

RTI INTERNATIONAL METALS

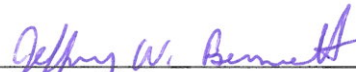
CORPORATE QUALITY MANUAL



RTI | International
Metals, Inc.

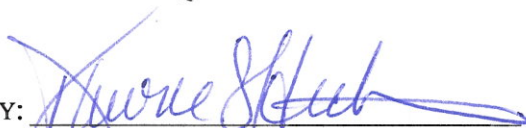
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The mission statement of RTI International Metals, Inc. is to deliver superior quality products, services, and solutions to our global customers on time, and in a manner that maximizes long term shareholder value, while providing an environment that promotes safety, employee satisfaction, ethical conduct, continuous improvement, and corporate responsibility in the communities in which RTI operates.

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1.2 - Scope

RTI International Metals (RTI) has developed a Quality Management System (QMS) designed to consistently provide products that meet the customer and applicable regulatory requirements for the production, processing, recycling, and distribution of titanium, titanium alloys and other specialty alloys for commercial, industrial and aerospace applications. In addition RTI also produces formed and machined parts and assemblies for the same applications. The RTI QMS Manual is designed to meet the intent of ISO-9001: 2008, SAE AS 9100 Rev. C, ISO-10012, Nadcap and all customer quality system requirements.

This manual is divided into sections modeled on the organization of the ISO 9001:2008 and SAE AS-9100 Rev. C standards. Sections are further divided into subsections representing the main Quality System elements and activities. Each subsection has a general policy statement expressing RTI's commitment to implement the basic principles of the pertinent element or activity and a reference to the controlling QMS document for that element or activity.

The RTI Corporate QMS is designed to ensure that the framework for RTI requirements and policies are organized and communicated to each RTI location. Ultimate responsibility for the QMS at each location is the responsibility of top management at that facility.

This manual is to present the RTI Corporate QMS to each location, our customers, and other external interested parties, informing them of the specific controls that are implemented at all RTI facilities to ensure quality at a reasonable cost.

1.3 - Facilities

The RTI Quality Manual applies to the following RTI facilities which include: RTI Niles - Niles, OH; RTI - TRADCO - Washington, MO; RTI - Alloys Material Processing Division (MPD) - Canton, OH; RTI - Alloys Titanium Processing Division (TPD) - Canton, OH; RTI - Alloys-Specialty Alloys (RSA) - Canton, OH; RTI-LA - Garden Grove, CA; RTI - Fabrication - Houston, TX; RTI-St. Louis - Sullivan, MO; RTI - Connecticut - Windsor, CT; RTI - Martinsville, Martinsville, VA; RTI - Claro, Laval, Quebec, Canada; RTI International Metals, Ltd., Staffordshire, England; RTI Advanced Forming Ltd. Hertfordshire, England; RTI Reamet S.A.S. Rosny-Sur-Seine, France.

1.4 - Exclusions

The RTI QMS has been designed to be relevant to the nature of our organization and products produced, as well as all customer and regulatory requirements. For this reason, specific requirements of the ISO 9001:2008 and SAE AS-9100 Rev C do not apply to the scope of the RTI QMS as defined below:

Section 7.3 Design and Development, including all subsections. No RTI facilities design or develop products. Our customers specify the principal product characteristics. Engineering at all RTI facilities is limited to developing methods and means of production for these products.

Section 7.5.1.4 sections a, c, d, and e. RTI does not perform offsite work or repairs. The collection and analysis of in-service data is not specified as a requirement for any RTI contracts and is not expected by our customers. Additionally, RTI does not create or distribute technical documentation.

Note: RTI Alloys-Specialty Alloys does not do business in the Aerospace Industry and will only meet the requirements of ISO 9001:2008

Note: Financial reporting and accounting functions are expressly excluded

1.5 - Organization Overview

This manual adopts a process approach, in its development, implementation and improving its effectiveness of enhancing customer satisfaction by meeting customer requirements. This manual identifies the numerous activities that are linked and explains the methods employed to manage these activities. A description of the sequence and interactions between the processes of the RTI QMS can be found in Q-104.1

Additionally, Figure 1 details the organization structure of the individual site QMS certifications that comprise RTI, as detailed in section 1.3 of this manual.

