

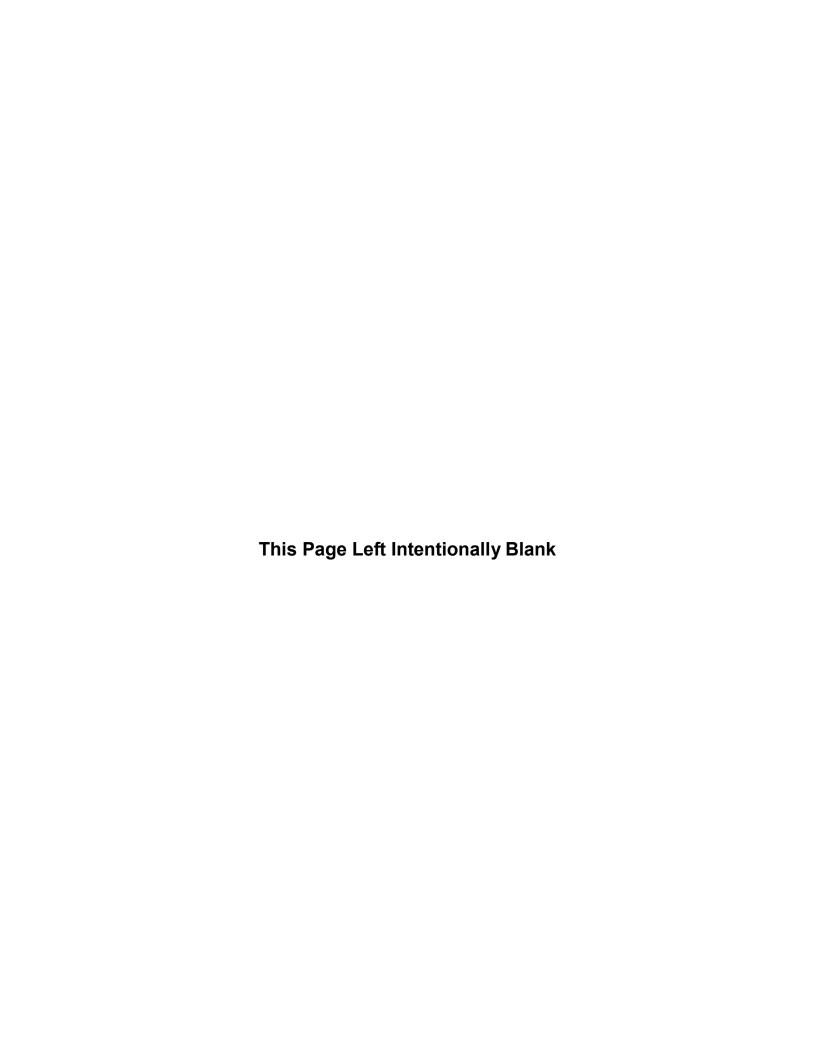


Quality Supplier Requirements for Beckwith Electric Co., Inc.









To Our Valued Suppliers:

One of the primary goals of Beckwith Electric is to provide the highest Quality products

and service which meet the expectations of our customers at an affordable and

competitive price. You, and the product or services you provide, are absolutely crucial to

attainment of this goal. However, only by working together, as a team, can we perform

at the level needed to achieve our goal in our marketplace.

This manual was developed as a means to communicate the expectations we at

Beckwith Electric have in our supplier data base. The topics presented in this manual

describe your responsibilities under the purchase order awarded to you; responsibilities

against which you and your products or services will be measured. Your success in

meeting those responsibilities will assist both of us in our competition for the business

we both depend on for survival.

So dig in! Review each of the topics in this manual as they relate to the purchase order

you were awarded and ensure that your operations meet the requirements that are

applicable to you. If you have any problems or questions that could affect your ability to

perform to your purchase order or this manual, please contact Beckwith Electric

Procurement or Quality Assurance Departments as early as possible so that we may

assist you.

