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# BRAY INTERNATIONAL INC. SUPPLIER QUALITY ASSURANCE MANUAL

REVISION 00



Prepared by: Mario Prudencio, Global QA Manager

Reviewed by: Adrienne Darden, Global Supply Chain Process Manager

Approved by: Lori Smith, Director of Global Quality Assurance

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## 1 Definitions

**Approved Supplier:** Supplier who has been evaluated by Bray and has been determined to meet the requirements to be able to provide a product or service to the Company.

**Audit:** The on-site verification activity, such as inspection or examination, of a process or quality system, to ensure compliance to requirements. An audit can apply to an entire organization or might be specific to a function, process, or production step. Some audits have special administrative purposes, such as auditing documents, risk, or performance, or following up on completed corrective actions.

**Bray Buyer:** Procurement personnel responsible for placing order with suppliers for products or services used in the manufacturing and operations of the Company.

**Cost of Poor Quality:** Costs associated with providing poor quality products or services consisting of internal and external failure costs.

**Cost of Quality:** Is defined as a methodology used to define and measure the extent to which its resources are used for prevention & appraisal activities and also cost of poor quality: internal and external failures.

**First Sample:** Representative samples of product that will be produced in the production environment. See Sample Approval Process.

**In-Process Inspection:** Inspection used for recording the result for an in-process quality check for the intermediate and finished component during the production process.

**New Business Hold:** Term applied when a supplier that is currently on the approved supplier list is not being considered for new business of products/services.

**Obsolete Product:** Product that is at the end of its product life cycle (no longer sold or supported by the Company.)

**Quality Management System:** A quality management system (QMS) is defined as a formalized system that documents processes, procedures, and responsibilities for achieving quality policies and objectives. A QMS helps coordinate and direct an organization's activities to meet customer and regulatory requirements and improve its effectiveness and efficiency on a continuous basis.

**Root Cause:** A factor that caused a nonconformance and should be permanently eliminated through process improvement. The root cause is the core issue—the highest-level cause—that sets in motion the entire cause-and-effect reaction that ultimately leads to the problem(s). An identified reason for the presence of a defect or problem. The most basic reason, which if eliminated, would prevent recurrence.

**Sample Approval Process:** A process to review and approve the submission of production sample(s), tests and reports. It is representative of the manufacturing process, requirements and made with production tooling to the order specifications. Commonly referred to as “first sample” or SAL. The purpose is to:

1. Ensure that a supplier can meet the manufacturability and quality requirements of the parts supplied to the Bray.
2. Provide evidence that the Bray engineering design record and specification requirements are clearly understood and fulfilled by the supplier
3. Demonstrate that the established manufacturing process has the potential to produce the part that consistently meets all requirements during the actual production run at the quoted production rate of the manufacturing process.

**Source Inspection:** Inspection of purchased products and/or process records at the supplier's premises to verify compliance with requirements before shipment to the Bray or the client.

**Supplier:** An organization that provides a product or service.

**Supplier Performance Monitoring System:** A business practice that is used to measure, analyze, and manage the performance of a supplier to reduce risk and drive continuous improvement.

## 2 Introduction

### 2.1 Bray International Company Overview

Bray International, Inc. together with its subsidiaries, divisions and branches (collectively, “Bray”) is a premier manufacturer of flow control and automation products and related accessories in the world with over 30 years of continued success and global operations in over 40 countries.

Bray’s vision is to become the most respected and successful valve, actuator, and controls company globally, with our greatest assets being our employees and customers.

Bray is recognized throughout the world for its commitment to high quality product lines and personalized customer service. Bray’s extensive product portfolio includes high quality brand names such as Bray Controls, Flow-Tek, Tri Lok, Amresist and Bray-Rite.

### 2.2 Division Breakdown

Bray has four (4) global manufacturing/machining/assembly/test facilities, all are ISO 9001-2015 Certified and PED/CE Approved, located in Houston, TX, Hangzhou, China, Quebec, Canada and Chennai, India. Bray also has other global assembly/test facilities in, among others, the United Kingdom, Canada, Brazil, Argentina, Malaysia, Australia, South Africa. In addition, Bray has a global network of sales/support offices both owned by Bray and independent distributors in over 40 countries. Each location is locally/regionally managed with a reporting structure to the parent entity, Bray International, Inc. As a Supplier, you may deal with your local or with multiple Bray locations, depending on individual agreements.

### 2.3 Quality Policy

By performing and monitoring Bray's activities as specified within Bray's documented Quality Management System, Bray strives to continue to improve our products, processes and services, in compliance with applicable statutory and regulatory requirements while also meeting or exceeding our customer's expectations.

## 3 Purpose

This Supplier Quality Manual (this "Manual") serves as a guideline between Bray and its Suppliers. The primary purpose is to describe the responsibilities, expectations, and understandings required to establish a mutual working relationship with our Suppliers, both current and new. This Manual is intended to serve as guidance for Bray's requirements and each of our Supplier's role in the shared responsibility to deliver the highest quality.

## 4 Objectives

Bray and its Suppliers expect to achieve the following objectives by observing the guidelines in this Manual:

- 100% defect-free products or services delivered on time and at a competitive cost
- Continual quality improvements in all aspects of the business
- Early communication of issues and problem prevention
- Compliance with statutory, regulatory, other obligations and Bray policies
- High level of responsiveness

Bray also expects its Suppliers to adhere to approved processes, requirements, pro-actively manage risk, including mitigating against potential risks in the Supplier's business.

