

Quality Plus +

Addendum to TS16949

Introduction

Westbrook Mfg. Inc. (hereafter referred to as "*Westbrook*") Purchasing group is the supplier's first line of communication and permission granting authority whenever components or services are contracted and are provided to *Westbrook*. *Westbrook* Purchasing coordinates supplier information and provides the appropriate *Westbrook* support activity to the supplier, while relying upon the supplier's expertise with regard to manufacturing and quality of the product.

The Supplier Quality Activity (SQA) within *Westbrook*, Purchasing and Quality Assurance; administers the supplier quality requirements and is the supplier's primary source for product quality related issues.

Suppliers are expected to meet the requirements of ISO-9000:2000 or TS16949:2002, and the requirements stated herein. These requirements are in addition to, and do not replace or supersede any of the purchase order, engineering drawing or specification requirements, or relieve the supplier of exercising independent expertise and skill in providing products and services to *Westbrook*.

While various *Westbrook* activities will assist in establishing quality requirements and improving quality, the **responsibility for supplier quality remains with the supplier**.

Purpose

This quality requirement addendum is intended to communicate uniform quality requirements which *Westbrook* expects of all suppliers. It provides general instruction and outlines procedures which are to be followed in order to become an **approved**, and ultimately, a "**Dock to Stock**" certified supplier.

Scope

This Quality Plus addendum to TS16949, applies to all production intent products and services procured by *Westbrook* whether in a raw or finished state. This program is a *Westbrook* specific requirement, not outlined in the ISO/TS16949 standards.

It shall be the supplier's responsibility to implement and maintain a documented Quality System and any additional controls deemed necessary to ensure conforming product is supplied to *Westbrook* as contracted.

Reference Documents

Quality System Requirements (ISO-9000, QS-9000, TS16949), AIAG Quality System Assessment (QSA), AIAG Advanced Product Quality Planning & Control Plan (APQP), AIAG Measurement Systems Analysis Manual (MSA), AIAG Statistical Process Control Manual (SPC), AIAG Potential Failure Mode and Effects Analysis (FMEA), AIAG Production Part Approval Process (PPAP).

Quality Plus +

Addendum to TS16949

Supplier Quality System Requirements and Assessment

Suppliers are selected and approved by *Westbrook* on a supplier manufacturing location by location basis (i.e., approval of one supplier facility does not constitute approval of any other facility).

Westbrook recognizes the ISO-9000 standard, AIAG QS-9000 standard, or TS16949 as the supplier's quality system requirement. *Westbrook* requires suppliers to implement and maintain quality systems in conformance with one of the three standards. *Westbrook* also recognizes the AIAG QS-9000 supplemental standards for specialized industries.

If, at any time, a supplier's ISO-9000, QS-9000, or TS16949 registration is allowed to expire, or is rescinded by the registrar, *Westbrook* SQA must be notified within five (5) business days.

The TS16949, QS-9000, and QSA standards and supplements are available directly from the AIAG.

Notification of Quality Concerns

Westbrook requires suppliers to formally notify *Westbrook* Purchasing and Quality Assurance of any quality concerns within 24 hours of discovery **without exception**.

This applies to all quality concerns identified by suppliers for which product shipped is suspect. If exposure has not been determined within 24 hours of discovery and product shipped to *Westbrook* has not been proven to be void of the concern, notification is required.

Suppliers must present the concern in detail, the exposure of the concern (i.e., what lot number(s) is/are affected), and the containment and corrective action plan. Documentation is via the Non Conformance Report (**NCR**) (see Appendix 1).

Rework

Rework consists of any actions to the product that are not part of the basic production process. For certain commodities, unique terminology exists ("reformulation" for chemical processes, "repair" for electronics) which describes synonymous concepts to rework. Since any action to salvage a product which does not originally meet customer requirements is both a source of variation and inherently costly, *Westbrook's* goal is to eliminate such actions.

When rework is necessary as an isolated measure, the supplier must develop written procedures. These procedures must provide for additional inspection and testing after rework to ensure conformance to *Westbrook* specifications prior to shipment or further processing.

In all cases, rework must be approved in advance using a *Westbrook* Request for Engineering Change/Deviation form. The form must be submitted with all rework procedures, control plans and technical justifications.

Quality Plus +

Addendum to TS16949

For certain commodities (i.e., electronics assembly) where on-line repair is part of the manufacturing process, disposition of such activities will be made by *Westbrook* SQA as part of the PPAP process. As such, all PPAP documentation must reflect on-line repair procedures and controls.

Returned Product Analysis

The supplier is required to analyze all nonconforming product returned from *Westbrook*, its customers, engineering tests and vehicles in the field when supplied components are suspect or defective. Records of the results of these analyses must be submitted to *Westbrook* upon completion. Only the actual number defective will affect the supplier's PPM rating.

