TECHNICAL INDUSTRIES, INC.
& GROUP OF COMPANIES

Quality Manual

Approved by: CEO

Signature: _____

George Sfeir

Date: October 2, 2013

Company Profile

Since our founding in 1971, Technical Industries, Inc. has become a recognized leader in ultrasonic pipe inspection technology. Services include full-length electromagnetic inspection for oil-field pipe and equipment and full length ultrasonic inspection systems for new and used drill pipe, tubing, casing and line-pipe.

Wet or dry MPI (Magnetic Particle Inspection); PT (Dye Penetrant Testing) or UT SEA (Ultrasonic Testing of the end areas) of plain end, threaded connections and drill strings, including drill collars and drilling rig inspection; mill systems and mill surveillance; testing and consulting services.

Technical Industries, Inc. experienced engineers and technicians, design and manufacture the most advanced ultrasonic pipe inspection equipment used in the world today. Used by the world's largest steel mills and preferred by the world's largest oil companies, this pipe inspection equipment is the most tested and approved system in the industry. Our ultrasonic inspection systems have repeatedly shown to have superior flaw detection capabilities. Technical Industries, Inc. was the first company to design and provide the ultrasonic inspection Data Evaluation Software, enabling the world's largest oil companies to meticulously scrutinize their inspected pipe in order to safely drill and complete the world's most critical wells.

Our most recent addition to advanced inspection technology is our Visonic™ 3-D Virtual Imaging Systems, which also includes full-length pipe OD Measuring/Ovality Determination, Visonic™ String Builder and Pipe Straightness Determination. Cross-sectional area (CSA) is measured each ¼ inch helix along the entire pipe length, allowing the customer several choices in determining the strength of the pipe material including the use of minimum CSA, 64-point moving average and minimum remaining wall. Pipe wall thickness and OD measurements can be viewed in 3-D imagery. The Visonic™ technology when used with the proper algorithm will allow the user to calculate burst, collapse, and tensile strength of the pipe material.

Our ultrasonic systems have the largest OD and pipe length inspection capabilities in the industry for plain end and threaded pipe, and the deepest penetration capability offered for wall thickness measurement. Our large inspection facility, located in Houston, Texas provides excellent pipe and equipment storage and maintenance services.

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1 General

1.1 Purpose and scope

This Quality Manual describes the Quality Management System (QMS) implemented by Technical Industries, Inc. This manual and the system and processes it describes serve to ensure that the QMS conforms to Technical Industries, Inc. Quality Policy, ISO 9001:2008, and all applicable statutory and regulatory requirements for the:

“Developer of non-destructive inspection technologies and services for Drill Pipe, Tubing, Casing, Line-Pipe, Landing Strings and OCTG used for petroleum exploration, production, storage, and delivery.”

1.2 Application

Where any requirements of ISO 9001:2008 cannot be applied due to the nature of Technical Industries, Inc. activities, they have been considered for exclusion.

7.3 Design and Development.
Technical Industries, Inc. takes exclusion from this clause due to the fact that the services it provides to its customers do not include nor require design processes.

Wherever the term product occurs, service is also implied. Service is defined as all processes and the desired outcome utilized by Technical Industries, Inc.

The documented procedures of the quality management system are listed on page 28. As applicable, where no documented procedure is required a brief description of the activities carried out is provided.

1.3 Applicable standards

ANSI/ISO/ASQ/ Q9001: 2008
ANSI/ISO/ASQ/ Q9000: 2005

1.4 Definitions and acronyms

Top Management: The CEO and / or the CEO’s Designee
QMS: Quality Management System

2 Responsibilities

The CEO is responsible for establishing the quality policy and approving the Quality Manual.
The Top Management is responsible for appointing a Management Representative by issuing an official letter of appointment. The appointed Management Representative who irrespective of other responsibilities has responsibility and authority that includes:

a) ensuring that the processes needed for the quality management system are established, implemented and maintained;
b) reporting to the CEO on the performance of the quality management system and any need for improvements, and
c) Ensuring the promotion of awareness of customer requirements throughout Technical Industries, Inc.

All managers are responsible for ensuring that customer concerns and complaints are addressed, and customers receive attention to meet their requirements and enhance their satisfaction.

Managers will participate in determining the necessary characteristics for job descriptions and determining the need for new personnel.

All managers are responsible for ensuring personnel pertaining to their areas of responsibility receive the proper induction and training and comply with the established procedures.

