

Yarde Metals, Inc.

Quality Manual

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Purpose Policy 1.0

PURPOSE:

Yarde Metals, Inc. is committed to meeting the ISO9001:2008 and AS9100 Rev. B requirements.

Scope Policy 2.0

SCOPE:

The scope of this quality manual is for the entire Yarde Metals, Inc., quality management system and includes the following Yarde Metal sites:

- Yarde Metals - Southington, CT
- Yarde Metals - Long Island, NY
- Yarde Metals - Pelham, NH

The scope of Yarde Metals is as follows:

A global distributor of industrial metals to the aerospace, marine, and commercial markets, with emphasis on:

- Aluminum
- Stainless Steel
- Carbon Steel
- Brass and
- Custom Extrusions.

Offering value added secondary processes and services.

Change History

Policy 3.0

Revision Date	Change	Approved by
11/07/2003	Update to ISO9001:2000 and AS9100 Rev. A	Bruce N. Hecklinger, Director of QA Tracy Yarde Smith, V.P. Administration
05/06/05	"Continuous" to "Continual" in Quality Policy in para 5.3 and delete "Quality" in Quality Improvement Added Assistant Controller and Import/Export Admin to Corp Org Chart and changed HR Mgr from being under President to being under VP Administration	Bruce N. Hecklinger, Dir of QA
06/11/07	Update to the Corporate Organizational Chart in Policy 5.0, Management Responsibility, to show changes in management.	Bruce N. Hecklinger, Dir of QA
07/26/07	Changed "chats" to "performance evaluations" in para 5.5.3 in POL5.0	Bruce N. Hecklinger, Dir of QA
11/08/07	Added procedures 3-5 and 3-6 to include statutory and regulatory req.'s related to export/re-export on para. 7.2.1 letter c in Policy 7.0	Bruce N. Hecklinger, Dir of QA
04/02/09	Updated Rev level of AS9100 to Rev B	Bruce N. Hecklinger, Dir of QA
06/09/09	Updated Rev level of ISO9001:2000 to 2008 and minor changes to all policies to reflect revision level.	Bruce N. Hecklinger, Dir of QA
07/21/09	Added the approval or disapproval of suppliers stmt to para 5.5.2 letter d in Policy 5	Bruce N. Hecklinger, Dir of QA
08/04/09	Update to the Corporate Organizational Chart in Policy 5.0, Management Responsibility, to show changes in management	Bruce N. Hecklinger, Dir of QA
08/10/09	Added Yarde Metals' scope for clarification of what DNV certified Yarde for in POL 2.0. Added Quality Planning chart in para 4.2.2.c in POL 4.0	Bruce N. Hecklinger, Dir of QA
03/29/10	Removed references to Contract Review 3-3 & 3-4 from Policy 7.0	Bruce N. Hecklinger, Dir of QA

Quality Management System Policy 4.0

4.0 QUALITY MANAGEMENT SYSTEM:

4.1. General Requirements:

Yarde Metals, Inc. has established and shall continue to document, implement and maintain a quality management system and continually improve its effectiveness in accordance with the requirements of the ISO 9001:2008 and AS 9100 Rev. B standards.

Yarde Metals, Inc. has and shall continually

- a. identified the processes needed for the quality management system and their application throughout Yarde Metals, Inc., (see [Procedure 2-1 Quality Planning](#))
- b. determined the sequence and interaction of these processes,
- c. determined criteria and methods needed to ensure that both the operation and control of these processes are effective,
- d. ensures the availability of resources and information necessary to support the operation and monitoring of these processes,
- e. monitors **and** measures (**where applicable**) **and analyzes these processes,**
- f. implements actions necessary to achieve planned results and continual improvement of these processes (see [14-1 Corrective and Preventive Action](#) and Management Review 1-1).

These processes shall be managed by Yarde Metals, Inc. in accordance with the requirements of ISO 9001:2008 and AS 9100 Rev. B standards.

Where Yarde Metals chooses to outsource any process that affects product conformity, Yarde Metals, Inc. shall ensure control over such processes. Control of such outsourced processes shall be identified within the quality management system.

These areas have been identified in the following procedures:

- [Purchasing of Subcontract Operations 6-2](#)
- [Supplier Evaluations 6-3](#)
- [Production Outside Services 9-4](#)

NOTE: Processes needed for the quality management system referred to above should include processes for management activities, provision of resources, product realization and measurement.

4.2. Documentation Requirements:

4.2.1. General: The quality management system documentation shall include

- a. documented statements of a quality policy and quality objectives,
- b. a quality manual,
- c. documented procedures **and records** required by the ISO 9001:2008 and AS 9100 Rev. B standards,
- d. documents needed by Yarde Metals, Inc. to ensure the effective planning, operation and control of its processes,
- e. records required by ISO 9001:2008 and AS 9100 Rev. B standards ([see 4.2.4](#)), and
- f. *quality system requirements imposed by the applicable **statutory and regulatory authorities**.*

Yarde Metals, Inc. shall ensure that personnel have access to quality management system documentation and are aware of relevant procedures. Customer and/or regulatory authorities representatives shall have access to quality management system documentation.

NOTE 1 Where the term “documented procedure” appears within this International Standard, this means that the procedure is established, documented, implemented and maintained.

