MPR 1280.6
REVISION: P
EFFECTIVE DATE: September 22, 2020
EXPIRATION DATE: September 22, 2025

MARSHALL PROCEDURAL REQUIREMENTS

QD01

MANAGEMENT SYSTEMS INTERNAL AUDITS

COMPLIANCE IS MANDATORY
DIRECTIVE IS UNCONTROLLED WHEN PRINTED
Verify current version before use at https://dml.msfc.nasa.gov/directives

DOCUMENT HISTORY LOG

Status (Baseline/ Revision/ Change/ Revalidation/ Canceled)	Document Revision/ Change	Effective Date	Description
Baseline		5/14/99	Document converted from MSFC-P17.1 to a Directive. Previous history retained in system as part of canceled or superseded ISO Document files.
Revision	A	8/16/99	Document revised to reflect new MSFC reorganization.
Revision	B	2/3/00	Section 3.8 was revised to remove the announcement letter; the audit schedule will serve as the announcement letter. Section P.4.c and 4, Records: Reference to MPG 1441.1 was changed to MPG 1440.2.
Revision	C	5/21/01	Updated to replace "MSFC Quality System" with "MSFC Management System." The new electronic audit plans are now reflected in sections 3 and 5. Removed obsolete references to ISO 9000. In section 4.d, changed ref to ISO 9000-3:1991 TO ISO 9000-3: 1997. Updated Flow Chart to include arrows and not just lines between steps. Update other blocks in the Flow Chart for clarity. Updated page 17, paragraph 4 – Records – last item refers to "Training Department" to the Employee and Organizational Development Department.
Revision	D	5/14/03	Document changed to update to the ISO 9001:2000 and AS9100 standards. The documented process in general did not change, however, the procedure was completely rewritten to make it clearer and to add definitions that were omitted. Also, the document has been made more consistent with the actual details of the revised electronic database, which was not adequately referenced in revision C. Removed Appendix D (MSFC Form 4318).
Revision	E	6/7/2004	Updated document to reflect proper section numbers, appendix listing and editorial changes.
Revision	F	9/30/2004	Updated document to adhere to changes of the Headquarters Requirements Rules Review.
Revision	G	10/18/2005	Administrative changes only. Updated records section to correctly reflect the records plan and retention schedules requirements.
Revision	H	12/17/2007	Incorporation of NCR escalation process. Added ISO 14001 audits. Clarified some responsibilities associated with the audit team, the organization representative, and the audit manager. Revised to meet the upper level requirements associated with the way directives are to be written. (Specifically to split requirements into one requirement per paragraph.) Deleted Appendix Z and added into the body of the document as supporting data. Three specific requirements were implemented with this revision: the EMS audit process, NCR escalation process (conflicts/disagreements), and extension request process. Name changed from "Internal Quality Audits" to "Management Systems Internal Audits." Minor administrative changes.
Revision	I	3/17/2008	Revised 2. Applicability statement to reflect transition of MAF from GOCO to GOGO.
Revision	J	9/18/2009	Updated document to reflect correction and corrective action. Documented verification and validation process. Deleted references to Form 4289, including Appendix B flow chart and Appendix C. Updated process to reflect current audit process flow. Removed requirement to use standard checklist to allow auditor options to use other tools or develop checklist. Removed flowchart. Moved Acronyms to Appendix A. Moved References to Appendix B. [On 1/21/10, at the request of the OPRD, administrative changes were made to incorporate resolution comments omitted in Revision J. Administrative changes were made at 3.9.4, 3.12 Note, 3.26.2 Note, 3.26.3, 3.27.1, 3.27.3, 3.27.4, 3.27.5, 3.29.2, 3.29.4, 3.29.5, and 3.30.] [On 1/22/10, at the request of the

