

Q241: ATP Failure Requirement and Manufacturing Process Changes

Effective Date : 02/04/2011

Environmental Stress Screening (ESS), Qualification, and Acceptance Tests at the final assembly level shall be run without adjustments, replacements, or repairs being accomplished on the Unit under Test during the performance of the test, unless authorized by Pratt and Whitney Rocketdyne (PWR) waiver or deviation.

The subcontractor shall immediately report by telephone and/or e-mail or fax to the PWR Buyer all package-level bum-in, ESS, qualification or acceptance test failures. If circumstances prohibit immediate telephone notification, then notification shall be made as soon as possible, but in no case later than 12 hours after the failure occurrence. The Supplier/Subcontractor shall stop testing and wait on PWR direction and concurrence before continuing testing. PWR will determine if a nonconformance submittal through the Supplier Portal System is required.

The failure record in subcontractor format electronically attached to e-mail is sufficient, if it contains all required information. If it can be positively determined within 12 hours that the failure is test equipment/operator caused and the failure did not damage or degrade the deliverable item, the failure report and corresponding failure diagnosis are not required, but the subcontractor data documenting the event shall be included in the acceptance data package.

The following data, as a minimum, shall be provided in the failure report to PWR subcontract administrator:

- a) Date of failure
 - b) Package/Assembly Name (identify the level where the failure occurred)
 - c) Part Number and Revision Letter
 - d) Serial Number/Lot Number/Lot Date code (enter all that are required by design documentation)
 - e) Quantities Inspected and Quantities Rejected
 - f) Subcontractor Name
 - g) "Is" condition in enough detail to indicate the extent of the non-conformance
 - h) Test Procedure and Paragraph Number that failed.
 - i) Failed Parameter
 - j) Test Environment at which the failure occurred
 - k) "Should Be" condition (if the PWR baseline is violated, the "should be" condition shall reference the PWR baseline document by identification number and drawing location or specification/procedure paragraph that was violated)
 - l) Subcontractor failure document number (if one was initiated)
 - m) Whether hardware is designated by PWR as experimental
 - n) A fault isolation narrative
- The narrative shall isolate piece part root cause include a Fault Tree or Fault Diagram (e.g., Fishbone), and describe all corrective actions required to prevent recurrence of the failure
 - Describe the results of failure diagnosis and corrective action taken for the failure(s) and shall be recorded on the form(s) used to report failures in the subcontractor's quality system
 - With concurrence from PWR, should the test equipment set-up be exonerated as a potential root cause, testing may continue on other units in production
 - After submission, if any data is found to be in error, a revised report will be submitted, with a detailed explanation of the change