



Q727 Critical Characteristics Control Plan **Flowdown to Subcontractors Required (Rev 06/12/20)**

This clause requires the following SDRL deliverable(s): S727A, B, C, & D - See Exhibit A for details.

The Seller's processes shall be designed with the objective of preventing the creation or occurrence of critical characteristic defects as documented in the Technical Data Package. The Seller shall create and maintain a Critical Characteristic Control Plan (CCCP) in Seller format covering all safety/special or critical characteristics specified in the TDP and contained in the products provided by the Seller. GD-OTS Template, QS-TP-10.7.12 may be used but is not required. The CCCP shall be submitted prior to the start of production and shall require GD-OTS approval.

Seller shall flow the substance of this clause to its subcontractors that produce safety/special or critical characteristics as part of their process, including this sentence, changing the relationship of the parties as appropriate to preserve the intent of the words.

The CCCP shall contain at a minimum the following:

- A Process Failure Mode and Effects Analysis (PFMEA) document analyzing all potential modes that could result in production of a critical item defect nonconformance, countermeasures to be taken for each failure mode to reduce or prevent occurrence, mistake proofing efforts and methods for determining that processes creating critical characteristics are robust, capable and under control. GD-OTS PFMEA Template, QS-TP-21.0.2 shall be used. The template can be obtained on the GD-OTS SharePoint collaboration site.
- Inclusion or reference to all procedures, work and handling instructions and process controls relating to any critical characteristics.
- A Critical Defect Reaction Plan detailing the actions to be taken when a Critical Defect has been produced or exceeds a threshold level.
- Critical Defect Reporting Plan. A lot report of the quantity of product produced and number of critical defects produced during the processing of the lot (by part number and critical characteristic number) shall be provided to GD-OTS with each lot shipment.
- A Critical Defect Escape Plan detailing the containment action to be taken and reporting protocol should a Critical Defect Escape occur. A Critical Defect Escape occurs when a non-conformance of a critical characteristic is detected after the planned inspection/test acceptance point utilizing the approved Inspection and Test Equipment (ITE). Whenever there is a Critical Defect Escape, an initial Critical Defect Notification shall be provided to the GD-OTS Buyer in writing within two (2) calendar days of the critical defect discovery. The notification shall include a description of the Critical Defect, potential risk or product impact, GD-OTS Purchase order number, part number, lot numbers affected (and serial numbers when applicable) and the



operation at which the Critical defect was discovered. The notification shall indicate the immediate steps taken to identify and contain suspect product. A root cause Failure Analysis Report and Corrective Action Plan is required for each Critical defect escape occurrence. End items or components shall not be submitted for GD-OTS/Government inspection or acceptance for the affected lot(s) or subsequent lot(s) until the Failure Analysis Report and Corrective Action Plan have been approved.

- Method(s) by which the processes that create critical characteristics shall be ensured to be robust, capable and under control.
- Method(s) and schedule that the seller shall use to assess the reliability and effectiveness of its critical processes to prevent generating critical non-conformances.