			OPRD, an administrative change was made to add 2.4.1 incorporating a resolution comment omitted in Revision J.]
Revision	K	11/30/2011	Updated document to reflect Audit Tracking and Information System (ATIS) database updates, incorporate containment and risk rating into process, and make minor administrative changes. Containment is included as a result of NCR #1375.
Revision	L	5/15/2012	Streamlined document to eliminate unnecessary requirements. Removed general discipline functions covered in the responsibilities sections which are required actions within the database system. Removed requirements which repeat standard discipline practices. Added opportunity for the Auditee/Organization to contest nonconformances.
Revision	M	3/10/2014	Clarified Section 2.24 as a result of NCR #1537.
Change	1	9/10/2014	On 9/10/14, at the request of the OPRD, an administrative change was made at D.1, D.2, D.4, and D.5 to update the retention schedule to address NCR #1622.
Revision	N	12/2/2014	Revised to address NCR #1637. Added requirements: 2.18.1; 2.27.5; 2.27.6. Added definition: Extension.
Change	1	9/18/2015	On 9/18/15, at the request of the OPRD, an administrative change was made to remove reference to ISO 14001 Standard and replaced with NPR 8553.1, "NASA Environmental Management System."
Revision	O	12/21/2016	Updated for consistency and clarification. Included appropriate NASA Headquarters documents in sections P.1, P3, and P4. Nonconformances replaced with NCRs in some instances, and Audit Team replaced with AT. Updated Section 1.1.5 to reflect current responsibilities. Update to section 2.4 to address NCR #1808. Added note for rescind function to section 2.28.2. Deleted note in section 2.29. Section 2.27.6 includes the updated information from the deleted note. Added clarification to section 2.30 about verification at Michoud Assembly Facility. Updated Section 2.34.1 to reflect current process. Clarified some definitions and added definitions for Rescind and Re-Verification.
Revision	P	9/22/2020	Updated corrective action due date extension requests to allow for extensions greater than 60 days.

TABLE OF CONTENTS

PREFACE
P.1 PURPOSE
P.2 APPLICABILITY
P.3 AUTHORITY
P.4 APPLICABLE DOCUMENTS AND FORMS
P.5 MEASUREMENT/VERIFICATION
P.6 CANCELLATION

CHAPTER 1. RESPONSIBILITIES
1.1 Audit Manager (AM)
1.2 Auditor (AT)
1.3 Lead Auditor (LA)
1.4 Organization Management
1.5 Organization Representative (OR)
1.6 ISO Management Representative

CHAPTER 2. PROCEDURES

APPENDIX A – DEFINITIONS
APPENDIX B – ACRONYMS
APPENDIX C – (RESERVED FOR VERIFICATION MATRIX)
APPENDIX D – RECORDS
APPENDIX E – REFERENCES

PREFACE

P.1 PURPOSE

This MPR establishes procedures for organizing, staffing, planning, conducting, and responding to internal audits and vendor/supplier evaluations. These audits encompass all activities, processes, and documents that form a part of the MSFC Management System necessary to comply with NPD 1280.1, NPR 8553.1, NPR 8715.3, NPD 8730.5, MPR 1280.10, MPR 8500.2, and International Organization for Standardization (ISO) 9001, and AS 9100.

P.2 APPLICABILITY

a. This MPR applies to Center personnel, programs, projects, and activities, including contractors and resident agencies to the extent specified in their respective contracts or agreements. ("Contractors," for purposes of this paragraph, include contractors, grantees, Cooperative Agreement recipients, Space Act Agreement partners, or other agreement parties.)

b. This MPR applies to the Michoud Assembly Facility (MAF).

c. This MPR applies the following: all mandatory actions (i.e., requirements) are denoted by statements containing the term "shall." The terms: "may" or "can" denote discretionary privilege or permission; "should" denotes a good practice and is recommended, but not required; "will" denotes expected outcome; and "are/is" denotes descriptive material.

d. This MPR applies the following: all document citations are assumed to be the latest version unless otherwise noted.

