

Southeastern Region

Synchronized for Total Quality at Gates Rubber, Moncks Corner, SC Through Total Involvement



Teamwork's on the right track.

Kelly Turley

At The Gates Rubber Company's recent workshop in Moncks Corner, SC, obvious accomplishments in quality and employee involvement prompted the question, "What comes first, total quality (TQ) or total involvement (TI)?" According to Gary Steele, industrial relations manager for the facility, it's TI.

Gates used some unique ingredients to accomplish TI, but what's surprising is that they even elected to go the route of self-directed teams and TQ. Surprising because unlike many businesses that are failing or faced with stiff competition, Gates' business was doing very well, so why change? They credit Don Austin, vice president of the domestic Power Transmission Division, who first encouraged them to open-mindedly explore the idea and arranged for a presentation on TQM by Gates' customer, Xerox in the summer of 1989, and the inspiration of Roger Guthrie, plant facilitator.

With Austin's support and lots of help from Xerox, Gates began the journey at the Moncks Corner facility. In the fall of 1989, for example, Xerox sent two trainers to the Moncks Corner facility to offer two days' instruction on TQM basics. Hurricane Hugo hit the day they were scheduled to begin training sessions; undeterred, Gates and Xerox people worked out a later date.

Self-Directed Work Teams

When Gates began to implement self-directed work teams (SDWT) in 1990 as part of their transition to TQM, they used a systematic, structured approach. First they replaced the traditional senior management staff with a steering committee. While the players remained the same, this new title provided the psychological start on the right track. This committee was responsible for establishing strategic goals for the self-directed teams, as well as for setting policy and financial and training objectives for the facility. In 1990, the steering committee met every other week with a Xerox-approved TQM trainer, building know-how they later shared with the rest of Moncks Corner employees. This internal resource was Lynn Graham, a Gates training coordinator who traveled to Xerox headquarters for TQM training.

Gates has three types of teams. In addition to the steering committee there are project teams, comprising functional groups within the facility such as materials, engineering, manufacturing, and administration. Application teams or cell teams are the actual working or department teams dealing with the daily demands of production. Ad hoc teams formed for specific projects fall into the

Reports

<i>Synchronized for Total Quality at Gates Rubber, Moncks Corner, SC Through Total Involvement</i>	33
<i>Recognition at The Gates Rubber Company, Moncks Corner, SC</i>	36
<i>Results Count in Self-Directed Team Environments</i>	37
<i>Lightning Strategies for Innovation</i>	39
<i>Achieving the Agile Enterprise at Westinghouse Electric Corporation, Fayetteville, NC</i>	40
<i>A-B-Cs of ABC</i>	43
<i>Cut Time for Better Cost and Quality</i>	48

application team category.

Moncks Corner has 64 highly productive teams operating within the facility. Team meetings are structured, each one ending with a process check of how the meeting could have been more effective (tardiness issues, etc.). To prevent two teams from working on the same problem, a project team approves all ad hoc team projects. Examples of ad hoc team projects include a hazardous emissions reduction team and a team's plan for the now-completed transition to a tobacco-free work place.

Focus Factory

Using the focus factory concept has eased the way to TI and SDWTs at Gates. "Natural work groups" in production areas (automotive, Powergrip, industrial products, etc.) and an administrative cell are cross-trained for increased flexibility. A volunteer team has developed plans for the conversion to seven-days-a-week operations in some cells where business demands require it. Barriers among traditional departments (engineering versus customer service versus materials, etc.), each with their own agendas, have been eliminated. Every production cell has its own engineer, planner scheduler, etc., encouraging everyone to operate with a single focus. This approach results in improved communications, a more complete understanding of the business for everyone, and more timely problem solving, according to Dalia Mesa, a technical services engineer.

Although the facility operates 24 hours a day, each of the manufacturing cells has only one facilitator (supervisor). That facilitator is responsible for all three shifts, working flexibly on portions of all three shifts during each week.

The facilitator role is different from that of a typical line supervisor. Essential skills include coaching and empowering team members to make more of the decisions affecting their processes, for example. Obviously he or she can't be on-site around the clock, but with their SDWTs that's not required. The teams take up the slack because they've been cross-trained to handle a variety of problem-solving tasks.

Gates supervisors did experience many of the characteristic feelings traditional supervi-

About The Gates Rubber Company, Moncks Corner, SC

- They produce half of the domestic market for synchronized timing belts.
- Gates bought this facility from Uniroyal in 1986.
- Customers include Ford, Chrysler, Xerox, IBM, etc.
- 300+ non-union employees work at Moncks Corner facility. Privately-held Gates has 9000 domestic employees and 17,000 worldwide.

sors face when making the change to facilitator (anxiety about the loss of authority, etc.), but soon realized the advantages of SDWTs. For example, Cell Facilitator Dale Claborne says a big plus from the three-shift responsibilities of cell facilitators is that less finger pointing exists between the shifts and communication between shifts is much improved. Three-shift duties are demanding; Gates may change the arrangement if a better one surfaces, according to Gary Steele.

Employees' Role in Self-Directed Teams

Cell team leadership is rotated weekly among all members. The team leader responsibilities are similar to that of a traditional supervisor. Each team receives eight hours' initial training in leadership responsibilities conducted by the New Generation Team. The New Generation Team of about ten or 12 mostly-production operators was part of a core group sent off-site for team training. After this University of South Carolina training, they became the trainers for other teams — the founders, if you will, for the past two years.

Plans for the near future include expanding team training to 28 hours. Gates has elected to use Zenger-Miller's "Working" program to achieve its training goals.

One of the first exercises for a team is establishing a set of ground rules. They generally include attendance, quality, and safety issues.

Teams even take an active role in interviewing potential new employees.

