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## Hot Stuff! Heating Up Reliability at AltaSteel

### The Situation

AltaSteel is a scrap-based mini-mill operation based in Edmonton, Alberta, Canada. The plant has both melting and casting facilities and a production capability of over 315,000 tons of steel billet annually. AltaSteel makes a variety of round, flat, and square bar shapes for use by downstream remanufactures in the mining, oil and gas, automotive, construction, agriculture, and OEM industries. AltaSteel is also a world leader in the manufacture of heat-treated grinding rod, which it markets directly to mining operations around the globe. AltaSteel employs over 350 people, is one of the largest employers in the Alberta capital region, and has revenues in excess of \$200 Million per year.

In September 2005 AltaSteel was looking for a CMMS (Computerized Maintenance Management System) and what they discovered was that an electronic database was not the answer to their problems. They were experiencing a great deal of unscheduled downtime and equipment failures. A PMI (Proactive Maintenance Initiative) Team was established to address these issues. Life Cycle Engineering (LCE) met with the PMI Team and the VP of Operations. That meeting led to a two-day Reliability Excellence Workshop for the AltaSteel Management Team.

After the workshop the management agreed that LCE's Reliability Excellence approach was the correct path forward. The implementation was put on hold, however, due to uncertainty regarding the future ownership of the company and a history of poor relations between management and the union. In late 2006 the Scaw Metals Group purchased AltaSteel and the capital upgrade project was completed. The PMI Team contracted a third party consultant to execute a maintenance assessment. In January 2007 LCE was contacted and awarded a contract to assist AltaSteel with a Reliability Excellence implementation. The initiative also included assisting the site in preparing the specification for a new CMMS/EAM software system.

The site was reactive and lacked a proactive culture, a business system (CMMS/EAM), defined business practices for maintenance planning/scheduling and maintenance spare parts strategy, and proper PM/PdM policies and practices for the assets.

### The Approach

The AltaSteel site, led and coached by a diverse LCE team, began the cultural and procedural transformation from a reactive organization to a proactive team working toward continuous improvement. A PMI Steering Committee was formed to provide leadership throughout the implementation. Focus teams were created to focus on improving processes in Work Management, Materials Management and Reliability Engineering. All teams began the implementation with intense training and focus in change management, learning what to expect and how to manage the cultural issues associated with the significant changes in business practices that would be implemented in coming months.

During the implementation period, at least 80% of the total work force was trained in reliability best practices and change management strategy. Steering committee members engaged the work force directly through meetings and training sessions to show commitment and support to the Rx implementation, and to gain support from every person in the site.



Focus teams developed new and/or improved processes to support a proactive culture, and established key metrics, including OEE, to help measure success of the implementation specifically, and the business in general.

## The Results

Official implementation of new processes and practices occurred in January 2008 in the selected pilot area, the Finishing Mill. The overall success of this implementation is reflected in the benefits that have been realized, which include:

### Soft Benefits:

- A universal awareness of opportunity and urgency to implement change
- Improved relations between management and union
- Increasing overall acceptance of change
- Union work force voted to support the improvement initiative
- Collaboration and cooperation at all levels
- Workforce trained on maintenance and reliability best practices
- Increased involvement of the work force in asset management decisions
- Work force is actively involved in knowledge transfer

### Hard Benefits:

- Defined processes, responsibilities, and a changed organizational structure to support proactive practices
- System for capturing and managing work
- Best practices being actively applied to support operations
- Asset management software is ready to commission
- Stores facilities have been improved and expanded
- More than USD \$2.5 million in spare parts have been transferred into controlled stores locations
- OEE has improved approximately five points due to increase in incremental capacity and, in turn, incremental margin gained through improvements made in OEE net costs related to the project.
- The company projects a six point per year increase in OEE over the next eight years.

## The Success Factors

- Senior management commitment
- The Union Executive Committee and individual Bargaining Unit members were involved in the development and implementation of this major strategic initiative.
- Communications, communications, communications! The communication plan included multiple types of communication tools that were conducted at set intervals throughout the Reliability Excellence implementation.

### About Life Cycle Engineering

As a leading maintenance and reliability solution provider for over 30 years, Life Cycle Engineering (LCE) ([www.LCE.com](http://www.LCE.com)) helps public and private enterprise gain increased profitability through greater capacity, lower operational costs, and decreased downtime. By combining a range of industry experts, unique processes with proven success, and a comprehensive array of educational courses, LCE has gained reputable status as the premier provider of innovative and successfully executed reliability and maintenance solutions worldwide.