P.3 AUTHORITY

a. NPD 1280.1, NASA Integrated Management System Policy

b. NPD 8730.5, NASA Quality Assurance Program Policy

c. NPR 8553.1, NASA Environmental Management System

d. NPR 8715.3, NASA General Safety Program Requirements

e. MPR 1280.10, Marshall Quality Management System

f. MPR 8500.2, MSFC Environmental Management System (EMS)

P.4 APPLICABLE DOCUMENTS AND FORMS

a. NRRS 1441.1, NASA Record Retention Schedules

b. MPR 1440.2, MSFC Records Management Program

c. MWI 7120.6, Program, Project and Institutional Risk Management

d. ISO 9001, Quality Management Systems – Requirements

e. SAE AS9100, Quality Management Systems – Requirements for Aviation, Space, and Defense Organizations

P.5 MEASUREMENT/VERIFICATION

None.

P.6 CANCELLATION

MPR 1280.6O, Management Systems Internal Audits, dated December 2, 2014.

Electronically approved by

Jody Singer
Director

CHAPTER 1. RESPONSIBILITIES

1.1 Audit Manager (AM). The AM or the AM's designated alternate shall be responsible for, and has the authority for, implementing, managing, maintaining, and reporting on the performance of the internal quality audit system.

1.1.1 The AM shall develop the audit schedule at the beginning of each calendar year.

1.1.2 The AM shall periodically review the schedule and may revise the schedule as necessary.

1.1.3 The initial audit schedule shall be approved by the AM, with concurrence by the ISO Management Representative.

1.1.4 The AM shall approve any subsequent revisions to the schedule and notify the ISO Management Representative of revisions.

1.1.5 The AM or designee is responsible for maintaining the list of qualified Lead Auditors (LAs) and Auditors (ATs).

1.1.6 The AM shall complete an AT course and/or possess sufficient management experience as determined by the ISO Management Representative.

1.1.7 The AM or AM's designated alternate has authority to approve audit plans, audit reports, and Nonconformance Reports (NCRs). The AM or AM's designated alternate has authority to modify NCRs in the electronic data base to correct errors/omissions.

1.2 AT. The AT shall conduct an audit under the direction of an LA. Include: participate in audit team meetings, review applicable documents, conduct interviews, document objective evidence, propose a risk rating, and generate and perform follow-up actions on NCRs.

1.2.1 The AT shall meet the following criteria:

1.2.1.1 Complete an AT course facilitated and documented by a certified instructor in the techniques necessary for performing quality or environmental management system audits. Courses may be internally presented or externally achieved.

1.2.1.2 Serve on at least one audit as an AT under instruction.

1.2.1.3 Receive positive determination of competency by the AM. (Positive determination is based on AT's performance and effectiveness under instruction.)

1.3 LA. The LA shall be responsible for, and directly manage, the audit assigned. The LA is ultimately responsible for all phases of the assigned audit.

1.3.1 The LA shall conduct audit team meetings, prepare and conduct briefings, conduct interviews as appropriate, summarize audit, and review and approve all generated NCRs.

1.3.2 Prior to approval by the AM, the LA shall meet the following criteria:

1.3.2.1 Complete an LA course facilitated and documented by a certified instructor in the techniques necessary for performing quality or environmental management system audits. Courses may be internally presented or externally achieved.

1.3.2.2 Serve on at least one audit as an AT under instruction, and serve on an audit as an LA under instruction.

1.3.2.3 Receive positive determination of competency by the AM. (Positive determination is based on LA's performance and effectiveness under instruction.)

1.4 Organization Management. Shall ensure that any necessary corrections and corrective actions are taken without undue delay to eliminate detected nonconformities and their causes.

1.4.1 Organization management can request special audits of processes within their organization by contacting the AM. The organization management and AM shall agree on the scope and audit process.

1.5 Organization Representative (OR). Shall provide requested documentation to the LA and participate in meetings with the LA. Include: Arrange escorts for the audit team when necessary; coordinate and document responses to all NCRs in the Audit Tracking and Information System (ATIS) on behalf of the organization in accordance with this MPR; and submit response without undue delay.

1.6 ISO Management Representative. The ISO Management Representative shall review the audit schedule and indicate concurrence on the schedule before it is implemented. The final authority for resolution of escalated issues is the responsibility of the ISO Management Representative.

1.7 Process Point of Contact (PPOC). The PPOC shall interface with the AT (if requested by the AT) to determine the scope of the audit and which management system requirements/organization activities are to be audited.

