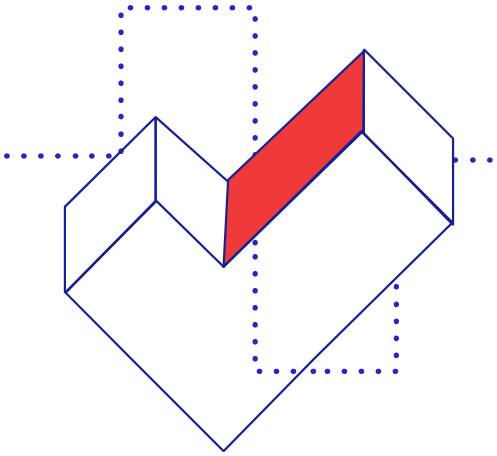

Quality Management System (QMS)©

REVISION “H” – August 16, 2017

Prepared by: Jason Carline

Chinese version translated by: Tom Chang

289-309-6440
chinatechsolutions.com
1 West Avenue South, Suite 300, Hamilton Ontario L8N 2R9 Canada

ChinaTech Solutions.

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1.0 Document History

Working Document Location: This document is only valid on the day it was printed.

Revision History:

QUALITY SYSTEM MANUAL REVISIONS

Rev.	Release Date	Reason for Change	REVISION LOG	Approved By:	Training Required Y/N:
A	July 27, 2012	Initial Release	-	J. Carline	Yes
B	Jan 24, 2013	Updated after customer audit / Management Review	-	J. Carline	Yes
C	March 28, 2013	Updated after customer audit / Management Review	-	J. Carline	Yes
D	April 24, 2014	Updated after customer audit / Management Review	-	J. Carline	Yes
E	Mar 17, 2015	Updated after customer audit / Management Review	-	J. Carline	Yes
F	Sept 10, 2015	Updated after Mtg. Review	-	J. Carline	No
G	July 24, 2016	Updated after Mtg. Review	-	J. Carline	Yes
H	Aug 16, 2017	Updated after internal	See Apendix "B"	J. Carline	Yes

APPROVAL AND DISTRIBUTION

Approval: This document requires the formal approval of the following named staff.

Role	Name	Signature	Appointment	Date

Distribution: This document has been distributed to the below stakeholders

Role	Name	Appointment	Date

2.0 Glossary of Terms

This section is for definitions unique to ChinaTech Solutions Inc. (CTS)

- **Audit** - Systematic, independent and documented process for obtaining evidence and evaluating it objectively to determine the extent to which audit criteria are fulfilled.
- **Conformity** - Fulfillment of a requirement
- **Continual Improvement** - Recurring activity to increase the ability to fulfill requirements.
- **Corrective Action** - Action taken to eliminate the cause of a detected nonconformity or other undesirable situation
- **Customer Satisfaction** - Customer's perception of the degree to which the customer's requirements have been fulfilled.
- **Effectiveness** - Extent to which planned activities are realized and planned results achieved.
- **Efficiency** - Relationship between the result achieved and the resources used
- **Finished Goods Inventory** – Product that has been manufactured or reworked by CTS managed vendor and has been tested as acceptable product.
- **Infrastructure** - (organization) system of facilities, equipment and services needed for the operation of an organization.
- **Nonconformity** - Non-fulfillment of a requirement.
- **Organization** - Group of people and facilities with an arrangement of responsibilities, authorities and relationships
- **Organizational Structure** - Arrangement of responsibilities, authorities and relationships between people.
- **Procedure** - Specified way to carry out an activity or a process.
- **Process** - Set of inter-related or interacting activities, which transforms inputs into outputs.
- **Product** - Results of a process.
- **Quality** - Degree to which a set of inherent characteristics fulfills requirements
- **Quality Assurance** - Part of quality management focused on providing confidence that quality requirements will be fulfilled
- **Quality Control** - Part of quality management focused on fulfilling quality requirements
- **Quality Management** - Coordinated activities to direct and control an organization with regard to quality.

- **Quality Management System** -Management system to direct and control an organization with regard to quality.

- **Quality Objective** - Something sought, or aimed for, related to quality. Generally based on the organizations quality policy, and specified for relevant functions and levels in the organization.

- **Quality Plan** -Document specifying which procedures and associated resources shall be applied by whom and when to a specific project, product, process or contract.

- **Quality Planning** - Part of quality management focused on setting quality objectives and specifying necessary operational processes and related resources to fulfill the quality objectives.

- **Quality Policy** - Overall intentions and direction of the organization related to quality as formally expressed by top management.

- **Raw Material** – All material used to produce CTS product

- **Record** - Document stating results achieved or providing evidence of activities performed. Records can be used to document traceability and to provide evidence of verification, preventive action, and corrective actions. Records need not be under revision control.

- **Rework** - Action taken on a nonconforming product so that it will fulfill the specified requirements

- **Supplier** - Organization or person that provides a product, service or information.

- **Management:** Senior staff of CTS or its suppliers focused on achieving customer satisfaction

- **Work Instructions** - Controlled document, which provides instruction on how to perform a specific task

3.0 Quality Management System - Introduction

ChinaTech Solutions Inc. (CTS) recognizes its responsibility as a provider of quality products/services. To this end CTS has developed and documented a Quality Management System. The quality system strives to comply with the international standard ISO 9001:2008, Quality Management Systems requirements. This manual is used externally to also introduce our Quality Management System to our customers and suppliers. This manual is used to familiarize them with the controls that have been implemented and to assure them that the integrity of the Quality Management System is maintained and focused on customer satisfaction and continues improvement.

This manual also governs the creation of quality related documents. It will be revised, as necessary, to reflect input from stakeholders. It is issued on a controlled copy basis to all internal functions (staff) affected by the quality system and on an uncontrolled copy basis to customers and suppliers. It may be issued to customers on a controlled copy basis upon customer request.

CTS provides project management and quality control of sub-contracting manufacturing programs to customers located in the UK and North America who wish to source precision manufactured components from China to gain a competitive advantage in today's increasingly demanding global market.

Through close relationships with local (China) suppliers, and the use of management and quality control procedures, CTS enables its customers to reduce manufacturing costs whilst ensuring that quality standards are not compromised

CTS primary office is located in Hamilton, Canada. Activities conducted from this location include sales, commercial and accounting support, engineering support. Project Management and Quality Control of items sourced in China is controlled by our staff in China, with close support from our Canadian location.

4.0 Objectives of the Quality Management System

The main objectives of the CTS Quality System are:

I. Maintain a Quality Management System that strives to comply with ISO 9001:2008

II. Ensure that we clearly understand our customers requirements/expectations, and have a clearly defined plan, with corresponding procedures, to meet or exceed these requirements/expectations

III. Consistently achieve customer satisfaction in all areas, and without exception

IV. Provide CTS the ability to continually improve its effectiveness and our performance for the benefit of our customers, employees and stakeholders

V. To use documented and proven procedures so to become a company valued and respected by our customers, our staff and suppliers

5.0 Quality Policy

CTS accept responsibility for the complete satisfaction of its customers. We exercise this responsibility through adequate training of our employees and suppliers, adherence to proven procedures, and total commitment to meeting and exceeding customer requirements, and to maintaining an organizational culture that fosters continuous improvement.

CTS pursue the following goals:

I. The professional and technical level of the services and products provided our customers must correspond to or exceed that of the leading global suppliers of similar services and products

II. We are responsible to customers for the quality of the services and product supplied.

III. We develop and implement new services and products that meet real customer need.

IV. We continuously monitor feedback from our customers to identify quality improvement activities

V. We encourage our staff and that of our suppliers to take pride in the services and products they offer our customers and we encourage them to offer process improvements to allow us to consistently improve quality of the services and products offered.

VI. Management will review at regular intervals the QMS and all factors, procedures and policies that affect it, with the goal continuously improving our quality systems

VII. Management will ensure that measureable quality objectives that are consistent with the Quality Policy are established at all levels within CTS, and at all sub-contractors

In order to effectively manage this policy, CTS uses systems and procedures as defined in the Quality Management System.

CTS Management has developed the relevant documented procedures and has provided training to our employees and sub-contractors, which enables them to efficiently carry out the procedures defined within the Quality Manual.

_____

Jason Carline
President - ChinaTech Solutions Inc.

6.0 General Requirements

6.1 General Requirements

CTS has established, documented and implemented a Quality Management System (QMS) in accordance with the requirements of ISO 9001:2008. The system is maintained and will be continually improved through the use of the quality policy, quality objectives, audit results, analysis of data, corrective and preventive action and management review.

To design and implement the QMS CTS has:

I. Identified the processes needed for the QMS and their application throughout the organization and documented them on the Process Flow Diagrams

II. Determined the sequence and interaction of these processes, and illustrated them on the Process Flow Diagrams

III. Determined criteria and methods needed to ensure that the operation and control of the processes are effective, and documented them in quality plans, work instructions

IV. Ensured the continuing availability of resources and information necessary to achieve planned results and continual improvement of these processes

V. Established systems to monitor, measure and analyze these processes

VI. Established processes to identify and implement actions necessary to achieve planned results

6.2 Scope of QMS

ChinaTech's scope of business activities does not include the design of products that we provide. Therefore this QMS does not include any reference to reference to "design"

6.3 Document Requirements

6.3.1 General

The QMS documentation includes:

I. Quality Policy – A documented Quality Policy or Mission Statement.

II. Quality Policies Manual – The Quality Manual establishes requirements and guidelines for the overall Quality System objectives. These requirements and guidelines are applicable to the operations at Company.

III. Quality Procedures – The Quality Procedures Manual is a compilation of Standard Operating Procedures (SOP's), which are documented in conformance with, and support of the Quality Policies Manual requirements and guidelines. The Quality Procedures Manual details the implementation of requirements and guidelines for the operation.

IV. Work Instructions – Work Instructions are documented as necessary to support each applicable Quality Procedure / SOP. They detail **specific** inspections and tests information and **specific** instructions for performance of individual tasks.

V. Records – Completed Forms provide the objective evidence of compliance.

6.3.2 Quality Manual

The President of Company delegates the responsibility for the preparation, distribution and the maintenance of the Quality Policies Manual to the Quality Engineer, or another Management appointed individual

Assigned holders of the Quality Policies Manual are responsible for maintaining controlled copies and for the communication/training required by the most recent revisions.

Initial Review/Approval – The President, or designate, approves the Quality Procedures Manual. The President approves the Quality Policy.

Review/Approval of Revisions – Revisions to the Quality Policies Manual is subject to the same review and approval process as the original.

Change Identification – Where practical, revision to sections is indicated by using an *italic font.* If changes are extensive, the section is rewritten completely and designated by the addition of an "R" to the revision number on the page and in the index, (i.e. *2R*).

Record of Changes - The President maintains a history of revisions and a file of superseded documents. These documents are kept on CTS computers and on computer back-up devices

Controlled/Uncontrolled Copies:

I. The President, or CTS Management designate, issues only Controlled Copies of the Quality Assurance Manual.

II. Controlled copies are assigned according to the Quality Manual Distribution List. The President maintains the Quality Manual Distribution List.

III. Only controlled copies of the Quality Policies Manual are distributed and used by Company personnel.

IV. Uncontrolled copies are not maintained with subsequent revisions and are not issued to personnel.

Revision Distribution:

I. The President revises all copies of the Quality Policies Manual and distributes as required.

II. It is the responsibility of the President and the Quality Engineer, or CTS Management designates, to implement and maintain the Quality System defined in the Quality Procedures Manual.

III. The President is responsible for the issuance and control of the Quality Policies Manual.

6.3.3 Control of documents

All of the QMS documents are controlled according to the Document Control Procedure (QP-QP-13.11). This procedure defines the process for:

I. Approving documents for adequacy prior to issue

II. Reviewing and updating as necessary and re-approving documents

III. Ensuring that changes and current revision status of documents are identified

IV. Ensuring that relevant versions of applicable documents are available at points of use

V. Ensuring that documents remain legible and is translated to Chinese as required

VI. Ensuring that documents of external origin are identified and their distribution controlled

VII. Preventing the unintended use of obsolete documents and to apply suitable identification to them if they are retained for any purpose

6.3.4 Control of quality records

Quality records are maintained to provide evidence of conformity to requirements and of the effective operation of the QMS. The records are maintained according to the Document Control Procedure (QP-13.11). This procedure requires that quality records remain legible, readily identifiable and retrievable. The procedure defines the controls needed for identification and storage and retrieval of quality records.