## 5 Scope

This Manual is applicable to all Bray Suppliers of purchased materials, parts, and services. It outlines the minimum activities and performance requirements of the Supplier's quality management system and delivery of material. It is Bray's intent to partner with Suppliers, including any of their subcontractors, that have demonstrated a commitment to quality, on-time delivery, continuous improvement in the product and/or services provided. Bray intends to develop a desirable and mutually beneficial long-term relationship with our Suppliers.

This Manual:

1. Outlines the process to becoming an Approved Supplier to Bray.
2. Describes tools for continuous improvement necessary to become an Approved Supplier.
3. Addresses Bray's ongoing Supplier Performance Monitoring System.
4. Forms the basis and requirements for any audit conducted by Bray on any of its Supplier's processes and systems.

The Supplier is responsible for reviewing any updates to this Manual and adhering to the requirements.

## 6 Supplier Selection & Assessment Process

### 6.1 Supplier Questionnaire, Supplier Self-Assessment

Potential Suppliers are required to complete the Bray Supplier Self-Assessment Questionnaire and General Business Assessment documentation prior to approval.

The Supplier Self-Assessment Questionnaire seeks to obtain, among other things, general company information, quality certifications, safety and environmental programs, material control and inspection procedures.

The General Business Assessment gathers information pertaining to a Supplier's status as a Small or Large Business and certifications that apply, *i.e.*, Woman Owned Small Business, Minority Owned Large Business, *etc.* Any other forms that may be required, pertinent to the location of business (Country) laws, regulations & statutory requirements (See 5.3).

### 6.2 Non-Disclosure Agreement

As a Supplier to Bray, the Supplier must sign a Non-Disclosure Agreement. Pursuant thereto, the Supplier understands and agrees to hold in strict confidence all confidential, intellectual, proprietary and any other pertinent information described in the agreement, that is disclosed as a course of business with Bray.

### 6.3 Supplier Approval Packet

Potential new Suppliers shall complete and submit back to Bray, a packet that consists of the following:

1. Supplier Self-Assessment Questionnaire
2. Non-Disclosure Agreement
3. Code of Conduct
4. General Business Assessment\*\*
5. W-9\*\*

**\*\* Note:** #4 and #5 are required in the USA only, Internationally, documents may be substituted for those required for the Country in which Bray Subsidiary & the Supplier operates.

### 6.4 Supplier Evaluation

Upon submission of documentation in the Supplier Approval Packet, representatives from Bray's Purchasing and Quality Assurance department shall review to determine if the Supplier meets the scope and has the capability to support Bray (*i.e.*, quality programs, pricing targets, ability to support stocking programs, payment terms, on time delivery targets, *etc.*). Once a Supplier is approved, Bray will continue to monitor a Supplier's performance, in accordance with Bray operating procedures and Section 7 of this Manual.

## 7 Supplier Monitoring and Goals

### 7.1 Supplier Scorecard

Bray scores its Suppliers based upon a Supplier Performance Monitoring System detailed below. The Monitoring System will enable Bray to:

- Award new business
- Promote Supplier lead time improvements through performance information feedback
- Establish a baseline for Supplier development and corrective actions
- Identify Suppliers that need Bray assistance
- Identify Suppliers that have earned recognition

The Supplier performance scorecard will show: *(See example Appendix A)*

- Graphical illustration of Supplier Quality (PPM) Graphical illustration of Supplier Delivery (% OTD)
- Graphical Illustration of Quality Score (Quality)
- Graphical illustration of Supplier Responsiveness and overall Supplier Performance Rating

The Supplier performance scorecard may also include additional information including:

- Number of Bray customer disruptions due to Supplier quality or delivery issues
- Number of Supplier technical, value-analysis or value-engineering ideas submitted
- Number of Supplier Corrective Actions Requests (CARs)
- Days late Supplier Corrective Actions Requests (CARs)
- Number of Supplier Nonconformance issues (NCRs)
- Notice of overdue items for Supplier new product introductions
- Other comments

#### 7.1.1 Supplier Quality PPM Measurement

The Rejected Parts per Million Calculation:

Bray will calculate a current month, calendar year PPM and rolling 12-month PPM figure using the following method.

#### PPM Calculation

$$\text{PPM} = \frac{\text{Total Part Quantity Rejected for Period}}{\text{Total Quantity Received for the period}} \times 1,000,000$$

A Supplier rejection can be generated from three possible sources:

- Bray Receiving or In-Process Inspection.
- Bray production facility.
- Bray Customer Return, Complaint or Warranty.



**NOTE:** Only those rejections that are documented via a written deviation, Corrective Action Report or Non-Conformance Report are included in this calculation. If Bray is required to apply significant resources to correct nonconforming material, such as rework, repair, sorting and/or returning material to the Supplier, then the entire lot of material will be considered as rejected in the PPM calculation.

**Supplier Delivery On-Time Delivery (OTD) Measurement**

The On-Time Delivery Window:

- Domestic Supplier: On-Time delivery window of 3 days early up to 0 days late.
- Intercontinental Supplier: On-Time delivery window of 7 days early up to 0 days late.

The measurement applies to each individual Purchase Order Number and due date. This is reported as a percentage of the total number of P. O.'s received within the On-Time Delivery window.

**The On-Time Delivery Calculation:**

Bray will calculate a current month, quarter, calendar year & rolling 6-month OTD figure using the following method. The period is defined as above, month, quarter, rolling 6 month.