CHAPTER 2. PROCEDURES

The procedure begins with the development of an audit schedule at the beginning of the calendar year. As a minimum, the management system shall be audited annually.

Actionee		**Action**
AM or designated alternate	2.1	Shall determine what type(s) of audit is to be performed (audit by organization or by process) and the support needed to conduct each audit.
	2.1.1	Shall develop an audit schedule accordingly, taking into consideration the status and importance of the processes and areas to be audited, the size of the organization/process(s), the applicability to the management system being audited, as well as the results of previous audits, trending data, observed conditions, and problem reports.
	2.1.2	Shall obtain agreement from the organizations' senior management on audit schedule including type of audits to be conducted and organizational support needed.
AM or designated alternate	2.2	Shall ensure that resources committed to the audit are sufficient to meet the audit's intended scope and depth. (This includes providing subject matter experts (SMEs) as needed.) *(Note: Additional ATs may be assigned to receive under instruction training. SMEs may be assigned to an audit when necessary or requested.)*
AM or LA	2.3	Shall work with the OR/ PPOC to determine the scope of the audit and which management system requirements/organization activities are to be audited.
LA	2.4	Shall work with the AM in the audit preparation to confirm scope, including the consideration of nonconformances and the associated corrective action from previous audits in addition to NCRs that have been marked for re-verification.
LA and AT	2.5	Shall be independent of the area they are assigned to audit. When team members are selected to participate in the audit, their participation is subject to approval of their organizational management. *(Note: Independence means that they free from bias or partiality and are not directly responsible for the area that they are auditing.)*
LA	2.6	Shall request experts (e.g., software development or specialized testing) to assess technical compliance and effectiveness of the processes and controls as needed. *(Note: When auditing software-related activities, ISO IEC 90003 is used as a guide in performing the audit.)*

LA	2.7	Shall prepare a flexible, draft audit plan which permits changes in emphasis based on information gathered during the audit and to permit effective use of resources.
LA	2.8 2.9	Shall conduct pre-audit meeting(s) with audit team members and OR. Review previous audit nonconformances, corrections and corrective actions of the organization being audited. *(Note: A checklist may be used as a tool to facilitate verification of conformance to the applicable standards being audited. The ISO 9001, and AS9100 standards and AS9101 checklist/objective evidence record may be used as the basis for an audit checklist.)*
AM	2.10	Shall approve audit plan. *(Note: The AM has the option to make changes to the audit plan during the course of the audit. Changes in the audit plan are coordinated with the OR prior to approval.)*
LA	2.11	Shall provide a copy of the audit plan to the auditee's OR(s) in advance of the audit.
OR	2.12 2.12.1 2.12.2	Shall prepare for the audit: *(Note: Preparation for audit includes: Informing employees of audit scope and objective; appointing escorts as necessary; and supplying resources requested by audit team.)* Make known objections to any provisions in the audit plan to the AM immediately. Objections are resolved among the AM, LA, and the OR before conducting the audit.
LA	2.13 2.13.1	Shall conduct the entrance briefing. Topics for the entrance briefing include a review of the scope and objectives of the audit and an audit schedule. An attendance list of entrance briefing shall be maintained as a record. Recommended attendees include audit team members, the audited organization/area management or representative, OR(s), and escorts.

