INTERNATIONAL TRAINING INSTITUTE
For the
Sheet Metal and Air Conditioning Industry

QUALITY ASSURANCE MANUAL – 2011

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Issued To: James R. Shoulders, ITI Executive Administrator
INTERNATIONAL TRAINING INSTITUTE
For the
Sheet Metal and Air Conditioning Industry

LEVEL ONE

This Level One document applies to the training, education and certification of welders who are members of the Sheet Metal Workers International Association (SMWIA).
# LEVEL ONE

## GLOSSARY

<table>
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<tr>
<th>NAME</th>
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<tr>
<td>Executive Administrator</td>
<td>The International Training Institute Executive Administrator</td>
</tr>
<tr>
<td>ITI Program Administrator</td>
<td>The International Training Institute Program Administrator</td>
</tr>
<tr>
<td>QA Manager</td>
<td>Appointed by the ITI PROGRAMADMINISTRATOR</td>
</tr>
<tr>
<td>Test Supervisor</td>
<td>A CWI Designated By the ITI</td>
</tr>
<tr>
<td>ITI Assessor</td>
<td>An International Training Institute Welding Assessor</td>
</tr>
<tr>
<td>AWS</td>
<td>American Welding Society</td>
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<tr>
<td>ATF</td>
<td>Accredited Test Facility</td>
</tr>
<tr>
<td>Contractor</td>
<td>Management (Sheet Metal Contractor)</td>
</tr>
<tr>
<td>CWI</td>
<td>AWS Certified Welding Inspector QC-1</td>
</tr>
<tr>
<td>Documents</td>
<td>Documents Can Be Hard Copy or Electronic Media</td>
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<tr>
<td>FR</td>
<td>Facility Representative</td>
</tr>
<tr>
<td>JATC</td>
<td>Joint Apprenticeship and Training Committee</td>
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<tr>
<td>MR</td>
<td>Management Representative (ITI)</td>
</tr>
<tr>
<td>NDE</td>
<td>Non Destructive Examination (Non Destructive Testing NDT)</td>
</tr>
<tr>
<td>Non ITIWPS</td>
<td>AWPS Developed By An Organization Outside The ITI Program</td>
</tr>
<tr>
<td>ITI</td>
<td>International Training Institute</td>
</tr>
<tr>
<td>ITIWQTR</td>
<td>International Training Institute Welder Qualification Test Record</td>
</tr>
<tr>
<td>PQR</td>
<td>Procedure Qualification Record</td>
</tr>
<tr>
<td>QAM</td>
<td>Quality Assurance Manual (Level One, Two and Three)</td>
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<tr>
<td>WS</td>
<td>Welding Supervisor</td>
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<tr>
<td>QAT</td>
<td>Quality Assurance Team</td>
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<td>QC-1</td>
<td>Standard for AWS Certification of Welding Inspectors</td>
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<td>QC-4</td>
<td>Standard for Accreditation of Test Facilities for AWS Certified Welding Program</td>
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<td>QC-5</td>
<td>AWS Standard for Certification of Welding Educators</td>
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<tr>
<td>QC-7</td>
<td>Standard for AWS Certified Welders</td>
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<tr>
<td>WPS</td>
<td>Welding Procedure Specification</td>
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<tr>
<td>TS</td>
<td>Test Supervisor</td>
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<tr>
<td>WQTR</td>
<td>Welder Qualification Test Record</td>
</tr>
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<td>Customer</td>
<td>SMWIA Members, ATF’s and Signatory Contractors</td>
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INTRODUCTION

The International Training Institute (ITI) is an organization dedicated to providing quality training expertise in the field of welding nationwide. Our ultimate goal is to provide instructors and welders capable of performing quality work that is recognized by industry standards. This goal with regard to welding is achieved through the use of this manual and AWS QC4-89 and QC7-93.

The ITI’s Quality Assurance Manual consists of LEVEL ONE, TWO and THREE,

QUALITY POLICY

The International Training Institute is committed to quality and integrity of its training documentation, certification, and education for the membership of the Sheet Metal Workers International Association (SMWIA)

The pursuit of excellence by the ITI staff ensures a timely response to requested training for SMWIA local unions and Sheet Metal and Air Conditioning Contractors National Association (SMACNA) local chapters.