Supplier Control of Subcontractors

- I. Suppliers to *Westbrook* shall select subcontractors on the basis of their ability to meet subcontract requirements, including *Westbrook* quality requirements defined herein.
- II. The *Westbrook* supplier shall subcontract business with ISO 9001/9000:2000 ,QS9000:1998, or TS16949 : 2002 registered suppliers.
- III. The *Westbrook* supplier shall ensure that subcontractor quality system controls are effective and meet *Westbrook* **Quality Plus** requirements. The supplier must be prepared to show documented evidence of subcontractor quality levels at the request of *Westbrook*, and also provide *Westbrook* access to subcontractor facilities and records if requested at any time.
- IV. The *Westbrook* supplier is fully responsible for the quality and merchantability of goods and/or services subcontracted. *Westbrook's* recommendation or stipulation of a subcontractor shall in no way relieve the *Westbrook* supplier of full responsibility for ensuring such subcontractor meets all *Westbrook* requirements.

Process Changes

Westbrook encourages process improvements to enhance quality and reduce cost. However, **any changes in process (as defined below) require Westbrook approval prior to implementation at the supplier location.**

The first step in gaining approval is to contact *Westbrook* SQA and submit a change proposal, via the Engineering Change/Deviation form; describing the proposed change and, the proposed PPAP plan for validation and approval of the change. This plan shall include a timing chart detailing phase in/out and associated tasks and timing to prevent supply shortages. This proposal will be reviewed by *Westbrook* Purchasing, SQA and Engineering. Approval to proceed with the validation process will be given, or additional validation requirements will be discussed and agreed to by the parties.

The next step is to successfully complete the validation process as agreed and submit a PPAP package to *Westbrook* SQA. In certain cases, *Westbrook* may require product testing and/or be required to gain approval from the customer(s).

Quality Plus +

Addendum to TS16949

Once this process is completed to *Westbrook's* requirements, the PPAP will be approved and the supplier may begin production incorporating the change.

"Process Change" Defined:

- I. Use of another optional construction or material than was used in the PPAP approved part.
- II. Production from new or modified tools (except perishable tools), dies, molds, patterns, etc., including additional or replacement tooling. General tool maintenance/preventive maintenance is not to be considered a process change, but shall be controlled and validated by the supplier to prevent non conforming product from being produced.
- III. Production following refurbishment of existing tooling or equipment.
- IV. Production following any change in process or method of manufacture, including process controls, from the originally PPAP approved.
- V. Production from tooling and equipment transferred to a different plant location or from an additional plant location. In addition, production from tooling relocated or rearranged within an existing plant location.
- VI. Change of source for subcontracted parts, materials or services (i.e., heat treating, plating, etc.).

Important Note:

Suppliers must receive written PPAP approval from *Westbrook* SQA prior to shipping product produced incorporating a change as defined above. When there is doubt regarding approval requirements of a change, contact *Westbrook* SQA for assistance. Failure to obtain change approval

in advance of shipment will result in product rejection and financial liability for any affected *Westbrook* raw, work-in-process and finished goods inventory.

Request for Engineering Change or Deviation

Westbrook requires suppliers to ship product, which conforms to 100% of the engineering drawing requirements and referenced specifications. Additionally, *Westbrook* requires that the manufacturing process to remain consistent with that utilized to produce the PPAP approved product. If, at any time, a supplier wishes to produce and ship product which does not conform to *Westbrook's* drawings and referenced specifications, or is produced from a "changed" process, *Westbrook* approval is required in advance of shipment via the Request for Engineering Change/Deviation form (see appendix). Verbal direction, discussions and/or approvals from *Westbrook* are not valid without a fully approved Request for Engineering Change/Deviation form.

Quality Plus +

Addendum to TS16949

Important Note:

The supplier shall complete the Request for Engineering Change/Deviation form as indicated in Appendix and forward it to *Westbrook* SQA for processing. Sufficient detail, supporting data, Corrective actions, etc. shall be included to facilitate the approval process. The supplier may be requested to submit additional information prior to approval, as determined by the approving parties at *Westbrook*.

Submission of a Request for Engineering Change/Deviation form does not constitute approval to ship. **Receipt of a fully signed and numbered Request for Engineering Change/Deviation form and a signed Warrant is approval to ship.**

The lack of approval is not an acceptable excuse for failing to meet *Westbrook* shipment releases. If the approval may affect the supplier's ability to ship product on time per *Westbrook* releases, the issue must immediately be brought to the attention of *Westbrook* Quality, Purchasing, and Material Control.

Corrective Action

It is a requirement of ISO-9000, QS-9000, and TS16949; that suppliers maintain a system for corrective action of quality concerns. This system must include a multi-disciplined problem solving methodology (i.e., 5 phase, 8D, etc.) and follow-up of corrective action implementation and effectiveness. A recommended problem solving format is included (see Appendix).

