**Section 2120.1040 Quality Control Requirements**

a) General

1) Before issuance or renewal of a Certificate of Authorization, the repair organization must meet all requirements including an acceptable Quality Control System, outlined in a written Quality Control System Manual, which shall include material control, fabrication, welding, nondestructive examination, testing and inspection.

2) The Quality Control System Manual shall also include provisions for making revisions, posting and dating changes in the program enabling the System to be kept current as required.

3) The description and information relating to the System may be brief or voluminous, depending upon the circumstances.

4) In general, the Quality Control System Manual shall describe and explain what documents and procedures the repair firm will use to validate a repair.

5) A review of the repair organization's Quality Control System and Manual will be performed by a representative of the Division. The review will include a demonstration of the implementation of the provisions of the repair organization's Quality Control System.

6) Each repair organization to which a Certificate of Authorization is issued shall maintain thereafter an up-to-date copy of its accepted Quality Control System Manual and keep a current copy on file with the Division. Revisions to the Manual shall not be implemented until such revisions are accepted by the Division.

b) The following sets the minimum requirements for a Quality Control System for repairs of boilers and pressure vessels. Each repair organization shall develop its own Quality Control System which is designed to meet the requirements of the organization. Requirements for the individual Quality Control System Manuals include:

1) Title Page – The title page shall include the name and address of the repair organization to which the Certificate of Authorization is to be issued. It shall also list the Sections of the ASME Code to which the repairs apply.

2) Revision Log – A revision log is required to assure control over revisions in the Quality Control System Manual. The log shall contain sufficient space for date, description and section of revision, repair organization approval and Division acceptance.

3) Contents Page – The contents page shall list and reference, by paragraph and page number, the subjects and exhibits contained within the System.

4) Statement of Authority and Responsibility – A statement of authority and responsibility shall appear on organization letterhead, dated and signed by an officer of the organization:

A) Directing that disagreements in the implementation of the written Quality Control System shall be referred to a higher authority in the organization for resolution; and

B) Listing the title of the individual authorized to approve revisions to the written Quality Control System Manual and the method by which such revisions are to be submitted to the Division for acceptance before implementation.

5) Organizational Chart – The organizational chart shall include all departments or divisions within the repair organization that perform functions affecting the quality of the repair and show the relationship.

6) Scope of Work – The scope of work section shall clearly indicate the scope and type of repairs the organization is capable of and intends to perform. The scope can be limited by engineering, machine tools, welding processes, heat treatment facilities, testing facilities, nondestructive examination (NDE) techniques or qualified personnel.

7) Drawings and Specification Control – The drawings and specification control system shall provide procedures assuring that the latest applicable drawings, specifications and instructions required are used for repair, inspection and testing.

8) Material Control – The material control section shall describe procurement of material with request for mill test certification as required. It shall describe receiving, storage and issuance, as well as the following:

A) The title of the individual responsible for the procurement of all material.

B) The title of the individual responsible for certification and other records as required.

C) Procedures for checking all incoming material and parts for conformance with the purchase order and, where applicable, the material specifications or drawings. The material section shall indicate how the material or part is identified and how identity is maintained by the Quality Control System.

9) Repair and Inspection Program – The repair and inspection program section shall include reference to a document (such as a report, traveler or checklist) which outlines the specific repair and inspection procedures used in the repair. The document shall be retained for a period of at least five years. The document shall include the material check and a description of items such as the welding procedure specifications (WPS), fit-ups, NDE technique, heat treatment, and hydrostatic/pneumatic pressure test methods used. There shall be a space for "sign-offs" at each operation to verify that each step has been properly performed.

10) Welding, NDE and Heat Treatment – The Quality Control System Manual shall indicate the title of the person(s) responsible for the development and approval of the welding procedure, specifications, and their qualifications as well as the qualifications of welders and welding operators. Welding procedure, specifications, welders and welding operators shall be qualified under the requirements specified in the ASME Boiler and Pressure Vessel Code, Section IX. Similarly, NDE and heat treatment techniques must be described in the Quality Control System Manual. When outside services are used, the contracted service provider shall perform in accordance with the Quality Control System Manual and shall meet the requirements of the applicable section of the ASME Code.

11) Calibration of Measurement and Test Gauges – The calibration of measurement and test gauges system shall include the periodic (indicate time schedule) calibration of measuring instruments and pressure gauges.

A) Pressure gauges are to be checked periodically by the person authorized (indicate title). The method of gauge testing is to be indicated and results recorded.

B) Periodically, all master instruments shall be calibrated, preferably but not necessarily, to measuring equipment that is traceable to the National Bureau of Standards.

12) Nonconformities – The system shall establish measures for the identification, documentation, evaluation, segregation and disposition of nonconformities. A nonconformity is a condition of any material, item, product or process in which one or more characteristics do not conform to the established requirements. These may include, but are not limited to, data discrepancies, procedural and/or documentation deficiencies or material defects. Also, the title(s) of the individual(s) involved in this process shall be included.

13) Controlled Copy – An up-to-date copy of the written Quality Control Systems Manual shall be submitted to the Division for review and acceptance. Revisions shall also be submitted for acceptance prior to being implemented.

14) Sample Forms – Forms used in the Quality Control System shall be included in the Manual with a written description. Forms exhibited shall be marked "SAMPLE" and completed in a manner typical of actual repair procedures.

15) Individuality Important – It is extremely important that the Quality Control System and Manual be tailored to the operations of the individual repair organization while meeting the requirements of this Subpart.

(Source: Amended at 23 Ill. Reg. 162, effective January 1, 1999)