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## Uranium Mill Continues to Set the Pace with Operational Reliability

### The Situation

A large uranium mill, one of the industry's leading producers, wanted to implement operational reliability best practices to maintain current capability and prepare for a future increase in production. Safety, employee engagement, efficiency, and increased production were the business objectives. After identifying potential for improvement in the mill's maintenance processes and operational practices, management achieved measureable improvements, and reduced reactivity over several years. With the improvements in place, the mill now wanted to position itself to meet future business needs.

### The Challenges

With their strategic plan projecting increased demand, the mill wanted to accelerate improvements and fully implement best practices. The mill partnered with Life Cycle Engineering (LCE) for a comprehensive assessment to identify areas of opportunity. The assessment confirmed the mill had made improvements over time; however, it was still operating reactively at times, with some best practice gaps remaining. The mill's leadership team knew an investment in operational reliability was a strategic step needed to prepare itself for an increase in production. The mill embarked on a focused and accelerated journey to meet their business requirements while continuing to improve safety and work quality of life for employees.

### The Approach

The mill developed their business case using A3 reporting tools. LCE worked closely with the mill to develop a project plan and schedule. Teams of mill employees developed or revised work processes and methods to establish the foundation of operational reliability. A customized training program for leaders, managers, engineers and technicians ensured the workforce prepared for the major reliability initiative. LCE and the site leadership team had a robust change management plan, incorporating elements of the Prosci® ADKAR® change management methodology. In addition to effective project management, the use of change management ensures addressing the "people side" of change. Using this approach, the team was able to determine if individuals had the necessary Awareness, Desire, Knowledge, Ability and Reinforcement to make the change. The structured change management strategy, coupled with visible and engaged leadership, was a critical success factor in implementing operational reliability.

The change management plan included a communication plan, coaching plans, and leadership sponsorship activities for the initiative. The following focus areas were foundational to improving mill performance:

- Work Management
- Materials Management
- Reliability Engineering
- Operations Improvement

## The Results

LCE coached the mill focus teams on operational reliability best practices during the first nine months. During this period, the focus teams developed and received leadership approval for standard work processes. The teams developed their training materials and prepared for implementation. The mill team took the reins, leading the implementation with leadership support. During this period, individual project business case A3 reports were developed and approved. Totalling more than \$5M over five years, A3 reporting identified the following benefits:

- Improved work management business processes, reduced contracted services (\$2.7M)
- Standardization of materials management process based on industry best practices reduced MRO inventory (\$1M), carrying cost, (\$0.15M) and freight costs (\$0.35MM)
- Increased output of the mill with sustained levels
- An increasing level of proactive maintenance and execution of PMs
- Improved employee engagement and quality of work life for employees

Operational reliability efforts continue, positioning the mill to meet future production demand. Employees have a predictable working environment. As the mill continues the effort to advance operational reliability excellence, the employees are working towards a shared vision of what excellence looks like. The mill is achieving the financial benefits of operational reliability.

### **About LCE**

Life Cycle Engineering (LCE) ([www.LCE.com](http://www.LCE.com)) provides consulting, engineering, applied technology and education solutions that deliver lasting results for private industry, the Department of Defense and other government organizations. The quality, expertise and dedication of our employees enable Life Cycle Engineering to serve as a trusted resource that helps people and organizations to achieve their full potential. Founded in 1976, LCE is headquartered in Charleston, South Carolina with offices across North America and experience around the globe.

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