RPG Production System

The RPG Production System (RPS) sets out how our plants run day to day, from the winding line in Greenville to the traction motor plant in San Luis Potosí. Each principle has five maturity levels, from 1 (getting started) to 5 (sustained and teaching others). Every plant assesses itself twice a year, and the operations leadership team confirms the score during a site visit. A plant moves up a level only when the practice has held for six months.

Safety, quality, delivery, cost (SQDC) and tiered huddles

1. SQDC results are collected once a month and discussed only in management meetings.
2. Each cell has an SQDC board updated daily, and team leaders hold a short huddle at the start of every shift.
3. Tier 1, 2 and 3 huddles run on a fixed schedule, and issues that can't be solved at one tier reach the next on the same day.
4. Every huddle action has an owner and a due date, and the plant manager reviews open escalations at the tier 3 huddle each morning.
5. Huddles run well without a manager present, and teams use SQDC trends to choose their own improvement projects.

Sales and operations planning

1. Production plans are built from open orders only, and schedule changes reach the floor by email or a phone call to the supervisor.
2. A monthly meeting compares the sales forecast with plant capacity for the next three months.
3. Sales, operations, supply chain and finance agree on one plan each month, covering an 18-month horizon.
4. Forecast accuracy and schedule adherence are measured by product family, and every gap has a named owner.
5. The agreed plan drives hiring, capital and inventory decisions, so trade-offs are made before customers feel them.

Problem solving with A3 and PDCA

1. Problems are fixed as they appear, nobody records the cause, and the same failures tend to come back within weeks.
2. Team leaders use the standard A3 template for repeat defects and customer complaints.
3. Every major problem has an A3 with a confirmed root cause, a countermeasure and a check step before it is closed.
4. Operators lead A3s on their own lines, and finished A3s are shared between plants through the RPS library.
5. Plan-do-check-act is the normal way of working, and the plant can show a falling trend in repeat problems over three years.

Visual management on the line

1. Work areas have little labeling, and the only way to learn a line's status is to ask someone.
2. Floor markings, labeled locations and shadow boards are in place and follow the plant 5S standard, with a monthly audit.
3. Every line shows planned versus actual output by the hour, so anyone walking past can see whether it is ahead or behind.
4. Andon signals bring support within minutes, and response times are tracked on the SQDC board.
5. A visitor can judge the health of the whole plant in a single walk, without a guide or a report.

Standard work for operators and leaders

1. Operators learn tasks from each other, the method changes from shift to shift, and quality depends on who is working that day.
2. Illustrated work instructions exist for every critical station, including winding, magnet insertion and end-of-line testing.
3. Instructions are reviewed after every process change, and operators are certified on each station they run.
4. Team leaders, supervisors and managers follow written leader standard work with daily, weekly and monthly checks.
5. Operators propose improvements to standard work, and the best method is adopted at every plant that builds the same family.

Coaching

1. Leaders give instructions and solve problems on behalf of their teams, so people wait for answers instead of looking for them.
2. Leaders ask open questions on the floor and have completed the basic RPS coaching course run by the plant excellence team.
3. Every team leader has a named coach, and sessions follow a standard set of coaching questions.
4. Coaching is part of every leader's annual goals, and the plant runs regular coaching walks with written feedback.
5. Leaders are judged by the capability of the people they develop, and the plant lends coaches to other sites.