Teams even take an active role in interviewing potential new employees. A rigorous evaluation of every applicant includes a panel interview. The panel varies and rotates, but generally consists of a member of management and two or three employees

from production cells. Close to 40 production employees have volunteered to participate in the interviewing process with management. They review a corporate interviewing manual which details the legal types of interview questions.

Worth noting, a panel decision has *never* been over-ridden, much to Wayne Fletcher's relief. He is the new operations manager, and was selected by the panel; yes, *every* job is subject to interview by the panel.

Single Pay Concept

At a time when most everyone is looking at one pay-for-skill compensation system or another, Gates uses a single pay concept within its production teams. Employees are hired in at a reduced "training" wage for six months, then go to the standard production rate with all other employees. The feeling is that this system puts all employees on an even playing field, since all employees are expected to contribute to the team by serving in the leadership role. Also, they say that the single pay concept has allowed greater flexibility and eliminated dissension between employees doing like work but having a difference in pay. The Moncks Corner facility is experimenting with a peer review system in its automotive cells.

Gates Corner Conversation a Daily Publication

Communication is essential to achieving TQ. At Gates, the communication team (a cross-functional group of volunteers from production and the office) plays a critical role in this transition. They provide suggestions and structure for the Moncks Corner daily — yes, daily — newspaper, *Corner Conversation*, a folksy newsletter that combines business-related copy with personal issues, anniversaries, birthdays, etc.; the newspaper is developed by industrial and community relations employ-

GEM Constitution

Our mission at Gates is to satisfy our customer's expectations by manufacturing and marketing engineered products for original equipment and replacement markets. One means of accomplishing our mission is through the principles of the GEM philosophy, which creates a sense of pride, involvement, and commitment for all by increasing challenges and opportunities, and by encouraging everyone to be involved in the communities where we operate. Team and individual ownership of the GEM principles is critical to our success. The principles of the GEM philosophy are:

- Achieve a high level of safety, customer satisfaction, quality, housekeeping, attendance, and productivity.
- Maintain union-free facilities where Gates employees represent their own views and opinions.
- All employees treat everyone fairly, consistently, with dignity and respect.
- All employees achieve high levels of performance through self-managed behavior and mutual trust.
- Maintain an open and involved approach to communication.
- Principles of the GEM interviewing, hiring, promotion, and transfer process are followed by all employees.
- All employees participate in facility-wide, departmental, and team meetings which keep everyone informed of facility goals, progress and plans, and provide a forum for all to discuss and respond to issues.
- Participate in regular opinion surveys.
- Seek training, counseling, performance planning, and feedback necessary for successful performance and to enhance improvement.
- Participation by everyone in team activities of problem solving, operations improvement, and ownership of facility results.
- Recognize the performance and accomplishments of all employees which support the values and goals of our facilities.

Figure 1.

ees. The group also arranges for guest speakers and presenters at various company functions.

It takes significant resources to put out a daily paper, but Gates feels good communications is critical to the success of both teams and the organization.

GEM Anything But a Trinket

Most people agree that the most difficult part of communicating is listening. At Gates they do it well; it's called a GEM (Gates Enriched Management) survey. GEM is a corporate program designed to build participative management, a precursor to TQM. The GEM Constitution is shown in Figure 1.

GEM surveys are a measure of the operation's culture. The facility has a cultural scale which includes eight criteria: management style (soon to be renamed leadership style); objectives; direction; customer requirements;

quality; problem solving/decision making; physical environment; training and education. A ninth category, recognition, is being added. The written GEM surveys are conducted corporate-wide in all non-union plants.

Survey questions (there are 101) range from, "How do you like your boss?" to, "What keeps you from doing your job better?" Employees are surveyed every 18 months; Stanard & Associates conducts the survey. Results rank Gates departments, comparing them to each other, also comparing the company against several other blue chip companies who use Stanard & Associate's testing.

The New Generation Cell Team presents the GEM survey results in a presentation to the entire plant, in groups of 30-50 employees. Then results for various work areas are given to the affected employees, enabling them to work on problem areas uncovered by the survey.

Training and Education, The Gates Way

The Training and Education Team is a multi-functional, multi-level, volunteer team which meets weekly on company time to consider issues such as the need for computerized, self-paced SPC training, use of the Zenger-Miller "working" program, an improved new employee orientation program, etc. They created a TQ training curriculum attended by all associates; their initial target has grown and changed. Today every Gates associate receives 24 hours of TQ training, with refresher courses available. Problem solving, cost of quality, and interactive skills are stressed.

Before beginning this extensive training, Gates identified basic education requirements. With the help of a local community college, baseline assessment in reading comprehension and math skills was created uniquely for Gates. It was administered with a plan for upgrading those who scored below the acceptable limits. They call it the BELT Program — Building Employee Leadership Tools. Many procedures and manuals were evaluated and rewritten in line with associates' reading and comprehension levels.

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This group remains responsible for developing training schedules and exploring new training opportunities. They use a variety of in-house and outside resources, including the American Productivity and Control Society (APICS), American Management Association, American Society for Quality Control, and AME workshops. A requirement for attending a seminar or workshop is that you must agree to share what you learned either by writing a report or speaking at the monthly facility-wide meeting.

Plans to Improve, Lessons Learned

Moncks Corner people continue to look for means to improve. One "lesson learned" along the way: If they had to do it all over, they'd start with several self-directed team

Update on Excellence

pilots, not just one team. Their first team, the New Generation Cell Team, was the first group to receive team training and in turn trained others. The problem was that they developed so much power that they became the informal voice for the production workers, but not necessarily representative of all production employees.

Gates' Moncks Corner people also are considering whether to set their sights on going for the Shingo Prize. For additional details about the facility's recognition systems, see the accompanying story.

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