



*Industrial Metal
Fabrication &
Machining*

METFAB ENGINEERING, INC.

**Quality Management System
Policies – Requirements**

QP-1, Rev. 3

Approved By:

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1 Introduction

OVER 30 YEARS OF QUALITY METAL FABRICATION & MACHINING

Metfab Engineering was founded by its president, Edward Urquhart, over 30 years ago within the modest confines of a three-car garage in Attleboro, MA. Three busy and successful decades later, the company occupies a modern, 48,000 square foot facility in a thriving industrial park – a facility that houses a full range of metal fabrication functions- layout/engineering, prefabrication, welding, machining, painting and finishing, and prototype development. In addition to its fabrication and machining Metfab has dedicated 6,000 square feet of its facility for mechanical assembly.

Metfab continually invests in its personnel, new equipment, methods and facilities to improve both its products and productivity. It begins with our project managers' involvement from the beginning; pairing years of experience with our customers needs. We offer our customers a means to safely transfer and store drawing files. A continuous upgrade of the latest design software from Autodesk allows us to work with 3-D models, DXF and DWG files to name a few. We also offer our customers a wide variety of options in material processing ranging from CNC punching, laser, waterjet or abrasive cutting. Continual investment in the latest welding equipment and up-to-date AWS procedures makes Metfab the right choice in meeting your fabrication needs. Add this to our capabilities for machining, finishing, and assembly – makes Metfab your one-stop shop saving valuable production time and money.

Metfab has earned its reputation for producing quality metal products and has become a proven leader in the metal fabrication industry. Whatever your metal fabrication need, Metfab can provide solutions to fit every budget.

Process approach

Metfab Engineering, Inc. promotes the adoption of a process approach when developing, implementing and improving the effectiveness of its Quality Management System and to improve customer satisfaction by meeting both customer, regulatory and other requirements.

The Quality Management System documented in this manual emphasizes the importance of:

- understanding and meeting quality requirements,
- the need to consider processes in terms of added value,
- obtaining results of process performance and effectiveness, and
- continual improvement of the quality processes based on objective measurements.

In addition, the methodology of “Plan, Do, Check, and Act” (PDCA) is applied to processes.

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- Plan – establish process objectives required to deliver results that meet customer requirements and Metfab Engineering, Inc.’s Policies.
- Do – implement the process.
- Check – monitor and measure the processes and protect against product requirements and report the results.
- Act – take actions to continually improve process performance

Metfab Engineering, Inc.’s overall Model of a Process–Based Quality Management System (Ref. QP-1) illustrates the process linkages identified in clauses 4 through 8 of Metfab Engineering, Inc.’s Quality Management System Policies.

Metfab Engineering, Inc.’s Quality Management System (Ref. QP-1) identifies relationship between Metfab Engineering, Inc.’s Quality Policies and the Core Process, along with the Process Owners, the Inputs and Outputs, the Recipients/Users and the Measurement of the Process.

2 Scope

Metfab Engineering, Inc.’s Quality Management System scope of operations is the manufacture of quality metal fabrication.

Metfab Engineering, Inc.’s Quality Management System applies to all aspects of the processes used by Metfab Engineering, Inc. to provide quality products to our customers. The Quality Management System’s policies, procedures, work instructions and other associated documentation describe the processes and how they are performed in order to ensure conformance. Metfab Engineering, Inc.’s Quality Management System includes a process for continual improvement that contributes to the satisfaction of its customer’s needs and expectations.

3 Allowable exclusions

Metfab Engineering, Inc. utilizes customer drawings and specifications and does not have any requirements to perform product design and development activities. Therefore, Design and Development of product has been excluded from Section 7.3. Metfab Engineering, Inc. has no requirements by their customers or potential customers to perform extended service on their products.

4 Quality management system

4.1 General requirements

Metfab Engineering, Inc. has established, documented, implemented, and maintains a quality management system and continually improve its effectiveness in accordance with the requirements of QP-1.

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Metfab Engineering, Inc. has:

- a) determined the processes needed for the quality management system and their application throughout the organization,
- b) determined the sequence and interaction of these processes;
- c) determined the criteria and methods required to ensure that both the operation and control of these processes are effective,
- d) ensured the availability of resources and information necessary to support the operation and monitoring of these processes,
- e) monitored, measured (where applicable) and analyzed these processes, and
- f) implemented actions necessary to achieve planned results and continual improvement of these processes.

Metfab Engineering, Inc. has managed these processes in accordance with the requirements of QP-1.

