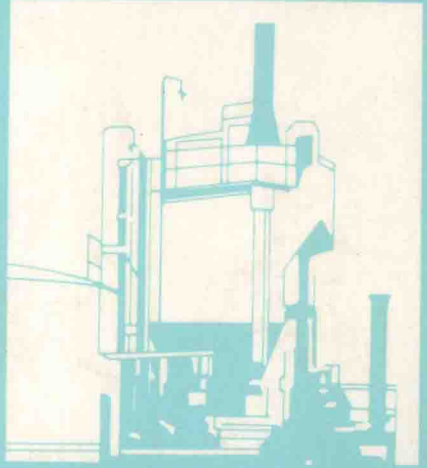


Edited by:
IRWIN J. KUGELMAN
Lehigh University

TOXIC AND HAZARDOUS WASTES



Proceedings of
the Seventeenth
Mid-Atlantic
Industrial Waste
Conference

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TOXIC AND HAZARDOUS WASTES

To Ruth and Jenny

TOXIC AND HAZARDOUS WASTES

Proceedings of the Seventeenth Mid-Atlantic Industrial Waste Conference

June 23-25, 1985

The Mid-Atlantic Industrial Waste Conference
is sponsored by:

Bucknell University
The Pennsylvania State University
Lehigh University
Delaware University
Drexel University
The Johns Hopkins University
The University of Maryland
Villanova University
Virginia Polytechnic Institute and State University
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Pennsylvania Chamber of Commerce
Pennsylvania Department of Environmental Resources
Maryland Department of Natural Resources
Maryland Department of Health and Mental Hygiene
Delaware Department of Natural Resources
U.S. Environmental Protection Agency, Region III

PREFACE

Mid-Atlantic Industrial Waste Conferences are designed to provide a forum for interchange of new technical as well as nontechnical solutions for industrial pollution control problems of the region. They provide an opportunity for the regulatory agencies, industries, universities, and consulting engineers to exchange information regarding their various activities.

The theme of the Seventeenth Conference was: Focus on Problem Solving.

Technical Sessions included:

- Biological Treatment
- Pretreatment
- Physical Chemical Treatment
- Ground Water
- Land Application and Liners
- Resource Recovery
- Hazardous Waste
- Metals and Industrial Waste
- Sludge Management
- Safety and Right-to-Know

This book, which is an outgrowth of these proceedings, is intended to provide a state-of-the-art synopsis of contemporary practice in the control of industrial, toxic, and hazardous wastes.

IRWIN J. KUGELMAN

ACKNOWLEDGMENTS

A conference of this magnitude cannot be organized by a few individuals and it would take several pages to identify everyone who contributed to its successful completion. However, it is appropriate to recognize individuals who played a specific role.

The keynote address was provided by Dr. Herman Collier, President of Moravian College, Bethlehem. A panel on Hazardous Waste Siting Considerations was arranged by Michael LaGrega of Bucknell University and PA DER, and included the following speakers:

- Ronald J. Buchanan, Environmental Affairs Manager, Rollins Environmental Services, Inc.
- Edward Gilardi, Vice President, Roy F. Weston, Inc.
- Franklin Kury, Esquire, Reed, Smith, Shaw, and McClay
- Eleanor Winsor, Executive Director, PA Environmental Council Inc.

The program of the conference was put together by a committee made up of the individuals listed on the next page. All of the decisions concerning the program were made by this group as a whole or by specific subcommittees.

The program, proceedings, and local arrangements were assisted greatly by Ms. Jaynellen Mannix and Mrs. Jenny Kovak of Lehigh University.

Special thanks are due to Dr. Joseph Goldstein, Vice-President of Research at Lehigh University, for his assistance and support.

Without the individual efforts of these and numerous others, it would not have been possible to put together this extensive program.

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PENNSYLVANIA'S HAZARDOUS WASTE SITING CRISIS

FRANKLIN L. KURY, ESQUIRE
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Harrisburg, Pennsylvania

THE PROBLEM

The national hazardous waste regulation law (RCRA) was passed in 1976 and the Pennsylvania hazardous waste act (Act 97) was passed in 1980. Yet no disposal sites for hazardous waste in Pennsylvania have been approved. Meanwhile, the number of available sites for the use of industrial hazardous waste declines while the amount of hazardous waste generated continues to rise.

