ENERGY & TECHNOLOGY, CORP.
ENERGY TECHNOLOGY MFG & THREADING, LLC.

Quality Manual

Approved by: CEO

Signature: George Sfeir

Date: 06/14/2014

1 General

1.1 Purpose and scope

This Quality Manual describes the Quality management System (QMS) implemented by Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC.. This manual and the system and processes it describes serve to ensure that the QMS conforms to Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC. Quality Policy and API SPEC Q1 for the:

“Manufacturing of Threading and Coupling services for Tubing, Casing, and Line-Pipe used for petroleum exploration, production, storage, and delivery”

1.2 Application

Where any requirements of API SPEC Q1 cannot be applied due to the nature of Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC activities, they have been considered for exclusion.

Energy & Technology, Corp./Energy Technology Manufacturing & Threading, LLC excludes Design and Development clause 5.4 from its quality management system due to the fact that the service it provides does not require this process to satisfy our customer and QMS requirements.

1.3 Applicable Standards

API SPEC 5CT *Latest Edition*
API SPEC 5B *Latest Edition*
ANSI/API Spec Q1 *Latest Edition*
ISO 9001:2008 *Latest Edition*

1.4 Definitions and acronyms

Top management: The CEO and / the CEO’s Designee

QMS: Quality Management System

Acceptance Criteria: specifies limits of acceptability applied to process or product characteristics.

Acceptance inspection: demonstration through monitoring or measurement that the product complies with specified requirements.

Calibration: comparison and adjustment to standard of known accuracy of gauges and tools.

Control Feature: organization's documented method to perform an activity under controlled conditions to achieve conformity to specified requirements.

Delivery: point in time and physical location at which the agreed transfer of ownership takes place.

Design Acceptance Criteria (DAC): defined limits placed on characteristics of materials, products, or services established by the organizations customer, and/or applicable specifications to achieve conformity to product design.

Design Validation: process of proving a design by testing to demonstrate conformity of the product to deign requirements.

Field Nonconformity: product nonconformity that is detected after delivery or us has started

Key Performance Indicator (KPI): Quantifiable measure that an organization uses to gauge or compare performance.

Manufacturing Acceptance Criteria (MAC): defined limits placed on characteristics of materials, products, and services established by the organization to achieve conformity to the manufacturing or service requirements.

Tender: Offer made by and organization in response to an invitation to provide a product.

2 Responsibilities

The CEO is responsible for the establishing the quality policy and approving the Quality Manual. The Top Management is responsible for the appointing of a Management Representative by issuing an official letter of appointment. The appointed Management Representative who irrespective of other responsibilities has the 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 the need for improvements, and
c) ensuring the promotion of awareness of customer requirements throughout Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC.

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

Mangers 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.

Mangers are responsible for participating in the review processes of documents, recommending changes or 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

Energy & Technology, Corp./Energy Technology Manufacturing & Threading, LLC employees are committed to excellence in all services we offer. We continually strive to:

- Lead the industry in threading of all API and premium connections that are serviced in our facility by maintaining and controlling efficiency rates, producing the highest quality connections in the industry, and by maintaining a competitive price of our services for our customers.

- Continually improve our processes, services, workforce, and the effectiveness of our Quality Management System

- Meet or exceed our customers' expectations.

- Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC believes that quality service is a reflection of the organization. We believe that quality is a process of continuous improvement and required path to obtaining our goal of being the industry's leading threading facility.

George M Sfeir
The Quality Policy signed by the CEO 02/01/10

4 Quality Management System

4.1 General requirements

Energy & Technology, Corp. /Energy Technology Manufacturing & Threading, LLC has established, documented, implemented and maintains a quality management system and continually improves its effectiveness in accordance with API SPEC Q1

Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC:

a) Identifies the processes needed for the quality management system and their application throughout Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC.
b) determines the sequence and interaction of these processes based upon established Quality Plans;
c) establishes the work instructions that will ensure 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 and analyzes these processes, and
f) implements actions necessary to achieve planned results and continual improvement.
g) Validates all process for production and servicing ability to achieve the required output and shall be documented by the requirements of procedure P-7.5.

These processes are managed by Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC in accordance with the requirements of API spec Q1.

Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC shall control and document any processes that are outsourced to ensure that all requirements are satisfied. Control of such outsourced processes is identified within the quality management system.

