Supplier Quality Requirements

INTRODUCTION

Welcome to Century

Century Inc., (Century) and its divisions Century Specialties and Century Sun specializes in precision machining, metal heat treating, and automated welding.

Purpose

In today's manufacturing environment, product that is found to be non-conforming at receiving, or during production, causes serious disruptions of the production and shipping schedules, resulting in high production costs. Even the best Receiving Inspection program cannot detect all defective material. Century requires suppliers to control the quality of services and material shipped to Century Inc.

This manual describes Century Inc.'s expectations for its suppliers in order to ensure that purchased material and services meets Century requirements. If there are any exceptions, supplier shall provide in writing the request to deviate or exclude the appropriate section.

Scope

This information applies to all suppliers who have an interest in doing business with Century Inc., and its divisions. It also applies to Century's outsourced partners or subsidiaries.

Century Inc.'s Quality Policy

Our Mission:

Dedicated to customer satisfaction

the first time and every time

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1. Quality Management System Requirements

Each Century supplier is required to maintain an effective quality management system, preferably one that conforms to ISO 9001 Quality Management System (QMS) – Requirements. The QMS shall be robust enough to ensure product conformity, adequate training and competence, and proper notification of nonconforming material.

If the supplier is processing or servicing aerospace product, suppliers QMS shall meet the requirements of AS9100, prevent the use counterfeit parts or materials, and shall ensure that persons within the supplier's organization are aware of:

- Their contribution to product or service conformity;
- Their contribution to product safety;
- The importance of ethical behavior.

In addition, the supplier must meet all other requirements of this manual.

1.1 Quality Manual and Procedures

The supplier, as requested, will provide a copy of the supplier's Quality Manual and supporting procedures. This includes detailed documents and work instructions specific to production of material for Century.

1.2 Control of Sub-tier Suppliers

Suppliers are responsible for the quality of materials and components provided by their sub-tier suppliers and sub-contractors. Century suppliers must impose controls on their sub-tier suppliers that provide quality results and documentation comparable to the controls applied to suppliers by Century. The extent of the controls may vary, depending on the nature and complexity of the product and processes, but should normally include:

- Evaluation and qualification of sub-tier supplier facilities
- Control to ensure that raw materials used meet Century's requirements
- Controls to ensure that the sub-tier suppliers used are those approved by Century or Century's customers where applicable.
- Part qualification, including first article inspection and process capability studies of as applicable.
- Control of drawings/revisions
- Control of nonconforming material
- Corrective action process
- Risk mitigation process

Where appropriate, Century may specify the sub-tier suppliers that may be used, evaluate and qualify the sub-tier supplier's facilities, and assist the supplier in controlling the sub-tier supplier. Typically, this occurs when the sub-tier supplier is an essential component of the supply-chain process. *Century reserves the prerogative to evaluate the quality system and records of such sub-tier suppliers as necessary. In the event of Century's involvement, it does not absolve suppliers of the ultimate responsibility for the quality performance of their sub-tier suppliers.*

2.0 Supplier Qualification Process

All suppliers of production materials and services to Century must be qualified suppliers. The extent of the qualification process is dependent upon the criticality of product purchased and other factors determined by Century. The qualification process may include:

- A quality management system self-assessment completed by the supplier, using the Century supplier assessment survey form.
- An on-site assessment by Century personnel or their authorized agents.
- Designated approved by Century's customer.

2.1 New Supplier Self Assessment

When a new supplier is being considered, they are sent a quality management system self-assessment survey form. The supplier completes the self-assessment and returns it along with any requested supporting documents.

If any issues are found, Century will work with supplier to help meet needed requirements.

2.2 On-Site Assessment

For suppliers of critical components, an on-site assessment of the supplier's facility may be performed. The on-site assessment may include the following components:

- A quality assessment to determine whether the supplier's quality management system is in place and functioning effectively.
- A business assessment to determine whether the supplier has financial resources, production capacity, and other business resources needed to fulfill Century's production needs.

2.3 Periodic Reevaluation- Right of access

Century periodically reevaluates current production suppliers through the use of performance data, on-time delivery and/or on-site assessments. If requested, the supplier shall make their facility available for on-site process verification by Century personnel, with reasonable notice.