The International Training Institute’s continuous improvement philosophy provides the means for delivering quality service that exceeds clientele’s expectations.
SECTION 1.0 MANAGEMENT RESPONSIBILITY

1.0 PURPOSE
To define ITI’s Policy on Management Responsibility.

2.0 POLICY
2.1 ITI’s management has defined and documented the company’s policy for quality. Customer needs and ITI goals are the driving forces that determine company policy. ITI’s quality policy is communicated to all levels of the organization.

2.2 Responsibilities and interaction of all individuals performing functions affecting quality are specified. These individuals have the authority to:
   A. Initiate action to prevent nonconformities
   B. Identify and record any quality problems
   C. Provide solutions to problems
   D. Verify the implementation of solutions
   E. Control the containment of nonconforming product

2.3 The ITI has identified and provides the necessary resources to effectively implement and maintain the quality system.

2.4 The ITI has appointed individuals to have authority to ensure the quality system is functioning effectively. This individual reports to Management.

2.5 The ITI reviews the quality system annually to ensure it meets applicable standards and company goals and objectives.

3.0 RESPONSIBILITIES
3.1 The EXECUTIVE ADMINISTRATOR and ITI PROGRAM ADMINISTRATOR are responsible for setting the company quality policy.

3.2 The EXECUTIVE ADMINISTRATOR and ITI PROGRAM ADMINISTRATOR are responsible for specifying individual responsibility and authority. In case of an ATF having a WS, AWS Remote Testing can be administered under the direction of a WS. ITI Remote Testing may be done by TS in accordance with this QA Manual.

3.3 The QAT is designed to identify and provide adequate resources.

3.4 The EXECUTIVE ADMINISTRATOR will appoint the ITI PROGRAM ADMINISTRATOR and his appointed QA Manager as a member of the QAT to serve as the Management Representative.

3.5 The EXECUTIVE ADMINISTRATOR and ITI PROGRAM ADMINISTRATOR, and the QAT are responsible for reviewing the effectiveness of the quality system.

4.0 REFERENCES
4.1 Refer to Level Two document section 1.01.
SECTION 2.0 QUALITY SYSTEM

1.0 PURPOSE
To define ITI’s Quality Management System.

2.0 POLICY
2.1 The ITI has implemented and maintains a quality system as a means of meeting and maintaining requirements. The quality system structure is documented.

2.2 The quality system has procedures to meet company goals and industry standards. These procedures are effectively implemented.

2.3 The ITI documents how requirements are met. The ITI considers the following activities:
   A. Preparation of quality plans
   B. Identify and acquire necessary equipment and resources
   C. Ensure compatibility of processes and documentation
   D. Utilize the latest technology
   E. Identify new measurement needs in a timely manner
   F. Identify appropriate measurement verification
   G. Clarify standards of acceptability
   H. Identify and prepare quality records

3.0 RESPONSIBILITIES
3.1 The EXECUTIVE ADMINISTRATOR and ITI PROGRAMADMINISTRATOR are responsible for approving Level One.

   The QAT is responsible for approving Level Two and Level Three.

   The QAT is responsible for documenting the quality system.

3.2 The QAT is responsible for implementing the quality system.

3.3 The QAT is responsible for documenting and implementing quality planning activities.

4.0 REFERENCES
4.1 Refer to Level Two document section 2.01.
SECTION 3.0 CONTRACT REVIEW

1.0 PURPOSE
To define ITI’s Contract Review Policy.

2.0 POLICY
2.1 The ITI has documented contract review process.

2.2 The contract review process occurs before contract acceptance and includes:
A. Steps necessary to ensure requirements are adequately defined and documented
B. Resolution of any discrepancies
C. Ensuring the ITI can meet requirements
D. Notifying customers on results of contract review

2.3 The contract review process ensures amendments are identified and communicated.

2.4 Contract reviews are documented and maintained.

3.0 RESPONSIBILITIES
3.1 The EXECUTIVE ADMINISTRATOR, ITI PROGRAMADMINISTRATOR, and appropriate members of the QAT are responsible for documenting the contract review process.