Quality Assurance Director

REVISION	ORIGINATOR OF CHANGE	REVISION DESCRIPTION	RELEASE DATE
1		First Draft	05.04.2011
2		Second Draft	06.16.2011
3		Third Draft	06.17.2011
4		Fourth Draft	06.22.2011
Α		Update	08.08.2012
В	T.MESSER	General Update	04.10.2013
С	T.MESSER	DCO # 4529 Counterfeit, Fraudulent and Substandard Items	06.10.2013
D	R. Hatfield	DCO # 4644 Remove Marty Terrill, remove bold page numbering, remove tie wrap requirement, add class requirements, correct Quality System Guideline references, Add quarterly to Supplier Performance, Remove tie wraps shall not be none static material.	12/20/13
Е	R. Hatfield	DCO # 4691: Revise The Purchase Order section, Delete Appendix C	3/18/14
F	R. Hatfield	DCO# 4847: Delete first article for product exceeding on year, revise supplier performance section, delete receiving inspection problem report, and add paint sample requirements.	10/22/14
G	R. Mogler	DCO# 5764:The following changes were made: Changed ref of Quality Manager to Quality Director on cover page. Remove Appendices. In Overview changed ref. from AQS to ISO Quality System. Changed ref from Procurement to Procurement throughout. In Supplier Performance, changed will to may with regards to issuing a CAR. Remove ref. to Supplier Quality Manual and bulletized QMS section titles. Cleaned up the format	11/10/17

Н	T. Wright	DCO # 5942: Added standardized Certificate of Compliance definition. Clarified criteria for acceptance by sampling. Clarified definitions and requirements for age control (shelf life) items. Clarified printed circuit card and bare PWB (PB) requirements and drop Class 1 reference. Reconciled conflicting requirements for warranty returns to suppliers. Corrected format for running footer.	04/4/18
I	D. Lloyd	DCO # 6999: 1) Review and Update Section "Mechanical Items" to add and clarify packaging requirements.  2) Add clarification to address required vendor activities during FAIR Submission, usage of Deviations / Waivers, and Discrepant Material processing.  3) Update section "First Article Vendor" to clarify FAIR activity requirements.  4) Added clarification to section "Non- Conforming Material or Services"  5) Clarify FAIR and Delta FAIR requirements for Mechanical items	02/25/2020

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## **Purpose**

This manual was developed to stress that quality and delivery of purchased materials are of the utmost importance to Beckwith Electric. The guidelines and requirements set forth herein form part of the contractual agreement between Beckwith Electric and the supplier. Any specific requirements on the purchase order will take precedence over the requirements of this manual.

## Overview

This manual explains the Quality System requirements to which suppliers shall conform when performing work required by the Beckwith Electric purchase order. These requirements are based upon current industry standards and the International Organization for Standardization (ISO) Quality System Guidelines (ISO 9000 Quality Management System). We expect our suppliers to review, understand and comply with the requirements stated on the purchase order and this manual.

The supplier shall assume full responsibility for the delivery and reliability of all materials and services provided to Beckwith Electric. The supplier is also responsible for performing Incoming Inspection of all supplied material by Beckwith Electric to ensure quality of final product. If any discrepancies are found, they are to be reported to Beckwith Electric's Quality Department. It is expected that each Beckwith Electric supplier maintain an effective quality system based on defect prevention rather than defects detected. The objective is to eliminate rejections and support a continuous improvement program that will allow Beckwith Electric to place materials supplied on a ship to stock status; thus reducing non-value added receiving inspections at Beckwith Electric and adding value to the products and services you provide.

Any questions or comments concerning this manual should be directed to the Quality Assurance Department and Procurement Manager.

The Beckwith Electric Procurement department is the main link between suppliers and other functions within Beckwith Electric. The link with Procurement starts with the supplier approval process and continues throughout the relationship.

# **Supplier Approval Process**

The supplier approval process starts with an assessment of the supplier's capability to provide a quality product to Beckwith Electric. This assessment will consider such elements as the supplier's advertised capabilities, the supplier's past procurement history with Beckwith Electric, the supplier's reputation and/or influence within the industry, etc. Once the assessment is completed, a supplier survey appropriate to the suppliers assessed capabilities is planned. This survey is an examination of business and operating system capabilities.

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# **Supplier Survey**

Beckwith Electric utilizes three types of surveys which include a Telephone Survey, a Supplier Self-Evaluation, and an On-Site Survey.

Suppliers that manufacture Beckwith Electric products in multiple facilities are surveyed prior to Beckwith Electric approval for respective sites.

Once the survey is completed it will be reviewed for acceptance by Beckwith Electric and if found acceptable, the supplier will be added to Beckwith Electric's approved supplier base. If there is any corrective action to be taken, the supplier is responsible for developing the corrective action plan including completion dates.

## Telephone Survey

- 1. Beckwith Electric completes the survey with the supplier.
- 2. Beckwith Electric scores and reviews the survey with the supplier.
- 3. Supplier completes corrective action plan and follow-up, when required.

## Self -Survey

- 1. Supplier evaluates quality system and completes survey form.
- 2. Supplier returns survey to Beckwith Electric.
- 3. Beckwith Electric reviews survey.
- 4. Supplier completes corrective action plan and follow-up, when required.