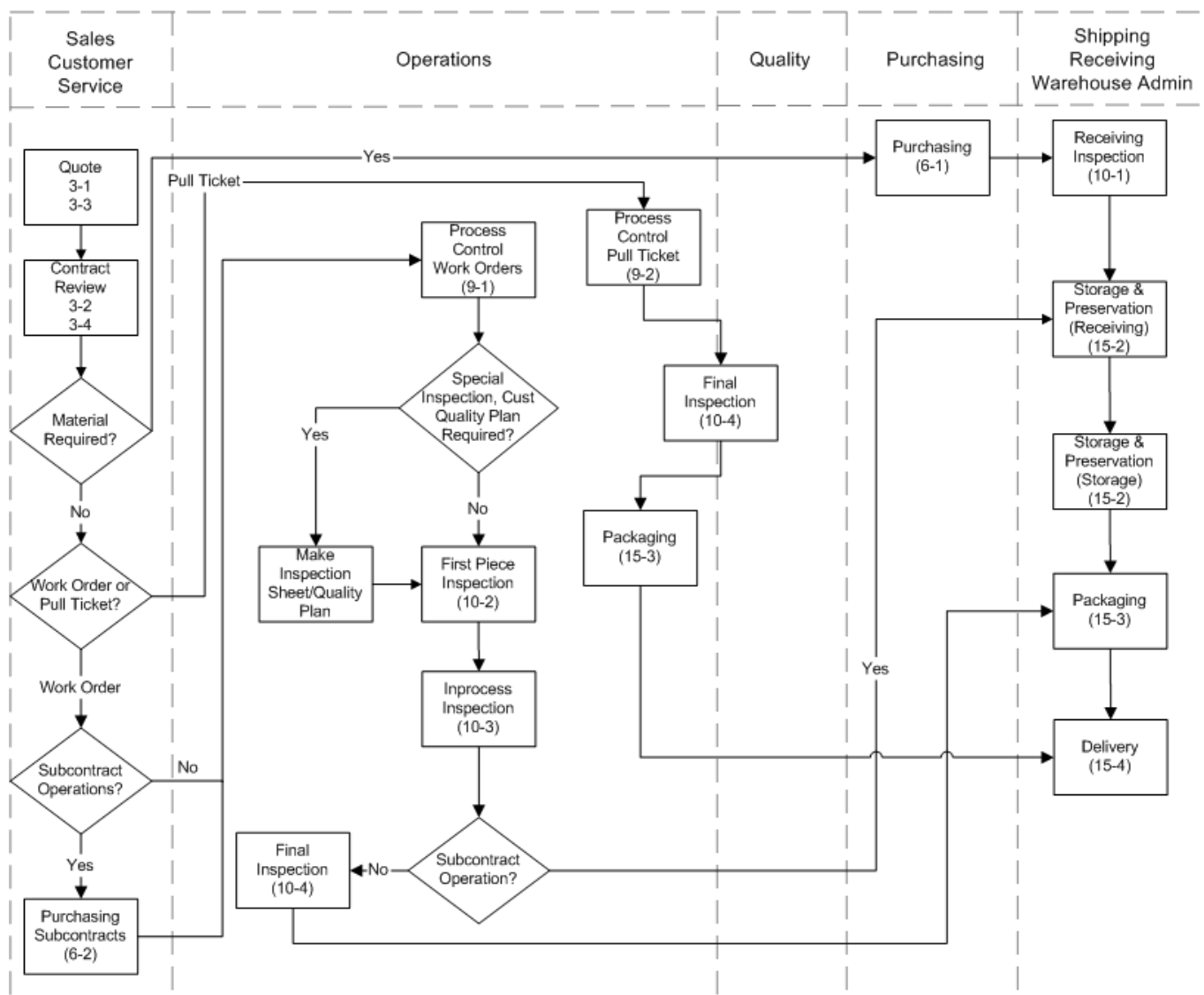
NOTE 2 The extent of the quality management system documentation can differ from one organization to another due to

- a. the size of organization and type of activities,
- b. the complexity of processes and their interactions, and

- c. the competence of personnel.

NOTE 3 The documentation can be in any form or type of medium.

- 4.2.2. Quality Manual: Yarde Metals, Inc. has established and maintains a quality manual that includes
 - a. the scope of the Quality Management system, including details of and justification of any exclusions (7.3 Design and Development exempt) - *7.5.1.5 Control of service operations exempt.*
 - b. the documented procedures established for the quality management system, or reference to them, and - *when referencing the documented procedures, the relationship between the requirements of ISO 9001:2008 and AS 9100 Rev. B standards and the documented procedures shall be clearly shown.*
 - c. a description of the interaction between the processes of the quality management system (see figure 1 below).



Note: All records produced are filed in accordance with Quality Records (16-1).

(figure 1)

4.2.3. Control of Documents:

Documents required by the quality management system shall be controlled. Records are a special type of document and shall be controlled according to the requirements given in [4.2.4](#).

A documented procedure shall be established to define the controls needed

- a. to approve documents for adequacy prior to issue,

- b. to review and update as necessary and re-approve documents,
- c. to ensure that changes and the current revision status of documents are identified,
- d. to ensure that relevant versions of applicable documents are available at points of use,
- e. to ensure that documents remain legible and readily identifiable,
- f. to ensure that documents of external origin are identified and their distribution controlled, and
- g. to prevent the unintended use of obsolete documents, and to apply suitable identification to them if they are retained for any purpose.

Yarde Metals, Inc. shall coordinate document changes with customers and/or regulatory authorities in accordance with contract or regulatory requirements.

Procedures for document and data include:

- [Policy Procedure and Work Instruction Control \(5-1\)](#)
- [Document, Form and Stamp Control \(5-3\)](#)
- [Print Control Procedure \(5-4\)](#)
- [Standards Control Procedure \(5-5\)](#)
- [Software Control \(5-6\)](#)

4.2.4. Control of Records:

Records shall be established and maintained to provide evidence of conformity to requirements and of the effective operation of the quality management system. Records shall remain legible, readily identifiable and retrievable. A documented procedure shall be established to define the controls needed for the identification, storage, protection, retrieval, retention time and disposition of records.

The documented procedure shall define the method for controlling records that are created by suppliers. All required records are requested per purchase order and are filed according to the [Quality Records Procedure 16-1](#).

