

CHALLENGE

Wood pellet production has increased dramatically in recent years as utilities in Europe and the United States have embraced biomass as an alternative fuel source. The growing industry has sought to address several fire safety challenges, each with different threat and prevention profiles: surface fires, deep-seated pile fires, and dust ignition.

SOLUTION

Since 2007, Milton J. Wood Fire Protection has partnered with producers to fully understand the industry's manufacturing processes, the nature of its fire hazards, and the best solutions to each type of threat. Major projects have included:



- **Green Circle Bio Energy pellet mill in Cottondale, Fla.** MJW performed all major concrete, pile-driving, and steel erection, in addition to managing construction of what was the largest pellet mill in the world at the time. The company also provided a complete fire protection and fire alarm system package, including all required infrastructure, and has performed a majority of the plant's equipment maintenance as well as rework and additions.
- **Green Circle Port in Panama City, Fla.** MJW designed and built fire protection, fire suppression and fire alarm systems following a tripper deck conveyor fire in 2012. Extensive testing was conducted on pellet fire dynamics and the best prevention and suppression solutions.
- **Georgia Biomass pellet mill in Waycross, Ga.** MJW was contracted in a consulting-design-build role for the complete fire protection and fire alarm system packages following a dust explosion. MJW assisted with a risk analysis as well as a retrofit of process equipment with additional spark systems and equipment-specific protection.
- **Enviva port in Chesapeake, Va.** MJW performed a consulting-design-build role for the fire protection and spark systems for the entire port operation, from the truck receiving area, through the dome storage, and all the way to the shiploader.

RESULTS

Through these successful projects and others, MJW has developed a deep understanding of effective pellet fire detection and protection methods, as well as the intimate details of pellet manufacturing processes and equipment. By maintaining the actual manufacturing equipment as well as fire protection systems, MJW receives direct feedback and uses its knowledge in the development of the new facilities.