Related Documents

Document Control	QP-13.11

7.0 Management Responsibility

7.1 General

CTS management has lead implementing the quality management system (QMS). It has provided the vision and strategic direction for the growth of the QMS, and established quality objectives and the quality policy.

To continue to provide leadership and show commitment to the improvement of the QMS, management will do the following.

I. Communicate the importance of meeting customer, statutory, and regulatory requirements

II. Establish quality objectives

III. Establish the quality policy

IV. Conduct quarterly management reviews.

V. Ensure the availability of resources.

7.2 Management Commitment

CTS strives to identify current and future customer needs, to meet customer requirements, and to exceed customer expectations.

Management ensures that customer requirements are understood and met, by requiring compliance with documented customer communication procedures. (ref: QP-13.1).

Customer requirements are determined, converted into internal requirements, and communicated to the appropriate people in our organization and with our suppliers

Management is committed to ensure that planning of the Quality Management System is carried out to meet the requirements set out in ISO 9001:4:1

The integrity of the QMS is maintained when changes to it are planned and made

Management will determine, provide and maintain the necessary infrastructure to insure that all company functions operate without issue so to insurance QMS compliance

Management has a duty to access and manage the work enjoinment of our employees. Furthermore, we have a duty to recommend changes to our sub-contractor work enjoinment to insure that their work place complies with all local laws, and basic international standards in terms of workplace safety and working conditions

8.0 Responsibility, authority and communication

8.1 Responsibility and authority

An organizational chart has been established to show the interrelation of personnel in the organization, and within our supplier's organizations. Job descriptions define the responsibilities of each of the positions on the organizational chart. This organizational chart is located on page 16-17 of this manual.

8.2 Management representative

Management (CTS President) along with the Quality Engineer (*probationary*) serve as Co-Management Representative. In consultation they have the following responsibility and authority:

I. Ensure that processes needed for the quality management system are established and implemented.

II. Promote awareness of customer requirements throughout the organization, including suppliers

III. Act as a liaison with external parties such as customers or auditors on matters relating to the QMS.

IV. Ensure that CTS staff and sub-contractor staff are competent and have the necessary skills, training and education background to ensure work effecting the conformity of product is carried out to the required standard

In addition to the above responsibilities carried out by the President and Quality Engineer, The CTS Quality Engineer is incrementally taking responsibility for the following, at the direction of the President

V. Promote awareness of customer requirements with suppliers

VI. Act as a liaison with external parties such as customers or auditors on matters relating to the QMS.

8.3 Internal communication

Processes are established for communication within the organization. Methods of communicating the effectiveness of the QMS include management / supplier meetings, management review, circulation of minutes of management review meetings, and other routine business communication

8.4 Organization Chart

Provided on request

8.4 Training Matrix

Provided on request

9.0 Management review

9.1 General

Management reviews the QMS every 6 months. This review assesses the continuing QMS suitability, adequacy and effectiveness, identifying opportunities for improvement and needed changes. Records are maintained for each management review meeting.

9.2 Review input

Assessment of the QMS is based on a review of information inputs to management review. These inputs include the following:

I. Business strategy for next five years

II. Identify critical success factors for business each management review and check/comment on progress

III. Review policy to ensure relevant to business

IV. Review emergency preparedness

V. Review Legal register

VI. Review roles and responsibilities (resources)

VII. Review document system

VIII. Review Sales Dashboard for KPI for year

IX. Develop and/or review objectives and targets set to support management system

X. Review processes which are involved in continuous improvement

XI. Review all costs related to scrap and rework

XII. Review audit system

XIII. Review customer and other stakeholder feedback

XIV. Review NCNs from

XV. Review supplier performance and related trends.

9.3 Review output

During these review meetings, management will identify appropriate actions to be taken regarding the following issues:

I. Improvement of the effectiveness of the quality management system and its processes

II. Resource needs (i.e. Training, roles and responsibilities)

III. Improvement of product related to customer requirements

IV. Improvement of the audit system

Responsibility for required actions is assigned to members of the QMS review team by the President. Any decisions made during the meeting, assigned actions, and their due dates are recorded in the minutes of management review.

10.0 Product Realization

10.1 Planning of Product Realization

CTS reviews the processes needed for Product Realization in accordance with the requirements of other processes of the Quality Management System.

The following is determined with output in a form according to standard methods of operation:

I. quality objectives and requirements for the product

II. the need to establish processes, documents, and provide resources specific to the product

III. the required verification, validation, monitoring, inspection and test activities specific to the product and the criteria for product acceptance

IV. records needed to provide evidence that the realization processes and resulting product meet necessary requirements

10.2 Customer-Related Processes

Refer to **Quality Procedure 13.1**

10.2.1 Determination of Requirements Related to the Product

CTS determine the following:

I. the requirements specified by the customer, including the requirements for delivery

II. any additional requirements determined by the organization

10.2.2. Review of Requirements Related to the Product

CTS reviews the requirements related to the product prior to contracting with a customer and ensures that:

I. product requirements are defined

II. contract or order requirements differing from those previously fulfilled are resolved

III. the defined requirements can be achieved

10.2.3 Customer Communication

CTS reviews and implements effective methods of communicating with customers in relation to product information, enquiries, contracts or order handling, including amendments and customer feedback, including customer complaints.

10.3 Purchasing

Refer to **Quality Procedure 13.3**

10.3.1 Purchasing Process

CTS has reviewed, documented and implemented procedures, and those procedures made by our suppliers, to ensure that material, products and services purchased from suppliers conform to specified requirements.

The Export Coordinator is responsible ensuring that Purchasing procedures are followed and all relevant Quality System documentation, such as records are kept as per the relevant procedures

The Export Coordinator is responsible to assist Management ensure that all vendors on the Approved Suppliers List follow procedures as defined in the Quality System Manual

10.3.2 Purchasing Information

CTS ensure that specified purchase requirements are adequate prior to being communicated to the supplier and that they describe the product to include:

I. requirements for approval of product, procedures, processes and equipment

II. Quality Management System requirements

10.3.4 Verification of Purchased Product

CTS ensure that purchased products meet specified purchase requirements in accordance with quality procedures. The verification of purchased parts, materials and services, including purchaser-supplied material, the responsibility of the Supplier designated receiving Inspection Personnel.

Purchased product that is to be inspected or verified at the suppliers' facility requires the supplier to follow specific procedures as outlined by CTS

10.4 Control of Production

Refer to **Quality Procedures 13.4**

10.4.1 Control of Production

CTS establish and maintain production and service provision under controlled conditions to include the following:

I. the availability of information that describes the characteristics of the product

II. the availability of work instructions, as necessary

III. the availability of monitoring and measuring devices

IV. the implementation of release, delivery and post-delivery activities

V. Product movements during Manufacturing, Packaging and Shipping are controlled so to minimize any possibility of inadvertent damage

10.4.2 Identification and Traceability

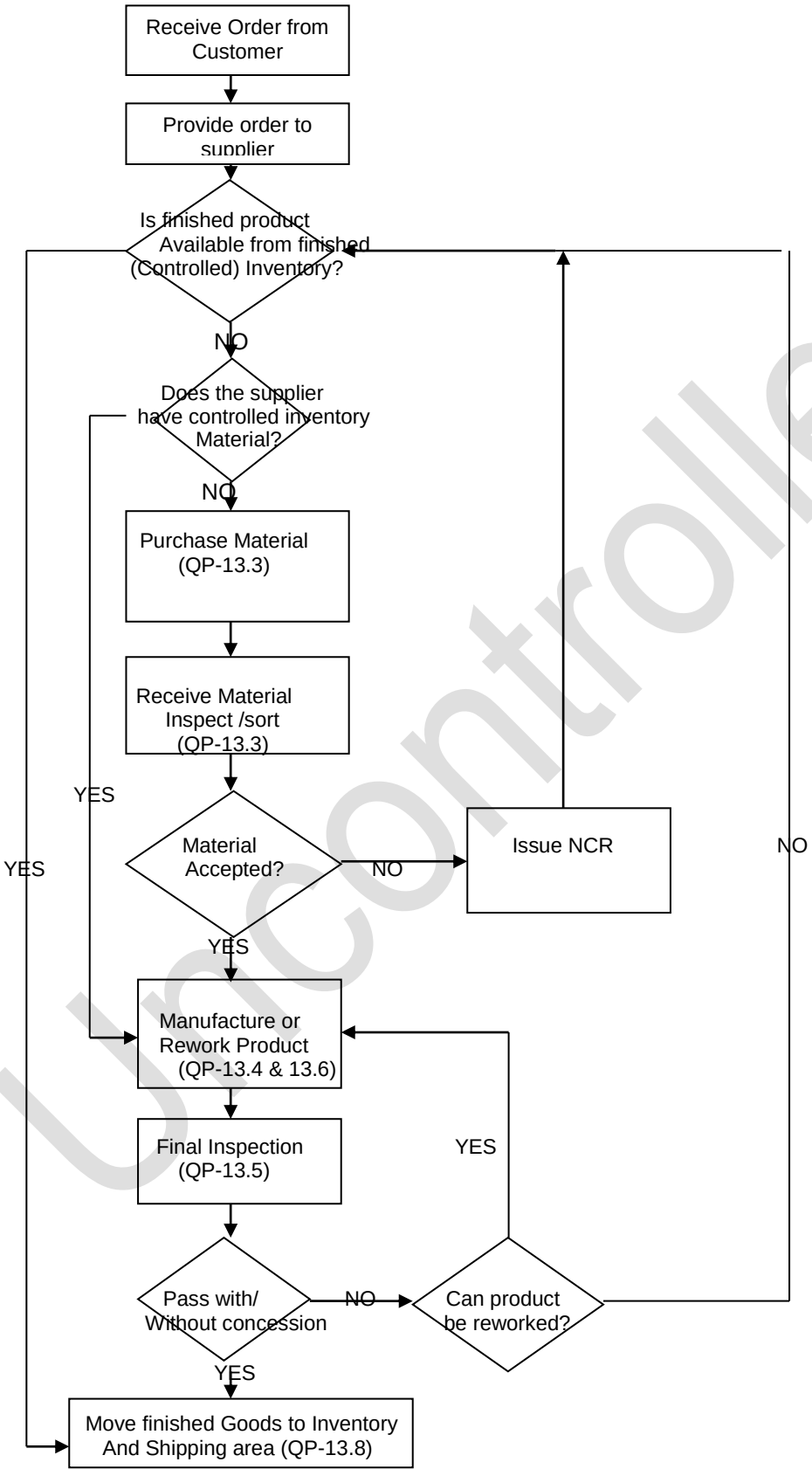
CTS establish implements and maintain the appropriate documented procedures for Product Identification and Traceability, during all stages of product realization.

The supplier Management representative is responsible for Product Identification and Traceability. Products are identified during all stages of production.

Related Documents

Customer Related Processes	QP-13.1
Materials and Purchasing Control	QP-13.3
Process Control Procedure	QP-13.4

10.5 CTS Simplified Process Flow Chart



11.0 Control of monitoring and measuring devices

CTS has determined the monitoring and measurement to be undertaken and the monitoring and measuring devices needed to provide evidence of conformity of product to determined requirements. A documented procedure (QP 13.7) outlines the process used to ensure that monitoring and measurement to be carried out are carried out in a manner that is consistent with the monitoring and measurement requirements.

Where necessary to ensure valid results, measuring equipment is:

I. Calibrated or verified at specified intervals, or prior to use, against measurement standards traceable to international or national measurement standards

II. Adjusted or re-adjusted as necessary;

III. Identified to enable the calibration status to be determined;

IV. Safeguarded from adjustments that would invalidate the measurement result; Protected from damage and deterioration during handling, maintenance and storage.

