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Section C: Introduction

The purpose of this Quality Manual is to formalize the policies and procedures of Texas Pipe & Supply Co. (TP&S) compliant with ISO 9001:2008. Whenever possible, TP&S is using computerization to improve the accuracy and reliability of its quality management system, while reducing written documentation.

TP&S was founded in 1918 in the small (oilfield) town of Humble, Texas. The Company started out selling new and used oilfield equipment. By 1929, TP&S had moved its Home Office to Houston to further expand its market.

Today, TP&S is one of the largest pipe distributors in the United States, with a complete inventory of prime grades of carbon pipe, and stainless pipe, fittings, and flanges available for immediate delivery.

Computer-controlled real-time receiving and shipping inspections have replaced hand-written receiving and shipping documentation. Software programming helps ensure receiving and shipping procedures are being followed. At loading time computerization verifies the size, wall, specification, grade, type, and country of the material being shipped against the customer’s requirements. Mill Test Reports are printed, faxed, or e-mailed automatically. Additional Mill Test Reports, invoices, and Delivery Tickets can be accessed anytime by customers at www.texaspipe.com.
Section D: Quality Policy and Objectives

Texas Pipe & Supply Co is committed to providing its customers with the best experience it can when purchasing its products. This starts with the audit of our suppliers to make sure we are purchasing quality products. Our quality management system addresses each step along the way:

Objectives

1. Audit our suppliers to make sure they are financially strong and producing products conforming to API, ASTM & ASME specifications.

2. We will follow receiving procedures that, through the use of computers and automation, allow our receiving personnel to verify that what has been ordered is what is received. We will work towards making sure the products we receive meet the purchase order requirements 100% of the time.

3. We will follow shipping procedures that ensure Texas Pipe ships what the customer has ordered. Our goal will be to ship to our customers exactly what they have ordered 100% of the time. This includes both product and paperwork.

4. We will work towards achieving the goal of 100% on-time shipment of orders.
Section E: Organizational Chart
Section F: Distribution List

The quality manual on the Texas Pipe & Supply Co. website is a controlled document along with other locations controlled by the Corporate Quality Manager. Any quality manual printed from the Texas Pipe & Supply Co. website is considered uncontrolled unless authorized in writing by the Corporate Quality Manager.
Section 1.0: Scope

Texas Pipe & Supply Company (TP&S) has implemented and is committed to maintaining a quality management system (QMS) compliant with ISO 9001:2008 at its Houston Texas location. Through the effective application of this QMS, and continually improving it processes, TP&S demonstrates its ability to consistently provide a product that meets or exceeds customer and applicable regulatory requirements.

The scope of the QMS is the distribution of carbon and stainless pipe, fittings and flanges at the Houston Texas location using the processes described in Chart 4.1.

Exclusions

Texas Pipe & Supply Company (TP&S) takes exclusion to section 7.3 Design and Development of the ISO 9001:2008 standard. TP&S does not engage in the design and/or development of any of the products it sells.
Section 3.0: Terms and Definitions

**Delivery Ticket**
- The document that the trucker signs (also known as a packing list).

**Loading Ticket**
- The document used by the yard to verify that the customer’s requirements are met.

**QMS**
- Quality Management System

**Sales Order**
- The document that contains the customer’s requirements.

**TP&S**
- Texas Pipe & Supply Company
Section 4: Quality Management System

4.1 General Requirements

Texas Pipe & Supply Co. (TP&S) has maintained an ISO-based quality management system (QMS) since 1995. With the implementation of this quality manual TP&S is now compliant with the requirements of ISO 9001:2008.

The chart below illustrates the processes, sequences, and interactions TP&S implements in its QMS. The procedures and performance criteria that ensure the effective control of these processes have been documented and disseminated to every person that affects the quality of its product. The use of portable computers and customized proprietary software at critical inspection points helps ensure a product that consistently meets the customer’s requirements.

Chart 4.1 TP&S Quality Management Processes, Sequences, and Interactions
TP&S uses third parties to add value to its products, such as external and internal coatings, x-raying material, etc. TP&S controls these outsourced processes that affect product conformity through external audits, vendor surveys, and deviation reports.

At management review meetings TP&S management uses reports detailed in section 8 of this quality manual to monitor and improve its QMS. Individual processes are continuously monitored through the use of reports and logs, and improved through computer programming, procedural changes, and training. Customer satisfaction is monitored through the use of returned material logs and customer complaint logs, which are reviewed by management at quality meetings and Management Review meetings.

