

If the other seven member states do not adopt an agreement to limit the possibility of their withdrawal from the Southeast Compact, North Carolina will withdraw.

Many environmentalists oppose the compact agreement, arguing that North Carolina would be better off managing its own waste forever than the entire region's waste for 20 years. "At its current rate [of waste generation] it would take North Carolina over 300 years to produce 32 million cubic feet

of low-level radioactive waste," says Marion Nichol, president of the Conservation Council of North Carolina.<sup>20</sup>

Moreover, says environmental lobbyist Holman, there are no guarantees that the other states will keep their end of the bargain and take their turn disposing of N.C. wastes. "We'd like to see the compact select the next host [state] now and have that state select a site as North Carolina selects its site, as a show of good faith," he says.

## *Hazardous Waste Issues: Balancing Real Fears With Real Facts*

by Truman L. Koehler Jr.

**N**orth Carolina's struggle to locate a site and begin construction of a hazardous waste treatment facility illustrates the gap between the rational and political sides of public policymaking. Our rational side led legislators to spend 15 years studying and choosing the most technologically sound solution to our hazardous waste problem. Our political side prevents us from moving with courage to deal effectively with public fear to implement the solution.

But the unfavorable political consequences of that rationality seem to be posing an insurmountable barrier to implementing the solution. If progress is to be made, if North Carolina is to clean up existing waste and prevent further build-up, it is critical that a distinction be recognized between the rational or technical solution and political issues. Those who deal with public policy, namely our politicians, must participate in the removal of the barrier. They, in turn, will need the substantial help of the Governor's Waste Management Board to understand and then explain the underlying problems and solutions to their constituents. Our citizens deserve to understand, for example, why their legislative representatives have chosen this solution and how they can balance real fears with real facts to truly guarantee the best possible quality of life.

Consider some of the facts behind the current policy on managing hazardous wastes. The N.C. General Assembly determined in 1973 that the re-

sponsibility for managing hazardous waste was too important to leave in the hands of private or local control. The Governor's Waste Management Board, set up in 1981, was authorized to preempt local decision-making and to guide state policies to encourage prevention, recycling, detoxification, and reduction of hazardous wastes.

After 10 years of study and lawmaking regarding handling of hazardous wastes, both the governor's office and the N.C. General Assembly agreed the state needed to go further and develop a statewide solution for treating waste. The resulting Hazardous Waste Study Commission, established in 1983, included three senators, three representatives, two environmentalists and two industry representatives. They spent 15 months studying the question of whether North Carolina needed a hazardous waste treatment facility. At its

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State officials and industries, however, argue that a central storage facility would be far easier to manage and oversee rather than on-site storage facilities. And they point out that numerous legal questions have been raised as to whether North Carolina could withdraw and prohibit other states from shipping and storing their low-level radioactive wastes here.

The 15-member Low-Level Radioactive Waste Management Authority has been appointed by the

governor, lieutenant governor and House speaker, and has begun the process for selecting the most suitable site for the regional repository. The law requires the authority to identify suitable areas by Dec. 1, 1988, to select two or three sites by Aug. 1, 1989 and to select the preferred location by Nov. 15, 1990. The facility is to be in operation by Dec. 31, 1992, and must comply with new strictures placed on low-level repositories by the 1987 legislature.<sup>21</sup> Those strictures include a ban on burial of low-level

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public meetings, the Commission heard from representatives of government, regulatory groups, academia, and from numerous professionals, chemists, experts, and engineers. At the end of those 15 months, the report concluded, "We need a facility."

During the public hearings, a number of people suggested that the need for a hazardous waste treatment facility might be eliminated by the serious application of two other approaches:

- Prevention of the creation of hazardous waste—the Pollution Prevention Pays approach; and

- On-site treatment of the hazardous material necessarily remaining, even after the best efforts of the state's Pollution Prevention Pays program have been used.

Pollution Prevention Pays is, of course, a sensible and logical approach. But its greatest impact is on small producers, who may need both technical assistance and capital to make changes that reduce the amount of hazardous waste they generate.

