Stamford Water Pollution Control Authority Solids Drying Facility, Stamford, CT

- $15-million design-build project for Stamford Water Pollution Control Authority (SWPCA)
- The new biosolids drying facility provides 25-tons-per-day of pelletized Class A sludge
- Follow-on to CH2M HILL's successful design and construction management project of the $105-million Stamford Water Pollution Control Facility (WPCF) upgrade and expansion completed in 2005
- 2009 Design-Build Institute of America (DBIA) Merit Award Winner
- 2009 New York Tri-State Region DBIA Chapter Project of the Year Award

In December 2005, the SWPCA awarded CH2M HILL the contract for DB services for the sludge drying and pelletization facilities for all primary and secondary dewatered sludges produced by the Stamford Water Pollution Control Facility (WPCF). As the prime contractor, CH2M HILL designed, permitted, constructed, and provided startup and testing services to complete this $15-million dollar project in 18 months.

Project deliverables includes dewatered sludge feed conveyance, drying, pelletizing, product storage, emission control complete with Regenerative Thermal Oxidation (RTO), odor and dust control, and all utilities and building services.

CH2M HILL installed the Andritz-Ruthner Drum-Drying System (DDS) technology at the plant. DDS is a rotary drum drying process with high-rate process air recirculation. The biosolids are mixed with recycled pellets and heated air in a triple pass rotary drum dryer, where the heated air and the rotating action of the drum dries produces a high-quality pellet supplement used for fertilizers and land application.

The Dryer Facility is housed in an existing structure originally constructed in 1958, and renovated to accommodate the installation and operation of the sludge drying process equipment. It provides 25 dry tons-per-day of pelletized EPA Class A sludge consisting of granules with an average dryness of 92 percent. SWPCA gained beneficial use of this pelletized sludge via a third-party, privatized, operation and maintenance, and marketing firm, Synagro – Connecticut, Inc.

Upon project completion, the prior practice sending the raw dewatered sludge to a landfill was no longer required, which reduced the overall truck traffic in the service area and conserved valuable landfill space. As an added benefit, the facility design has the capacity to process all current biosolids by the upgraded facility and all potential future biosolids from the service area.

This project follows CH2M HILL's recently completed $105-million WWTP upgrade and expansion project at the Stamford Water Pollution Control Facility, which provided several positive impacts on the Stamford community, including environmental enhancements to the region and community, opportunities for waterfront revitalization, the capacity to support growth in the city, and economic benefits through the State of Connecticut's unique nutrient removal credit trading program.

For the original wastewater treatment plant renovation project, CH2M HILL partnered with Stamford to provide engineering design and support during construction for the upgrade and expansion of the 30-year-old facility, $60 million of which was associated with nitrogen removal processes.

In 2009 the Solids Drying Facility project was honored regionally and nationally with DBIA awards, including the New York Tri-State Region DBIA Chapter Project of the Year Award and the national 2009 DBIA Merit Award.

- 2009 New York Tri-State Region DBIA Chapter Project of the Year Award