curriculum development, evaluation, and (particularly when it came to medical, chemical, toxicological, and radiation issues) technical expertise. Rall and Dement, along with the review teams, believed these skills would be important for the WETP's success. Several university consortia, such as the UCLA grouping and the University of Lowell consortium (which included three New England COSH groups), had already demonstrated success in developing participatory methods for worker training, which was an emphasis of the program. Finally, the inclusion of the university programs was seen as a way to expand the program's political support, which was important when viewed in the context of a relatively weak labor movement that would need support should Congress decide to challenge the continuation of the program (Dement, 1997; Dobbin, 1997; Matheny, 1998).

Funding for the first awards ranged from \$203,560 to \$1,926,270. Six awards totaled between \$650,000 and \$800,000 each. The funding for LIUNA, the IUOE, and the IAFF was considerably less than the unions had anticipated from a program allocation of \$10 million, which they had worked to achieve. At one point, the building trades unions considered a single application submitted by the Building and Construction Trades Department of the AFL-CIO, which would serve unions interested in hazardous waste work. The Operating Engineers opposed it because so much of the successful effort had resulted from their impetus. They wanted to develop a program that specifically met their needs. With the awards to university consortia, the building trades had to share resources with programs that might even be training nonunion workers.

The firefighters were in a similar situation, since they had fought to win the mandate to protect and train firefighter emergency responders. University consortia were funded to train other ER personnel, while the IAFF received less than the amount for which it had applied.

### THE OSHA RULEMAKING PROCESS FOR 29 CFR 1910.120

At the same time that the WETP was getting underway, many of the awardees were weighing in on another aspect of SARA. The law required that OSHA promulgate a standard for the protection of workers in hazardous waste operations and ER work. Hearings during the rulemaking process for the proposed standard (which followed the issuance of an interim standard) coincided with the start-up of the WETP. The positions of various actors—unions, employers (in hazardous waste management and other industries), and government regulators, as stated in the hearings and written testimony—became the backdrop to the way in which NIEHS managers evaluated their flexibility in decision making to support the requests of awardees or awardee-aspirants.

When OSHA issued its interim rule for hazardous waste operations and ER in December 1986, it also issued a notice of proposed rulemaking and public hearings (NPRM) for a final HAZWOPER rule. In the notice, OSHA said that the proposed rule was the “first regulation since the passage of the OSH Act of 1970 to be mandated specifically by Congress” (52 Federal Register, 1987, p. 29636).<sup>11</sup> Several issues directly related to the success of the WETP were involved, including worker populations to be covered; mandatory hours of training; the cost of worker training; the certification of trained workers and instructors; and the accreditation of training programs. These issues were points of conflict between labor and management, and in some cases conflict with OSHA as well.

OSHA held hearings on the proposed rule in Washington, DC, and San Francisco on two dates in October 1987. Organizations that testified about the training requirements included WETP awardee organizations: the Laborers-AGC and LIUNA, the IAFF, the IUOE, the ICWU, and the USWA. In addition, Dement testified for NIEHS. NIOSH representatives also appeared. Employer representatives and associations from the following industries put their positions on the record: insurance; chemicals; hazardous waste management; construction; manufacturers of steel, paper, heavy machinery, and oil; and the fire service.

### Worker Populations to Be Covered

OSHA had great difficulty in defining the scope of coverage for workers required to respond during HAZMAT emergencies. The agency clearly believed that Congress intended broad coverage of ER workers, and not coverage limited only to CERCLA-related hazardous waste sites. Then OSHA restricted the proposed rule's coverage to “only employers whose employees have the reasonable possibility of engaging in ER” (52 Federal Register, 1987, p. 29623). OSHA also said that employers who relied on outside ER teams would be excused from any requirement to provide ER training and protection to their own employees.

OSHA made clear that it did not intend to cover employees who might respond to “incidental spills” that could adequately be addressed in the immediate work area without assistance from ER personnel. The agency did not want to cover workers whose exposure would be below “established exposure levels,” meaning not only OSHA permissible exposure levels (PELs), but also levels established by other national organizations, such as NIOSH and the American Conference of Government Industrial Hygienists (ACGIH).<sup>12</sup> OSHA said that not all ER organizations were required to respond to HAZMAT incidents. But any ER organization must provide enough awareness training to ensure that its members would “be sufficiently trained to recognize that an emergency situation exists which requires intervention” by a HAZMAT ER team, and know how to contact such a team (52 Federal Register, 1987, p. 29630). OSHA did not impose that provision for industrial workers whose employers would contract with an outside ER team rather than establish internal ER procedures.

The testimony of Seminario reflected the positions of the AFL-CIO and some, but not all, of its affiliated unions. Seminario maintained that the intent of the parties involved in the passage of SARA's Section 126 was for the mandate to be broad in terms of targeted worker populations, especially for ER activities. She reminded OSHA of its requirement under both the OSH Act and SARA to “issue regulations which cover all workers at significant risk of harm engaged in these operations” (Seminario, 1987). Testimony by the USWA and the ICWU supported Seminario's positions (ICWU, 1987).<sup>13</sup>

### Mandatory Hours of Training

OSHA had proposed mandatory hours of training: 40 hours for hazardous waste site personnel, eight additional hours for hazardous waste site supervisors, eight hours of annual refresher training for all waste site personnel, and 24 hours annually for ER personnel, with more for specialist responders. Mention was made of awareness training for workers who would have to identify an emergency and contact trained responders, but no hours requirement was established for this.

The Laborers-AGC and LIUNA jointly called for at least 80 hours for laborers engaged in waste site operations. They argued that laborers at hazardous waste sites were subjected to higher exposure levels for longer periods of time than other personnel at remediation operations. Arguing that the 40-hour mandate from Congress was a minimum, they believed that:

If 40 hours [of] training is adequate for the average waste site worker, it is unlikely to be adequate for those workers who require special precautions . . . and special training. . . . [In addition, laborers] . . . generally have an educational level that requires extensive repetitive educational techniques to achieve a level of understanding required for performance of their job duties. (L-AGC & LIUNA, 1987, p. 10)

The Laborers-AGC and LIUNA testified to their belief that 24 hours of training was inadequate preparation for ER workers. Testimony was submitted by the IAFF



and the Seattle Fire Chiefs Association (both WETP awardees) that more hours of training were required for emergency responders (Soros, 1987).

