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SELF-ASSESSMENT/CONTINUOUS IMPROVEMENT: OPPORTUNITY OR BURDEN?

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ABSTRACT

Quality assurance is defined in U.S. Department of Energy (DOE) Order 5700.6C as "actions that provide confidence that quality is achieved." **Confidence** is the key word in this definition. Because of a lack of confidence, Congress has mandated improved performance by DOE and its contractors. DOE Headquarters has responded, in part, by requiring increased oversight of all affected organizations.

Self-assessment/continuous improvement (SA/CI) is presented in this paper as a ten-step process to help restore confidence. The SA/CI process begins when you identify your customers. SA/CI then leads to determining customer requirements and establishing performance objectives and criteria against which current processes and performance are evaluated. SA/CI should be performed by managers and supervisors at all levels and should include direct observation of work in progress in addition to analysis of performance data. Traditional independent assessment processes such as audits and surveillances can be used to provide valuable information for performing the evaluation.

SA/CI is an aggressive "no-fault" self-assessment process coupled with a continuous improvement process that yields truly cost-effective corrective action and a high level of confidence that process and product quality objectives have been met. This approach should provide customers the evidence needed to increase their confidence in the organization's activities. The end result should be an improvement in the quality of work life for the organization's employees and a significant reduction in external oversight (i.e., audits).

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INTRODUCTION

The self-assessment/continuous improvement (SA/CI) process can be viewed as either an opportunity or a burden. In today's business environment, organizations are challenged to increase production in spite of decreasing resources. A properly designed and implemented SA/CI process is a mechanism that can help an organization meet this challenge.

In 1978, several of Pacific Northwest Laboratory's (PNL) customers expected PNL to substantially upgrade its QA program. To meet these expectations, quality engineers were located, trained, and assigned to support positions within the various research departments. Initially the research departments were less than responsive to increasing QA requirements and to the presence of quality engineers. However, application of SA/CI techniques significantly contributed to the ability to satisfy customer needs and demonstrated that quality engineers provided "value-added" support.

TEXT

Customer Expectations

The primary customer of the U.S. Department of Energy (DOE) and its contractors is the general public (a group to which we all belong). The public has the right to expect that its health, safety, and the environment are not adversely affected by the operation of DOE facilities and programs. The performance of DOE and its contractors over time has not improved as rapidly as expected by the public, which has led to a lack of public (and, therefore, Congressional) confidence in much of the work performed to-date. This lack of confidence has resulted in the implementation of more stringent rules and regulations and in a significant increase in independent oversight activity within the DOE community. Oversight and assessment activities are essential elements of these rules and regulations that seek to boost public confidence.

SA/CI, Opportunity or Burden?

By implementing the ten-step SA/CI process described below, your organization may take a proactive rather than a reactive approach to oversight and assessment activities conducted by outside individuals. Usually, an organization understands its internal processes better than outside observers. Problems and opportunities for improvement are more successfully corrected and implemented when identified by the employees that perform the

work in question. The "not invented here" attitude is very strong in the American culture, and the SA/CI process allows the organization to take advantage of this aspect of our culture.

If SA/CI processes are established for the sole purpose of meeting customer expectations, SA/CI will most certainly be perceived as a burden by the organization. This process will typically become one more function added to the management control systems already in use. Chances are that SA/CI will receive no more than lip service and will fail to add value to the organization. To change the perception of SA/CI from a burden to an opportunity, SA/CI must be established as an aggressive "no-fault" process. Staff participating in the SA/CI process need assurance the organization will not "shoot the messenger."

After an organization has demonstrated the willingness and capacity to identify its own problems and opportunities for improvement, the oversight organizations must exhibit good faith by reducing the number of audits, surveillances, and appraisals. Such positive reinforcement is an essential element to ensure that SA/CI becomes a long-lasting process instead of the "flavor of the month."

SA/CI Process Description

The continuous, ongoing SA/CI process can be divided into the following ten steps.

Step 1 - Identify Customers. Accurately define your customers, keeping in mind that your organization may have more customers than it realizes. Remember that an internal customer can just as significantly impact an organization's success as can an external customer.

