Procedure 03-8083-P03

Part 2 of 2

(Ref: SECTION 15)

Corrective
and
Preventative Action

REVISION RECORD

Revision	Date of Issue	Description of Change	Prepared by	Reviewed by	Approved by
0	01/15/03	New	Elaine Steele	Tom Gilmore	Dave Rioux
1	01/13/04	Modified to address Rohwedder's comments	Gary Armstrong	Tom Gilmore	Dave Rioux

CORRECTIVE AND PREVENTATIVE ACTION

1.0 Purpose:

To define the requirements and establish the methods to detect conditions adverse to quality; to identify their cause and provide corrective action to minimize or eliminate the recurrence of nonconformities.

2.0 Scope:

This procedure applies to all personnel, procedures and products at Precision Metal Works Ltd.

3.0 References:

ASME III	Subsection NCA 4134.16
CAN/CSA-N285.0	Section 14
ISO 9001:2000	Section 8.5

4.0 Responsibilities:

4.1 Quality Assurance Manager shall be responsible for:

4.1.1 Reviewing nonconformances documented during Incoming, In-Process, Final Inspection, systems and associated documentation.

4.1.2 Initiating necessary corrective action to prevent reoccurrence.

4.1.3 Reviewing and investigating conditions adverse to quality, to determine the root cause and extent of the nonconformity, including Internal Audit reports and related Corrective Action Requests.

4.1.4 Reviewing the performance of Suppliers of products and services and issuing Corrective Action Requests, where deemed necessary.

4.1.5 Verify responses to Corrective Action Requests and the effectiveness of implementation.

4.1.6 Maintaining Corrective Action Requests and related documentation as Quality Records.

4.1.7 Investigating Customer Complaints and the timely implementation of planned corrective actions and/or preventive actions and to ensure the customer has been satisfied.

4.1.8 Closing out Corrective Action Request’s when completed and accepted.

4.2 All employees shall be responsible for:

4.2.1 Initiating Corrective and Preventive Action Requests when equipment, working conditions and/or working procedures are determined to be adverse to quality. The Quality Assurance Manager shall be contacted and appraised of the

situation. A Corrective and Preventive Action form shall subsequently be completed and processed.

4.2.2 Reporting and/or acting on any Customer Complaint received and contributing wherever possible to satisfying the customer requirements.

5.0 Procedure:

5.1 General Requirements:

5.1.1 Information sources for taking Corrective and Preventive Actions shall include, but not be limited to:

- Methods, processes, procedures, work instructions, etc.
- Customer, jurisdiction or certifying agency reports.
- Reviews of nonconformance reports.
- Specific product deficiencies being repeated.
- Systems which require correction.
- Internal or external audit reports.
- Supplier surveys or performance reviews.
- Material Review Board actions or requests.
- Customer complaints.

5.1.2 Corrective and Preventive Actions shall be implemented to correct and/or prevent reoccurrence of conditions that are adverse to quality by affecting product, processes and the quality system. These conditions shall be investigated, documented and the implementation of dispositions verified by the Quality Assurance Manager. In all cases the Corrective and Preventive Action form shall be used to document the activities, including final verification of the adequacy and effectiveness of measures taken.

5.1.3 Corrective and Preventive Action Requests shall be used to document the actions taken to prevent or eliminate nonconformities from recurrence. The Quality Assurance Manager is responsible for ensuring they are documented. Applicable entries shall be made on the Corrective and Preventive Action Record Form F046 shown in Exhibit 2.

5.1.4 Preventive Action Request shall be used to document potential nonconformities. The Quality Assurance Manager is responsible for documenting those potential problems requiring preventive action using a Corrective and Preventive Action Request form.

5.1.5 The extent of corrective and preventative action to be taken may require the evaluation of :

- Testing.
- Equipment.
- Procedures.
- Instructions.
- Workmanship.
- Inspection acceptance/rejection criteria.
- Etc.