LA and AT	2.14	Shall conduct the audit accompanied by escorts when deemed necessary by the OR, AM, LA, or any other requirement (e.g., safety).
	2.14.1	Shall audit the auditee's procedures, records, and actual processes to determine compliance to the Marshall Management System (including the Quality Management System (QMS) and/or Environmental Management System).
	2.14.2	Shall review previously closed NCR(s) as assigned by the AM for continued effectiveness.
	2.14.3	Shall collect and document objective evidence of conformance. (Examples: equipment numbers, calibration dates, training dates, document numbers, revision levels, and any other identifying information related to items reviewed.)
	2.14.4	Shall explain to the escort/auditee details of any concerns and/or potential risk at the earliest opportunity.
LA/AT	2.15	Shall report any safety, health, or environmental hazards, potential risk, and/or nonconformances requiring immediate action to the auditee immediately.
LA	2.16	Shall conduct debrief meetings as necessary during the course of the audits.
AT	2.17	Shall debrief Auditee/OR to prevent any miscommunication. (The debrief meeting is a forum where the auditee can address disagreement between the auditee and the audit team.)
AT	2.18	Shall prepare for the exit briefing by identifying and generating draft NCR(s), and documenting positive and negative objective evidence to satisfy the accomplishment of the scope of the audit.
	2.18.1	Shall, prior to release of the audit report and assignment of NCRs to the OR, use the note function to periodically update ATIS of the progress and status of action being taken, not to exceed 60 days between each update. *(Note: This includes a status of why action is late.)*
LA	2.19	Shall conduct an exit briefing at the conclusion of the audit routing an attendance list to be maintained as a record with the audit records. Include:
	2.19.1	A discussion of the audit activities.
	2.19.2	Presentation of the audit team's conclusions regarding the process or management system's effectiveness.
	2.19.3	A summary of the major and/or minor nonconformances; corrected-on-

		the-spot (COTS) actions; discussion of any significant observed concerns; and positive findings.
	2.19.4	A summary of the results of the audit team's review of the NCR(s) from the previous audit(s).
	2.19.5	A discussion of how and when the internal audit report is submitted.
AT	2.20	Shall document objective evidence in ATIS, providing a summary for each clause/process reviewed by the auditor (normally within five working days of the exit briefing).
	2.20.1	NCRs shall include the requirement, objective evidence to support the nonconformance and proposed initial risk rating. (Low, Medium, or High.)
LA	2.21	Shall formalize the audit report in the ATIS using the objective evidence provided by the AT.
	2.22	Shall coordinate additional nonconformances or observations generated during the compilation of the audit report. (Issues are discussed with the OR and the AM prior to releasing the NCR and audit report.)
AM	2.23	Shall review and approve the audit report and any associated nonconformances.
	2.24	Shall review NCR(s) trends for generic or systemic implications initiating a NCR.
	2.25	Shall file and maintain records in accordance with Appendix D. Records.
OR	2.26	Shall contest NCR and document rationale in Block 5 when the generated NCR is considered invalid or improperly assigned.
OR	2.27	Shall analyze nonconformance and determine appropriate action to be taken (containment, correction, and/or corrective action). Preventative action should be considered during this analysis. *(Note: Containment should address whether the nonconformance is isolated; whether other processes or product could be affected; whether there is nonconforming product to disposition based on a nonconforming process; what was done immediately; and what is being done to contain the problem or keep it from getting worse.)*
	2.27.1	Shall assess the risk associated with the nonconformance and determine the appropriate risk rating (low, medium, or high). *(Note: If the AT proposes an initial risk rating other than low, the OR will be automatically prompted to input the risk*

		information. If not, the OR determines if appropriate to use the risk tool. The ATIS software will guide the OR through the risk input process. Based on the information that the OR provides, a risk rating will be calculated by the ATIS software. The risk rating tool is provided to assist organizations in determining appropriate actions to be taken (containment, correction and/or corrective action) based on the initial assessed risk. The organization should determine any subsequent risk management activities in accordance with MWI 7120.6.)
	2.27.2	Shall provide the appropriate data in Block 5 of the NCR database (normally within 10 working days of the date the NCR is approved).
	2.27.3	Each corrective action shall include containment, root cause, proposed corrective action, and a proposed target date for completion. *(Note: When only correction is implemented, root cause analysis is not required.)*
	2.27.4	Corrections shall include the specific action(s) to be taken to correct the specific nonconformity identified. The decision that correction is appropriate and sufficient is usually based on determination that the nonconformity has a low risk and was an isolated incident and not likely to recur after correction. Such decision is determined by the organization's management.
	2.27.5	Shall, during the development and implementation of corrective actions, use the note function to periodically update ATIS of the progress and status of action being taken, not to exceed 60 days between each update. *(Note: This includes a status of why action is late.)*
	2.27.6	When necessary, may request an extension for Block 5 "Root Cause & Corrective Action" response by clicking the extension link in the database. To get an extension the auditee/OR shall provide the containment completion date, containment details and extension rationale. *(Note: The AM may accept one request for extension in Block 5, typically 60 days or less from original due date. Extension requests requiring additional days may be made using process outlined in 2.29.1-2.29.3.)*
LA and AT	2.28	Shall review actions noted as correction and/or corrective action for validation of effectiveness.
	2.28.1	Shall review proposed action and proposed target date for completion to

