

Case Study: Creating a Nimble, Responsive Chemical Company

Chemical companies typically operate large, automated facilities, leading some workers to view their roles as production caretakers rather than creative problem solvers. Yet as customers look for increased value through innovation and highly customized products, a lack of employee engagement can put companies at a competitive disadvantage.

Performance Solutions by Milliken, the consulting division of Milliken & Company, helps chemical executives increase operational agility via a performance system that deploys best practices, engages employees in meaningful process improvement, and boosts the bottom line.

Client: This multibillion-dollar, global company contracted with Performance Solutions 18 months ago to work with a division that accounts for about one-third of its total revenues. The engagement began with a four-person Performance Solutions practitioner team, which divided its time between two plants:

- A union facility that manufactures ethanol and other products (e.g., gluten, germ, sweeteners) from raw corn, staffed by approximately 300 employees and 200 contractors.
- A non-union bio-products plant that derives xanthan, lysine, and other substances from converted corn products, staffed by approximately 400 employees and 300 contractors.

Performance-Improvement Opportunity: The company's corn division leadership, including the global vice president of manufacturing, sought to deploy an operational excellence foundation to improve production and enhance responsiveness to new and changing customer demands. They came to Performance Solutions headquarters in Spartanburg, SC, and participated in the accommodate, educate, and demonstrate (AED) program, where they met Performance Solutions leadership; learned about the Milliken Performance System (MPS) and its pillars (e.g., daily management system, continuous skills development, 5S, daily team maintenance); and toured high-performance Milliken facilities.

The AED experience culminated in an agreement that started with master planning, during which company leaders and Performance Solutions practitioners identified “wins” the corn division needed to achieve. “These included soft issues,” says Jeff Rosenlund, senior practitioner, “such as better employee morale, better engagement of the workforce, and ownership of processes by hourly workers. We also determined financial goals and measures that would impact the division’s bottom line — primarily manufacturing cost reductions.”

Working with Performance Solutions Practitioners: Performance Solutions practitioners have been on-site at the plants for roughly seven months. The plants have operational advantages due to their vast processing capacities, says Rosenlund, but the customers they serve increasingly demand specialty products and customization; the sheer size of the facilities often limits their flexibility. Performance Solutions practitioners have worked to identify production processes and best practices that can enhance agility — i.e., equipment reliability, maintenance of equipment, employee and job-transition training, and daily engagement of the hourly workforce in the day-to-day decision-making process.

“Frontline employees felt very isolated from management when we arrived,” says Rosenlund. “They weren’t in sync with what’s going on in the plants or the company.” Frank discussions about the financial impact of day-to-day decisions can give both managers and front-line workers a deeper understanding of how much their actions matter. In these plants, Performance Solutions practitioners used a three-pronged approach to help employees in becoming creative problem-solvers:

- **Focused improvement projects:** First, practitioners identify specific projects within the plants that can deliver quick wins, working with cross-functional teams to upgrade process improvement capabilities while achieving measurable results.
- **Performance system implementation:** Next, practitioners work with teams to perfect model areas within the plants, educating employees about MPS pillars while offering them opportunities to demonstrate that they have learned how to “run the system” and improve operations. During master planning, Performance Solutions helps division leaders in prioritizing which pillars are most appropriate for their organization, tailoring the system to its unique culture and objectives. “We model the performance system in small areas and demonstrate success so that management, frontline associates, and contractors can learn from that example and expand it to other areas,” says Rosenlund. “That’s how you generate a return on investment from a cultural transformation.”
- **Leadership development:** “We are coaching and developing leaders in two ways,” says Rosenlund. “We want hourly workers to learn how to lead their peers, but we also want managers and executives to learn to become better, more strategic leaders.” The foundation for this growth is the new management system, which gives everyone a consistent operational perspective that aligns with company goals and day-to-day, standardized practices to meet those goals.

Powerful Improvements: Through seven months of improvement projects and performance system implementation, each plant has achieved approximately \$250,000 in annualized savings — and other projects nearing completion will significantly boost those totals. Operational improvements in the model areas include a 75 percent decrease in one class of breakdowns, and a reduction in scrap of 50 percent. Employees also prefer to work in model areas because the equipment is now easier to operate, with better working conditions. For example, one plant completely eliminated liquid leaks on a model machine; the MPS pillar practices used to achieve that goal will now be applied to 50 similar machines.

“There has been a cultural shift as well,” says Rosenlund. “Different people are stepping up as leaders, people who weren’t selected early on. They’ve taken on projects and demonstrated leadership skills that the company didn’t realize they have. If you give people opportunities to shine, they will.”

Future Success: “We currently have a two-year agreement for work at these two plants,” says Rosenlund, “But there’s been enough progress that we’re now going to complete additional assessments at five other plants, with a goal of introducing the program to two more plants later this year.” The company is also interested in deploying Performance Solutions into another division next year.


Rosenlund says that Performance Solutions is currently working with leaders to help the organization “live and improve without us.” As in every Performance Solutions engagement, company staff are being developed as practitioners, so the organization can expand the performance system as necessary. “Each of the plants has a person designated as its performance excellence leader,” says Rosenlund. “They’re highly respected in their plants, and they’re getting great hands-on experience by working with us. This is crucial in transitioning the company to a new way of doing things — getting them to realize that they can have perfect processes. They learn that they don’t have to accept the same old inefficiencies; they can expect excellence.”

Key Contacts:

- Phil McIntyre, Managing Director, Business Development & Marketing, Performance Solutions by Milliken, 864-503-1359, Phil.McIntyre@Milliken.com.
- Jeff Rosenlund, Senior Practitioner, Performance Solutions by Milliken, 864-415-4564, Jeff.Rosenlund@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.



920 Milliken Rd 
Spartanburg, SC 29303

(855) 462-5630 

PerformanceSolutionsbyMilliken.com 

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.