5.1.6 A summary of Corrective and Preventive Actions shall be included in the report for the Management Review.

5.2 **Corrective Action:**

5.2.1 Corrective Actions shall be classified and documented as:

a) External – Nonconforming Material or Service:
Product found to be nonconforming during Incoming Inspection. When applicable Nonconformance Reports, Form F043 shown in Exhibit 1, shall have the box checked to indicate Corrective Action is required.
In such cases, the Quality Assurance Manager shall initiate a Corrective & Preventive Action Request on Form F045 shown in Exhibit 2 and forward it to the Supplier for the documentation of root cause analysis, corrective action and verification.

b) Internal – Nonconforming Product:
Product found to be nonconforming during In-process or Final Inspection. When applicable Nonconformance Reports, Form F043 shown in Exhibit 1, shall have the box checked to indicate Corrective Action is required.
In such cases, the Quality Assurance Manager shall initiate a Corrective & Preventive Action Request on Form F045 shown in Exhibit 2 for the documentation of root cause analysis, corrective action and verification

c) Internal – Nonconforming Equipment, Conditions or Procedures:
Shop equipment, work conditions or work procedures found to be nonconforming. Root cause, corrective action and verification shall be documented on Corrective & Preventive Action Request Form F045 shown in Exhibit 2

d) Internal – Customer Returned Material:
Product found to be nonconforming by the Customer and returned for repair or rework. Details shall be recorded on Form F047 shown in Exhibit 4 including the number of the Corrective & Preventive Action Request to be initiated by the Quality Assurance Manager if considered applicable. This shall be used for the documentation of root cause analysis, corrective action and verification.

The Quality Assurance Manager shall maintain records of Return Material Authorization Reports on the Return Material Authorization Record Form F048 shown in Exhibit 5.

5.2.2 The investigation shall describe the deficiency in sufficient detail for the application of appropriate corrective action.

5.2.3 When appropriate, and at the discretion of the Quality Assurance Manager, Suppliers providing nonconforming product will require Corrective Action under the Internal – Nonconforming Product classification. A copy of the Nonconformance Report will be sent to the Supplier for their information.

5.2.4 Corrective Actions shall be documented using the Corrective and Preventive Action Request form and the Quality Assurance Manager shall maintain record on the Corrective Action Request Record, Form F046 shown in Exhibit 3.

5.3 **Preventive Action:**

5.3.1 Preventive Action investigations shall have the objective of preventing recurrences of identified problems affecting product quality that require the use of available sources of information such as:

- Processes and work operations.
- Documented procedures and work instructions.
- Concessions and authorized manufacturing deviations.
- Audit results.
- Quality records.
- Customer complaints.

These sources may be used to detect analyze, and eliminate actual and potential causes of nonconformances.

5.3.2 Preventive Actions shall include the determination of actions necessary to deal with identified problems and the initiation of those actions.

5.3.3 Preventive action shall be planned based on the seriousness and/or complexity of the nonconformity or potential nonconformity. This shall determine the best approach to be taken for elimination of the problem.

5.3.4 The investigation shall describe the deficiency in sufficient detail for the application of appropriate preventive action

5.3.5 Preventive Actions shall be documented using the Corrective and Preventive Action Request form. Follow up actions shall be performed to verify actions taken are adequate and effective.

5.4 **Customer Complaints:**

5.4.1 Any person receiving, or intercepting, a Customer Complaint regarding any aspect of product or service shall, with a minimum of delay endeavor to satisfy the Customer's immediate needs. Assistance may be requested of any source within the organization.

Problems originating with Suppliers shall be referred to the Purchasing Manager who shall promptly provide the necessary assistance.

5.4.2 Each Complaint shall be referred to the Quality Assurance Manager on form F061 shown in Exhibit 6. If the action taken is considered satisfactory, and nothing further can be achieved the matter may be considered closed.

If not, the Quality Assurance Manager shall issue a Corrective Action Request to the responsible Manager(s). This shall be processed according to the established procedures.

5.4.3 Before closing the matter, the Quality Assurance Manager shall ensure the Customer is satisfied with the actions taken.

5.4.3 The Quality Assurance Manager shall maintain records of Customer Complaints and the associated Corrective Action Requests.

