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Maintain – *To sustain or preserve a desired level of facility, equipment and process performance*
Maintenance Department – *A group of people assigned to sustain or preserve a desired level of facility, equipment and process performance*
Maintenance Mechanic – *A person with sufficient skills and knowledge to sustain or preserve a desired level of facility, equipment and process mechanical performance*
Maintenance Budget – *A periodic financial plan to sustain or preserve a desired level of facility, equipment and process performance*
Maintenance Plan – *A structured approach to sustain or preserve a desired level of facility, equipment and process performance*

There is a consistent message running through these maintenance definitions—*sustaining or preserving a desired level of performance*
. But, is it possible for the "maintenance department" (and all its staff and budgets and plans) to truly maintain the facility, equipment and process by itself? Are maintenance departments supposed to be the "suppliers" to their "customer(s)"—
otherwise known as production or facility owners?
If so, why do facilities, equipment and processes become unreliable, break down or flat out fail catastrophically? Could it be that the traditional "customer-supplier" model does not work for maintenance and reliability?

Traditional customers and suppliers
Let's depart from the world of maintenance for a moment. The slogan that "the customer is always right" has been promoted in our society since the late 1800s, first at Chicago's Marshall Field's department store and several years later at France's Ritz Hotel, with the saying that "the customer is never wrong." Is that true? Not really.

Such slogans sound good and send a message that "customer service" is important. Still, there are times when the customer is NOT right. For example, sometimes the customer is uninformed and does not know what is right, yet is ignorantly insistent. Suppliers to this kind of customer grow frustrated and unhappy, and end up providing the wrong service to the customer. When an abusive customer gets his/her way, it sends a message to other customers: Be abusive and you'll get your way. Sometimes, a customer is just plain wrong and won't listen to helpful advice. Often, these types of customer behaviors lead to customer dissatisfaction and make the supplier of the services in these situations feel subservient—*as in "if the customer is always*

right, then I'm always wrong."

Unfortunately, in today's business lexicon, there is much discussion about promoting customer-supplier relationships, internally in the work processes and externally with the paying customers. Although this makes perfect sense, the customer-supplier concept starts heading in the wrong direction when the "customer is always right" adage is unilaterally applied.

Let's focus on the internal customer-supplier relationship. In a business, be it a facility, manufacturing, utilities, transportation, warehousing operation, etc., the business benefits when all departments and work processes come together in a competitive manner. Productivity is high; goods and services are delivered in a timely manner; costs are low; profitability is up. The individual departments all win or lose together. The internal customer-supplier relationship that has developed over the past 20 to 30 years is of a "win/win" nature, in which both internal customers and internal suppliers are all heading toward common and mutually satisfying goals that ultimately benefit the business. What is NOT intended is the "subservient" intent of "the customer is always right."

Maintenance as a supplier

Your own maintenance department may be treated as a "supplier" in the traditional sense by your "customers" in production—*"We are always number one priority to maintenance! Production is king here!"* That brand of organizational thinking, however, is counter-productive and sometimes devastating to the business.

A maintenance group typically has limited resources that often are further reduced during a budget year (i.e. budget cuts, overtime cutbacks, expenses deferred). The more the demand on maintenance and the more constrained the resources, the more that equipment and reliability problems grow. Maintenance simply cannot supply things to which it doesn't have access. Something has to give—*PMs, repairs, corrective work, projects, etc*. Since "maintenance" is about sustaining desired levels of performance, I vote for stopping all non-maintenance-related projects in favor of focusing on the facility, equipment and process reliability work.

Insanity *- Doing the same things, the same way, over and over, while expecting different results*

Stopping the insanity

Facility operation and production CANNOT behave as the customer and maintenance CANNOT act as their supplier in the traditional way of thinking. Customers' beating up on suppliers for a better deal and/or more responsive service is NOT the answer. The maintenance department alone cannot make equipment and processes reliable in capital-intensive operations. Yes, this model can work in the very short term, but it is rarely—*if ever*—sustainable as a competitive business solution.

A customer-supplier *partnership* for reliable facilities, equipment and processes is a much more cost-effective and efficient way to run a capital-intensive business. In a customer-supplier partnership, there are mutually satisfying goals and expectations: Each partner continually works with the other to achieve common goals.