### 4.2 Documentation Requirements

#### 4.2.1 General

The TP&S QMS documentation includes the TP&S quality policy and objectives, this quality manual, procedures and records required by the ISO 9001:2008 standard, and documentation needed by TP&S to ensure the effective planning, operation and control of its processes. Because TP&S uses computerization whenever possible, the documentation is primarily in electronic form.

#### 4.2.2 Quality Manual

TP&S has prepared this quality manual to provide information about its QMS. Section 1 describes the scope of the TP&S QMS, and any necessary exclusions. Documented procedures, referenced throughout this quality manual, are maintained in the TP&S procedures manual. Chart 4.1 describes the interaction between the processes of the QMS.

#### 4.2.3 Control of Documents

TP&S has implemented section 4.2.3, Control of Documents Procedure, to control the required documents in the QMS. The procedure covers the requirements of ISO 9001:2008, including the approval or re-approval of documents before being issued, ensuring that changes and the current revision status are identified, the availability of documents at the point of use, document legibility and identification, the identification and distribution of documents of external origin, and the prevention of the unintended use and retention of obsolete documents.
4.2.4 Control of Records

TP&S uses section 4.2.4, Control of Records Procedure to control records used to provide evidence of conformity to requirements and the effective operation of the QMS. The procedure covers the identification, storage, protection, retrieval, retention time, legibility, and disposal of records.

Section 5: Management Responsibility

5.1 Management Commitment

TP&S Executive management is visibly committed to customer satisfaction, and the continual improvement of the QMS. During management review meetings the quality policy and quality objectives are reviewed for effectiveness, and updated as necessary to communicate to the organization the importance of exceeding customer as well as statutory and regulatory requirements.

5.2 Customer Focus

In the TP&S QMS there are two types of customers, external and internal. Every person effecting quality at TP&S has an internal customer that must be satisfied for TP&S to meet the requirements of our external customers.

TP&S has implemented section 7.2, Contract Review and Order Entry Procedure, to ensure that external customer requirements are fully understood and met. Misunderstanding the customer’s requirements can be costly for everyone. TP&S sales personnel work with customers to better understand not only the customer’s requirements, but many times their customer’s requirements as well.

Our focus on the external customer’s needs has led to the availability of many customer service related processes. Invoices, packing lists, and mill test reports for any order can be downloaded from our website at any time. These same documents can also be faxed or emailed to multiple locations automatically when the order ships. Customers can now place orders online.

Our focus on the internal customer’s needs has led TP&S to spend its resources in the computerization of the receiving and shipping inspection processes. During the receiving inspection process employees use portable computers to help ensure that the material being received matches the specifications of the TP&S purchase order.
During the shipping inspection process employees again use portable computers to help ensure that the material being shipped matches the customer’s requirements.

5.3 Quality Policy
TP&S Executive Management’s focus on customer satisfaction is demonstrated to customers and employees through the quality policy in section D of the quality manual. The quality policy and the quality objectives are regularly reviewed and updated as necessary to make sure they accurately reflect the commitment to improve the QMS and to meet customer requirements. The quality policy and objectives are available to customers on the TP&S website, and to TP&S employees on the company intranet.

The quality policy provides a framework for the quality objectives. The quality objectives list specific goals to be achieved. Both are reviewed at the same time because the quality objectives give direction to the quality policy.

5.4 Planning

5.4.1 Quality Objectives
TP&S has established measureable reports and logs as part of its QMS to determine if quality objectives are being met. The reports are reviewed at management review meetings to determine if QMS processes are appropriate to meet the quality objectives.

5.4.2 Quality Management System Planning
TP&S management has planned the QMS to meet the requirements of section 4.1 of ISO 9001:2008, as well as our established quality objectives. Procedure 8.2.2, Internal Audits, ensures that the integrity of the QMS is maintained when changes to the QMS are planned and implemented, and the review of reports and logs reveals whether changes have been effective in achieving the quality objectives.

5.5 Responsibility, Authority and Communication

5.5.1 Responsibility and Authority
The President of Texas Pipe & Supply Company oversees the QMS, and approves any changes to the Quality Manual before implementation.
5.5.2 Management Representative
The President gives responsibility and authority to the Corporate Quality Manager to:

- Establish, implement and maintain all processes needed for the QMS after approval,
- Report to management on the performance of the QMS and any need for changes,
- Promote the awareness of customer requirements throughout the organization,
- Make and implement any necessary changes to the quality manual after the President’s review and approval.