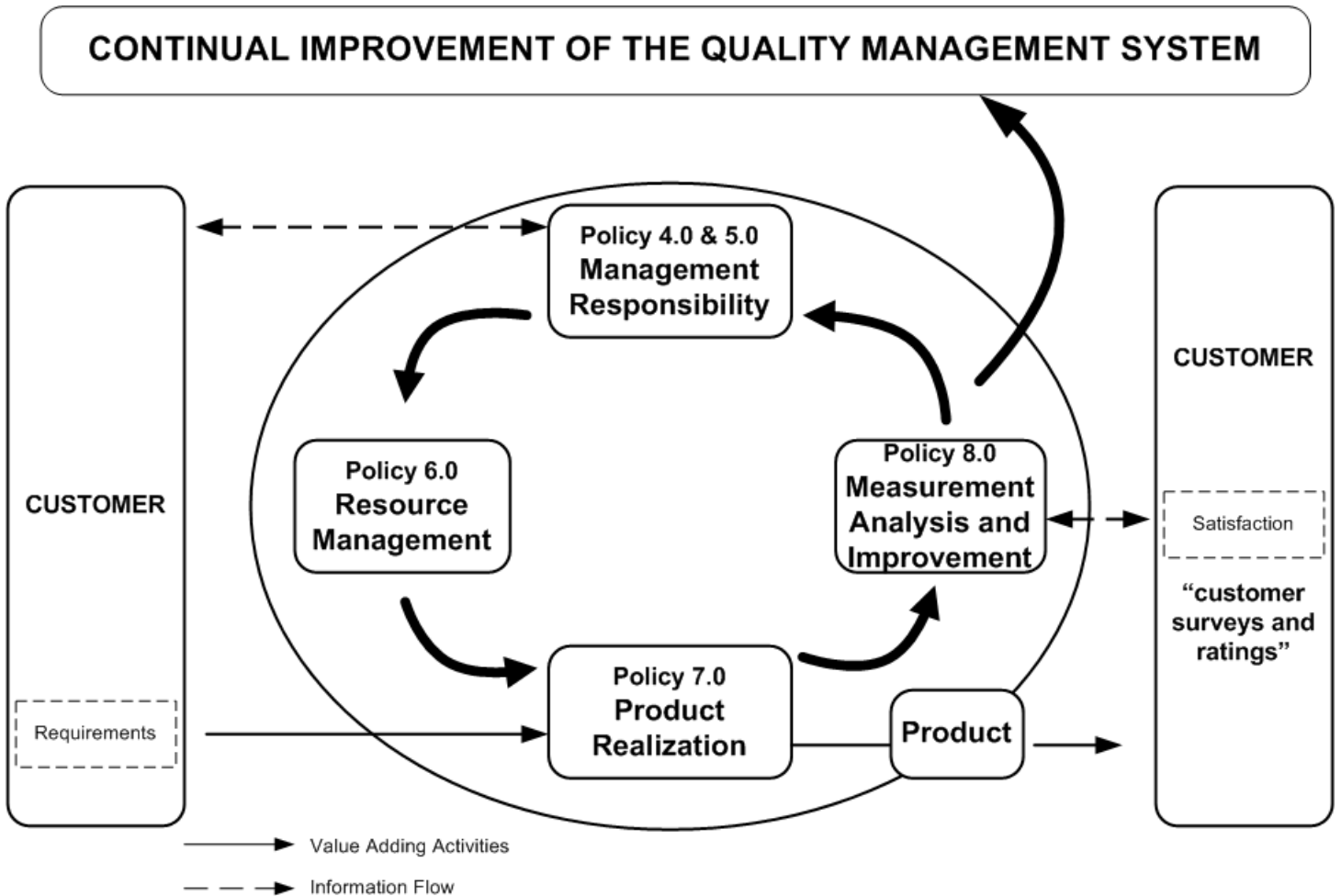
Records shall be available for review by customers and regulatory authorities in accordance with contract or regulatory requirements. (Add Statement to 16-1)

4.3. Configuration Management:

Yarde Metals, Inc. has established, documented and maintains a configuration management process appropriate to the product through the [Contract Review \(3-2\)](#) and [Print Control \(5-4\)](#) procedures.

4.4. The process model is a graphical representation of how the various elements of the quality system came together to drive the process of continual improvement.

NOTE Guidance on configuration management is given in ISO 10007.



Management Responsibility Policy 5.0

5. MANAGEMENT RESPONSIBILITY:

5.1. Management Commitment:

Top management shall provide evidence of its commitment to the development and implementation of the quality management system and continually improving its effectiveness by

- a. communicating to Yarde Metals, Inc.'s associates the importance of meeting customer as well as statutory and regulatory requirements,
- b. establishing the quality policy
- c. ensuring that quality objectives are established
- d. conducting management reviews, and
- e. ensuring the availability of resources.

5.2. Customer Focus:

Top management shall ensure that customer requirements are determined and are met with the aim of enhancing customer satisfaction (see 7.2.1 and 8.2.1).

5.3. Quality Policy:

Top management shall ensure that the quality policy

- a. is appropriate to the purpose of Yarde Metals, Inc.,
- b. includes a commitment to comply with requirements and continually improve the effectiveness of the quality management system,
- c. provides a framework for establishing and reviewing quality objectives,
- d. is communicated and understood within Yarde Metals, Inc., and
- e. is reviewed for continuing suitability.

YARDE METAL INC. QUALITY POLICY

Yarde Metals is committed to a *Continual Improvement program. We pledge to make on time deliveries of quality products that meet our customers requirements.

5.4. Planning:

- 5.4.1. Quality Objectives: Top management shall ensure that quality objectives, including those needed to meet requirements for product [see 7.1 a)], are established at relevant functions and levels within Yarde Metals, Inc.. The quality objectives shall be measurable and consistent with the quality policy.

