

Reliability Excellence Transforms the Production of a Snack Food Manufacturer

In 1998, a snack food manufacturer determined that its domestic capacity was not sufficient to meet market demand for the peak periods around the four summer holidays. The manufacturer's solution was to build four additional plants to augment the output from their 12 existing operating plants. The company's market studies confirmed the shortfall for the summer holidays and both internal and third party, external audits affirmed that they were fully utilizing their installed capacity.

As a means of final confirmation, the company requested a thorough Reliability Excellence evaluation of two of their existing plants. The plants were selected as representative of the two designs utilized to produce deep-fried snack foods in their twelve domestic plants. The assessments, founded on the 29 elements of Reliability Excellence, determined that neither plant was effectively utilizing its installed capacity. Specifically, the assessment determined that the six indirect fired plants could improve throughput by 30% to 40% and the six direct-fired could more than double their capacity by adopting and fully implementing Lean powered by Reliability Excellence concepts and methodologies. The improvement could be generated by a combination of tactical and strategic initiatives that would provide a holistic solution to the factors, both physical and cultural, that limited the performance and output of their domestic production plants.

The tactical initiative included a thorough engineering evaluation of the design and installation of the primary production systems and their auxiliary equipment. This output of this series of tasks, performed by LCE reliability engineers, identified a number of design, installation and usage deficiencies that substantially increased the energy usage and extended the cycle time of the snack food production process. Parallel to implementing Reliability Excellence, corrective actions were implemented to systematically eliminate these physical limitations.

The strategic initiative implemented the Reliability Excellence philosophy and processes that would institutionalize stable, consistent work processes that would assure optimum effectiveness and efficiency of all functional groups and individuals within the twelve production facilities. Cross-functional teams, comprised of all stakeholders and lead by an LCE subject matter expert, evaluated all of the existing work processes, identified waste and losses, and created future state processes that were both effective and efficient.

The result of the Reliability Excellence transformation was dramatic and lasting. The tactical initiatives increased the output of the six indirect-fired plants by 38% and the six direct-fired by 110% within one year. Combined with the waste elimination activities, this increase in throughput reduced the cost of goods sold by an average of 14%. These tactical improvements resolved the manufacturer's short-term problem by increasing the output from their installed capacity sufficiently to meet the four summer peak demand periods. This eliminated the need for the four new plants. However, the manufacturer recognized that these tactical changes would not be sustainable without a complete change in the way they performed their day-to-day business. They recognized and acknowledged the critical importance of the Reliability Excellence transformation that completely changed the work culture and created a continuous improvement environment that would assure that short-term gains were sustained and build on them for a productive and profitable future.

About LCE

As a leading maintenance and reliability solution provider for over 30 years, Life Cycle Engineering (LCE) (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.