If the correct quantity is not delivered within the delivery window, then the OTD measure will reflect this as appropriate.

$$OTD = \frac{\text{Total Number of Deliveries Received ON-TIME by PO within the Period}}{\text{Total Number of Deliveries Expected to be Received by PO's}} \times 100$$

The Supplier is informed of the expected delivery due dates and quantities for each item through a discrete Purchase Order issued by Bray.

A Supplier may deviate from the delivery schedule under the following circumstances:

- A Supplier makes a delivery adjustment request and it is agreed to by the Bray Buyer.

A Supplier can request to change previously fixed delivery quantity/date, provided:

- The request is made in a reasonable time (expectation is within 24 hours of the Purchase Order being issued)
- Bray production is not disrupted in any way; and
- The Bray Buyer agrees with the change

**2. Bray requests a delivery adjustment.**

If Bray requests to adjust a previously fixed delivery, quantity/date, and the Supplier cannot fully meet the requirement, then that delivery schedule may be adjusted and mutually agreed upon to facilitate On-Time Delivery.

**3. Other circumstances which may cause a delivery deviation.**

- i. If the Supplier cannot deliver because of an issue that is mutually agreed to be Bray’s responsibility, then that delivery is NOT included in the calculation. This will be facilitated by the Bray Buyer, i.e., Supplier awaiting a new Bray drawing revision, revision change.
- ii. Premium Freight Shipments:  
Unless requested by Bray, Suppliers are expected to notify their appropriate Bray representative when a shipment must dispatch via premium freight.

**Note:** Only previously approved in writing by Bray, Premium Freight shipments, will be paid by Bray. Bray monitors the shipments received from Suppliers via premium freight. The objective is to reduce the instances of premium freight originating from both Bray and/or Supplier causes.

**Responsiveness**

1. Corrective Action Request (CAR) Status

Bray monitors the status of written Supplier Corrective Action Requests. The status of Supplier Corrective Action Requests will be reflected on the scorecard. Past due CAR’s will reflect in a negative rating for half the responsiveness score in accordance with how many late the CAR’s there are. The following table illustrates the deduction from the Responsiveness score:

CAR LATENESS			
No Late CARS	1 Late CARS	2 Late CARS	3 or more Late CARS
0.05	0.03	0.01	0

- 2. The Bray Buyer will rate the responsiveness of the Supplier on each of the following items:
  - a. Responsiveness to Bray requests
  - b. The ability to accommodate change with little or no impact to schedule and cost
  - c. The amount of Bray oversight required in managing the Supplier

**Additional Scorecard Information**

The following additional information may also be included in the scorecard.

a. Supplier Purchase Price Variance (PPV) Measurement

Bray monitors purchase price and calculates a monthly & calendar year PPV figure based on previous year average price using the following method. The Bray average price is defined as the weighted average price paid in the previous calendar year. PPV will be addressed in the comments section.

The Purchase Price Variance Calculation:

$$PPV \% = \left[ \frac{\text{Current Purchase Price} - \text{Previous Yr. Avg. price}}{\text{Previous Year Avg. Price}} \right] \times 100$$

**Bray and/or Customer Disruptions and Special Status Notifications**

Bray monitors non-conformances that result in Bray and/or customer disruptions and special status notifications related to Supplier quality or delivery issues. A disruption is defined as any rejection or late delivery that:

1. results in a Bray production line-down situation; and/or
2. reaches or potentially affects Bray's end customers.

A special status notification is defined as a notification from a Bray customer requiring implementation of additional quality controls for a defined period. The number of customer disruptions and special status notifications may be reflected on the Supplier Performance Report.

**Supplier-Initiated Improvement Ideas, S3I, (Technical, Value-Analysis / Value-Engineering)**

Bray encourages Suppliers to proactively provide improvement ideas that can improve Supplier product performance and/or reduce costs. Submitted ideas must be evaluated and approved by Bray before implementation. The number of submitted improvement ideas may be reflected on the Supplier Performance Report.

**New Product Introduction Notice (NPIN)**

Bray monitors new or changed product, process, or tooling projects requiring Supplier involvement. If Supplier actions are overdue for an active project, it may be reflected on the Supplier Performance Report.

**Variance Authorization Request**

Variance Authorization Requests may be included in the number of instances. It will help Bray & the Supplier to mutually reduce the number of occurrences by implementing permanent corrective actions to reduce the occurrence.

**Comments**

Bray reviews Supplier scorecards monthly, quarterly, and annually for performance and trends. Bray may communicate additional information or notes to the Supplier in the comments section. Requests for action may be noted in the comments section or communicated directly to the Supplier contact.

**Supplier Performance Rating**

The following three Supplier performance categories are measured to generate the overall Supplier Performance Rating.

- Supplier Quality (PPM) **45 Points**
- Supplier Delivery (% OTD) **45 Points**
- Supplier Responsiveness **10 Points**

**NOTE:** *Supplier performance categories and points ratings may be revised at Bray's discretion to ensure performance expectations are aligned with Bray objectives and current market conditions. The accumulated scores from each Supplier Performance category make up the Supplier Performance Rating.*

## **Supplier Performance Categories and Points Ratings**

### **Supplier Performance Improvement Action Plans**

Regardless of score, positive trends in performance history will give a Supplier increased opportunity to maintain and bid on new business with Bray.

