

Wood Pellet Storage

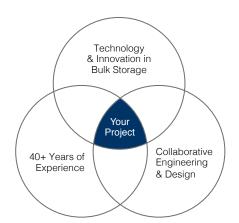
Enviva | Chesapeake, Virginia, USA

Scope of Work

- FEED Study
- Value Engineering
- Geotechnical Analysis
- O Material-Handling Systems Engineering
- Structural Engineering
- Mechanical Engineering
- O Procurement & Subcontract Management
- Dome Construction
- Tunnels Construction
- O Material-Handling Systems Installation
- O Explosion Relief Installation
- Additional Steel & Concrete Construction

Storage & Reclaim

- ☐ 2 Domes: 53.6m (176ft) Wide x 47.9m (157ft) Tall
- 90,000 Metric Tons (Total), Wood Pellets
- → 2 Tunnels, 75% Live Reclaim





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The DomeSilo[™] maximizes storage capacity on minimal real estate.

Faster completion of the project is possible thanks to the protected environment within the dome during construction.



DomeSilos[™] are less likely to experience explosions because the interior is truss and support free.

Overview

In 2011 and 2012 two DomeSilos[™] were completed for biomass manufacturer Enviva at the Port of Chesapeake in Virginia. The domes feature systems that continuously monitor and control the interior temperature. Through close collaboration with the customer, Dome Technology's team completed construction ahead of projected completion, even though the project started a month later than planned.

"Enviva is the biggest wood-pellet producer in the world. It's just a joy to work with such a large, progressive company," said Dome Technology sales manager Lane Roberts.

This was the first Dome Technology project for Enviva. Following the work in Virginia, the team was contracted to build two additional, almost identical domes at Port of Wilmington, North Carolina. The pair will store pellets produced at Enviva's Sampson plant, as well as additional regional wood-pellet production facilities that may be built in the future.

Domes are an ideal bulk-storage option for wood pellets as they store a large volume in a smaller footprint, stacking product deeper than a silo of similar dimensions. For storage on a port, domes can be engineered with innovative foundation systems that provide ample support on soil near the water. Domes are also less likely to experience explosions because the interior is truss and support free—the fewer the horizontal surfaces, the fewer places for dust accumulation.

According to Enviva Senior Vice President Norb Hintz, the company has been pleased with Dome Technology's work. "We appreciate the high-quality workmanship, professionalism and attention to detail demonstrated by their staff," he said.

"For nearly four decades we've relied on a collaborative approach with companies—they're in the driver seat, and we help navigate. In every project Dome Technology incorporates innovative technology to maximize storage capacity and system performance with an economical solution," Bradley Bateman, CEO, Dome Technology.

Read more about this project at: link.dometechnology.com/986