## • On - Site Survey

- 1. Beckwith Electric evaluates supplier's quality system.
- 2. Beckwith Electric completes survey.
- 3. Beckwith Electric scores and reviews survey with the supplier.
- 4. Supplier completes corrective action plan and follow-up, when required.

## **Part Qualification Process**

Qualification of a part refers to specific part numbers. Qualification may not be required or desired on every part supplied to Beckwith Electric. Suppliers will be notified through Beckwith Electric Procurement which parts qualify for inclusion in this program.

The qualification process may be tailored for each supplier/part combination, but will usually consist of the following supplier actions:

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- Suppliers Control Plan (when required)
  - Created by the supplier for each part to be qualified.
  - Approved by Beckwith Electric before production begins.
- First Article Inspection (when required)
  - 100% verification of all drawings and order requirements.

Qualification is a joint effort between the supplier and Beckwith Electric Procurement and Quality Assurance Departments. Additional details on the specific requirements and benefits of this program are available from the applicable Beckwith Electric buyer.

# **Suppliers Control Plan**

For some critical part numbers a control plan is required. The supplier will be notified through Beckwith Electric Procurement to supply a control plan for that part.

NOTE: Suppliers may use any type of format to which they are accustomed. The following is an example of a control plan, which the supplier is encouraged to follow.

Process Flow Diagram

This is a schematic representation of the process flow and the sources of variations of equipment, materials, methods and people from the start to the end of the supplier's process. The process flow diagram starts the control plan process.

Key Characteristics

Key Characteristics are those product characteristics that are considered to have significant impact on the form, fit, or function of the part and/or influence customer perception of the end product. Key characteristics are those characteristics that are significantly impacted by the method of manufacture or have a significant impact on subsequent operations. Key characteristics will frequently be chosen by Beckwith Electric and identified on the purchase order.

Key Characteristic Control Plan

A control plan is a written summary description of the system for controlling all key characteristics of a qualified product to assure that all process outputs will be adequately controlled.

#### First Article-Vendor

When stated on the purchase order, acceptance by Beckwith Electric on the First Article or unit produced against the purchase order is required before acceptance of any subsequent production.

This process isrequired when:

- The supplier chosen by Procurement has never provided this product or service before.
- The product or service provider has made changes to their production methods, to the location of production, or changes in significant personnel since the last procurement.
- The product has undergone a design change impacting any of the following; Form, Fit, or Function.
  - Form: The shape, size, dimensions, mass, weight, and other visual parameters that uniquely distinguish a part.
  - <u>Fit</u>: The ability of a part to physically interface with, connect to, or become an integral part of another part.
  - <u>Function</u>: The action that a part is expected to perform in fulfilling its purpose.

A supplier will submit the requested number of completed parts that are representative of production conditions, along with the first article data report documenting the actual measurements of all part characteristics.

NOTE: Beckwith Electric is not responsible for material that has been manufactured prior to the First Article approval.

# **Supplier Performance**

Suppliers are measured regularly in terms of quality and delivery performance. Key suppliers will be provided a performance report listing their detailed performance for the previous quarter.

Suppliers maintaining a quality defect rating of 95% or better will continue to receive Beckwith Electric business. Suppliers whose quality rating falls below 95% may receive a Supplier Corrective Action Request (SCAR). Suppliers maintaining a 97% on-time delivery will continue to receive Beckwith Electric business. Suppliers whose delivery rating falls below 97% may receive a Supplier Corrective Action Request (SCAR).

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Suppliers who fall below a 70% quality defect rating or on-time performance rating may be restricted from receiving purchase orders from Beckwith Electric pending approval of an improvement plan. Continuing business will be awarded to suppliers with high ratings while business will be taken away from suppliers whose performance is consistently below standard or whose trend is deteriorating.

The Ouality Goal - 100% Beckwith Electric Satisfaction

The Delivery Goal – 3 Days Early, 1 Days Late

The Action Goal – 0 Supplier Actions

## **Disapproval**

If the supplier fails to deliver defect-free products, does not react promptly to problem situations including reliability failures or becomes negligent in meeting promised delivery dates, Beckwith Electric will take steps to remove the supplier from the Beckwith Electric approved database.

# **Nonconforming Material or Services**

Unless directed otherwise in the purchase order, approval of nonconforming materials or services is the sole responsibility of Beckwith Electric!

The method used by Beckwith Electric to disposition supplier's nonconforming material is the Material Review Board (MRB).

