

# Quality manual summary

|                 |                                              |
|-----------------|----------------------------------------------|
| Document        | QM-SUM-01, quality manual summary            |
| Revision        | [ 4 ], issued [ YYYY-MM-DD ]                 |
| Approved by     | [ Name ], Quality Manager                    |
| Controlled copy | No. Printed copies are for information only. |

## 1 Scope

This summary describes the quality program for the design, fabrication, testing and repair of pressure vessels, tanks and heavy platework at the Milton shop. The full manual is available to customers and auditors on request.

The program meets ISO 9001:2015, ASME Section VIII Divisions 1 and 2, the National Board Inspection Code for R-stamp repairs, CSA B51 and CSA W47.1 Division 1.

## 2 Quality policy

We build to the drawing, the code and the purchase order, in that order of evidence. Every vessel leaves with a complete data report. When we find a nonconformance, we tell the customer before we ship, not after.

## 3 Exclusions

None. Design is included in scope because the shop prepares code calculations for customer-supplied process data.

## 4 Organization and responsibilities

| Role                 | Responsibility                                |
|----------------------|-----------------------------------------------|
| President            | Resources, management review, final authority |
| Quality Manager      | Manual, audits, nonconformance, data reports  |
| Welding Engineer     | WPS and PQR, welder qualification, CSA W47.1  |
| QC Inspector         | Material receiving, fit-up, visual, MT and PT |
| Authorized Inspector | Third-party code inspection, [AIA name]       |

The Quality Manager reports to the President and can stop work on any job without production approval.

## 5 Codes and standards

- ASME Section VIII, Divisions 1 and 2 (U and U2 stamps)
- ASME Section IX, welding and brazing qualifications
- ASME Section V, nondestructive examination
- National Board Inspection Code, Part 3 (R stamp)
- CSA B51, boiler, pressure vessel and pressure piping code
- CSA W47.1, Division 1, fusion welding of steel
- CSA N299.2, nuclear quality program, being implemented

## **6 Control of materials**

Pressure-retaining material is received against the purchase order and the mill test report. Heat numbers are transferred before cutting and recorded on the traveller. Alloy material is verified by handheld PMI before it is released to the floor.

## **7 Welding and nondestructive examination**

Welding follows qualified procedures only. Welders work within the positions and processes on their current tickets. Magnetic particle and liquid penetrant testing are done in-house; radiography and ultrasonic testing are done by a qualified third party.

## **8 Inspection and test plan**

Every job has an inspection and test plan that the customer can review before work starts. Typical hold points:

- Material review and heat number transfer
- Fit-up of longitudinal and circumferential seams
- NDE results before post-weld heat treatment
- Hydrostatic test, witnessed by the Authorized Inspector
- Final dimensional check, nameplate and data report

9 Nonconformance and corrective action

Nonconforming items are tagged, segregated and recorded. Repairs to code items follow a written repair procedure accepted by the Authorized Inspector. Root cause and corrective action are reviewed monthly.

10 Records

Data reports, material certificates, NDE reports and heat treatment charts are kept for [10] years after shipment, or longer when the purchase order requires it.

11 Audits and management review

Internal audits cover every clause of the manual each year. Management review is held [twice] a year and covers audit results, customer complaints and supplier performance.

Revision history

| Rev. | Date         | Change                               |
|------|--------------|--------------------------------------|
| [4]  | [YYYY-MM-DD] | Added CSA N299.2 implementation plan |
| [3]  | [YYYY-MM-DD] | ASME U2 scope added                  |
| [2]  | [YYYY-MM-DD] | Updated organization chart           |