Note: The amendment to the national act (RCRA) signed by President Reagan in November of 1984 increases the number of hazardous waste generators subject to regulation from 2,000 to 7,000 in Pennsylvania alone. It is ironic that the number of waste generators regulated is rapidly increasing, while the sites to dispose of their waste are rapidly decreasing.

The result is that Pennsylvania's industry is finding hazardous waste disposal increasingly expensive.

CURRENT LAW ON SITING HAZARDOUS WASTE DISPOSAL FACILITIES

A. The federal hazardous waste law has no specific criteria for hazardous waste facilities.

B. The Pennsylvania hazardous waste law has no criteria for hazardous waste siting either; however, Section 507 does require DER "to develop, prepare and modify the Pennsylvania Hazardous Waste Facilities Plan", which plan shall include criteria and standards for siting hazardous waste treatment and disposal facilities.

(1) The Secretary of DER has appointed a Pennsylvania Hazardous Waste Facilities Planning Advisory Committee, as required by the act, and siting criteria are being developed. However, the criteria have not yet been given final approval. It is expected that this will be done sometime by the fall of 1985.

(2) DER has awarded a contract for the draft of the State Hazardous Waste Facilities Plan and it is expected that such a plan will be adopted sometime by the end of 1985.

WHY THERE ARE NO SITES UNDER THE NEW LAW

A. The "NIMBY" syndrome - universal negative reaction.

(See attached reprint)

B. Delays in implementing the Pennsylvania law: The Hazardous Waste Siting Plan and the Hazardous Waste Siting Criteria are a requirement for the state to issue certificates of public necessity to override local ordinances.

WHAT WILL IT TAKE TO PROVIDE SITES IN PENNSYLVANIA

A. Sites are legally possible under existing law but local opposition can block them with municipal ordinances and vehement political opposition.

B. Overriding local ordinances:

(1) Section 6018.105 of the Pennsylvania Law provides that the Environmental Quality Board may issue certificates of public necessity which will override local ordinances. This section authorizes the Environmental Quality Board to:

(3)...issue such certificates of public necessity for the operation of hazardous waste treatment and disposal facilities as are warranted by:

(i) the extent to which the facility is in conformance with the Pennsylvania Hazardous Waste Facilities Plan;

(ii) the impact of the proposed facility on adjacent populated areas and areas through which wastes are transported to such facility;

(iii) the impact on the borough, township, town or city in which the facility is to be located in terms of health, safety, cost and consistency with local planning and

(iv) the extent to which the proposed facility has been the subject of a public participation program in which citizens have had a meaningful opportunity to participate in evaluation of alternate sites or technologies, development of siting criteria, socioeconomic assessment, and all other phases of the site selection process.

In addition, a subsequent subsection provides as follows:

(h) Issuance of a certificate of public necessity under this section shall suspend and supersede any and all local laws which would preclude or prohibit the establishment of hazardous waste treatment or disposal facility at said site, including zoning ordinances. The suspension and supersession is explicitly extended to any person to whom such certificates issued for the purpose of hazardous waste treatment or disposal, and to the successors and assigns of such person.

C. Public education.

(1) The certificates of public necessity may not be sufficient.

(2) The public must be convinced that hazardous waste sites under the new law are safe.

(3) The public has been conditioned by 10 years of television reporting of hazardous waste disasters and of hazardous waste sites;

(4) The public must be involved in the siting system.

MY VIEW one reader's opinion

FRANKLIN L. KURY



Franklin L. Kury practices law in Harrisburg. As a member of the Pennsylvania House and Senate (1967-1980), he was active in environmental issues.

Waste sites pressured

IT'S JUST a matter of time until a major environmental disaster caused by hazardous waste strikes Pennsylvania, inflicting major damage on one of our rivers or other water bodies. The disaster will occur because, lacking legal sites for the disposal of industrial waste, the continuing accumulation of it caused so much "midnight dumping" that the waste broke loose into the environment.