Shipments of any known nonconformance by the supplier must be specifically authorized and approved by Beckwith Electric prior to shipping via deviation request approval, except when a shipment is authorized in order to perform evaluations at Beckwith Electric. When submitting nonconformance information for consideration by Beckwith Electric, the following must be explained in sufficient detail on the deviation request form for Beckwith Electric to render a judgment:

- Technical Data Package (TDP) (Purchase Order, Drawings, Product Specifications, IEC, UL, CSA, CE, FCC, etc. requirements not met.)
- Actual condition of material or service (i.e. deviation from requirement).
- Identity and quality of affected product.
- Cause of nonconformance and supplier's actions (implemented or planned) to prevent its recurrence.

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Suppliers that deliver nonconforming material to Beckwith Electric will be responsible for implementing corrective actions to correct deficiencies. A Supplier Corrective Action Request (SCAR) may be requested from the supplier for unauthorized delivery of non-conforming product as well as when authorized through a deviation request. When a SCAR cannot be answered by its due date, the supplier shall contact Beckwith Electric supplier Quality to request an extension.

All responses will be reviewed, and if not approved or when deemed inappropriate, the supplier's material (both current and future) may be put on hold until a resolution is agreed upon.

## **Recovery of Nonconforming Material Cost**

Beckwith Electric acknowledges that it is the supplier's responsibility to supply material which conforms to specification. When the supplier provides material found to be nonconforming and unusable by Beckwith Electric, it is the supplier's responsibility to credit Beckwith Electric for that material, and may include costs incurred by Beckwith Electric for appraisal or rework as well as shipping costs incurred.

Items supplied on the purchase order may be subject to incoming inspection. If rejected, the lot shall be returned or may, as production needs dictate, be subject to subsequent re-inspection, or 100% lot sorting.

Beckwith Electric will debit the supplier's account with an agreed amount. Material will be returned freight collect with the replacement material to be shipped prepaid.

# Delivery of Use of Suspect and/or Counterfeit, Fraudulent, and Substandard Items (CFSI's)

The supplier is hereby notified that the delivery or use of suspect and/or Counterfeit, Fraudulent, and Substandard Items (CFSI's) is of special concern to Beckwith Electric (BECO). If any parts covered by the purchase order are described using a manufacturer part number or using a product description and/or specified using an industry standard, the Supplier shall be responsible to assure that the replacements parts supplied by the Supplier meet all requirements of the latest version of the applicable manufacturer data sheet, description and/or industry standard.

If the Supplier is not the manufacturer of the goods, the Supplier shall make all reasonable efforts to assure that the parts and components supplied under the purchase order or used to manufacture the equipment covered in this order are made by the Original Equipment Manufacturer (OEM) and meet the applicable manufacturer data sheet or industry standard.

Should the Supplier desire to supply or use a part that may not meet the exceptions and receive BECO's written approval prior to shipment or use of the replacement

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parts to BECO. If suspect, and/or CFSI parts are furnished under the purchase order or are found in any of the goods delivered hereunder, such items will be dispositioned by BECO and may be returned to the Supplier. The Supplier shall promptly replace such suspect and/or CFSI parts with parts acceptable to BECO and the Supplier shall be liable for all costs, relating to the removal and replacement of said parts. To mitigate the CFSI risk, BECO requires our approved suppliers to recognize this risk by introducing into their Quality Assurance program a documented process to prevent, detect and disposition suspects CFSI's.

# **Beckwith Electric Suppliers Quality Assurance**

## Receiving Inspection

Beckwith Electric maintains a receiving inspection system for supplier's material. Inspection criteria are based on the specification and/or applicable drawings. The results are used in part to establish the supplier rating. Supplier material is inspected using a C=0 (acceptance only if zero defects found) or equivalent sampling plan. After a series of acceptable lots, Beckwith Electric Quality Engineering may take steps to place specific materials on skip lot sampling plan or they may be placed on ship to stock status and bypass receiving inspection.

## Ship to Stock

Ship to stock is a program that allows supplier material to bypass receiving inspection and move directly to stock or point of use after an acceptable part history has been established. The specific criteria and part selection for ship to stock will be coordinated with the Beckwith Electric Quality Engineer.

Once on ship to stock program, a periodic audit may be performed. Any rejections found will remove the part from ship to stock status.

#### Supplier Surveillance

The purpose of surveillance is to assure that our suppliers maintain their quality capabilities over time.

Surveillance may take the form of periodic follow-up surveys, actual product inspections or audits. The frequency of surveys and inspections depends upon the supplier's performance.

Beckwith Electric shall reserve the right to visit our supplier's facilities to inspect products, witness inspections or tests and to evaluate their quality system, which may also extend to the supplier's source of supply. Beckwith Electric shall also reserve the right to maintain continuous source inspection and or quality audit at the supplier's facilities.

