TAM International Incorporated

Quality Management System

Approval of Quality Management System

Signature

Bentley Sanford – President – TAM International, Inc.

November 3, 2015

Date

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Introduction

TAM International, Inc. is an independent oilfield services company providing the Design, Manufacture, Sales, and Service of inflatable packers, swellable packers, and associated downhole products to the oil and gas industry.

Headquartered in Houston, Texas, TAM provides technical support, products, and services from offices in North America, Europe, the Middle East, Latin America, Asia Pacific, Africa, and Russia. Our regional offices are located in Calgary, Canada; Aberdeen, Scotland; Perth, Australia; Bogota, Colombia; and Dubai, UAE.

TAM's commitment to Customer satisfaction is expressed in the TAM Mission Statement, Quality Policy, and the Safety and Environmental Policy Statement.

QUALITY POLICY

"Our goal is to consistently meet or exceed the requirements of both our customers and industry, by continually improving processes, products, and services to ensure an effective quality management system."

- **Bentley Sanford, President**

THIS WILL BE ACHIEVED BY OUR TOTAL COMMITMENT TO:

- Satisfying our Customers in the manufacturing, servicing, delivery, and cost of products
- Providing the best Engineering, Technical Support, and Field Services required by our Customers
- Establishing and maintaining the highest quality of products and services in inflatable and swellable packer applications
- Operating safely and protecting the environment
- Maximizing the abilities of the personnel employed by our company

Scope: The Quality Management System described in this document serves as a training device to teach employees the overall scope of the TAM commitment to a quality business management system, to fulfill the requirements of the TAM International, Inc. Policies and Standards, and to serve the needs of our Customers. The Quality Management System utilizes the process approach and quality management principles contained in the international standards ISO 9001:2008 to enhance our ability to continually improve.

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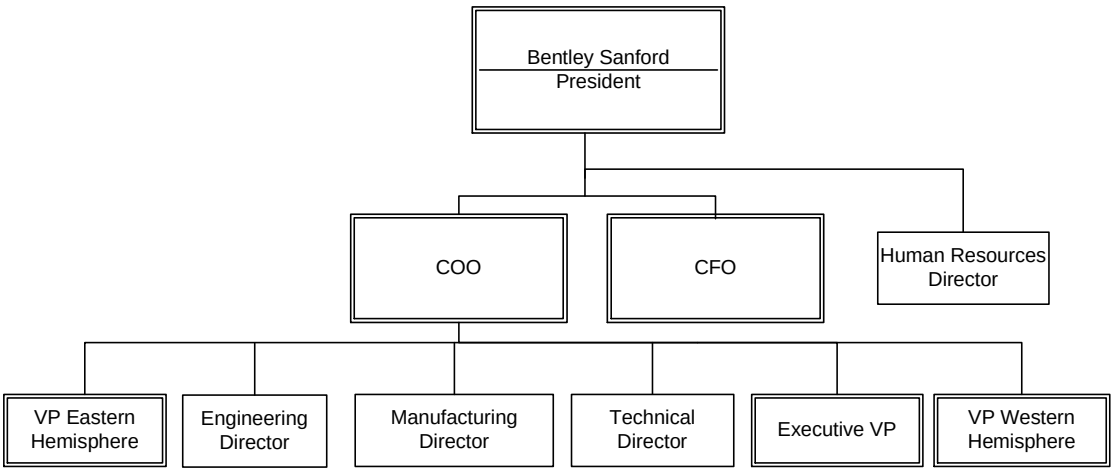
Specification: **ISO 9001:2008 (Fourth Edition)**

General: This Quality Manual outlines the policies, procedures, and requirements of the Quality Management System, as well as delineates the authorities, interrelationships, and responsibilities of the personnel responsible for performing within the Quality Management System.

Exclusions: There are no exclusions in this Quality Management System.

ORGANIZATION CHART AND MANAGEMENT RESPONSIBILITY



TAM International Incorporated is led by the President of the company. The President is committed to quality and has documented and approved the Quality Management System and Quality Policy.

The Executive Staff of TAM shall identify the requirements necessary to verify the effectiveness of control elements, provide adequate resources as well as qualified personnel to implement and maintain the Quality Management System.

The Quality Management Representative is responsible for assuring that the Quality Management System and Quality Policy is understood, implemented and maintained as a focal point for all employees.

