

CHIP THICKNESS UNIFORMITY

CLIENT: Weyerhaeuser Company
LOCATION: Springfield, Oregon

This project consisted of a new 150 BDT per hour chip screening facility using a proprietary process called "PST". The process receives unscreened chips of three segregated species and blends them according to a recipe on a measured bone dry basis to feed the Kamyr and batch digesters. The main purpose of the thickness screening is to improve pulp uniformity and reduce chemical consumption at the digesters by feeding a uniform chip size.

The project included revamping the storage silo feeders, adding belt scales, belt moisture detectors, magnets, metal detectors, a scalping screen, feeders, gyratory screens, disc thickness screens, fines screen, air density separators, slicers, and the conveyors necessary to complete the process. The system has three lines and is controlled by PLC's with graphic display terminals for the operator.

The following engineering services were provided by Evergreen:

- ▶ Development of the general arrangement and flow drawings.
- ▶ Evaluation of alternative arrangements using physical and computer models for comparative estimates.
- ▶ Preliminary engineering and selection of the most viable alternatives. Evergreen also prepared layouts, elevations, P & ID drawings; scope documents, equipment lists, and a detailed class 10 capital estimate at Weyerhaeuser's appropriation request.
- ▶ All detailed design drawings including demolition, site work, drainage, foundations, fire protection, four level screen building, various conveyors, power distribution, lighting, and controls.
- ▶ All technical specification documents for bidders on major equipment and installation bids.
- ▶ Assisted Weyerhaeuser in the selection of major vendor equipment and worked with purchasing in the procurement and expediting of equipment, fabrication, and installation contracts.
- ▶ Field engineering including inspection, start-up assistance, operator and maintenance personnel training.



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