

**MPR 5340.1
REVISION B**

**EFFECTIVE DATE: September 26, 2004
EXPIRATION DATE: September 26, 2009**

MARSHALL PROCEDURAL REQUIREMENTS

ED01

CONTROLLED WORK AREA, CLEAN ROOM, AND FLOW BENCH OPERATIONS

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DOCUMENT HISTORY LOG

Status (Baseline/ Revision/ Canceled)	Document Revision	Effective Date	Description
Baseline		1/14/00	Document converted from MMI 5340.1.
Revision	A	8/1/01	<p>Revised to make more consistent with MSFC-STD-246. Changed title to include "Controlled Work Areas;" added definitions for "controlled work area" and "facility." Throughout the document the terms "clean rooms and/or flow benches" were replaced with (1) "controlled work area, clean room, or flow bench" or (2) facilities.</p> <p>2.1.3 – Removed the word "weekly."</p> <p>2.1.4 - Removed the word "weekly."</p> <p>2.1.6 – Specified "facility analysis" quality records.</p> <p>2.2.1 – Added "and a list of facility custodians is maintained as a quality record."</p> <p>Second 2.2.2 was renumbered 2.2.3.</p> <p>Added "2.2.4 The custodian maintains quality records related to training and procedural comments and changes."</p> <p>2.3.5 – Removed the word "weekly."</p> <p>2.3.6 – Replaced the words "red tag (MSFC TAG 7)" with "use prohibited sign."</p> <p>2.3.10 – Reworded to address training for visitors.</p> <p>Added "2.3.11 Maintain quality records related to training and procedure revisions."</p> <p>3.1 – Deleted providing facility list to SR&QA.</p> <p>3.2 – Under "Custodian" added – "Incorporates changes to procedure and maintains training and procedural related quality records."</p> <p>3.3 – Rewording of second statement to read – "Ensures a tag reporting analysis results is placed at entrance to facility..." Reworded third statement to read "Maintains analysis records."</p> <p>4.0 – Reworded list of quality records as follows: Facility analysis records – MP&M's Chemistry Group shall maintain facility analysis records. List of facility custodians – Management of each organization that operates an active facility shall maintain a list of facility custodians. Training records – Facility custodian shall maintain training records for personnel using their facility. Operating Procedures – Facility custodian shall maintain procedures. All records shall be maintained for 5 years then destroyed. (Footer URL updated 11-17-2003 by Directives Manager.)</p>

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Revision	B	9/26/2004	Revised to comply with action from NASA HQ which includes: Changing document font to Times New Roman, changing from MPG to MPR, updating applicable documents, and general formatting. Changed “will” to “shall” in paragraphs 2.1, 2.2, 2.3, 2.3.3, 2.3.6, 2.3.10, and 3.0. 3.1, 3.2, 3.3, 3.4 – defined responsibilities in a table format. 4.0 – numbered the sections. 4.1 – deleted “quality”

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PREFACE

P.1 PURPOSE

The purpose of this Marshall Procedural Requirements (MPR) document is to establish requirements for operating controlled work areas, clean rooms, or flow benches owned or operated at Marshall Space Flight Center (MSFC).

P.2 APPLICABILITY

This MPR is applicable to all Center organizations and contractors performing work requiring controlled work areas, clean rooms, or flow benches. This MPR is applicable to processes related to production, installation, or servicing affecting quality within the scope of MPD 1280.1, “Marshall Management Manual” (MMM), Section 1.

P.3 AUTHORITY

MPD 1280.1, “Marshall Management Manual”

P.4 APPLICABLE DOCUMENTS

- a. MPD 1280.1, “Marshall Management Manual”
- b. MPR 1280.7, “Servicing”
- c. MPR 1410.2, “Marshall Management Directives System”
- d. MPR 1440.2, “MSFC Records Management Program”
- e. MPR 3410.1, “Training”
- f. MPR 8730.1, “Inspection and Testing”
- g. MSFC-STD-246, “Standard Design and Operational Criteria for Controlled Environmental Areas”

P.5 REFERENCES

None

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P.6 CANCELLATION

MPG 5340.1A dated August 1, 2001

Original signed by
Robin N. Henderson for

David A. King
Director

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DOCUMENT CONTENT

1. DEFINITIONS

1.1 Clean Room. An enclosed area where the particulate, temperature, humidity, and pressure are controlled.

1.2 Controlled Work Area. An area where the environment conditions are controlled as required to meet program requirements.