By way of contrast, CDM Federal Programs Corporation, an environmental engineering consulting firm, opposed "across-the-board training requirements" (CDM Federal Programs Corporation, 1987), with special concern for a full 40 hours of training for most of its employees, who were generally college educated. The company wanted fewer hours for workers who would be on site for only a "couple of hours."

### Certification and Accreditation Issues

The IUOE's testimony encouraged certification of both trainees and training programs. OSHA had suggested that workers who successfully completed training should be certified by their instructors and not be permitted to engage in hazardous waste operations without written certification. The union believed that the proposed rule would allow employers to make their own determinations about the extent and quality of training needed by employees, rather than to establish criteria for the mandatory training content and methods. Employers could issue certifications that would not reflect receipt of a uniform baseline amount of training.

In order to succeed in their businesses, the IUOE commented, employers had to minimize costs and maximize profits. In so doing, the IUOE testified, employers would minimize the costs of training. Since Section 119 of SARA indemnified contractors against liability for negligent acts committed during Superfund work, they "would appear to have no incentive whatsoever to expend funds for anything but the most superficial training and certification program" (IUOE, 1987, p. 5). To create an incentive for contractors to provide adequate and appropriate training, the IUOE urged OSHA to develop a mechanism for certifying programs based on course content and delivery. The IUOE also wanted OSHA to require the certification of all instructors, as well as all trained workers.<sup>14</sup>

Both the Laborers-AGC—LIUNA and Seminario maintained that certification of trained workers would protect the public as well as the workers. Certification was viewed as a way of keeping unscrupulous contractors out of the business (L-AGC & LIUNA, 1987; Seminario, 1987). Even OSHA in its notice about the rule said that the training "assures that site activities will be carried out by qualified personnel . . . [and where] there is a potential benefit to the environment" (52 Federal Register, 1987, p. 29637), especially in ER activities.

The USWA wanted OSHA to make any false certification by employers punishable under the OSH Act. The union reported that some employers coerced employees to sign statements that they had received full training when, in fact, the employer had not provided it (Barkman, 1987).

Arguing in opposition to the IUOE and USWA, Organization Resources Counselors, Inc., a management consulting group, declared that employer certification of employee training carried a liability that was legally binding and was taken seriously by employers. The firm opposed a national certification program and urged OSHA to forgo any procedures for more than employer certification of trained employees.

The criteria for certification would be ongoing on-site evaluation of workers (Organization Resources Counselors, 1987).

OSHA's review of the testimony provided the basis for a standard representing an industry influence that had been absent during the negotiations over Section 126 of SARA. Many of labor's arguments regarding emergency response workers, hours of training, and certification and program accreditation were not incorporated into the final rule.

### WETP STARTS TO TRAIN

If the testimony on OSHA's rulemaking was gratifying, the WETP's leaders did not pause in designing the program's infrastructure to savor that moment; there was too much to do. One government worker with whom Dement and Rall had consulted over the organization of the program was Denny Dobbin, then labor liaison for the EPA. Dobbin was an industrial hygienist and occupational health policy specialist who had started with the PHS in the Division of Occupational Health in 1967. The division eventually became NIOSH. Shortly after OSHA's establishment, Dobbin was asked to serve as a liaison between OSHA and NIOSH. By the mid-1970s, he had been assigned as chief of the Environmental Investigations Branch of the Division of Field Studies and Clinical Investigations at NIOSH. This office conducted long-term studies on an industry-wide basis as mandated in the OSH Act.

When the National Cancer Institute (NCI) funded NIOSH to study the epidemiology of industrial carcinogens, Dobbin's division was recruited to assist. In 1978, Dobbin established the policy branch of the Office of Program Planning and Evaluation. In the early 1980s, Dobbin worked on a study on the prevention of work-related injuries and illnesses that, to some limited extent, addressed worker training issues. He left NIOSH in 1985 to become the EPA's labor liaison in the Office of Toxic Substances. At the EPA, Dobbin worked with unions and COSH groups to develop asbestos abatement worker training as part of an EPA-funded program under AHERA.<sup>15</sup>

At NIOSH, Dobbin had worked with Dement and Bingham, when Bingham was the director of OSHA. Rall, Dement, and Bingham discussed the need for additional staffing support in the WETP, and all agreed that Dobbin was the best candidate, given his history and his relations with labor. By the time of the public meeting in January 1987, Dobbin had been assigned part-time to help Dement and Rall develop the program. He traveled around the country to discuss how to organize the program. Dobbin knew health and safety activists in the international unions and at the IUD. He believed that labor was, and would be, the main "constituent to advance occupational health." After the first WETP awards were announced, Dobbin was hired to coordinate the program with Dement.

We were trying to create something from scratch, and John [Dement], as an institute person, and then Denny [Dobbin], as he came in later, had expertise, had connections, knew a community that was not known to most other people on the staff. So, by virtue of that, there was a great reliance on their expertise and recommendations. (Sassaman, 1997)<sup>15</sup>

### Inadequate Staffing Levels

The WETP required more grants management support than was needed for the usual NIEHS research grants, largely due to the labor awardees' lack of familiarity with the NIH system. Because the program was a worker health and safety education program rather than a research program, the NIEHS process of multiple-awardee program management required far more resources than was usual. NIEHS was accustomed to bringing together research grant principal investigators to share results and discuss common goals to support grant program cohesiveness. Using this same mechanism for a public health prevention program that encompassed 11 awardee organizations with multiple goals and interests demanded significantly more agency resources. Several of the WETP awards were larger than any of those made for basic research. The larger awards, often with multiple subcontracts, required additional effort in terms of tracking and management. The nature of the projects created difficulties for grant managers who had to assess matters such as requests for budget reallocations and the carryover of unexpended funds from one grant year to the next (Dobbin, 1997; Matheny, 1998; Sassaman, 1997).

Staffing levels in the Division of Extramural Research and Education have been determined by the federal budget allocation to the institute. During the period of the WETP, NIEHS, along with much of the federal government, had strict controls established with regard to the agency's full-time-equivalent employees. The WETP staff who worked solely on the WETP project were paid through the Superfund allocation that came through the EPA. NIEHS did not receive compensation for staff and managers who contributed less than a full-time effort to the WETP, such as Dr. Sassaman and some of the grants and contracts managers (Sassaman, 1997).