5.5.3 Internal Communication
To ensure that appropriate communication processes are established within the organization and that communication takes place regarding the effectiveness of the QMS, the President will meet with the Corporate Quality Manager and other managers whenever necessary to discuss and review the QMS.

5.6 Management Review

5.6.1 General
The TP&S top management will meet with the Corporate Quality Manager whenever necessary, or once a year, at a minimum, to ensure the suitability, adequacy, and effectiveness of the QMS. Records from the management review meetings will be maintained according to ISO 9001:2008, section 4.2.4.

5.6.2 Review Input
The review may include a variety of quality topics such as results from internal and external audits, customer feedback, process performance and product conformance, status of preventive and corrective actions, follow up actions from previous reviews, changes that affect the QMS, and recommendations for improvement.

5.6.3 Review Output
The output from the management review will include any decisions and actions related to improvement of the effectiveness of the QMS and its processes, improvement of product related to customer requirements, and resources needed.
Section 6.0: Resource Management

6.1 Provisions of Resources

TP&S has the resources necessary to maintain and improve its QMS with a goal of enhancing customer satisfaction.

6.2 Human Resources

The Human Resources (HR) department has developed job descriptions and requirements for all personnel performing work affecting conformity to product requirements on the basis of appropriate education, training, skills, and experience. Training is provided, documented and audited for every employee that affects quality.

6.2.1 General

6.2.2 Competence, Awareness, and Training

The competency of personnel is the core to building a successful business. TP&S is proud of the fact that many of its key employees have been with the company for over 20 years. The education, training, skill, and experience requirements for every position at TP&S are documented and controlled by the Human Resource department.

Every new employee performing work affecting product conformity will initially receive quality and safety training by the Corporate Quality & Safety Manager, or his staff, to ensure a good understanding of TP&S requirements. The employee will then receive supervised on-the-job training until the employee’s supervisor completes a documented evaluation certifying that the employee is competent, and can work unsupervised. Supervisors can request additional quality training for an employee at any time if a need is identified.

Quality training emphasizes the relevance and importance of an employee’s activities, and how the person contributes to the achievement of the quality objective. Employees receive immediate documented feedback whenever a nonconformance has been uncovered. All records are controlled by the quality records master list according to ISO 9001:2008, section 4.2.4.
6.3 Infrastructure

TP&S management shows its commitment to customer service by determining and providing the infrastructure necessary to achieve conformity to product requirements, even under emergency situations. TP&S has over 100 acres of outside storage, 35,000 square feet of inside warehouse space, and employs a second shift of work crews. Mechanics are employed full time to perform planned maintenance, and repair equipment as needed. A TP&S owned rail spur allows us to load and unload railcars day or night, rain or shine.

To prevent work stoppages, TP&S has redundancy in processing equipment such as multiple threading and beveling machines, and backup power generation capabilities. The TP&S computer system and phone service can also be easily switched to alternate branch locations. In 2008, when hurricane Ike ravaged the Texas gulf coast and most of Houston was completely without power for over two weeks Texas Pipe did not miss one day of operation. Whatever it takes to get the job done TP&S management is committed to providing the infrastructure and resources necessary.

6.4 Work Environment

TP&S is constantly monitoring the work environment to ensure employee comfort and safety, and achieve product requirements. Safety procedures address the various weather conditions that might arise.

Section 7.0: Product Realization

7.1 Planning of Product Realization

Chart 4.1 in section 4.1 of this quality manual shows the processes TP&S has planned and implemented for product realization as a distributor. All of the processes must sequence and interact for the product to meet the customer’s requirements. Every process has a defined objective as detailed in the quality procedures. Computer-aided verification and/or documentation take place at critical points in the verification of product, internal value-added, and final inspection processes to assure conformity of the product.

7.2 Customer-Related Processes
TP&S purchases and sells material that is manufactured to meet ASTM ASME, or API specifications. Our salespeople follow section 7.2, Contract Review and Order Entry Procedure, of the TP&S procedures manual to meet this ISO 9001:2008 requirement. The procedure ensures the customer’s ASTM, ASME or API specification, and all other requirements are understood, and reviewed to resolve any differences. Before committing TP&S to supply the product a determination is made by the salesperson whether TP&S has the ability to meet all of the requirements. Records of the communication, review, actions arising from the review, and TP&S acceptance are maintained per section 4.2.4 of the quality manual. TP&S communicates with its customers in multiple ways. Through our website at www.texaspipe.com customers can place orders, or download invoices, packing lists, and mill test reports for any previous order. Customers can also communicate with TP&S by using the email addresses or phone numbers on our website. All email and phone communication with TP&S, including customer feedback or complaints, is handled through the salesperson.