		ensure that the proposed action is appropriate and the proposed target date for completion is timely.
	2.28.2	Shall accept or disagree with proposed action by selecting the "agreed" or "disagreed" button in the approval field of the NCR database. *(Note: The LA or AT may use the rescind function to return proposed action back to the OR to make changes prior to official decision if the OR agrees with their input being rescinded.)*
	2.28.3	Disagreement with the containment, proposed action, risk rating or correction shall be brought to the attention of the Auditee/OR at the time the action is disagreed.
	2.28.4	Shall negotiate with the Auditee/OR appropriate changes to the action plan, risk rating and/or proposed target date prior to proceeding to the next step.
OR	2.29	Shall document in ATIS the completion of the action taken in Block 6 of the NCR. Additional objective evidence (e.g., data files or pictures) of action taken may be attached to Block 6 of NCR database. *(Note: Actions taken may differ from Block 5 proposed corrective action. The information in Block 6 is intended to reflect actual corrective actions taken, as well as to document any plans that were determined not to be necessary, and therefore, not implemented.)*
	2.29.1	When necessary, the OR shall request an extension to the target date by clicking the extension link in the database.
AM	2.29.1.1	If the extension is 60 days or less, the AM may accept one request for extension in target date from the OR.
	2.29.1.2	If the extension is greater than 60 days, the AM may accept one request for extension in target date from the Organization Manager (if no more than 80% of CA period has elapsed), otherwise from the ISO Management Representative (if more than 80% of CA period has elapsed).
OR	2.29.2	Shall submit a second request for extension to the AM by the organization's management if the extension is 60 days or less.
	2.29.2.1	If the organization's management and AM cannot reach an agreement on the extension, the request is elevated to the ISO Management Representative.

AM	2.29.2.2	If the extension is greater than 60 days, the AM may accept a second request for extension in target date from the ISO Management Representative.
OR	2.29.3	The third and subsequent requests for extension shall be submitted by the organization's management to the ISO Management Representative.
	2.29.3.1	If at any point, the organization's management and AM cannot reach an agreement, the extension request is elevated to the ISO Management Representative.
AM	2.29.3.2	If the extension is greater than 60 days, the AM may accept a third and subsequent requests for extension in target date from the ISO Management Representative.
AT or LA	2.30	Shall verify that the action identified in Block 6 of the NCR database is complete and effective (normally within 10 working days from the time that the LA/AT has been informed that Block 6 has been completed. NCRs for Michoud Assembly Facility may be verified at the next scheduled visit following completion of Block 6. The AT will submit an extension request to Block 7 to allow for the verification if verification must be done at the facility.)
	2.30.1	Shall document the results of the verification activity in Block 7 of the NCR database.
	2.30.2	Shall determine that the action is or is not complete, and/or is or is not effective by selecting "accept" or "reject" under the AT verification field.
	2.30.3	Shall proceed to paragraph 2.32 when all actions in Block 6 are successfully completed and effective.
	2.30.4	Disagreement with the completed action shall be brought to the attention of the OR/Auditee at the time this disposition is made.
	2.30.5	Shall, during the verification and closure phases of the NCR, use the note function to periodically update ATIS of the progress and status of actions being taken, not to exceed 60 days between each update.
OR	2.31	Shall enter any additional action taken (Block 6 of the NCR database) when action has been rejected by the AT.
LA	2.32	Shall review NCR and approve or reject information provided in Blocks 6 through 7 of the NCR database. *(Note: If the verification action taken is determined to be incomplete, contact the AT and resolve the discrepancy prior to closing the NCR.)*