3.2 The EXECUTIVE ADMINISTRATOR, ITI PROGRAMADMINISTRATOR, and appropriate members of the QAT ensure contract reviews occur before acceptance.

3.3 The EXECUTIVE ADMINISTRATOR, ITI PROGRAMADMINISTRATOR, and appropriate members of the QAT ensure amendments are identified and communicated.

3.4 The EXECUTIVE ADMINISTRATOR, ITI PROGRAMADMINISTRATOR, and appropriate members of the QAT documents contract review activities.

4.0 REFERENCES
4.1 Refer to Level Two document section 3.01
SECTION 4.0 DESIGN CONTROL

The ITI reviewed the requirements of ISO 9002, Clause 44 Design Control and determined that it does not apply at this time. However, ITI continues to review the requirements of this clause in the event circumstances change.
SECTION 5.0 DOCUMENT AND DATA CONTROL

1.0 PURPOSE
To define ITI’s Document and Data Control Policy.

2.0 POLICY
2.1 The ITI developed and maintains procedures to control documents and data affecting quality. Documents and data can be in the form of hard copy or electronic media.

2.2 Documents and data affecting quality are reviewed and approved prior to use. Documents are controlled to ensure only current revisions are in use. Documents are readily available at the point of use. Obsolete documents are also being controlled.

2.3 Changes to documents and data are approved by appropriate means. Changes are communicated to end-users.

3.0 RESPONSIBILITIES
3.1 The EXECUTIVE ADMINISTRATOR is responsible for controlling documents and data affecting quality.

3.2 The EXECUTIVE ADMINISTRATOR and ITI PROGRAM ADMINISTRATOR are responsible for reviewing and approving the Level One.

The QAT is responsible for reviewing and approving the Level Two and Level Three.

3.3 Any member of the ITI can recommend changes to procedures. All changes are approved per 3.2 above.

4.0 REFERENCES
4.1 Refer to Level Two document section 5.01.
SECTION 6.0 PURCHASING

1.0 PURPOSE
To define ITI’s Purchasing Policy.

2.0 POLICY
2.1 The ITI developed and maintains documented procedures to ensure purchases that affect quality meet specified requirements.

2.2 Purchases are made verbally and/or by purchase order (P/O).

2.3 The ATF shall verify any and all product purchased at the test site. In cases where the test site customer is making the purchase, the TS will be provided the opportunity to verify product.

3.0 RESPONSIBILITIES
3.1 The ATF is responsible for ensuring the appropriate purchases are made that affect quality.

4.0 REFERENCES
4.1 Refer to Level Two document section 6.01.
SECTION 7.0 CONTROL OF CUSTOMER-SUPPLIED PRODUCT

1.0 PURPOSE
To define ITI’s Policy for Controlling Customer-Supplied Product.

2.0 POLICY
2.1 The ITI maintains documented procedures to handle product supplied by the customer. The ITI reports any concerns to the customer concerning their product. It is the responsibility of the ITI to verify the acceptability of customer-supplied product upon receiving.

3.0 RESPONSIBILITIES
3.1 The ATF is responsible for receiving and verifying customer-supplied product.

4.0 REFERENCES
4.1 Refer to Level Two document section 7.01.
SECTION 8.0 PRODUCT IDENTIFICATION AND TRACEABILITY

1.0 PURPOSE
To define ITI’s Product Identification and Traceability Policy.

2.0 POLICY
2.1 When appropriate, the ITI documents procedures for identifying product through the system. Documented procedures for product identification and traceability where appropriate adhere to specified requirements.