When Metfab Engineering, Inc. chooses to outsource any process that can affect product conformity with requirements, Metfab Engineering, Inc. has ensured control over such processes. The type and extent of control to be applied to the outsourced processes has been defined within the Quality Management System (Ref. P 10.0 Purchasing).

Processes needed for the Quality Management System referred to above include management activities, provision of resources, product realization, measurement, analysis, and improvement.

An outsourced process is identified as one being needed for Metfab Engineering, Inc.'s Quality Management System but conducted by a party external for Metfab Engineering, Inc.

The type and nature of controls has been applied to the outsourced process based on the influence of factors such as the:

- Potential impact of the outsourced process on Metfab Engineering, Inc.'s capability to provide product that conforms to requirements,
- Extent to which the control for the process are shared, and
- Capability of achieving the necessary controls through the application of the Purchasing process for products or service (Ref. P 10.0).

Ensuring the control over outsourced processes does not clear Metfab Engineering, Inc. of the responsibility of conformity to all customer, statutory and regulatory requirements.

Reference:

*P 4.0 Quality Management System and Documentation Requirements
P 10.0 Purchasing*

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4.2 Documentation requirements

4.2.1 General

The quality management system documentation includes:

- a) documented statements of a quality policy and quality objectives,
- b) a quality manual,
- c) documented procedures and records required by the QP-1 System,
- d) documents including records, needed by Metfab Engineering, Inc. to ensure the effective operations and control of its processes, and records required.

Where the term “documented procedure”, appears within this Quality Policy, it means that the procedure has been established, documented, implemented, and maintained.

A single document may include the requirements for one or more procedures and a requirement for a documented procedure may be covered by more than one document.

Reference:

P 4.0 Quality Management System and Documentation Requirements, Section 5.2

4.2.2 Quality manual

Metfab Engineering, Inc. has established, documented, implemented, and maintains a quality manual that includes:

- a) the scope of the quality management system, including details of and justification for any exclusions (Ref. QP-1, Sections 2 and 3),
- b) the documented procedures established for the quality management system, or reference to them, and
- c) a description of the interaction between the processes of the quality management system has been defined (Ref. QP-1)

Reference:

P 4.0 Quality Management System and Documentation Requirements, Section 5.3

4.2.3 Control of documents

Documents required by the quality management system are controlled. Records are a special type of document that are controlled according to the requirements given in 4.2.4

Metfab Engineering, Inc. has established, documented, implemented, and maintains a procedure defining the controls needed:

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- 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 determined by Metfab Engineering, Inc. to be necessary for the planning and operation of the quality management system 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.

Reference:

P 4.0 Quality Management System and Documentation Requirements, Section 5.4 and 5.5

4.2.4 Control of records

Records have been established and maintained to provide evidence of conformity to requirements and for the effective operations of the quality management system are controlled. Metfab Engineering, Inc. has established, documented, implemented, and maintains a procedure to define the controls needed for the identification, storage, protection, retrieval, retention, and disposition of records. Records are legible, readily identifiable, and retrievable.

Reference:

P 4.0 Quality Management System and Documentation Requirements, Section 5.6

5 Management responsibility

5.1 Management commitment

Metfab Engineering, Inc.'s top management has provided evidence of its commitment to the development and implementation of the quality management system and continually improving its effectiveness by:

- a) communicating to Metfab Engineering, Inc. employees 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.

Reference:

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P 5.0 Management Responsibility, Section 5.1

5.2 Customer focus

Metfab Engineering, Inc.'s top management has ensured that customer requirements are determined and are met with the aim of enhancing customer satisfaction (Ref. P 8.0 and P 12.0).

Reference:

P 5.0 Management Responsibility, Section 5.2

P 8.0 Customer Related Processes

P 12.0 Monitoring, Measurement and Analysis

5.3 Quality policy

Metfab Engineering, Inc.'s top management has ensured that the quality policy:

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

Reference:

P 5.0 Management Responsibility, Section 5.3, & F 5.0-1 Quality Policy Statement

5.4 Planning

5.4.1 Quality objectives

Metfab Engineering, Inc.'s top management has ensured that quality objectives including those needed to meet requirements for product are established at relevant functions and levels within Metfab Engineering, Inc. The quality objectives are being measured and consistent with the quality policy.