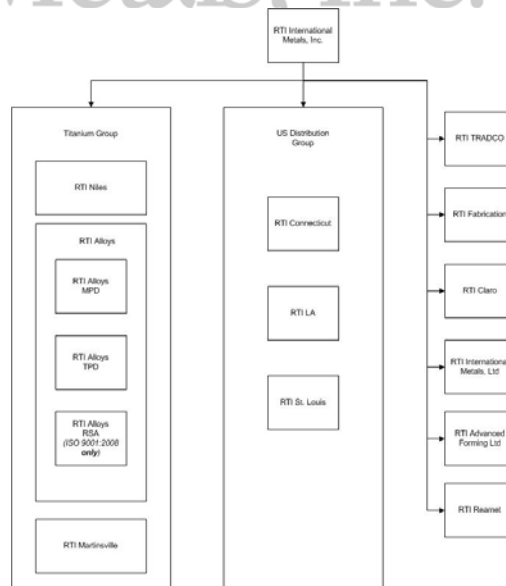


Figure 1

1.6 – Quality Policy

RTI is committed to the relentless pursuit of excellence in delivering superior quality

Products by:

- Meeting or exceeding all customer requirements
- Delivering our product to our customers on time
- Meeting or exceeding all statutory and regulatory requirements
- Continuously improving our process through monitoring and measuring activities.

It is the goal of RTI International Metals to become our customer's Supplier of Choice.

- **Quality shall be in everything we do.**

4.1 General Requirements

RTI is committed at all levels to establish, document, implement, and maintain an effective QMS, and to continually improve its effectiveness, in conformance with the requirements of applicable standards and other requirements as defined by our customers.

Processes that affect product conformity, including outsourced process and activities, are managed in accordance with the RTI QMS, which includes the requirements of ISO 9001:2008 and SAE AS-9100 Rev C, to ensure that all products meet the specified requirements applicable to each individual order.

4.2 Documentation Requirements

The scope of the quality system documentation is defined in Q-104. Establishment and revision of documents and their distribution are controlled. Both new documents and revisions are reviewed and approved prior to issue, and are identified with respect to their revision level. Appropriate documents are available at locations where they are used for

our employees, customers, and regulatory authorities. Obsolete documents are removed from points of use.