#### Score of 95 or higher – Preferred Supplier & Business Partner

Preferred business partners maintaining an excellent standard of performance have first opportunity to bid on new business with Bray.

#### Score of 90 (or higher) –Supplier and Business Partner

Gives a Supplier increased opportunity to bid on new business with Bray. \*\* Suppliers should strive to maintain 95 or higher and implement its own Corrective Action to achieve highest level.

#### Score of 80-89 –Supplier meets Requirements

Supplier may be considered for new business. Receiving this score may result in a request for a Supplier improvement or corrective action plan. Supplier is expected to implement its own Corrective Action internally to improve performance.

#### Score of 70-79 – Supplier Requiring Improvement

Receiving this score shall result in the Supplier generating an improvement plan or corrective action plan. Improvement/ Corrective action plans shall be reviewed with the Bray representative.

#### Score of 60-69 – Supplier Requires Immediate Improvement \*\*\*

Score is considered unsatisfactory and may put the Supplier at risk of maintaining current business. Receiving this score will result in a more urgent request for a Supplier improvement or corrective action plan. The Supplier is required to submit the improvement/ Corrective Action Plan within 30 days. A meeting may be necessary to review the plan. The Supplier is put on New Business hold until 3-month upward trend in Performance is observed.

#### Score of less than 59 – Supplier Requested to Meet with Bray for Corrective Action Plan Review

\*\*\*

Score is considered highly unsatisfactory and puts the Supplier at risk of maintaining current business. Receiving this score will result in a more urgent request for a Supplier improvement or corrective action plan. Certified shipments for defects may be required by the Supplier until the

issue is solved. The Supplier is put on new business hold a minimum score of until 3-month upward trend in Performance is observed.

**NOTE:**

*\*\* In general, a score of 80 is considered as the minimum acceptable level. Within different areas of the business our customers' expectations far exceed this threshold as a result Supplier targets maybe adjusted to achieve the overall business needs. The Supplier is expected to implement Corrective Action internally to improve its Performance Score.*

*\*\*\* The Bray representative will indicate the extent of the Supplier improvement or corrective action plan based on the importance of the product supplied, which may include a corrective action plan, deviation reports, on-site audits, certified shipments, production capability results or other requested actions.*

### 7.2 Cost of Poor Quality

Bray may charge a Supplier associated costs due to the Supplier's failure to meet Bray's quality requirements. Bray recommends that Suppliers have a program to monitor their own Cost of Total Quality and Cost of Poor Quality.

Below is a list of typical events or examples that may be considered as associated costs:

**Receiving Process:**

- Sorting
- Rework
- Line disruption
- Premium freight
- Cost of increased inspection
- Premium product cost paid to support production
- Late delivery
- Excess inventory
- Misidentified parts
- Shipping documentation errors
- Deviation Report (NCR, CAR, etc.) Administration Fee\*

**In-Process Fallout:**

- Downtime
- Overtime
- Line speed reduction
- Additional manpower
- Line changes due to material availability
- Equipment breakage
- Associated material losses
- Outside processing required
- Premium product cost paid to support production
- Rework-labor, tooling, and fixturing
- Scrap

**Customer Issues:**

- Rework at customer premises, travel, manpower

- Replacement of material at customer
- Premium freight
- Reimbursement of all charges from customer
- Costs of Internal containment actions
- Added inspection, certification of product, etc.
- Warranty costs

**NOTE:** \*A Deviation/Non-conformance Report administrative fee may be charged due to costs associated with administering corrective actions, labor or other incremental costs due to poor quality.

## 8 Control of Supplier’s Subcontractors

Bray’s Suppliers are responsible for the quality of materials and components provided by their sub-tier suppliers and subcontractors. Suppliers must have a process in place to ensure their sub-tier suppliers and subcontractors comply with all Bray specification, standards, delivery and quality requirements.

## 9 Nonconforming Product and Supplier Corrective Action

### 9.1 Supplier Non-conformances

It is the responsibility of the Supplier to ensure that only conforming product is supplied to Bray. When product is found to be non-conforming prior to shipment, the Supplier shall determine the scope of the non-conformance and what actions are required for resolution. The Supplier shall report all non-conformances to Bray. All variances shall be requested prior to any rework being initiated. All variances shall follow Bray’s Variance Authorization Request (VAR) process.

All non-conforming product found after delivery to Bray will follow Bray’s internal identification and control of non-conforming product process. The Supplier has 24 hours to provide containment and five (5) days to provide written response to the non-conformance or Bray will dispose of the non-conforming product accordingly. The Supplier shall be responsible for all (but not limited too) the following associated costs and/or fees:

- Internal (Bray) rework cost including any material cost
- External rework cost including any material cost
- Replacement of product
- Expedite fees of replacement product
- Non-Conformance fee (NCR Fee\*)

**Note:** \*NCR fee will be applied if material is received non-conforming and Supplier agrees that non-conformance is fault of the Supplier. The fee will be debited through the NCR process.

**Note:** Non-Conformance will affect the Supplier Performance Rating.

### 9.2 Corrective Action

Bray may issue a Corrective Action to Supplier, but not limited too, for:

- Non-conforming material
- Late delivery

- Incorrect product or quantity delivered
- Poor packaging and handling
- Poor responsiveness

In response to such circumstances and events, Bray will provide the Supplier with a Corrective Action Request. It is the responsibility of the Supplier to determine:

- Immediate containment and actions taken, withing 48 hours.
- Root cause and related failure analysis, within 10 days, when possible.
- Short- and long-term corrective actions, within 30 days.
- Effectiveness of actions taken to eliminate the Root Cause

The Supplier shall have this response to Bray in a timely manner (less than 30 days.) Failure to do so can cause additional Corrective Actions.