Another staffing difficulty stemmed from the differences in focus and content between the WETP and the basic research grants awarded by NIEHS. The differences created difficulties in sharing staffing resources, primarily because the basic research scientists and managers at NIEHS were not able to take a major interest in the worker training program and its issues. For these reasons, access to such people as Donald Elisburg, Knut Ringen, and Melius, who had experience managing government programs and also understood the needs of labor-based worker training programs, became invaluable to NIEHS as a means of supporting the management of the WETP.

This resource was particularly helpful for Carol Matheny, who faced the challenge of taking a grants management process that had been established for biomedical research and applying it to a worker training program. Unlike more open-ended biomedical research, which was funded to support scientific exploration and discovery, the worker training program had a set of targets and goals that Congress expected to be achieved. These included the development of a curriculum to address the targeted populations and the training of specific numbers of workers in each targeted area (Matheny, 1998).

### Implementation Issues: Let 100 Flowers Bloom

As Dement, Rall, and Dobbin contemplated their work, they realized that the needs of the diverse target populations might require a range of curriculum approaches.

They established performance criteria and emphasized the importance of developing high-quality programs, but they left curriculum development to the creativity of the awardees in each sector.

Rall in particular, but also the team in general, wanted the awardees to understand that program evaluation would be an important component of any WETP efforts. After nearly a decade of worker health and safety training funded through New Directions at OSHA, only a small body of peer-reviewed literature existed on the effectiveness of worker health and safety training as an occupational health measure. The WETP awardees were urged to devise and incorporate evaluation plans. At the time, neither the awardees nor the agency had adequate funding, or innovative ideas, to support both adequate start-up efforts and a strong evaluation component. Nonetheless, this remained a high-profile issue, which received more funding and attention by the end of the WETP's second year of operations.

Some awardees believed that the funds would be better spent if a unified set of curricula was developed for use by all awardees, as multiple curriculum development efforts could result in redundancy of effort. Other awardees were adamant about developing their own curriculum. In fact, enough differences could be found in the training approaches, if not in the content, among the 11 awardees, that it can probably be said that most wanted to develop their own curricula. Some awardees, however, believed that curricula addressing common industry sectors could be commonly developed without compromising a sense of ownership in specific programs. The attitude did not prevail, though, and Dement took an approach that some individuals involved in the program have dubbed "letting 100 flowers bloom." Dement, however, felt confident about it: "I don't know what else we could have done. We were not in a position to specify a curricula [*sic*], nor . . . a mode of delivery."

### Other Issues

Several union-based programs wanted to give stipends to participating workers; this was another problem requiring resolution. In the building trades, where workers were to be trained by the union before assignment to a contractor, a worker would have to be away from work for 1 or 2 weeks, depending on the program. Normally, in the trades, workers were not paid during periods of training. In this situation, however, the unions and NIEHS had to consider the fact that workers were being trained for an emerging industry. In order to promote the activities of a new set of contractors, a trained workforce was required. NIEHS and the unions grappled with the issue of balance involved in viewing the program as either a "jobs program" or a "public health program." For NIEHS, it was both, because the institute had a mandate to support the development of a new labor force. "We saw it as both," Dement said. "We saw it as an emerging industry. Whoever got that work was going to have to have the appropriate training."

Not all of the work in the hazardous waste management industry would be done by contractors who had negotiated contracts with unions. NIEHS was obligated to make the resources of the WETP available to all contractors and employers, union

and nonunion. The WETP was a federal program supported by a national employer tax. The university programs were viewed as the mechanisms for the training. Thus, an immediate contradiction developed. NIEHS sought to build a cohesive network of organizations and immediately was faced with the problem that the obligation of university awardees to train non-union workers could potentially support the growth of a competing economic pressure on the union awardees. The boundaries for the negotiation of these issues in the WETP were the relative political strength of the unions, nationally and locally, and the sense of association and solidarity with the labor movement maintained by any university program.

### BUILDING COHESIVENESS AND SUPPORT

When Rall and Dement talked with Bingham about OSHA's New Directions, Bingham gave them her opinions on the program's successes and limitations. One significant limitation that made a strong impression on Dement (and later Dobbin) was that OSHA had not emphasized collective meetings of the New Directions awardees to share their training experiences. In terms of the number of New Directions awardees, it might not have been feasible, but the fact remained that the New Directions awardees had not engaged in a process of building consensus on an approach to worker health and safety training and education. NIEHS's program managers decided that WETP awardees would meet regularly to discuss program experiences, the curriculum, and training delivery issues, as well as other issues concerning the regulatory and work site contexts of the effort.<sup>16</sup>

An initial meeting was held in November 1987 and a second 2 months later. The meetings focused on curriculum development and the sharing of resources to maximize the ability of all awardees to prepare for training. The meetings allowed the awardees to become familiar with each others' intentions in terms of program development, to share goals and objectives, and to make plans for curriculum development.

Marianne Brown, principal investigator for the University of California award and then director of the Labor Occupational Safety and Health Program at UCLA, helped Dement and Dobbin organize presentations on participatory education methods for one meeting. Brown and Daryl Alexander, then at the Labor Occupational Health Program (LOHP) at UC Berkeley, organized the agenda. They invited Les Leopold of the Labor Institute to introduce participatory adult education principles and methods. This institute is a nonprofit labor education organization that was at the time developing a worker-to-worker, small-group-activity method approach to worker health and safety training, and it was a subcontractor to OCAW on its training program. Leopold facilitated a training activity that led the awardees to discuss and analyze the elements of effective adult education. The emphasis on these topics at the early meetings established NIEHS's priority goal of incorporating participatory adult education methodologies in the awardees' programs (Brown, 1998; Dobbin, 1997).

The awardees would have relative autonomy to develop their programs as they found appropriate, but NIEHS established some priorities, which included employing participatory adult education methods, using hands-on training, and establishing the

NIEHS training programs as a benchmark for training quality in hazardous waste operations and hazardous materials ER (Dement, 1997; Dobbin, 1997).

