# EnerTronics Engineering

## QUALITY ASSURANCE PLAN & MANAGEMENT SYSTEM

## 1. INTRODUCTION

This Quality Assurance Plan has been developed to evaluate Contractor performance while implementing the Performance Work Statement (PWS). It is designed to provide an effective method for monitoring and evaluating EnerTronics performance for the requirements listed in the PWS.

EnerTronics, and not the Client, is responsible for management and quality control actions to meet the terms of the contract. The role of the Client is quality assurance to ensure contract standards are achieved. In this contract, the quality control program is the driver for service quality. EnerTronics is required to develop a comprehensive program of inspections and monitoring actions. The major step to ensuring a "self-correcting" contract is to ensure that the quality control program approved at contract award provides the measures needed to lead EnerTronics to success. Once the quality control program is approved, careful application of the process and standards presented in the remainder of this document will ensure a quality program.

The Quality Assurance Plan shall be customized for the specific requirements of the Client. For project work load in excess of 10,000 hours a year, a separate Appendix A shall be prepared to identify specific reports, expected schedule of delivery, review method, and reference documents.

This incorporation of customer requirements in the Quality Assurance Plan is not intended to interfere with EnerTronics status as an 'independent contractor' under the law, nor is it intended in any way to supplant the EnerTronics responsibility for the day-to-day control and management of its own personnel and other resources for which the company is ultimately responsible.

## 2. OBJECTIVE

This plan provides a quality plan and strategy for professional services at Client's location. Oversight of field personnel performance will assure quality performance. The following overall quality assurance objectives are established unless defined by the Client supervisor.

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| Initial Submittal Accuracy : | > 95% |
| Timeliness: | > 95% |
| Initial Submittal Completeness | > 95% |

## 3. QUALITY CONTROL STEPS

The quality control plan is based on the following steps:

I) Assigned personnel, trained to execute a job, are assisted by pre-checks and post checks of any activity ensuring a high degree of completeness, timeliness and accuracy.

II) An immediate supervisor or a senior staff manager reviews and checks the completeness and accuracy of a report or non-recurring activity 100 % of the time.

III) For all recurring activities and reports, the supervisor establishes a system to warrant higher than 95% accuracy, timeliness and completeness. The system shall included at least the following:

a. Initial Setup, Training and Orientation
b. On the Job Performance by incumbent with the worker in an Observer-ship
c. On the Job Performance by the worker with incumbent in Internship while an incumbent is available to review and monitor.
d. Independent performance with close supervision for a limited period. The limited period duration is defined by the supervisor in consultation with the Client

IV) A trained worker, at least 2-steps, away from the performing worker performs a random audit of the activity. The audit frequency shall be dependent upon the nature, uniqueness and size of the task. The random audit activity shall be logged as one of the QA indicators in the log and shall be used in the Merit Compensation. Immediate supervisor or co-worker is not authorized to conduct the audit as they are only 1-step away.

## 4. METHODS

I) The quality assurance procedures are partly based on attribute sampling of the recurring critical products of the contract using the concepts of MIL STD 105E sampling procedures and ANSI/ASQC Z1.4 sampling procedures and tables for inspection by attributes.

II) The Random Sampling method will be used for recurring service output items (daily, weekly, monthly, quarterly, semiannually, annually or as required) as determined necessary to assure a sufficient evaluation of EnerTronics performance.

III) The 100% Inspection Method will be used for those tasks that occur infrequently and cannot be random sampled because the sample size for a small lot may exceed the lot size. Also, the tasks may have a stringent performance requirement where safety or health may be a concern.

IV) Periodic surveillance. Sometimes called sampling, consists of the evaluation of tasks selected on other than 100 percent or random sample basis. It is appropriate for tasks that occur infrequently and where 100 percent inspection is neither required nor practicable.

V) Customer complaints/Input. As a service organization, customer feedback is the single most important factor. However, as a quality system monitoring instrument, it cannot be relied upon as a rigorous tool. This is not a primary method, but it is a valuable supplement to more systematic methods.