The basic functional responsibilities are:

- The President is globally responsible for all entities within TAM International, Inc.;
- The CFO is responsible for Global Accounting;
- The COO is responsible for Global Operations;
- Each Vice President is responsible for the Management of Sales, Service, Quality, and HSE Operations in their respective area;
- The Director of Human Resources is responsible for all Global employee related issues, resource planning, recruitment, training, and overall HR strategy.
- The Director of Technical is responsible for all Global operations of Technical Services, Product Line Management, Marketing, and Training.
- The Director of Manufacturing is responsible for all Global Manufacturing, Corporate HSE, Corporate Quality, and the designated ISO Quality Management Representative;
- The ISO Quality Management Representative is responsible for all Global ISO Quality activities;

Management may delegate the performance of duties but cannot delegate the responsibility for those duties. Personnel, who manage, perform and verify work affecting quality shall have these responsibilities defined in their job descriptions. Various other positions in the organizational structure shall have these responsibilities depicted in their position / job descriptions.

4 Quality Management System

4.1 General Requirements

TAM has established documented, implemented, and will maintain a Quality Management System and continually improve its effectiveness in accordance with the requirements of ISO 9001:2008.

TAM has:

- Identified the key processes needed for the Quality Management System and their application throughout the TAM global locations
- Determined the sequence and interaction of these processes
- Determined the criteria and methods needed to ensure that both the operation and control of these processes are effective
- Ensured the availability of resources and information necessary to support the operation and monitoring of these processes
- Monitored, measured and analyzed key processes
- Implemented actions necessary to achieve the planned results and to continually improve these processes

TAM will manage these processes in accordance with the requirements of ISO 9001:2008.

Where TAM chooses to outsource any process that affect product conformity, TAM shall maintain control over such processes. Control of out-sourced processes is identified within the quality management system. Key processes within TAM have been identified and are defined.

4.1.1 Application

The TAM QMS complies with all applicable requirements contained in ISO 9001:2008. The QMS covers the provisions of all company products, and encompasses all operations located in facilities at the following locations:

- TAM Houston – 4620 Southerland Rd, Houston, Texas 77092
- TAM Global Manufacturing – 6935 Pinemont, Houston, Texas 77092
- TAM Midland - 6505 S. FM 1788, Midland, Texas 79706
- TAM Canada (Calgary) – 10341-50th Street, SE Calgary, Alberta, Canada T2C 3E3
- TAM Canada (Newfoundland) - 22 Beclin Rd. Unit #2, Mount pearl, NL A1N 5B8
- TAM North Sea – Abbotswell Rd, West Tullos, Aberdeen, Scotland AB123AB
- TAM Norway AS - Varabergmyra 16, Sola Norway
- TAM Asia-Pacific – Unit 30 & 33, Level 7, 189 St Georges Terrace, Perth WA 6000

4.2 Documentation Requirements

4.2.1 General

The quality management documentation includes,

- Documented Quality policy

- This Quality Manual
- Documented procedures

- Documents as needed to ensure the effective planning, operation, and control of its processes
- Quality Records

4.2.2 Quality Manual

This Quality Manual has been prepared to describe the QMS. TAM has established, shall maintain, and continuously improve this Quality Management System Manual that includes:

- The scope of the Quality Management System, including details of and justification for any exclusions
- The documented procedures established for the Quality Management System
- A description of the interaction between the processes of the Quality Management System

4.2.3 Quality Manual Source Material

The Quality Manual sets general policy and identifies and addresses each specific requirements of ISO 9001:2008.

4.2.4 Control of Documents

All of the QMS documents are controlled according to the Quality Management System **Document Control Procedure QP-4.2.3.** Documents required by the Quality Management System are used for reference purposes in the organization, including Quality Manual sections, procedures, work instructions, and industry specifications.

4.2.5 Control of Records

TAM maintains Quality Records to provide evidence of conformity to requirements and the effective operation of the Quality Management System. Quality Records will remain legible, readily identifiable and retrievable. **QP-4.2.4 Records Control Procedure** defines the controls needed for the identification, storage, protection, retrieval, retention time, and disposition of Quality Records.

