

**CONTROL OF CORRECTIVE ACTION (8.5.2)**

**Document Control Revision History**

PAGE	REASON FOR CHANGE	REV.	REVIEWER / AUTHORISED BY:	RELEASE DATE:
ALL				
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Revision Approval: J.BENTINK      Signature:      Date: 20/02/17

## **1.0 Scope and Objectives**

- 1.1. This procedure defines the activities required for the corrective action process.
- 1.2. The objective of the corrective action process shall be to ensure that a detailed process is utilized to identify the root cause(s) of nonconformity and systematically resolve the nonconformity by eliminating the root cause(s).
- 1.3. The results of the corrective action process shall be to implement a corrective action appropriate to the effects of the nonconformities encountered, reduce internal operating costs, remove identified problems, improve product quality and improve the overall effectiveness of the quality management system.

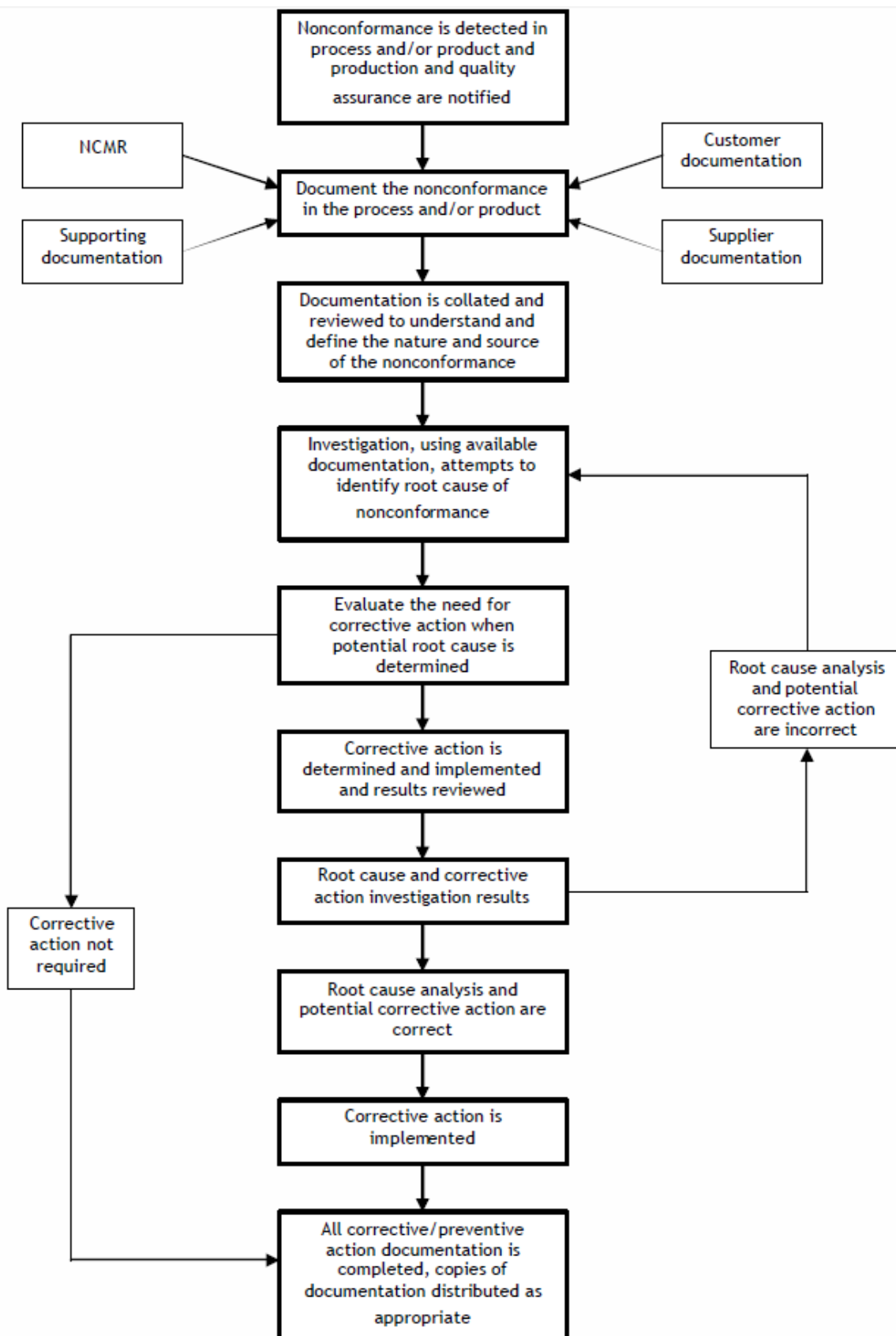
## **2.0 Applicability**

- 2.1 This procedure applies to all nonconforming processes and products.
- 2.2 This procedure applies to all personnel performing processes that have a direct impact on product quality and the ability of the company to provide our customers with product that meets all requirements.
  - 2.2.1 internally at Anchor Marine Services.
  - 2.2.2 externally at special process suppliers.
- 2.3 This procedure is applicable to addressing customer complaints.
- 2.4 This procedure is applicable to quality assurance whose function shall be to ensure that the proper documentation is completed thoroughly and in a timely manner.
- 2.5 This procedure shall apply to the extent necessary to respond to customer initiated corrective action requests.

## **3.0 Related Documents**

- 3.1 QM-01, Quality Manual, Section 8.5.2, Corrective Action.
