

MDF PLANT DESIGN

CLIENT: Confidential Client
LOCATION: Monticello, Georgia

The scope of this project was to provide preliminary engineering, AFE class capital estimate, and detailed engineering for a greenfield MDF plant. The plant was designed to produce 210-mm ft², sanded thin-board MDF (1/8") with a continuous roll-type press utilizing Southern Pine chips and sawdust and urea-formaldehyde resin. Evergreen served as the primary engineer throughout the project, providing site development, facilities, utilities, foundations, electrical/lighting, controls, materials handling, and equipment interface engineering.

Environmental issues were a significant challenge to overcome on this project. Evergreen provided all the consulting services to complete the environmental permits. Several operating plants were visited, including state-of-the-art facilities in Canada, Germany, and Italy, to resolve final equipment selection issues.

Other items of interest:

- Location on a gently sloping hillside, requiring significant civil engineering
- State-of-the-art air emission abatement equipment, including high-efficiency cyclones, fabric filters and very high-efficiency cartridge filter, regenerative thermal oxidizer (RTO), low NO_x burners and rotary bed filters
- PLC controlled, fiberoptic ethernet data highway, MMI control screen, and computer trending and printing capability
- Plant utilizes existing furnish storage area, which was expanded, and three 25-unit silos added for in-line storage
- Complete aerated propane back-up system
- Steam heat exchanger for dryer heat
- Flash tube dryer
- New 50,000 PPH boiler plant



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