Related Documents

Calibration Procedures	QP-13.8

12.0 Measurement, Analysis and Improvement

12.1 General

CTS. has planned and implemented the monitoring, measurement, analysis and improvement processes as needed

I. To demonstrate conformity of the product,

II. To ensure conformity of the quality management system

III. To continually improve the effectiveness of the quality management system.

12.2 Monitoring and Measurement

12.2.1 Customer Satisfaction

As one of the measurements of the performance of the quality management system, CTS. Monitors information relating to customer perception as to whether the organization has fulfilled customer requirements. The method for obtaining and using this information is identified in the Customer communication Processes (QP-13.1) and the Management Responsibility (see section 7.0).

12.2.2 Internal Audit

CTS conduct internal audits at planned intervals to determine whether the quality management system:

I. Conforms to the planned arrangements to the requirements the quality management system requirements established by the organization

II. Is effectively implemented and maintained.

An audit program has been designed and implemented and identifies the importance of the areas to be audited, as well as the results of previous audits. The scope of each audit is to verify compliance of that activity to the ISO 9001: 2008

12.2.3 Monitoring and measurement of processes

CTS apply 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, correction and corrective action is taken.

12.2.4 Monitoring and measurement of product

CTS monitor and measure the characteristics of the product to verify that product requirements are fulfilled. This is carried out at appropriate stages of the product realization process

12.3 Control of Nonconforming Product

CTS ensure that product which does not conform to product requirements is identified and controlled to prevent its unintended use or delivery. The controls and related responsibilities and authorities for dealing with nonconforming product are defined in the Rework Procedure (QP-13.6).

12.4 Analysis of Data

CTS determine, collect and analyses 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. The process for determining, collecting and analyzing this data is defined in the Management Responsibility (QP13.12). Appropriate data includes data generated as a result of monitoring and measurement and from other relevant sources.

The analysis of data provides information relating to:

I. Customer satisfaction

II. Conformance to product requirements

III. Characteristics and trends of processes and products including opportunities for preventive action

IV. Suppliers

12.5 Improvement

12.5.1 Continual improvement

CTS continually improves the effectiveness of the quality management system through the use of the quality policy, quality objectives, audit results, analysis of data, corrective and preventive actions and management review.

12.5.2 Corrective action

CTS. Takes action to eliminate the cause of nonconformities in order to prevent recurrence. Corrective actions are appropriate to the effects of the nonconformities encountered.

A documented procedure (QP-13.1 & QP-13.6) defines requirements for:

I. Reviewing nonconformities (including customer complaints),

II. Determining the causes of nonconformities

III. Evaluating the need for action to ensure that nonconformities do not recur

IV. Determining and implementing action needed

V. Reviewing corrective action taken.

12.5.3 Preventive action

CTS determine action to eliminate the causes of potential nonconformities in order to prevent their occurrence. Preventive actions are appropriate to the effects of the potential problems.

A documented procedure (QP-13.6.) defines requirements for:

I. Determining potential nonconformities and their cause

II. Evaluating the need for action to prevent occurrence of nonconformities

III. Determining and implementing action needed

IV. Records of results of action taken

V. Reviewing preventive action taken

Related Documents

Management Responsibility	QP-13.12
Customer Communication Processes	QP-13.1

QUALITY PROCEDURE

ORDER PROCESSING / CUSTOMER COMMUNICATION

QP –13.1

Issue No.3

Reviewed and Approved by: J. Carline

Date: January 24, 2013

Amended Date: Feb 24, 2016

13.1.1 Introduction

This procedure details how information is processed and flows from receipt of an inquire (RFQ, customer request) to the submission of a quote and the placement of an order

13.1.2 Quote Process

When a RFQ is revived from a customer the request is reviewed by CTS staff in Canada and;

I. A RFQ number is assigned the inquiry and Quote file is created. The quote file must contain all relevant information used for the quote. This includes copies of the drawings, specifications

II. CTS staff review the requirement of the RFQ and drawings to determine if the scope of inquiry is within our capabilities. If it is determined that we are unable to quote the RFQ requirements a Decline Notice (QCF-001) is provided the customer

III. It is determined if CTS supplied these parts before. If so the a quote is prepared using controlled pricing that has been accepted/is valid by the supplier for this product. The controlled pricing takes into consideration, and is adjusted, based on the exchange rate impact on the day that quote is prepared

IV. If the product has not be quoted before the Canada office forwards an RFQ to the supplier, with copies to the company's Export Co-coordinator in China.

V. The drawing supplied with the RFQ is forwarded to the supplier, or the supplier is informed that drawings are available on the CTS shared file server (i.e. DROPBOX).

VI. The supplier reviews the inquiry, and if no further information is required provides a quote to CTS Canada, with copies to the company's Export Co-coordinator in China.

VII. The quote will contain the following information
- Individual price for all product
- Estimated manufacturing time (days)
- Depending on the material requested by the customer, a Chinese alternative material grade

VIII. The quote from the supplier is added to the quote file, and a CTS quote is prepared ensuring that all calculation formulas are correct. All calculations are checked by the CTS Administrator (Canada).

IX. The CTS quote is submitted to the customer (see QCF-002)

13.1.3 Order Processing

When an order is received from a customer the request is reviewed by CTS staff in Canada and;

I. The order is assigned a order number and an Order File is created

II. The pricing/delivery required on the order is compared to the corresponding RFQ or the controlled/accepted pricing from the supplier

III. It is determined that all technical information is in compliance and the controlled drawings and or CTS database drawings have the correct drawing "revision" no. If the drawing revision listed on the PO does not match the provided/database drawing CTS Canada will request updated drawings from the customer

IV. CTS prepares an order for the supplier using accepted pricing or pricing provided for the new product to be manufactured.

V. The order is sent to the supplier, and a copy of the order sent to the CTS Export Coordinator in China

VI. The supplier is provided controlled (current revision) drawings by CTS or is instructed to download such drawings from the CTS shared file folder.

VII. The supplier reviews the order and confirms to CTS Canada/China in writing (order copy, stamped with the suppliers business seal) within 24 – 48 hours that the order is accepted

VIII. The following documents are uploaded to the order file;

- Suppliers quote to the CTS
- CTS pricing work up
- Suppliers stamped acceptance of the order
- All customer drawings for order
- Shipping Labels provided by customer (if applicable)
- Delivery Notes (after shipment)
- Shipping Checklist (after shipment)
- Material certifications required for controlled material (at time of shipment)
- Hard copies of all inspection reports for the order (at time of shipment)
- Any miscellaneous documents pertaining to the order

IX. CTS keeps the order file in a secure location, and a backup (electronic) is held separate to CTS Canada's place of business. The order file (commercial files excluded) is available for audit by CTS customers at their request

X. The customer is provided written conformation of acceptance of the order by CTS (QCF-003) within 48 hours of order placement

13.1.4 Submission of Concession Applications to customers

When a manufactured part does not meet the drawing tolerances CTS will submit a Concession Application (CA) to the customer.

I. CTS will only submit a CA to a customer when it had been confirmed to CTS by the supplier that the part cannot be reworked

II. The CA will be translated by the Quality Engineer and will be sent with a copy of the part drawing to the CTS Administrative Coordinator (Canada). The CA will be logged and sent to the Presidents for review/approval. It will then be sent to the customer for their feedback

III. The CA reviewed by the customers will be approved or rejected. If approved the approved part will be tagged with the assigned CA number so that the part can be identified when it is shipped to the customer

IV. Rejected CA will require the part to be further reworked or scrapped and remade

V. Parts that have been Approved or Rejected will require the supplier to undertake a “corrective action” investigation so to determine how the non-conformance occurred and the corrective action to be taken to avoid a similar occurrence in the future.. The results, are detailed on either a customer supplied report template or on a CTS report template (see QCF-005) will be logged

VI. The supplier response is reviewed, and if acceptable to CTS a follow-up report is issued to the customer. If the supplier response if not acceptable CTS will follow-up with the supplier until an acceptable understanding as to why the non-conformance is provided.

13.1.5 Customer Feedback – Non-conforming Parts

When feedback from a customer is received with regards to product not achieving the quality standard by CTS staff in Canada.

I. Customer provides verbal or written feedback (i.e. email) that delivered product has not met the quality standard. Customer submits or CTS requests the customer submit a Non-Conformance Notice (NCN) with details of the non-conformance.

II. CTS reviews, and logs the NCN. A copy of the NCN is sent to the supplier in China.

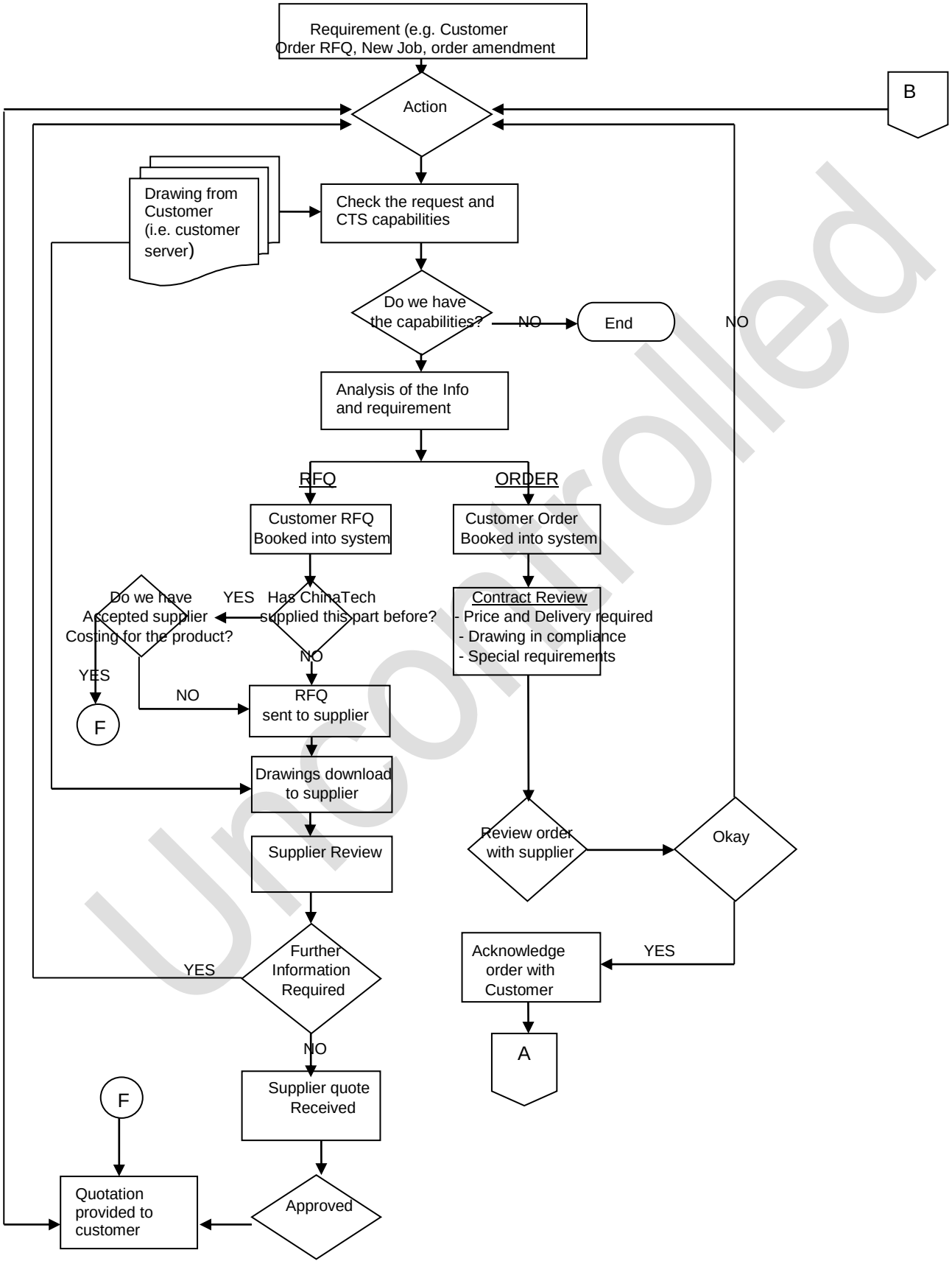
III. The supplier must identify any WIP of the same product for which a NCR has been received and isolate this product until it is determined how/why the non-conformance occurred.