Bray may also determine effectiveness of the corrective action response. Effectiveness can be determined (but not limited too) by:

- Incoming inspection
- Supplier review
- Supplier Survey or Audit
- Source inspections

**Note:** *Corrective Actions will affect the Supplier Performance Rating*

## 10 Sample (First Article) Requirements

When Bray orders a component from a Supplier that is built to a Bray drawing or specification for the first time, the part must be evaluated through the Sample Approval Process. The quantity ordered will be determined by Engineering, Quality and Supply Chain representatives. A full Dimensional Inspection Report for all dimensions, requirements and features will be required. Specific requirements will be listed in the Purchase Order such as Testing, Certification, Certificate of Conformance, *etc.* The Supplier's main contact for this process, Sample Approval Process, is the assigned Bray Buyer. The Bray Buyer will keep the Supplier updated on the status of sample.

When sample components/parts are machined, coated, or otherwise finished by the Supplier or Bray, starting from discrete raw material items such as castings, forgings, or molded parts, the raw material items must be evaluated as samples separately from the finished parts, using distinct reference numbers.

When castings, forgings, or molded parts are made in multi-cavity molds or tools, each cavity is considered a separate tool for sampling and must be evaluated and approved independently from the other cavities. In these cases, at least one sample per cavity is required, but two is preferred. In addition, if the part requires final machining, at least one sample from each CNC (Computer Numerically Controlled) fixture is required, but two is preferred.

Samples are categorized as follows:

**Category A:** New tooling or a new part.

**Category B:** Movement of existing tooling/process to a new Supplier/facility, or because of a recurring quality problem.

**Category C:** Changes/modifications to existing tooling/processes.

**Category D:** Requested by Engineering or for Division manufacturing validation from a Bray Division, where the sample parts are machined, coated, or otherwise finished via a Bray internal manufacturing process.

The Bray Dimensional Inspection Report will be provided to the Supplier by the Bray Buyer.

The results of the layout inspection, including all applicable test results need to be sent to Bray prior to the shipment of Sample Order Parts. Bray will review the report and send the Supplier a shipment approval, communicating that is “OK to ship” the Order. If there are issues with the results, the Supplier will be given specific instructions on how to proceed, which may include shipment of parts as they are, re-sample instructions, *etc.*

The results of Sample process will be: Approved Sample; Accepted, as noted; Accepted, requires re-sample; or Reject.

### 10.1 Name / Location Changes

Once a sample is approved for manufacturing production units, the Supplier shall maintain the same process, including tooling, test fixtures, procedures, *etc.*

When a manufacturing line for a part whose sample is approved is moved to a different location within a building or to completely different physical location, this requires the Supplier to notify the applicable Bray representative and a new approved sample may be required.

## 11 Production Requirements

### 11.1 Production Tooling Approval

Bray’s approval of tooling used by the Supplier is required prior to the applicable Supplier’s full manufacturing where new tooling or a fixture will be used in the manufacturing process or in the event of any tooling change, such as new, additional, refurbished or when a transfer of tooling occurs.

### 11.2 Repeatability of Mfg./Supply Chain Requirement

Manufacturing of items shall be processed using the same equipment, tooling, fixturing, process procedures as the Bray-approved sample item(s).

If there is a change with a sub-tier Supplier’ manufacturing process which was part of a sample approval process or a change to a new sub-tier Supplier, a new sample for the manufactured item will be required.



### 11.3 Traceability Requirements

Lot/batch or heat code(s) shall be utilized to establish the traceability of items throughout the manufacturing process.

### 11.4 Record Retention

All quality records are required to be retained for a minimum of 10 years unless otherwise specified in the purchase order contract. These records shall be stored in an environment that does not allow for document deterioration. Quality records must be legible and readily accessible upon request by a Bray representative.

### 11.5 Certification Requirements

The Supplier is required to provide internationally recognized type certification/declaration of conformity for those types of product provided. These certificates of conformance or declaration of conformity may include ATEX, UL or PED.

### 11.6 Calibration Requirements

Metal Testing shall be conducted with calibrated instruments in accordance with ISO17025, latest edition. In addition, instruments used for product acceptance shall be calibrated in accordance with the requirements of ISO9000 and ISO17025 labs, with ILAC-MRA acceptance (seal). Records of calibration and history must be kept in accordance with 11.4 of this Manual.

### 11.7 Special Processes

Special processes are those processes where some aspects of the required quality cannot be assured by subsequent inspection of the processed material alone. Manufacturing special processes include welding, heat treating, coating/painting and nondestructive examination. Personnel certification records are required for those performing welding and nondestructive testing. For manufactured material that was subsequently heat treated, copies of the heat treat charts are required. Procedures are required for Special Processes in accordance with ASME Section V (Non-Destructive Testing) and Section IX (Welding, Brazing.)

## 12 Request for Design/Specification Variation

Suppliers that require a design and/or specification change to Bray's drawings, specifications, or requirements due to inability to manufacture, prohibitive cost or other justifiable reason can submit a Variance Authorization Request (FORM 1301C, see Appendix X). The form can be obtained from your Bray representative, Bray Buyer or Quality Assurance representative. This request must be approved in writing by Bray prior to submitting any product to Bray that is nonconforming in accordance with a Purchaser Order, specifications, drawings, or requirements.

