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## **WOODROOM - LOG & BARK HANDLING**

- C Board Press Steam Study
- C Woodroom Operations
- C Chip Reclaim, Unloading & Handling
- C Woodwaste Handling
- C Log & Bark Conveyors
- C Conveyor & Gallery Design
- C Hog Fuel Handling
- C Log Sorter & Washwater Systems
- C Hydraulic Systems
- C PLC Automation Controls

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## **WOODROOM OPERATIONS**

- C Board Press Steam Study
- C Capacity Study and Modifications
- C Effluent Weir Installation
- C Engineering Assistance - Woodroom Optimization
- C Investigate Bark Handling Problems
- C Hog Fuel Metering Bin Trials & Redesign
- C Log Dump Gate Operation Investigation
- C Major Woodroom Modifications for Simultaneous Processing of two species
- C Mill Effluent Monitoring System
- C pH Control System for No. 1 Woodroom
- C Rail Tie Shredding Feasibility Study
- C Sawdust Feeder Feasibility Study
- C Steam System Evaluation
- C Surge Bin Flow Analysis & Modification Design
- C Transformer/Power Inspection & Report

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## **DEBARKING SYSTEMS**

- C Debarking Drum Installations
- C Rotary Debarking Studies
- C Debarking Drum Stave Capping
- C East Drum Slots Modifications
- C Kone Log Sorter Installation
- C Log Sorter Installation
- C Slasher Installation
- C Slasher Deck Modifications
- C Wood Room Slasher Upgrade for Auto Loading Pockets

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## **CHIP RECLAIM, UNLOADING & HANDLING**

- C Chip Bin Modifications For Dust Control
- C Chip Bypass System & Chute Modifications
- C Chip Bin Live Bottom Bin Screws (Willow Creek Industries)
- C Chip Reclaim & Slasher Infeed Modifications
- C Chip Yard Conveyor System Galleries (Coastal Steel)
- C Chip Stocking Out and Reclaim System
- C Secondary Cyclones for Chip Delivery System
- C Softwood Chip Reclaim System
- C Thickness Screen Conveyor Galleries (Coastal Steel)
- C Truck Dumper and Chip Pneumatic Conveying System
- C Ontario Hydro Consultant Audit - Chip Handling Facility
- C Purchased Chip Storage Study

## **WOODWASTE HANDLING**

- C Grit Conveyor Revisions
- C Wood Refuse Pneumatic Conveying Investigation
- C Wood Waste Handling System
- C Wood Refuse Firing Study
- C Groundwood Autoloading Feed Conveyor

## **LOG/ CHIP/ BARK CONVEYORS**

- C Conveyor Modifications and Automation
- C Hardwood Chip FIFO Storage & Reclaim System Study
- C Hardwood Chip Truck & Rail Unloading Facility Study
- C Hog Discharge Conveyor & Metering Screws Modifications
- C Hog Feeder Conveyor Modifications
- C Log Conveyor Modifications
- C No. 3 Shortwood Conveyor Rebuild
- C Reclaim Conveyor Relocation
- C Stud Mill Chip Return Conveyor
- C Surge Bin Discharge Conveyor (Coastal Steel)
- C Degrit Transfer Conveyor

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## **CONVEYOR AND GALLERY DESIGN**

- C Bark Handling - Pneumatic Conveying Modification

## **HOG FUEL HANDLING**

- C Aspen Bark Processing, Hog Replacement
- C Hammermill Hog Replacement
- C Hogged Bark Conveying and Screening System
- C Hogged Bark Surge Bin - Structural Evaluation

## **WASH WATER SYSTEMS**

- C Deicing Deck Header Design
- C Deicing Deck Modifications
- C West Deicing Deck Covers & Wash Water
- C Spray & Cover Log Pile Investigation
- C De-icing Deck Washwater Piping
- C New Hot Pond Steamline Design

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## **PLC AUTOMATION CONTROLS**

- C Bark Handling System Electrical Design
- C Electrical Modernization
- C Grinder Peak Load Controls Installation
- C Groundwood Autoloading Feed Conveyor
- C Kone Wood Automatic Charging System Controls

## **WOOD & BARK HANDLING PROJECTS**

### **Potlatch - Cloquet**

#### **Woodroom Modernization**

- C Converted existing "dry" woodroom into "wet" woodroom
- C Designed installation of the following items: infeed system; de-icing deck; debarking drum; outfeed system; log washing system; stone traps; water degritting/cleaning system.
- C The design included all aspects of the architectural, civil, structural, mechanical, piping and electrical design.