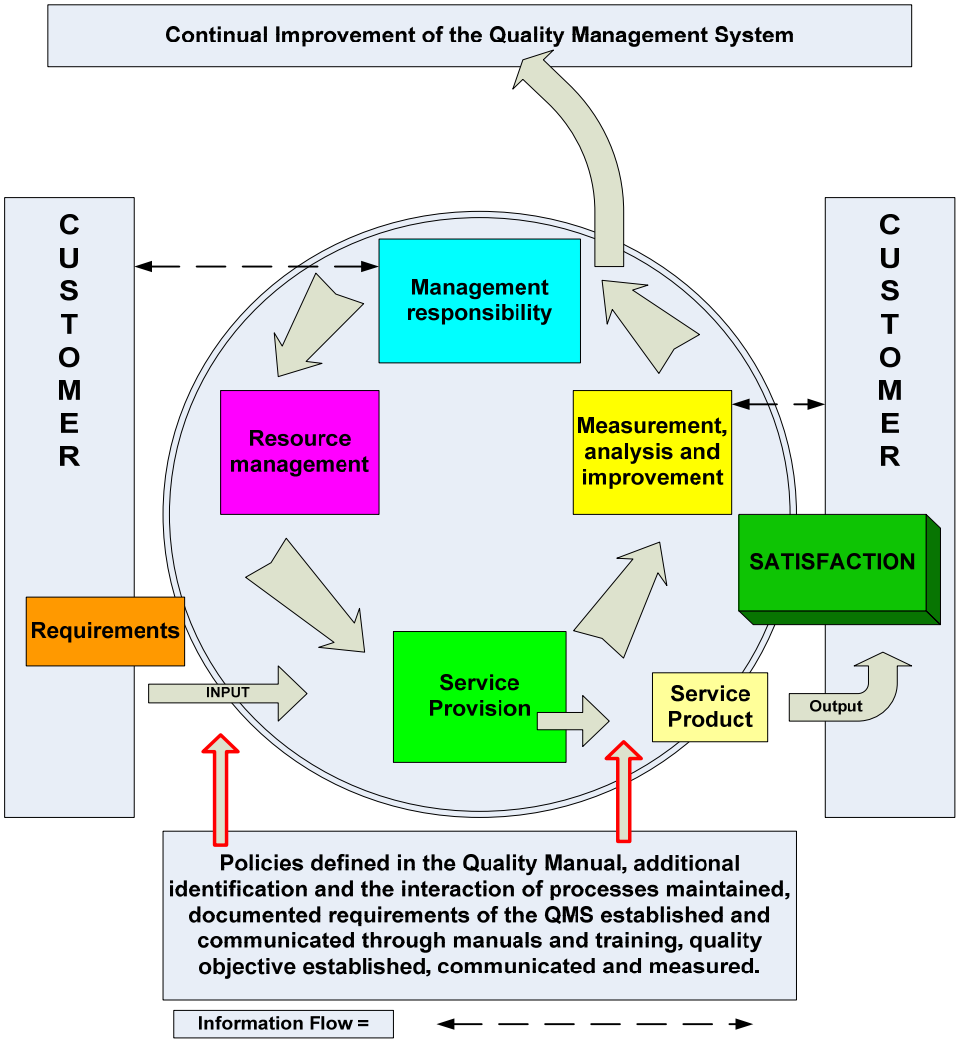

Fig. 4.1 Company-Customer Process Interaction

4.2 Documentation Requirements

4.2.1 General

The documentation of the Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC Quality Management System includes:

a) documented statements of quality policy and quality objectives;
b) this Quality Manual;
c) documented procedures required by API SPEC Q1
d) documents needed to ensure effective planning, operations and process control;
e) records required by our QMS and API SPEC Q1

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 exclusions per the application section 1.2;
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.

Processes and QMS reviewed on a continual basis with discussion of any suggested revision and implementation at annual Management Review.

4.2.3 Control of Documents

Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC. 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 special type of documents and are controlled according to the requirements given in 4.2.4

The QMS documentation is comprised of the following type 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, process checklist).

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

a) approve documents for adequacy prior to issue;
b) review and update according to original process 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 such as industry standards and customers drawings are identified and their distribution controlled,
g) to prevent the unintended use of obsolete documents, and to apply suitable identification to them if they are retained for any purpose.