Reference:

P 5.0 Management Responsibility, Section 5.4 & F 5.0-6 Company Objective Tracking Sheet

P 7.0 Product Realization

5.4.2 Quality management system planning

Metfab Engineering, Inc.'s top management has ensured that:

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

Reference:

P 5.0 Management Responsibility, Section 5.5

5.5 Responsibility, authority and communication

5.5.1 Responsibility and authority

Metfab Engineering, Inc.'s top management has ensured that responsibilities and authorities are defined and communicated within Metfab Engineering, Inc.

Reference:

P 5.0 Management Responsibility, Section 5.6

5.5.2 Management representative

Metfab Engineering, Inc.'s top management has appointed a member of the Metfab Engineering, Inc.'s management who, irrespective of other responsibilities, has identified the responsibility and authority that includes:

- a) ensuring that processes needed for the quality management system are established, implemented and maintained,
- b) reporting to management on the performance of the quality management system and any need for improvement,
- c) ensuring the promotion of awareness of customer requirements throughout Metfab Engineering, Inc., and
- d) to be the liaison with external parties on matters relating to the Metfab Engineering, Inc.'s Quality Management System.

Reference:

P 5.0 Management Responsibility, Section 5.6

5.5.3 Internal communication

Metfab Engineering, Inc.'s top management has established the appropriate communication processes when communication takes place regarding the effectiveness of the quality management system.

Reference:

P 5.0 Management Responsibility, Section 5.7

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5.6 Management review

5.6.1 General

Metfab Engineering, Inc.'s top management reviews the quality management system, at planned intervals, to ensure its continuing suitability, adequacy, and effectiveness. These reviews include assessing opportunities for improvement and the need for changes to the quality management system, including the quality policy and quality objectives.

Records of these Management Reviews are maintained.

Reference:

P 5.0 Management Responsibility, Section 5.8

5.6.2 Review input

The input of management review are defined and include, but not limited to:

- a) results of audits,
- b) customer feedback,
- 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.

Reference:

P 5.0 Management Responsibility, Section 5.8

5.6.3 Review output

The outputs of the management reviews include any decisions and actions related to, but not limited to:

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

Reference:

P 5.0 Management Responsibility, Section 5.8

6 Resource management

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6.1 Provision of resources

Metfab Engineering, Inc. has determined and provided 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.

Reference:

P 6.0 Resource Management, Section 5.1

P 8.0 Customer Related Processes

P 12.0 Monitoring, Measurement and Analysis

6.2 Human resources

6.2.1 General

Personnel performing work affecting conformity to product requirements are competent on the basis of appropriate education, training, skills, and experience.

The definition of conformity to product requirements is defined as personnel affected directly or indirectly by performing any tasks within the quality management system.

Reference:

P 6.0 Resource Management, Section 5.2

6.2.2 Competence, training and awareness

Metfab Engineering, Inc. has:

- a) determined the necessary competence for personnel performing work affecting conformity to product requirements,
- b) where applicable, provided training or took actions to achieve the necessary competence,
- c) ensured that the necessary competencies have been achieved,
- d) ensured that its personnel are aware of the relevance and importance of their activities and how they contribute to the achievement of the quality objectives, and
- e) maintained appropriate records of education, experience, training, skills, and experience.

Reference:

P 6.0 Resource Management, Section 5.2; Section 5.3, F 6.0-11 Training Matrix

JD-1 Job Descriptions

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6.3 Infrastructure

Metfab Engineering, Inc. has determined, provided, and maintained the infrastructure needed to achieve the conformity to product requirements. Infrastructure includes, but is not limited to:

- a) buildings, workspace and associated utilities,
- b) process equipment (both hardware and software), and
- c) supporting services (such as transport, communication or information systems).

Reference:

P 6.0 Resource Management, Section 5.4

6.4 Work environment

Metfab Engineering, Inc. has determined and managed the work environment needed to achieve conformity to product requirements.

The definition of work environment relates to conditions under which work is performed including physical, environmental, and other factors (such as noise, temperature, humidity, lighting, or weather).

Reference:

P 6.0 Resource Management, Section 5.5

7 Product realization

7.1 Planning of product realization

Metfab Engineering, Inc. has planned and developed the processes needed for product realization. The planning of product realization is consistent with the requirements of other processes of the quality management system.

In planning product realization, Metfab Engineering, Inc. has determined the following, as appropriate:

- a) quality objectives and requirements for the product;
- b) established processes and documents, and provided resources specific to the product;
- c) required verification, validation, monitoring, measurements, and inspection and test activities specific to the product;
- d) records needed to provide evidence that the realization processes and resulting product meet requirements.

The output of this planning has been established in a form suitable for Metfab Engineering, Inc.'s method of operations.

