1. PURPOSE

To establish and specify systematic steps for corrective action in the resolution of quality-related problems.

To analyze and resolve quality problems.

To create a permanent solution that prevents recurrence of nonconformance or potential nonconformance.

2. SCOPE

This procedure applies to internal or external customers of any product offered by Industrial Welding & Engineering (IWE) that is evaluated for quality, reliability, safety, or performance.

Any written or oral expression of dissatisfaction by either internal or external customers related to the identity, quality, reliability, safety, or performance of any product or service offered by IWE. is subject to investigation for root cause and irreversible corrective action.

3. RESPONSIBILITIES

The Quality Manager or designee reviews problems for resolution.

The Quality Manager or designee implements permanent changes through the QMS, procedures, and Project Managers

The Quality Manager or designee maintains the log of corrective actions, solutions and implemented preventive actions.

4. PROCEDURE

4.1 Written Procedures

The Quality Manager or designee prepares the written procedure for corrective and preventive action activities and updates requirements. These procedures are maintained online in the ~QA Forms & Docs folder.

4.2 Request for Corrective Action

Corrective actions are required for internal and external nonconformance, parts that cannot be reworked, parts returned from the customer, customer requests for corrective action, or from quality audit findings.

Corrective Action requests are initiated by the Quality Manager or designee. A Corrective Action is requested by completing the QA 001 CAR form. The Quality Manager or designee will enter the CAR into the Correction Action Log and save a copy of the original CAR and Response into a newly created folder for each respective CAR as it is issued. These individual folders are located online in the ~QA System-Audit Folder (CARs).

The Quality Manager or designee maintains the Quality Action Log. The Quality Action Log is located online in the ~QA System-Audit Folder (CARs).

4.3 Execute Corrective Action System

The Quality Manger or designee analyzes procedures and processes to eliminate potential causes of nonconformance.

The Quality Manager or designee can offer solutions to a corrective action by completing the QA 001 CAR, but ultimately, the assigned departmental lead or supplier representative shall define the corrective action to be implemented as the permanent measure.

If an extension is needed, an e-mail will be submitted to the originator of the corrective action stating the amount of additional time needed and reason for the extension and filed in the online ~QA System-Audit Folder (CARs).

The Quality Manager or designee reviews the resolution and indicates acceptance on the QA 001 CAR. If not acceptable, the Quality Manager or designee may review and reassign the investigation. If the problem is not resolved it is brought to the Project Manager and then the President. Upon approval, the Quality Manager or designee ensures that the corrective action instructions are passed to appropriate personnel for implementation.

The Quality Manager or designee indicates the corrective action closure on the Quality Action Log.

4.4 Investigate Discrepancy, Root Cause, and Corrective Action

The Quality Manager or designee does the following:

- Define the Discrepancy on QA 001 CAR form, lines 21-27
- Investigate and document the issue and Root Cause on QA 001 CAR form, lines 34-38
- Defines the Corrective Action to be initiated QA 001 CAR form, lines 44-48

The Quality Manager or designee completes a report of the investigation and recommends solutions to prevent recurrence on the Preventive Action Log. The Quality Manager or designee and Project Manager is responsible for ensuring that the Corrective Action Instructions are implemented.

4.5 Corrective Action Meetings

Upon closing of a Corrective Action, a meeting with the Project Manager, Supplier, Vendor, or Customer will be held. The CAR will be reviewed and the Preventive Actions explained. Meetings will be documented and signed off by appropriate parties in the Quality Action Log.

CA closeout meetings can be a physical location meeting or via teleconference/webcam.

4.6 Resolve Corrective Actions

Solutions to corrective actions are maintained in QA 001 CAR form, lines 44-48 and Preventive Action Log and CAR Log located online in the ~QA System-Audit Folder (CARs).

If a change to a process or document is required, From ME 001 is used to initiate the change as defined in QAP 5.0, Document Control.

The Quality Manager or designee, Project Manager and/or President, handles disputes between the company and vendor. Problematic vendors are removed from the approved vendor list.

4.7 Verification of Effectiveness

The Quality Manager or designee audits the Quality Action Log to determine any trends in defects. If any trends exist, appropriate corrective action will be initiated per QAP 2.0, Quality System and Internal Audits and this QAP 14.0.

4.8 Permanent Changes

The Quality Manager or designee can request a permanent change to a procedure or process. All major changes to be implemented must be approved by the President or designee and recorded in the ~QA System-Audit Folder (CARs) log.

4.9 Preventive Action System

The Quality Manager or designee creates the Master QA Job File, which documents contract reviews, defines processes and establishes QMS check points.

The Project Manager, President or designee evaluates process requirements, fixturing and dimensional requirements to in-process eliminate errors.