Managers are responsible for participating in the review processes of documents, recommending changes or the creation of a new document if necessary for continual improvement and ensuring that the latest revision of documents is being used.

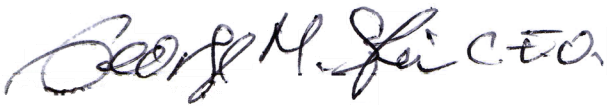
All employees are responsible for applying the Quality Policy to their activities.

3 Quality Statement

Quality Statement

Technical Industries, Inc. employees are committed to excellence in all services that we offer. We continually strive to:

- Lead the industry in NDT technologies, research, the advancement of data collection and data enhancement information services.
- Continually improve our processes, services, workforce, and the effectiveness of our Quality Management System.
- Provide our customers with the latest technology and inspection service available.
- Meet or exceed our customers' expectations.
- Technical Industries, Inc. believes that quality service is a reflection of the organization. We believe that quality is a process of continuous improvement required to maintain our present position, and a path to attaining our goal of being the industry leader in advanced inspection technology and services.



George M Sfeir
The Quality Policy signed by the CEO August 9, 2006

4 Quality management system

4.1 General requirements

Technical Industries, Inc. has established documented, implemented and maintains a quality management system and continually improves its effectiveness in accordance with ISO 9001:2008.

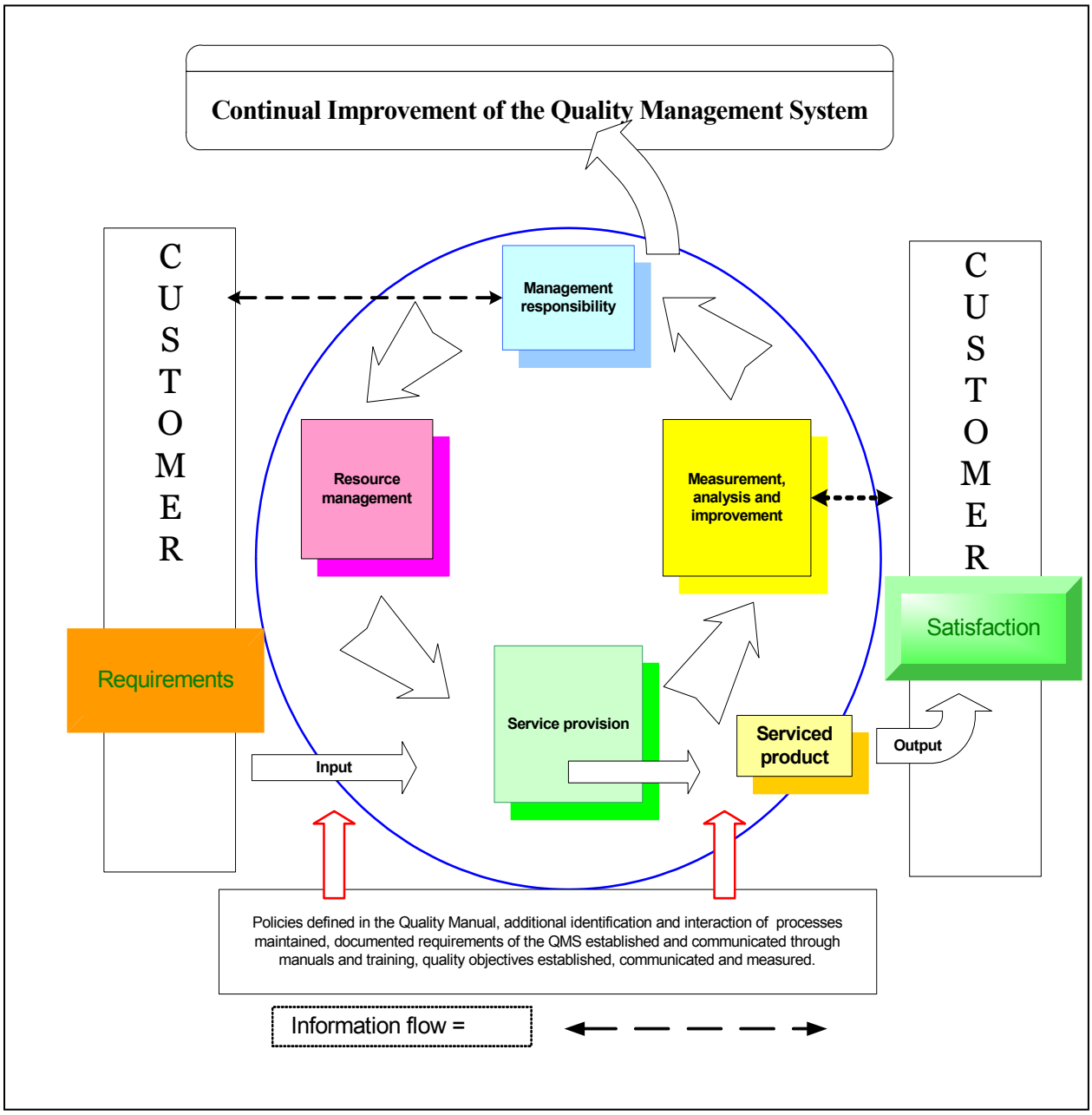
Technical Industries, Inc.:

