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Work Instruction No. GRC-W7600.007

Revision D.1

## Work Instruction

# Test Engineering Non-Conformance Identification and Reporting System

*Approved by:*

**Chief, Research Testing Division/7600**

\*This document identified the correct steps to accomplish this process. I acknowledge that by my signature, I am the document owner for purposes of its maintenance and update.

**NASA - Glenn Research Center  
Cleveland, OH 44135**

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<b>Glenn Research Center Work Instruction</b>	<b>Title:</b> Test Engineering Non-Conformance Identification and Reporting System	
	<b>Document No.:</b> GRC-W7600.007	<b>Rev.:</b> D.1

**Document Owner:** Test Engineering Branches 7610, 7620, 7630, 7640, 7660

**Point of Contact:** Bob Freedman, 216-433-2038

### Change Record

<b>Rev.</b>	<b>Effective Date</b>	<b>Description</b>
Basic	10/10/2000	Initial FCR2000-1245
A	05/14/2001	Annual Review FCR2001-1332
B	08/10/2001	Incorporate CPAR as Reporting System FCR2001-1384
C	05/19/2003	Update Attachment 1, Item 5. FCR 2003-1599
D	11/04/2003	Document Number Changed from 7500.077 to 7600.007 General numbering and reference changes related to directorate re-organization and document re-numbering. FCR2003-1654
D.1	12/16/2003	Annual Review, No changes

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## 1.0 PURPOSE

Provide systematic way to identify, resolve, and review non-conformances for Test Engineering branches 7601, 7610, 7620, 7630, 7640 and 7660

## 2.0 REFERENCES

<b>Document Number</b>	<b>Document Title</b>
GRC-P4.7	Corrective and Preventive Action
GRC-P7600.001	Research Facility Management
GRC-P7600.002	Aero Facility Engineering
GRC-P7600.003	Aero Test Engineering
GRC-P7600.004	Space Test Engineering

## 2.1 DEFINITIONS

TEMT	Test Engineering Management TEAM
Supporting Manager	The Civil Servant manager who is responsible to ensure the work/project is accomplished

## 2.2 RECORDS

TEMT Meeting minutes  
CPARS (Corrective and Preventive Action reporting System)

## 3.0 SAFETY PRECAUTIONS

None

## 4.0 TOOLS, EQUIPMENT AND MATERIALS

None

## 5.0 PERSONNEL TRAINING AND/OR CERTIFICATION

None

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## 6.0 INSTRUCTIONS

- 6.1 The Test Engineering staff, following good engineering practices, does self review status assessment of assigned work/projects for schedule, cost (procurements and/or services contracted) to determine if work/project is proceeding as planned. If project is in the testing phase then data quality is assessed. Any Non-Conformances are identified per criteria in Attachment 1
- 6.1.1 Facility Managers assess returned Facility Customer Evaluation Report at the end of each test as required in GRC-P7600.001 and per criteria in Attachment 1.
- 6.2 Test Engineering Staff and Facility Managers notify supporting manager(s) if any non-conformances are identified.
- 6.3 Manager tasks person to mitigate non-conformance and ensures person assigned places non-conformity in CPAR system
- 6.4 Manager assures any E Mail notification of CPARS are assessed for applicability to their branch area and redirects or assigns to personnel for remedy.
- 6.5 Assigned person assesses impact of non-conformity on work/project, determines root cause and plan of action. Documents on Corrective and Preventive Action Reporting System.
- 6.6 If the mitigation can be achieved at low cost (less than \$25,000.00 and 100 hours) the person assigned implements the corrective/preventive action plan. Document for the record in the Project file. Keeps supporting manager(s) informed of status.
- 6.7 If the mitigation can not be achieved at low cost the corrective/preventive action plans are reviewed and approved by appropriate supporting management before execution. If disapproved, rationale is given and remedy is reworked or management accepts risk of future non-conformances. Document for the record in the Project file. Person assigned keeps supporting manager informed of status.
- 6.8 Once a month in the TEMT (Test Engineering Management Team) meeting the supporting manager reports on progress of open test engineering branches CPARS – Minutes of meeting are kept for the record.
- 6.9 When corrective/preventive action plan is completed, non-conformity is closed by the supporting management and noted in the CPAR System
- 6.10 All non-conformances reported in the CPARS for the Test Engineering Branches for the past year are analyzed for systemic problems, reoccurrence, and effectiveness. This analysis is reviewed in TEMT meeting semi annually for any items, which demand Division Chief's attention.

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## 7.0 FLOW DIAGRAMS

No Flow diagram

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## ATTACHMENT 1

### Non –Conformance Criteria:

1. Goods bought by RTD personnel:
  - Worth more than \$25,000.00 and fails to meet specifications or
  - Whose late delivery caused significant slippage to project schedule – thereby jeopardizing a project milestone or
  - Which when delivered are repeatedly rejected –more than twice
2. Services contracted by RTD personnel:
  - Worth more than \$25,000.00 and fails to meet requirements or
  - Whose late delivery caused significant slippage to project schedule – thereby jeopardizing a project milestone or
  - Which when delivered are substantially unusable – need to be done over
- 3 Quality DATA supplied by RTD personnel, which are:
  - Rejected by the customer or
  - Found by RTD staff not to meet requirements and/or requires test segment to be rerun or
  - Traced to systemic problems found in facility or data systems
  - Latent defects in instrumentation, which cause customer data to not meet requirements. (Failed recalibration)
4. Cost and Schedule as mutually agreed upon:
  - Failure to meet any milestones as spelled out in the internal or external Customer Agreement or the Requirements Document.
5. Customer Facility Evaluation Reports:
  - Customer’s overall rating for Technical Performance, Schedule, Cost, Interaction/Support Quality, or Overall Satisfaction is below an acceptable rating
6. Any items not meeting the above criteria but are deemed significant by the RTD staff.

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