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## Environmental Social Movements Since Love Canal: Lessons Learned

Diane Heminway

*Citizens' Environmental Coalition*

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# **Environmental Social Movements Since Love Canal: Lessons Learned**

Diane Heminway, Assistant Director\*

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\* Diane Heminway is Assistant Director of the Citizens' Environmental Coalition. Citizens' Environmental Coalition (CEC) is a statewide grassroots environmental organization working to eliminate pollution in New York State through our Community Assistance Program, Publication Clearinghouse, and Statewide Advocacy Campaigns. CEC's mission is to eliminate pollution in New York State and create safe, healthy communities, schools and workplaces through pollution prevention; empower, educate and assist people concerned about environmental problems; strengthen the connection from the grassroots to the statehouse and build effective coalitions; and promote corporate accountability and non-violent social justice values.

### Introduction

Thank you for the opportunity to share with you today. I am the Assistant Director of Citizens' Environmental Coalition (CEC). CEC is a statewide coalition of ninety civic, environmental and labor groups and 8,500 individuals founded in 1983. Through grassroots advocacy and citizen training, we work to address and prevent pollution problems in homes, schools, workplaces and the environment.

I became involved in environmental and health issues shortly after public disclosure of the toxic contamination at Love Canal. First, I would like to explain how toxics personally touched my life and then share my perspective of the environmental-social movement since that time.

### Personal Story

Fourteen years ago, on November 15, 1984, while attending their elementary school in Middleport, my five-year old daughter and seven-year old son were exposed to methyl isocyanate when the Food Machinery Corporation (FMC), the neighboring pesticide manufacturer, had a fifty-gallon accidental release. The chemical formed a dense vapor cloud, made the 400-yard journey to the school's roof and was sucked in through the ventilation system. Children were soon complaining of eye irritation and FMC recommended that the school be evacuated as a "precautionary measure." Approximately 600 children were taken by bus to the local fire hall where over 100 of them were treated with oxygen and/or eye packs. Parents were never told that their children had received medical treatment. Nine children and two adults were taken by ambulance to area hospitals where they were examined by FMC's own plant physician and released.

Methyl isocyanate is the same chemical that eighteen days after my children's exposure, immediately killed over 3,000 people in Bhopal, India when Union Carbide had their infamous release. The Bhopal tragedy allowed me to learn more than I ever wanted to know about methyl isocyanate—a poison for which there was almost no toxicological data in 1984 because scientists stated that it was too

dangerous to study in the laboratory. One fact I learned still haunts me: the community of Middleport was extremely fortunate on that forty-degree autumn day. An industrial toxicologist mathematically calculated that with a twenty-degree increase in temperature, the school children would have easily received an exposure three times the life threatening level for an adult. If the thermometer in Middleport had read sixty-degrees, hundreds of children may have been killed. As it was, many children experienced eye irritation, a symptom that according to the literature, suggested that lung damage may have already occurred.

As a result of this experience, I co-founded a grassroots community group with another concerned mother. The organization's goal was to protect the rights of the exposed children. Our first task was to fight for health tests for the schoolchildren. Seven and a half months later, we won pulmonary function tests for some of the children, but only after FMC agreed to purchase \$100,000 worth of medical equipment for Children's Hospital in Buffalo, New York. These tests should have been administered immediately after the chemical exposure and then again several months later to determine a decline in lung function. New York State Department of Health ("NYS DOH") was involved in the study, but few parents received the results. Additionally, NYS DOH did not conduct follow-up studies to determine the extent of the children's health damage.

What we learned in the following months kept me involved with this cause. I was spurred on, not because of my anger over my children's exposure, but rather because of my quest for truth and my spiritual connection to the earth. FMC had silently lied to the community for years. Not only did they use and store massive quantities of life threatening poisons at their manufacturing facility in the middle of the community, they had also dumped 16,000 tons of pesticide wastes, including 250 tons of arsenic on land adjacent to the schools. For years, the company was aware of the problems, in fact, they began studying them in the 1950s—shortly after they sold the property to the school district for one dollar. The deed stated that FMC could not be held liable for any fugitive dust or emissions from plant operations.