3.0 RESPONSIBILITIES
3.1 The ATF is responsible for product identification and traceability.

4.0 REFERENCES
4.1 Refer to Level Two document section 8.01.
SECTION 9.0 PROCESS CONTROL

1.0 PURPOSE
To define ITI’s Process Control Policy.

2.0 POLICY
2.1 The ITI maintains documented procedures to ensure that processes are carried out under controlled conditions. Controlled conditions include:
   A. Documented procedures
   B. Suitable equipment
   C. Suitable work environment
   D. Compliance with specified requirements
   E. Monitoring appropriate control measures
   F. Approval of processes and equipment
   G. Criteria for workmanship
   H. Maintenance of equipment

3.0 RESPONSIBILITIES
3.1 The WS and TS are responsible for ensuring processes are controlled.

3.2 The EXECUTIVE ADMINISTRATOR is responsible for maintaining appropriate records.

4.0 REFERENCES
4.1 Refer to Level Two document section 9.01.
SECTION 10.0 INSPECTION AND TESTING

1.0 PURPOSE
To define ITI’s Inspection and Testing Policy.

2.0 POLICY
2.1 The ITI maintains documented procedures for inspection and testing to ensure specified requirements are met.

2.2 Incoming product is not used until verified by the TS as conforming to specified requirements. In addition to incoming verification, the subcontractor furnishes appropriate certifications.

2.3 As appropriate, product is inspected and/or tested during use. Product should not be further processed before in-process verification unless positively identified.

2.4 Final product is inspected and/or tested per procedures to ensure compliance to specifications. Documented procedures specify all required inspection and tests. All required inspection and tests are completed before final acceptance.

2.5 All supporting documentation and data is authorized and maintained. Records identify the inspection authority responsible for product acceptance.

3.0 RESPONSIBILITIES
3.1 The QAT is responsible for maintaining documented procedures for inspection and testing.

3.2 The ATF is responsible for verification of incoming product.

3.3 The ATF is responsible for verification of in-process product.

3.4 WS/TS are responsible for all final testing.

3.5 ATF’s are responsible for maintenance of records.

4.0 REFERENCES
4.1 Refer to Level Two documentation section 10.01.
SECTION 11.0 CONTROL OF INSPECTION, MEASURING AND TEST EQUIPMENT

1.0 PURPOSE
To define ITI’s Policy for Controlling Inspection, Measuring and Test Equipment.

2.0 POLICY
2.1 The ITI maintains documented procedures for controlling, calibrating and maintaining equipment used to verify product. Technical data relating to inspection, measuring and test equipment is maintained and readily available.

2.2 The ITI performs the following:

   A. Determine appropriate equipment application.
   B. Calibrate all equipment identified as affecting quality. Calibration will be against recognized standards.
   C. Define the calibration process, including actions to take when equipment is found to be out of calibration.
   D. Identify equipment with calibration status.
   E. Maintain calibration records.
   F. Assess and document the validity of previous inspection and test results when equipment is found to be out of calibration.
   G. Maintain suitable environmental conditions.
   H. Maintain fitness for use of equipment.
   I. Safeguard equipment from adjustments as appropriate.

3.0 RESPONSIBILITIES
3.1 The EXECUTIVE ADMINISTRATOR is responsible for ensuring controls are in place for equipment calibration.

3.2 The ATF is responsible for controlling the process of inspection, measuring and test equipment.

4.0 REFERENCES
4.1 Refer to Level Two document section 11.01.
SECTION 12.0 INSPECTION AND TEST STATUS

1.0 PURPOSE
   To define ITI’s Inspection and Test Status Policy.

2.0 POLICY
   2.1 The ITI uses suitable means to identify the test status. Identification indicates whether test status is conforming or nonconforming to required specifications.

3.0 RESPONSIBILITIES
   3.1 The TS is responsible for inspection and test status.

4.0 REFERENCES
   4.1 Refer to Level Two document section 12.01.
SECTION 13.0 CONTROL OF NONCONFORMITIES

1.0 PURPOSE
To define ITI’s Policy for Controlling Nonconformities.

2.0 POLICY
2.1 The ITI maintains documented procedures to ensure that items and activities not meeting accepted requirements are not used. Control includes identification, documentation, evaluation, and segregation (when practical), disposition and notification to affected parties.