## 13 Bray Standard Purchase Order (PO) Requirements

### 13.1 Payment Terms

Bray's standard payment terms are Net60 and will govern payment arrangements to its Suppliers unless otherwise separately agreed in writing.

### 13.2 Purchase Order Terms/Conditions

Bray's Purchase Orders for purchase of supply are expressly limited to Supplier's acceptance of the Purchase Terms & Conditions that are available at: <http://bray.com/partnership/standard-terms-and-conditions>. These terms and conditions are also included with each purchase order issued to the Supplier.

### 13.3 P.O. Acknowledgement

After PO submission, a Supplier is required to confirm receipt, acceptance (order acknowledgement,) and ship date within 48 hours. This applies to all direct, indirect, service and prototype purchases as well as tooling, equipment, design development, etc.

### 13.4 Warranty

Any deviation from the standard warranty as outlined in the Purchase Terms & Conditions must be agreed by Bray prior to any entry into an applicable purchase order.

## 14 Logistic, Packaging and Labeling Requirements

It is the responsibility of Bray's Suppliers to deliver material appropriately packaged, free of corrosion, damage, and with correct labeling as defined within this Manual or an applicable Purchase Order.

Packaging – all items should be packaged by suitable means to avoid the effects of shock, vibration, physical damage, water vapor, salt spray, condensation, and weather during shipping, handling, and storage.

Openings into valve bodies must be capped, plugged, or sealed. Surfaces of components that provide a sealing surface are required to be protected from metal to metal contact and packaged appropriately to preclude damage caused by vibration and/or movement.

Labeling – The following requirements for labeling are as follows

- The minimum label size should be 4 inches (101 mm) high by 6 inches (152 mm) wide
- The label should be white paper with black color font
- Handwritten or stenciled label information is prohibited
- Labels shall be affixed in such a manner in that the label arrives to the package and allows for the ability to be easily read and accessible

Packing List – The packing list shall contain as a minimum are as minimum the following

- Bray purchase order number
- Line item number
- Quantity
- Supplier name, address of manufacture

### 14.1 Airfreight Approval

Airfreight of manufactured goods may at times be required. Airfreight shipping of goods shall be approved by an applicable Bray representative unless the supplier is accepting financial responsibility for the airfreight.

## 15 Supply Chain

### 15.1 Supplier Cost Control (PPV) Measurement

Suppliers should have documented methods for tracking and controlling material costs. The following is the minimum required:

- Daily and monthly measurements/review of purchase prices as compared to last paid prices or last paid prices in the prior year.
- Process in place to ensure that purchase orders are issued at current prices.
- Purchase order approval process in place with Declaration of Authority (DOA.)
- Process in place to monitor/approve price increases.
- Process in place to track cost savings.

### 15.2 Supplier Inventory Management Measurement (Inventory Turnover, ITO)

Suppliers shall utilize an inventory management system to optimize inventory turnover time and assure stock rotation, shelf-life as applicable, such as “First-In - First-Out” (FIFO), including the status of products considered to be obsolete. Obsolete product shall be controlled with the nonconforming product process or similar, to prevent shipment of Obsolete Product.

### 15.3 Supplier Agreements

Bray may enter into agreements with Suppliers as valued strategic suppliers. These agreements shall include, without limitation, terms concerning the following:

- Fixed pricing
- Rebate schedules by Bray division
- Potential stocking agreements
- Net 60 payment terms
- A Supplier’s ability to effectively service multiple Bray facilities and/or locations as required
- Commitment to 100% on time delivery and quality

## 16 Regulatory Compliance

### 16.1 Compliance

It is **mandatory**, as part of conducting business with Bray, that Suppliers complete and submit required documentation to meet regulatory requirements to ensure compliance with REACH, Conflict Minerals, Proposition 65, RoHS and SCIP.

Bray has contracted a 3<sup>rd</sup> party service to assist in our Compliance. Assent may contact Bray Suppliers to ensure compliance with REACH, Conflict Minerals, Proposition 65, RoHS and SCIP.

Assent provides web-based training to provide guidance on the requirements and documentation to Bray Suppliers.

### **16.2 Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH)**

REACH is a regulation of the European Union (EU) adopted to improve the protection of human health and the environment from the risks that can be posed by chemicals. It also promotes alternative methods for the hazard assessment of substances to reduce the number of tests on animals.

To comply with the regulation, each supplier/manufacturer must identify and manage the risks linked to the substances manufactured and marketed in the EU. The Supplier must demonstrate to The European Chemicals Authority (ECAH) how the substance can be safely used and communicate the risk management measures to the users.

### **16.3 Conflict Minerals**

Conflict minerals are tin, tantalum, tungsten, and gold. Under its conflict minerals program, Bray has taken steps to control the use of these minerals sourced in conflict regions in our products to ensure compliance with the Dodds-Frank Act.

In an effort to assist our customers with compliance to the Dodds-Frank Act, Bray has implemented measures with our Suppliers to address the legislation and is committed to meeting the requirements of all applicable conflict minerals related laws and regulations.

The Bray Conflict Minerals Program is implemented with guidance obtained from the Final Rules of the Dodds-Frank Wall Street Reform and Consumer Protection Act published August 22nd, 2012.

