



**Revision E**

**Maintenance Center, Albany  
Marine Corps Logistics Base, Albany, GA 31704-0325**

**MCA-QP8240  
Previously P10.1**

**15 July 2002**

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## **MCA QUALITY PROCEDURE**

### **CODE 881**

# **MONITORING AND MEASUREMENT OF PRODUCT**

#### **SIGNATURE/APPROVAL**

The signature and date below indicates approval of this procedure for implementation at the Maintenance Center, Albany.

\_\_\_\_\_  
(Signature on File)  
S. H. FOREMAN  
Commander, Maintenance Center, Albany

\_\_\_\_\_  
15 July 2002  
DATE

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### DOCUMENT HISTORY LOG

Status (Baseline/ Revision/ Canceled)	Document Revision	Effective Date	Description
Baseline		07 Dec 98	
Revision	A	27 Jun 00	Major revision/QS 99-006-32 CAR plus Chgs due to Management Review Working Group
Revision	B	3 Oct 00	Major revision/QS-00-030-16 and QS-00-030-3 CARs plus Configuration Status Change Forms 082400001 and 082500001
Revision	C	20 Feb 01	Revision due to AMC-012.
Revision	D	26 Feb 02	Transition from ISO9002:1994 to ISO9001:2000 <b>Transferred Receiving Inspection Requirements to MCA-QP7400</b>
Revision	E	15 Jul 02	Para. 4.1.1 remove "or expired certification"; Para. 4.1.8 change "suspension" to "revocation"; Para. 4.6 remove "(Green Tag Process)"; Para. 4.6.4 add "requirements" after SOW; Revise Section 7 and Appendix A

### Monitoring and Measurement of Product

#### 1. SCOPE.

1.1 Scope. This Maintenance Center, Albany (MCA) Quality Procedure (MQP) documents the general monitoring and measurement activities required to verify that the specified requirements for the product and services are met.

1.2 Purpose. The purpose of this document is to provide product monitoring and measurement processes and to assign responsibility for these activities as required by the Maintenance Center Quality Management System (QMS).

1.3 Applicability. This MQP applies to all MCA organizational elements involved with Monitoring and Measurement of Product.

#### 2. APPLICABLE DOCUMENTS

MCQM1000 Maintenance Centers Quality Manual

See MCA ISO WEB site for applicable documents.

#### 3. DEFINITIONS.

See MCA-QP5500 Appendix A for definitions.

#### 4. PROCEDURE

4.1 General. The following approach shall be taken to provide autonomous oversight and validation of inspection and testing of product and service quality during production and final acceptance process.

4.1.1 Managers shall ensure that employees without inspection certification do not perform inspection and testing of products, services or workmanship.

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4.1.2 Managers shall ensure that employees perform inspecting and testing as contractually required, complete appropriate inspection checklists, forms and other documentation accurately and that it represents the actual results of the inspection.

4.1.3 Inspection and test records to include work orders shall be certified by the personnel conducting or witnessing the inspection and/or test being performed. Personnel performing the inspection, acknowledgement, verification and certification shall initial and place their appropriate number and date on the work order on the lines for the "INSP" operation. In the event there is no "INSP" operation on the work order, they shall initial and place their appropriate number and date next to the mechanic's/technician's initials and identification number that completed the operation at an inspection point or the last operation in the Cost Work Center (CWC).

4.1.4 The item requiring inspection and test status that may be related to a specific CWC, does not have to be physically located in the CWC for an inspection or re-inspection. The planner or expeditor assigned/located in the CWC where the item is located shall contact the appropriate Inspector to inspect and status the item prior to the item being moved to the next operation or another CWC.

4.1.5 Quality and Trades Departments shall complete all Quality Inspection Reports (QIRs) as required.

4.1.6 Managers shall ensure that appropriate corrective actions are taken, when required, to correct defects discovered during inspection and testing.

4.1.7 Discoveries of nonconformance and/or defects shall include a complete and auditable trail of the corrective action (s) taken, when corrective action is required, to eliminate and/or correct the non-conformance and/or defect. Follow up inspections and/or tests shall be conducted, when corrective actions are taken, to ensure that the nonconformance and/or defect were corrected.

