# CHIP THICKNESS UNIFORMITY

PROJECT PROFILE

**CLIENT:** **Mead Paper Company (now NewPage Corporation)**
**LOCATION:** **Escanaba, Michigan**

The scope of this project was to provide a purchased chips truck dump and a chip uniformity system. The mill drum debarks and chips 90% of their wood, which is delivered and metered, with the purchase chips to the new screen room at a maximum rate of 242 BDT per hour. The mill uses both hardwood and softwood chips, which are handled separately throughout the system. The screening process uses a gyratory, disc, and slicer system. The screen facility is protected from tramp material by magnets, scalping disc screens, and air density separator systems. The processed chips are weighed and conveyed back to existing outside storage piles prior to reclaiming to the digesters. All operations are PLC controlled.

Note: For this coated paper mill, no plastics (UHMW, etc.) were allowed to contact the chip flow.

SCOPE OF ENGINEERING SERVICES PROVIDED TO MEAD PAPER COMPANY

I. Preliminary Engineering

a. Developed several alternative layouts based on owner's site and process criteria and Evergreen's experience.

b. Evaluated layouts using flow sheets, study models, equipment lists, and comparative estimates.

c. Evergreen/owner team selected most viable alternate and Evergreen developed flow sheets, layouts, sections, equipment lists, and P&IDs to develop a Class 20 estimate and scope of work at the owner's appropriation request.

II. Detailed Engineering

a. Provided fast track engineering including all mechanical, civil, structural, electrical, and control design (PLC).

b. Wrote technical and boilerplate specifications for all purchased equipment, fabrication, and installation services. Contracts written for lump sum and unit prices depending on activity.

c. Assisted owner in selection of all vendor equipment and worked with owner's purchasing department in procuring all equipment, fabrication, and labor required for the project.

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ENGINEERING SCOPE: Chip Uniformity Project Preliminary Engineering and Detailed Engineering

Capital estimate
Demolition
Site preparation
- Piling
- Grading, paving, and drainage
- Fire protection

Chip pile storage and reclaim
Truck dump
Whole log chippers
Chip conveying
Screen room structure
Architectural
Chip screening (4-line system)
Chip sizing
Selection of equipment
Electrical power distribution control (PLC)
Field engineering