IV. The supplier will investigate all NCN’s and using the CTS supplied report template (see QCF-005) , or the CTS customer supplied template, will provide a detailed explanation of how the non-conformance occurred, and the corrective actions to take place to avoid such an occurrence in the future

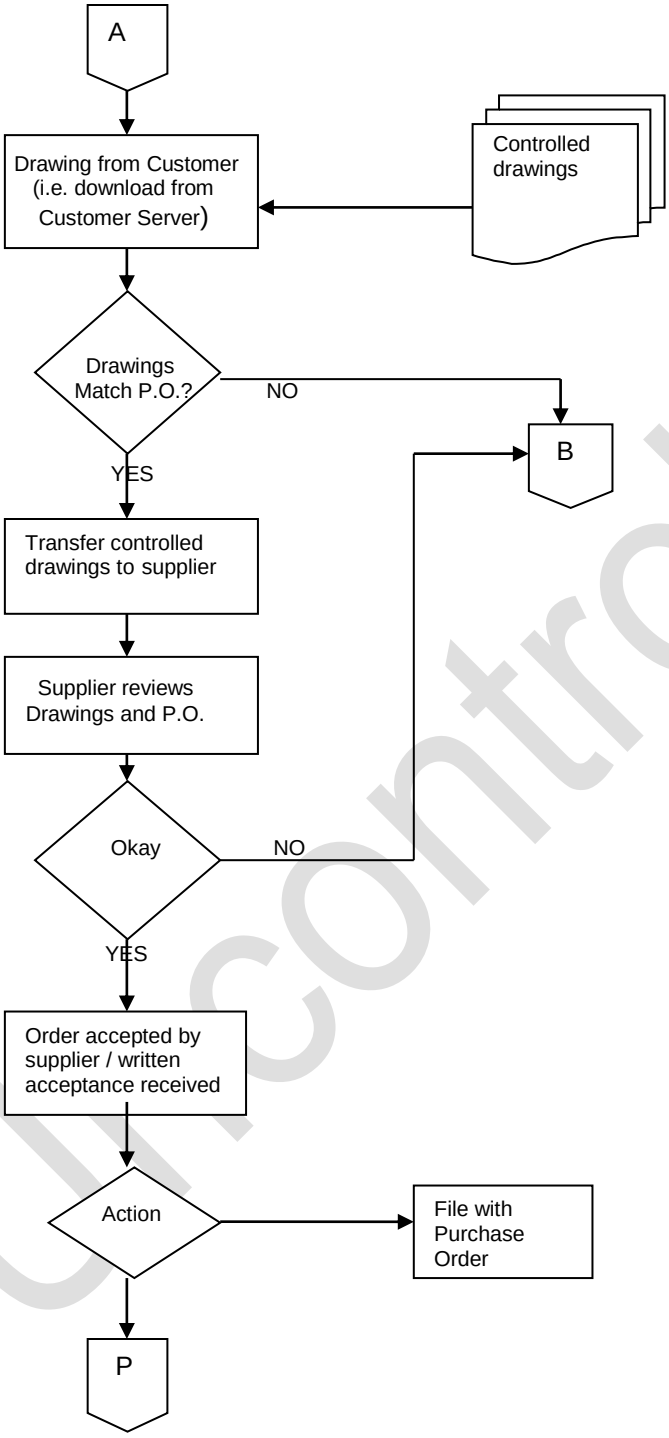
V. The supplier will return completed NCN reports to CTS for their review.

VI. The supplier response is reviewed, and if acceptable to CTS a follow-up report is issued to the customer. If the supplier response if not acceptable CTS will follow-up with the supplier until an acceptable understanding as to why the non-conformance is provided and/or what corrective active will be put into place

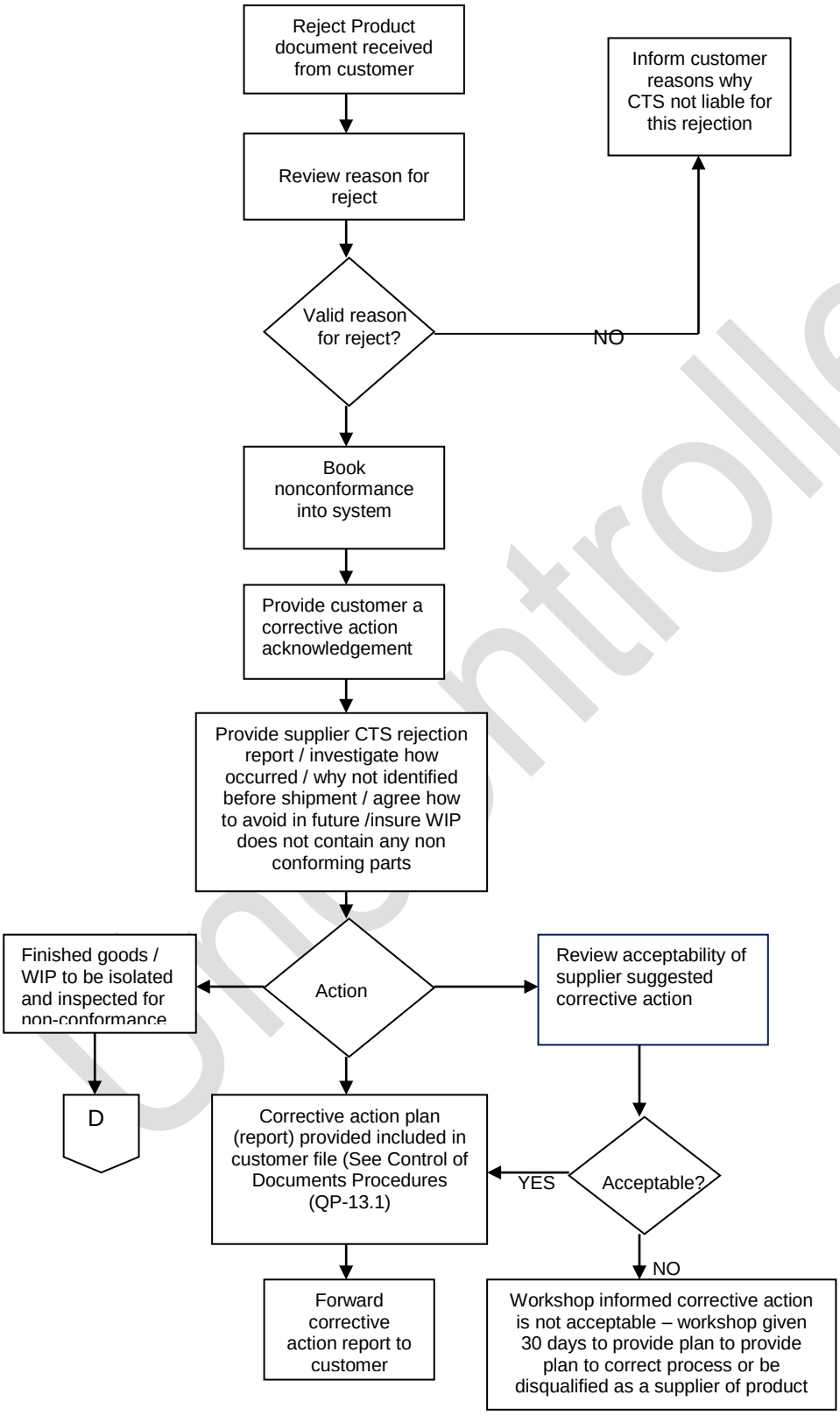
CUSTOMER RFQ's / ORDER PROCESSING



CUSTOMER ORDER RFQ's / CUSTOMER COMMUNICATION



CUSTOMER FEEDBACK – CORRECTIVE ACTION



QUALITY PROCEDURE

DRAWING CONTROL

QP –13.2

Issue No.3

Reviewed and Approved by: J. Carline

Date: January 24, 2013

Amended Date: Feb 24, 2016

13.2.1 Introduction

This procedures provides details about how drawings are received from the customer, and issued to suppliers

13.2.2 Procedure

I. All drawings are supplied to CTS by its customers. CTS will not alter, modify, change any customer supplied drawing, unless the customer instructs CTS Canada to remove any reference to their customers name on the drawing

II. Drawing are requested to be supplied by our customers electronically (ideally in PDF format), Drawing are also sometimes requested to be supplied in CAD format.

III. Drawings are either emailed to CTS, or the customer will provided CTS access to their data exchange server to retrieve the drawings for a specific file.

IV. Drawings that are provided CTS are stored in either a quote or order file depending on the nature of the request. In either case the drawings are traceable to either an RFQ number that has been issued by CTS (quote file), or a PO number (order file)

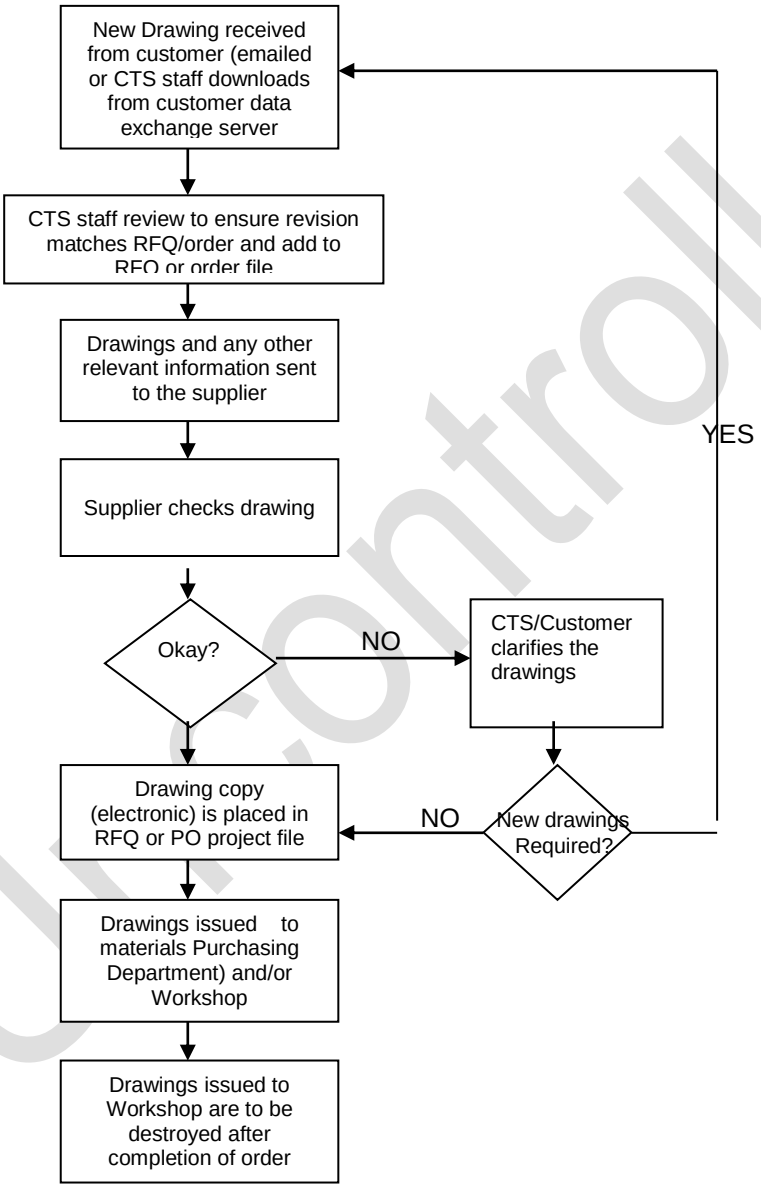
V. After review of drawings as to ensure the “revision no” matches the RFQ or order, drawings are provided suppliers by CTS after any identification of the customer’s name(s) has been removed from the drawings.

