DATA ITEM DESCRIPTION

Title: CRITICAL PLAN OF ACTION (CPOA)

Number: DI-MGMT-81996
AMSC Number: N9577
DTIC Applicable: No
Preparing Activity: SH
Applicable Forms: N/A

Approval Date: 20150908
Limitation:
GIDEP Applicable: No
Project Number: MGMT-2015-006

Use/relationship: A Critical Plan of Action (CPOA) describes the Contractor's methodology for addressing known Failure Modes within approved critical non-conformance creation rates (also referred to as CPOA thresholds), appropriate corrective actions, and continuous improvement to reduce non-conformances (defects) against a discrete critical characteristic. For a stable and in-control production process with well understood non-conformance creation rates and Failure Modes, a CPOA is a collection of alternative plans and provisions that potentially provides a means to maintain operational continuity while avoiding delays due to mandated shutdown.

This Data Item Description (DID) contains format and content preparation instructions for the data product generated by the specific and discrete task requirement as delineated in the contract.

Requirements:

1. Format. The plan shall be in the Contractor's format.

2. Content. The plan shall include the following elements:

    2.1 Cover page specifying:

        a. Contractor's title.

        b. Contract Number.

        c. Revision and date.

        d. Nomenclature of the system/component/program/project, the security classification, and the distribution restrictions.

        e. Government activity issuing the controlling contract.

    2.2 Table of contents. The plan shall contain a table of contents.

    2.3 Index. The plan shall contain an index.

2.4 Descriptive material. The plan shall include any descriptive material needed to provide comprehensibility of the content such as sketches, drawings, photographs, tables, forms, graphs, worksheets, charts, etc.

2.5 The plan shall reference the specific associated Critical Characteristics Control Plan (CCCP) and revision.

2.6 Critical characteristic. The plan shall identify the discrete critical characteristic and the known Failure Modes impacted by this plan.

2.6.1 The plan shall list the applicable critical characteristic, the location/facility which produces the material affected by the critical characteristic, and the associated document(s) specifying the requirement (specification and revision, Quality Assurance Provision (QAP) number, and/or drawing and revision).

2.6.2 The plan shall contain the critical characteristics management structure, roles/responsibilities, and procedures to ensure that CPOA(s) are evaluated for currency and process improvements including:

a. Personnel/position(s) responsible for monitoring and reporting the CPOA thresholds.

b. Personnel/position(s) responsible for confirming that a critical non-conformance is from a known/approved Failure Mode and executing root cause failure analysis.

c. Personnel/position(s) responsible for implementing corrective actions and determining that they adequately address the critical non-conformance based upon known/approved Failure Modes.

d. Personnel/position(s) responsible for controlling access to critical non-conformances and maintaining accountability and traceability through final disposition.

e. Personnel/position(s) responsible for controlling access to material suspected of having critical non-conformances and maintaining accountability and traceability through final disposition.

2.7 Failure Modes and Effects Analysis. The CPOA shall identify all Failure Modes associated with the critical characteristic, including Failure Modes and Effects Analysis (FMEA), Cause and Effects diagrams, and data from any other tool used to establish a baseline of known Failure Modes.

2.7.1 The CPOA shall include the Failure Mode, frequency of occurrence, applicable key process parameters, and how they are specifically monitored. It shall identify short term corrective action(s) and long term preventive action(s) for each Failure Mode.

2.7.2 The plan shall include procedures and objective evidence used to confirm that the Failure Mode of a critical non-conformance is that identified in the CPOA.

2.7.3 The CPOA shall describe how the Contractor will handle an occurrence of a new Failure Mode not previously identified, exceeding the established threshold, or occurring after the inspection point (an escape).

2.8 Key Process Parameters. This section of the plan shall contain the maximum subject critical non-conformance rate and inspection equipment error rate, including those parameters which are used to control the quality of the listed critical characteristic (i.e., dwell time, temperature, pressure, humidity, etc.).

2.8.1 The CPOA shall include procedures to monitor the non-conformance and inspection system error rates to assure that they do not exceed the maximum rates allotted.

2.9 The plan shall identify the actions initiated upon occurrence of a critical non-conformance including:

a. How the operation will be shut down and how a procedural investigation will be conducted if the CPOA threshold is exceeded or a non-conformance is generated from a previously unidentified mode.

b. Implementation of controls for ensuring that a non-conforming item does not inadvertently remain in or re-enter the production process.

c. Immediate verification that a produced critical non-conformance is consistent with the identified Failure Mode(s) and key process parameter limits.

d. Immediate notification to the Government that a critical non-conformance has occurred, even if the approved threshold has not been exceeded.

e. Implementation of process improvement plans with milestones that are specific in nature and tied to FMEA results and Failure Modes including defining the inspection processes, process capabilities, and key process parameters.

2.10 CPOA Threshold Calculation. The plan shall detail the CPOA Threshold Calculation including rationale for the selection of the data population from which the threshold is derived (describe the type of data selected including historical/limited production runs, how far the data goes back, why the particular time-frame was selected, any process changes/improvements over that timeframe, etc.).

2.10.1 The plan shall explain how the threshold was calculated based upon the factors above.

2.10.2 The CPOA shall contain the methodology for how the threshold rate applied to a particular quantity of production items (number of critical non-conformances allowed per number of items produced) is monitored and managed.

2.10.3 The plan shall explain and justify the established amount of product or time frame within which the threshold frequency is calculated (e.g., per 10,000 vs. per 100,000; per week vs. per month, etc.).

2.11 The CPOA shall identify plans to ensure currency and process improvements including:

a. Planned improvements and/or corrective actions to reduce occurrences and/or eliminate Failure Modes.

b. The schedule for routinely updating the CPOA.

2.12 The plan shall detail the reporting structure for all critical non-conformances.

3. Media requirements. The plan shall be in Adobe® electronic Portable Document Format (pdf), version 2007-2010.

End of DI-MGMT-81996