a) determines the processes needed for the quality management system and their application throughout Technical Industries, Inc.;
b) determines the sequence and interaction of these processes;
c) determines criteria and methods 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, measures where applicable and analyzes these processes, and
f) implements actions necessary to achieve planned results and continual improvement.

These processes are managed by Technical Industries, Inc. in accordance with the requirements of ISO 9001:2008.

Where Technical Industries, Inc. chooses to outsource any process that affects product conformity with requirements Technical Industries, Inc. ensures control over such processes. An outsourced process is any process that Technical Industries, Inc. needs for the QMS and chooses to have performed by an external party.

Control of such outsourced processes is identified within the quality management system.



Link to Process Identification Flowchart.

4.2 Documentation Requirements

4.2.1 General

The documentation of the Technical Industries, Inc. Quality Management System includes:

a) documented statements of quality policy and quality objectives;
b) this Quality Manual;
c) documented procedures required by ISO 9001:2008;
d) documents needed to ensure effective planning, operations and process control;
e) records required by our QMS and ISO 9001:2008.

4.2.2 Quality Manual

This Quality Manual has been established, it is maintained and includes:

a) the scope of the quality management system, including details of and justification for any exclusion per the application section on page 6;
b) reference to the documented procedures established for the system;
c) a description of the processes of the quality management system.

This manual identifies the primary processes of the QMS. Specific flowcharts of key processes have been developed and are part of procedures when and where necessary.

4.2.3 Control of Documents

Technical Industries, Inc. has established and maintains procedures to control and identify all documents and data related to the quality system, including external documents and data.
Records are a special type of documents and are controlled according to the requirements given in 4.2.4.
The QMS documentation is comprised of the following types of documentation:

a) Quality Manual;
b) Operating Procedures;
c) Work Instructions;
d) Drawings and standards/mill codes/specifications/customer requests
e) Production and quality plans (work orders, inspections checklists).

A documented procedure has been established to define the controls to:

a) approve documents for adequacy prior to issue;
b) review and update as necessary and re-approve documents;
c) ensure that changes and the current revision status of documents are identified;
d) ensure that relevant versions of applicable documents are available at point of use;
e) ensure that documents remain legible and readily identifiable;
f) ensure that documents of external origin needed for the planning and operation of QMS, such as industry standards and customer drawings 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.

4.2.4 Control of Records

Records demonstrate achievement of the required quality and effective operation of the quality management system. Records remain legible, readily identifiable and retrievable. A documented procedure has been established to define the controls needed for the identification, storage, protection, retrieval, retention time and disposition of records.

Quality Assurance ensures the maintenance of quality records (including pertinent vendor records), as to provide documentary evidence that the product and services conform to requirements specified by applicable industry codes, standards, product specifications and customer requirements.

Record retention is identified, and customer related records are kept for a minimum period of five (5) years or as requested by the customer.

5 Management Responsibility

5.1 Management Commitment

The Top Management of Technical Industries, Inc. is the driving force in implementing, maintaining and improving the effectiveness of the QMS. Evidence of the Top Management's commitment is provided by:

a) communicating to all employees the importance of meeting customer as well as statutory and regulatory requirements. Meeting minutes, training records, annual company report, are some examples;
b) establishing the quality policy;
c) ensuring that quality objectives are established;
d) conducting management review, and
e) ensuring the availability of resources.

5.2 Customer Focus

Top Management ensures that customer requirements are determined and are met with the aim of enhancing customer satisfaction. This includes assisting customers to determine the right products, performance requirements and/or specifications for a specific application.

This is accomplished utilizing such methods as market/customer surveys, vendor qualification reports, telephone calls, and sales reports.