Curriculum content was a major point of discussion, too. The book developed by the interagency task force on the occupational safety and health issues of hazardous waste work was regarded by Dobbin, Dement, and many awardees as a prime source of technical information. Although the groups developed their own curricula, NIEHS encouraged the development of a core set of topics. The NIOSH-OSHA-USCG-EPA book, *Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities*, and OSHA's proposed rule for hazardous waste operations and ER served as guides for the core topics. Most of the awardees developed their curricula to match the requirements of the OSHA rule, which was necessary since the rule mandated employer compliance with specific training requirements.<sup>17</sup>

### Medical Issues

Certain medical issues related to training had to be settled. The awardees and the NIEHS administrators anticipated a strong need for appropriate procedures to "prevent individuals at high risk of heart attack or stroke from jeopardizing their health during exercises in which they wear self-contained breathing apparatus (SCBA), fully encapsulating suits, or both" (Gochfeld, Buckler, & Landsbergis, 1988). The gear was the respiratory and chemical protective equipment needed by hazardous waste operations and ER workers. During mock exercises, workers performed tasks such as moving 55-gallon drums while wearing the equipment. Considerable body heat builds up inside a fully encapsulated suit. An additional heat load results when workers wear the suits during outdoor activities under a strong sun. The strain of working in such equipment could endanger individuals who were at greater risk for acute cardiovascular events. Even for healthy individuals, working in the suits presented a significant risk for heat stress and heat stroke.

Individuals were assigned responsibility for medical clearance or medical surveillance in each awardee's program. Others who were interested were included on the program committees, which consisted of occupational physicians, occupational nurses, and industrial hygienists. This was one of the first collective efforts of the awardees, a working situation within which the awardees could collaborate. Questions were distributed for each committee member's comment. The comments were to be collated and used as a report of the committee's discussions "that can be circulated among the Training Centers and their lawyers" (Gochfeld et al., 1988) and as the basis for a training manual chapter on medical surveillance in hazardous waste operations and ER.

### Administrative Procedures

In 1987, the PHS managed the largest number of grant programs in the federal government. The PHS had developed a grants administration manual to ensure consistent administration by its agencies (U.S. DHHS, 1991). Management of PHS grants is coordinated by program officials and grants management officers. The program official is responsible for assuring that adequate and appropriate staffing

exists to support a program. The grants management officer complements the technical knowledge of the program official and supervises the business management aspects of the program. The two coordinate their work, but program officials have the freedom to "exercise their professional judgement with respect to their areas of responsibility without undue pressures or controls" (U.S. DHHS, 1991, p. 1-3).

Rall made the WETP a component of the director's office, so that the program officer would answer to the director. In this way, he was better able to ensure that the program served the participating unions, as well as NIEHS's institutional needs. NIH maintained high standards for the avoidance of conflicts of interest, in accordance with DHHS rules (U.S. DHHS, 1981). Rall wanted to maintain close contact with the program to prevent fiscal or programmatic improprieties, as well as to control and correct them should they occur. He was particularly concerned about the unions' lack of familiarity with the NIH grant funding mechanisms and rules (Dobbin, 1998b; Lange, 1997; Matheny, 1998; Rall, 1997; Sassaman, 1997).

Matheny was the WETP grants management officer. As defined in the PHS rules, she worked closely with the program managers (Dement and Dobbin under Rall). She assessed the available levels of flexibility, either permitting or restraining some planned strategies. Matheny came to appreciate the goals of the WETP awardees, strongly believed in the need for the universities and unions to work closely, and supported what the unions developed. On the rare occasions when fiscal management was not conducted in accordance with NIH rules, Matheny and the program managers worked diligently with an awardee to correct the problem and prevent new problems (Dobbin, 1998b; Matheny, 1998; Rall, 1997; Sassaman, 1997).

### Program Regulations

By mid-1988, the WETP had drafted program regulations, which were required due to the ways in which the program differed from most at NIEHS. NIEHS published an NPRM in the Federal Register on June 15, 1989, and the *Final Rule for the Hazardous Waste Worker Training Program* was published in the register on October 22, 1990. The supplemental information section of the final rule included comments on the NPRM and an explanation of the agency's action with regard to the comments. One comment was that hands-on training should be required as a component of the detailed training plan submitted in any proposal for funding under the WETP. NIEHS agreed, noting that "agency evaluation of existing grants has shown that hands-on training is key to successful hazardous waste worker training" (55 Federal Register, 1990, p. 42566).

OSHA and the EPA had each promulgated their final rules for hazardous waste operations and ER, as 29 CFR 1910.120 and 40 CFR Part 311, respectively. (Section 126 of SARA mandated the coverage of state and local government employees by EPA regulations, which would be identical to those promulgated by OSHA. The EPA final rule was promulgated on June 23, 1989, as 54 FR 26658.) NIEHS justified the scope of its training program as including a range of workers with actual and potential exposure to hazardous waste materials by noting that both OSHA and the EPA agreed on this interpretation of the intent of Congress in SARA. In 1989, NIEHS expanded the targeted populations eligible for training under the WETP.

### Contact With Other Government Agencies

Dement and Dobbin were particularly concerned that the WETP should receive broad support from other federal agencies addressing occupational health and safety, environmental protection, and hazardous materials ER. All of the labor unions in the WETP stressed the importance of such agencies supporting and interacting with the program. Initially, particular emphasis was placed on increasing OSHA's backing for strong regulations that protected a range of workers. Support from the EPA was important early on, due to the interagency agreement for the provision of funding to NIEHS by the EPA. The EPA was also the central coordinating agency for Superfund and HAZMAT ER.<sup>18</sup> NIEHS worked with OSHA and NIOSH to assure that attention was given to the health and safety needs of workers involved in hazardous waste operations and ER.

NIEHS sought to ease tensions in its relationship with NIOSH that may have resulted from the reassignment of the program from NIOSH to NIEHS. NIEHS believed that Congress never intended that the institute should link the Superfund training with the Superfund Basic Research Program. The basic research entity at NIEHS had been an early component of Superfund reauthorization, whereas worker training was not given to NIEHS until the end of the legislative process. NIEHS entered into a contract with NIOSH whereby funding was provided to NIOSH for awards to its existing network of educational resource centers (ERCs) for graduate education and professional training to promote the work of a range of occupational health professionals. The ERCs used the NIEHS funding for professional training on hazardous waste operations and ER. Nonetheless, relations between the two agencies remained slightly strained, mostly due to the impression at NIOSH that the WETP would have been more appropriately placed at an occupational health research institute than at a biomedical research facility.