The documents required by the Quality Management System are listed on the "Master List of Controlled Documents" with current revision status and dates of revision.

Changes to these documents shall be reviewed and approved by the same functions that performed the original review and approval. These changes shall meet the requirements of the Document Control Procedure (P-4.2.3-1) in its entirety.

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

Quality Assurance will have the final processes of verifying that all recorded documents are present, correct, and legible prior to final closure of the work folder. All processes that are outsourced shall have the same record content that is mandated to be supplied by the company. QA will be responsible to gather all records of these outsourced processes and review for compliance to the requirements for process validation.

Record retention is identified and customer related records are kept for a minimum of 5 yrs or as requested by the customer.

5 Management Responsibility

5.1 Management Commitment

The Top Management of Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC 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 objective 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

Top Management ensures that the Quality Policy/Statement:

a) is appropriate to the purpose of Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC.
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 Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC., 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 Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC. Quality Objectives are measurable and consistent with the quality policy.

5.4.2 Quality Management System Planning

Planning relative to the Energy & Technology, Corp. /Energy Technology Manufacturing & Threading, LLC 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.
The management of this change (MOC) shall be maintained as a process. Procedure for MOC P-5.5.2 shall ensure the integrity of the QMS is maintained when changes are made to the QMS.

Changes should be based upon the potential risks change and have all the required approvals prior to implementation. All records of change shall be maintained by the company.

5.5 Responsibility, Authority and Communication

5.5.1 Responsibility and Authority

Top Management ensures that the responsibilities and authorities are defined and communicated within Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC. These responsibilities and authorities are communicated through an organizational chart, job descriptions, documented procedures, and work instructions.

5.5.2 Management Representative

The Top Management appointed Management Representative has 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.
d) Initiate MOC according to P-5.5.2 to ensure adherence to process and QMS requirements.

5.5.3 Internal Communication

Top management ensures that appropriate communication processes are established within Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC, 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, 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;
g) recommendations for improvements;
h) trends of product non-conformities;
i) changes in industry standards,
j) results of risk assessments,
k) analysis of supplier performance

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) resources needs.

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

6 Resource Management

6.1 Provision of Resources

The Threading Operations Manager 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.
c) Resource allocation shall be based upon Risk Assessment determined by Procedure P-6.1 and the resultant contingency plan.

The 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 shall be competent on the basis of appropriate education, training, skills and experience.

6.2.2 Competence, Awareness and Training

Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC:

a) determines the necessary competence for personnel performing work affecting product quality. This is done through resumes, records of qualifications, reviews, and observations as sources of grading competency to threading job descriptions;
b) provides training or takes other actions, such as QMS training and or on the job training 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 the contribute to the achievement of the quality objectives, and
e) maintains appropriate record of education, training, skills and experience for compliance to the Training and Qualification Manual requirements.

6.3 Infrastructure

Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC 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;
    1. Process equipment shall be maintained by the PM program required in P-6.3 which addresses the type of equipment, frequency and responsible personnel.
b) process equipment, to include any required software and hardware, and
c) supporting services such as transport or communication.

6.4 Work Environment

The Threading Superintendent, in consultation with Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC employees, determines and manages the work environment and premises needed to achieve conformity to product requirements.

7 Service Realization

7.1 Planning and Service Realization

Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC plans and develops the processes needed for product/service realization. Planning of product realization is consistent with the requirements of the other processes of the QMS.

In planning product realization, Energy & Technology, Corp. /Energy Technology Manufacturing & Threading, LLC determines the following, as appropriate:

a) quality objectives and requirements for the service as determined by the specified Quality Plan.

b) the need to establish processes, documents and provide resources specific to the product;
c) resource allocation for a process is based upon a risk assessment.
d) The output of the risk assessment is used to develop the contingency plan following the requirements of P-7.12.
e) required verification, validation, monitoring, and inspection specific to the service and the criteria of acceptance;
f) records to provide evidence that the realization process and the resulting service meet requirements

When product requirements are supplied by an external source they will have the control features that translate into the realization process.
The output of this planning is in a form suitable for the Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC method of operation. This planning is detailed in the flow chart of Figure 7.1 and in QMS Procedure 7.1.
The planning as detailed by the contingency procedure shall address as outputs:

a. the actions required to mitigate the disruptive incidents identified by the risk scenarios
b. identify and assign authority and responsibilities
c. the communication controls both external and internal required

Planning by the organization shall address the management of change (MOC) process requirements when any changes to a process or this QMS are required to address the customer or product requirements.

