

# CASE STUDY THERMAL CONVERS ON A CILITY WOONSOCKET, RHODE ISLAND



## THE PARTNERSHIP PROVIDES MASSACHUSETTS AND RHODE ISLAND CITIES WITH:

- ✓ Economies of scale through access to regional facilities;
- √ Reliable year-round outlet
- √ Turnkey operations and maintenance
- √ Transportation
- √ Complete logistics
- √ 100% back-up services
- √ Regulatory compliance
- ✓ Maximum fuel efficiency
- √ Lower emissions



#### **CHALLENGE**

Biosolids management options in the Northeastern United States are declining due to state regulatory requirements, population density, lack of agricultural options, and harsh weather conditions. These limitations leave biosolids generators in New England with fewer choices such as landfilling or development of expensive individual processing facilities.

#### **SOLUTION**

To address these challenges, Synagro proposed to the City of Woonsocket the design, build, finance and operation of an efficient regional processing facility that would effectively manage and process biosolids from Woonsocket and other communities across the region. Through a regional approach, Synagro realized economies of scale allowing municipalities processing-facility access in a cost-effective manner.

When this project began in 1988, Synagro updated an existing multiple hearth furnace combustor to handle the biosolids from Woonsocket and 40 other generators. The Woonsocket Thermal Conversion Facility (WTCF) has demonstrated its leadership as an environmental steward as this was the first facility in the nation to employ a wet electrostatic precipitator on a biosolids combustion system. This breakthrough innovation is now considered by the U.S. Environmental Protection Agency to be the best available control technology for all biosolids combustion units.

In 2007, Synagro further upgraded WTCF to a fluidized-bed combustion process to handle up to 105 dry tons of biosolids per day. This upgrade allowed for maximizing fuel efficiency and minimizing emissions while increasing capacity and allowing more area generators to participate. WTCF includes five dewatering centrifuges, permitting 50 area municipalities to send either liquid or cake forms of biosolids.

In addition to providing the solids-processing services, Synagro delivers a logistics and trucking operation, which provides a complete turnkey, cost-effective management program.

#### **SUCCESS**

Synagro's biosolids management services at WTFC have resulted in the following successes:

- Sustainable biosolids management outlet for 50 area generators with no capital outlay
- · Private funding of technology upgrades
- · Reduction in carbon footprint through lower emissions and fuel efficiency
- Employment of 48 local residents, further helping the Rhode Island economy

As the communities in which we operate are important to us, Synagro supports and sponsors local programs and fundraising initiatives. To help support the local economy, Synagro utilizes local service and material suppliers whenever and wherever possible.

# YOUR PARTNER FOR A CLEANER, GREENER WORLD



#### **PARTNER WITH SYNAGRO**

When you are looking for the best biosolids and residuals solutions to serve your business and your community, Synagro has the proven solutions to help you succeed. Municipalities and industrial organizations like yours that want to make the best use of organic waste turn to Synagro. Across the United States, Synagro applies expertise and innovative technology to provide resource recovery solutions that meet the unique needs of customers and communities.

### **WHO WE ARE**

Synagro is the country's preeminent provider of biosolids and residuals solutions services since 1986. Headquartered in Baltimore, Maryland, we employ over 800 people in 34 states and service more than 600 municipal and industrial water and wastewater facilities.

### **HOW WE CAN HELP**

Our professional and experienced staff members provide solutions for all aspects of biosolids and residuals management needs, from land permitting and soil analysis by our nationwide technical services team to facilities development by our in-house engineering staff. Synagro provides a comprehensive scope of customer focused solutions.