5.3 Quality Policy

The CEO ensures that the Quality Policy / Statement

a) is appropriate to the purpose of Technical Industries, 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 Technical Industries, Inc., and
e) is reviewed for continuing suitability.

5.4 Planning

5.4.1 Quality Objectives

The CEO and the Management Team ensure that the quality objectives including those needed to meet requirements for service are established at relevant functions and levels of Technical Industries, Inc. Quality Objectives are measurable and consistent with the quality policy.

5.4.2 Quality Management System Planning

Planning relative to the Technical Industries, Inc. QMS is carried out in order to meet the requirements given in 4.1 of the system as well as the quality objectives. Planning ensures that any change in the QMS is conducted in a controlled manner and that the integrity of the system is maintained during the change.

5.5 Responsibility, Authority and Communication

5.5.1 Responsibility and Authority

Top Management ensures that responsibilities and authorities are defined and communicated within Technical Industries, Inc. These responsibilities and authorities are communicated through an organizational chart, job descriptions, and documented procedures and work instructions.

5.5.2 Management Representative

The Top Management appointed Management Representative in Houston, Texas has the defined authority and responsibility to:

a) establish, implement and maintain processes needed for the quality management system;
b) report to Top Management on the performance of the quality system and any need for improvement, and
c) ensure the promotion of awareness of customer requirements throughout the organization.

5.5.3 Internal Communication

Top Management ensures that appropriate communication processes are established within Technical Industries, Inc., and that communication takes place regarding the effectiveness of the QMS. This communication may take the form of team briefings, meetings, notice boards (graphs or other news), e-mails and/or formal reports.

5.6 Management Review

5.6.1 General

The CEO, the Management Representative in Houston, Texas and the Management Team review the QMS annually to ensure its continuing suitability, adequacy, and effectiveness. The review assesses opportunities for improvement and the need for changes to the QMS, the adequacy of the quality policy and the quality objectives.

5.6.2 Review Input

Input to the management review includes information on:

a) results of audits;
b) customer feedback;
c) process performance and product conformity;
d) status of preventive and correction actions;
e) follow-up actions from previous management reviews;
f) planned changes that could affect the quality management system; and
g) recommendations for improvements.

5.6.3 Review Outputs

The output from the management review includes decisions and actions related to:

a) improvement of the effectiveness of the QMS and its process;
b) improvement of product related to customer requirements, and
c) resource needs.

Records of the management review are maintained in the form of meeting minutes cross referenced to any corrective and preventive actions issued.

6 Resource Management

6.1 Provision of Resources

The Operations Superintendent in Houston, Texas is responsible to ensure that resource needs are identified and proposed to Top Management. The CEO is responsible for providing resources needed:

a) to implement and maintain the QMS and continually improve its effectiveness, and
b) to enhance customer satisfaction by meeting or exceeding customer requirements.

These resources include, but are not limited to:

a) people;
b) infrastructure;
c) work environment;
d) information;
e) suppliers;
f) natural resources, and
g) financial resources.

6.2 Human Resources

6.2.1 General

Personnel performing work affecting service quality is competent on the basis of appropriate education, training, skills and experience.

6.2.2 Competence, Training and Awareness

Technical Industries, Inc.:

a) determines the necessary competence for personnel performing work affecting product conformity to requirements. This is done through resumes, records of qualifications, reviews, and observations as sources of grading competency to the required job description.
b) where applicable, provides training or takes other actions to satisfy these needs;
c) evaluates the effectiveness of the actions taken;
d) ensures that personnel are aware of the relevance and importance of their activities and how they contribute to the achievement of the quality objectives, and
d) maintains appropriate records of education, training, skills and experience.

6.3 Infrastructure

Technical Industries, Inc. determines, provides and maintains the infrastructure needed to achieve conformity to product requirements. Infrastructure includes, but is not limited to the following:

a) buildings, workspace associated utilities;
b) process equipment, to include any required software and hardware; and
c) supporting services such as transport, communication or information systems.

6.4 Work Environment

The Operations Superintendent, in consultation with Technical Industries, Inc. employees, determines and manages the work environment needed to achieve conformity to product requirements.

Work Environment relates to those conditions under which work is performed including physical, environmental and other factors (such as noise, temperature, and humidity, lightning or weather).

7 Service Realization

7.1 Planning and Service Realization

Technical Industries, Inc. plans and develops the processes needed for product/service realization. Planning of service realization is consistent with the requirements of the other processes of the QMS.