To help customers meet the SEC's final rule, Bray uses a derivative version of the industry standard tool developed to facilitate the disclosure and communication of information regarding smelters and refiners that provide material to our supply chain. This derivative tool is based on the Electronic Industry Citizenship Coalition (EICC) and Global e-Sustainability Initiative (GeSI) Conflict Minerals Reporting Template.

Bray is diligently working to ensure that our supply chain is free of conflict minerals and we will continue to provide regular updates regarding our progress on this important objective.

Bray International, Inc. encourages its Suppliers to responsibly source conflict minerals and derivative metals from the Democratic Republic of Congo (DRC) and neighboring countries to prevent an embargo and associated worsening of economic conditions and human suffering. Suppliers to Bray must develop policies toward preventing the use of conflict minerals and derivative metals sourced from mines controlled by armed groups in Democratic Republic of

Congo (DRC) or adjoining countries in all items to be supplied to Bray. In addition, all Suppliers to Bray must document their efforts to determine the source of any conflict minerals and derivative metals and provide with evidence of the origin of the metals tantalum, tin, tungsten and gold in products to be supplied to Bray. Any smelters producing tantalum, tin, tungsten or gold metals subsequently used in Bray products are requested to seek and obtain certification through the EICC/GeSI Conflict Free Smelter (CFS) program.

#### **16.4 Restriction of Hazardous Substances (RoHS)**

RoHS stands for Restriction of Hazardous Substances. RoHS, also known as Directive 2002/95/EC, originated in the European Union and restricts the use of specific hazardous materials.

EU RoHS specifies maximum levels for the following 10 restricted substances. The first six applied to the original RoHS while the last four were added under [RoHS 3](#), effective July 22, 2019.

- **Cadmium (Cd):** < 100 ppm
- **Lead (Pb):** < 1000 ppm
- **Mercury (Hg):** < 1000 ppm
- **Hexavalent Chromium: (Cr VI)** < 1000 ppm
- **Polybrominated Biphenyls (PBB):** < 1000 ppm
- **Polybrominated Diphenyl Ethers (PBDE):** < 1000 ppm
- **Bis(2-Ethylhexyl) phthalate (DEHP):** < 1000 ppm
- **Benzyl butyl phthalate (BBP):** < 1000 ppm
- **Dibutyl phthalate (DBP):** < 1000 ppm
- **Diisobutyl phthalate (DIBP):** < 1000 ppm

It is expected that any products that the Supplier supplies to Bray comply with this initiative. Test reports and Certificates of Compliance may be required to be submitted to demonstrate compliance.

#### **16.5 Proposition 65 (Safe Drinking Water and Toxic Enforcement Act)**

Proposition 65, officially known as the Safe Drinking Water and Toxic Enforcement Act of 1986, was enacted as a ballot initiative in November 1986. The proposition protects the state's drinking water sources from being contaminated with chemicals known to cause cancer, birth defects or other reproductive harm, and requires businesses to inform Californians about exposures to such chemicals.

Proposition 65 requires the state of California to maintain and update a list of chemicals known to the state to cause cancer or reproductive toxicity.

It is a requirement for Bray Supplier's to complete documentation in accordance with the requirements of Proposition 65 to declare levels of chemicals used in the manufacturing process or present in components. The current Proposition 65 list is available at <https://oehha.ca.gov/proposition-65/proposition-65-list>. The document also includes the listing mechanism for each chemical listing and the safe harbor level if one has been adopted.

### 16.6 SCIP – Substance of Concern In Products

SCIP, Substances of Concern In Products, is the database for information on Substances of Concern In articles as such or in complex objects (Products) established under the Waste Framework Directive (WFD).

Companies supplying articles containing substances of very high concern (SVHCs) on the Candidate List in a concentration above 0.1% weight by weight (w/w) on the EU market have to submit information on these articles to ECHA, European Chemicals Agency, as from 5 January 2021. The SCIP database ensures that the information on articles containing Candidate List substances is available throughout the whole lifecycle of products and materials, including at the waste stage. The information in the database is then made available to waste operators and consumers.

Information on the requirements of SCIP, can be found at

<https://echa.europa.eu/scip-database>

collect supplier details to remain compliant with these regulations.

### 16.7 Child Labor

Child and forced labor are pervasive problems throughout the world. Unfortunately, there are no effective international agreements defining the practice or which create enforcement mechanisms against them. As a global employer and purchaser of services and goods, Bray has an important role to play in these issues. To this end, Bray has adopted Guiding Principles to reinforce its core values of treating all people with dignity and respect as indicated on the following pdf:



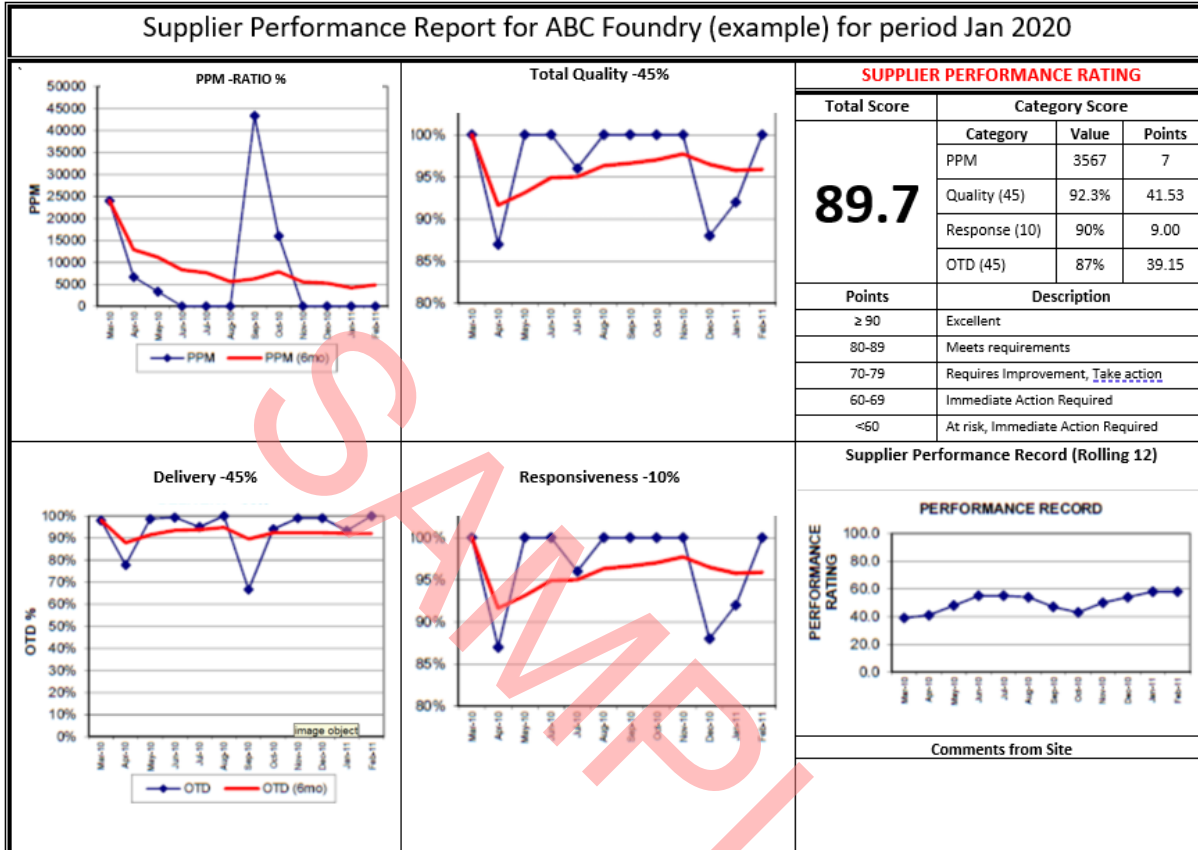
(**note:** double click to open.)

17 Appendices

17.1 Appendix A – Supplier Performance Report



Supplier Performance Report



Sample Layout – Supplier Performance Report – OSI 7


17.2 Appendix B - Forms

**CAR Form**

Bray		Corrective Action Request			CAR #	
<b>Corrective Action Type</b>	Internal (Bray) <input type="checkbox"/>	Intercompany (Bray) <input type="checkbox"/>	Vendor <input type="checkbox"/>	Customer / End-user <input type="checkbox"/>		
Assigned to / Actionee			Date Issued			
Part # / Serial # / Order # / WO # / Quantity (specify all applicable traceability details)			Response Due Date			
Failure description / Reason for request:						
<b>Containment / Specific actions taken:</b> <i>Contains and resolves the specific deficiency described in failure description above</i>						
<b>Root Cause / Failure Analysis:</b> <i>Conclusion reached based upon the result of investigation; The fundamental reason for an event, which if corrected, would prevent recurrence; Typically performed by collecting and analyzing data.</i>						
<b>Corrective Action:</b> <i>Remove the root cause; Addresses the cause to assure there is no recurrence.</i>						
Correction Action taken by:			Date:			
<b>Preventive Action:</b> <i>Steps taken to modify systems and procedures to prevent recurrence of a similar kind elsewhere</i>						



**Variance Authorization Form**

	Engineering Department	FRM1301C
	<b>Variance Authorization Request (VAR)</b>	Rev. 2
		June 14, 2019

<b>Section A</b>	Supplier: _____	VAR Number: _____
	P/N/ Process: _____	Variance Quantity: _____
<b>Supplier</b>	Serial No.: _____	P.O.: _____
	Part / Process Description: _____	Multiple Shipments: _____
<b>Requester</b>	NCR Nos.: _____	Requested Time Period.: _____

<b>Section B</b>	<b>Deviation affects:</b> <u>Description of nonconformance and proposed action to disposition</u> (include applicable drawings and/or support documentation.):	
	<input type="checkbox"/> Design <input type="checkbox"/> Safety <input type="checkbox"/> Interchangeability <input type="checkbox"/> Performance <input type="checkbox"/> Reliability <input type="checkbox"/> Shelf life <input type="checkbox"/> Process <input type="checkbox"/> Pressure boundary	_____ _____
<b>Requester</b>	Requested by: _____ Date: _____	
<b>Supplier</b>	_____ Print name/signature	_____ title
		_____ DDMMYYYY

<b>Section C</b>	Notified Body involvement required? <input type="checkbox"/> yes <input type="checkbox"/> no
<b>Supplier</b>	Reference of involvement: _____

<b>Section D</b>	This request <input type="checkbox"/> does <input type="checkbox"/> does not involve a change in contract price. Estimated price decrease \$ _____
<b>Supplier</b>	Note: Show details on estimate sheet and attach hereto.
	_____ Date: _____
	_____ Print name/signature _____ title _____
	_____ DDMMYYYY