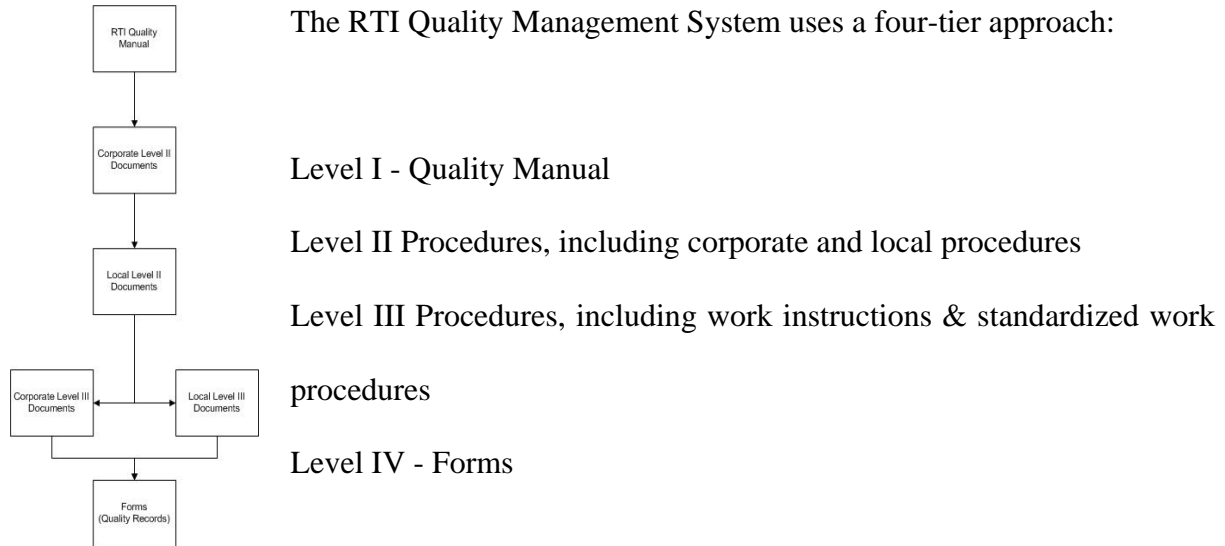


Figure 2 RTI shall ensure that personnel have access to applicable quality management system documentation and are aware of relevant procedures. Figure 2 details the hierarchy of RTI Quality Documents. No document may supersede or be in violation of a document that is superior to it in the hierarchy. These requirements are documented in Q-104.

Procedures for Laboratory testing are contained in an electronic file entitled “Lab Procedures” and shall be maintained by each RTI Laboratory. In addition a manual (hard copy) titled “Lab Procedures” may be maintained at each RTI Laboratory location. Quality records are identified and stored to facilitate their retrieval. Quality records are maintained in accordance to Q-104.

5.1 Management Commitment

RTI executive management is ultimately responsible for establishing, implementing, maintaining, and improving the QMS. Management commitment is demonstrated by communicating to the organization the importance of meeting customer and regulatory requirements, establishing the Quality Policy and quality objectives, conducting management reviews of the QMS, and ensuring the availability of resources.

Reference Q-105 Management Responsibility, Q-104 Document Control, Q-106M Corporate Requirements for Training and Competency, and Q-106.1 Corporate Requirements for Resource Management

5.2 Customer Focus

The objective of RTI is to focus our organization's efforts on the customer, and particularly customer satisfaction. The key to achieving high customer satisfaction is a good understanding of the customers' requirements and a capability to consistently fulfill these requirements.

Reference Q-107 Contract Review & Quality Planning, Q-105 Management Responsibility, and Q-241 Customer Feedback

5.3 Quality Policy

The quality policy is established and communicated across RTI to provide the framework for establishing quality objectives and direction for continual improvement. The Quality

Policy (previously presented in this manual) will be reviewed annually during corporate management review for suitability.

Reference Q-104 Document Control

5.4 Planning

Objectives are established by RTI management to support and implement the quality policy and foster continual improvement. Quality planning includes determination of quality system process and activities, priorities for continual improvement, and resources needed to achieve the quality objectives, and to maintain and improve the RTI QMS. Quality processes are periodically reviewed and updated to maintain the integrity of the RTI QMS during organizational and other changes.

Reference Q-105 Management Responsibility, Q-107 Contract Review & Quality Planning, Q-108.1 Corrective, Preventative and Continuous Improvement Actions

5.5 Responsibility, Authority, and Communication

The organizational and reporting structure of RTI is defined and documented. A corporate quality assurance representative has been appointed and has the organizational freedom to raise quality assurance issues to the highest levels of RTI. In addition, each site has an appointed quality assurance representative. The reporting structure for RTI is detailed in organizational charts under the control of the Human Relations Department. These charts will be available for review upon request. Issues regarding the quality system are

communicated internally through pertinent documents, meetings, training and awareness programs, the corrective action / preventative action / continuous improvement action system, and management reviews.

Reference Q-105 Management Responsibility, Q-104 Document Control, Q-107 Contract Review & Quality Planning, Q-106M Corporate Requirements for Training And Competency, Q-106.1 Corporate Requirements for Resource Management, and Q-108.1 Corrective, Preventative and Continuous Improvement Actions.

5.6 Management Review

RTI Conducts reviews of the quality system following each quarter. Each RTI site will conduct a review at the local level. Additionally, there will be a quarterly review at the corporate level. These reviews will evaluate the suitability of the RTI QMS, identify opportunities for improvement, and consider the need for changes to the RTI QMS.

Reference Q-105 Management Responsibility

6.1 Provision of Resources

RTI management is committed to provide adequate resources for the implementation and improvement of the Quality System, and for addressing customer satisfaction.

Reference Q-106.1 Corporate Requirements for Resource Management, and Q-241 Customer Feedback

6.2 Human Resources

RTI identifies personnel training needs, provides required training, and evaluates the effectiveness of the training provided for personnel performing work affecting product quality. Personnel assigned to perform specific tasks, operations, and processes are qualified on the basis of appropriate education, experience, or training. Employees are made aware of the relevance and importance of their activities and how they contribute to the achievement of quality objectives. Records of personnel qualifications and training are maintained.

