

FRACAS

1.0 Definition of terms:

1.0.1 The term “shall”, “will” and “may” are used with specific intent thought-out these documents and will observe the following rules:

- 1.1** Requirements defined using “**shall**” in the text are mandatory requirements and are considered to be binding and require formal verification. Departure from such a requirement is not permissible without formal agreement between Subcontractor and CSPI.
- 1.2** Requirements defined using “**will**” in the text expresses a provision or service by CSPI or an intention by CSPI in connection with a requirement of this document. The subcontractor is implicitly authorized to rely on such service or intention.
- 1.3** The word “**may**” in the text expresses a permissible practice or action. It does not express a requirement of this document.

2.0 FRACAS Overview

2.0.1 A closed-loop Failure Reporting and Corrective Action System (FRACAS) shall be established, per Subcontractor in-house procedures to report on equipment non-conformance commencing with final factory acceptance test and continuing through the completion of the warranty period. The Subcontractor shall be responsible for the collection of data identified at the Subcontractor’s or sub-tier’s facilities as well as data received from the Buyer for the duration of this contract. The Buyer will provide event records of the respective failure (HW and/or SW) when Subcontractor personnel are not on-site.

3.0 FRACAS

3.1 The following data elements shall be provided to the Subcontractor to the fullest extent possible:

- 3.1.a** Originator Reference Number or S/N of Work
- 3.1.b** Fault Location
- 3.1.c** Reported Symptom(s)
- 3.1.d** Affected FRU(s)
- 3.1.e** Faulty Item Description
- 3.1.f** Faulty Item P/N and S/N
- 3.1.g** P/N failure history
- 3.1.h** Replacement Item P/N and S/N
- 3.1.i** Operational Circumstances at the time of the fault, such as:
 - 3.1.i.a** Type test of other activity
 - 3.1.i.b** Environmental conditions
 - 3.1.i.c** Operating mode
 - 3.1.i.d** Symptoms of the Fault

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- 3.1.i.e** How detected (e.g. Periodic Built-In Test [PBIT] /Continuous Built-In Test [CBIT], etc.)
 - 3.1.i.f** How isolated (e.g. BIT, manual diagnostic)
 - 3.1.i.g** Equipment Elapsed Time indicators (if applicable)
- 3.2** Failure analysis shall be performed to the level necessary to determine the root cause of all identified failure trends. MIL-STD-1629 may be used as a guide. Failures shall be examined to determine mode and root cause of failure. Corrective action, where necessary, shall be incorporated into the design of the equipment and/or manufacturing process. Any design changes required as a result of non-conformance shall be incorporated into all delivered hardware at no cost to Buyer. FRACAS data shall be made available to Buyer upon request for Buyer review and concurrence with Subcontractor root cause and corrective action conclusions.
- 3.3** The results of the tasks listed above shall be documented and supplied to the Buyer in a Reliability Program Report

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