5.4.2. Quality Management System Planning: Top management shall ensure that

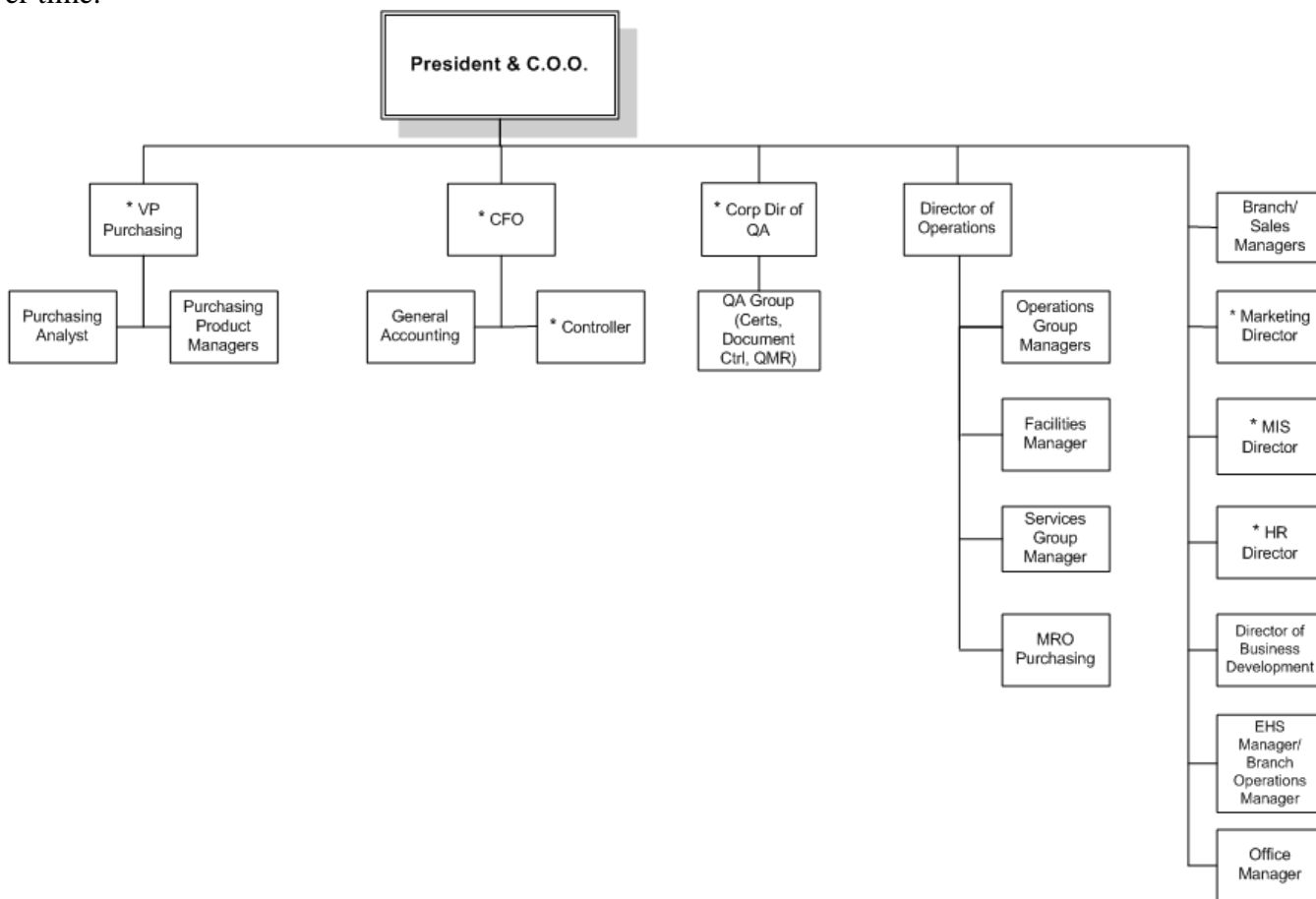
- a. the planning of the quality management system is carried out in order to meet the requirements given in 4.1, as well as the quality objectives,
- b. the integrity of the quality management system is maintained when changes to the quality management system are planned and implemented.

5.5. Responsibility, Authority and Communication:

5.5.1. Responsibility and Authority:

Top management shall ensure that the responsibilities and authorities are defined and communicated within Yarde Metals, Inc.

*Continual and continuous are synonymous and intended to mean or imply a trend of improvement over time.



* Senior Management Team
 - - - - = indirect reporting & access

5.5.2. Management Representative:

- Top management shall appoint a member of **the organization's** management who, irrespective of other responsibilities, shall have responsibility and authority that includes
- a. ensuring that processes needed for the quality management system are established, implemented and maintained,
 - b. reporting to top management on the performance of the quality management system and any need for improvement,
 - c. ensuring the promotion of awareness of customer requirements throughout Yarde Metals, Inc., *and*
 - d. *the organizational freedom to resolve matters pertaining to quality. **This includes the approval or disapproval of suppliers.***

The Corporate Director of Quality Assurance has been appointed as the Quality Management Representative.

NOTE The responsibility of a management representative can include liaison with external parties on matters relating to the quality management system.

- 5.5.3. Internal Communication: Top management shall ensure that appropriate communication processes are established within Yarde Metals, Inc. and that communication takes place regarding the effectiveness of the quality management system.

The primary means of communication of the quality is through the use of meetings such as Performance Evaluations, Monthly Departmental Huddles, and Grand Huddles by top management. Yarde utilizes an open door policy to associates for communication of concerns and improvement to the quality management system. Quality boards are also utilized to post performance measurements to show the effectiveness of the quality management system.

5.6. Management Review:

- 5.6.1. General: Top management reviews Yarde Metals, Inc.'s quality management system, on annual basis, minimum, to ensure its continuing suitability, adequacy and effectiveness. The review includes assessing opportunities for improvement and the need for changes to the quality management system, including the quality policy and quality objectives.

Records from management reviews are maintained (see 4.2.4).

- 5.6.2. Review Input: The input to management review shall include information on

- a. results of audits
- b. customer feedback and customer satisfaction measurements,
- c. process performance and product conformity,
- d. status of preventive and corrective actions,
- e. follow-up actions from previous management reviews,
- f. changes that could affect the quality management system, and
- g. recommendations for improvement.

- 5.6.3. Review Output: The output from the management reviews include any decisions and actions related to

- a. improvement(s) of the effectiveness of the quality management system and its processes,
- b. improvement(s) of product related to customer requirements, and
- c. resource needs.

Resource Management Policy 6.0

6. RESOURCE MANAGEMENT:

6.1. Provision of Resources:

Yarde Metals, Inc. determines and provides the resources needed

- a. to implement and maintain the quality management system and continually improve its effectiveness, and
- b. to enhance customer satisfaction by meeting customer requirements.

6.2. Human Resources:

6.2.1. General: Personnel performing work affecting **conformity to product requirements** shall be competent on the basis of appropriate education, training, skills and experience.

6.2.2. Competence, Awareness and Training: Yarde Metals, Inc. shall

- a. determine the necessary competence for personnel performing work affecting **conformity to product requirements**,
- b. provide training or take other actions to **achieve the necessary competence**,
- c. evaluate the effectiveness of the actions taken,
- d. ensure that its personnel are aware of the relevance and importance of their activities and how they contribute to the achievement of the quality objectives,
- e. maintain appropriate records of education, training, skills and experience (see 4.2.4).

6.3. Infrastructure:

Yarde Metals, Inc. has determined, provides and maintains the infrastructure needed to achieve conformity to product requirements. Infrastructure includes, as applicable

- a. buildings, workspace and associated utilities,

- b. process equipment (both hardware and software), and
- c. supporting services (such as transport or communication).

6.4. Work Environment:

Yarde Metals, Inc. has determined and manages the work environment needed to achieve conformity to product requirements.

If changes to the work environment occur that affect the conformity of the product then corrective action is taken.

Product Realization

Policy 7.0

7. PRODUCT REALIZATION:

7.1. Planning of Product Realization:

Yarde Metals, Inc. plans and develops the processes needed for product realization. Planning of product realization is consistent with the requirements of the other processes of the quality management system (see 4.1).