No large company competing on a national or international scale can afford to let raw materials or production by-products leave the plant as waste. Therefore, most companies large enough to have technical experts who understand the processes and enough capital to install the necessary equipment already are using a broader version of Pollution Prevention Pays. It is called just plain "Cost Reduction." They've learned that minimizing waste makes sense both for the environment and the bottom line. That's part of the reason hazardous waste generation in our state

dropped 73 percent between 1983 and 1986.

Still, the small producer—who may need technological help to find the best approach to recycling material and financial help to implement the change—is benefiting from the Pollution Prevention Pays program. This is worthwhile but slow going, and cannot eliminate the total problem. In fact, the amount of hazardous waste that was shipped out of state for treatment between 1983 and 1986 increased more than 13 percent, even though the total amount generated dropped 73 percent.

It is true that remaining wastes can be treated at the plant sites where they are created. The ultimate process is incineration. But even if every producer of waste wished to build an incinerator, and if the state permitted the facilities, environmental engineers have pointed out that the units would not operate efficiently because the quantity of wastes produced at most plants would be too small. Also, monitoring all of the treatment units would be too complex to be cost-effective. However, those who recommend on-site treatment of waste are right about one thing: In the proper scale, the technology exists.

The Hazardous Waste Study Commission determined that Pollution Prevention Pays cannot do the required job and that multiple incinerators are not feasible. The Commission recommended a state-mandated plant to treat hazardous wastes. In 1984, the General Assembly accepted the recommendation and created the Hazardous Waste Treatment Commission to find a site. The first appointments to the commission were made in early 1985.

Although the General Assembly hoped that private enterprise would enter the venture at an early stage, it soon became obvious to all who

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waste in shallow, unlined trenches; a requirement for special barriers; and a requirement that a facility must be at least seven feet above the water table.

State agencies are examining a number of models for a low-level radioactive waste storage facility. The options include—but are not limited to—above-ground storage vaults, below-ground vaults, the use of modular concrete cannisters, and sophisticated caps, liners, and water-migration detection systems. “This is not going to be an inexpen-

sive undertaking,” warns Edgar Miller, former community relations coordinator of the Governor’s Waste Management Board. Cost estimates just for setting up the facility range from \$20 million to \$35 million; the cost for full operation and monitoring for 100 years could amount to as much as \$434 million, estimates the U.S. Department of Energy.

State officials contend the public’s concerns about radioactive wastes are often based on a lack of information. They say even the nation’s worst

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have followed environmental affairs in this state that this was not likely to be. Numerous companies have invested in the design of waste treatment plants, only to run into roadblocks in the permitting procedure.

The Hazardous Waste Treatment Commission saw early in its deliberations that it would have to carry the project forward through selecting a site and gaining the permit to construct and operate the facility. But this also meant that the state must pay for the engineering up to the point required by the permitting procedure. So, the Commission sensibly started to work on two issues—selecting a site and designing the plant.

Using the experience of our state regulatory people and the experience of other states—with discussions held at public meetings—a detailed set of selection criteria regarding size, location, and environmental quality standards was adopted by the Commission. In addition to setting criteria, the Commission approved design specifications to protect health, safety, and the quality of air, land, and water near the site. According to design specifications, the facility would employ the most advanced and cost-effective treatment and environmental controls. It would have less impact on the local environment than the average municipal wastewater treatment facility or solid waste incinerator. At full capacity, fewer than 10 trucks per day would drive to and from the site.

Unfortunately, the process has become stalled. The very tool which would provide a means for North Carolina citizens to take action to control our quality of life is the one tool many citizens seem to find unacceptable.



**Truman L. Koehler Jr.**

So, how should we proceed?

Political issues of public policy can override purely rational, technological considerations. But the public policy will be sensible only if those involved have a clear understanding of the problem and the proposed solution.

The Hazardous Waste Treatment Commission is charged with implementing public policy, not assessing or defining that policy. With respect to understanding the problem, it is the Governor’s Waste Management Board that has responsibility for education. With respect to identifying and implementing an effective solution, it is our elected officials who carry the responsibility to set public policy.

It is only with help and guidance from these two groups that the Hazardous Waste Treatment Commission can proceed with the site selection process. We now need to get on with the mission.