7.3 Design and Development

Sections 7.3.1 - 7.3.7 do not apply to Texas Pipe & Supply Company. TP&S does not engage in the in any aspect of the design and development process of product realization.

7.4 Purchasing

7.4.1 Purchasing Process

As a distributor TP&S only purchases material using ASTM, ASME, or API specifications. Every purchasing document references these specifications.

TP&S uses section 7.4, Purchasing Procedure, of the TP&S procedures manual to satisfy the requirements of this section and control the evaluation and selection of its vendors. Every mill will be evaluated and re-evaluated based on their financial strength, quality system, and a review of a mill’s past performance with regards to defective material. Records of the evaluation are maintained according to section 4.2.4.

7.4.2 Purchasing Information

During the purchase order entry process the buyer will enter a specific TP&S item code for the material being purchased. The computer system will print on the purchase order a description of the material being purchased including the ASTM and/or API.
specification. Any additional requirements can be added by the addition of a memo box inserted at the end of the purchase order. The purchaser will review the purchase order for adequacy prior to placing the order with the vendor.

7.4.3 Verification of Purchased Product
TP&S planned and implemented section 7.4.3, Receiving Inspection Procedure, to satisfy the requirements of this ISO 9001:2008 section, and to verify the material purchased is the material being received. Material is inspected using a computerized display of the purchase order as the criteria. Any material that does not meet the requirements on the purchase order is not received, and is placed on designated racks to avoid their unintended use. When the issue is resolved the material is either received or returned to the vendor.

7.5 Production and Service Provision

7.5.1 Production and Service Provision
As a distributor, TP&S plans and implements processes that purchase material from approved suppliers using ASTM, or API specifications as the standard. TP&S also plans and implements computer-aided processes that match the material to our customer’s requirement using ASTM, or API specifications as the standard. TP&S has implemented section 7.4.3, Receiving Inspection Procedure, to verify material from manufacturers matching TP&S purchasing requirements, section 7.5.1, In-Process Machining Procedures, to control and verify internal value added processes, and section 8.2.4, Final Inspection Procedures, to verify that the material being prepared for shipment meets the customer’s requirements. TP&S uses computer programming wherever possible to enforce compliance to documented procedures and verification of the product to the customer’s requirements.

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

7.5.3 Identification and Traceability
Every product sold by TP&S can be identified, and is traceable from the manufacturer, throughout the product realization process, including the product status with respect to monitoring and measurement requirements, to the customer through the use of heat numbers and the TP&S computerized information system.

TPS use section 7.4.3, Receiving Inspection Procedure, to ensure material is properly identified before the material is received. During the receiving process heat numbers located on the material are entered into the computer by the receiving crew. The TP&S computerized information system connects the heat number through the TP&S purchase order to the manufacturer. Material that does not have the proper identification will not be received, and is placed on a designated rack to avoid its unintended use. Using section 8.2.4, Final Inspection Procedure, shipping crews enter heat numbers into the computer. Again, the TP&S computerized information system connects the heat number through the customer’s purchase order to the customer’s required specification.

Material found without identification is controlled by section 8.3, Control of Nonconforming Product Procedure, to avoid its unintended use. TP&S has implemented section 7.5.3, Identification and Traceability Procedure, to control the handling of required documentation (mill test reports) for shipped material, when required.

7.5.4 Customer Property
TP&S does not perform any processing on customer property and does not accept customer property at its locations without the approval of executive management. TP&S uses section 7.5.4, Customer Supplied Property Procedure to control any issues contrary to current TP&S procedures.

7.5.5 Preservation of Product
TP&S makes every effort to preserve its product, and has implemented section 7.5.5, Preservation of Product Procedure, to control the handling, identification, packaging, delivery, storage, and protection of its products.

Handling
Pipe is handled by forklifts, and fittings and flanges are handled by employees using order pickers.
Employees operating this equipment are trained and authorized.

**Identification**

To maintain traceability TP&S may re-stencil material if legibility is becoming an issue.

**Packaging and Delivery**

Pipe is shipped in mill bundles when possible. Less than mill bundles are secured by rope, depending on the size. Fittings and flanges are shipped in cardboard crates or on pallets. TP&S can ship using 8” round cardboard tubes upon request. Pipe is loaded on trucks using 3” x 4” hard board stripping lumber, and secured by chocks. Pyramid stacking and telescoping is not allowed.

**Storage**

Stainless and carbon fittings and flanges up to 12” are stored inside.

