The DuPont Chattanooga Story

When RIF Does Not Mean "Reduction-in-Force"

Our small, twin-engine turbo-prop had flown over Lookout Mountain just prior to descending into the Tennessee River Valley. As we landed at Chattanooga Municipal Airport, it rained the type of summer rain that tries but fails to provide relief to the heat and humidity of the Deep South. I collected my luggage, descended the 20 steps onto the tarmac, and thought about this new assignment.

Background

In the early 1990s, we were asked by Ed Woolard, then CEO of DuPont de Nemours, to undertake a massive improvement program aimed at transforming the 190-year old chemical giant into a progressive, modern enterprise as measured by (1) nimbleness in the competitive marketplace, (2) responsiveness to customer needs, (3) agility in manufacturing operations, (4) advancement of its people, (5) profitable, global growth, and (6) attractive financial returns to shareholders.

The business unit of this assignment was the Nylon division. Wallace Carothers, a DuPont scientist, had invented nylon in 1935. Initial products such as nylon-bristled toothbrushes and nylon stockings drove the first wave of growth for the business. The Second World War drove the second wave with high demand for nylon to be used in vehicle tires, flak jackets, and parachutes. The third wave of growth emerged post-WWII with the booming U.S. population. At this time, DuPont executives decided to build a plant in Chattanooga. Manufacturing operations began in July of 1948.

Exactly 44 years later in 1992, our team stepped onto the 500-acre site to launch the transformation of the facility. The still air sweltered. The smell of burnt plastic stung our nostrils.

The Project

The reception was mixed. Some people truly welcomed outside help, others accepted us as it was the politically correct thing to do, and a fairly large contingent viewed us as doing "the devil's work" (due in part to the top-down directive for culture change). Those that truly welcomed outside help formed the nucleus of what was to become an ever-growing portion of the workforce focused on making performance improvements around the plant.

As we uncovered opportunities for improvement, we discovered there was an enormous amount of pent up demand among the employees for positively changing the business. The employees, however, needed ways to channel their energy to make change happen. They lacked the necessary

tools to start initiatives and then, see things through implementation. Our main thrust in the early stages of the transformation was to provide the tools and the training required to ultimately realize results.

At the time, improvement tools included team building, problem solving, statistical analyses, time-motion studies, root-cause diagrams, work elimination, process reengineering, and many other traditional methods. But we were surprised to learn not all employees had one critical and fundamental tool. And that fundamental tool was the ability to read and write!

Approximately 10% of the 2,000 employees were functionally illiterate. Each person functioned in his job, understood his responsibilities, and knew how to operate his machine as this knowledge was passed to him "by the last guy" who had the same job. Even more startling was that nearly 30% of those who volunteered to participate early in the transformation program fell into the illiterate group. This would not work for the transformation.

We quickly teamed with plant management to launch an adult literacy program for the 10% of the workforce that were illiterate. This served not only as a critical step towards engaging employees in the transformation effort, but also as an opportunity to fill a gap in people's life skills. The benefits included increasing management's ability to engage a higher portion of people in the transformation program, an enhanced stature for the client in the community, and the new readers were enabled to further grow and develop personally.

Results

As a result of the transformation efforts, the Chattanooga facility realized significant benefits. Machine uptime increased total effective capacity as a result of improved preventive maintenance, accelerated product changeovers, and synchronized material moves. Fixed costs decreased from interventions targeted at eliminating unnecessary spending. Manufacturing material costs stepped down through reductions in scrap, rework, and other sources of waste. Cash flow from operations increased enough to self-fund a $250 million plant renovation project completed in 1997.

The Key Takeaway of this Story

In the DuPont Nylon case from 1992, RIF did not stand for "reduction in force". RIF meant "reading is fundamental".