4.1.8 The Quality Department's Quality Control Inspectors (QCIs) shall conduct surveillance of Certified Product Inspectors (CPI), CPI employee certification and adherence to inspection and testing procedures, work instructions, forms and checklists. Non-compliances discovered during surveillance may result in revocation of inspection certification and/or decertification of the CPI.

4.1.9 The Program Management Branch shall determine inspection and testing requirements based on Statement of Work (SOW).

#### 4.2 Areas with CPI(s).

4.2.1 Trades Department shall conduct inspection and/or testing in areas where supervisors and leaders have been certified as CPIs.

4.2.2 Production Supervisors shall ensure QIRs are completed on all non-conforming equipment/material/parts and forwarded to the Shop, Quality Assurance and Production Management.

4.2.3 Supervisors shall ensure that appropriate corrective actions are taken for defects discovered during product inspection and/or testing.

#### 4.3 Areas without or functions not performed by CPIs.

4.3.1 Production Management Department shall conduct up front type, quantity and condition receiving verification.

4.3.2 The Quality Department shall conduct inspections and/or testing.

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4.3.3 Quality Control and Quality Assurance Supervisors shall ensure QIRs are completed on all non-conforming equipment/material/parts and forwarded to the Shop, Quality Assurance and Production Management.

4.4 Pre-Repair Inspection

<u>Actionee</u>		<u>Action</u>
Program Management Branch	4.4.1	Provide inspection and or testing requirements to Production Management.
Production Management Department	4.4.2	Ensure item inspection and/or testing requirements are stipulated on the work order, which may be in the form of a checklist, Technical Manual, Statement of Work, Drawing, Rebuild Standard, etc..
Quality Department	4.4.3	Perform pre-induction inspection, pre-repair inspection and Limited Technical Inspection (LTI) prior to induction/disassembly/repair.
	4.4.4	At end item and major component disassembly, inspect for serviceability of components as disassembly occurs or at the staging area after disassembly.
Production Management Department	4.4.5	Complete documentation as to process requirements.

4.5 In-Process and Final Inspection

Program Management Branch	4.5.1	Provide inspection and or testing requirements to Production Management.
Production Management Department	4.5.2	Ensure item inspection and/or testing requirements are stipulated on the work order, which may be in the form of a checklist, Technical Manual, Statement of Work, Drawing, Rebuild Standard, etc..
Trades Department	4.5.3	Inspect for and identify any nonconformances on equipment/parts/raw materials (including customer supplied items) upon issue to Shop. Document nonconformance.
Quality/Trades Departments	4.5.4	Perform in-process and final inspection and/or testing. Record inspection and/or testing results. Document non-conformance.
	4.5.5	Verify that all documentation has been completed and certified as meeting requirements prior to approving equipment/parts/material for final acceptance inspection. Document nonconformance.

4.6 Final Acceptance.

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- Program Management Branch 4.6.1 Provide final acceptance requirements to Production Management.
- Production Management Department 4.6.2 Ensure final acceptance requirements are stipulated on the work order. which may be in the form of a checklist, Technical Manual, Statement of Work, Drawing, Rebuild Standard, etc..
- Trades Department 4.6.3 Notify the Quality Department to perform and document final acceptance inspection.
- Quality Department 4.6.4 Perform and document final acceptance inspection. Document non-conformance. Product release and service delivery shall not proceed until all SOW requirements have been satisfactorily completed, unless otherwise approved by a relevant authority and, where applicable, by the customer.

**4.7 First Article Inspection**

- Program Management Branch/  
Engineering Department 4.7.1 Notify Production Management of any new process or process change.
- Production Management 4.7.2 Ensure items undergoing a new or altered process requires first article inspection on the work order. Ensure first article inspection requirements are stipulated on the work order. Which may be in the form of a checklist, Technical Manual, Statement of Work, Drawing, Rebuild Standard, etc..
- Trades Department 4.7.3 Notify the Quality Department to perform first article inspection.
- Quality Department 4.7.4 Conduct/document first article inspection. Document non-conformance.