In planning product realization, Yarde Metals, Inc. determines the following, as appropriate:

- a. quality objectives and requirements for the product;
- b. the need to establish processes, documents, and provide resources specific to the product;
- c. required verification, validation, monitoring, **measurement**, inspection and test activities specific to the product and the criteria for product acceptance;
- d. records needed to provide evidence that the realization processes and resulting product meet requirements (see [Quality Records Procedure 16-1](#));
- e. the identification of resources to support operation and maintenance of the product.

The output of this planning is in a form suitable for Yarde Metals, Inc.'s method of operations.

7.2. Customer-Related Processes:

7.2.1. Determination of Requirements Related to the Product: Yarde Metals, Inc. determines

- a. requirements specified by the customer, including the requirements for delivery and post-delivery activities, (Contract Review [3-1](#), [3-2](#), [3-5](#), [3-6](#))
- b. requirements not stated by the customer but necessary for specified or intended use, where known,
 - Sales utilizes a customer comments section in the database to ensure customer requirements are communicated.
- c. statutory and regulatory requirements related to the product, and the type of sales transaction (i.e. export/re-export).

- d. any additional requirements determined by Yarde Metals, Inc..

See Procedures [3-1 Quoting and Inquires](#), and [3-2 Contract Review](#),

7.2.2. Review of Requirements Related to the Product: Yarde Metals, Inc. shall review the requirements related to the product. This review shall be conducted according to Procedure [3-2 Contract Review](#). Yarde Metals, Inc.'s commitment to supply a product to the customer (e.g. submission of tenders, acceptance of contracts or orders, acceptance of changes to contracts or orders) and shall ensure that

- a. product requirements are defined,
- b. contract or order requirements differing from those previously expressed are resolved,
- c. Yarde Metals, Inc. has the ability to meet the defined requirements, and
- d. risks (e.g., new technology, short delivery time scale) have been evaluated.
 - Ref [Procedure 3-2 Paragraph 1.5](#)

Records of the results of the review and actions arising from the review are maintained (see [Quality Records Procedure 16-1](#)).

Where the customer provides no documented statement of requirement, the customer requirements are confirmed by Yarde Metals, Inc. before acceptance (see [Contract Review Procedure 3-2](#)).

Where product requirements are changed, Yarde Metals, Inc. ensures that relevant documents are amended and that relevant personnel are made aware of the changed requirements.

7.2.3. Customer Communication: Yarde Metals, Inc. shall determine and implement effective arrangements for communicating with customers in relation to

- a. product information, (web, catalogs, sales visits)
- b. inquiries, contracts or order handling, including amendments, and (phone system, web, email, sales contact)
- c. customer feedback, including customer complaints (phone, mail, email, surveys, customer supplier ratings, etc) .

7.3. Design and Development: Yarde Metals, Inc. is exempt from this requirement. Yarde Metals, Inc does not design product for customers.

7.4. Purchasing:

7.4.1. Purchasing Process: Yarde Metals, Inc. ensures that purchased product conforms to specified purchase requirements. The type and extent of control applied to the supplier and the purchased product is dependent upon the effect of the purchased product on subsequent product realization or the final product.

Yarde Metals, Inc. is responsible for the quality of all products purchased from suppliers, including customer-designated sources.

Yarde Metals, Inc. evaluates and selects suppliers based on their ability to supply product in accordance with Yarde Metals, Inc.'s requirements. Criteria for selection, evaluation and reevaluation is established (see [Procedure 6-3](#)). Records of the results of evaluations and any necessary actions arising from the evaluation are maintained (see [Quality Records Procedure 16-1](#)).

Yarde Metals, Inc.:

- a. maintains a register of approved suppliers that includes the scope of the approval;
 - b. periodically reviews supplier performance; records of these reviews are used as a basis for establishing the level of controls to be implemented;
 - c. defines the necessary actions to take when dealing with suppliers that do not meet requirements;
 - d. ensures where required that both Yarde Metals, Inc. and all suppliers use customer approved special process sources;
 - e. ensures that the function having responsibility for approving supplier quality systems has the authority to disapprove the use of sources. (see [Procedure 6-1](#), [6-2](#), and [6-3](#))
- 7.4.2. Purchasing Information: Purchasing information describes the product to be purchased, including where appropriate
- a. requirements for approval of product, procedures, processes and equipment,
 - b. requirements for qualification of personnel,
 - c. quality management system requirements,
 - d. the name or other positive identification, and applicable issues of specifications, drawings, process requirements, inspection instructions and other relevant technical data,

- e. requirements for design, test, examination, inspection and related instructions for acceptance by Yarde Metals, Inc.,
- f. requirements for test specimens (e.g., production method, number, storage conditions) for design approval, inspection, investigation or auditing,
- g. requirements relative to:
 - supplier notification to Yarde Metals of nonconforming product and
 - arrangements for Yarde Metals approval of supplier nonconforming material,
- h. requirements for the supplier to notify Yarde Metals, Inc. of changes in product and/or process definition and, where required, obtain organization approval,
- i. right of access by Yarde Metals, Inc., their customer, and regulatory authorities to all facilities involved in the order and to all applicable records, and
- j. requirements for the supplier to flow down to sub-tier suppliers the applicable requirements in the purchasing documents, including key characteristics where required.

Yarde Metals, Inc. ensures the adequacy of specified purchase requirements prior to their communication to the supplier.

- 7.4.3. Verification of Purchased Product: Yarde Metals, Inc. has established and implemented the inspection or other activities necessary for ensuring that purchased product meets specified purchase requirements (See [Receiving Inspections Procedure 10-1](#)).

Verification activities may include

- a. obtaining objective evidence of the quality of the product from suppliers (e.g., accompanying documentation, certificate of conformity, test reports, statistical records, process control),
- b. inspection and audit at supplier's premises,
- c. review of the required documentation,
- d. inspection of products upon receipt, and
- e. delegation of verification to the supplier, or supplier certification.

Purchased product is not used or processed until it has been verified as conforming to specified requirements unless it is released under positive recall procedure.

Where Yarde Metals, Inc. utilizes test reports to verify purchased product, the data in those reports shall be acceptable per applicable specifications. Yarde Metals, Inc. periodically validates test reports for raw material.

Where Yarde Metals, Inc. delegates verification activities to the supplier, the requirements for delegation are defined and a register of delegations maintained. Yarde Metals does not delegate product verification to suppliers.

Where Yarde Metals, Inc. or its customer intends to perform verification at the supplier's premises, Yarde Metals, Inc. shall state the intended verification arrangements and method of product release in the purchasing information.

