

SOURCE INSPECTION

1.0 PURPOSE

To establish a system for Source Inspection of material supplied to Eaton Corporation, FSD, Euclid.

2.0 SCOPE

This procedure applies to all parts and assemblies whenever source inspection is specified on the Purchase Order/or as required.

3.0 APPLICABLE DOCUMENTS

QCP 2.4	Visual Acuity Requirements for Visual Evaluation
QCP 3.0	Document Control
QCP 5.3	Receiving Inspection Procedure
QCP 5.8	Quality Requirements for the Supplier Base
ARG-2367	Request for Source Inspection
ARG-994-123	Source Inspection Tag
ARG-21005	Source Inspection Plan
SOP 52-10-005.3-00-006	Drop Shipped Parts and Foreign Receivals
SOP 52-10-005.4-01-001	Source Inspection Plan Preparation
SOP 52-10-007.0-00-004	First Article Inspection Requirements for Aircraft Accessories Purchased Parts (Excluding Forgings and Castings)
SOP 52-10-011.1-00-001	Non-Conforming Material at Suppliers

4.0 QUALITY ELEMENTS

4.1 General – Source Inspection

Product may be selected for Source Inspection when:

- Compliance to contract requirements cannot be verified due to available equipment and/or the item's specialized nature.
- The items are assemblies whose component parts cannot be verified except in the unassembled condition.

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- The items are of such complexity that inspections are lengthy, and significant gage and/or test equipment correlation problems exist.
- The economic benefit and improved scheduling of parts can be realized.
- Required portion of a Supplier Quality Audit.
- Castings are in “development” stage and not yet released for production.
- Or as deemed necessary by Supplier Quality Assurance Manager

4.2 Purchasing

The Purchasing Department is responsible for:

- 4.2.1 Selecting items for source inspection in accordance with the above criteria.
- 4.2.2 Informing suppliers of items to be source inspected and the requirements of this procedure.
- 4.2.3 Notify the Supplier Quality Manager or designee of source inspection needs. Notification will be made on Form ARG-2367, "Request for Source Inspection".

4.3 Supplier Quality

- 4.3.1 The Supplier Quality Manager or designee will forward the request for source inspection to the Source Inspector with the current revision of the inspection SIP (finished parts) or SOP (Castings).

4.4 Supplier

- 4.4.1 The supplier must complete their final inspection and document results in conformance with QCP 3.0 – Document Control and QCP 5.8 prior to the arrival of the source inspector.
- 4.4.2 Discrepant parts found during supplier inspection shall be submitted and dispositioned in accordance with SOP 52-10-11.1-00-001 prior to Source Inspection.
- 4.4.3 The contractual documents, (PO, VQR, updates, etc.) as well as inspection and test documentation shall be presented to the Source Inspector.

4.5 Finished Part Source Inspection

The Source Inspector shall perform the following tasks for finished parts and assemblies:

- 4.5.1 The Source Inspector will review the Purchase Order for any requirements (e.g., First Article Inspection, etc). The Source Inspector shall review the First Article Inspection Report (FAIR) in Accordance with SOP 52-10-007.0-00-004 when required and shall indicate

acceptance on the Source Inspection Plan and Source Inspection Tag. The source inspector shall also check for current FAI approval for part or component revision.

- 4.5.2 Review complete certification package (e.g., material, heat treat, nondestructive testing, nitride, Materials Lab approval, etc.) per contract requirements and affix inspector stamp on the documents reviewed. If Lab Testing is required, list Lab Certification number on the Source Inspection Tag.
- 4.5.3 Review the supplier's inspection data sheets for completeness and accuracy.
- 4.5.4 Perform an audit of selected characteristics to ensure the accuracy of the supplier's inspection. This audit shall be documented on a Source Inspection Plan (SIP) - Form ARG 21005, prepared in accordance with SOP 52-10-005.4-01-001.
- φ 4.5.4.1 In addition to the characteristics listed on the SIP the source inspector may inspect other features. This inspection shall be documented on the SIP, initialed and dated by the source inspector. The reason for additional inspection shall be stated.
- 4.5.5 Visually inspect for workmanship and part marking (selected quantity or the entire lot when practical). These parts will be inspected using the "tin soldier" method where parts are arranged so that differences from part to part are easily detected.
- 4.5.6 Witness functional test on a sample from the lot (as applicable).
- 4.5.7 Review serial numbers in the lot (if applicable) to ensure serial numbers match those listed on certifications (may be done using a sample). Document serial numbers on the Source Inspection Tag - Form ARG 994-123. Serial numbers may be continued on reverse side of card if not enough space exists on the front.
- 4.5.8 Review MRBA characteristics to ensure discrepancies are as stated on the MRBA and note MRBA's in remark section of Source Inspection Card.
- 4.5.9 If an inspected characteristic does not meet the specified requirements the entire lot must be screened for the characteristic.
- 4.6 Casting and Forging Source Inspection
- The term "forging" shall replace the term "casting" in this procedure (as applicable).
- 4.6.1 The Casting Source Inspector will determine the extent of inspection to be performed for each lot (this could vary from a small sample to each part inspected - depending on the complexity of the part and the quality history of the supplier).
- 4.6.2 Normal inspection will be performed per the part number Standard Operating Procedure (SOP). The inspection may include additional visual, dimensional, radiographic or penetrant inspection (if a discrepancy is discovered).