Step 2 - Identify Each Customer's Requirements and Expectations. Work with your customer's representative to become familiar with the nature of the customer and its business, and to determine how the customer intends to use your product or service. The customer's requirements and expectations should be clearly understood by both parties.

Step 3 - Establish Applicable Performance Objectives and Associated Performance Indicators. To ensure that your organization continues to meet customer needs (which are frequently moving targets) and to improve product quality in a safe manner, establish long-term performance objectives and indicators that measure progress toward those objectives.

Step 4 - Define Significant Processes. The processes significant to your organization's success must be clearly

defined and understood by management and staff. By using a flowchart (or similar method), your organization can effectively:

- define the sequence-of-events,
- identify applicable control documents (i.e., procedures, instructions, statements of work, etc.),
- communicate the processes to staff and customers,
- identify steps that require special consideration for quality, safety, etc.,
- identify opportunities for process simplification and/or improvement.

Step 5 - Analyze Gaps. This is the first step in the SA/CI process where the implementing organization actually begins to identify "opportunities for improvement." The gap analysis can be performed, at least in part, by comparing the results of Step 4 (process description) against Step 2 (customer requirements) and Step 3 (performance objectives). This is a "no-fault" analysis emphasizing:

- what needs to be changed and/or improved, <u>not</u> who caused the "problem,"
- process improvement, <u>not</u> individual performance improvement.

Step 6 - Adjust the Process. Prioritize the various "opportunities for improvement" identified in Step 5 to ensure your organization receives maximum benefit from limited resources available for developing and implementing process improvements. After setting priorities, establish an action plan that:

- describes the actions to be accomplished,
- assigns responsibilities,
- sets a realistic schedule,
- allows review and revision of the plan at least every six months, and
- provides for periodic progress reporting to the next level of management (and possibly the customer).

Step 7 - Develop Performance Evaluation Plan. At this point, prepare to evaluate the work in progress as it is actually conducted against performance requirements. To facilitate the

evaluation, a plan or procedure should be developed and should define:

- type of evaluation,
- performance objectives and requirements to be evaluated,
- who will perform the evaluations,
- how frequently the evaluations will be performed,
- process to be evaluated,
- methods to be used for planning and performing the evaluation, and
- methods to be used for documenting and reporting the evaluations.

Evaluation methods usually involve analysis of previously obtained data and information (e.g., audits, surveillances, direct customer feedback, etc.), and direct observation of the work in progress. Both methods are necessary to ensure a thorough assessment has been performed.

Step 8 - Evaluate Performance. Implement the plan developed in Step 7. Take care to conduct the evaluations in a "no-fault" environment to ensure full cooperation of the individuals being assessed. This step should result in additions to the previously mentioned prioritized list of "opportunities for improvement."

Step 9 - Implement the "Opportunities for Improvement." Incorporate the prioritized list of "opportunities for improvement" into an implementation plan and put the plan into effect. This plan should be similar to, and may be included as part of, the action plan developed in Step 6. The action items of the implementation plan should be assigned to the individuals most directly affected by the improvements.

Step 10 - Reporting. The progress and results of the SA/CI process should be periodically reported to the next higher level of management, which may in turn use this information as input data for successive levels of SA/CI. The amount of detail and frequency of the reports should be consistent with the policies and procedures established by your organization at the highest level involved in the SA/CI process.

As you consider or use the SA/CI process, it is important to understand that the process will not succeed if implemented as a single-pass program. Steps seven through ten should be routinely repeated. In addition, all ten steps should be performed

whenever significant changes in an organization's operating processes or in customer requirements and expectations occur.

CONCLUSION

SA/CI can be either an opportunity or a burden depending upon your organization's attitude toward the process. A properly designed and implemented SA/CI process can truly be an opportunity if management successfully establishes a positive "no-fault" attitude throughout the process. The potential benefits include: simplified and more realistic work processes, improved customer satisfaction (and possibly reduction in customer oversight), improved quality of the employees' work life, and better compliance with requirements and regulations.

REFERENCE

U.S. Department of Energy (DOE). 1991. "Quality Assurance." DOE Order 5700.6C.

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