Where specified in the contract, the customer or the customer's representative shall be afforded the right to verify at the supplier's premises and Yarde Metals, Inc.'s premises that subcontracted product conforms to specified requirements.

Verification by the customer shall not be used by Yarde Metals, Inc. as evidence of effective control of quality by the supplier and shall not absolve Yarde Metals, Inc. of the responsibility to provide acceptable product, nor shall it preclude subsequent rejection by the customer.

7.5. Production and Service Provision:

7.5.1. Control of Production and Service Provision:

Planning considers, as applicable,

- the establishment of process controls and development of control plans where key characteristics have been identified,
- the identification of in-process verification points when adequate verification of conformance cannot be performed at a later stage of realization,
- the design, manufacture, and use of tooling so that variable measurements can be taken, particularly for key characteristics, (Not applicable) and
- special processes (see [7.5.2](#)).

Planning takes place during the development of the Work Order. Required operations are determined and special inspection requirements will be recorded on the Work Order.

Yarde Metals, Inc. plans and carries out production and service provision under controlled conditions. Controlled conditions include, as applicable

- a. the availability of information that describes the characteristics of the product,
- b. the availability of work instructions, as necessary,
- c. the use of suitable equipment,
- d. the availability and use of monitoring and measuring devices,
- e. the implementation of monitoring and measurement,
- f. the implementation of release, delivery and post-delivery activities,
- g. accountability for all product during manufacture (e.g., parts quantities, split orders, nonconforming product),
- h. evidence that all manufacturing and inspection operations have been completed as planned, or as otherwise documented and authorized,
- i. provision for the prevention, detection, and removal of foreign objects,
- j. monitoring and control of utilities and supplies such as water, compressed air, electricity and chemical products to the extent they affect product quality, and
- k. criteria for workmanship, which shall be stipulated in the clearest practical manner (e.g., written standards, representative samples or illustrations).

See [Process Control Procedure 9-1](#), [9-2](#), [9-4](#)

- 7.5.1.1. Production Documentation: Production operations are carried out in accordance with approved data. This data contains as necessary
 - a. drawings, parts lists, process flow charts including inspection operations, production documents (e.g., manufacturing plans, traveler, router, work order, process cards); and inspection documents (see 8.2.4.1), and
 - b. a list of specific or non-specific tools and numerical control (NC) machine programs required and any specific instructions associated with their use.
- 7.5.1.2. Control of Production Process Changes: Persons authorized to approve changes to production processes shall be identified.

Yarde Metals, Inc. identifies and obtains acceptance of changes that require customer and/or regulatory authority approval in accordance with contract or regulatory requirements. Changes affecting processes, production equipment, tools and programs shall be documented. Procedures shall be available to control their implementation (see Document Control Procedures). The results of changes to production processes are assessed to confirm that the desired effect has been achieved without adverse effects to product quality.

- 7.5.1.3. Control of Production Equipment, Tools and Numerical Control (N.C.) Machine Programs: Production equipment, tools and programs are validated prior to use and maintained and inspected periodically according to the [First Piece Inspection Procedure \(10-2\)](#). Validation prior to production includes verification of the first article produced to the design data/specification.

Storage requirements, including periodic preservation/condition checks, are established for production equipment or tooling in storage. (not applicable).

- 7.5.1.4. Control of Work Transferred, on a Temporary Basis, Outside Yarde Metals, Inc.'s Facilities: When planning to temporarily transfer work to a location outside Yarde Metals, Inc.'s facilities, Yarde Metals, Inc. defines the process to control and validate the quality of the work (see [Subcontract Purchasing 6-2](#)).

- 7.5.1.5. Control of Service Operations: Yarde Metals is exempt from this requirement. Yarde Metal's products for sale do not require service operations.

- 7.5.2. Validation of Processes for Production and Service Provision: Yarde Metals, Inc. validates any processes for production and service provision where the resulting output cannot be verified by subsequent monitoring or measurement. This includes any processes where deficiencies become apparent only after the product is in use or the service has been delivered.

NOTE: These processes are frequently referred to as special processes.

Validation demonstrates the ability of these processes to achieve planned results.

Yarde Metals, Inc. shall establish arrangements for these processes including, as applicable

- a. defined criteria for review and approval of the processes,
 - qualification and approval of special processes prior to use (Not applicable),
- b. approval of equipment and qualification of personnel,
- c. use of specific methods and procedures
 - control of the significant operations and parameters of special processes in accordance with documented process specifications and changes thereto,
- d. requirements for records (see 4.2.4), and
- e. revalidation.

Currently, Yarde Metals does not have special processes.

- 7.5.3. Identification and Traceability: Where appropriate, Yarde Metals, Inc. identifies the product by suitable means throughout product realization.

Yarde Metals, Inc. maintains the identification of the configuration of the product in order to identify any differences between the actual configuration and the agreed configuration.

Yarde Metals, Inc. identifies the product status with respect to monitoring and measurement requirements.

When acceptance authority media are used (e.g., stamps, electronic signatures, passwords), Yarde Metals, Inc. shall establish and document controls for the media (Ref. [Document, Form & Stamp Control Procedure 5-3](#)).

Where traceability is a requirement, Yarde Metals, Inc. shall control and record the unique identification of the product (see 4.2.4).

According to the level of traceability required by contract, regulatory, or other established requirement, Yarde Metals, Inc.'s [Identification and Traceability Procedure \(8-1\)](#) provides for:

- a. identification to be maintained throughout the product life;
- b. all the products manufactured from the same batch of raw material or from the same manufacturing batch to be traced, as well as the destination (delivery, scrap) of all products of the same batch;
- c. for an assembly, the identity of its components and those of the next higher assembly to be traced; (not applicable)
- d. for a given product, a sequential record of its production (manufacture, assembly, inspection) to be retrieved.

NOTE: In some industry sectors, configuration management is a means by which identification and traceability are maintained (see 4.3).

- 7.5.4. Customer Property: Yarde Metals, Inc. exercises care with customer property while it is under Yarde Metals, Inc.'s control or being used by Yarde Metals, Inc.. Yarde Metals, Inc. identifies, verifies, protects and safeguards customer property provided for use or incorporation into the product. If any customer property is lost, damaged or otherwise found to be unsuitable for use, it is reported to the customer and records

maintained (see [Customer Supplied Product Procedure 7-1](#) and [Quality Records Procedure 16-1](#)).