5.5 **Permanent Changes to Documentation:**

5.5.1 Quality Assurance Manager shall determine whether revisions to documentation (manufacturing/ quality instructions, procedures, forms, reports, etc) are permanently incorporated to eliminate future problems. Section 7, Document and Data Control, shall govern those revised documents.

5.6 **Verification of Implementation:**

5.6.1 Quality Assurance Manager shall ensure implementation of Corrective and Preventive Actions are verified as adequate and effective, and are documented on the appropriate form.

5.7 **Preventive Maintenance:**

5.7.1 Preventive maintenance shall be completed on shop equipment as indicated on the Preventive Maintenance Record Form F057 shown in Exhibit 7 and documented on the same form.

5.7.2 Daily, weekly or monthly maintenance on other aspects of shop operation shall be completed and documented, as indicated, on the Maintenance Checklist Form F058 shown in Exhibit 8.

5.8 **Records:**

5.8.1 The following documents, but not limited to, shall be retained by the Quality Assurance Manager as quality records and shall be maintained in accordance with Control of Quality Records:

a) Corrective and Preventive Action Request.
b) Corrective and Preventive Action Record.
c) Return Material Authorization Report.
d) Return Material Authorization Record.
e) Customer Complaint Form.
f) Preventive Maintenance Record.
g) Maintenance Checklist.

5.8.2 Corrective and Preventive Action records shall be available for review to the Customer/ Authorized Inspector.

6.0 Related Exhibits:

Exhibit 1	Form F043	Nonconformance Report
Exhibit 2	Form F045	Corrective and Preventive Action Request
Exhibit 3	Form F046	Corrective and Preventive Action Record
Exhibit 4	Form F047	Return Material Authorization Report
Exhibit 5	Form F048	Return Material Authorization Record
Exhibit 6	Form F061	Customer Complaint Form
Exhibit 7	Form F057	Preventive Maintenance Record
Exhibit 8	Form F058	Maintenance Checklist

Exhibit 1:

PRECISION
metal works

ADTECH
manufacturing

Form: F043 — **NONCONFORMANCE REPORT** — Revision: 0

DESCRIPTION		PART No.:		NCR No.:
DRAWING No.:	REV.	JOB No.:	LOT No.:	BY:
SUPPLIER			P.O. No.:	DATE:

NONCONFORMANCE DETAILS

OPERATOR

QUANTITIES	
RECEIVED	
INSPECTED	
HELD	

Preliminary Dispositions
- ☐ USE AS IS
- ☐ REPAIR
- ☐ MRB
- ☐ REWORK
- ☐ REJECT
- ☐ DOCUMENTS

DISPOSITION INSTRUCTIONS

Final Dispositions
- ☐ USE AS IS
- ☐ REPAIR
- ☐ MRB
- ☐ REWORK
- ☐ REJECT
- ☐ DOCUMENTS

CHARGE SUPPLIER YES ☐ NO ☐ — **CORRECTIVE ACTION REQUIRED** YES ☐ NO ☐

CUSTOMER REPRESENTATIVE ☐ NOT REQUIRED	DATE	QA MANAGER	DATE
ANI ☐ NOT REQUIRED	DATE	OPERATIONS MANAGER ☐ NOT REQUIRED	DATE

RE-INSPECTION

COMMENTS

QUANTITIES	
RECEIVED	
INSPECTED	
HELD	
INSPECTOR	

FINAL ACCEPTANCE (Quality Assurance Manager)	DATE	DATE

Exhibit 2:

PRECISION
metal works

ADTECH
manufacturing

Form: F045	CORRECTIVE AND PREVENTATIVE ACTION REQUEST	Revision: 0

ISSUED TO	ISSUED BY	CAR No.:
COMPANY & ADDRESS	PMW/ADTECH ☐	DATE ISSUED:
		RESPONSE DUE***

PROBLEM

DESCRIPTION OF DEFICIENCY — INTERNAL AUDIT OBSERVATION ☐

PRODUCT INFORMATION	MANUAL OR PROCEDURE INFORMATION
PART NUMBER_____	CODE OR STANDARD_____
PART NAME_____	SECTION TITLE_____
DRAWING_____REV___	SECTION NUMBER_____REV___
P.O._____NCR_____	OTHER_____