7.2 Customer Related Processes

7.2.1 Determination of Requirements related to the service

Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC determines:

a) requirements specified by the customer, including their 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 related to the product; and
d) any additional requirements determined by Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC.
e) These requirements are most commonly determined on the estimate for service but can be determined by phone call, fax or email.

7.2.2 Review of Requirements Related to the service

Sales personnel review the requirements related to the service prior to a commitment from Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC 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) Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC 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 Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC before acceptance. In the case of verbal orders, the person taking the order confirms the client requirements by obtaining written documentation by email or fax. Then the customer's requirements are processed into a sales order, or directly in to the computer.

When service requirements are changed, Energy &Technology, Corp/ Energy Technology Manufacturing & Threading, LLC shall ensure that relevant documents are amended and that all relevant personnel (i.e. operations, quality control, and shipping, as applicable) are aware of the changed requirements.

Record of the reviews shall become part of the documentation package of each order and be recorded on the Order Review Worksheet (F-7.2.2-2) latest revision as listed on the Master List of Forms.

Determination of requirements and the review of requirements in order to establish the process controls required for the product are outlined in Fig. 7.1 Order Review and in Procedure 7.1 Planning for Product Realization.

7.2.3 Customer Communication

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

a) service information (through outside sales, telephone communication brochures, and web page);
b) inquiries, contracts or order handing, including amendments (through the 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

Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC 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 our customer and QMS requirements. Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC does control all thread drawings, machine software, and property dimensional data that may be furnished to the company by either the machine manufacture or the proprietor of the thread design as part of the outside documentation control.

7.4 Purchasing

7.4.1 Purchasing Process

The Threading 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 or the final product. This process is detailed and must be complied with Procedure P-7.4.1-1.

Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC evaluates suppliers based on their ability to supply products in accordance to Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC requirements. This evaluation and recording of these results are given in Procedure P-7.4.1-2.

Approved suppliers that manufacture for Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC to drawings and specifications, and perform associated services, require one or more of the 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 API spec Q1; or
d) evaluation of product samples such as first article inspections
e) verification that the suppliers QMS conforms to the specified QMS requirements for suppliers

These suppliers shall be termed as critical vendors.

Methods of supplier evaluation for suppliers that deliver standard off-the-shelf products (i.e. 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

Quality performance of vendor is ensured by inspection of product upon delivery or at vendor's facility and continuous review of vendor's conformance to specified requirements. This inspection shall be part of internal audit of the organization.

Records of the results of these evaluations and any necessary actions resulting from these evaluations are maintained. If an onsite visit is performed it shall be part of these records for critical suppliers. As of the implementation date of the QMS, Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC considers the current supplier base as being approved.

7.4.2 Purchasing Information

Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC 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 and 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 a product, procedures, processes, and equipment, (threading procedures, QA procedures);
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

Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC 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 an ETMT number assigned.

Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC, has established verification criteria that are identified on records to determine the type of verification required and the authority for release. Determining factors for verification criteria may include type of product service, control exercised at customers' or supplier's premises and records of conformance. Where Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC or its customer intends to perform verification at the supplier's premises, Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC will state the intended verification arrangements and method of product release in the purchasing documentation. 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

Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC plans and carries out the service provision under controlled conditions. Controlled conditions include, as applicable:

a) the work order (F-7.5.1-1) which contains or references information that describes the characteristics of the service;
b) implementation of the product quality plan
c) the process service router (F-7.5.1-2) details the activities to be implemented to produce a product in a sequential order with reference to required specifications and requirements in a control manner;
d) work instructions for personnel performing complex or critical operations;
e) the use of suitable equipment;
f) the availability and use of monitoring, testing, and measuring devices;
g) the implementation of monitoring, testing and measurement, and
h) the implementation of release, deliver and post-delivery activities.

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

7.5.2 Validation of Processes for Service Provision

Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC validates any process used 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 customers' material is in use or the service has been delivered.
When it is chosen to outsource a process that requires validation, the organization shall require that the supplier conform to these requirements.
Such processes are validated to demonstrate that the special process can achieve planned results. The system for validation of the processes and the subsequent product are detailed within the requirements of Procedure 7.5. This procedure must be complied with to authenticate the product for service.