5 Management Responsibility

5.1 Management Commitment

TAM top management provides evidence of its commitment to the development and implementation of the Quality Management System and continually improving its effectiveness by:

- Communicating the importance of meeting or exceeding customer expectations, as well as statutory and regulatory requirements
- Establishing the Management Policy and Quality Policy

- Ensuring that Quality Objectives are established
- Conducting Management Reviews
- Ensuring the availability of resources

5.2 Customer Focus

TAM top management ensures that customer requirements are determined and fulfilled with the aim of enhancing customer satisfaction.

5.3 Quality Policy

The TAM Quality Policy is a statement of commitment from TAM top management to uphold standards of the company's products and service while identifying the ownership and involvement within the organization of all staff; specifically those with key roles in maintaining and driving continuous quality improvement.

5.4 Planning

5.4.1 Quality Objectives

TAM top management ensures that Quality Objectives, including those needed to meet customer requirements for product, are established at appropriate levels within TAM. The Quality Objectives will be measureable and consistent with the quality policy.

5.4.2 Quality Management System Planning

TAM top management ensures:

- The planning of the Quality Management System is carried out in order to meet the requirements given in 2.1, as well as the quality objectives
- The integrity of the Quality Management System is maintained when changes are planned and implemented

5.5 Responsibility, Authority and Communication

5.5.1 Responsibility and Authority

TAM top management ensures that the responsibilities, authorities and their interrelation are defined and communicated within TAM and are detailed in the organization structure.

5.5.2 Management Representative

TAM top management has appointed a member of management who, irrespective of other responsibilities, has global responsibility and authority that includes,

- Ensuring those processes needed for Quality Management System are established, implemented and maintained

- Reporting to top management on the performance of the Quality Management System and any need for improvement
- Ensuring the promotion of continual improvement and awareness of customer requirements throughout all of the TAM locations

5.5.3 Internal Communication

Top management ensures that appropriate communication processes are established within TAM and that communication takes place regarding the effectiveness of the Quality Management System.

5.6 Management Review

5.6.1 General

Top management reviews TAM's Quality Management System, annually at a minimum, to ensure its continuing suitability, adequacy, and effectiveness. This review includes assessing opportunities for improvement and the need for changes to the Quality Management System, including the Quality Policy and Quality Objectives.

Records from the Management Review will be maintained (see 2.2.5)

5.6.2 Review Input

The input to the Management Review shall include, but is not limited to,

- Results of audits
- Customer feedback
- Process performance and product conformity
- Status of Preventive and Corrective actions
- Follow-up actions from previous Management Reviews
- Changes that could affect the Quality Management System
- Recommendations for continual process 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 Quality Management System and its processes
- Improvement of product related to customer requirements
- Resource needs

6 Resource Management

6.1 Provision of Resources

TAM determines and provides the resources needed to

- Implement and maintain the Quality Management System and continually improve its effectiveness
- Enhance customer satisfaction by meeting or exceeding customer requirements

6.2 Human Resources

6.2.1 General

The competency of TAM personnel performing work affecting product quality is based upon appropriate education, training, skills and experience. Their specific competency is re-evaluated yearly at a minimum as a part of their Performance Review.

6.2.3 Training

TAM will:

- Identify and determine the competency needs and/or requirements
- Provides training to satisfy these needs and/or requirements
- Evaluate the effectiveness of the training
- Ensure that its personnel are aware of the relevance of their position how they contribute to the achievement of the quality objectives
- Maintain appropriate records of education, training, skills and experience

6.3 Infrastructure

TAM determines, provides and maintains the infrastructure needed to achieve conformity to product requirements. Infrastructure includes:

- Buildings, workspace and associated utilities
- Process equipment both hardware and software
- Supporting services such as transport, communication and/or information systems

6.4 Work Environment

TAM determines and manages the work environment needed to achieve conformity to product and regulatory requirements.

7 Product Realization

7.1 Planning of Product Realization

TAM plans and develops the processes needed for product realization. The planning of product realization shall be consistent with other requirements of the Quality Management System.