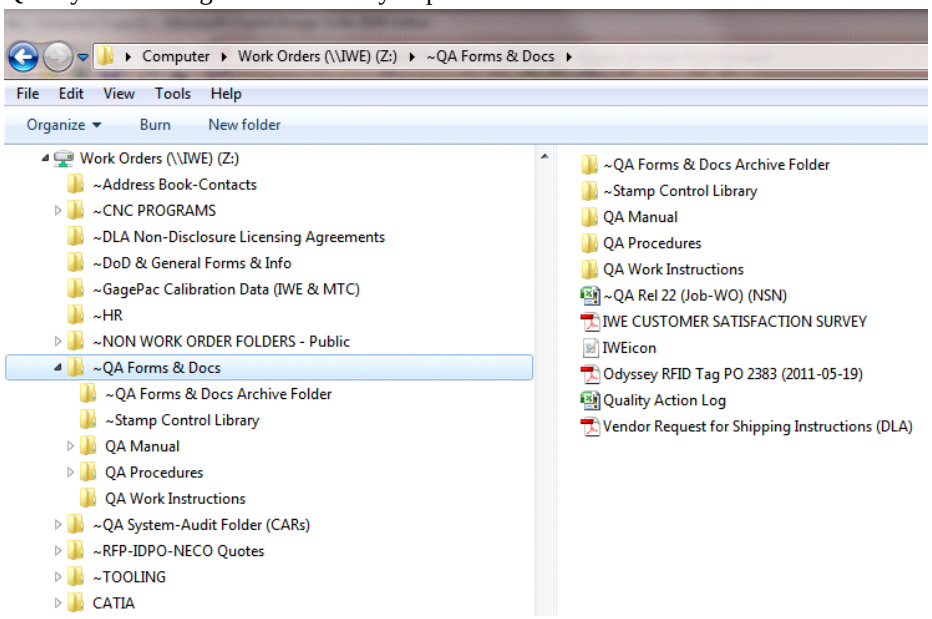
Prior product CARs, Audits, Vendor and Customer correspondence are also reviewed to determine potential causes of nonconformity.

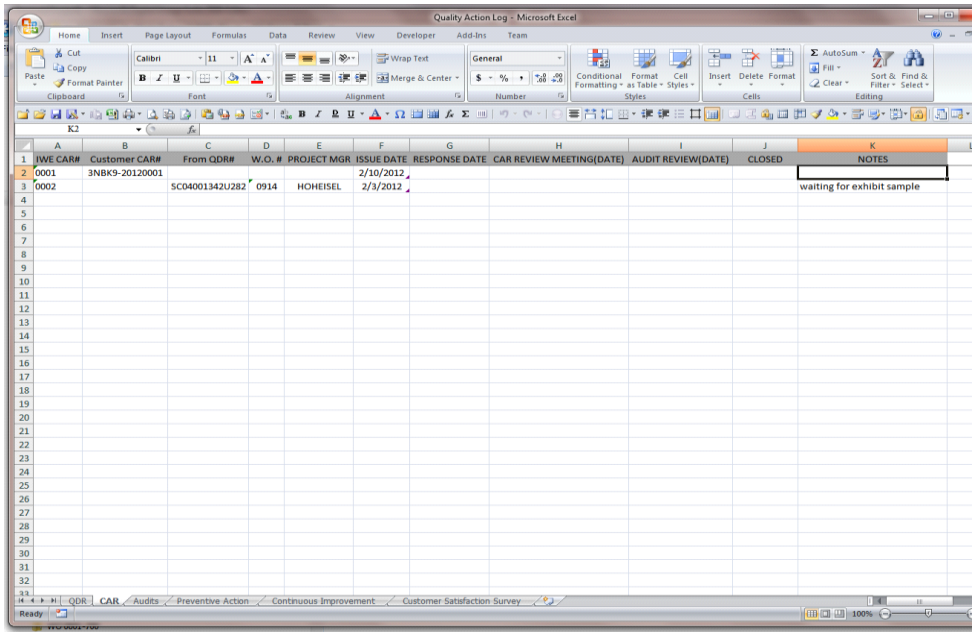
If a potential nonconformity is determined, the Quality Manager or designee completes an entry into the Preventive Action Log and initiates a control point review on the QA Planning form QA 015A or 015B as noted in QAP 5.0, Document Control.

The Quality Manager or designee, Project Manager or designee reviews and assigns a responsible person to assess a solution for preventive action.

Appropriate time is given for the implementation of a preventive action.

Corrective Action and Preventive Action closeout will be logged as a permanent recorded on the Quality Action Log once PA is fully implemented.





5. RELATED DOCUMENTS

QAM
QA 001 CAR
QA 015A
QA 015B
QAP 2.0
QAP 5.0
QAP 14.0
WI-8.0 Quality Action Log