2.2 Nonconformities are reviewed according to procedures.

3.0 RESPONSIBILITIES
3.1 The ATF is responsible for ensuring material meets requirements.

3.2 The ATF is responsible for reviewing nonconformities.

4.0 REFERENCES
4.1 Refer to Level Two document section 13.01.
SECTION 14.0 CORRECTIVE AND PREVENTIVE ACTION

1.0 PURPOSE
To define ITI’s Corrective and Preventive Action Policy.

2.0 POLICY
2.1 The ITI maintains documented procedures for implementing corrective and preventive action. All changes to procedures resulting from corrective and preventive actions are implemented and recorded. ITI has adapted a cause based 5-step problem solving process to ensure effective corrective action.

2.2 Corrective action will include:
A. Effective handling of customer complaints and reports of nonconformities.
B. Investigating causes and documenting.
C. Determining required corrective action.
D. Ensuring actions taken are effective.
E. Records

2.3 Preventive action will include:
A. Use of appropriate information.
B. Appropriate handling of problems requiring preventive action.
C. Ensure preventive action taken is effective.
D. Submit relevant information for management review.

3.0 RESPONSIBILITIES
3.1 The QAT is responsible for implementing corrective and preventive actions.

3.2 The ATF is responsible for reporting complaints and nonconformance’s. The QAT, in conjunction with the FR, is responsible for ensuring corrective actions are taken and effective.

3.3 The QAT, in conjunction with the FR, is responsible for ensuring preventive actions are taken and effective.

4.0 REFERENCES
4.1 Refer to Level Two document section 14.01.
SECTION 15.0 HANDLING, STORAGE, PACKAGING, PRESERVATION AND DELIVERY

1.0 PURPOSE
To define ITI’s Policy for Handling, Storage, Packaging, Preservation and Delivery.

2.0 POLICY
2.1 The ITI maintains documented procedures for handling, storage, packaging, preservation and delivery of product (welding equipment and materials).

2.2 Handling methods ensure the prevention of damage or deterioration.

2.3 Storage areas are designated and maintained to prevent damage or degradation. Authorization methods for access have been determined. At appropriate intervals, stock is reviewed to detect deterioration.

2.4 Packaging is controlled to meet specifications.

2.5 Preservation and segregation of product methods are appropriate.

2.6 Final product, including delivery, is protected.

3.0 RESPONSIBILITIES
3.1 The ATF is responsible for all aspects of this policy section.

4.0 REFERENCES
4.1 Refer to Level Two document section 15.01.
SECTION 16.0 CONTROL OF QUALITY RECORDS

1.0 PURPOSE
To define ITI’s Policy for controlling quality records.

2.0 POLICY
2.1 The ITI maintains documented procedures for controlling quality records. Quality records include documents demonstrating conformance to specified requirements and to the quality system. Records are stored to ensure documents are legible and readily available. Retention times are documented. Records can be either hard copy or electronic media.

3.0 RESPONSIBILITIES
3.1 The QAT is responsible for establishing quality record responsibilities and retention times.

4.0 REFERENCES
4.1 Refer to Level Two document section 16.01.
SECTION 17.0 INTERNAL QUALITY AUDITS

1.0 PURPOSE
To define ITI’s Internal Quality Audit Policy.

2.0 POLICY
2.1 The ITI maintains documented procedures for planning and implementing internal quality audits. Audits determine the effectiveness of the quality system. Audits are scheduled based on the importance of the activity. Audits are conducted by qualified individuals independent of the activity being audited. Audit results are communicated to the individual responsible for the audited area. Appropriate corrective action for any non-conformance will be taken in a timely manner. All corrective actions are followed-up to determine effectiveness. Audit results are part of the Management Review Process.

3.0 RESPONSIBILITIES
3.1 The EXECUTIVE ADMINISTRATOR is responsible for the internal quality audit process.

4.0 REFERENCES
4.1 Refer to Level Two document section 17.01.
SECTION 18.0 TRAINING

1.0 PURPOSE
To define ITI’s Policy on Training.

2.0 POLICY
2.1 The ITI maintains documented procedures for training all personnel performing functions affecting quality. Training qualifications are specified and strictly adhered to. Appropriate training records are maintained.

3.0 RESPONSIBILITIES
3.1 The EXECUTIVE ADMINISTRATOR is responsible for ensuring ITI personnel receive the appropriate training.

4.0 REFERENCES
4.1 Refer to Level Two document section 18.01.