Following the disaster, I predict whoever is the governor will do two things. First, he will order the DER to clean up the mess, using whatever state agencies and funds are necessary to do the job.

Secondly, using the emergency powers vested in him as chief executive of the commonwealth, the governor will establish a waste-disposal site on state land through executive order and use the state police or national guard to protect it from anyone trying to block its operation.

This prediction is not, in my opinion, particularly bold or daring. It is based simply on the facts of our continuing rapid accumulation of wastes and our dilatory pace in devising a system for disposing of them.

The scope of the problem has been well documented by the Department of Environmental Resources and others who have been watching the problem closely. Pennsylvania produces each year 11 million tons of municipal waste, 25 million tons of residual (non-hazardous) industrial waste, and 5.6 tons of industrial hazardous waste. As our economy develops, the quantity of waste produced will not decrease. It will increase.

OF COURSE, the question is where to put these wastes. Locations are dwindling rapidly and will soon be gone. Take the matter of municipal (non-hazardous) waste which has traditionally been disposed of through landfills. In 1980 there were over 1,000 land disposal facilities for municipal waste. Today there are about 130 and by 1994 it is estimated there will be less than 30 remaining. Clearly, this will be insufficient.

And for hazardous waste, in 1980 there were 17 commercial treatment and 13 commercial disposal facilities. In the very near future it is anticipated that there will be nine treatment facilities remaining but no commercial disposal facilities. New sites are not being developed. Although there are presently two applications for hazardous waste sites pending before DER, it is by no means certain that they will be approved.

The conclusion is inescapable. A rapidly declining number of sites is available to receive an increasing quantity of waste that must be put somewhere.

At the same time, efforts to find new sites for both hazardous and non-hazardous material are stymied, understandably, by a strong, emotional negative reaction from the public in any area considered as a site for waste of any kind. This is the so-called NIMBY ("not in my backyard") syndrome. The NIMBY syndrome is so strong that, even with existing state and federal regulations, developing new sites is all but impossible.

The cause of the NIMBY syndrome is readily understandable. Pennsylvania has 51 abandoned dump sites on the Superfund list. Each of these sites, in varying degrees, is seen as posing a threat to health and the environment.

Television has done for hazardous and industrial waste what it did for the fighting in the Vietnam War. It has brought the horrors of the abandoned dump sites into our living rooms with force and intensity. The net result is that the public is opposed to placing any kind of waste facility in the "backyard," hazardous or non-hazardous. This opposition extends to incineration as well as land disposal.

The NIMBY syndrome reflects a public distrust of government which is growing in raw intensity, particularly the distrust of government regulation of waste sites. The extent of this distrust is seen in H.B. 2251.

THE PENNSYLVANIA House of Representatives recently passed House Bill 2251, which would require that local governments approve any hazardous waste facility within its borders and also give municipal government the same enforcement and inspection powers that DER possesses. This bill passed the House overwhelmingly, even though it was opposed by virtually every conservation and economic organization active in the legislative process. It is certain that, if this bill passes, it will be virtually impossible for safe sites of any kind to be located in Pennsylvania.

Pennsylvania, as a major industrial state, is in a real quandary. The state's industry is producing a steady quantity of waste while safe sites for their disposal are rapidly declining. At the same time, public opinions appears unrelentingly opposed to disposal.

This situation cannot continue indefinitely. Pennsylvania industry will try to find sites out of state, at increased expense. Cost aside, other states have the "NIMBY syndrome" too, so that shipping out of state is no real answer. If out of state disposal is impractical, some plants will close and illegal disposal will increase. So will the chances of the disaster I have already predicted.

Is there an answer to this dilemma? Yes, if the public is convinced that waste — hazardous and non-hazardous — can be disposed of safely. Industry and government must deal with the NIMBY syndrome for what it is — a genuine expression of public fear and concern. Only when the negative emotions which motivate the NIMBY syndrome are removed can we really solve our waste problem.

This will be difficult, but it is not impossible. There is substantial agreement among engineers and other professionals that we possess the technology to dispose of waste safely. The question becomes how to demonstrate this to the public.

SEVERAL approaches must be taken.

1. The federal and state governments must act