In planning service realization, Technical Industries, Inc. determines the following, as appropriate:

a) quality objectives and requirements for the service;
b) the need to establish processes, documents and provide resources specific to the product;

c) required verification, validation, monitoring, measurement and inspection specific to the service and the criteria of acceptance;
d) records to provide evidence that the realization process and the resulting service meet requirements;

The output of this planning is in a form suitable for the Technical Industries, Inc. method of operation.

7.2 Customer Related Processes

7.2.1 Determination of Requirements Related to the service

Technical Industries, Inc. determines:

a) requirements specified by the customer, including the requirements for delivery (i.e. timing, mode, packaging, etc.) 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 applicable to the product; and
d) any additional requirements considered necessary by Technical Industries, Inc.

7.2.2 Review of Requirements Related to the service

Sales and/or competent personnel review the requirements related to the service prior to a commitment from Technical Industries, Inc. to supply a service to the customer (i.e. submission of tenders, acceptance of contracts or orders, acceptance of changes to contracts or orders) and ensures that:

a) service requirements are defined;
b) contract or order requirements differing from those previously expressed are resolved, and,
c) Technical Industries, Inc. has the ability to meet the requirements.

Records of the results of the review and actions arising from the review are maintained.

If the customer provides no documented statement of any requirement, the customer's requirements are confirmed by Technical Industries, Inc. before acceptance. In the case of verbal orders, the person taking the order confirms the client requirements are correct and enters them on the sales order, or directly into the computer.

Where service requirements are changed, Technical Industries, Inc. ensures that relevant documents are amended and that relevant personnel (i.e. operations, and shipping, as applicable) are aware of the changed requirements.

7.2.3 Customer Communication

The Account Executive is responsible to determine and implement effective arrangements for communicating with customers in relation to:

a) service information (through outside sales, telephone communication, brochures, and web page);
b) inquiries, contracts or order handling, including amendments (through web page, order desk, emails and faxes);
c) customer planned feedback (sales reports, customer meetings and surveys), and
d) unplanned feedback (customer complaints and returns).

7.3 Design and Development

Technical Industries, Inc. has excluded Design and Development from its quality management system due to the fact that the service it provides does not require this process to satisfy customer and QMS requirements.

7.4 Purchasing

7.4.1 Purchasing Process

The Operations Superintendent and/or designee are responsible for ensuring that purchased products or services conform to specified purchase requirements. The type and extent of control applied to the supplier and the purchased product or service is dependent upon the effect of the purchased product or service on subsequent product realization. Suppliers that have an effect on Technical Industries, Inc. processes will be listed on the “critical vendor list”. This process is detailed and must be complied with Procedure P-7.2.4-1.

Technical Industries, Inc. evaluates suppliers based on their ability to supply products in accordance to Technical Industries, Inc. requirements. This evaluation and recording of these results are given in Procedure P-7.2.4-1.

Approved suppliers that manufacture for Technical Industries, Inc. to drawings and specifications, and perform associated services, require one or more of the following evaluations as:

a) on-site assessment and evaluation of supplier's facility, capability and quality system, or
b) documented assessment of suppliers procedures and practices; or
c) evidence of a current registration to ISO 9001:2008, API Q1 Spec, or equivalent; or
d) evaluation of product samples.

Methods of supplier evaluation for suppliers that deliver standard off-the-shelf products (IE: Packaging Supplies) include, but are not limited to:

a) completion of QA questionnaire; or
b) past experience with similar supplies from the supplier; or
c) evaluation of product samples, or
d) testimony of other users.

Quality performance of vendors is ensured by inspection of product upon delivery or at vendor's facility and continuous review of vendor's conformance to specified requirements. Records of the results of these evaluations and any necessary actions resulting from these evaluations are maintained. As of the implementation date of the QMS, Technical Industries, Inc. considers the current supplier base as being approved.

7.4.2 Purchasing Information

Technical Industries, Inc. uses a two-step procedure for creating purchase orders. A requisition Form # 7.4.2-1 is created prior to the purchase order. The requisition is then entered into an electronic database stored on the company server. The record of each PO is kept in this database.

Purchasing documents describe the product or service to be purchased including where appropriate:

a) requirements for approval of product, procedures, processes, and equipment, (calibration procedures, electronic systems);
b) requirements for the qualification of personnel;
c) QMS requirements.

Purchase requirements are reviewed prior to communication to the supplier and personnel responsible for the review are identified in the purchasing documents.