In planning product realization, TAM determines the following to be appropriate:

- Quality objectives and requirements for the product

- The need to establish processes, and to document, and provide resources specific to the product
- Required verification and validation of criteria for product acceptance
- Records needed to provide evidence that the production processes and resulting product fulfill requirements

7.2 Customer Related Processes

7.2.1 Determination of Requirements Related to the Product

TAM determines:

- Requirements specified by the customer, including requirements for delivery
- Requirements not stated by the customer but necessary for specified use or known and intended use
- Required statutory and regulatory requirements related to the product
- Legal requirements related to the product
- Any additional requirements determined by TAM

7.2.2 Review of Requirements Related to the Product

TAM reviews the requirements related to the product. This review is conducted prior to TAM's commitment to supply a product to the customer (e.g. submission of tenders, acceptance of contracts or orders, acceptance of changes to contracts or order) and ensures that:

- Product requirements are defined
- Contract or order requirements differing from those previously expressed are resolved
- TAM has the ability to meet the defined requirements

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

Where the customer provides no documented statement of the requirement, the customer requirements shall be confirmed by TAM before acceptance.

Where product requirements change, TAM ensures that relevant documents are amended and that relevant personnel are made aware of the change requirements.

7.2.3 Customer Communication

TAM determines and implements effective arrangements for communicating with customers regarding,

- Product information
- Enquiries, contracts or order handling, including amendments
- Customer feedback, including customer complaints

7.3 Design and Development

7.3.1 Design and Development Planning

TAM plans and controls the design and development of the product.
During the design and development planning, TAM determines:

- The design and development stages
- The review, verification and validation that are appropriate to each design and development stage
- The responsibilities and authorities for design and development

TAM manages the interfaces between different groups involved in design and development to ensure effective communication and clear assignment of responsibility.

Planning output is updated, as appropriate, as the design and development progresses.

7.3.2 Design and Development Inputs

Inputs relating to product requirements are determined and records maintained in product and/or project files. These inputs include:

- Functional and performance requirements
- Applicable statutory and regulatory requirements
- Information derived from previous similar designs
- Other requirements essential for design and development

These inputs are reviewed for adequacy. Requirements are to be complete, unambiguous, and not in conflict.

7.3.3 Design and Development Outputs

The outputs of design and development are provided in a form that enables verification against the design and development inputs, and are approved before release.

Design and development outputs:

- Meet the input requirements for design and development
- Provide appropriate information for purchasing, production and for service provisions
- Contain or reference product acceptance criteria
- Specify the characteristics of the product that are essential for its safe and proper use

7.3.4 Design and Development Review

At suitable stages, systematic reviews of design and development are performed in accordance with planned arrangements:

- To evaluate the ability of the results of design and development to meet requirements
- To identify any problems and propose necessary actions

Participants in such reviews include but are not limited to representatives of functions concerned with the design and development stages being reviewed. Records of results of the reviews and any necessary actions are maintained.

7.3.5 Design and Development Verification

Verification is performed in accordance with planned arrangements to ensure that the design and development outputs have met the design and development input requirements. Records of the results of the verification and any necessary actions are maintained.

7.3.6 Design and Development Validation

Design and development validation is performed in accordance with planned arrangements to ensure that the resulting product is capable of meeting the requirements for the specified application or intended use, where known. Wherever practicable, validation will be completed prior to the delivery or implementation of the product. Records of the results of the validation and any necessary actions are maintained.

7.3.7 Control of Design and Development Changes

Design and development changes are reviewed, verified and validated, as appropriate, and approved before implementation. The review of the design and development changes includes evaluation of the effect of the changes on constituent parts. Records of the results of the review of changes and any necessary actions are maintained.

7.4 Purchasing

7.4.1 Purchasing Process

TAM ensures that purchased product conforms to specified purchase requirements. The type and extent of control applied to the supplier and the purchased product is dependent upon the effect the purchased product has on subsequent production and the final product.

TAM evaluates and selects suppliers based on their ability to supply product in accordance with TAM's requirements. Records of supplier capabilities and site audits are maintained in the form of audit records and reported in each Management Review.

7.4.1.1 Supplier Selection
Criteria for supplier selection, evaluation and re-evaluation shall be documented. Records of the evaluation and any necessary actions shall be maintained as quality records.

7.4.1.2 Criteria for Supplier Selection, Evaluation, and Reevaluation

Criteria for the selection, evaluation, and reevaluation of supplier shall include one or more of the following:

a. Inspection of supplier's final product by TAM at supplier's facility;
b. Inspection of supplier's final product by TAM upon delivery.
c. Surveillance of supplier's conformance to TAM's purchasing requirements.
d. Verification by TAM that the supplier's quality management system conforms to an internationally recognized quality management system standard/technical specification.