Reference Q-106M Corporate Requirements for Training and Competency and Q-104SWP Corporate Policy for Standardized Work (Procedures)

6.3/6.4 Infrastructure and Work Environment

Suitable infrastructure, facilities and work environment are provided as required to achieve product conformity. This includes planning, provision, and maintenance of employee facilities, workspaces, equipment, and associated services.

Reference Q-104SWP Corporate Policy for Standardized Work Procedures, Q-106.1 Corporate Requirements for Resource Management, and Q-107.5 Production Traveler Policy.

7.1 Planning of Product Realization

Planning of product realization processes includes determination of quality objectives for products, development of required processes and process documentation, and establishment of product verification and validation programs. The processes also define requirements for records necessary to demonstrate process and product conformity

Reference Q-107 Contract Review & Quality Planning, Q-029 Procedure for Issuing & Reissuing Test Reports (Certifications), Q-107.5 Production Traveler Policy, Q-104 Document Control, and Q-104SWP Standardized Work Procedures.

7.1.1/7.1.2 Project Management / Risk Management

All RTI locations implement and maintain management processes designed to identify, reduce, and accept those risks related to the achievement of results, including all customer requirements, relating to product realization. Management of process changes, new processes, new or changed requirements, and new or changed materials are controlled, including assessment and mitigation of risks. Specific tools to manage projects will be employed as applicable to the project.

Reference Q-107 Contract Review & Quality Planning, Q-107.4 Purchasing, Q-107.5EQP Qualification of Equipment Changes and New Equipment, Q-107.5QAL Qualification of Raw Materials and Process Changes, and Q-107.1.2 Corporate Requirements For Risk Management.

7.1.3 Configuration Management

RTI develops and establishes processes and institutes controls that will produce products consistent with agreed upon requirements. All RTI locations employ a configuration management process to ensure change control and configuration identification as appropriate to the location and product produced is deployed.

Reference Q-104.2 Configuration Management, Q-107.5 Production Traveler Policy, Q-107 Contract Review & Quality Planning, Q-104SWP Policy for Standardized Work, P-526 Specification for Lot and Material Identification and Numbering System

7.1.4 Control of Work Transfers

The permanent or temporary transfer of work is controlled and managed to ensure that all requirements are being achieved with acceptable risk.

Reference Q-107 Contract Review & Quality Planning, Q-107.4 Purchasing, Q-107.5EQP Qualification of Equipment Changes and New Equipment, Q-107.5QAL Qualification of Raw Materials and Process Changes, and Q-107.1.2 Corporate Requirements For Risk Management.

7.2 Customer Related Processes

Product requirements including customer-based, legal, regulatory, and other necessary requirements that may not be specified by customers. Orders are reviewed to ensure that product and order requirements are defined and can be met, and to resolve any incomplete

or conflicting requirements. Verbal orders are confirmed before acceptance. Order amendments and changes are likewise reviewed and are communicated to all relevant functions. Order reviews are recorded and are retained. Arrangements for communication with customers relating to product information, order handling, and customer feedback and complaints are defined and implemented. Where applicable, operational procedures and instructions for these activities are established and implemented. By accepting a purchase order or contract RTI grants the right of access to the issuer of the purchase order and any applicable authorities to witness or audit applicable areas and records associated with the purchase order or contract.

Reference Q-107 Contract Review & Quality Planning, and Q-241 Customer Feedback.



7.3 Design and Development

Exclusion – See section 1.4

7.4 Purchasing

RTI evaluates its suppliers of materials and services that affect process or product quality and purchases only from those that can satisfy appropriate quality, customer, and regulatory requirements. Quality performance of suppliers is monitored and evaluated. Purchasing documents clearly and completely describe ordered products, including quality requirements. Purchased products are verified before they are used or shipped.

Reference Q-107.4 Purchasing

7.5 Production and Service Provision

Product and process information, and appropriate Work Instructions are established, and are communicated to relevant personnel. Operations and production processes are monitored and controlled, and are validated where appropriate. Where required, RTI will complete First Article Inspections to validate products and / or processes. Machines and equipment used in production and for monitoring and measurement activities are maintained. Methods for product release and delivery are defined.