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The documents specifying of the processes of the quality management system (including the product realization processes) and the resources to be applied to a specific product, project, or contract can be referred to as a quality plan.

The design and development requirements may also apply to the development of the product realization processes.

Reference:

P 7.0 Product Realization, Section 5.1

7.2 Customer-related processes

7.2.1 Determination of requirements related to the product

Metfab Engineering, Inc. has determined the

- a) requirements specified by the customer, including the requirements for delivery and post delivery activities,
- b) requirements not stated by the customer but necessary for specified or intended use, where known,
- c) statutory and regulatory requirements related to the product, and
- d) any additional requirements considered necessary by Metfab Engineering, Inc.

Actions under warranty provisions, contractual obligations such as maintenance services, and supplemental services (recycling or final disposal) are some examples that may be included as post delivery activities.

Reference:

P 8.0 Customer Related Processes, Section 5.1

7.2.2 Review of requirements related to the product

Metfab Engineering, Inc. has reviewed the requirements related to the product. This review is conducted prior to Metfab Engineering, 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 has ensured that

- a) product requirements are defined,
- b) contract or order requirements differing from those previously expressed are resolved, and
- c) Metfab Engineering, Inc. has the ability to meet the defined requirements.

Records of the results of the review and actions arising from the review are maintained. When situations occur when a formal review is impractical for each order such as Internet sales, the review covers relevant product information such as catalogs or advertising material.

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Where the customer provides no documented statement of requirement, the customer requirements is confirmed by Metfab Engineering, Inc. before acceptance.

Where product requirements have been changed, Metfab Engineering, Inc. has ensured that relevant documents are amended and relevant personnel are informed of the changed requirements.

Reference:

P 8.0 Customer Related Process, FC 8.0-1, FC 8.0-2, FC 8.0-3

7.2.3 Customer communication

Metfab Engineering, Inc. has determined and implemented arrangements for communicating with customers in regard to:

- a) product information,
- b) enquiries, contracts or order handling, including amendments, and
- c) customer feedback, including customer complaints.

Reference:

P 8.0 Customer Related Processes, FC 8.0-1, FC 8.0-2, FC 8.0-3, FC 8.0-4, FC 8.0-5

7.3 Design and development - Excluded

7.4 Purchasing

7.4.1 Purchasing process

Metfab Engineering, Inc. has ensured 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 purchase product on subsequent product realization or the final product.

Metfab Engineering, Inc. has evaluated their suppliers based on the supplier's ability to supply product in accordance with Metfab Engineering, Inc.'s requirements. Criteria has been established for the selection, evaluation, and re-evaluation. Records of the results of the evaluation and any necessary actions arising from the evaluation are maintained.

Reference:

P 10.0 Purchasing, Section 5.1, 5.2, 5.3, and 5.4

7.4.2 Purchasing information

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Purchasing information is identified for the product(s) to be purchased and services to be conducted, including where appropriate

- a) requirements for approval of product or service, procedures, processes and equipment,
- b) requirements for qualification of personnel,
- c) quality management system requirements.

Metfab Engineering, Inc. has ensured the adequacy of specified requirements prior to their communication to the supplier.

Reference:

P 10.0 Purchasing, Sections 5.1 and 5.4

7.4.3 Verification of purchased product

Metfab Engineering, Inc. has established and implemented the inspection or other activities necessary for ensuring that purchased product meets specified purchase requirements.

When Metfab Engineering, Inc. or its customer intends to perform verification at the supplier's premises, Metfab Engineering, Inc. has stated the intended verification arrangements and method product release in the purchasing information.

Reference:

P 10.0 Purchasing, Section 5.5

7.5 Product and service provision

7.5.1 Control of production and service provision

Metfab Engineering, Inc. has planned and carried out production and service provision under controlled conditions. Controlled conditions will include, as applicable, the

- a) availability of information that describes the characteristics of the product,
- b) availability of work instructions, as necessary,
- c) use of suitable equipment,
- d) availability and use of monitoring and measuring equipment,
- e) implementation of monitoring and measurement, and
- f) implementation of release, delivery and post-delivery activities.

Reference:

P 7.0 Product Realization, Section 5.2

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7.5.2 Validation of processes for production and service provision

Metfab Engineering, Inc. has validated processes for production and service provision where the resulting output cannot be verified by subsequent monitoring or measurement and as a consequence deficiencies become apparent only after the product is in use or the service has been delivered.

Validation has demonstrated the ability of these processes to achieve planned results.