ACTION TAKEN

CAUSE OF DEFECT

CORRECTIVE & PREVENTIVE ACTION TAKEN

RESPONSE BY	TITLE	DATE

QUALITY ASSURANCE REVIEW

COMMENTS

☐ REJECTED	REJECTED BY	DATE
NEW CORRECTIVE ACTION REQUEST NUMBER	RESPONSE DUE	
☐ ACCEPTED	ACCEPTED AND CLOSED BY	DATE

***Response Times in Working Days: Safety – 2 days; Defective Product – 4 days; Suggestion or Observation – 30 days; Documentation – 2 days; Shop Product or Process – 10 days

Exhibit 3:

PRECISION
metal works

The Fusion of Quality and Innovation

ADTECH
manufacturing

Form: F046	CORRECTIVE AND PREVENTIVE ACTION RECORD	Revision: 0

Request Number	Description	Date	Issued By

Exhibit 4:

PRECISION
metal works

ADTECH
manufacturing

Form: F047	RETURN MATERIAL AUTHORIZATION REPORT	Revision: 0

Project Number _____

Customer _____ Contact _____

Telephone_____ Fax _____

Details of Reported Problem:

_____

_____

_____

_____

_____

_____

_____

RMA Number Issued: _____

RMA Issued by: _____

Date: _____

Inspection Verification of Reported Problem:

_____

_____

_____

_____

_____

Verified By_____Date_____
QUALITY ASSURANCE INSPECTOR

Responsibility Accepted Yes ☐ No ☐

Corrective Action Required Yes ☐ No ☐

Corrective Action Number_____Issued By_____Date_____
QUALITY ASSURANCE MANAGER

Exhibit 5:

PRECISION
metal works

ADTECH
manufacturing

The Fusion of Quality and Innovation

Form: F048 | **RETURN MATERIAL AUTHORIZATION RECORD** | Revision: 0

RMA Number	Job Number	Customer	Issued By	Date

Exhibit 6:

PRECISION
metal works

The Fusion of Quality and Innovation

ADTECH
manufacturing

Form: F061 — **CUSTOMER COMPLAINT** — Revision: 0

CUSTOMER		QA USE ONLY **No.**
INFORMATION FROM	**RECEIVED BY**	**DATE**
EQUIPMENT	**JOB No.**	**LOCATION/SITE**

DETAILS OF COMPLAINT (Attach any relevant documents or correspondence)

PRELIMINARY ACTION TAKEN

Signed _____ Date _____

QUALITY ASSURANCE DEPARTMENT
(Attach any relevant documents or correspondence)

ISSUED C.A.R No. ☐ N/A	**TO**	**DATE**
COMPLETION DUE DATE		**DATE COMPLETED**

CORRECTIVE & PREVENTIVE ACTIONS VERIFIED ADEQUATE AND EFFECTIVE

Signed _____ Date _____
QUALITY ASSURANCE MANAGER

CUSTOMER NOTIFIED OF ACTIONS TAKEN

Signed _____ Date _____
QUALITY ASSURANCE MANAGER

CUSTOMER COMPLAINT ACTIONS CLOSED

Signed _____ Date _____
QUALITY ASSURANCE MANAGER

Exhibit 7:

PRECISION
metal works

ADTECH
manufacturing

Form: F057	PREVENTATIVE MAINTENANCE RECORD	Revision: 0

Department: _____

Equipment Description: _____

Equipment Identification Number: _____

Serial Number: _____

Maintenance Frequency: _____

Date Issued: _____

Maintenance Requirements:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Comments:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Completed By: _____

Date: _____

Exhibit 8:

PRECISION
metal works

The Fusion of Quality and Innovation

ADTECH
manufacturing

Form: F058 | **MAINTENANCE CHECKLIST** | Revision: 0

DESIGNATION:

- ❐ Daily Maintenance
- ❐ Weekly Maintenance
- ❐ Monthly Maintenance

Date	Item	Item	Item	Item	Item