

CASE STUDY WASTEWATER TREATMENT A CILITY BALTIMORE (PATAPSCO), MARYLAND



Full recirculation and reheating of drying air resulting in the system's high thermal efficiency and considerable reduction in air emissions.

GENERAL HIGHLIGHTS

Area Served

City of Baltimore

Type of ContractFull Service / Own and Operate

Ownership Synagro-Baltimore, LLC

Start-up July 1997

OVERVIEW

In 1995, to replace their aging incineration system, the City of Baltimore contracted with Synagro to design, construct and operate a biosolids heat-drying facility at the 70-mgd Patapsco Wastewater Treatment Plant. The Patapsco Pelletizer Facility assists the City of Baltimore in managing the large quantity of undigested solids generated at the plant. The facility is capable of processing up to 110 dry tons per day of biosolids. The resultant pelletized fertilizer product has many advantages. It is clean and odorless, easy to handle and store, and can be sold as a fertilizer or soil conditioner. The pellets are sold primarily to brokers and bulk blenders of commercial fertilizers for sale to farmers as a source of slow-release, organic nitrogen.

AIR QUALITY CONTROL

State-of-the-Art Air Quality and Odor Control Process:

- High-efficiency dust removal system comprised of a mechanical cyclone, fabric filter and wet condenser.
- No drying air is released into the atmosphere without passing through hightemperature zone resulting in thermal destruction of odorous compounds.
- Full recirculation and reheating of drying air resulting in the system's high thermal efficiency and considerable reduction in air emissions.
- Dedicated wet scrubber controls emissions from facility building.

HEAT DRYING PROCESS

Type of System

Swiss-Combi / Direct Drying With Full Air Recirculation

Operation

24 Hours a Day / 7 Days a Week

Plant Daily Operation

Synagro-Baltimore, LLC

FACILITY BENEFITS

Production of Pellets

Beneficial Uses of Fertilizer

Reliable Operation

Continuous, No Weather Impacts

Versatile Design

Can Receive / Process Liquid and Semi-liquid Forms of Biosolids

Minimal Environmental Impact

Enclosed Building and Equipment Controls Noise and Odors



YOUR PARTNER FOR A CLEANER, GREENER WORLD





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.