**Protection**

Carbon pipe may be re-lacquered to maintain its cosmetic appearance. Stainless material is separated from carbon in the yard and warehouses, and when loaded on trucks, to avoid carbon contamination.

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**7.6 Control of Monitoring and Measuring Equipment**

The material TP&S purchases is certified by the manufacturers to meet ASTM, ASME, or API specifications, including dimensional tolerances. TP&S performs value-added processes on some material to meet additional customer requirements. The monitoring and measurement to be undertaken and the equipment needed to ensure conformity is detailed in section 7.6, Control of Monitoring and Measuring Equipment Procedure.

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**Section: 8.0 Measurement, Analysis and Improvement**
8.1 General
TP&S has planned and implemented quality procedures listed in section 8.2.2, section 8.2.3, and section 8.2.4 to monitor, measure, analyze, and continually improve the conformity of its processes, product, and QMS.

8.2 Monitoring and Measurement

8.2.1 Customer Satisfaction
As one of the measurements of the performance of the QMS, TP&S will monitor information relating to customer perception as to whether TP&S has fulfilled its customer’s requirements through the implementation of section 7.2, Customer Related Processes Procedure. Through this procedure TP&S sales personnel will initiate Deviation Reports to document customer complaints as one of the inputs toward customer satisfaction. They will forward the Deviation Reports to the Corporate Quality Manager who will determine the root cause of the complaint, and any corrective or preventive actions necessary. 8.4 Analysis of Data Procedure ensures that this information is shared with management.

Customer complaints of not receiving the required documentation after order shipment has led to the computerization of many customer service related processes. Invoices, packing lists, and mill test reports for any order can be downloaded from our website at any time. These same documents can also be faxed or emailed to multiple locations automatically when the order ships.

8.2.2 Internal Audits
TP&S has established section 8.2.2, Internal Audit Procedure, to determine the level of adherence to the QMS and compliance to the requirements of ISO 9001:2008.

8.2.3 Monitoring and Measurement of Processes
In order to monitor and measure the effectiveness of QMS processes in achieving the planned results TP&S has established and implemented section 8.2.3, Monitoring and Measurement of Processes Procedures. When planned results are not achieved corrective action will be implemented, and actions taken.

8.2.4 Monitoring and Measurement of Product
Procedures have been established to monitor and measure the characteristics of the product at appropriate stages of the product realization process to verify that product requirements are met. Section 7.4.3, Verification of Purchased Product Procedure, verifies that the material received is the material purchased, section 7.2, Customer Related Processes Procedure, ensures that the customer’s requirements are understood and communicated to TP&S, section 7.5.1, Control of Production and Service Provision Procedure, verifies that internal value-added process meet national standards or manufacturer’s requirements, and section 8.2.4, Monitoring and Measurement of Product Procedure, ensures that the product meets the customer’s requirements. In every process mentioned computerization makes adherence to established procedures mandatory.

8.3 Control of Nonconforming Product
TP&S has established section 8.3, Control of Nonconforming Product Procedure, to satisfy the requirements of this section, and ensure whenever non-conforming product is discovered it will be identified and controlled to prevent its unintended use.

8.4 Analysis of Data
TP&S collects and analyzes data according to section 8.2.3, Monitoring and Measurement of Processes Procedures, to determine the effectiveness of its QMS, and determine areas that need improvement. The data includes information on customer satisfaction, conformance to product conformance, characteristics and trends of processes and products including opportunities for preventive action, and suppliers.

8.5 Improvement

8.5.1 Continual Improvement
TP&S will continuously strive to improve its QMS. Our quality policy and objectives, audit results, analysis of data, and corrective and preventive actions will be reviewed during management review meetings. The quality policy and objectives will be updated as necessary to ensure we are focusing on continuous improvement and increased customer satisfaction. We will use the audit results, analysis of data, and corrective and preventive actions to improve processes and reduce nonconformities.
8.5.2 Corrective Action and 8.5.3 Preventive Action

Section 8.5 Corrective and Preventive Action Procedure has been implemented to combine the requirements of ISO 9001:2008 sections 8.5.2 and 8.5.3 into one document. The document combines the processes of identifying, investigating, and reviewing non-conformances, including customer complaints, identifying the root cause, and evaluating and implementing any action to correct the non-conformance or prevent the non-conformance from occurring again. During the investigating process every action will be considered to eliminate the possibility of the non-conformance occurring again. Records of the results of the actions as well as a review of the effectiveness of the actions are controlled according to ISO 9001:2008, section 4.2.4.