

Differences between EMC-P-2009 and FMC1279

The following is a brief summary of the major differences between the current specification EMC-P-2009 and new FMC1279.

Section 4.3 EMC Test Plan - Process Steps

- Test plan numbering modified.
 - “Brand” references eliminated.
 - Volvo and Ford China eliminated (China combined with APA, noted as “A”)
- Test plan number modified to include the revision level:
<Region> -EESE-T- <year> - <nnnn>-< x >
- Test plan changes require re-approval
 - CMRVs are not used for this purpose

Section 5.1 Requirements (ref Test Execution and Reporting)

- Timing for test plan and test completion now included.

Section 5.2 Test Laboratory Roles and Responsibilities

- “Compliance Summary” changed to “EMC Test Summary” to align with changes in FMC review process

Section 5.3 Test Execution and Reporting Process Description

- Clarification that FMC EMC department must provide documented approval for replacement of test samples (e.g. replacement due to damage).
 - CMRVs are not used to facilitate deviations from approved test plan
- Supplier must notify FMC if sign-off testing is being changed to development testing and provide a recover plan to completed sign-off testing.
- Clarification that the lab may not change a report marked as ‘Development Test Results. Not for Sign-Off’ to a Sign-off test result.
- During Sign-off testing, all observed or measured effects shall be fully documented in the test report. Additionally, the lab shall summarize all effects that do not meet the acceptance criteria delineated in section 3.4 of the component test plan.
- Verification of compliance to these requirements shall be performed via joint review of the formal test report by FMC D&R and EMC departments (see section 6.0 for details).
- All test reports shall be signed off by the Ford approved manager or their deputy of the EMC test laboratory.

Section 6.3 Data Review and Acceptance Process Description

- FMC D&R and EMC Engineer shall perform a joint review of the formal test report to determine the EMC Compliance Status of the Product.
 - The FMC EMC/D&R Engineer shall review the Sign-Off Test Data and determine the level of risk to the Vehicle Program and future programs covering different markets if anomalies are noted.
 - At the completion of joint review, if all of the required tests are found to be compliant, the FMC EMC Engineer shall issue a Data Review Summary(Figure-8) indicating the EMC Compliance Status of the product.
 - If any of the required tests are found to be non-compliant, the D&R and FMC EMC Engineer shall review the non-compliant data in the weekly EMC Data Review to assess the risk associated with the non-compliance and to determine the action required to address the non-compliance.
 - At the completion of EMC Data Review, the FMC EMC Engineer shall assign a Compliance Status (Pass or Fail) for each of the required test and issue a EMC Data Review Summary Sheet. Refer to figure-8 for EMC Data Review Summary format. Below is the key to EMC Compliance Status (Pass or Fail).
 - **PASS:**
 - Compliant to requirement
 - **FAIL:**
 - **F1:** Non-compliant to requirement but Production Acceptable. Deviation Not Required.
 - **F2:** Non-compliant to requirement. Corrective Action Required. Deviation Acceptable.
 - **F3:** Non-compliant to requirement. Corrective Action Required. Deviation Not Acceptable. . Requires management (LL5+) review and final assessment.
- Component compliance does not absolve the product from meeting vehicle level requirements.
- Successful outcome of the component and vehicle level testing shall determine the path of acceptance to PPAP

Section 7.0 Change Management & Revalidation Process

- Clarification as to what design changes constitute contacting FMC EMC for review and potential resting of the product. The FMC EMC engineer shall determine what amount of EMC testing shall be repeated.
- CMRV form is still used to document changes and document what re-DV will occur based on original test plan.
- CMRVs will no longer be used to initiate changes to an existing test plan.

Section 8.0 Data Reporting

- The test laboratory shall document all deviations from normal device functionality (i.e. Status I) during immunity testing.
 - The lab shall not make use of the terms “pass” or “fail” in the test report for Status II and III performance. Immunity tests for status I and IV (ESD Handling only) shall be classified as PASS
 - Emissions testing shall be classified as PASS or FAIL based on test results.
- Due to the definitions of Status II and III performance, the laboratory shall not make determination of compliance to immunity requirements. Verification of compliance to these requirements shall be performed via joint review of the formal test report by FMC D&R and EMC departments (see section 6.0 for details).

Section 8.1 Test Report Summary

- The test lab shall hyperlink each of the tests in the summary sheet to the relevant page in the test report to facilitate data search.
- New reporting summary sheet