7.4.2 Purchase Orders

Purchase orders describe the product to be purchased, including, where appropriate:

- Requirements for approval of product, procedures, processes and equipment
- Requirements for qualification of personnel
- Quality Management System requirements

TAM ensures the adequacy of specified purchase requirements prior to their communication to the supplier.

7.4.3 Purchased Product Verification

TAM establishes and implements the inspection activities necessary for ensuring that purchased product meets specified requirements.

Where TAM or its customer intends to perform verification at the suppliers' premises, TAM states the intended verification arrangements and method of product release in the purchasing information.

7.5 Production and Service Provision

7.5.1 Control of Production

TAM plans and carries out production under controlled conditions. Controlled conditions include,

- Accurate information that describes the characteristics of the product
- The use of suitable equipment
- The availability and use of calibrated inspection and test equipment
- The implementation of inspection and testing
- The implementation of release and delivery activities

7.5.2 Validation of Processes for Production and Service Provision

TAM validates any processes for production and service provision where the output cannot be verified by subsequent monitoring or measurement. This includes any processes where deficiencies become apparent after the product is in use or the service has been delivered.

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

TAM establishes arrangements for these processes including, as applicable:

- Defined criteria for review and approval of these processes
- Approval of equipment and qualification of personnel
- Use of specific methods and procedures
- Requirements for records as outlined in Section 2.2.5
- Revalidation

7.5.3 Identification and Traceability

TAM identifies the product by suitable means throughout production. The product status with respect to the inspection and test requirements are shown on the router. Where traceability is a requirement, TAM controls and records the unique identification.

7.5.3.1 Identification and Traceability During Processes

TAM has established control features for identification and traceability of the product by suitable means from receipt and during all stages of production, delivery, as required by the customer and applicable product specifications.

7.5.3.2 Identification and Traceability Maintenance and Replacement

The Standard Operating Procedures include requirements for maintenance or replacement of identification and traceability marks, and records.

7.5.3.3 Product Status

TAM has established documented control features for the identification of product status

7.5.4 Customer Property

TAM exercises care with customer property while it is under the control of TAM. TAM identifies, verifies, and protects customer property. If any customer property is lost, damaged or otherwise found to be unsuitable for use, this is reported to the customer and records are maintained.

7.5.5 Shipping and Handling

TAM preserves the conformity of product during internal processing and delivery to the intended destination. This preservation includes identification, handling, packaging, storage and protection.

7.6 Control of Monitoring and Measuring Devices

TAM determines the inspection and testing to be undertaken and the monitoring and measuring equipment needed to provide evidence of conformity of the product to requirements.

TAM has established processes to ensure that monitoring and measurement can be carried out in a manner that is consistent with the monitoring and measurement requirements.

Inspection and Test Equipment is:

- Calibrated or verified at specified intervals, or prior to use, against measurement standards traceable to international or national measurement standards
- Adjusted or re-adjusted as necessary
- Identified with a unique identifier and with current calibration date and recall date, such that the calibration status can be determined
- Safeguarded from adjustments that would invalidate the measurement result
- Protected from damage and deterioration during handling, maintenance and storage

In addition, TAM accesses and records the validity of the previous measuring results when the equipment is found not to conform to requirements. TAM takes appropriate action on the equipment and any product affected.

7.6.1 Control of Monitoring and Measuring Devices Control Features

TAM has established Standard Operating Procedures to control, calibrate, and maintain monitoring and measuring devices. Control features include device type, unique identification, location, frequency of checks, check method, and acceptance criteria.

7.6.2 Environmental Conditions

TAM has taken measures to ensure that the environmental conditions are suitable for the calibrations, inspections, measurements, and tests being carried out.

8 Measurement, Analysis and Improvement

8.1 General

TAM plans and implements the inspection, testing analysis and improvement processes needed to:

- Demonstrate conformity of the product
- Ensure conformity of the Quality Management System
- Continually improve the effectiveness of the Quality Management System

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

8.2 Monitoring and Measurement

8.2.1 Customer Satisfaction

As one of the performance measurements of the Quality Management System, TAM monitors information relating to customer satisfaction. TAM will measure Customer Satisfaction through various means, including the use of electronic surveys, on-site feedback from the customer, and regular work-in-progress meetings / reports with the Customers. The feedback derived from this venue will be evaluated as to application of Corrective and/or Preventive Actions by QA and affected divisions/departments.

