IVARA
WORK SMART

Case Study

CATALYST PAPER ADOPTS IVARA ASSET RELIABILITY PROCESS AS THE STRATEGY TO IMPROVE MILL PERFORMANCE BY UP TO 3% IN PAPER MACHINE EFFICIENCY

Catalyst Paper is a leading producer of mechanical printing papers in North America. The company also produces de-inked newsprint, market kraft pulp and containerboard. With five mills employing approximately 3,800 people at sites within 100 miles of each other on the south coast of British Columbia, Catalyst Paper has a combined annual capacity of 2.5 million tonnes of product.

The Situation

Today's Canadian pulp and paper industry is facing increased challenges including currency fluctuations and heightened global competition. Already an acknowledged leader in the pulp and paper business, Catalyst Paper resolved to actively seek business improvement opportunities that would allow the company to maintain both profitability and industry leadership.

With billions invested in its four paper mills, improving on performance would obviously be key to Catalyst's goal of long term profitability. The company decided to make changes that would improve the mills' reliability and performance, and produce better sustained financial results.

Partnering with Ivara, Catalyst Paper embarked on a reliability improvement initiative. The goal was to increase the effectiveness of the maintenance and operations functions in optimizing asset reliability to drive a capacity increase of as much as 3%, as measured through paper machine efficiency.

The Challenge

In order to achieve its goals, Catalyst needed to address several challenges. The first challenge was to ensure collaboration among employees to achieve the standardization of the asset reliability process across the four mills. Standardization of business processes and total employee involvement are two important core values and strategic approaches adopted by Catalyst over the last several years.

Managing change and securing internal support for the project were the second and third challenges for Catalyst. The transition to a reliability-based culture would affect the way their employees would work. Like many companies, Catalyst had previously launched programs to improve plant performance, but none of these projects fully realized the promised benefits. This *'flavour of the month'* history left plant personnel and management skeptical about backing new projects.

The fourth challenge was to retain equipment knowledge that could soon be lost as experienced operations and maintenance workers retire. The reliability initiative would need to capture this valuable knowledge in a formal process and ensure the sustainability of the new reliability program.

In addition, Catalyst needed to address the internal perception that asset reliability could be achieved by implementing technology alone. The transition of moving to a reliability-based culture would involve more than a quick technology fix; it would involve a change in the way employees work – maintenance and operations alike. Building a people oriented solution and carefully managing this change at all levels were key concerns.

The Solution

Catalyst Paper selected the Ivara Reliability Solution as its corporate approach to improve mill performance. The Ivara solution implements improved asset reliability – one system at a time. The end result is a proactive asset reliability process supported by advanced reliability practices and enabling technology. The Ivara Work Smart methodology aligned well with Catalyst's core value of involvement and addressed the need for effective change management.

The process began with a two-day strategy workshop. It brought together more than 130 employees from all levels of management, engineering, maintenance and operations, including both unionized and non-unionized employees. The workshop was designed to allow all interest groups to contribute ideas about improving reliability and agree on a single strategy. The workshop was successful in achieving a consensus on the strategy and cementing the vision and direction the reliability initiative would take. In fact, it also demonstrated that previous investments to improve plant operations and maintenance could be better leveraged under Ivara's proactive business process for reliability.

With a consensus on the strategy, Catalyst assembled a multi-mill reliability team to perform a detailed reliability assessment and business case at each of the mills, and then create the financial impact plan. The Port Alberni mill was selected as the first facility to adopt the new strategy. The financial impact plan laid out the roadmap to achieve an increase of as much as 3% in paper machine efficiency.

A core team of Port Alberni employees was established. The core team was a dedicated cross-section of five employees from maintenance, operations and engineering. With participation from all four pulp and paper mills, Ivara facilitated workshops to map out the asset reliability process, and determine roles and responsibilities of all functions involved in the process.

The group was trained and coached by Ivara throughout the development of the asset reliability process. Ivara facilitated the prioritization of assets on a system-by-system basis according to consequence and relative risk to the business. In addition, Ivara helped the core team develop asset reliability programs using Ivara's work identification practice, Maintenance Task Analysis. Ivara also worked with trades and operators to ensure the new reliability process is implemented and sustained within each area. Both leading and lagging metrics were leveraged to help keep productivity and performance on target.

The Result

Ivara's holistic approach to asset reliability is enabling Catalyst Paper to adjust and augment existing processes, practices and technologies to optimize reliability and performance of plant assets. Ensuring that the right work is being done on the right equipment at the right time, Catalyst Paper is moving to the next level in operational effectiveness.

As the initiative progresses, the benefits of Ivara's Asset Reliability Process are already being realized:

- The collaborative nature of the Ivara Asset Reliability process has created strong internal support for the initiative – a critical success factor.
- Catalyst Paper discovered extensive equipment knowledge among its employees and Ivara is helping to transform this knowledge into business change.
- Maintenance and operations are working together to develop and implement the new reliability process – a level of collaboration that had not existed on a consistent basis before.
- Improving asset reliability is no longer viewed solely as a maintenance department issue, but rather a shared responsibility between maintenance, operations and engineering. An asset care philosophy has empowered plant employees to work together to meet goals.
- A single comprehensive reliability business process has been developed and agreed upon for use in all four mills, supporting Catalyst's desire to standardize business processes.
- Ivara's solution is ensuring that the experience and knowledge of equipment experts is captured and not lost upon their retirement.
- The Ivara-led strategy sessions, training workshops and mentoring have ensured that the people affected by the new reliability process are involved and therefore supporting, and adhering to the new process.
- Ivara's approach to managing change aligns precisely with Catalyst Paper's expectations, and will be adopted by Catalyst Paper as its change management process for future initiatives.

Conclusion

As the implementation of the Ivara solution continues, Catalyst is laying the groundwork for a proactive approach to asset reliability. At the Port Alberni mill alone, increased capacity and cost savings totaling $1.5 million is anticipated in year one and expected to reach $7.1 million per year after the three year ramp up.

The entire organization has embraced the Ivara Asset Reliability Process as the right strategy to improve mill performance and strengthen Catalyst Paper's competitive position.