7.4.3 Verification of Purchased Product/Service

Technical Industries, Inc. has established and implemented the inspection or other activities necessary for ensuring that purchased product/service meets specified purchase requirements. Specific application is verified via receiving inspection. Purchased capital items are recorded in the company inventory database with a TI number assigned.

Technical Industries, Inc. has established inspection criteria that are identified on records to determine the type of inspection required and the authority for release. Determining factors for inspection criteria may include type of product or service, control exercised at customers' or supplier's premises and records of conformance.

Where Technical Industries, Inc. or its customer intends to perform verification at the supplier's premises, Technical Industries, Inc. will state the intended verification arrangements and method of product release in the purchasing information. The requirements for verification and assessment of critical product suppliers must meet the specifics of Procedure P-7.4.1-1.

7.5 Service Provision

7.5.1 Control of Service Delivery

Technical Industries, Inc. plans and carries out the service provision under controlled conditions. Controlled conditions include, as applicable:

a) the sales order which contains or references information that describes the characteristics of the service;
b) work instructions for personnel performing complex or critical operations;
c) the use of suitable equipment;
d) the availability and use of monitoring and measuring devices;
e) the implementation of monitoring and measurement, and
f) the implementation of release, delivery and post-delivery activities.

The Operations Superintendent and/or designee are responsible for scheduling, proper use and operation of the production processes.

7.5.2 Validation of Processes for Service Provision

Technical Industries, Inc. validates any process used in 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 customers' material is in use or the service has been delivered.

Such processes are validated to demonstrate that the special process can achieve planned results.

The Operations Superintendent or designee is responsible for establishing arrangements for these processes including, as applicable:

a) defining the criteria for review and approval of a special process;
b) approval of any equipment and qualification of personnel;
c) use of specific methods and procedures;
d) requirements for records;
e) revalidation requirements, and
f) approval by customer representative.

7.5.3 Identification and Traceability

Technical Industries, Inc. maintains the identification of customer furnished materials and product throughout all stages of inspection, storage and delivery, as required to meet customer requirements ensuring the identification is maintained and transferred back onto material if removed.

Material status with respect to monitoring and measurement requirements throughout product realization is identified on the work order. The process application as determined by the work order shall have all equipment verification records of set up parameters completed daily and put in job file. This shall include serialization and verification of set up. Product status shall be documented daily on the process report with identification as listed in the Sections of 1.5 of the Work Instructions.

If specifically requested by the customer, a unique number will be assigned, recorded and records maintained when traceability is specified or required.

7.5.4 Customer Property

Technical Industries, Inc. ensures that customer property provided for inspection is identified, verified, protected and safeguarded. Any occurrence of loss, damage, deterioration or unsuitability of customer-property, including customer data, is

recorded on a non-conformance report and reported back to the customer. Technical Industries, Inc. maintains the identification and traceability of customer supplied property as in section 7.5.3.

7.5.5 Preservation of Product

Technical Industries, Inc. preserves the integrity of material during internal processing and delivery to the intended destinations. The integrity of the processes during the execution of services is maintained as a documented procedure or work instruction. The procedure is specific to the process and addresses record keeping requirements of inspection, maintenance, repair, rejection and acceptance for the service.

This preservation also applies to the constituent parts of a product.

This preservation includes:
a) identification: product is positively identified through the process (i.e. marked, tagged, serialized, stamped, stenciled etc);
b) handling: all products are handled in a manner to prevent damage or deterioration, using the proper handling equipment;
c) packaging: customer furnished product is packaged per Technical Industries, Inc. work instruction or per customer specified requirements;
d) storage: customer furnished material is placed in a designated storage area, so as to prevent damage or deterioration pending use or delivery; and
e) protection: customer furnished material is appropriately preserved to prevent deterioration pending use or delivery according to Technical Industries specs or customers' request.

7.6 Control of Monitoring and Measuring Equipment

Technical Industries, Inc. determines the monitoring and measurement to be undertaken and the monitoring and measurement equipment needed to provide evidence of the conformity of the inspection to determined requirements.

Quality Assurance has established processes to ensure that monitoring and measurement using these instruments can be and 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, or both, at specified intervals, or prior to use, against measurement standards traceable to national or international standards. Where no such standard exists, the basis for calibration or verification is recorded;
b) adjusted or re-adjusted as necessary;

c) have identification in-order to determine its calibration status;
d) safe guarded from adjustment that would invalidate the measurement result, and
e) protected from damage and deterioration during handling, maintenance and storage.