	2.32.1	Shall close the NCR upon satisfactory completion.
LA/AT	2.33	Shall document verification of objective evidence in Block 7 of the NCR database.
AM	2.34	Shall track NCR completion activity to ensure resolution and closure of NCR(s).
	2.34.1	Shall identify NCRs where additional verification of continued effectiveness of actions taken is needed.
AT	2.35	Shall return to 2.30 for those NCRs needing re-verification/validation of effectiveness.
Auditee/ AT/LA/AM	2.36	Shall escalate any disagreement at any step in the process. The escalation process is:
	2.36.1	First, negotiation between AM and Auditee/OR.
	2.36.2	Second, negotiation between responsible organization management and AM.
	2.36.3	Third, negotiation between responsible organization management, AM, and ISO Management Representative.

APPENDIX A

Definitions

Audit Information Tracking System (ATIS). The database used to facilitate the audit documentation and nonconformance tracking.

Audit Plan. An outline that describes the audit activities to be conducted. Including: Identification of the organization(s) to be audited; Audit scope of activities; Location and dates; Name of the OR(s); Names of the audit team member(s); and Dates and times (working hours) for the entrance briefing, debriefing(s), and exit briefing.

Audit Team. Comprised of a Lead Auditor (LA) and/or additional internal auditor(s) (ATs). Subject matter expert(s) (SMEs) may be included on an audit team.

Auditee. An organization or individual from an organization that is audited.

Containment. The first actions taken when a nonconformance is identified. Action to control and mitigate the impact of a nonconformity and protect operations (stop the problem from getting worse) and prevent nonconforming product escapes; includes correction, immediate corrective action, immediate communication, and verification that the nonconforming situation does not further degrade.

Contested NCR. An official NCR which, by virtue of the documented objective evidence, the receiving organization believes to be without merit or improperly assigned.

Corrected on the Spot (COTS). An audit term used to identify a minor isolated problem that can easily be “corrected on the spot” and requires no additional follow-up.

Correction. Action to eliminate a detected nonconformity. A correction can be made in conjunction with a corrective action. Organization management identifies action taken as correction and ensures implementation.

Corrective Action. Action to eliminate the cause of a detected nonconformity or other undesirable situation. There can be more than one cause for a nonconformity. Corrective action is taken to prevent recurrence. Corrective action requires identification and elimination of causes.

Escort. An Auditee representative who physically accompanies the AT during the investigation and analysis of the objective evidence. This individual provides access to physical areas and witnesses, or is informed of potential nonconformances.

Extension. An increase in length of time; specifically: an increase in time allowed to address corrective action or to allow additional time until the next AT visit to MAF for verification of corrective action.

Internal Audit. A systematic and independent examination to determine whether activities and related results comply with planned arrangements (and whether these arrangements are implemented effectively), and are suitable to achieve objectives.

Major Nonconformance. A deficiency that could have a direct, first-order, adverse effect on the quality of a product or service, or on the ability to meet requirements for a product or service. Major nonconformances may include, for example, a complete absence or breakdown of a required quality or environmental management system element.

Minor Nonconformance. A deficiency that could have an indirect, lower-order, adverse effect on the quality of a product or service, or on the ability to meet requirements for a product or service. Minor nonconformances may include, for example, isolated instances of failure to comply with a management system requirement, or failures to comply that would affect quality only if another system failed as well. A series of minor nonconformances against systemic deficiencies may be elevated to a major nonconformance.

Nonconformance. Non-fulfillment of a specified management system requirement. Nonconformance(s) are documented in the Audit Tracking and Information System (ATIS) which generates a nonconformance report (NCR) maintained in the NCR database. (See also Major and Minor Nonconformances).

Objective Evidence. Qualitative or quantitative records or statements of fact pertaining to an item or service, or to the existence and implementation of a management system element, that are based on observation, measurement, or test which can be verified.

Observation. A statement of fact made during an audit and substantiated by objective evidence.

Observed Concern. A condition that can lead to nonconformance. Corrective action is not required; however, observed concerns are opportunities to implement preventative action.

Organization Representative (OR). The individual assigned by Organization management to represent the organization, and serve as primary interface between the organization and the audit organization. The OR is generally the QMS Steering Committee member and/or alternate. (See MC-33).