NIEHS also attempted to coordinate with FEMA. That agency was assigned responsibility for some oversight and coordination of the network of state emergency response commissions and local emergency planning committees that were mandated in the Emergency Planning and Community Right to Know Act, or Title III of SARA. Provisions were to be made to train public-sector HAZMAT ER personnel. NIEHS worked with FEMA in activities coordinated by the EPA. The firefighters' union helped in communication between NIEHS and the National Fire Academy (then a branch of FEMA), which had trained such ER teams.

NIEHS coordinated, to the extent that it was feasible, with other federal agencies and departments with regard to its worker training. One such agency was ATSDR, which developed toxicological profiles and conducted health effects research on chemicals at hazardous waste sites. By the late 1980s, environmentalists were calling for the investigation and cleanup of federal facilities that had potential for becoming, or were known to be, hazardous waste sites. In addition, the impending end of the Cold War evoked national discussions about the closure and use of military bases and nuclear weapons research and production facilities managed by the Department of Defense (DOD) and the Department of Energy (DOE). NIEHS took part in early talks about the training needs of workers who might engage in those

cleanups. Within a few years, the DOE entered into an agreement with NIEHS for worker training.

### **Difficulties at NIEHS—Primary Prevention Program in a Biomedical Research Bureaucracy**

Another difficult issue for the WETP's managers was integration within NIEHS. It was a rather "touchy" matter, showing only slow and limited progress. Many at NIEHS could not appreciate the validity of running a worker training program, especially one that bolstered labor unions. Former and existing NIEHS training had aimed to develop a national biomedical research infrastructure. According to some, but not all, of the WETP staff, many scientists at NIEHS viewed themselves as medical researchers, but not as public health researchers. They worked to understand biological mechanisms in order to develop cures or organ-system-specific mechanisms to prevent adverse effects from chemical exposures. At best, some division directors tried to offer minimal support or at least cooperation to the WETP. At worst, agency personnel and scientists were openly hostile to the program. They were much more interested in the other Superfund program, Basic Research, at NIEHS (Dement, 1997; Dobbin, 1997; Lange, 1997; Rall, 1997; Sassaman, 1997).

### **WETP TECHNICAL AND PROGRAMMATIC SUPPORT**

Dement and Dobbin crafted various mechanisms to give technical and programmatic support to WETP awardees. Meetings evolved into at least semiannual business gatherings. They helped to create the sense of a national program among the awardees. They were organized to build and disseminate the goals, efforts, and progress of each organization, as well as to understand the organizations' challenges and obstacles. The intention was to facilitate an exchange of ideas, collaboration in efforts to avoid duplication, the conservation and extension of resources, and the gradual development of a sense of cohesiveness, so that awardees felt they were part of a national program and also part of a national health and safety movement. Again, the instructive experience that moved NIEHS to create this mechanism was New Directions, which had had limited success in similar efforts (Dement, 1997; Dobbin, 1997).

NIEHS invited personnel from other agencies to attend meetings so that they would develop an increased awareness of the WETP and its work. Their participation helped the awardees "know" other agencies with which relations could be developed or strengthened. Usually, one meeting each year was held at NIEHS's offices in North Carolina, but at least one was held at or near the home site of an awardee. In this way, NIEHS created greater knowledge among awardees of each other's programs, almost as if they had provided hands-on training. Adherence to this plan also built in greater equity for travel expenses, which were substantial for West Coast awardees who were obligated to travel east for North Carolina NIEHS meetings (Dobbin, 1997).

In the earlier years, more often than not, conflicts between the awardees would become apparent at the meetings. The agenda usually included an opportunity for each awardee to present an update on its program's efforts. The awardees did not

meet with a common set of political objectives, because they represented different institutions and industrial sectors, and their meeting was tantamount to an obligation under the funding agency's requirements. The organizations, for the most part, had not applied to the program in order to strengthen their roles in a national health and safety movement. Rather, each intended to build a program for its own specific needs and those of the workers they served in each geographical area or industrial sector. Often, awardees discussed aspects of local work that might clearly oppose the aims of a fellow awardee.

I think we certainly haven't ironed out all of those issues, but I think at least they've been aired—a lot of them have been aired to a point that you understand where they are. I think each grantee has benefited at least from the perspective that the other ones have, and the appreciation of why they [have it]. In some cases making the programs more alike, but sometimes just frankly understanding why they are different and [that it's] for a reason. (Dement, 1997)

### **Awardee Meetings**

The meetings, of course, had multiple uses. Examples come from three sessions held during the 16 months starting in March 1989.<sup>19</sup> The March 6-7 meeting was held jointly with FEMA representatives and focused on ER issues. FEMA was moving forward to address emergency planning and response mandates established under SARA Title III. One element of this was the training of ER teams at FEMA's National Emergency Training Center, which incorporated work by its National Fire Academy and Emergency Management Institute. The FEMA presentation raised awardees' awareness of that work, and identified possibilities for programmatic linkages between awardees and regional and local FEMA-supported efforts.

A presentation was made by Thomas Seymour, who was in charge of OSHA's development and promulgation of the final rule for the Hazardous Waste Operations and Emergency Response standard. He explained the role of the EPA in protecting workers employed by local and state government organizations in the 26 states that had not established a state OSHA plan.<sup>20</sup> A key issue was the number of hours of awareness-level training that OSHA intended employers to deliver. The standard was not going to mandate a specific number of hours, but would establish a set of employee competencies as training objectives. OSHA anticipated that 4-6 hours of training would be required to develop worker competence.

Finally, Richard Duffy of the IAFF explained the requirements of the national emergency responder training standards established by the National Fire Protection Association (NFPA). NFPA establishes consensus standards to guide and direct firefighters' work. OSHA based its emergency responder training on NFPA standards.

The next awardee meeting was held in Monterey, California, on June 11-14. Midway through the program's second year, the awardees had developed significant curricula and were delivering courses and expanding. As examples of their progress in developing training staff, the IUOE had 149 instructors, OCAW had 26 worker-trainers, and the Midwest Consortium had a 56-hour course for training trainers. The IAFF, which was not delivering training, was distributing training curricula and



materials to fire departments nationally to develop internal training capacity and had produced seven high-quality training videos and 600 slides. The California Consortium had also developed a course for training trainers, which incorporated participatory training theory and methods. Gail Bateson, from UC Berkeley, had written a manual to address literacy issues. It was an initial effort that would grow to be a major contribution of the California Consortium to the national program. In addition to the standard menu of courses, the New England Consortium had developed one for media workers who reported on hazardous waste site issues and HAZMAT emergencies. It was both a method of health and safety training and an outreach tool.

