

RUN LINE 24 X 7?

White Paper and Case Study



Due to explosive demand, a large beverage products facility needs to produce an additional one million cases per year, which equates to an increase of at least 20 percent. Unfortunately, the facility is approaching full capacity. To achieve its new case goal, facility leaders believe the plant needs to gear up for 24x7 operations while others believe the answer lies with personnel and equipment. An increase in productivity is a must if the beverage company is going to continue supplying finished goods to its constantly growing customers.

Introduction

Three schools of thought emerge:

- 1) Convert operations to 24x7 operations
- 2) Address systemic personnel issues
- 3) Fix poorly performing machines

The root question: Do you address increasing productivity through an investment in your machines, processes, or people?

The answer: A comprehensive review of the entire operation, including:

- Hiring (Recruitment, Selection, and Retention)
- Training
- Machine Audits
- Equipment and Facility

Part 1: People First

An engineer's first instinct to increase productivity would likely be to look at hard assets like machines, as opposed to "softer" variables such as the facility's internal reputation, its reputation with potential new hires in local communities, how well (or poorly) roles are defined, worker morale and other communication-oriented considerations.



However, facility managers realized that systemic "soft" issues were now impacting hard economics of plant operations. Poor retention, limited access to a new pool of potential employees, and a lack of affordable housing in the area from which new hires would be attracted were fundamental challenges.

After a series of interviews with the plant manager, supervisors and workers, it became clear that the first area rich for improvement was not equipment, but communication, both internally within the organization as well as externally within the community it wished to hire from.

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However, to secure sustained improvement: **there needed to be internal ownership.** Simply hiring new personnel would not repair systemic problems. A comprehensive approach to defining roles, creating appropriate flowcharts and processes to on-board their employees, and developing supporting documentation for future reference and training were created and adopted.

Part 2: Creating Good Students, Trainers, and Tools

Good students are made, not born. Same for teachers. And before new and existing workers could become effective learners, baseline requirements had to be met.

Good students and teachers are made, not born.

Facility managers developed appropriate learner and trainer documentation, identified internal trainers to ensure long-term sustainability, and provided both with effective, easy-to-use tools and knowledge to perform their daily tasks.

GOOD STUDENTS Most students become active learners when the importance of a training event is understood. This simple idea begins with each employee understanding how her/his role and the tasks they perform, or do not perform, impact the overall organization. Therefore, an effective orientation program included new employees meeting with leaders in each business area to ensure the employee understands how their new position impacts the company's "bottom line."

GOOD TRAINERS "Training" is more than finding the person with the most knowledge about a topic area and having them "tell" everyone else what they know. Instead, training requires having individuals with the correct skill-set develop a well thought-out plan of how to most effectively transfer knowledge from one person or group to another. Therefore, the first step in having good trainers require recognizing the skill sets a good trainer must possess. Trainers knew their role and attended an Instructional Certification Program (ICP) to ensure they were prepared to effectively perform the knowledge transfer process.

GOOD TOOLS A good portion of the battle is won when you have good training systems, trainers, and students, but to ensure overall effectiveness and long term sustainability, effective tools have to be available. Facility managers created well-defined objectives, a "statement of purpose" for each objective, and supporting content that ensured the reader understands the "why" behind the material is vital. Additionally, creating standard formats; defining abbreviations; creating succinct, step-by-step instructions; and using procedure numbers were put in play to further improve the effectiveness of the tools.



Part 3: Machine Audits

With roles, responsibilities and procedures simple and well-established, facility managers and consultants could begin auditing the machines.

This included:

- Inventorying operation manuals
- Reviewing and coordinating changeover procedures
- Assessing functionality/automation of equipment
- Identifying wear part replacement and adjustments
- Inventorying spare parts
- Reviewing and redesigning the machine infeed
- Evaluating packaging system controls and Material flow
- Downtime reporting/maintenance priority
- Material quality control
- Process areas of improvement included numerous reviews and updates of the overall control system as well as assessing process constraints that prevent quality/quantity coordination with production capacities.

Part 4: Equipment & Facilities

Although not a specific “personnel” issue, the items identified and addressed in the Equipment and Facilities audit had a direct impact on the working environment, and employee morale. Therefore, just as with the investment in people and machines, very specific areas of improvement were assembled for the facility and support systems.

It was determined the building was constrained to its current size and would require major efforts to expand. It became even more important to the team to work best within these physical building constraints. Items such as ventilation in the dry processing area, inadequate floor drains, building sanitation became a focus for the team.



The Upshot: Spending Money to Make Money

The plans identified by the stakeholders required money...much more than the facility had ever invested. Fortunately, some of the planned tasks could be capitalized; however, many, if not all, of the 'softer' items concerning training and hiring would fall directly under the operations budget. To rationalize the additional costs, the team devised specific success metrics and worked together to achieve explicit milestones, such as identifying Trainee Job Descriptions; Machine Owners; and Internal Instructors in addition to equipping these folks with the training and tools necessary for them to fulfill these newly identified roles.

DRAMATIC RESULTS

In short order, dramatic improvements were achieved, including:

9.4% increase in cph

22.4% additional cases produced

11.9% reduction in cost to produce

193.2% ROI



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