Effective and efficient maintenance is a critical goal in capital-intensive businesses. To achieve this goal, the customer-supplier partnership works two ways: Maintenance is both a supplier and a customer and operations is both a customer and a supplier. For example, operations expects the equipment and processes to be reliable and high-performing without unplanned interruptions due to breakdowns. Maintenance is in the position to supply a whole host of services to assure the equipment is well maintained and reliable. In order to accomplish the actual maintenance tasks, though, operations MUST supply timely access to the equipment, along with its performance and downtime data, and, most importantly, properly trained and conscientious operators. Makes sense. Without appropriate access to the equipment, timely planned and preventive maintenance does not get done. Without the data, problems continue and root causes go unexplored. Moreover, without properly trained and conscientious operators, the equipment is abused and uncared for. The results? Unreliable equipment and high-cost operations.

We can carry this customer-supplier partnership another step in the area of spare parts. For example, the parts stockroom may be managed by the purchasing department—*the internal supplier* . This department's typical goals are to supply spare parts, reduce the value of inventory and control parts and supplies costs. Reduced parts inventory levels, stocking lower cost unreliable parts and slow-moving parts removed from inventory can have a devastating affect on both operations and maintenance as "customers." What an odd and counterproductive behavior for an internal supplier to have! A customer-supplier partnership among maintenance, operations and the purchasing/stock room departments can succeed at reducing parts inventory costs in ways that have no negative impact on operations or maintenance.

A win/win relationship is possible when we depart from many of the traditional ways of managing the internal business work processes. This win/win customer-supplier partnership can go a long way to realizing highly reliable facilities, equipment and processes at the lowest initial cost and lowest possible life-cycle cost. Collaboration is essential for business success.

5 principles for a maintenance and reliability partnership

Here are five proven principles applied to the partnership for reliability, productivity and capacity assurance:

1. All maintenance and reliability work, regardless of who performs it, is done according to standardized procedures, job plans, schedules and durations, with specified outcomes or results.
   - "Maintenance and reliability work" refers to all forms of work to sustain or preserve the desired level of performance, including planned, preventive, predictive, corrective, repairs and emergency repairs.

1. Every maintenance and reliability work request is documented, acknowledged and signed-off upon completion by the requestor(s). Visual cues in the workplace and at the point of the request are used to communicate.
2. All maintenance and reliability work processes are well-defined, communicated throughout the organization and managed to avoid inefficient complexity. Maintenance and production (or operations) schedules, roles and responsibilities are clearly defined and seamlessly interwoven.
3. All of the maintenance and reliability activities, communications links and work processes have built-in tests that signal when a problem arises. Continual response to the resolution of these problems is required.
4. Any improvements to the preceding four principles must be made in accordance with the scientific method* under the guidance of an experienced teacher/facilitator closest to the opportunity for improvement.

**Problem(s) detected: data collected & analyzed; hypothesis (ideas) generated: ideas tried, results measured; and if the idea worked improvements are made.*

Breaking away to succeed

Maintenance is NOT a "supplier" in the traditional sense. Maintenance as a "supplier" often gets

trapped into "project work" that has nothing to do with actual maintenance. This situation can take valuable resources away from the goal of reliable facilities, equipment and processes.

Going forward, we must depart from the traditional "maintenance-is-the-supplier and they-are-the-customer" and "the customer-is-always-right" syndromes in today's competitive, high-performance environment. These—*often traditional*—approaches to maintenance will rarely lead to sustainable reliability of equipment and processes.

Break away from tradition. Develop a "Reliability Culture" based on the five proven principles for a customer-supplier partnership. Maintenance is not "the business," but rather an interdependent part of "the business." And we are going to succeed together in a maintenance and reliability partnership. **MT**

Suggested Reading

- Kjerulf, Alexander, "Top 5 Reasons Why 'The Customer Is Always Right' Is Wrong," 2006

- Spear, Steven, and Bowen, H. Kent, "Decoding the DNA of the Toyota Production System," Harvard Business Review, Sept.-Oct. 1999. Reprint 99509