The parents of the exposed children soon realized that our children's health and safety was of little concern to either private or public decision-makers. The greater concern was for liability. The most disturbing fact was that although state and federal agencies had known for years about the pollution problems, their response in Middleport was negligible. Following a 1976 investigation which uncovered that FMC's contamination had been responsible for the deaths of as many as 80,000 birds over a ten-year period, the United States Environmental Protection Agency (EPA) and New York State Department of Environmental Conservation (DEC) pursued only minimal action against FMC.

In 1986, after fruitless efforts to prod the NYS DOH and DEC into testing the soil on school property, I took my own soil samples. This act seemed to trigger the State's investigation of the schoolyard and the community, which is still ongoing. Soil testing revealed massive arsenic contamination. The tests revealed that the soil was contaminated with massive amounts of arsenic, a known human carcinogen. Yet despite these dangers, very little cleanup has actually occurred. Closed-door negotiations with the FMC continue while children are exposed daily to neurotoxins and carcinogens. The slow cleanup is not because there is no risk. In fact, in 1987, parents fought for lead and arsenic testing of their children. The study showed that forty percent of the children tested had arsenic levels above the general population.

In 1990, I was hired by CEC and have learned much more about the politics of toxics. I have worked with diverse community groups and individual citizens. Although much has been learned since Love Canal, little of it has to do with actually cleaning up pollution or protecting public health or the environment. Middleport is not an isolated case. In New York State alone, over 1,300 toxic dumps are still in need of cleanup and those responsible for the dumping are largely calling the shots regarding if and when clean-up occurs.

The environmental social movement, as I see it, involves three sectors: the public, the political regulatory agencies and the polluters. I will touch on all three.

### The Public

It wasn't until the 1970s that the public thought about pollution. The stench from industry was regarded as "the smell of progress." Since Love Canal, we have all become increasingly aware of industries' impact on the environment. In many communities, where there are existing or proposed toxic threats, the public has mobilized to fight for their rights for a clean environment. Public organizing is a lesson learned from Love Canal. Let me name a few victories:

- Despite the millions of dollars spent by a utility company, organized citizens in New York State outfought efforts to site a statewide nuclear waste dump here. Of course the waste is being sent out-of state to others who already had such dumps.
- CECOS, one of the state's two hazardous waste landfills permitted to receive hazardous waste, was closed due to the organized efforts of citizens.
- There has not been a new hazardous waste incinerator built in New York in many years due to the efforts of vigilant, organized citizens.
- During Governor Pataki's first weeks in office, he attempted to gut the Department of Environmental Conservation's Bureau of Environmental Conservation, the uniformed police officers who investigate serious environmental crimes. The environmental community joined forces, held press conferences across the state in protest and saved the jobs of these important investigators.
- Citizens across the state, and in fact the nation, have successfully defeated proposals to built dioxin-

spewing garbage incinerators. This is largely due to the educational efforts of Dr. Paul Connett and his wife Ellen who publish Waste-Not, a newsletter focusing on the dangers of incineration.

- Using the organizing advice and technical assistance of groups like CEC and the Center for Health and Environmental Justice, thousands of people have won the attention of regulatory agencies in their communities. However, it is only through diligent efforts that citizens get the attention they need to win health studies or toxic waste remediation.

- The national Health Care Without Harm Campaign is an ongoing successful effort to influence hospitals to seek alternatives to incineration of medical waste and to change their purchasing policies to reduce their use of dangerous products.

- Labor unions have joined with the environmental community in an effort to educate workers about the dangers associated with chemical exposure and force their companies to reduce chemical hazards in the workplace.