When equipment is found not to conform to requirements, previous measuring results are assessed to determine if they have been compromised. Records are maintained of any appropriate action that was taken on the equipment and any material affected. Records of the results of calibration and verification of individual instruments are maintained.

8 Measurement, Analysis and Improvement

8.1 General

Technical Industries, Inc. has planned and implemented the monitoring, measurement and improvement processes needed to:

a) demonstrate conformity of the product / service to requirements;
b) ensure conformity of the QMS, and
c) to continually improve the effectiveness of the QMS.

This includes determination of applicable methods, including statistical techniques, and the extent of their use. Statistical or other measurement techniques may be applied to establish plans for future inspections and testing.

8.2 Monitoring and Measurement

8.2.1 Customer Satisfaction

As one of the measurements of performance of the QMS, Technical Industries, Inc. monitors information pertaining to customer perception as to whether Technical Industries, Inc. has fulfilled customer requirements. A number of different methods are used to monitor customer satisfaction.

These methods include but are not limited to:

a) customer survey;
b) direct customer feedback, and
c) customer interviews/meetings.

In addition to the above, customer complaints are also monitored. The use of the results of customer satisfaction-monitoring includes, but is not limited to:

a) input into management review process;
b) setting company objectives;
c) modifying processes, and
d) increasing sales.

8.2.2 Internal Audit

Technical Industries, Inc. conducts internal audits at least once a year to determine whether the QMS:

a) conforms to planned arrangements, to the requirements of ISO 9001:2008 and to the QMS requirements established by Technical Industries, Inc., and
b) is effectively implemented and maintained.

Quality Assurance is responsible for planning audits 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 are defined. Selection of auditors and conduct of audits ensure objectivity and impartiality of the audit process and confirm that auditors do not audit their own work.

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

When nonconforming conditions are identified, the manager responsible for the affected area or activity is requested to propose and implement a corrective action without undue delay to eliminate the detected nonconformities and its causes. Follow-up activities include the verification of the actions taken and the reporting of verification results.

8.2.3 Monitoring and Measurement of Processes

Technical Industries, Inc. applies suitable methods for monitoring and, where applicable, measurement of the QMS processes. These methods demonstrate the ability of the processes to achieve planned results. When planned results are not achieved, correction and corrective action is taken as appropriate.

The measurement of the processes may come in the form of inspection data, customer surveys, customer complaints, statistical samples, and internal audits.

This information may be reviewed any time there is a perceived problem with the processes, but is reviewed during regular management meetings and at the Management Review.

8.2.4 Monitoring and Measurement of Services

Technical Industries, Inc. monitors and measures the characteristics of the service provided to verify that material requirements, as detailed in the work order, have been met. This is accomplished through:

1. Receiving Inspection

Received materials are first subjected to a visual receiving inspection by the Shipper/Receiver, and customer representative if present. Critical or special materials are subject to a more detailed quality inspection per Technical Industries, Inc.'s receiving instructions and/or the 3rd party representative.

2. In-Process Inspections and Testing

In-process inspections and testing are specified on the work order accompanying the customers' material during its inspection. The inspections are performed by the inspection personnel, unless otherwise indicated. The in-process inspection verifies that an operation was performed satisfactorily or reports are received, and the material can pass to the next processing stage unless under recall or rejected material procedures. A third party observer may witness this stage of the inspection process on behalf of the customer.

3. Final Inspection

The authority identified by the inspection level as indicated on the work order traveler, is carried out on all complete inspections. Prior to release, personnel ensure all inspections and tests have been completed and documentation is available and authorized, unless otherwise approved by the Operations Superintendent, and where applicable the customer.

Material release and service delivery does not proceed until all the planned arrangements have been satisfactorily completed, unless otherwise approved by the CEO and where applicable by the customer.

Evidence of conformity with the acceptance criteria is maintained. Records indicate the person(s) authorizing release of material.

8.3 Control of Non-conforming Material/Service

The Operations Superintendent is responsible for ensuring that non-conforming material or service is clearly identified and quarantined/segregated to prevent its

inadvertent use or shipment until such time as the material is reviewed and a disposition determined. The Operations Superintendent is responsible for the review and disposition of all non-conforming material and a documented procedure has been establish to establish requirements to deal with nonconforming product / service.

The Operations Superintendent, when applicable, reviews all non-conformances and the non-conforming material is dealt with in one or more of the following ways:

a) by taking action to reject the non-conforming material;
b) by authorizing its use, release or acceptance under concession from the CEO and where applicable by the customer representative;
c) by taking action to provide information to the customer to preclude its original intended use or application.