#### **Chip Stack-Out/Reclaim System**

- C Extended chip stack-out system including design of the elevated (80' above grade) gallery and bents, and new or extensions to existing traversing and stationary conveyors.
- C Extended chip reclaim system including design of reclaim tunnel, chip reclaim walls and installation on 18m long 600 hp reclaim screw.
- C The design included all aspects of the architectural, civil, structural, mechanical, piping, and electrical design.

### **Abitibi-Consolidated - Kenora**

- C Investigate Bark Handling Problems
- C Engineering Assistance - Woodroom Optimization
- C Purchased Chip Storage Study
- C Woodroom De-icing Deck Washwater Piping
- C Mill Effluent Monitoring System
- C Woodroom Deicing Deck Header Design
- C Log Dump Gate Operation Investigation
- C Log Sorter Installation
- C Spray & Cover Log Pile Investigation
- C East Drum Slots Modifications
- C Slasher Deck Modifications
- C No. 3 Shortwood Conveyor Rebuild
- C Woodroom - East & West Drum Stave Capping
- C Woodroom - Deicing Deck Modifications
- C West Deicing Deck Covers & Wash Water
- C Hog Discharge Conveyor & Metering Screws Modifications
- C Wood Room Slasher Upgrade for Auto Loading Pockets
- C Chip Bin Modifications For Dust Control
- C Hammermill Hog Replacement
- C Groundwood Autoloading Feed Conveyor
- C Sawdust Feeder Feasibility Study

### Minnesota Power - Duluth

- C Hog Fuel Metering Bin Trials & Redesign
- C Rail Tie Shredding Feasibility Study

### James River - Marathon

- C Ontario Hydro Energy Audit - Chip Handling Facility
- C Secondary Cyclones for Chip Delivery System

### Kimberly-Clark Forest Products - Terrace Bay

- C Major Woodroom Modifications for Simultaneous Processing of two species
- C Softwood Chip Reclaim System
- C Hardwood Chip FIFO Storage & Reclaim System Study
- C Woodroom Log Conveyor Modifications
- C Hardwood Chip Truck & Rail Unloading Facility Study
- C Hogged Bark Surge Bin - Structural Evaluation
- C Woodyard Chip Stocking Out and Reclaim System
- C Stud Mill Chip Return Conveyor
- C Hogged Bark Conveying and Screening System
- C Woodroom Grit Conveyor Revisions
- C Woodroom Infeed - Capacity Study and Modifications
- C Chip Bypass System & Chute Modifications
- C Truck Dumper and Chip Pneumatic Conveying System

### Weldwood - Longlac

- C Natural Gas Burner Certification
- C Wood Refuse Pneumatic Conveying Investigation
- C Steam System Evaluation
- C Transformer/Power Inspection & Report
- C New Hot Pond Steamline Design
- C Board Press Steam Study

### Abitibi-Consolidated - Fort Frances

- C Surge Bin Flow Analysis & Modification Design
- C Bark Handling - Pneumatic Conveying Modification
- C pH Control System for No. 1 Woodroom

### Domtar Packaging - Red Rock

- C Chip Reclaim & Slasher Infeed Modifications
- C Ontario Hydro Consultant Audit - Chip Handling Facility

**Abitibi Price - Thunder Bay Division**

- C Woodroom Improvements
- C Woodroom Conveyor Automation
- C Woodroom Slasher Installation

**Abitibi Price - Fort William Division**

- C Woodroom Conveyor Modifications
- C Reclaim Conveyor Relocation
- C Effluent Weir Installation
- C Woodroom Electrical Modernization
- C Kone Log Sorter Installation
- C Kone Wood Automatic Charging System Controls
- C Degrit Transfer Conveyor
- C Bark Handling System Electrical Design
- C Grinder Peak Load Controls Installation

**St. Marys Paper - Sault Ste. Marie**

- C Wood Refuse Firing Study
- C No. 2 Ring Debarker Linden Feeder Installation

**Spruce Falls Power & Paper - Kapuskasing**

- C Wood Waste Handling System
- C Hog Feeder Conveyor Modifications
- C Aspen Bark Processing, Hog Replacement

**Weyerhaeuser Canada Ltd. - Dryden**

- C Thickness Screen Conveyor Galleries(Coastal Steel)
- C Chip Bin Live Bottom Bin Screws (Willow Creek Industries)

**Bowater - Thunder Bay**

- C Surge Bin Discharge Conveyor (Coastal Steel)
- C Chip Yard Conveyor System Galleries (Coastal Steel)