Materials, components, parts, subassemblies, and finished products are identified. When required, traceability of materials and processes is recorded and maintained. Inspection and test status of product is identified to ensure that only product that has passed the required inspections is used, installed, or dispatched.

Customer-supplied products are controlled in the same manner as are purchased products. Customer-owned tools, equipment, software, or other property are marked to indicate ownership. Loss, damage, or unsuitability of a customer's product is recorded and reported to the customer.

Appropriate handling, storage, and preservation methods are implemented to prevent product damage or deterioration. Receipt and dispatch to and from storage areas are controlled. The condition of products in stock is regularly assessed. Product packaging materials and methods are specified and controlled.

Reference Q-104.2 Configuration Management, P-526 Lot and Material Identification and Numbering, Q-107 Contract Review & Quality Planning, Q-015 First Article Inspection, Q-107.4 Purchasing, Q-107.1 Policy for Customer Property, Q-107.7 Special Processes, Q-107.5 Production Traveler Policy, Q-104SWP Standardized Work Procedures, Q-108.3 Control of Nonconforming Material, Q-107.3 Product Handling & Preservation, and Q-029 Procedure for Issuing & Reissuing Test Reports (Certifications).

7.6 Control of Monitoring and Measuring Equipment

Appropriate measuring and monitoring instruments are maintained and selected to ensure that measurement capability is consistent with the measurement requirements. Equipment used for assuring product conformity is calibrated using calibration standards traceable to the national standard. Calibration status of measuring equipment is identified with calibration stickers. Measuring equipment is properly maintained, and its placement and use are controlled.

Reference Q-107.6 Control of Monitoring & Measuring Devices

8.1 Measurement, Analysis, and Improvement – General

Measurement and monitoring activities required to assure product conformity, and to achieve improvement, are planned and defined. When applicable, statistical techniques are used for analyzing measurement data.

Reference Q-105 Management Responsibility

8.2 Monitoring and Measuring

Customer satisfaction is the principal objective of the Quality System, and the level of customer satisfaction is an important measure of the effectiveness of the Quality System. Customer satisfaction is measured by collecting and analyzing direct customer feedback, and by measuring secondary indicators of customer satisfaction. Customer satisfaction data is used by the top management to identify opportunities and priorities for improvement.

All activities and areas relevant to the Quality System are audited at least once a year. Audits are scheduled on the basis of the status and importance of the activity. Internal auditors are independent of those having direct responsibility for the audited activity. Identified nonconforming conditions are brought to the attention of the responsible managers and corrective actions are implemented in response to audit findings.

Quality System processes are monitored to ensure that they achieve planned results. Relevant product characteristics are measured through inspections, tests, and other product verification activities, as specified. If planned results are not achieved, appropriate action shall be taken. Evidence of product conformity is recorded. Products are released for delivery only after all specified activities have been satisfactorily completed and verified.

Reference Q-029 Procedure for Issuing & Reissuing Test Reports (Certifications), Q-241 Customer Feedback, Q-108 Audit Procedures, Q-004 Training, Qualification, and Certification of Auditing Personnel and Q-108.1 Corporate Corrective, Preventative & Continuous Improvement Actions Policy.

8.3 Control of Nonconforming Product

Nonconforming product is identified, documented, evaluated, and segregated as appropriate to prevent unintended use or shipment. Repaired or reworked products are re-inspected. Appropriate actions are taken when product nonconformity is identified after delivery. When appropriate, corrective and preventive actions are implemented to prevent recurrence of identified nonconformities.

Reference Q-029 Procedure for Issuing & Reissuing Test Reports (Certifications), Q-108.3 Control of Nonconforming Material, and Q-108.1 Corporate Corrective, Preventative & Continuous Improvement Actions Policy.

8.4 Analysis of Data

RTI collects, compiles and analyzes information and data required for evaluating the suitability and effectiveness of the Quality System and for identifying opportunities for continual improvement.