When an external defect is detected and the material is ground out, it will be subject to re-verification to demonstrate conformity to customer requirements or specifications.

When non-conforming material is detected after shipment or use has started, Technical Industries, Inc. takes action appropriate to the effects, or potential effects, of the non-conformity. This action could take the form of recall of material inspected, notification to customers, or any other action deemed necessary.

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

8.4 Analysis of Data

Technical Industries, Inc. determines, collects and analyzes data to demonstrate the suitability and effectiveness of the QMS and to evaluate where continual improvement of the effectiveness of the system can be made. Sources of data may include, but are not limited to:

a) customer satisfaction;
b) conformity to product / service requirements;
c) characteristics and trends of processes and inspections including opportunities for preventive actions; and
d) suppliers.

The Management Review Team is responsible for identifying statistical or other measurement techniques needs. The result of this analysis is reviewed, at a minimum, during the management review process.

8.5 Improvement

8.5.1 Continual Improvement

Technical Industries, Inc. continually improves the effectiveness of the QMS through use of the quality policy, quality objectives, audit results, analysis of data, corrective and preventive actions and quality management reviews.

The Management team reviews this information at the annual Management Review to determine any improvements to the QMS.

8.5.2 Corrective Action

Action is taken to eliminate the cause of non-conformities in order to prevent recurrence. Corrective Actions are appropriate to the effects of the nonconformities encountered and controls are applied to ensure that corrective actions are implemented and that they are effective.

A documented procedure has been established to define requirements for:

a) reviewing nonconformities (including customer complaints);
b) determining the cause of the nonconformities during the above review;
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; and
f) reviewing corrective actions taken.

Anyone in the company may propose corrective actions, but only Top Management can authorize and request their implementation.

Each corrective action is tracked and reviewed by Quality Assurance to determine if the corrective action has been implemented and if it is effective.

8.5.3 Preventive Action

Processes, work operations, concessions, quality records, audit results, service reports, employee suggestions, customer feedback and customer complaints are analyzed to detect any sources of potential nonconformities and preventive actions are implemented before problems develop.

Preventive Actions are appropriate to the effects of the potential problems. Anyone in the company may propose preventive actions, but only Top Management can authorize and request their implementation.

A documented procedure has been established to define the 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 of preventive actions taken after a determined time frame to ensure effective implementation.

9 Documented Procedures

Technical Industries, Inc. has established the following documented procedures as required by ISO 9001:2008 and Technical Industries, Inc. quality management system.

Document Control	P-4.2.3-1
Control of Records	P-4.2.4-1
Management Review	P-5.6-1
Competence Awareness and Training	P-6.2-1
Supplier Qualification	P-7.2.4-1
Purchasing Process Requirements	P-7.4.1-1
Control of Monitoring and Measuring	P-7.6.1
Customer Satisfaction Survey	P-8.1-0
Internal Audit	P-8.2.2-1
Control of Nonconforming material / service	P-8.3-1
Corrective / Preventive Actions	P-8.5-1

10 Revision History and Distribution Information

Revision	Nature of change	Date
A	First Issue with requirements of ISO 9001:2000	08/03/06
B	Added company information, modified wording on application, provision of resources and monitoring and measuring devices.	10/26/06
C	Edited sections 1.2, 2, 5.5.2, 6.1 to reflect change in new ISO Management Representative. Reworded “Operations Manager” to “Operations Superintendent” throughout the Manual.	03/05/07
D	Transitioned from ISO 9001:2000 to ISO 9001:2008 based upon the guidelines issued by ISO and IAF. Reworded section 6.2 to correct MCNA CAR#3	11/01/09
E	7.5.3 Added wording concerning integrity of the processes to paragraph 1. 7.5.5 Added wording concerning process applications to second paragraph 2. 7.4.1 & 7.4.3 added comments on P-7.4.1-1 9.0 Added procedure P-7.4.1-1	11/05/12
F	Header has been modified. Logo has been updated.	10/02/13

10.1.1 Distribution Information

Controlled copies are updated in accordance with section 4.2.3 of this Manual.
This Manual will be reviewed for continual improvement, as required.
Electronic version maintained in the Intranet.

Number	Location
Original	CEO's office
Copy 1	Master Copy Management Representative's office
Copy 2	Shop
Copy 3	Consultant, Conformance and Training