The Threading Superintendent or designee is responsible for establishing arrangements for the review and approval of these processes including, as applicable:

i) defining the criteria for review and approval of special process;
j) Review of Quality Plans
k) approval of any equipment and qualification of personnel;
l) use of specific methods and procedures;
m) requirements for records;
n) revalidation requirements, and
o) identification of acceptance criteria

7.5.3 Identification and Traceability

Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC maintains the identification of customer furnished materials and products throughout all stages of inspection, storage and delivery.
This identification indicates the products conformity to Design Acceptance Criteria or non-conformity with respect to inspections or other process acceptance.

The requirements for Marking, Stenciling of product are given in Procedure 7.5.3AA. This procedure addresses all ISO and API marking requirements.
The organization shall ensure that only product that meets requirements or that is authorized under concession is released.

7.5.3.1 Identification and Traceability - supplemental

All material submitted for processing shall have an individual numeric identification that shall be used for traceability during the processes for service as listed on the work order. Additional marking to identify the specific work order number for process verification may include paint banding, stenciling as instructed on the job process router and the applicable work instruction.

7.5.3.2 Identification and Traceability Maintenance and Replacement - supplemental

In the event a process requires the removal of any or all traceability markings by Energy Technology, Corp / Energy Technology Manufacturing & Threading LLC to meet customer requirements; identification shall be maintained and transferred back on to the material if they are removed. All traceability markings shall be fully identifiable and verified by Quality Control before material is released for shipment.

7.5.3.3 Product Status - supplemental

Identification of product completion status for a process shall mark on all data sheets for the process and a physical marking placed on the material. Marking may be by engraving, metal marking but must included machine number and person accepting product. Material not meeting the requirements of the process shall be noted as not accepted and banded accordingly in compliance with the instruction noted on the process router.
The referenced specification or work instruction shall stipulate the sequence and location of marking.

7.5.4 Customer Property

Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC ensures that customer property provided for processing is identified, verified, protected and safeguarded. Any occurrence of loss, damage, deterioration or unsuitability of customer-property is recorded

on a non-conformance report and reported back to the customer. Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC maintains the identification and traceability of customer supplied property as in section 7.5.3.

7.5.5 Preservation of Product

Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC preserves the integrity of material during internal processing and delivery to the intended destinations. This preservation also applies to the constituent parts of a product.
This preservation includes:

1 identification: product is positively identified through the process (i.e. marked, tagged, serialized, stamped, stenciled etc);
2 handling: all products are handled in a manner to prevent damage or deterioration, using the proper handing equipment;
3 packaging: customer furnished product is packaged per Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC. work instruction or per customer specified requirements;
4 storage: customer furnished material is placed in a designated storage area, so as to prevent damage or deterioration pending use or delivery; and
5 protection: customer furnished material is appropriately preserved to prevent deterioration pending use or delivery according to Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC specs or customers' request.

7.6 Control of Monitoring and Measuring Devices

Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC determines the monitoring and measurement to be undertaken and the monitoring and measurement devices needed to provide evidence of the conformity to determined requirements.

Quality Assurance has established processes to ensure that monitoring and measurement using the 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 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) identified to enable the calibration status to be determined;
d) safeguarded 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 material affected. Records of the results of calibration and verification of individual instruments are maintained.

8 Measurement, Analysis and Improvement

8.1 General

Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC has planned and implemented the monitoring measurement and improvement processes needed to:

a) demonstrate conformity of the product / service;
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, Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC monitors information pertaining to customer perception as to whether Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC 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

Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC conducts internal audits at least once a year to determine whether the QMS:

a) conforms to planned arrangements, to the requirements of API SPEC Q1 and to the QMS requirements established b Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC., 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 status 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 reporting of verification results.
The results of internal audits and the status of corrective actions shall be reported in the management review. Records of internal audits will be maintained.

8.2.3 Monitoring and Measurement of Processes

Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC applies suitable methods for monitoring and, where applicable, measurement of the QMS processes. These methods demonstrate the ability of processes to achieve planned results. When planned results are not achieved, correction and corrective action is taken as appropriate to ensure conformity of product / service.

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 meeting and at the Management Review.

8.2.4 Monitoring and Measurement of Services

Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC monitors and measures the characteristics of the service provided to verify that material requirements, as detailed in the work order, have been met. Frequencies of measurements, results of these measurements of delivered services are detailed and requirements are listed in Procedure P-8.2.4.