Positive. A process or policy that is not required, but is value-added to the organization.

Preventative Action. Action to eliminate the cause of a potential nonconformity or other undesirable potential situation. Preventative action is proactive action taken to prevent occurrence.

Process Point of Contact (PPOC). The individual or designee identified as an interface for the audit being conducted. A PPOC can be an organization discipline representative, a process owner or a process discipline expert. An organization Environmental Management System (EMS) representative may be considered a PPOC.

Rescind. Return the proposed NCR action to its previous state. This action will delete any entries within the current block and all data will need to be re-entered and submitted for approval. This action does not reset the clock for the Organization.

Re-verification. The review of the previously verified corrective action(s) for a NCR to ensure implementation is still effective.

Risk. The combination of the probability that a nonconformance could cause an undesired event and the consequences, impact, or severity of a nonconformance could cause an undesired event to occur. Some examples of undesired events include a cost overrun, schedule slippage, safety mishap, health problem, malicious activities, environmental impact, failure to achieve a needed scientific or technological breakthrough, or failure to meet mission success criteria.

Risk Rating. A systematic calculation of condition (concise version of the finding), consequence (perceived operational risk), timeframe (period necessary for mitigation) and defense ("hard" or "soft"). "Hard" defense are more robust and work without human interventions, such as hardware and software design features. These are technical and generally part of the system design. "Soft" defenses depend on human intervention in order to succeed in preventing a consequence, such as warning devices, training, procedures, and inspections. These are comparatively less robust than hard defenses as they are subject to human error.

Subject Matter Expert (SME). An individual assigned to an audit team with detail/specific knowledge or experience in a subject area.

Validation. Confirmation, through the provision of objective evidence, that the requirements for a specific intended use or application have been fulfilled. Validation is objective evidence that the action implemented works.

Verification. Confirmation, through the provisions of objective evidence, that specified requirements have been fulfilled. Verification is objective evidence that action has been implemented.

APPENDIX B

Acronyms

AM. Audit Manager

AFSNO. Agency Filing Scheme Number

AT. Auditor

ATIS. Audit Tracking and Information System

COTS. Corrected on the Spot

EMS. Environmental Management System

ISO. International Organization for Standardization

LA. Lead Auditor

MAF. Michoud Assembly Facility

NCR(s). Nonconformance Report(s)

NRRS. NASA Record Retention Schedules

OR. Organization Representative

PPOC. Process Point of Contact

QMS. Quality Management System

SME. Subject Matter Expert

APPENDIX C

(Reserved for Verification Matrix)

APPENDIX D

Records

Internal audit records will be indexed, filed, maintained, and dispositioned in accordance with NRRS 1441.1 and MPR 1440.2.

D.1 "Audit Nonconformance Report," temporary - Cut off records at close of program/project. Destroy/delete 30 years after cutoff. AFSNO. 8000 Disposition Authority NRRS 8/103.

D.2 Audit report, temporary - Cut off records at close of program/project. Destroy/delete 30 years after cutoff. AFSNO. 8000 Disposition Authority NRRS 8/103.

D.3 AM/AT/LA training and audit records maintained up-to-date by the AM as reference copy only. Official classroom training records are maintained by MSFC Training and Incentives Office.

D.4 Entrance and exit briefings, and attendance list, temporary – Cut off records at close of program/project. Destroy/delete 30 years after cutoff. AFSNO. 8000 Disposition Authority NRRS 8/103.

D.5 Annual internal audit schedule, temporary - Cut off records at close of program/project. Destroy/delete 30 years after cutoff. AFSNO. 8000 Disposition Authority NRRS 8/103.

APPENDIX E

References

E.1 SAE AS9101, Quality Management Systems – Audit Requirements for Aviation, Space and Defense Organizations

E.2 ISO IEC 90003:2014, Software engineering – Guidelines for the application of ISO 9001:2008 to computer software

E.3 ISO 19011, Guidelines for Auditing Management Systems

E.4 MPD 1150.1, Charter MC-33, Quality Management System (QMS) Steering Committee