8.2.2 Internal Audit

TAM conducts internal audits at planned intervals, annually at a minimum, to determine the effectiveness and compliance of the QMS. Internal Audits are conducted in accordance with the **Internal Audit Procedure QP-8.2.2.**

8.2.2.1 Internal Audit Schedule

Internal audits shall be scheduled and conducted at least annually by personnel independent of those who performed or directly supervised the activity being audited.

8.2.2.2 Response Times

TAM has identified the response times for addressing detected non-conformances

8.2.3 Monitoring and Measurement of Processes

TAM applies suitable methods for monitoring and, where applicable, measurement of the Quality Management System processes. These methods demonstrate the ability of the processes to achieve planned results. When planned results are not achieved, corrective action is taken to ensure conformity of the product and compliance to the QMS.

8.2.4 Monitoring and Measurement of Product

TAM inspects and tests the characteristics of the product to verify that product requirements are met. This is carried out at appropriate stages of production and in accordance with the Quality Management System.

Evidence of conformity with the acceptance criteria is maintained as a part of the production router and/or quality plan. Records indicate the person authorizing the release of the product.

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

8.2.4.1 Acceptance Inspection

Personnel other than those who performed or directly supervised the production of the product shall perform final inspection at planned stages of the product realization process

8.3 Control of Non-Conforming Product

TAM ensures that product which does not conform to product requirements is identified and controlled to prevent its unintended use or delivery. The controls, related responsibility, and authorities for dealing with Non-Conforming product are defined and performed in accordance with the **Control of Nonconforming Product Procedure QP-8.3.**

8.3.1 Release or Acceptance of Nonconforming Product

The process of evaluation, release, and acceptance of nonconforming product shall include one or more of the following:

a. Accepting products that do not satisfy manufacturing acceptance criteria provide that
   - Products satisfy the design acceptance criteria;

- The violated manufacturing acceptance criteria are categorized as unnecessary to satisfy the design acceptance criteria; or
- The products are repaired or reworked to satisfy the design acceptance criteria or manufacturing acceptance criteria.

b. Accepting products that do not satisfy the original design acceptance criteria provided that
- The original design acceptance criteria are changed per 7.3.7; and
- The materials or products satisfy the new design acceptance criteria.

8.3.2 Field Nonconformity Analysis

The Standard Operating Procedure for addressing Field Complaint Reports includes requirements for identifying, documenting, and reporting incidents of field nonconformities or product failures. This Standard Operating Procedure ensures that the analysis of field non-conformities, provided that the product or documented evidence supporting the nonconformity is available to facilitate the determination of the cause.

8.3.3 Customer Notification

TAM shall notify customers in the event that product which does not conform to design acceptance criteria has been delivered, and records of such notifications shall be maintained.

8.4 Analysis of Data

TAM determines, collects and analyzes appropriate data to demonstrate the suitability and effectiveness of the Quality Management System and to evaluate where continual improvement of the

Quality Management System can be made. This includes data generated during inspection and testing, and from other relevant sources.

The analysis of data provides information relating to:

- Customer satisfaction
- Conformance to customer requirements
- Characteristics and trends of processes and products including opportunities for preventive action, and services
- Supplier Performance

8.5 Improvement

8.5.1 Continual Improvement

TAM continually improves the effectiveness of the Quality Management System, utilizing several means, including Quality Objectives, Audit Results, analysis of data, corrective and preventive actions and the Management Reviews.

8.5.2 Corrective Action

TAM takes action to eliminate the cause of Non-Conformities in order to prevent recurrence. Corrective actions shall be appropriate to the effects of the Non-Conformities encountered. Examples of those circumstances leading to Corrective Action include, but are not limited to:

- Customer Complaints
- Internal Customer Complaints
- Quality Management System deficiencies identified during audits (internal and external)
- Negative trends from process charts
- Action plans from Management Review
- Defective product

