

The Changing Face of Solid Waste Management in the United States

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The solid waste industry in the United States is in the throes of cataclysmic change. Many companies have merged such that a handful of full service firms dominate solid waste collection and disposal. In conjunction with industry consolidation, the policy and politics of solid waste disposal has been shifting and re-shifting. The specter of the "garbage barge" of 1993, plying the seas looking for a place to dispose of waste was replaced by landfills and other disposal facilities, bidding aggressively for waste, pushing disposal rates lower and lower in many regions. As of early 1999, the garbage barge has again surfaced as a symbol, this time becoming a rallying cry of states like Pennsylvania and Virginia, seeking to stop the flow of garbage into their states from New York City.

Throughout the 1980's, the industry reacted to public opposition of leaking and poorly designed landfills by constructing newer facilities with geosynthetic liners, leachate collection and landfill gas collection systems, and developing funding mechanisms for paying for long-term care of these landfills. Smaller municipal landfills were closed and replaced by larger and more environmentally friendly landfills, which incorporated these more efficient designs. More often than not these new landfills were operated and owned by national and international, vertically integrated, solid waste disposal firms.

As the siting of new landfills became increasingly difficult because of the public's Not-In-My-Backyard mindset, many communities looked to the development of waste-to-energy facilities as a solution to their long-term disposal needs. The mass media began to run stories prompting fears

that landfill capacity shortages would soon appear on the nation's horizon suggesting that new, innovative and more long-term disposal strategies were needed. It was suggested that landfills were an endangered species so by 1994, 110 waste-to-energy facilities were constructed in the United States. These facilities were empowered by the Public Utilities Regulatory Policies Act to sell their electric power to investor-owned utilities at prices comparable to the utility's avoided cost of producing this power itself. Freed of the impediment of finding a long-term and secure revenue source, waste-to-energy took off in the United States.

Policy changes and industry shifts, however, have undermined the position of many waste-to-energy facilities. Firstly, the shortage of waste disposal facilities, so feared in the early 1990s did not materialize. Intense efforts to recycle as well as the construction of large new landfills and the permitted expansion of existing landfills, helped to mitigate the problem. In fact, in a national survey undertaken by *BioCycle Magazine* in April 1998, of the 37 states providing an estimate of their landfill capacity, 13 reported remaining capacity to be 20 years or more and another 16 estimate 10 years or more capacity. Furthermore, they reported more landfill capacity available than at any other time over the past ten years. Secondly, state and federal regulations originally favored Waste-to-Energy in the hierarchy as a safe and environmentally sound alternative to landfills as well as an energy conservation method. Federal incentives included grants for feasibility studies and pilot projects, investment tax credits, favorable tax treatment for equipment depreciation, and permitting many facilities to be publicly financed, so as to reduce interest rate burdens. After 1986, most of these regulatory incentives disappeared or were substantially curtailed. Recycling and source reduction has become the focus of many local policy initiatives.

From the standpoint of waste disposal, policy initiatives in recent years have centered on achieving environmentally sound disposal, whether in a landfill or at a waste-to-energy facility. In addition the negative impacts of waste incineration and the need to control air pollution from these facilities became a major goal of federal regulations. Lastly, as the result of the 1994 ruling of the US Supreme Court in *Carbone vs. Town of Clarkstown*, waste has been freed from any public regulation that impedes the cross border interstate commerce of waste. In *Carbone*, the Supreme Court held those mandatory solid waste flow control ordinances constituted an impermissible restraint on interstate commerce and was in violation of the Commerce Clause of the United States Constitution. Prior to this decision, local governments were able to direct the flow of waste within their boundaries to a given facility or location. Haulers were forced to pay the tipping fees levied at the mandated facility, even if they could find a cheaper solid waste disposal alternative elsewhere. As a result of the *Carbone* decision, haulers could take their waste to any licensed facility.

The short-term impact of *Carbone* fell on local governments that were forced to find ways to shore up the financial position of public facilities, which saw revenues from waste deliveries drop, and tipping fees decline dramatically. This has caused many local governments to look for innovative ways to fund solid waste management services while others have looked to outsource their entire management responsibility to the private sector or privatize major portions of their solid waste systems. This trend continues.

However, the greatest impact of *Carbone* is only just appearing on the horizon. Since no longer can public agencies and private haulers be guaranteed monopolistic control over the waste stream, they are being asked to be more economically efficient

in this rapidly competitive environment. Large service areas are considered "up for grabs" in "winner take all" competitions. For example, in recent years the waste hauling and disposal market in New York City has been freed of organized crime control with the titans of the waste industry "duking it out" for municipal bids. What we are beginning to see all over the United States is that profit margins are being cut to hold market share where firms previously held monopoly positions. Shareholder and Wall Street dissatisfaction with declining profits has resulted in an unprecedented wave of wholesale upper management changes and

layoffs at the largest waste management firms and has fueled the recent wave of mega-mergers in the waste industry.

The trend in solid waste management in the United States will increasingly be focused more on competition and less on regulatory changes—an indication that the industry has reached maturity. More and more, severe competition will mean that smaller communities will exit the marketplace and turn over their operations to the private sector. However, vendors offering these services will be reduced in numbers because of mergers and acquisitions. Ulti-

mately, disposal prices will creep upward as monopolies will develop in certain markets. As disposal prices will rise, more expensive technologies such as waste-to-energy and composting will become more competitive with landfilling.

This article was provided courtesy of Marc C. Bruner, PhD, Contributing Editor to Environmental Practice.

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