Metfab Engineering, Inc. has established arrangements for these processes including, as applicable

- a) defined criteria for review and approval of the processes,
- b) approval of equipment and qualification of personnel,
- c) use of specific methods and procedures,
- d) requirements for records, and
- e) revalidation.

Reference:

P 7.0 Product Realization, Section 5.2

7.5.3 Identification and traceability

The Metfab Engineering, Inc. has identified the product by suitable means throughout product realization, where appropriate.

Metfab Engineering, Inc. has identified the product status with respect to monitoring and measurement requirements.

Where traceability is a requirement, Metfab Engineering, Inc. has controlled and recorded the unique identification of the product and are maintaining these records.

In some industries, configuration management is a means by which product identification and traceability are maintained.

Reference:

P 7.0 Product Realization, Section 5.3

7.5.4 Customer property

Metfab Engineering, Inc. exercises care with customer property while it is under Metfab Engineering, Inc.'s control or being used by Metfab Engineering, Inc.. Metfab Engineering, Inc. identifies, verifies, protects, and safeguards customer property provided for use or incorporation into the product. If any customer property has been lost, damaged or otherwise found to be unsuitable for use, Metfab Engineering, Inc.'s informs the customer and records are maintained.

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Customer property includes intellectual property and personal data.

Reference:

P 7.0 Product Realization, Section 5.4

7.5.5 Preservation of product

Metfab Engineering, Inc. preserves the product during internal processing and delivery to the intended destination in order to maintain conformity to requirements. The preservation of product is identified, handled, packaged, stored and protected, as applicable. Preservation is also applied to the constituent parts of a product.

Reference:

P 7.0 Product Realization, Section 5.5

7.6 Control of monitoring and measuring equipment

Metfab Engineering, Inc. has determined the monitoring and measurement to be undertaken and the monitoring and measuring equipment needed to provide evidence of conformity of product to determined requirements.

Metfab Engineering, Inc. has established processes to ensure that monitoring and measurement is carried out in a manner that is consistent with the monitoring and measurement requirements.

Where necessary to ensure valid results, measuring equipment is:

- a) calibrated or verified at specific intervals, or prior to use, against measurement standards traceable to international or national standards; where no such standards exists, the basis used for calibration or verification will be recorded;
- b) be adjusted or readjusted as necessary;
- c) be identified to enable the calibration status to be determined;
- d) be safeguarded from adjustments that would invalidate the measurement result;
- e) be protected from damage and deterioration during handling, maintenance and storage.

In addition, Metfab Engineering, Inc. has assessed and recorded the validity of the previous measuring results when the equipment is found not to conform to requirements. Metfab Engineering, Inc. has taken appropriate action on the equipment and any product affected. Records of the results of calibration and verification are maintained.

When used in the monitoring and measurement of specified requirements, the ability of computer software is satisfying the intended application being confirmed. This activity is carried out prior to initial use and reconfirmed, as necessary.

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If and when, confirmation of the use of computer software is used to satisfy the intended application Metfab Engineering, Inc. would include its verification and configuration management to maintain its suitability for use.

Reference:

P 11.0 Control of Monitoring and Measuring Devices, Section 5

8 Measurement, analysis and improvement

8.1 General

Metfab Engineering, Inc. has planned and implemented the monitoring, measurement, analysis and improvement processes needed to

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

These plans and implementation includes determination of applicable methods, including statistical techniques, and the extent of their use.

Reference:

P 12.0 Monitoring, Measurement and Analysis, Section 5

P 15.0 Continual Improvement, Section 5

8.2 Monitoring and measurement

8.2.1 Customer satisfaction

As one of the measurements of the performance of the quality management system, Metfab Engineering, Inc. monitors information relating to customer perception as to whether Metfab Engineering, Inc. has met customer requirements. These methods for obtaining and using this information have been determined.

Reference:

P 8.0 Customer Related Processes, FC 8.0-1, FC 8.0-2, FC 8.0-3, FC 8.0-4, FC 8.0-5

P 12.0 Control of Monitoring, Measurement and Analysis, Section 5.2.1

8.2.2 Internal audit

Metfab Engineering, Inc. conducts internal audits at planned intervals to determine whether the quality management system:

- a) conforms to the planned arrangements

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- b) and to the quality management system requirements established by Metfab Engineering, Inc. and
- c) has been effectively implemented and maintained.

A documented procedure has been established, implemented and maintained to define the responsibilities and requirements for planning and conducting audits, establishing records and reporting results.