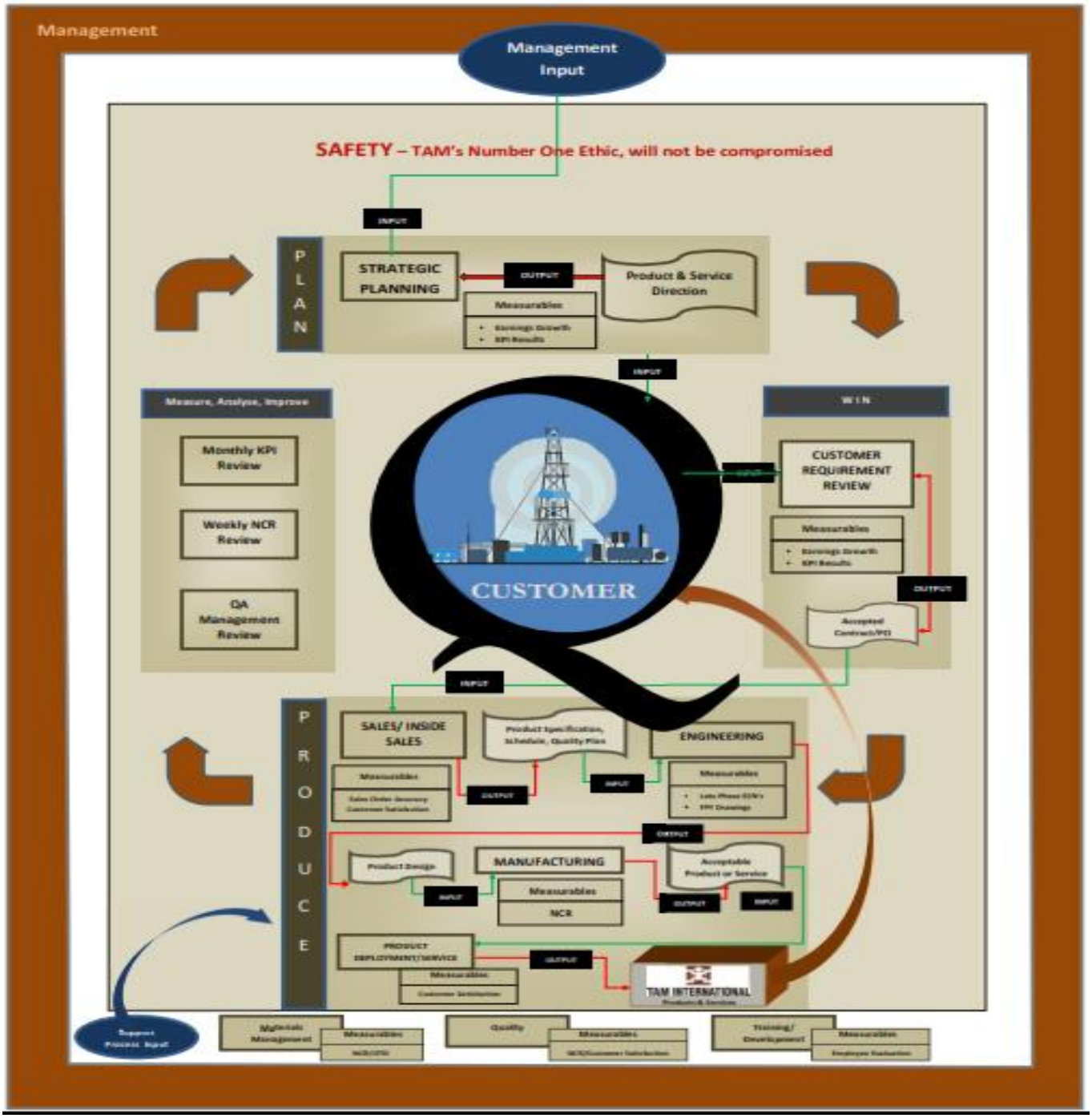
The **Corrective Action Procedure QP-8.5.2** describes how corrective actions are implemented in order to minimize Non-Conformities and waste.

8.5.3 Preventive Action

Preventive actions may be initiated at any time in order to reduce the potential for Non-Conformances, and may be included in a Corrective Action Report as part of the resulting corrective actions. The **Preventive Action Procedure QP-8.5.3** describes how standalone preventive actions are implemented.

Appendix A

Business Process Flow



Rev	Date	Description	Prepared By:	Reviewed By / Approved By	Date
A	10/09/2015	Quality Manual revision of verbiage, document title, document template, and document number.	G. Fletcher	T. Young / B. Sanford	11/03/2015