NOTE Customer property can include intellectual property, including customer furnished data used for design, production and/or inspection. (not applicable)

7.5.5. Preservation of Product: Yarde Metals, Inc. preserves the conformity of product during internal processing and delivery to the intended destination. This preservation includes identification, handling, packaging, storage and protection. Preservation shall also apply to the constituent parts of a product.

Preservation of product shall also include, where applicable in accordance with product specifications and/or applicable regulations, provisions for:

- a. cleaning;
- b. prevention, detection and removal of foreign objects;
- c. special handling for sensitive products;
- d. marking and labeling including safety warnings;
- e. shelf life control and stock rotation;
- f. special handling for hazardous materials.

Yarde Metals, Inc. shall ensure that documents required by the contract/order to accompany the product are present at delivery and are protected against loss and deterioration.

Reference Procedures: [Material Handling \(15-1\)](#), [Storage and Preservation \(15-2\)](#), [Packaging and Preservation \(15-3\)](#), [Delivery Procedure \(15-4\)](#)

7.6. Control of Monitoring and Measuring Devices:

Yarde Metals, Inc. determines the monitoring and measurement to be undertaken and the monitoring and measuring devices needed to provide evidence of conformity of product to determined requirements (see [7.2.1](#)).

Guidance is given in the [Control of Inspection, Measuring and Test Equipment Procedure \(11-1\)](#).

Yarde Metals, Inc. maintains a register of these monitoring and measuring devices, and defines the process employed for their calibration including details of equipment type, unique identification, location, frequency of checks, check method and acceptance criteria.

NOTE Monitoring and measuring devices include, but are not limited to: test hardware, test software, automated test equipment (ATE) and plotters used to produce inspection data. It also includes personally owned and customer supplied equipment used to provide evidence of product conformity.

Yarde Metals, Inc. has established the [Control of Inspection, Measuring and Test Equipment Procedure \(11-1\)](#) Procedure to ensure that monitoring and measurement can be carried out and are carried out in a manner that is consistent with the monitoring and measurement requirements.

Yarde Metals, Inc. ensures that environmental conditions are suitable for the calibrations, inspections, measurements and tests being carried out.

Where necessary to ensure valid results, measuring equipment is:

- a. calibrated or verified at specified intervals, or prior to use, against measurement standards traceable to international or national measurement standards; where no such standards exist, the basis used for calibration or verification shall be recorded;
- b. adjusted or re-adjusted as necessary;
- c. identified to enable the calibration status to be determined;
- d. safeguarded from adjustments that would invalidate the measurement result;
- e. protected from damage and deterioration during handling, maintenance and storage;
- f. recalled to a defined method when requiring calibration.

In addition, Yarde Metals, Inc. assesses and records the validity of the previous measuring results when the equipment is found not to conform to requirements. Yarde Metals, Inc. takes appropriate action on the equipment and any product affected. Records of the results of calibration and verification are maintained (see [Quality Records Procedure 16-1](#)).

When used in the monitoring and measurement of specified requirements, the ability of computer software to satisfy the intended application shall be confirmed. This shall be undertaken prior to initial use and reconfirmed as necessary.

Currently Yarde Metals does have computerized equipment that verifies conformance to customer requirements.

NOTE: See ISO 10012-1 and ISO 10012-2 for guidance.

Measurement, Analysis and Improvement Policy 8.0

8. MEASUREMENT, ANALYSIS AND IMPROVEMENT:

8.1. General:

Yarde Metals, Inc. plans and implements the monitoring, measurement, analysis and improvement processes needed

- a. to demonstrate conformity to product **requirements**
- b. to ensure conformity of the quality management system, and
- c. to continually improve the effectiveness of the quality management system.

This includes determination of applicable methods, including statistical techniques, and the extent of their use.

NOTE

According to the nature of the product and depending on the specified requirements, statistical techniques may be used to support:

- *design verification (e.g., reliability, maintainability, safety);*
- *process control;*
- *selection and inspection of key characteristics;*
- *process capability measurements;*
- *statistical process control;*
- *design of experiment;*
- *inspection - matching sampling rate to the criticality of the product and to the process capability;*
- *failure mode and effect analysis.*

8.2. Monitoring and Measurement:

- 8.2.1. Customer Satisfaction: As one of the measurements of the performance of the quality management system, Yarde Metals, Inc. monitors information relating to customer perception as to whether Yarde Metals, Inc. has met customer requirements. The methods for obtaining and using this information are determined.

Sales/Marketing and or Quality is responsible to collect this data. The data is compiled, analyzed and presented at the management review meeting. Due to the vast number of customers Yarde will perform this task once per year. Customer Quality ratings may be used to determine the customer's perception of Yarde's ability to meet requirements.

8.2.2. Internal Audit:

Yarde Metals, Inc. conducts internal audits at planned intervals to determine whether the quality management system

- a. conforms to the planned arrangements (see [7.1](#)), to the requirements of this International Standard and to the quality management system requirements established by Yarde Metals, Inc., and
- b. is effectively implemented and maintained.

An audit program is planned, and takes into consideration the status and importance of the processes and areas to be audited, as well as the results of previous audits. The audit criteria, scope, frequency and methods are defined. Selection of auditors and conduct of audits ensures objectivity and impartiality of the audit process. Auditors shall not audit their own work.

The responsibilities and requirements for planning and conducting audits, and for reporting results and maintaining records (see [Quality Records Procedure \(16-1\)](#)) is defined in the [Internal Audit Procedure \(17-1\)](#).

The management responsible for the area being audited ensures that actions are taken without undue delay to eliminate detected nonconformities and their causes. Follow-up activities include the verification of the actions taken and the reporting of verification results ([see 8.5.2](#)).

Detailed tools and techniques are developed such as check-sheets, process flowcharts, or any similar method to support audit of the quality management system requirements.

The acceptability of the selected tools is measured against the effectiveness of the internal audit process and overall organization performance.

Internal audits also meet contract and/or regulatory requirements.

NOTE See **ISO 19011** for guidance.

8.2.3. Monitoring and Measurement of Processes: Yarde Metals, Inc. applies suitable methods for monitoring and, where applicable, measurement of the quality management system processes. These methods demonstrate the ability of the processes to achieve planned results. When planned results are not achieved, correction and corrective action are taken, as appropriate, to ensure conformity of the product.