Periodically, Century may audit the supplier's quality management system. The supplier must make their facility available for on-site process verification by Century personnel at any time, with reasonable notice. This may be a full or abbreviated documentation and on-site audit. The purpose is to evaluate any changes that may have occurred in the supplier's quality management system, and to assess the supplier's continuing commitment to quality improvement.

The supplier shall allow Century the right of access by the organization, their customer, and regulatory authorities to the applicable areas of the facilities and to applicable documented information, at any level of the supply change.

3.0 Part Qualification

The supplier is responsible for submitting all First Article data requested.Century and the supplier will agree on the number of the samples to be checked and submitted with the first article data. Where possible, all First Article documents should be submitted in electronic format (preferably Adobe Acrobat or Microsoft Office).

In some cases Century personnel may wish to be present during the initial production run. This will allow Century to validate and verify the process before any product is shipped.

3.1 Dimensional Inspection/ Process Test Report

When deemed necessary Century will notify the supplier of the quantity of parts to be inspected. The supplier inspects or tests each sample for all dimensions, drawing notes, and specification requirements listed on the current revision of the Century drawing and/or specification. The supplier records the results on the First Article Report form or equivalent.

The dimensional inspection/ process test report must include the specification number, specified requirements, and the inspection/test results. Each report must be traceable to the supplier's material, through lot/heat/coil/batch numbers or equivalent, and must be signed by the organization that performed the testing. For any requirements that the supplier does not have the equipment to inspect or test, the supplier may obtain reports from their sub-supplier or other test agency.

The minimum quantity for the production run is agreed upon between the supplier and Century. The parts must be produced under volume-production conditions, including material, machines, tooling, processing parameters, cycle times, etc. Any exceptions to the volume-production conditions must be approved in writing by Century and included in the data package submitted to Century.

3.2 Certificate of compliance

When requested, the supplier must provide a certification of compliance. As determined by Century the certification may include the specification number, specified material and/or physical requirements, the inspection/test results, and a statement of pass or fail. Each report must be traceable to the supplier's material, and must be signed by the organization that performed the testing.

3.3 Control Plan

When requested, the supplier must develop a control plan, and submit it for approval. The control plan and is a detailed description of the supplier's proposed processing steps required to produce the part, and the controls that are put into place to control the quality at each step. The control plan must include all in-house processing, external processing, inspection, packaging, and shipping. Suppliers may use their own format. Measuring devices and fixtures designed and built to check Century's parts must be identified with a gage number and must be listed on the control plan if part specific.

The control plan must include all critical characteristics. Where detailed instructions are required, the supplier details those instructions in a work instruction, or equivalent, which must be listed in the control plan. Inspection methods, sample sizes, and sampling frequencies should be based on the process capabilities, seriousness and likelihood of potential non-conformances, and process stability. Critical characteristics must be inspected 100%, unless otherwise approved.

3.4 Record Retention

Supplier shall retain all applicable records pertaining to processing Century material for a minimum of 10 years for non-Aerospace product. Aerospace product records must be retained per Century's customer's requirement. Contact Century for specific requirements.

Century shall be notified prior to disposal of any aerospace records pertaining to processing Century material and given the option to take ownership of records.

4.0 Manufacturing Control

Century suppliers are required to control all manufacturing processes in accordance with the control plan, which is approved during part qualification.

Once control plan has been established as Frozen it may not be deviated without approval from Century's quality department.

4.1 Rework of nonconforming product

Rework on nonconforming product to bring product back to within requirements of Frozen or PPAP process is prohibited without written consent from Century unless it has been developed into approved control plan.

4.2 Traceability

The supplier must plan for traceability of product at all times while product is in their control. Suppliers must maintain a method of identifying product in process.
When product marking traceability is specified, the traceability marking requirements shall be flowed down from Century to the supplier.

4.3 Workmanship

When workmanship standards are not referenced on drawings or specifications, the supplier is expected to follow industry-accepted standards (e.g. ANSI, IPC). When in doubt, consult with Century for clarification.

4.4 Safety

At no time should any customer, or person at a Century facility, be exposed to hazardous material or situations that are not inherent in a component's structure. Residues, films, out-gassing products and packaging materials should comply with OSHA (Occupational Safety & Health Association) standards. For items with inherent hazards, safety notices must be clearly observable.