The awardees spent considerable time addressing marketing and outreach efforts. Whether the programs had to sell their courses or just promote them in order to reach targeted workers, every program was faced with the challenges involved in creating public and employer awareness of their efforts. The awardees had published newsletters and printed brochures. Some received responses to their press releases, while others had greater luck with ads placed in professional journals.<sup>21</sup>

The certification of workers, trainers, and training programs was addressed. Certification issues overlapped with concerns about evaluation and testing. These were important and sensitive issues that became long-running conflicts not only between awardees but also between awardees and NIEHS administrators. However, most of the awardees were interested in program certification as a way to strengthen their ability to reach and draw in workers in need of training. Dobbin and John Moran, a technical expert with the Laborers-AGC, decided to have the program sponsor a "technical workshop" at which awardees, government staffers, and private industry personnel would establish minimum criteria for the training. The workshop was booked for Spring 1990. A planning committee was selected from among the awardees.

A third example is an awardees' meeting in Des Plaines, Illinois, on June 6-7, 1990. Des Plaines is the home of the OSHA Training Institute, and NIEHS shaped the meeting to increase OSHA's exposure to the program. NIEHS invited staff from the Training Resources and Data Exchange, which had a 5-year contract with the DOE for training. The agenda included substantive discussions about training needs for clean-up efforts at the DOE and DOD sites. Also getting attention was the continuing lack of will by OSHA and the EPA to enforce the HAZWOPER standard. When awardees learned that EPA officials had spoken disparagingly about the WETP, they focused on ways to demonstrate the strengths and achievements of the program.

Dement and Dobbin designed meetings to build a sense of cohesiveness among the awardees and to integrate the WETP with related federal efforts. Each awardee program was a component of much larger, often bureaucratic, organizations, such as universities and international labor unions. At the start, the awardees unsurprisingly were much more interested in their own organization's goals, but NIEHS appears nevertheless to have successfully promoted a sense of shared political interest and purpose.

## A Clearinghouse

Dobbin believed that a national clearinghouse would be a useful support to the program. It could serve as a repository for curricula developed by the WETP and also as a distribution center dealing with requests for these public domain materials. A clearinghouse could help promote the training at national and regional conferences and be a vehicle through which employers and government personnel could learn about the training.

The Laborers-AGC (L-AGC) accepted a supplement to their training award in September 1989 to run the clearinghouse. The L-AGC negotiated with Sheldon Samuels to run it from the Workplace Health Fund (WHF) under the name of the National Clearinghouse on Occupational and Environmental Health. Four purposes were established for it:

1. [to] provide a resource center for grantee training materials, curricula, etc.;
2. arrange meetings, seminars and workshops on technical issues of interest to the grantees;
3. publish newsletters, brochures and a catalog of materials available at the Clearinghouse;
4. provide a communications network and traveling exhibit promoting the training activities of the grantees and the NIEHS program. (NIEHS, 1990)

The clearinghouse was directed by Samuels with support from Elisburg, legal counsel from the WHF, and Neil Thursby, director of the L-AGC's training. The clearinghouse's staff consisted of a project manager, an associate director and information specialist, administrative assistants (part-time), and other WHF staff as needed. The clearinghouse also had an advisory committee made up of awardee representatives.

The clearinghouse's work in its first year included the setting up of a trainer network among the awardees. NIEHS saw the network as a way of better integrating trainers' work into the national program. The network was also viewed as a way to promote sharing among the trainers across programs. "There have been difficulties in establishing the trainer network," a July 1990 site review of the clearinghouse reported, "primarily because of lack of cooperation by the grantees, who are reluctant to share information about their trainers with others, and do not consider this a high priority" (NIEHS, 1990). It took until 1994, when awardees sent their trainers to a national trainers' exchange conference, before the awardees were secure enough in their programs to place a higher priority on supporting a deeper involvement of their trainers in the national program.

Since September 1989, the clearinghouse has organized two technical workshops annually to address topical issues and has provided technical support for training programs. The clearinghouse maintains sets of curricula developed by NIEHS grantees and publishes weekly on-line information about the training program and issues related to HAZWOPER work and training. Its resources are not used only by the grantees; 40-60% of requests come to it from private industry and the rest from unions, academics, and public officials.

A 1995 review noted that the WETP had "made a substantial contribution to a more systematic, analytical and scientific approach to training program development, delivery and evaluation in terms of advancing the state of the art." It pointed to seven published program-related studies from 1988 to 1995. Said the panel: "This is no small accomplishment given the generally weak emphasis on training evaluation [nationally] in the past" (NIEHS, 1995, p. 25).

The expectations for the clearinghouse were fulfilled; a review panel has called its archive "the most extensive, accessible collection of its kind in the country." It can now be searched by computer at <http://tools.niehs.nih.gov/wetp/>.

### Evaluation of Training

Rall insisted on evaluation of the training, looking at the "product." He wanted to know whether it was effective in helping to prevent workers from being injured on the job and from developing adverse health outcomes from toxic workplace exposures (Rall, 1997). Sassaman believed that to justify the program's placement at a research institute, NIEHS needed to undertake evaluation (Sassaman, 1997). Dement viewed evaluation as an important component of quality assurance measures. He believed the awardees could develop approaches for evaluation, but as an initial step, he included the naming of a program advisory board as one criterion in a request for applications. Dement saw the boards as functioning to review each program (Dement, 1997; Dobbin, 1997). Dobbin wanted to see evaluation because he believed that worker health and safety training had to be raised to a higher status among health and safety professionals and regulators. Part of his aim in sponsoring a technical workshop to develop minimum criteria for training was to lay the basis for evaluation. Dobbin understood that criteria had to be formulated on which evaluation could be based (Dobbin, 1997).

