

Stacker/Reclaimer Control Systems

Introduction

Many industrial processes require storage of bulk material and machines that facilitate storage. Stackers and Reclaimers are the answer to that requirement. Stackers receive material from other stockyard equipment via a conveyor network and deposit it in a bunker or pile. Reclaimers remove that same material and deliver it to other stockyard equipment.

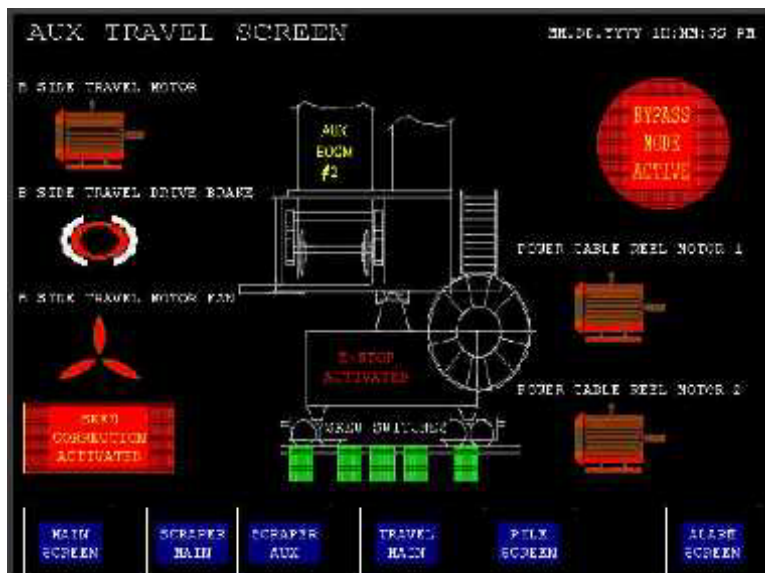
Our client is an international leader in the delivery and retrofit of such large systems.



Services

MAAK has been involved in a number of projects providing services and controls for Stacker/Reclaimer systems, including:

- Review and assess system requirements
- Identify pertinent issues to be addressed by the new design
- Investigate new control technologies that enhance system reliability and optimize cost savings
- Develop system concepts and architectures
- Design complete control systems and operator interfaces
- Provide CSA/UL approved control equipment



Technologies

The nature of the harsh environment that Stackers/Reclaimers operate in require a high degree of reliability and safety. Control systems include:

- Fail safe features, including controls for collision avoidance, travel drive skew limiting, and missing bucket detection
- Managing the stacking pile shape and reclaiming cut

profile, including automatic algorithms to control boom luffing, slew, and travel drive positioning with minimal operator intervention required

- Remote I/O racks on mobile equipment
- Interlocking with supervisory systems and other distant stockyard equipment
- Wireless and fibre optic networks