

“How Public Sector Agencies and Governments Responsible for Waste-To-Energy (WTE) Operations Maintain Cost-Effective and Environmentally Sound WTE Operations Through Active Technical, Financial, and Environmental Oversight”

Andrew T. Lehman and Daniel Shabat, P.E.
Dvirka And Bartilucci Consulting Engineers
3000 Hadley Road
South Plainfield, New Jersey 07080
(908) 668-4747

Author's Abstract

Whether a given waste-to-energy (WTE) facility is publicly or privately owned and/or operated, and notwithstanding the pluses or minuses of any given Service Agreement or Operations Contract, the public sector can derive great benefit if it establishes a solid understanding of and maintains active oversight role in the technical, financial, and environmental issues associated with WTE project operations. Experience has shown that public sector clients who remain in close touch with the day-to-day operations of these capital intensive operations from the outset also retain a greater measure of influence over the inner workings, as well as the exterior/aesthetic appearances of these capital-intensive waste-processing and disposal facilities. While all parties strive for environmentally sound and safe operations, private sector operators must be concerned with profitability and/or maintaining shareholder value while the public sector entity is more typically focused on ensuring the facility provides reliable disposal services for a heterogeneous wastestream that changes over time, remains a “good corporate neighbor,” and does this at the lowest possible cost to the taxpayers and other facility users.

Introduction

Since the beginning of the modern era of waste to energy facilities starting with the early to mid-1980's, these technically and financially complex waste-to-energy (WTE) facilities have nearly continuously had to prove that they are capable of providing long term and reliable solid waste handling and disposal services, in a cost-effective and environmentally sound manner, while adapting to ever-changing environmental regulations and their economic consequences. While there has been some serious weeding out of less resilient technologies and economically weak projects over time, the majority of these “modern era” projects survived.

Facilities like McKay Bay and Pinellas County, Florida; Alexandria, Virginia; and Tulsa Oklahoma, have recently undergone major air pollution control device retrofits and/or major boiler retrofits/replacements in order to continue in operation and meet rigorous new environmental standards. In each instance, facility operators worked closely with client communities to keep them informed of project activities and to ensure their support of the retrofits.

Simultaneously, WTE facilities have proven quite adaptive to ongoing changes in the economic climate in that they have remained financially competitive in most cases with

traditional land disposal methods during a time period that has seen nearly continuous evolution in air, ash and solid waste management regulations applicable to WTE facilities, and to a different extent, land disposal facilities.

Through careful and ongoing monitoring and oversight of operations, regulatory requirements, costs, service agreement conditions, and essentially all matters concerning facility finance and operations, public agencies and governments have been able to maintain competitive tipping fees for its users.

Interplay Between Client Communities and Operators Regarding Changing Regulations

The ever-changing regulatory history of the municipal waste combustor (MWC) industry is well known and a detailed review of major tax and regulatory milestones during the past fifteen (15) years is beyond the scope of this paper. However, the impact that many of these initiatives have had on client communities and community response to those changes is worth a brief examination. In summary,

- **Clean Air Act Amendments (CAAA) of 1990.** The Clean Air Act Amendments caused the WTE industry to spend some \$1 billion nationwide in capital equipment alone for the retrofits needed to meet stringent air emissions, increased stack testing and continuous emissions monitoring requirements.