5.0 Drawings/Specification Changes

5.1 Drawing/Specification and Change Control

The supplier must have a documented system for assuring that the latest Century drawings and specifications are in effect at their facility. The supplier's quality management system must contain a documented procedure that describes the method used for the receipt, review, distribution, and implementation of all changes to drawings and specifications. In addition, the procedure must address control of obsolete drawings and specifications. A documented procedure should also detail the method used to contain new or modified parts until approved by the customer.

5.2 Process Changes, Engineering Changes

Suppliers must have systems in place to control changes to drawings, specifications, processes, or produced parts. Systems should be capable of handling changes being requested by the customer, and also changes requested by the supplier.

NOTE: The First Article approval process is directed at a given part number for a specified revision level produced in a specific area of the manufacturer's facility. **Suppliers may not make any changes in their process, location, critical suppliers, material, or to the part without written approval from Century.** The supplier must formally request a process change on all Century components.

5.3 Supplier Deviation Request

A supplier is never permitted to knowingly ship product that deviates from the print, specification limits, or design intent without written authorization from Century. If such a condition exists, the supplier may request Century to allow shipment of the product. This is accomplished by initiating a Deviation Request. Method of request must be in writing (e.g. email, form, letter).

If directed by Century, the supplier must send samples of non-conforming items to Century for evaluation. The cost of any testing required to determine the acceptability of the product will be charged to the supplier. Century will determine the item's acceptability and if corrective actions are required beyond the deviation. If approved, Century will send a written deviation approval to the supplier.

The deviation is only intended to be an interim action and **is not** to be construed as an engineering change. The supplier must begin work immediately to correct the condition in question. This must be accomplished within the time frame stated on the deviation. Failure to comply with the mutually agreed upon closure date for the deviation may result in the supplier's rating being affected.

In all cases, the supplier must fully contain all product suspected of being non-conforming at their facility.

Any parts sent to Century that have been approved on a Deviation must be clearly identified on the box, container, or other packaging method with the appropriate markings decided jointly by Century and the supplier.

6.0 Packaging & Labeling

6.1 Packaging

Each supplier must adequately plan for packaging. Century encourages supplier-initiated packaging improvements. Suppliers will provide packaging that provides protection from any damage that may occur. Packaging, labeling, and shipping materials must comply with the requirements of common carriers, in a manner to secure the lowest transportation costs.

Whenever possible, only one part number and one supplier lot is to be packaged in a shipping container. When more than one part number or lot number is packaged in a shipping container, each part number and/or lot number must be separately packaged (i.e. bags or boxes) inside the container, with each labeled as to the contents.

6.2 Labeling

Each shipping container or inside package must contain the following information:

- Century part number (if no Century number exists, supplier part number is used)
- Quantity
- Supplier's Name
- Purchase Order Number
- Lot identification (if required)
- **Any Century or Century customer designation such as Critical Part or Flight safety part.**

7.0 Corrective Action System and Supplier Monitoring

7.1 Corrective Action System

Century requires suppliers to utilize a closed-loop corrective action system when problems are encountered in their manufacturing facility, or after nonconforming product has been shipped to Century.

Century issues a Corrective Action Request (CAR) to a supplier when non-conforming parts are found, or found by a Century customer. They can also be issued as a result of a supplier audit. Corrective Action Report may be in either Century's format or suppliers

The following provides a brief outline of the CAR procedure that suppliers to Century should comply with:

- Century requires that the supplier take immediate containment action upon notification of the nonconformance. The supplier must submit a written response to Century, reporting the Supplier's initial observation and defining the interim containment plan within 48 hours of notification.

- The containment plan must clearly define the containment actions at the supplier's facility to assure that no nonconforming product is shipped to Century. If suspect product has already been shipped, the supplier must address all suspect stock in transit and any stock at Century. The supplier will assist Century in identifying customer risk by identifying all suspect lot numbers and associated quantities involved.

- Within 2 weeks after the original notification, the supplier must report the results of the Supplier's investigation into the cause of the problem.

- Within 3 weeks from the initial notification date, the supplier must submit the corrective action to be taken to prevent recurrence of the problem, and the effectivity date (the date the corrective action will be implemented.).

- The supplier is required to keep Century informed of progress towards implementing the corrective action. When corrective action implementation is complete, the supplier will verify that the corrective action is effective in preventing the problem's recurrence.

DOCUMENT REVISION HISTORY

Document No.	Rev	By	Date	Approval	Description of Revision(s)
QP 7.1.5	0	NM	3/25/18	MB	New document.