



Brightwater
ENGINEERING

PROJECT REPORT

1500m³ Biomass Fuel Storage Bunker

Nelson Pine Industries Ltd
Richmond, Nelson, New Zealand
2001



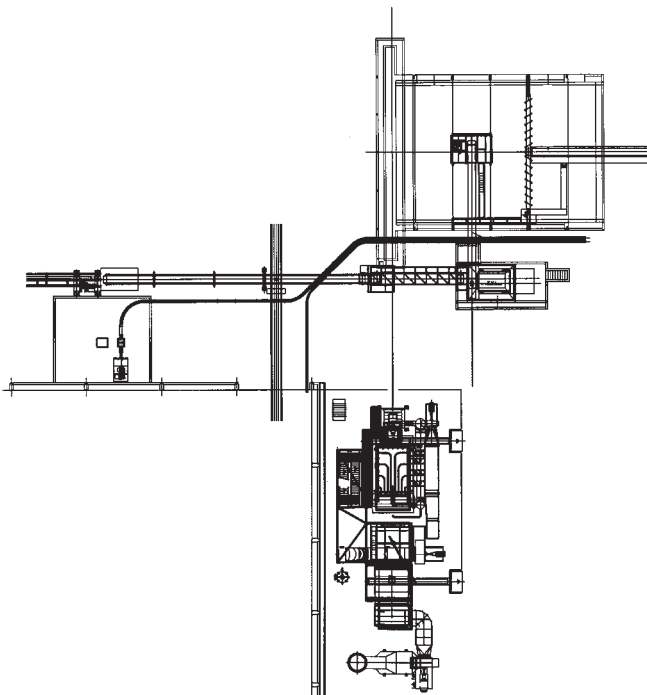
The Situation

Nelson Pine Industries Ltd is the largest MDF plant in the World. A major expansion to include a Laminated Veneer Lumber Plant (LVL) on the same site in 2001 required an additional 20 MW Easteel Energy Plant and additional fuel storage.

The Solution

Brightwater Engineers designed, built and commissioned a 1500m³ capacity Saxlund International push floor bunker. Fully automated, the bunker feeds the 20 MW Easteel Energy Plant with wood waste fuel at a rate of up to 50 m³ per hour. The bunker is designed to receive fuel from three conveyor streams; trough belt conveyor, Continental En Masse Conveyor and pneumatic blow line, as well as being accessible for wheeled loaders. A contents levelling system has been installed to maximize filling capacity.

The installation also includes a hogging unit to reduce LVL production waste which is then conveyed to the bunker via the Continental En Masse conveyor.



The Benefits

- Accurate and controlled discharge
- Weather and dust proof storage and discharge of wood waste fuel
- No contamination from site debris
- Fully automatic, reducing on-site labour and mobile machinery
- Low maintenance componentry
- Robust construction with concrete floors and precast concrete wall panels
- Turnkey construction - design, supply, build and commission

The Specifications

Material Wood Waste Fuel

Density	350 kg/m ³
Method of delivery	Overhead trough belt conveyor, Pneumatic blow line, Continental En masse conveyor & wheeled loader
Bunker storage cap	1,500m ³
Rate of discharge	50m ³ /hour
Discharge conveyor	“Special twin” drag chain
Bunker fill height	6.0m - 8.0m maximum



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