Additionally, beneficial federal and state legislation has been enacted since Love Canal. The Emergency Planning and Community Right-To-Know Act (EPCRA), passed in 1986, finally gave the public the right to know a little bit about the hazardous chemicals used and released by manufacturing facilities. This was a small, but important victory, because pursuant to EPCRA industries can no longer entirely deny their pollution practices. Unfortunately, the law requires companies to report their releases of only about six hundred of the some one hundred-thousand chemicals commonly used in commerce. Winning such victories is an uphill battle and defending them is a constant struggle. The chemical industry and other

industries have successfully managed to have a number of important hazardous chemicals, such as acetone, removed from list of reportable chemicals.

### Political Regulatory Agencies

The public is not the only sector to have learned from Love Canal. The regulatory agencies have learned too. Shortly after the outfall from Love Canal, there seemed to be some progress. For example, NYS DOH established groundwater standards for a number of chemicals. Unfortunately, these standards are largely ignored at toxic waste sites.

The DEC has also established a number of good policy guidance documents. Soil cleanup guidelines, for example, establish cleanup goals for an extensive list of contaminants. However, they are seldom followed if the polluter does not care to do the cleanup. In recent years, we have often witnessed cleanup goals compromised or abandoned, even when known human carcinogens are present. The following illustrates the inconsistent approach taken in New York State with just one contaminant, arsenic, which in uncontaminated soils would not be found above 10 ppm. Please bear in mind that the DEC's Technical and Administrative Guidance Memorandum (TAGM) cleanup goal for arsenic is 7.5 ppm (or site background).<sup>1</sup>

- At the J.I. Case site (formerly Ag-Chem) in Orleans County, portions of the property have been cleaned up to 10 ppm.
- In Lyndonville, Orleans County, arsenic was found on residential properties as high as 95 ppm and residents were told that it does not pose a health risk.

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<sup>1</sup> NYS Department of Environmental Conservation, Technical and Administrative Guidance Memorandum No. 4046: Determination of Soil Cleanup Objectives and Cleanup Levels (Jan. 24, 1994), *available at* <http://www.dec.state.ny.us/website/der/tagms/prtg4046e.html>.



- At the rural FMC Dublin Road site in Orleans County, the arsenic cleanup level was established at 35 ppm.
- At the Allied Signal plant property in Buffalo, arsenic levels averaged 94 ppm with the highest level at 343 ppm. The company was required to amend their property deed “to indicate that arsenic contaminated soil is being left in place at the facility.” The deed must also state that the soil may pose a health risk if improperly handled or managed.
- In 1992, NYS DOH recommended that arsenic be cleaned up to 15 ppm before a middle school could be built in East Rochester. However, the agency said that 20 ppm would be adequate as long as the area was covered with at least nine inches of clean fill.
- In Middleport, Niagara County, cleanup discussions are still taking place. Arsenic has been left on the schoolyard, as well as on resident’s yards, at levels exceeding 200 ppm. After years of closed-door discussions with the FMC, NYS DOH proposed a cleanup level of 50 ppm.

Agencies have also adopted risk management, which usually involves framing the risk to “manage” the public. They use justifications like “driving a car poses a greater risk than living next to a dump,” or in communities suffering from a high incidence of lung cancer, attributing the cancer to smoking or diet instead of investigating the high rate of pollution from the surrounding factories.

### Polluters

Polluters have learned a lot since Love Canal too. At first, many were nervous and believed that strict laws would be passed, forcing them to clean up their act, not just their image. However, the chemical industry learned how to be clever, not clean, over the years.

For example:

- They have learned to support trade agreements, like GATT and NAFTA so that they can move their operations to Mexico or China where workers earn pennies per hour and environmental regulations are minimal.
- They have learned that it is cheaper to stall a hazardous waste cleanup through litigation than to clean it up.
- They have learned that elected officials can be purchased. Elected officials who introduce programs like New York's Regulatory Reform which gutted existing environmental regulations, ensure that laws will not be passed that cut into corporate profits.
- They have learned that even well-paid lobbyists are an effective and cheap investment.
- They have learned to use loopholes in the law. One example is mixing waste with lime until it can pass a leaching potential test. Once it passes, the waste is no longer regarded as a hazardous waste by legal definition. I saw this used at a Federal Superfund site.
- Most frightening, however, is that industry has learned to invest in the best science that money can

buy. One of the latest and most popular pseudo-scientific methods of duping the public into accepting industrial poisons is known as “risk assessment.”