An audit program has been planned, taking 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 have been defined. Selection of Auditors and audits are conducted to ensure objectivity and impartiality of the audit process. Auditors do not audit their own work.

The responsibilities and requirements for planning and conducting audits, and for reporting results and maintaining records are defined in P 13.0 Internal Auditing procedure.

The management responsible for the area being audited has ensured that any necessary corrections and corrective actions are taken without undue delay to eliminate detect nonconformities and their causes. Follow-up activities include the verification of the actions taken and the reporting of verification results.

Reference:

P 12.0 Monitoring, Measurement and Analysis, Section 5.2.2

P 13.0 Internal Auditing, FC 13.0-1

8.2.3 Monitoring and measurement of processes

Metfab Engineering, Inc. has applied suitable methods for monitoring and, where applicable, measurement of the quality management system processes. These methods have demonstrated the ability of the processes to achieve planned results. When planned results are not achieved, correction and corrective action have been taken, as appropriate, to ensure conformity of the product.

Metfab Engineering, Inc. has considered the type and extent of monitoring or measurement appropriate to each of its processes in relation to their impact on the conformity to the product requirements and on the effectiveness of the quality management system.

Reference:

P 12.0 Monitoring, Measurement and Analysis, Section 5.2

8.2.4 Monitoring and Measurement of product

Metfab Engineering, Inc. monitors and measures the characteristics of the product to verify that requirements for the product are met. This has been carried out at

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appropriate stages of the product realization process in accordance with the planned arrangements.

Evidence of conformity with the acceptance criteria are maintained. Records indicate the person(s) authorizing release of product for delivery to the customer.

Product release and service delivery does not proceed until the planned arrangements have been satisfactorily completed, unless otherwise approved by a relevant authority and, where applicable, by the customer.

Reference:

P 12.0 Monitoring, Measurement and Analysis, Section 5.2

8.3 Control of nonconforming product

Metfab Engineering, Inc. ensures that product which does not conform to requirements is identified and controlled to prevent its unintended use or delivery. The controls and related responsibilities and authorities for dealing with nonconforming product have been defined in a documented procedure (Ref. P 14.0).

Metfab Engineering, 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;
- d) by taking action appropriate to the effects, or potential effects, of the nonconformity when nonconforming product is detected after delivery or use has started.

Records of the nature of nonconformities and any subsequent actions taken, including concessions obtained, are maintained.

When nonconforming product is corrected the product is re-verified to demonstrate conformity to the requirements.

When nonconforming product is detected after delivery or use has started, Metfab Engineering, Inc. informs the customer and takes the appropriate action to the effects, or potential effects, of the nonconformity.

Reference:

P 14.0 Product Realization, Section 5.1

8.4 Analysis of data

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Metfab Engineering, Inc. has determined, collected and analyzed the appropriate data to determine 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 will include data generated as a result of monitoring and measurement and from other relevant sources.

The analyses of data provides information relating to, but not limited to:

- a) customer satisfaction (Ref. P 8.0 and P 12.0),
- b) conformity to product requirements (Ref. P 7.0, P 12.0 and P 14.0),
- c) characteristics and trends of processes and products including opportunities for preventive action (Ref. P 7.0, P 12.0, 13.0, or P 15.0), and
- d) suppliers (Ref. P 10.0).

Reference:

P 8.0 Customer Related Processes

P 7.0 Product Realization

P 10.0 Purchasing

P 12.0 Monitoring, Measurement and Analysis

P 13.0 Internal Auditing

P 14.0 Control of Nonconforming Product

P 15.0 Continual Improvement

8.5 Improvement

8.5.1 Continual improvement

Metfab Engineering, 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 review.

Reference:

P 15.0 Continual Improvement, Section 5.1

8.5.2 Corrective action

Metfab Engineering, Inc. uses the corrective action system to eliminate the cause of nonconformities in order to prevent recurrences. Corrective actions are appropriate to the effects of the nonconformities encountered.

A documented procedure has been established, implemented, and maintained 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,

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- d) determining and implementing the action needed,
- e) records of the results of action taken, and
- f) reviewing corrective action taken.

Reference:

P 15.0 Continual Improvement, Section 5.2

8.5.3 Preventive action

Metfab Engineering, Inc. uses the preventive action system to eliminate the cause of potential nonconformities in order to prevent their occurrence. Preventive actions are appropriate to the impact of the potential problems.

A documented procedure has been established, implemented, and maintained 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, and
- e) reviewing preventive action taken.

Reference:

P 15.0 Continual Improvement, Section 5.2