VI. If any RFQ/order is received with drawings that don’t match the said RFQ/Order, CTS (Canada) will immediately contact the customer and request the correct drawing revision.

VII. The supplier will store the drawings (electronically) in the project file related to the RFQ or PO.

VIII. All paper copies of drawings issues to various supplier Departments are to be destroyed after completion of RFQ and/or PO processing to ensure that no uncontrolled drawing copies are use in the future when processing new RFQ or PO.

DRAWING CONTROL PROCEDURE



QUALITY PROCEDURE

MATERIALS and PURCHASING CONTROL

QP – 13.3

Issue No.3

Reviewed and Approved by: J. Carline

Date: January 24, 2013

Amended Date: Feb 24, 2016

13.3.1 Introduction

This procedure details how material and commercial items are controlled and are traceable from the point of purchase by the supplier, through its use during manufacturing and finally through to the submittal of documents to the customer on completion of an order

13.3.2 Material Control

I. All product manufactured from raw materials, including high alloy carbon steel, Tool Steel or Stainless Steel, must be controlled leading up to and during manufacturing processes

II. All controlled raw materials must be of an approved equivalent to AISI grades, and this equivalent grade must be approved by the customer for each order processed, or blanket approval must be issued to the company by the customer on an annual basis

III. All customer orders processed will require CTS to be able to supply at their customers request material certs for all stainless, bronze and engineer plastics. Upon specific customer request CTS will provide materials certs for any and all material used to full a specific customer order

IV. All materials that are controlled must be purchased from approved (audited) sub-suppliers (ref: QP-13.9) of such material and the material must be supplied with metallurgical mill certification document(s).

V. Any incoming material that is not properly identified by grade and does not have an accompanying mill certificate is to be rejected by the supplier and replacement material ordered

VI. The supplier is responsible to insure that all incoming material has a mill certificate.

VII. All original material cert's (Chinese) will be translated to English by CTS Quality Manger if the original certs are not clear with regards to content. the originals will be the Vendor in China for a period of no less than three years or more before destroyed

VIII. CTS will reserve the right to have materials (controlled) tested in China by an independent laboratory to ensure that the quality of such material is in keeping with the mill certificates provided the company by its suppliers

IX. CTS has a "zero tolerance" policy regarding the use of unauthorized/non-controlled material. Any supplier material (controlled) that cannot be identified by a mill certificate or that has not followed the outlined trace ability procedures cannot be used under any circumstance to fill a customer order, unless the customer has provided written approval that product can be supplied without mill certificates

13.3.4 Receiving Inspection and Test

I. All purchased material that is intended to be used in the manufacture of deliverable products is subject to inspection and/or testing by Receiving Inspection. Upon receipt of products, receiving personnel verify the quantity of delivered units, check marking and identification of packages, and inspect all

packages for any signs of tampering or damage. If all these checks and inspections are satisfactory, receiving personnel signs the delivery receipt. If not, any shortages or damages are noted on all copies of the delivery receipts.

II. The received product is then moved to the designated inspection area, a copy of the purchase order is retrieved, and the packing slips are located. The goods are verified against the supplier purchase order and the packing slip, and are examined visually for any signs of damage. The purchase order is stamped "RECEIVED" and is signed and dated by the receiving inspector. All receiving inspections are logged in the Suppliers Receiving Inspection Log.

III. For critical parts and components, as determined by the CTS Quality Engineer, or Management designate, a precision inspection/test is performed. This type of inspection includes:

- Review of material certificates, supplier inspection records, compliance certificates, and any other relevant documentation delivered with the product
- Visual inspection to detect any damage or other visible problems
- Performing measurements and testing against specified requirements as required

IV. Upon acceptance, conforming materials are moved to stock. In the event that product which is designated for receiving inspection is released to production due to urgency, it shall be positively identified and recorded in receiving inspection records

13.3.3 Use of controlled materials

I. All material that are saw cut for processing (machining, grinding…etc) must be individually marked

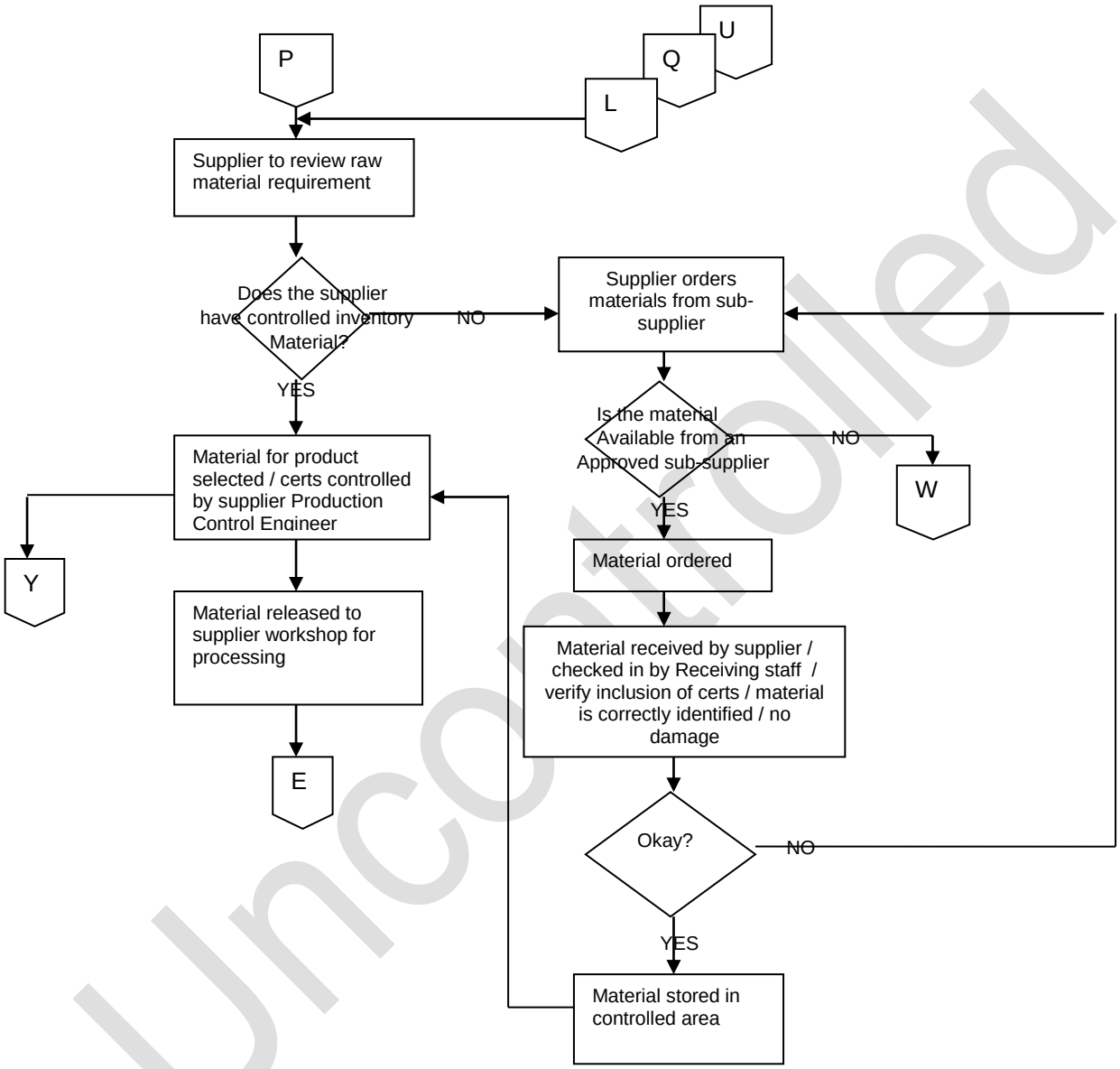
II. If the part is too small to be marked with such information the material is to be placed in a basket or box, and this container must be used to transport the parts trough the various manufacturing processes until the parts are completed, inspected and stored in a controlled shipment area

III. Material that is large enough will have the orders number written on the material or an attached bar code assigned for the order being processed will be affixed

13.3.4 Use of commercial materials

I. If a vendor is specified for a particular commercial item, then the component should always be purchased from this vendor directly or from an authorized distributor of the said vendors, unless authorization has been granted from CTS that an equivalent part can be obtained from an alternative supplier.

MATERIAL CONTROL PROCEDURES



QUALITY PROCEDURE

PROCESSING CONTROL

QP –13.4

Issue No.3

Reviewed and Approved by: J. Carline

Date: January 24, 2013

Amended Date: Mar 24, 2016

13.4.1 Introduction

This procedure details how the quality standard will be achieved by implementing processes and controls, and the necessary production plans to ensure error free delivery of product.

13.4.2 Procedure

I. Purchase Order (Scope of Supply) and Drawing package is provided by Supplier Management to the Suppliers Production Department, or to an approved sub-supplier

II. Production staff check for any special processing requirements and/or quality requirements that might result in an impact on the delivery required

III. Production staff (supplier or sub-supplier) discuss internally that the requirement (quality, delivery…etc) to agree that the requirement can or cannot be achieved

IV. If the requirement cannot be achieved the Supplier Production Staff or sub-supplier first discuss with the Supplier Management in an effort to resolve. If the problem cannot be resolved Supplier Management notifies CTS who then discusses the issue with the customer

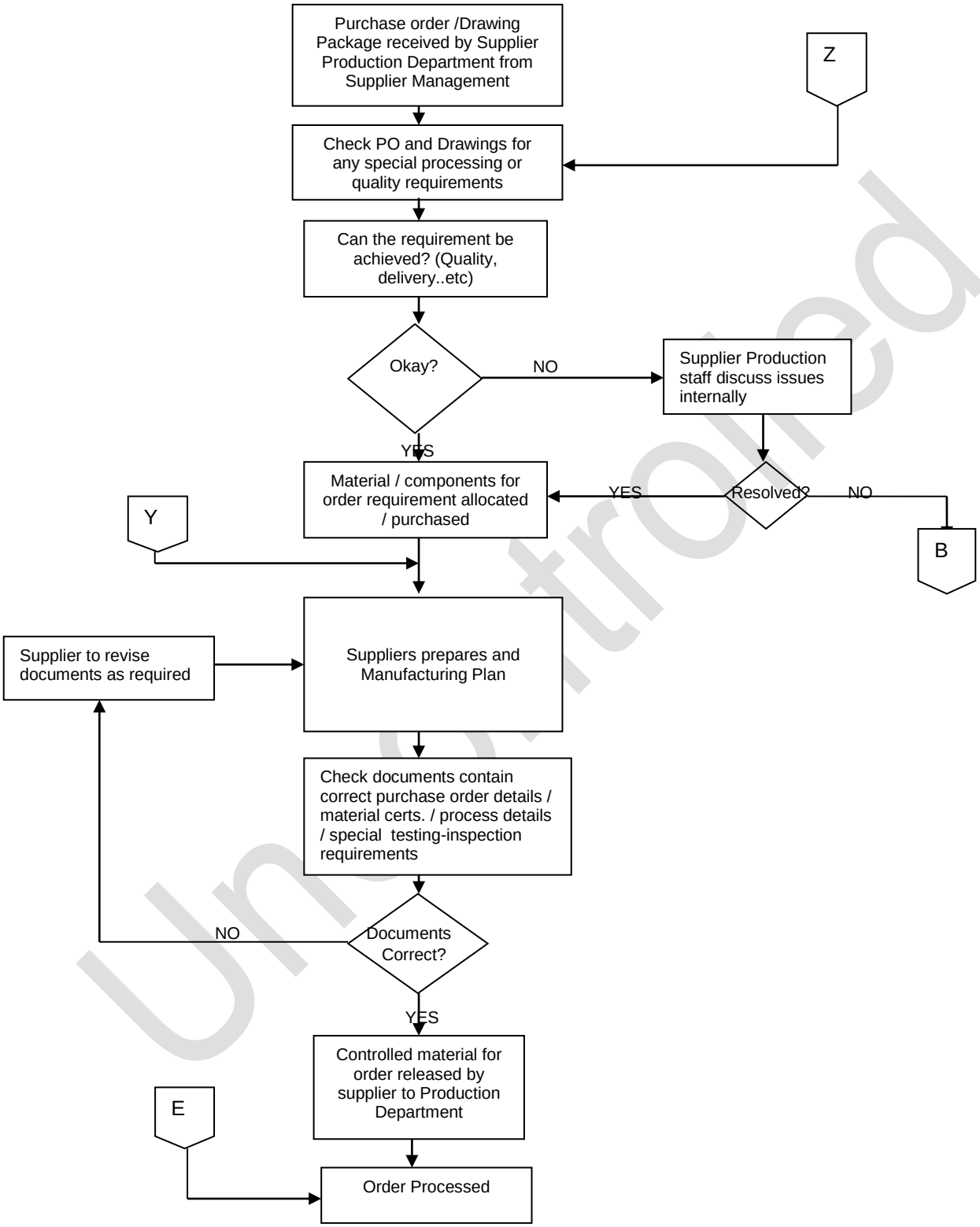
V. Material or purchased items (commercial and other) are purchased or allocated from inventory for the job