- 3.2 Quality documents (customer, supplier, internal and external).
- 3.3 ISO9100:2008, Quality Management System Requirements, Section 8.3, Control of Non-conforming Product.
- 3.4 Non-conforming Material Report (NCMR), AMS-014.
- 3.5 Corrective Action Request form (CAR), AMS-006 and customer supplied.
- 3.6 Supplier Corrective Action Request form (SCAR).

#### 4.0 Process Flow Chart



## 5.0 Procedure

- 5.1 In accordance with ISO9001:2008, Section 8.5.2, Anchor Marine Services recognizes the importance of the corrective action process.
- 5.2 Non-conformance is detected in manufacturing process and/or customer product and the corrective action process is initiated.
- 5.3 Nonconforming material procedure is implemented, as appropriate, per QMS-004.
- 5.4 Quality assurance is notified by any of the following personnel:
  - 5.4.1 Manufacturing production personnel.
  - 5.4.2 suppliers of special processes.
  - 5.4.3 Customers.
  - 5.4.4 end users/consumers.
- 5.5 Assigned personnel will document the nature of the non-conformance.
  - 5.5.1 AMS personnel
    - 5.5.1.1 Trade Personnel.
    - 5.5.1.2 production manager.
    - 5.5.1.3 quality manager.
  - 5.5.2 customer representative
    - 5.5.2.1 quality control inspector.
    - 5.5.2.2 quality engineer.
    - 5.5.2.3 design engineer.
  - 5.5.3 supplier representative
    - 5.5.3.1 quality control inspector.
    - 5.5.3.2 production personnel.
  - 5.5.4 end user/consumer
    - 5.5.4.1 appropriate/qualified personnel.
- 5.6 Method of documentation may include any one or more of the following:
  - 5.6.1 NCMR
    - 5.6.1.1 AMS NCMR's will be logged and assigned a log number.
  - 5.6.2 CAR
    - 5.6.2.1 AMS CAR's will be logged and assigned a log number.
  - 5.6.3 SCAR
  - 5.6.4 customer defective material reports (DMR)
  - 5.6.5 inspection report