**4.9 Inspection and Test Records.**

- Quality/Trades/  
Production Management  
Departments 4.9.1 Ensure complete and accurate records of all inspections and tests are generated and maintained. Records generated shall clearly indicate whether accepted or rejected. Records shall indicate the person(s) authorizing release of product
- Quality/Trades Departments 4.9.2 Follow up inspection and testing shall be conducted to verify that the corrective action was taken to correct the non-conformance and/or defect.

5. NOTES. None

6. DATA, REPORTS, AND FORMS.

6.1 MCLB Alb-4730-27 (Rev. 9-81) - Quality Inspection Reports

6.2 Standard Form 368 - Product Quality Deficiency Report

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7. QUALITY RECORDS. Records generated as a result of inspection and testing activities shall be maintained in accordance with the applicable instruction listed below:

7.1 Work Orders IAW MCA-QP7500

7.2 Inspection and/or Testing Checklists IAW MCA-QI8240-BN0054

7.3 Quality Inspection Reports (QIRs) IAW MCA-QI8240-BN0014

7.4 Product Quality Deficiency Reports (PQDR) (SF368) IAW MCA-QI8300-BN0015

8. APPENDICES, FLOW DIAGRAM.

Appendix A      Inspection & Testing Responsibility Matrix

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## Appendix A

### Inspection & Testing Responsibilities

<b><u>Action:</u></b>	<b><u>Who Performs:</u></b>
<b>Pre-Induction Inspection &amp; Testing</b>	<b>Quality Control Inspector (QCI)</b>
<b>First Article Inspection &amp; Testing</b>	<b>QCI/ Quality Assurance (QA)</b>
<b>Receipt Inspection &amp; Testing</b>	
<b>Quantity and Condition (Source Inspected &amp; Accepted Only)</b>	<b>Tool and Parts Attendant (TPA)</b>
<b>Destination Inspection &amp; Acceptance</b>	<b>QCI/QA</b>
<b>Pre-Repair Inspection &amp; Testing</b>	
<b>All Miscellaneous Inspection &amp; Testing</b>	<b>QCI</b>
<b>Limited Technical Inspections (LTIs)</b>	<b>QCI</b>
<b>Operation Test Inspections (OTIs)</b>	<b>QCI</b>
<b>Disassembly/Disposition Inspection</b>	<b>QCI</b>
<b>In-Process Inspection &amp; Testing</b>	
<b>All Miscellaneous Inspection &amp; Testing</b>	<b>CPI</b>
<b>All LTIs</b>	<b>CPI</b>
<b>All OTIs</b>	<b>CPI</b>
<b>Ste-Ice Testing</b>	<b>CPI</b>
<b>Component Dynamometer Testing</b>	<b>CPI</b>
<b>Chassis Dynamometer Testing</b>	<b>QCI</b>
<b>Communications/Electronics Testing</b>	<b>CPI</b>
<b>Electrical Inspection &amp; Testing</b>	<b>CPI</b>
<b>Fire Control/Optics Inspection &amp; Testing</b>	<b>CPI</b>
<b>Non Destructive Inspection Magnetic Particle Inspection (Including Engines/Components)</b>	<b>QCI</b>

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**Final Inspection & Testing**

<b>All Miscellaneous Inspection &amp; Testing</b>	<b>CPI</b>
<b>Road Test</b>	<b>CPI</b>
<b>Swim Test</b>	<b>CPI</b>
<b>Pull Test</b>	<b>CPI</b>
<b>Load Test</b>	<b>QCI</b>
<b>OTIs</b>	<b>CPI</b>
<b>Configuration Control Records (e.g., Mod Sheets/ECP checklists)</b>	<b>CPI</b>
<b>Data Control &amp; Collection (e.g., QIRs, Forms, Checklists)</b>	<b>CPI</b>
<b>Final Acceptance Inspection &amp; Testing</b>	<b>QCI/QA</b>
<b>Ordnance Vehicle Log Books</b>	<b>QCI/QA</b>
<b>Vehicle Record Jackets</b>	<b>QCI/QA</b>
<b>Configuration Control Data Entries</b>	<b>QCI/QA</b>

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