Any supplier quality issues detected at *Westbrook*, and *Westbrook* customer locations, will be formally directed to the appropriate supplier contact via our NCR (Non Conformance Report) program. The required supplier response is as follows:

Within 1 Business Day of Notification:

Initial response due to *Westbrook* SQA detailing the following:

Containment actions (at supplier and *Westbrook*) (see Note 1) Suspect inventory, lot numbers, etc. and Return Authorization Number.

Within 10 Business Days of Notification:

Completed corrective action plan due to *Westbrook* SQA detailing the following:

Initial response information, Root Cause, Permanent Corrective Action(s) taken with completion dates (see Note 2), Verification of Permanent Corrective Action(s) taken (Note 2), Recurrence Prevention Plan (see Note 2 & Note 3).

Note 1 - Defect containment by the supplier at *Westbrook* locations is expected within 24 hours (i.e., on-site sorting) when required. This is to be coordinated with *Westbrook Quality*

Quality Plus +

Addendum to TS16949

Assurance. Any and all sort/rework activities conducted by *Westbrook* in order to meet production schedules will be charged to the Supplier at a rate of **\$55.00** per man hour.

Supplier quality ratings are computed by returned parts per million/shipped ratios. Suppliers who do not support on-site containment will be subjected to the full lot quantity returned, as opposed to the actual number of defects, in the computation of the PPM rating.

Note 2 - Any issues, which make on site sorting impractical may be discussed with *Westbrook* SQA and alternate actions taken. Replacement material requirements are to be coordinated with the Material Control department.

All certified material must be identified by a mutually agreed upon method on/by each shipping label on each carton. This must continue until permanent corrective action has been implemented and approved by *Westbrook* SQA.

Note 3 - If it is not possible to implement and verify permanent corrective actions within ten (10) business days, *Westbrook* SQA must receive, by this date, the supplier's plan to permanently resolve the issue with all associated task completion dates and responsible persons documented. Completed corrective action plans, with actual task completion dates, must be submitted to *Westbrook* SQA as agreed between the supplier and SQA.

Westbrook SQA will review and approve closure of all "NCR's". *Westbrook* SQA reserves the right to require additional controls be implemented and/or additional documentation be provided to resolve supplier quality issues.

For suppliers with chronic or repetitive quality issues, a **\$500.00** per occurrence fee will be assessed automatically. *Westbrook* SQA reserves the right to impose additional containment measures (at supplier expense) to ensure conforming product is received at *Westbrook*:

Level 1 Containment:

The supplier is required to perform a 100% certification of all products prior to shipment through an additional, off-line inspection process. This measure would be in addition to any existing controls and containment measures previously implemented. This level is imposed on suppliers who have failed to contain or correct quality issues through the NCR program.

Level 2 Containment:

The supplier is required to subcontract with a product certification contractor to independently 100% certify all products prior to shipment to *Westbrook*. This level is imposed on suppliers who fail to contain or correct quality issues through the Level 1 Containment program.

Suppliers that are required to implement either Level 1 or 2 Containment will be notified by *Westbrook* SQA. These additional containment measures are intended to be interim steps to ensure conforming product is shipped to *Westbrook*. Permanent actions to prevent recurrence are expected to be implemented in conjunction with these containment programs. Once permanent

Quality Plus +

Addendum to TS16949

actions are implemented and verified effective through data collection, containment may cease with the approval of *Westbrook* SQA.

In addition, *Westbrook* reserves the right to notify third party ISO/TS16949 registrars of quality system failure if open quality issues are not resolved by this time. The supplier will be notified prior to this action being taken and sufficient time will be allowed to resolve all issues in advance of registrar notification.

Supplier Development Program

The Supplier Quality Development Program is intended to heighten the awareness of *Westbrook's* supply base to quality performance. Additionally, to focus the quality improvement efforts of *Westbrook's* suppliers toward a shared objective with the company.

A specific criterion for supplier selection purposely does not exist to allow *Westbrook* management the flexibility to address issues, which have the greatest impact on the organization. The following guidelines do apply:

- Highest monthly DPPM
- Chronic monthly DPPM activity
- Negatively trending DPPM activity
- Quality spills causing significant impact to the production operations and/ or *Westbrook* customers.

Westbrook Quality Assurance will initiate development meetings at *Westbrook* or the suppliers' location for suppliers with significant quality issues, chronic quality issues or negatively trending quality performance. At these meetings, suppliers will be required to present corrective action plans to *Westbrook* QA, Purchasing and Engineering. The presence of a Quality Manager, Plant Manager, and in extreme cases, the President, will be required at these meetings.