- 5.6.6 e-mail
- 5.7 All non-conformance documentation and supporting data is collated and reviewed in order to:
  - 5.7.1 define the nature of the non-conformance
    - 5.7.1.1 location of the non-conformance on the customer print specification.
    - 5.7.1.2 what the feature should be.
    - 5.7.1.3 what the actual feature condition is.
  - 5.7.2 identify potential sources of the non-conformance
    - 5.7.2.1 human error.
    - 5.7.2.2 Programming.
    - 5.7.2.3 machine capability.
    - 5.7.2.4 tooling capability.
    - 5.7.2.5 special processing.
  - 5.7.3 identify specific potential root cause(s), for example:
    - 5.7.3.1 incorrect program code.
    - 5.7.3.2 dull or broken tooling.
    - 5.7.3.3 special processor did not perform the correct process.
- 5.8 A potential root cause shall be presented within 10 working days of the implementation of the corrective action procedure.
  - 5.8.1 if a potential root cause is not presented within 10 working days a meeting (teleconference) will be convened to address the problem.
- 5.9 Quality assurance manager and additional personnel, as required, will evaluate the need for corrective action when the potential root cause is determined. If no corrective action is required, the process proceeds to section 5.13.
  - 5.9.1 if potential root cause indicates corrective action is appropriate, a corrective action plan shall be presented within 10 working days of receipt of the potential root cause
    - 5.9.1.1 if a corrective action plan is not presented within 10 working days a meeting (teleconference) will be convened to address the problem.
- 5.10 A corrective/preventive action plan is developed to test the root cause assumption to verify or eliminate the existence of the suspected root cause. Corrective action plans shall be appropriate to the effects of the nonconformities encountered.

- 5.10.1 testing of the corrective action plan will go on until it is determined through data review that the suspected root cause is:
  - 5.10.1.1 correct – nonconformity is eliminated.
  - 5.10.1.2 incorrect – nonconformity is not eliminated.
- 5.10.2 report implemented corrective action plan results to appropriate parties.
- 5.11 If the root cause assumption is incorrect, investigators will go back to Section 5.6 and attempt to identify another potential root cause. If the root cause assumption is correct, the process continues with Section 5.12.
- 5.12 Quality assurance and production managers will implement the corrective/preventive action plan. The determination that the corrective action plan was correct will be reported to appropriate parties.
  - 5.12.1 process will be monitored to determine if corrective/preventive action plan has eliminated the source of the non-conformance.
  - 5.12.2 process monitoring activities are documented on the corrective action form in the event the supplier is at fault, the corrective action requirement will be flowed down to the supplier.
- 5.13 All corrective/preventive action documentation is completed and copies of the documentation distributed as appropriate.
- 5.14 Results of corrective action activities will be reported to interested parties.
- 5.15 Corrective action documentation shall be maintained by quality assurance personnel.

## **6.0 Responsibilities.**

- 6.1 Responsible personnel, supplier and customer
  - 6.1.1 initiate corrective action process.
  - 6.1.2 investigate non-conformance and identify root cause.
  - 6.1.3 implement corrective action.
  - 6.1.4 document corrective action activities and results.
- 6.2 Quality manager
  - 6.2.1 review corrective action activities at management review meeting.
  - 6.2.2 manage corrective action process.
  - 6.2.3 review quality records.
  - 6.2.4 issue and control documents, as appropriate.
  - 6.2.5 ensure documents are regularly reviewed and updated.

- 6.2.6 ensure that regular internal audits, that address the continued applicability of this document, are scheduled and completed.

## **7.0 Record Retention.**

- 7.1 All corrective action and associated quality documentation and quality records will be maintained in the job file.
- 7.2 Management review minutes will be maintained on the server indefinitely.
- 7.3 This controlled QMS procedure shall be maintained on the server indefinitely.
- 7.4 Any hardcopy of this controlled document shall be valid for one day after printing.
- 7.4.1 after one day has elapsed the document shall be used only as a reference document.
- 7.4.2 reference documents must be verified for revision level prior to use.
- 7.5 Obsolete documents shall be removed from area of use and disposed of as appropriate.
- 7.6 All quality records associated with this document will be retained for a minimum of three years or the interval specified by customer contract whichever is longer.
- 7.7 As appropriate, all quality records associated with this document are available for customer or regulatory agency review.

## **8.0 Document Control.**

- 8.1 This controlled QMS procedure shall be maintained on the server indefinitely.
- 8.2 Any hardcopy of this controlled document shall not be valid for when printed.
- 8.3 A printed copy shall only be considered valid when a genuine copy is issued and stamped by the document controller. This copy shall have a date applied, after which the document becomes invalid. (this is usually 1 day after printing. The date of printing shall be applied to the genuine controlled copy cover sheet.

## **9.0 Document Authorities.**

- 9.1 Custodian: Quality Manager
- 9.2 Review Activity                      Quality Manager  
   Managing Director

Operations Manager

9.3 Approval Authority: Quality Manager  
Managing Director  
Operations Manager