In 1989, the WETP used administrative funds to give the Midwest and the New Jersey/New York consortia supplemental funding for evaluation projects. A group led by Dr. Thomas Robins at the University of Michigan's School of Public Health was funded to conduct a mail survey and telephone interviews of trainees from four awardee organizations: the Midwest and California consortia, OCAW, and the ICWU. Dr. Audrey Gotsch, principal investigator of the New Jersey/New York Consortium, coordinated the development of uniform tests that could be used in both pre- and post-training, and solely in post-training.<sup>22</sup>

The group sought information from trained workers about any changes in their work practices, to find out whether the trained workers talked with coworkers about the training or attempted to make health and safety improvements in their workplaces, and if the latter was attempted, to ascertain the degree of success. As an initial evaluation of NIEHS training, the group established some criteria that were used for much of the evaluation that followed. Although the Michigan group continued to perform evaluation for the Midwest Consortium, other organizations afterward conducted their own efforts.

The work of Gotsch's group was carried out in response to a request by Dement and Dobbin to develop a scientific basis for the questions that would be used in post-training tests. OSHA considered proposing a set of questions to set a standard

that would require and define the accreditation of HAZWOPER training programs. Dobbin wanted to demonstrate that it was possible to employ statistically valid questions.

Gotsch's group proposed to collect the questions used by awardee organizations in their 40-hour site worker courses. Participation by awardees was voluntary. Six of seven awardees who offered such courses attended a May 1990 meeting on evaluation. They voiced concerns due to the newness of the programs. Collaboration "should not include evaluating program effectiveness . . . [but should] focus on improving and validating [evaluation and testing] methods currently in use" (Gotsch, 1991). In March 1991, Dobbin wrote to Gotsch to underscore NIEHS's support for the work and express concern that it was more than a year behind schedule.

Dobbin later said that NIEHS did not realize how difficult it would be to get the awardees to agree to do the work and to decide how to do it. Conflicts arose over study design, data collection and sharing, and fears by some union programs that their performance would be compared unfavorably to that of university-based awardees. Dobbin later came to believe that the effort might have been more successful had NIEHS led it rather than contracting it to an awardee.

### LEGISLATIVE CHANGES

Congress had amended the worker training portion of SARA twice by 1989. First, the WETP's annual funding was doubled to \$20 million. The first awards under the new funding were made in September 1990. The other amendment was a change in the language of Section 126(d)(3), on certification and enforcement. OSHA had to promulgate certification procedures that were "no less comprehensive" than the EPA's in its accreditation plan for asbestos training under AHERA.

Both changes had profound impacts on the WETP. The former funded five additional awardees and an expansion of the program to new target populations. The latter led to the issuance by OSHA of an NPRM for a hazardous waste worker and ER training accreditation plan. Dobbin and Moran, as has been mentioned, planned a technical workshop at which the WETP was to develop minimum criteria for HAZWOPER training, which it hoped OSHA would use in its standard. The workshop moved the WETP to new levels of cooperation, excellence, and conflict. The WETP moved from its 2-year start-up phase into another, more mature phase of full implementation.

### CONCLUSION

Sheldon Samuels's hunch that Dr. David Rall would support labor was right. The appointment of John Dement and Denny Dobbin to run the program, and Dement's decision to let 100 flowers bloom, set the program on the path to becoming a new foundation for the U.S. health and safety movement, which by the early 1990s had been weakened by the neoliberal assaults on labor and the state. The original lobbying support that secured the SARA provisions was sustained, providing the WETP with an external link to Congress that could balance any reluctance or incapacity on the part of NIEHS to advocate for the program. Donald Elisburg, based in the program's clearinghouse, was able to assist with management and organize a



network of labor and public health professionals who could provide guidance to the WETP leadership on how to maneuver through the federal bureaucracy. These necessary supports aside, though, the WETP's start-up success benefited from the NIEHS program leadership's initial efforts to recruit organizations engaged in the health and safety movement. Having succeeded in doing this, they carefully worked within the NIH structures to organize cohesion within the awardee network and establish alliances with other federal agencies such as the EPA, OSHA, NIOSH, FEMA, the DOD, and the DOE. Awardees were strongly encouraged to use advisory boards to build alliances that would enhance and defend both their own program and the national program. All of these strategies were quickly proved to be necessary.

Reagan administration officials in the Office of Management and Budget, the EPA, and OSHA all worked to reduce the funding for and/or the scope of the training program and the protections that would be mandated in a standard. Although industry representatives were barely aware of the effort to get the training grant and OSHA standard language into SARA, they used the OSHA rulemaking process to limit the training and other measures labor wanted for enhanced HAZWOPER worker protection. The WETP leadership worked with its awardees, the trade unions, and university programs, providing strong arguments for a strong OSHA standard. Labor and management, with their respective government supports, argued over hours of training, evaluation, and curriculum content—contested areas of work environment protection that would be codified and made enforceable by OSHA. Seemingly of limited significance, these arguments reflect bitterly contested views about employers' responsibility for protecting the health and safety of workers.

With that effort in the background, the WETP leaders began to shape a unified effort among the awardees, emphasizing the incorporation of participatory and hands-on training and discussions regarding a range of technical issues. Dement and Dobbin wanted the program to generate a body of evaluation research literature to provide evidence of what worked and did not work in health and safety training. They believed that the future struggles against efforts to limit the program would be well served by a body of scientific literature. They learned early on from these efforts that the diversity of deep beliefs and political perspectives on health and safety strategies were areas for conflict.

We will see that despite philosophical differences about worker health and safety approaches, the neoliberal restructuring of the U.S. economy and politics created conditions that forced divergent labor and health and safety strategies to converge with astounding similarity. Nonetheless, within the WETP as in most other areas of labor, ideological frameworks not only lag behind the pace of change in experience but perhaps even help to protect the believers in those frameworks from facing a harsh contradictory reality.

## ENDNOTES

1. Historical information about NIEHS is derived from an unpublished agency brochure, *A History of Progress: NIEHS, The First 20 Years (1966 to 1986)* (NIEHS, 1986b). Its accuracy was confirmed by former NIEHS staff.