- 4.6.3 Certifications shall be reviewed by the Source Inspector at the supplier.
- 4.6.4 A Radiographic Film Audit may be performed when deemed appropriate.
- φ 4.6.5 Results of casting Source Inspection will be documented on the Source Inspection Tag – Form ARG 994-123.
- 4.7 Source Inspection Documentation
- 4.7.1 Source Inspection Tag – Form ARG-994-123 will be completed by the Source Inspector for all accepted material. The split circle shall be filled in per sections 4.9.4 and 4.9.5. The Inspector Stamp area is for the Source Inspector’s personal stamp application. Vendor name, P.O. No., Part No., part LCL, and Part Name shall be filled in to match what is ordered on the Purchase Order. No. Pcs. is the number of parts presented for inspection. Date (MM/DD/YY) is the date of source inspection. Source Inspector is the WRITTEN, PRINTED, LEGIBLE name of the Source Inspector. Remarks may contain any applicable information (MRBA numbers, lab test certificate numbers, parts are OK to stock @ Eaton, First Article status, etc., as applicable). Serial Nos. are where the applicable serial numbers are recorded. This may be used for Lot Numbers and any remarks may be continued in this area if not used for Serial Nos. “CERTIFICATIONS REVIEWED BY EATON SOURCE INSPECTOR AT VENDOR’S FACILITY” shall have Yes or No circled, as applicable. Inspector’s Signature shall be signed in that area and shall correspond to the Source Inspector’s name PRINTED in that field near the upper right of the Tag.
- 4.7.2 The SIP is to be completed in accordance with SOP 52-10-005.4-01-001.
- 4.7.3 A copy of the Source Inspection Tag (at a minimum), SIP and complete certification package shall accompany each shipment.
- 4.7.4 All Source Inspection documentation shall conform to the QCP 3.0 Document Control.
- 4.7.5 Euclid facility test materials, certifications, and source inspection tag are to be shipped in accordance with SOP 52-10-005.3-00-006 in cases when source inspected parts are “Drop-Shipped” to a destination other than Eaton.
- 4.8 Receiving Inspection
- 4.8.1 Source inspected lots will be processed by Eaton Receiving Inspection in accordance with QCP 5.3 – Receiving Inspection Procedure.
- 4.9 Nonconforming Material
- 4.9.1 Every effort should be made to correct any known issues while a Source Inspector is at a supplier’s site. (e.g., minor discrepancies noted in workmanship, part marking or supplier certification issues, etc).

- 4.9.2 The Source Inspector will instruct the supplier to submit non-conforming material for Material Board review in accordance with SOP 52-10-011.1-00-001 in the event that non-conformances cannot be corrected.
- 4.9.3 The casting source inspector will document results of inspection on the Source Inspection Tag, Form ARG 994-123. The finished parts Source Inspector will document the results of inspection on a SIP.
- 4.9.4 The split circle at the top of the Source Inspection Cards is used to identify when non-conformances are discovered by the Source Inspector. Both the top and bottom of the split circle will show the total number of parts if no nonconformances are found.
- 4.9.5 Nonconformances discovered during source inspection will be noted on the Source Inspection tag as a zero (“0”) appearing on the top half of the split circle. The bottom number indicates the total number of parts presented. (Note: There may be a difference between the number of parts presented versus the number of parts accepted).
- 4.10 Waiver of Source Inspection
- 4.10.1 Source Inspection may be "waived" only with the approval of the Supplier Quality Manager or designee. The "Request for Source Inspection" Form, ARG-2367 is annotated with the verbiage indicating that source inspection has been waived. The document is signed, dated and returned to Purchasing.
- 4.10.2 Third party inspection, where an approved third party is assigned to perform receiving Inspection may be required when deemed necessary by the Quality Management Team.
- 4.10.2.1 The third party inspection source must be listed on the SPL and all applicable requirements flowed down to the source in accordance with QCP 5.8.
- 4.11 Source Inspector and Third Party Inspector Training
- 4.11.1 Source Inspectors and Third Party Inspectors must complete training provided by Supplier Quality. Candidates must demonstrate proficiency by passing an examination after the training. An eighty percent minimum score is required.
- 4.11.2 Source Inspectors and Third Party Inspectors must meet visual acuity requirements in accordance with QCP 2.4.