VI. The Supplier (Production Department or sub-supplier) prepares a manufacturing plan

VII. A Production Department Manager or a staff member designated by management checks that the order document file contains the following information;

   a. Correct Purchase Order (i.e. the purchase order product description and quantities match the internal manufacturing documents)
   b. Material certs for all identified ”controlled” materials
   c. Process details (Manufacturing plan)

PRODUCT CONTROL PROCESS



QUALITY PROCEDURE

INSPECTION CONTROL

QP –13.5

Issue No.3

Reviewed and Approved by: J. Carline

Date: January 24, 2013

Amended Date: Mar 24, 2016

13.5.1 Introduction

This procedure details how product is to be inspected and how inspection documentation is to be controlled

13.5.2 Inspection of Product

I. All product, all details, must be 100% inspected at “final inspection”

II. All suppliers must use and constantly develop “robust” in-process inspection procedures so that any errors can be identified as early as possible in the manufacturing cycle

III. All parts requiring heat treatment requires the sub-contractor heat treatment process work instructions to be traceable

IV. All high tolerance products is to be measured via the use of CMM inspection equipment, and or other inspection methods that have been discussed with the customer and have been deeded to be acceptable/approval

V. All measurements will be made with equipment that adhered to the Calibration Procedure (QP- 13.7)

VI. All completed inspection reports must be provided electronically to CTS. The reports are to be provided to CTS’s Quality Engineer (e-mail) or uploaded to the CTS shared file server directly.

VII. An inspection Log will be kept, by the CTS supplier, to indicate what parts, identified by part number and order lot number, have passed inspection and have been moved to the finished goods area

13.5.3 Inspection Assembled Sub-Assemblies

I. All product to be used in the Assembly of sub-assemblies, must be clearly indicted to the supplier at time of order by CTS

II. All components require 100% inspection

III. All measurements will be made with equipment that adhered to the Calibration Procedure (QP- 13.7)

VIII. All completed inspection reports must be provided electronically to CTS. The reports are to be provided to CTS’s Quality Engineer (e-mail) or uploaded to the CTS shared file server directly.

IX. An inspection Log will be kept, by the CTS supplier, to indicate what parts, identified by part number and order lot number, have passed inspection and have been moved to the finished goods area

IV. After final assembly of the sub-assembly has taken place, it is critical that the sub-assemblies’ are checked for :-

- Zero damage to assembly
- Any/all moving parts (i.e. sideway, rollers etc) are free running
- Assembly is clean
- Any fragile areas (coating’s etc) are protected

V. A photo’s of each assembly must be taken prior to packing and supplied by the supplier electronically (i.e. e-mail) to CTS or uploaded to the customer server directly

VI. If after assembly some issues have arisen during this process, then the drawing package must be “red lined” (drawing altered by hand) and sent by the supplier to the CTS Export Coordinator who will communicate with to the appropriate customer representative. A copy of “red lined” drawing is to be kept by the Supplier in the PO file

VII. Each module assembled must have PDI (Pre Delivery Inspection) document (QCF-010) filled out and submitted by the supplier electronically (i.e. e-mail) to CTS or uploaded to the customer server directly

13.5.5. Concessions

It is understood by CTS, its suppliers and its customers that certain parts might be acceptable whilst not being in tolerance as defined by the tolerances listed on the provided controlled drawings. If the supplier/ CTS feels that a component can be accepted “out of tolerance” it will.

I. Put forth Concession Application to CTS for its review

II. Based on the review by CTS Canada staff a decision will be made to request a concession

III. If the request for a concession by the Supplier is reasonable the request will be forwarded to the Customer using the customer supplied Concession application template or the CTS template. If the part requested for a concession can be reworked it will not be accepted by CTS

IV. If the customer agrees to the concession they will indicate such on the Concession template and will forward a copy back to CTS who will inform the Supplier of the requests acceptance. If the request is denied CTS will inform the supplier and the part will be reworked or scrapped

V. If the request is accepted the parts will be identified at time of shipment. The part will be tagged with the concession application assigned number

VI. All parts for which a concession has been granted will require the supplier to perform an investigation as to why the non-conformance occurred and what corrective action will take place to prevent a reoccurrence. This information will be provided CTS and the customer if so required

VII. All Supplier Concession requests and official response from ChinaTech and/or Customer to the Supplier will be stored in the Order File for the order in question

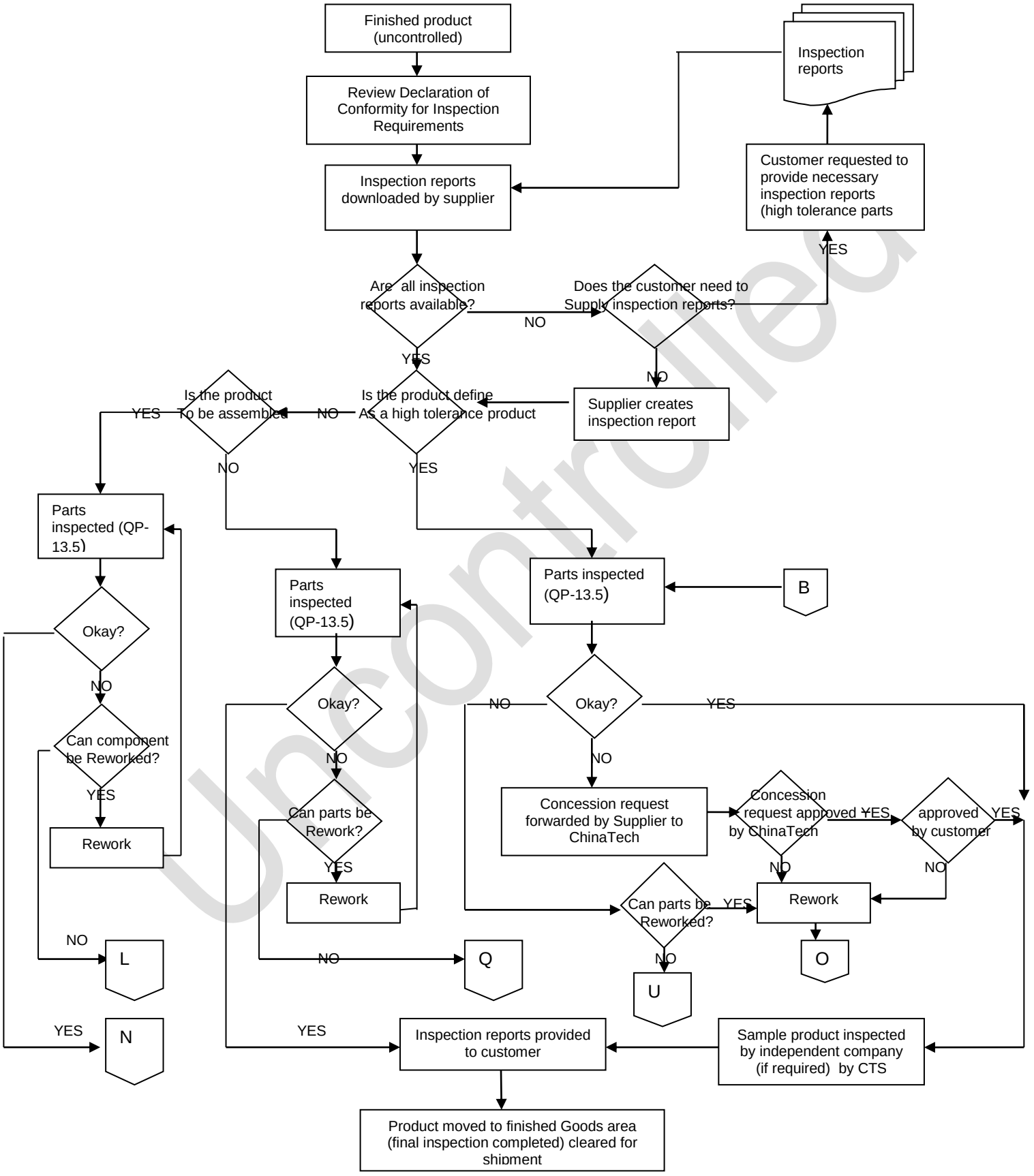
13.3.6 Nonconforming Material/Products

All material/products that are found to be nonconforming are identified and segregated and/or quarantined, and processed per the Rework Product Procedure. (QP-13.6)

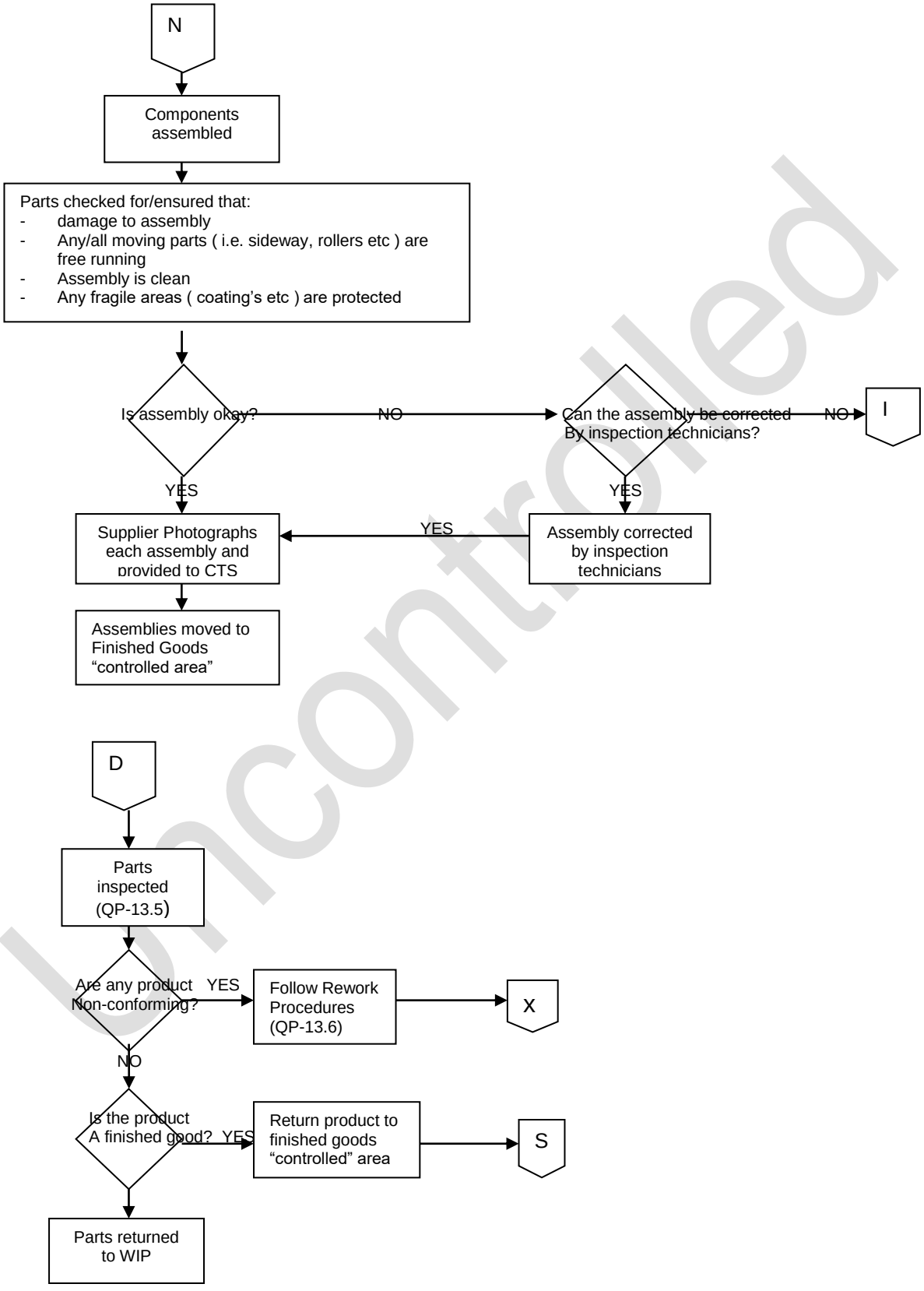
13.3.7 Inspection and Test Records

Inspection/test records, which show clearly whether the product/process has passed or failed the defined acceptance criteria, are established and maintained.

