



eter E.

arlson & Associates

Lessons Learned from Sheldon Road

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Last year, the Sheldon Road plant set out to make step-function improvements in performance by implementing lean. However, performance went the other direction, plunging the plant into the red this year for the first time in over a decade. What went wrong?

A number of people have suggested that the plant manager's attempt to reorganize the plant along value streams was responsible. However, I don't believe that was the case. When the new value stream organizational structure was introduced in January of 2002, plant performance had already been deteriorating for a number of months. I believe the dynamics that led to that decline in performance were in place long before the new plant manager ever arrived at the plant.

The Efficiency Trap

Basically, the plant got caught in a bind. Historically, the plant had been able to hit its targets through a dual strategy of finding labor efficiencies and pacifying people on the floor with bribes and deals. But it was getting harder to find efficiencies, and it was getting increasingly difficult and costly to pacify people on the floor.

Moreover, cannibalizing mature operations in search of labor efficiencies was starting to destabilize production. And headcount levels were approaching a critical mass, generating frustration and cynicism in the workforce, which compounded the instability. In short, trying to achieve the plant's escalating cost

reduction objectives in the traditional way was actually adding cost and making it harder to manage the business.

The new plant manager maintained that the way out of this trap was to focus instead on simplifying the flow of material and information along the entire value stream. The management team at Sheldon Road started down this path with the reorganization as the first step, and after several months of planning, they launched the new organizational structure in January 2002.

At the same time, however, they also launched plant-wide campaigns to tighten up on safety, quality, absenteeism, and working bell to bell, one on top of the next. The workforce rebelled and stopped giving the extra effort needed to keep things running smoothly, and in some cases deliberately slowed production. Build to schedule (BTS) fell by 10-20 points on most lines.

Not only did these campaigns further destabilize production, but their interaction with the reorganization created a vicious cycle. The safety crackdown doubled changeover time in injection molding, which reduced molding capacity below levels that were barely sufficient to support assembly operations to begin with. The tripling of the number of new superintendents on the floor, as a result of the reorganization, doubled the number of repair orders at the same time that repair time was increasing due to the safety crackdown. Maintenance became gridlocked.

Meanwhile, as people on the floor became alienated by what they perceived as management attacks on them, they stopped finding ways to work around problems on their lines. The production managers never had an opportunity to get their feet on the ground. They had already been distracted from issues on the floor by all the planning that had gone into the reorganization. Then, as soon as they hit the floor, they were immediately put on the defensive fighting fires and riding out the storm, rather than managing improvements in performance. Performance went into a ditch.

At the same time all this was going on, higher than normal attrition, record levels of absenteeism, and stricter enforcement of the absentee policy caused headcount to drop below a critical mass. The labor pooling that resulted led to more frequent changeovers, which put injection molding over the edge. It also led to quality problems and starved lines in assembly, and increased reliance on premium freight. Performance went into a free fall, and morale plummeted along with it.

Back to Basics

This crisis exposed an even more fundamental weakness in the plant – the lack of basic manufacturing disciplines. As it turns out, the stability that had been present was superficial, maintained primarily by management success in fighting fires and by the creative efforts of people on the floor to work around problems. The fundamental disciplines of managing the business – gathering accurate information about how the operations are performing, responding quickly to breakdowns, analyzing the data to identify high-leverage improvement opportunities, and seizing those opportunities in a disciplined and focused manner – were not in place.

In fact, they hadn't been in place for a long time, having gotten lost in the shuffle of young engineers getting their tickets punched on the floor before heading off to assignments more in line with their career aspirations. They had also been undermined by a laissez-faire work team system that emphasized self-management, rather than a disciplined approach to continuous improvement through standardization and experimentation.

The plant has been clawing its way back for the past several months, focusing on the basics. Quality and delivery have slowly turned around. And morale on the floor is starting to improve as the workforce regains confidence in the ability of the management team to effectively manage the business.

Key Lessons

Looking back on the way things turned out, I see several key lessons for other plants:

- The management team was right that they couldn't make a step-function improvement in performance if the production process was unstable. But they also found that they couldn't achieve real stability without having fundamental disciplines in place. Fighting fires and working around problems could only, at best, preserve the status quo. At worst, as in this case, a reactive approach to managing the business left the plant helpless when faced with a crisis.
- The management team was wrong in thinking that they could make so many changes all at once. There's no question that each of these changes

individually was the right thing to do. The problems came from trying to do them all at once, and particularly in the middle of launching a new organization. The management team alienated the workforce at a time when the engagement of the workforce was critical to restoring stability and streamlining flow across operations.

- The management team got it right that focusing on flow along the entire value stream could pave the way for step-function improvements in performance. But they were never able to get off the traditional labor and overhead path, which was actually contributing to their poor performance and putting them into a bind. Ironically, it was the plant's continuation down this path, rather than their tentative steps toward lean, that ultimately led them into crisis.

I've noticed a tendency to dismiss what happened at Sheldon Road as an aberration – “it could never happen here.” However, I believe exactly the opposite is true. I see the same dynamics that led to the slide in performance at Sheldon Road currently at work in many other plants. Just as Sheldon Road ran into these issues in trying to make a step-function improvement in performance, other plants are likely to hit them as well as they pursue the same goal.