In the event of process nonconformity, Yarde Metals, Inc. shall

- a) *take appropriate action to correct the nonconforming process*
- b) *evaluate whether the process nonconformity has resulted in product nonconformity, and*
- c) *identify and control the nonconforming product in accordance with clause [8.3](#).*

Yarde utilizes the Internal Audit System and various records of nonconformances to measure the effectiveness of the quality management system. These items are presented during management reviews and are consistent with the quality objectives.

8.2.4. Monitoring and Measurement of Product: Yarde Metals, Inc. monitors and measures the characteristics of the product to verify that product requirements have been met. This is carried out at appropriate stages of the product realization process in accordance with the planned arrangements (see [7.1](#)).

When key characteristics have been identified, they are monitored and controlled. When Yarde Metals, Inc. uses sampling inspection as a means of product acceptance, the plan is statistically valid and appropriate for use. The plan precludes the acceptance of lots whose samples have known nonconformities. When required, the plan shall be submitted for customer approval.

Product is not used until it has been inspected or otherwise verified as conforming to specified requirements.

Evidence of conformity with the acceptance criteria is maintained with the use of the Work Order and Pull Ticket. Records indicate the person(s) authorizing release of product (see [Quality Records Procedure 16-1](#)).

Product release and service delivery does not proceed until all the planned arrangements (see [7.1](#)) have been satisfactorily completed, unless otherwise approved by a relevant authority and, where applicable, by the customer.

8.2.4.1. *Inspection Documentation: Measurement requirements for product or service acceptance are documented. This documentation may be part of the production documentation and includes:*

- a. *criteria for acceptance and/or rejection,*
- b. *where in the sequence measurement and testing operations are performed,*
- c. *a record of the measurement results,*
- d. *type of measurement instruments required and any specific instructions associated with their use.*

Test records show actual test results data when required by specification or acceptance test plan.

Where required to demonstrate product qualification Yarde Metals, Inc. ensures that records provide evidence that the product meets the defined requirements.

8.2.4.2. *First Article Inspection: Yarde Metals, Inc.'s system provides the [First Piece Inspection Procedure \(10-2\)](#) for the inspection, verification, and documentation of a representative item from the first production run of a new part, or following any subsequent change that invalidates the previous first article inspection result.*

NOTE See (AS) (EN) (SJAC) 9102 for guidance.

8.3. Control of Nonconforming Product:

Yarde Metals, Inc. ensures that product which does not conform to product requirements is identified and controlled to prevent its unintended use or delivery. The controls and related responsibilities and authorities for dealing with nonconforming product shall be defined in the [Control of Nonconforming Product Procedure \(13-1\)](#).

NOTE The term “nonconforming product” includes nonconforming product returned from a customer.

Yarde Metals, Inc.'s [Control of Nonconforming Product Procedure \(13-1\)](#) defines the responsibility for review and authority for the disposition of nonconforming product and the process for approving personnel making these decisions.

Yarde Metals, Inc. deals with nonconforming product by one or more of the following ways:

- a. by taking action to eliminate the detected nonconformity;
- b. by authorizing its use, release or acceptance under concession by a relevant authority and, where applicable, by the customer;
- c. by taking action to preclude its original intended use or application.

Yarde Metals, Inc. does not use dispositions of use-as-is or repair, unless specifically authorized by the customer, if

- *the product is produced to customer design, or*
- *the nonconformity results in a departure from the contract requirements.*

Unless otherwise restricted in the contract, organization-designed product which is controlled via a customer specification may be dispositioned by Yarde Metals, Inc. as use-as-is or repair, provided the nonconformity does not result in a departure from customer-specified requirements.

Product dispositioned for scrap is conspicuously and permanently marked, or positively controlled, until physically rendered unusable.

Records of the nature of nonconformities and any subsequent actions taken, including concessions obtained, are maintained (see [Quality Records Procedure 16-1](#)).

When nonconforming product is corrected it is subject to re-verification to demonstrate conformity to the requirements.

When nonconforming product is detected after delivery or use has started, Yarde Metals, Inc. takes action appropriate to the effects, or potential effects, of the nonconformity.

In addition to any contract or regulatory authority reporting requirements, Yarde Metals, Inc.'s system provides for timely reporting of delivered nonconforming product that may affect reliability or safety. Notification includes a clear description of the nonconformity, which includes as necessary parts affected, customer and/or organization part numbers, quantity, and date(s) delivered.

NOTE Parties requiring notification of nonconforming product may include suppliers, internal organizations, customers, distributors, and regulatory authorities.

8.4. Analysis of Data:

Yarde Metals, Inc. determines, collects and analyzes appropriate data to demonstrate the suitability and effectiveness of the quality management system and to evaluate where continual improvement of the effectiveness of the quality management system can be made. This includes data generated as a result of monitoring and measurement and from other relevant sources.

The analysis of data provide information relating to

- a. customer satisfaction ([see 8.2.1](#)),
- b. conformity to product requirements (see [7.2.1](#)),
- c. characteristics and trends of processes and products including opportunities for preventive action, and
- d. suppliers.

This data is collected and presented during management review meetings (see [5.6](#)).

8.5. Improvement:

8.5.1. Continual Improvement: Yarde Metals, Inc. continually improves the effectiveness of the quality management system through the use of the quality policy, quality objectives, audit results, analysis of data, corrective and preventive actions and management reviews.

8.5.2. Corrective Action: Yarde Metals, Inc. takes action to eliminate the cause of nonconformities in order to prevent recurrence. Corrective actions shall be appropriate to the effects of the nonconformities encountered.

The [Corrective and Preventive Action Procedure \(14-1\)](#) is established to define requirements for

- a. Reviewing nonconformities (including customer complaints),
- b. determining the causes of nonconformities
- c. evaluating the need for action to ensure that nonconformities do not recur,
- d. determining and implementing action needed,
- e. records of the results of action taken (see [4.2.4](#)),

- f. reviewing corrective action taken,
- g. *flow down of the corrective action requirement to a supplier, when it is determined that the supplier is responsible for the root cause, and*
- h. *specific actions where timely and/or effective corrective actions are not achieved.*

8.5.3. Preventive Action: Yarde Metals, Inc. determines the action to eliminate the causes of potential nonconformities in order to prevent their occurrence. Preventive actions shall be appropriate to the effects of the potential problems.

The [Corrective and Preventive Action Procedure \(14-1\)](#) is established to define requirements for

- a. determining potential nonconformities and their causes,
- b. evaluating the need for action to prevent occurrence of nonconformities,
- c. determining and implementing action needed
- d. records of results of action taken (see [4.2.4](#)),
- e. reviewing preventive action taken.