1.3 Custodian. Individual tasked with maintaining controlled work area, clean room, or flow bench in operational order and operational procedures.

1.4 Flow Bench. A clean workstation or similar working enclosure characterized by having a dedicated filtered air or gas supply.

1.5 Facility. A controlled work area, clean room, or flow bench.

2. RESPONSIBILITIES

2.1 Department Manager, Materials, Processes, and Manufacturing (MP&M) Department (ED30), shall ensure that:

2.1.1 Each facility is certified with a class designation as specified by MSFC-STD-246.

2.1.2 Written operational procedures have been reviewed for each facility.

2.1.3 Analyses of all operating facilities are performed.

2.1.4 A tag (MSFC Form 3163) is placed at the primary entrance of each facility reporting the analysis results.

2.1.5 The facility custodian is notified if sampling results show the facility class designation is violated.

2.1.6 MP&M's Chemistry Group maintains facility analysis records.

2.2 Manager of each organization that operates an active facility shall ensure that:

2.2.1 A custodian is designated as point of contact for each facility and a list of facility custodians is maintained as a record.

2.2.2 Training, as defined in written operational procedures, is completed by all personnel

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assigned to each facility.

2.2.3 Written operational procedures for each facility are coordinated and approved by affected organizations.

2.2.4 The custodian maintains records related to training and procedural comments and changes.

2.3 Facility custodians shall:

2.3.1 Designate the class of each facility based on requirements contained in MSFC-STD-246.

2.3.2 Affix a sign indicating the classification to the primary entrance of each facility.

2.3.3 Prepare a written set of operational procedures for each facility in compliance with MSFC-STD-246 (i.e., proper entry, proper garments, cleaning, etc.). Exceptions, including detailed explanation, to MSFC-STD-246 shall be described in these written operational procedures.

2.3.4 Monitor personnel using the facilities to ensure compliance with operating procedures.

2.3.5 Compare analysis data listed on MSFC Form 3163 to specification limits in MSFC-STD-246 or from written operational procedures approved for each facility.

2.3.6 Respond to specification violations. If a facility is in violation and corrections are not implemented immediately, a use prohibited sign shall be posted on the facility.

2.3.7 Instruct users not to use facilities in violation until the problem is corrected and analyses are performed by the MP&M Department, or their representative, to show the area is back within specification as indicated in MSFC-STD-246 or the approved written operational procedures.

2.3.8 Provide the department manager of the MP&M Department with a copy of each facility's written operational procedure for review.

2.3.9 Conspicuously identify inactive facilities to preclude their use for clean facility operations and to eliminate unnecessary inspection, test, and certification activities.

2.3.10 Arrange for training of all personnel who work in the facility. Visitors who have not had required training shall be escorted by a trained individual and gowned appropriately.

2.3.11 Maintain records related to training and procedure revisions.

3. PROCEDURE

MSFC organizations and contractors shall operate all MSFC facilities in compliance with

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MSFC-STD-246 and/or any waivers to that standard, approved by the Manager, MP&M Department.

<u>Actionee</u>		<u>Shall perform all Actions</u>
Manager of Organization	3.1	Identify facilities within their organization. Identify custodian of each facility. Provide list of all facilities and corresponding custodians to MP&M. Ensure training for personnel working in facilities.
Custodian	3.2	Use MSFC-STD-246 to identify classification and post information at facility entrance. Generate operational procedure per MSFC-STD-246 and forward to MP&M. Incorporate changes to procedure and maintain training and procedural related records.
MP&M	3.3	Perform compliance test on facilities per MSFC-STD-246. Ensure tag reporting analysis results are placed at entrance to facility and results provided to the custodian. Notify custodian if out of specification limit condition is found.
Custodian	3.4	If the facility is out of specification, prohibit use and clean the facility. Contact MP&M for compliance test before reopening for use.

4. RECORDS

4.1 Records shall be maintained per MPR 1440.2, "MSFC Records Management Program." Records include the following:

4.1.1 Facility analysis records – MP&M’s Chemistry Group shall maintain facility analysis records.

4.1.2 List of facility custodians – Management of each organization that operates an active facility shall maintain a list of facility custodians.

4.1.3 Training records – Facility custodian shall maintain training records for personnel using their facility.

4.1.4 Operating Procedures – Facility custodian shall maintain procedures.

4.2 All records shall be maintained for 5 years then destroyed.

5. FLOW DIAGRAM

None