2. Dr. Anne Sassaman, a former director of the NIEHS Division of Extramural Research and Training, remembers representatives from labor asking for "what they thought was their fair share."
3. Rall and Dement required a board of advisors, primarily as a mechanism for quality assurance and a way to support the evaluation of awardee programs (Dement, 1997; Dobbin, 1997; Dobbin, 1998b; Lange, 1997; Rall, 1997). Its success has varied among awardees.
4. The meeting agenda was located in the files of the New England Consortium, University of Massachusetts Lowell. In the same file were typed notes from the meeting.
5. OSHA raised concerns that small-quantity generators included dry cleaners and gas stations, and said that workers in such facilities are not hazardous waste operators "in the normal meaning of the term" (51 Federal Register, 1986b).
6. The applications were judged on how they addressed these criteria: (1) identification of the target hazardous waste worker populations to be served by the training program; (2) training plan for curriculum development, instructor training, and course delivery; (3) qualifications of the program director, staff, and consultants; (4) training facilities and resources; (5) quality control and evaluation plan, including qualifications of the proposed board of advisors, mechanisms for project coordination, and plans for evaluating courses and instructors; (6) students: mechanisms for gaining access to students from each proposed target population, and information on whether the students would already be employed; (7) current and past training record; (8) institutional environment and administrative support; and (9) budget: appropriateness of spending plans for specific program areas, especially reviewing curriculum development spending in the first two years, in anticipation that it would be completed by the third year (NIEHS, 1987a, 1987b).
7. This consortium included UC Berkeley, Labor Occupational Health Program; UCLA, University Extension Service; UC Davis Extension Program; UC Irvine Extension Program; University of Southern California, Continuing Education Program; and the Los Angeles Committee on Occupational Safety and Health (LACOSH).
8. The university-led consortium included the Greater Cincinnati Occupational Health Center; the University of Illinois; the University of Kentucky; the University of Michigan; the University of Wisconsin; Murray State University; Michigan State University; Purdue University; and the Southeast Michigan Coalition on Occupational Safety and Health (SEMCOSH).
9. This consortium included Boston University School of Public Health; Harvard Educational Resource Center; Tufts University, Center for Environmental Management; Yale University, Occupational Medicine Program; the Massachusetts Coalition for Occupational Safety and Health (MASSCOSH); the Connecticut Committee for Occupational Safety and Health (ConnectiCOSH); the Rhode Island Committee for Occupational Safety and Health (RICOSH); and the Maine Labor Group for Health.
10. This consortium included the New Jersey Department of Labor; Hunter College, School of Health Sciences; Empire State College; the State University of New York; the American Red Cross; OCAW Local 8-149; and the New York Committee for Occupational Safety and Health (NYCOSH).
11. Denny Dobbin remarked in an interview that the interim standard represented "one of the fastest standard-making [processes] we ever did because they were told to do it and just did it. It was great. I mean they put it together and it was defensible." In the NPRM for the final rule, OSHA said it used materials developed by the EPA and the interagency task force that was mandated in CERCLA.
12. See Slatin and Siqueira (1998) and Van Gelder (1996) for a situation in which a worker died from acute exposure to a hazardous waste material that did not exceed a PEL.

Hazardous waste materials present inherent health and safety dangers that cannot necessarily be controlled through normal industrial hygiene practices, such as reliance on accepted exposure levels.

13. Although most representatives of labor could support the broadest possible coverage by an OSHA standard, with provisions for maximum protection, tying the standard to the training program made this kind of support difficult for some. Broader coverage by OSHA would support the inclusion of more WETP applicants. Without substantial additional funding, this would mean smaller awards for successful applicants than desired, often too small to support full operations.
14. The IUOE had supported Congressional passage of language that would establish contractor indemnification under SARA. This was viewed as a necessary incentive for contractor entrance into the new waste remediation industry. For the IUOE, it was an essential element in the union's jobs and organizing strategy. Having won the language, they required strong provisions to create an equal incentive for contractors to protect workers.
15. The Asbestos Hazard Emergency Response Act of 1986 (AHERA), Section 2656, authorized a training grants program for "nonprofit organizations that demonstrate experience in implementing and operating health and safety asbestos training and educational programs for workers who are or will be engaged in asbestos-related activities" (The Asbestos Hazard Emergency Response Act of 1986 [AHERA], 1986).
16. Tobey, Revitte, and others have said that New Directions developed participant cohesiveness, training evaluation, and other areas. The discrepancy with regard to the views of professionals like Dement and Dobbin, from their discussions with Dr. Bingham as well as their own experiences, is likely related to the time of observation. Tobey and Revitte (1981) wrote about the program at its peak in 1981, while Dement and Dobbin were aware of its collapse.
17. Curriculum development in several programs (LOHP and the Labor Occupational Safety and Health program at UCLA (LOSH) in the California Consortium, the New England Consortium, OCAW, and the ICWU) was led by individuals who were strongly rooted in Freirian pedagogy and practiced a range of participatory training methods. The educators distinguished between participatory training and courses developed to empower workers to take protective action in a workplace. Empowerment-oriented training aimed to be learner-centered, but the OSHA rule tended to force a more curriculum-centered approach.
18. In 1978, Section 311 of the Clean Water Act mandated the establishment of the Environmental Response Team (ERT). CERCLA, RCRA, and SARA activities are coordinated through the EPA's Office of Solid Waste and Emergency Response (OSWER). ERT evolved into a branch in OSWER. Its purview is oil spills, HAZMAT emergencies, and long-term remedial activities. For more information see <http://www.ert.org/>.
19. The notes that provided this information were taken by John Morawetz of the ICWU Hazardous Waste Worker Training Program. The selected meetings were not the only WETP grantee meetings held between January 1988 and June 1990. The author searched NIEHS files and asked directors of several awardee organizations for records of early meetings and activities. Most had not maintained files from the early period. NIEHS's files were largely lost during multiple relocations of its offices between 1989 and 1996. Other organizations lost or disposed of files as well.
20. Section 18 of the OSH Act required states to establish a state-based occupational safety and health regulatory and enforcement agency. As described by Mintz (1984), the elements of such programs include the following: state standards and enforcement must be "at least as effective" as federal efforts; the states must employ qualified personnel; and, under Section 18(c)(6), all this applies to public workers in the state.

21. The university programs trained a spectrum of professional workers: engineers, geologists, chemists, and other environmental scientists employed by government and private consulting firms.
22. NIEHS had hoped that a cross-tabulation and comparison of the limited evaluation efforts conducted by awardees could strengthen the validity of each set of results. Dr. Gotsch was originally asked to review all of the evaluation efforts, and to compare and contrast their designs and methods to determine what research was conducted and how it could be strengthened. The task proved too difficult due to inter-awardee proprietary issues and it was later reduced (Dobbin, 1998a).

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