INSPECTION CONTROL PROCESS



INSPECTION CONTROL PROCESS



QUALITY PROCEDURE

REWORK and CORRECTIVE ACTION PROCEDURE

QP –13.6

Issue No.3

Reviewed and Approved by: J. Carline

Date: January 24, 2013

Amended Date: Feb 24, 2016

13.6.1 Introduction

This procedure details how non-conformance product that is identified as such before shipment is to be reworked and correction actions taken to prevent reoccurrence of the non-conformance

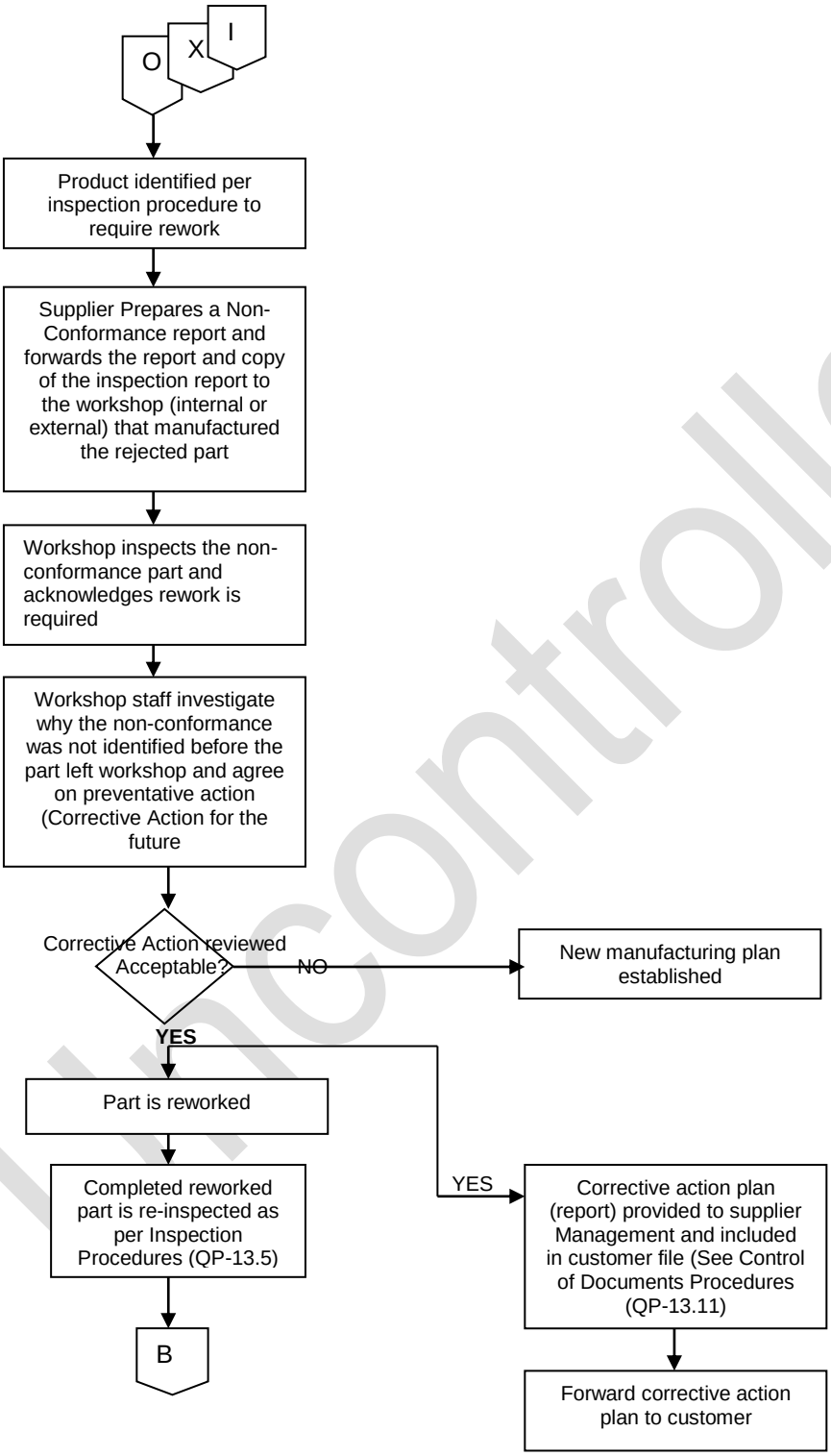
13.6.2 Procedure

I. Any product that is identified per the inspection procedures (QP-13.5) to be in non-conformance is to be isolated and marked if necessary to identify the parts as non-conforming product

II. All non-conforming products are to be placed in an area in the suppliers workshop or inspection area that is clearly designated for "Non-conformance Parts" area

III. All reworked product is to be re-inspected following established inspection procedures (QP-13.5)

REWORK PROCEDURE



QUALITY PROCEDURE

CALIBRATION

QP –13.7

Issue No.3

Reviewed and Approved by: J. Carline

Date: January 24, 2013

Amended Date: Feb 24, 2016

13.7.1 Introduction

This procedure details how calibration will be performed on test and measuring equipment controlled by suppliers that is used to measure product.

13.7.2 Procedure

I. All suppliers must have calibrated all test and measuring equipment by a company who is accredited to the Metrology Law of the People's Republic of China.

II. All test and measuring equipment must have a unique identification number affixed to the equipment (a label)

III. On a monthly basis the suppliers nominated staff member will review the calibration database for equipment whose "in calibration" expiry date will soon expire (within the next 30 days). The nominated staff member will collect all test and measuring equipment and place an "out of calibration" label on the equipment, and this equipment will be removed from service.

IV. The "out of calibration" equipment will be sent to the nominated calibration company to be calibrated

V. If equipment is found to be damaged/faulty during calibration then all components that were measured with the test or measuring equipment, and that are still at the supplier location will be rechecked with calibrated equipment.

13.7.3. Database

The calibration database will include the following information

I. Equipment type/description

II. Frequency that the equipment is calibrated

III. Certificate number

IV. Next calibration scheduled

V. Location of equipment

VI. what company the equipment has been calibrated by

VII. calibration certificates will be scanned and filed on the database

The calibration database is to be maintained by a person nominated by the Supplier Management

X13.7.4 New equipment

Any new equipment that is used in the assurance of quality will be calibrated before use, and will be given a unique identification number

QUALITY PROCEDURE

PACKAGING AND SHIPPING

QP –13.8

Issue No.3

Reviewed and Approved by: J. Carline

Date: January 24, 2013

Amended Date: Feb 24, 2016
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13.8.1 Introduction

This procedure details methods the packaging and shipping for CTS. Any other packaging arrangements (i.e. non standard and/or special packing requirements) must be agreed to with CTS prior to the acceptance of the Purchase Order

Any deviation / changes of packaging requirements after the Purchase Order is accepted by CTS could have implications for cost and delivery schedules

The listed procedures are designed to set the minimum standard for packing and shipping of all product supplied by CTS

13.8.2 Packaging

13.8.2.1 General

I. All high tolerance parts need to package with EXTREME care. Absolutely no metal to metal contact. Thick cardboard or better thin wooden sheet, to be placed between each part.

II. All parts to be oiled and wrapped to prevent any corrosion during transit

III. All items (parts) are packaged together by part number – no different parts can be packaged together.

IV. All packaged/wrapped parts need to have a shipment “label” attached. CTS will provided the attached files needed to be printed on the labels

V. If parts are too heavy to package together (i.e. 10 or 30 parts weigh too much to be wrapped together), then these parts are to be separated, BUT you MUST print extra labels and attach these to each wrapped package. No wrapped parts can ship without a label attached

VI. Small parts (screws, dowel, shaft like items) are to be put into small clear plastic envelops, with the label attached to the envelope

VII. All shipped crates must be clearly marked with the “carton marker”. The carton marker number will be supplied by the CTS Export Coordinator when the shipment is being arranged with the supplier

VIII. All parts that have applied for a CA, and for which the CA has been approved, must be tagged with the CA trace number and the CA document included in the shipping crate

IX. All parts to be shipped must be inspected by a representative of CTS before packaging/wrapping. The CTS representative will confirm that:

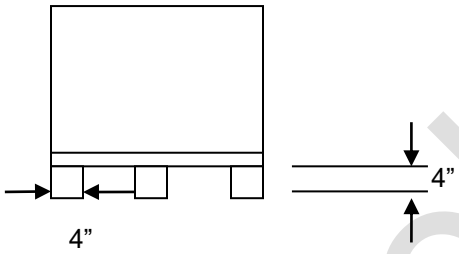
- The parts are mark free (no scratches and or unacceptable burnishes)
- The parts have been deburred to the “CTS” standard
- All surface treatments (blackening, Ni plating…etc.) is homogenous in nature
- A count of all parts will be undertaken by the CTS representative to confirm accuracy of the shipping supplier document

13.8.2.2 Shipping crate construction

I. All sea and air shipments must be packed in a plywood box of robust construction. The plywood must be at least 6mm thick

II. One wooden box is used for each of the following type of product (i.e. CPW and Pitchless need to packaged in spate boxes)

- Ground clearance needs to be 4” on all crates sent to Lambert
- The crates need to be well supported at the bottom (thicker wood – 2 x6mm sheets)



13.8.2.3 Assembled sub-assemblies

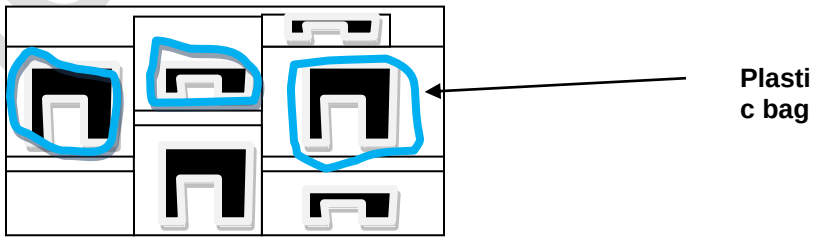
I. A separate wooden crate needs to be used for the shipment of these items

II. There are no labels for these sub-assemblies.

III. The assemblies are to be “oiled” like the parts, each wrapped in protective wrap, AND placed in a **plastic bag** and closed to form a air tight seal

IV. Each subassembly MUST be separated by use of a WOODEN barrier. This needs to occur to insure no damage happens to the assemblies during transport