### Risk Assessment

I propose to you that “risk assessment” is an absurd notion given the current body of scientific knowledge. According to the American Chemical Society in 1996, worldwide, there are over 14.5 million chemicals on file. This includes chemicals and chemical compounds that have a Chemical Abstract Service (CAS) number on file.<sup>1</sup> Of those 14.5 million chemicals, about 500,000 are used commercially in North America and 70,000 to 100,000 are commonly used.<sup>2</sup> Nearly six trillion pounds are produced annually for plastics, glues, fuels, dyes and other chemical products.<sup>3</sup>

### What We Know About the Risks

As I have explained, we know that over 120,000 chemicals were on file with the Registry of Toxic Effects of Chemical Substances as of July of 1993.<sup>4</sup> These are chemicals known to have toxicological impacts on either animals or humans. However, less than six hundred of these chemicals have documented human health effects. Extensive research must still be completed on most of the chemicals and compounds to establish their risk to humans.

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<sup>1</sup> The American Chemical Society maintains a database directory of chemicals and compounds with CAS numbers. Information about this database is available at <http://www.cas.org/EO/regsys.html>.

<sup>2</sup> *Id.*

<sup>3</sup> *Id.*

<sup>4</sup> The Registry of Toxic Effects of Chemical Substances (RTECS) is a database of toxicological information compiled, maintained, and updated by NIOSH. RTECS is a congressionally mandated activity established by Section 20(a)(6) of the Occupational Safety and Health Act of 1970 (PL 91-596). As of 2001, the database contains over 130,000 chemicals. The database is located at <http://www.cdc.gov/niosh/rtecs.html>.

Unfortunately, most human health effects are learned through occupational exposures.

If we do not understand the risks of most chemicals when they appear individually, how can we possibly know the combined effects? We have no real way of determining the synergistic effects!

The toxicity of a chemical is often based on what is known as the LD50 or lethal dose for 50% of the lab animals tested. There are a number of concerns associated with this measurement. First, we are generally looking at one or two species. Second, we are looking only at how much of a chemical it takes to actually kill 50% of the target species. We are not looking at other health impacts with the LD 50 tests. Even with studies that do look for some other health impacts besides death, we are looking for a predicted health outcome, like cancer. Other impacts such as multi-generational impacts or impacts a chemical might have on the offspring of the offspring may go unobserved. This might be of special concern for chemicals like dioxin, PCBs and other chlorinated compounds that may not cause detectable genetic damage, but instead build up in the food chain and do not reach a detrimental level for generations. Despite all of these concerns, the practice of risk assessment has been accepted as valid science! Given these facts, do you believe that true risks can actually be assessed? Risk assessment is being used, and abused.

In addition, industry and regulatory agencies have found yet another way to avoid cleanup at toxic waste sites by manipulating this flawed scientific method. I would like to make my point by filling you in on the latest ongoing discussion at my favorite schoolyard in Middleport, New York. A risk assessment was done on the schoolyard several years ago which showed that on the most contaminated area, the athletic field, the cancer risk was nine hundred additional cancers per million. For years, one excess cancer per million was considered an unacceptable risk.

The latest cleanup proposal suggests that the company should clean up known hot spots to bring down the average concentration of arsenic. Then, a risk assessment would be done based on the remaining average concentration, thereby reducing the risk numbers.

However, this is not the true risk of children playing on still highly contaminated soils.

So you see, we have all learned a lot since Love Canal. The public must continue to be an active and involved force and we still cannot rely on government or industry to protect public health or the environment.