This is accomplished through:

1. Receiving Inspection

Received materials are first subjected to 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 Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC. receiving instructions and/or a customer representative.

2. In-Process Inspections and Testing

In-process inspections and testing are specified on the work order router accompanying the customers' material during its inspection. The inspections are preformed by the inspection Personnel, unless otherwise indicated. The in-process inspection verifies that an operation was performed satisfactorily all 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 other wise approved by the Threading 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 Threading Operations Manager 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 Threading Operations Manager is responsible fore the review and disposition of all non-conforming material and a documented procedure has been established to establish requirements to deal with nonconforming product / service.

The Threading Superintendent reviews all non-conformances and non-conforming material and 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 QA department 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.

Release of material under concession that does not meet manufacturing acceptance criteria (MAC) shall be permitted if the product is found to still meet the DAC (design acceptance criteria) or the DAC is changed but still meets the customer criteria.

When non-conforming material is detected after shipment or use has started Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC takes action appropriate to the effect, 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

Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC 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 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.

8.4.1 To help determine the trends of any process and the suitability of process or processes to accomplish product specification Quality Control will as part of the final data package review of

a Work Order determine cause of reworks and NCR causes. Determination shall include any machining errors, print or program errors, gauging issues or incorrect specification errors. These causes shall be recorded and placed with Quality management for review of techniques utilized and their effectiveness. The acquisition of this data, its organization for presentation and personnel responsible for review of this data requirements are given in Procedure P-8.4.1.
Any alarming trends should be dealt with immediately.

8.5 Improvement

8.5.1 Continual Improvement

Energy & Technology, Corp / Energy Technology Manufacturing & Threading, LLC continually improves the effectiveness of the QMS through use of the quality policy, quality objective, 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 both internally and within the supply chain in order to prevent recurrence. Corrective Actions are appropriate to the effects of nonconformities encountered and controls are applied to ensure that corrective actions are implemented and that they are affective.

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 the 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. Corrective actions to report Non-Conformities must be in place within 60 days of report of detection.

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 potential problems both internally and within the supply chain. Anyone in the company may propose preventive actions, but only Top Management can authorize and the 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 on 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 affective implementations.
f) MOC when the preventive action requires new or changed controls within the quality management system.

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

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
Management of Change	P-5.5.2
Risk Assessment	P-6.1
Competence Awareness and Training	P-6.2-1
Preventive Maintenance	P-6.3
Planning Product Realization	P-7.1
Contingency Planning	P-7.1.2
Review of Product Requirements	P-7.2.2
Purchasing Process Requirements	P-7.4.1-1
Supplier Qualification	P-7.4.1-2
Validation of Service Processes	P-7.5
Stenciling, Marking of Products	P-7.5.3AA
Control of Monitoring and Measuring	P-7.6.1
Customer Satisfaction Survey	P-8.2.1
Internal Audit	P-8.2.2-1
Monitoring and Measurement of Product	P-8.2.4
Control of Nonconforming material / service	P-8.3-1
Analysis of Data	P-8.4.1
Corrective / Preventive Actions	P-8.5-2-1

10 Revision History and Distribution Information

Revision	Nature of change	Date
NEW	Initial release with requirements of ISO 9001:2000.	02/01/10
A	Added statement to 4.2.3, para. 4	1-15-11
A	Added statement e., to 7.2.1	1-15-11
A	Added para. 4 to 7.2.2	1-15-11
A	Added statement b., to 7.5.1	1-15-11
A	Added sub-clause 7.5.3.1,7.5.3.2,7.5.3.3	1-15-11
A	Added sub clause 8.4.1	1-15-11
B	7.1 Added last sentence in para. 4 in reference to Planning detail.	9-25-11
B	7.2.2 added para. 5	9-25-11
B	7.4.1 added last sentence to para 1 and last sentence of para 2.	9-25-11
B	7.4.3 added last sentence to para. 2	9-25-11
B	7.5.2 added last sentence to para 2	9-25-11
B	7.5.3 added para. 2 on Procedure 7.5.3AA	9-25-11
B	8.2.4 added last sentence to para 1.	9-25-11
B	8.4.1 added last sentence to para. 1	9-25-11
C	Edited and revised to meet requirements of API Q1 9th Edition.	6-14-14

10.1 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	Compliance Office
Copy 4	Submitted To API