Reference Q-105 Management Responsibility

8.5 Improvement

Executive management of RTI International Metals deploys a continual improvement philosophy throughout the entire organization. The improvement effort is driven by the Quality Policy, Quality Objectives, and the Corporate Mission Statement. Improvement opportunities are identified by analyzing quality performance data and all other available

information, as well as actions arising from management review. RTI has a corporate continuous improvement department that works in unison with quality assurance and other departments to facilitate and implement continuous improvements. Improvement projects are defined and implemented through the system of corrective, preventative and continuous improvement actions.

Causes of identified nonconformities are investigated and, where appropriate, corrective actions are implemented to ensure that nonconformities do not recur. Preventive actions are implemented to eliminate the causes of potential nonconformities. Continuous improvement actions are implemented to make improvements in areas where there are opportunities to improve. Corrective and preventive actions taken are recorded and are followed up to ensure that they have been properly implemented and that they are effective.

Reference Q-105 Management Responsibility, and Q-108.1 Corporate Corrective, Preventative & Continuous Improvement Actions Policy.

Revision History

August - 2003 the “RMI QUALITY MANUAL” was revised in its entirety by B. Newman to become a corporate level manual, the “RTI QUALITY MANUAL”. The new version includes certain corporate specifications that are included in Sections 4 through 8. In a separate attachment, “The IAQS Exhibit”, details the ISO standard and identifies both Corporate and Subsidiary level documentation supporting the standard. The IAQS Exhibit is updated as needed.

Revisions dated November 2003, by B. Newman.

Minor adjustments and corrections to text were made after internal review and recommendations. (Document not reissued at this time.)

Revision dated March 2004, by B. Newman.

First paragraph of “ Scope” rewritten to better reflect corporate overview. (Adapted from BVQI statement.)

Revision dated August 2005, by B. Newman.

Preface & Organization Overview – Changes to corporate listing of RTI-subsiaries

Exposition removed

Scope & Quality System - Updated referenced specification AS9100 Rev. B; removed reference to CAA & FAA-ACSEP

All specifications (Q-104 thru Q-108) included within the Manual updated to reflect current revision of AS9100, Rev. B and to reference all RTI subsidiaries included within RTI’s ISO/AS certification

Revision dated March 2006, by B. Newman.

Addition to Preface - regarding RTI Laboratory procedures & manuals. (Lab procedures & manuals shall be maintained at each RTI Lab location.

Revision dated November 9, 2007, by J.W. Bennett.

Signature changes reflect change in management.

This revision of the Manual entails a complete re-write, removing all specifications originally included within the sections of the manual and referencing corporate specifications by ID number throughout the document.

Revision dated April 18, 2008, by J.W. Bennett.

This revision of the Manual incorporates a changed quality policy as decided in Management Review held 04/04/2008. Page numbers on the table of contents updated to match change from new quality policy.

Revision dated October 6, 2008, by J.W. Bennett.

This revision of the Manual incorporates a change to figure 1 to show the three business groups Titanium, Fabrication, and Distribution. All references to RMI Titanium were changed to RTI Niles. The water mark was also updated to the current RTI Logo as posted on the company intranet.

Revision dated February 10, 2008, by J.W. Bennett.

This revision of the Manual incorporates a change in scope to better reflect activities of the Fabrication Group (section 1.2). And section 7.2 was updated to ensure “right of access to customers and regulatory authorities.

Revision dated April 09, 2009, by J.W. Bennett.

Removed all references to RTI Indiana and updated figure 1 based on business unit closing.

Revision dated July 02, 2009, by J.W. Bennett.

Removed all references to RTI Texas and updated figure 1 based on business unit closing.

Removed all references to RTI Hermitage and updated figure 1 based on RTI Hermitage is no longer operating as a standalone business unit.

References to RTI Specification Q-241 Customer Complaints were changed to read Q-241 Customer Feedback to reflect the scope change of RTI specification Q-241.

Revision dated January 06, 2010, by J.W. Bennett.

As a response to CAR# 2471 (BVC Audit finding SF02#REN-01KAT) updated all ISO references from 9001:2000 to 9001:2008.

Updated scope to include recycling.

Revision dated November 21, 2011, by J.W. Bennett.

Complete re-write for AS-9100C transition



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