

Case Study: Building the Foundation for Continuous Paperboard and Packaging Improvements

Mergers and acquisitions are common in the paperboard and packaging (P&P) industry. These transactions enable companies to grow and expand globally, but also create operational issues as organizations combine different production processes, corporate cultures. P&P companies with standardized production systems have a substantial competitive advantage, since they can rapidly integrate new operations while improving quality, safety, and productivity.

Client Plant: A multibillion-dollar, global P&P manufacturer planned to implement a production system across dozens of plants with varied histories; some had been part of the company for decades, while others were recently acquired. Company leaders hoped that the new system would create sustainable performance improvements, and retained Performance Solutions by Milliken — the operations-excellence consultancy of Milliken & Company — to drive the change.

Performance-Improvement Opportunity: This maker of paperboard, corrugated products, and pulp had already adopted some lean concepts in *some* facilities, but leaders wanted to standardize the company's approach to improvement across the *entire* plant portfolio.

Bobby Reddick, a senior practitioner with Performance Solutions who has worked with clients for a decade, initiated the engagement by hosting the company's senior executives for a tour of Milliken & Company plants. Reddick leverages 20 years of experience at Milliken & Company plants — supervisor, plant production manager, process engineer, maintenance manager — to explain how the Milliken Performance System (MPS) can help clients: "During my time at Milliken, I learned the how to lead improvement in plants, breaking them down into implementation of the MPS pillars within our locations and teaching all floor associates, managers, and executives how to run the system."

After executives saw and were convinced of the power of MPS and how it could be applied in their own facilities, Reddick led a master planning process with the company's senior leadership, including:

1. Identifying the company's current competitive positioning with a SWOT analysis (strengths/weaknesses/opportunities/threats)
2. Crafting a vision of what the company will look like, and how it will perform, in five to 10 years
3. Distilling the assessment and vision into a concise "Y page" document, explaining "why" the company needs to improve
4. Translating the vision into easy-to-understand objectives for quality, cost, delivery, innovation, safety, morale, and environment (QCDISME)
5. Defining key performance indicators (KPIs) by which the company will measure progress
6. Identifying plants for the first phase of the MPS rollout.

"We started to build a relationship with senior leadership," says Reddick, "and laid the foundation for how we would go into plants and establish model areas, along with the timing and logistics of the improvement process. We told them exactly what to expect when Performance Solutions arrived on site."

General managers from selected locations also participated in master planning at the corporate level, adds Reddick. "So they became familiar with MPS, and were confident that they had corporate support." At the plants, Performance Solutions practitioners conducted a zero-loss analysis, identifying potential plant-level savings by eliminating *all* problems (downtime, quality rejects, injuries, time and resource wastes) and applying a dollar figure to each. The results of this analysis offered directional guidance at first, and then — as improvement progressed — became realistic targets.

In each plant, improvement began on a model line or machine that was highly visible, critical to overall plant performance, and in need of improvement (i.e., high potential to exhibit the zero-loss process). Improvements in the model addressed the two MPS foundational elements (strategic clarify and safety, which Milliken deems necessary for any type of improvement to occur) and the nine MPS pillars (e.g., production control, 5S, continuous skills development, daily team maintenance) until the model was moved closer to zero-loss targets.

"We set targets and goals for the model, and then implemented the pillars," says Reddick. "While working on the pillars, they were also learning the methodology. And after only 10 months, they started to see improvements." Once the model area was transformed, MPS

was replicated elsewhere: first with 50 percent of each plant's A-ranked lines and equipment, and then among all other A-ranked lines and equipment. During replication, the plants developed their own internal practitioners and capabilities, and, in doing so, developed and managed MPS consistent with the own company's culture.

Powerful Improvements: Initial improvements to model areas resulted in modest gains of 5 percent to 10 percent among most metrics. But as the MPS implementation expanded over years two and three, executives reported dramatic improvements, even as Performance Solutions involvement decreased:

- Safety improved, in some cases eliminating all incidents
- Rework was reduced by 50 percent
- Waste shrunk by 80 percent
- Equipment changeover times were decreased by as much as 60 percent.

Future Success: The plants that first implemented MPS at the company continue to improve. In addition, the company has implemented MPS throughout other plants and divisions (using the company's own practitioners), creating a sustainable system of operational excellence. "Improvement' isn't something this company's employees do in their *spare* time," says Reddick. "Improvement is the work they do *all* the time. It's not MPS anymore. It's *their* operating system — and their path to improved safety, quality, and productivity."

Key Contacts:

- Phil McIntyre, Managing Director, Business Development & Marketing, Performance Solutions by Milliken, 864-503-1780, Phil.McIntyre@Milliken.com.
- Bobby Reddick, Senior Practitioner, Performance Solutions by Milliken, 706-302-6324, Bobby.Reddick@Milliken.com.

Put Performance Solutions to Work for You: Performance Solutions by Milliken® works side by side with companies interested in strengthening and improving their operations. The strategic approach that made Milliken one of the safest, most efficient manufacturers in the world is the backbone of the consulting and educational services that Performance Solutions offers worldwide. Performance Solutions by Milliken practitioners are serving over 350 operations, in 23 countries, and covering a wide variety of industries. Visit www.PerformanceSolutionsByMilliken.com to learn more about Performance Solutions' consulting and education services.