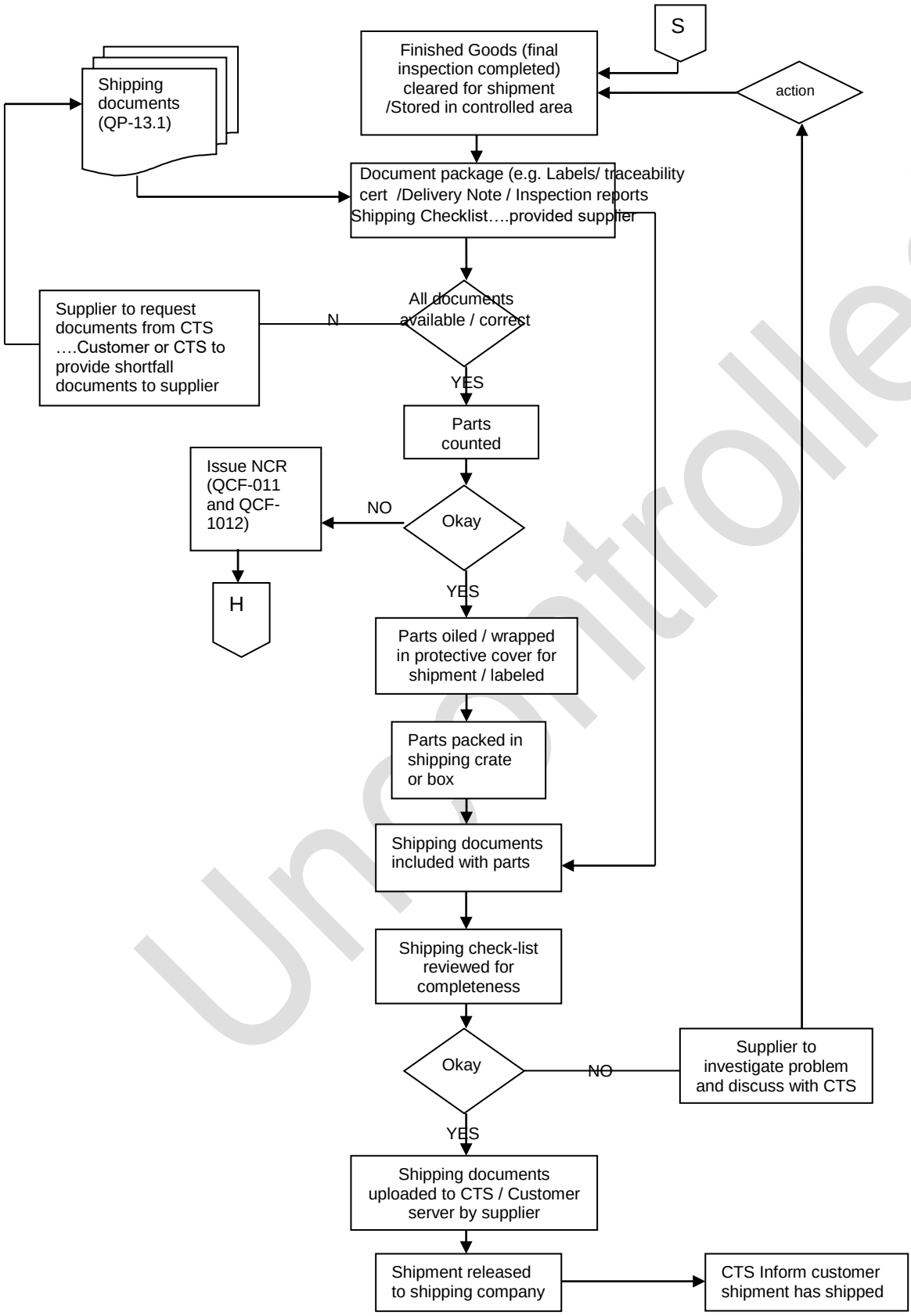
V. A photograph of each assemble must be taken and provided to me <u>before</u> it is packaged for shipment



13.8.2.4 Vacuum Packaging

I. CTS will offer our customers extra protection (vacuum packaging) of shipped goods, especially those shipped by sea, upon their request.

PACKAGING AND SHIPPING PROCEDURES



QUALITY PROCEDURE

NEW SUPPLIERS AND SUB-SUPPLIERS

QP –13.9

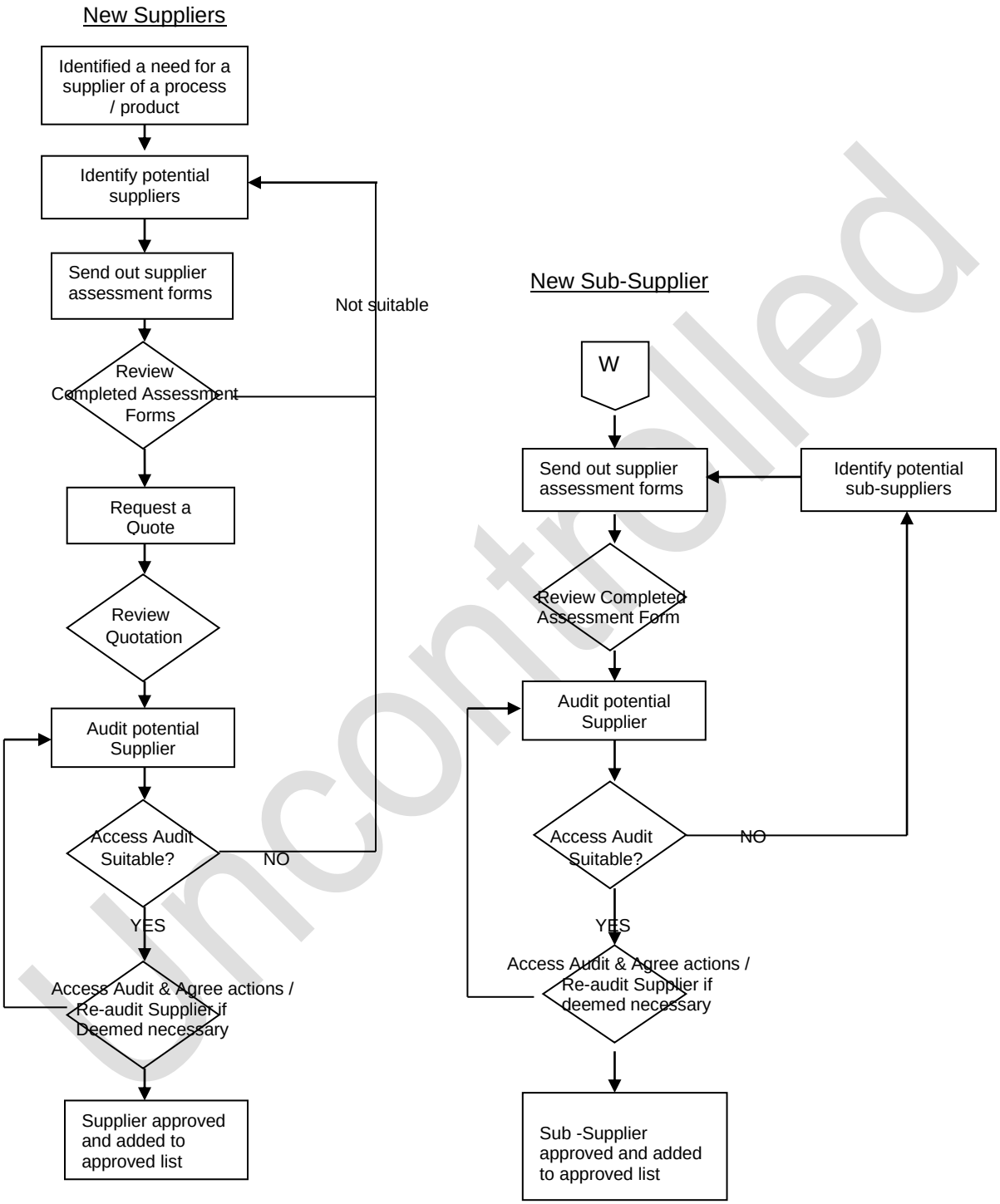
Issue No.3

Reviewed and Approved by: J. Carline

Date: January 24, 2013

Amended Date: Feb 24, 2016

NEW SUPPLIER AND SUB-SUPPLIER PROCESS



QUALITY PROCEDURE

SUPPLIER AUDITS

QP –13.10

Issue No.3

Reviewed and Approved by: J. Carline

Date: January 24, 2013

Amended Date: Feb 24, 2016

13.10.1 Introduction

This procedure details how supplier audits are performed and managed

13.10.2 Audit Purpose

I. To determine if the Quality Management System and the relevant procedures are being followed in a correct manner

II. Identify problem areas or weaknesses that might exist

13.10.3 Audit Responsibility

A representative of the CTS Management Team is responsible for arranging and conducting supplier audits.

A representative of the CTS Management Team is responsible to ensure that any identified non-conformance is addressed via a correction action

13.10.4 Audit Process

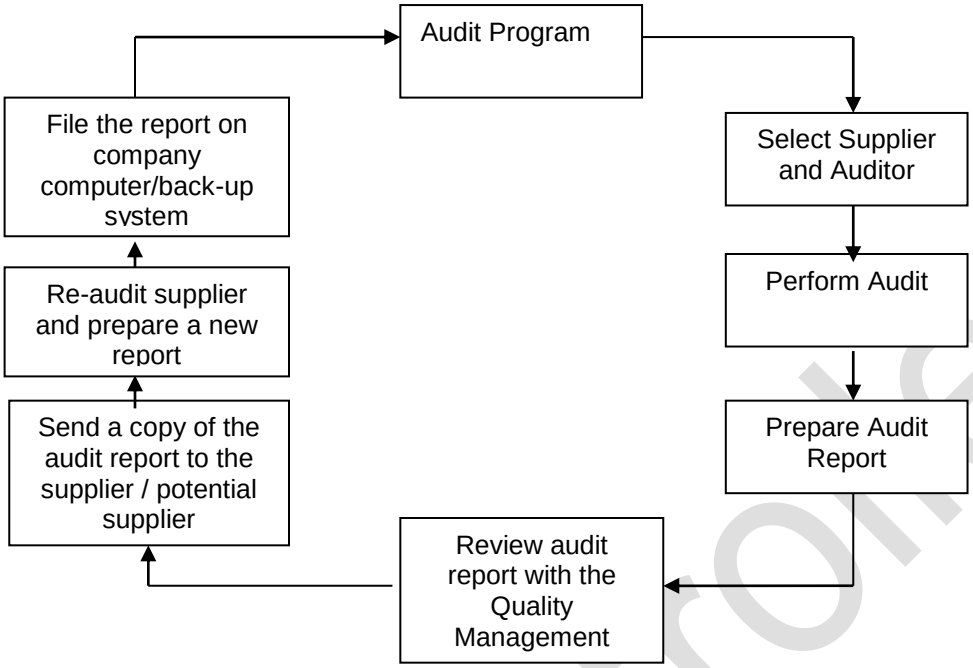
The representative of the CTS Management Team will create and maintain an audit program for auditing both existing and potential suppliers. This audit program will be kept on the CTS computer/back-up system (DROPBOX), and will be updated, as necessary, with updates so noted.

Supplier on-site Audits are conducted at least once a year, and if warranted more than yearly. An on-site audit schedule will be established at the beginning of each year and the shared with existing suppliers. Audit of potential suppliers will occur as required to establish their suitability as a supplier to the company

Supplier audit report (QCF-015) is to be used for the audit of existing suppliers. Supplier audit report (QCF-015) is to be used for the audit of potential suppliers. All supplier audit reports will be scanned and filed on the company's computer system/back-up system within 7 days of the physical audit. The audit reports are to be shared with existing suppliers / potential suppliers within 14 days of the physical audit date

Suppliers / Potential suppliers need to provide verification that all non conformances have been addressed within 30 days of being supplied copies of the supplier audit report

AUDIT PROCESS



QUALITY PROCEDURE

DOCUMENT CONTROL

QP –13.11

Issue No.3

Reviewed and Approved by: J. Carline

Date: January 24, 2013

Amended Date: Feb 24, 2016