## Source Inspection

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In some cases, it may not be practical to determine conformance to Beckwith Electric requirements upon arrival at the dock. Beckwith Electric may require source inspection at the supplier facility. Beckwith Electric Procurement will notify the supplier that source inspection will be required. No product will be allowed to ship without source inspection, unless an agreement is reached between the supplier and Beckwith Electric quality through Procurement.

The supplier's inspection and test equipment shall be made available for use at the supplier's facility by authorized Beckwith Electric personnel to determine conformance to specified requirements when required.

NOTE: None of the verification methods identified in this section relieve the supplier of their responsibilities for the quality of the purchased items.

# **Suppliers Quality System**

It is recognized that an elaborately documented quality system does not in itself guarantee that adequate quality will always be delivered to Beckwith Electric. The amount of documentation and formalization of an effective quality system may be dependent upon the size of the supplier's operation, scope of activities and complexity of the product to be delivered.

The quality system adopted to satisfy the requirements of this document will be reviewed at the initial and follow up surveys. The supplier management should review the quality system at established intervals to ensure its continuing suitability and effectiveness. Records of the reviews should be maintained.

Beckwith Electric is registered to the ISO 9001 Quality Standard and has developed a Quality Management System meeting this standard.

While this level of quality management may not be for all suppliers, we believe it covers necessary areas of control. The supplier's quality systems should address the following areas to the degree appropriate to the supplier's work scope:

- Contract Review
- Design Control
- Document Control
- Procurement
- Traceability
- Process Control
- Inspection and Test
- Calibration
- Nonconforming Material
- Corrective Action
- Handling and Storage
- Training

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- Internal Auditing
- Records Control

Beckwith Electric recognizes that each supplier has different requirements for their products. Some of these sections may not be needed in your situation. However, a documented quality system is important.

# Supplier's Responsibility

Corrective Action

When requested, the supplier shall provide positive action in the correction of nonconforming material and retain records including corrective action to preclude reoccurrence of discrepant conditions. Corrective Actions will be directed to the quality contact at the supplier's facility.

Certificate of Conformance (C of C)

When requested by the specification drawing or purchase order, each shipment shall include a Certificate of Conformance. The certificate must state that parts meet all published specifications and standards for the parts as stated in a Beckwith drawing or manufacturer published specifications, that they have been manufactured, tested, and inspected under the manufacturer's quality system, and that test/inspection records are available to Beckwith Electric. The certificate states that the parts meet purchase order conditions and requirements.

Acceptable names for the document:

Certificate of Compliance

Certificate of Conformance

Certificate of Conformity

**Declaration of Conformity** 

Items that Beckwith Electric Co. Inc requires on a C of C are:

- Manufacturer's name
- Manufacturer's part number (it might match the BECO P/N)
- Revision
- Serial number, if applicable
- Lot code or date code for traceability
- Beckwith purchase order number
- Quantity
- Seller's contact information: address, phone number, or e-mail
- Signature (Management or Quality person)

Nice to have, but not required are:

Beckwith part number (we can link through the APSL)

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- Sales order
- Inspection date(s)

## Drawing or Documentation Discrepancies/Issues

The supplier is responsible for contacting in writing, Beckwith Procurement, Engineering and Quality if any issues or discrepancies are found with Beckwith provided documentation. Before the supplier starts production, they must receive a revised issue of the drawing(s) or documentation, correcting the discrepancies.

#### Raw Material

Raw material furnished by the supplier, or used in fabrication or processing of products shall conform to the applicable chemical, physical and other technical requirements. Evidence of this conformance shall be maintained by the supplier and furnished to Beckwith Electric upon request.

#### Special Process

Special processes are those whose yields cannot be adequately evaluated for conformance to requirements through inspection. These include for example; welding, heat treating, bonding, etc. The supplier shall, as a minimum, demonstrate a degree of control over these processes that provide assurance that specifications are met and complied with. As applicable the supplier shall provide adequate training for personnel performing these tasks. The Beckwith Electric purchase order will call out specific processes and any requirements for the supplier.

#### Use of Test Laboratories

Since Beckwith Electric considers material testing to be a special process, all laboratories used for testing and analysis shall be identified as to whether it is captive or an outside source on the test data sheet or C of C. Evidence of accreditation or qualification of said laboratories may be requested and are subject to survey and review by Beckwith Electric.

#### Sampling Inspection

Any acceptance based on sampling for inspection or test shall be conducted to methods and tables recognized by ASQ or DoD with an AQL level of 1.0 or lower. Sampling plans shall be based on C=0 (accept on zero defectives).

Acceptance of material by use of sampling techniques does not relieve the supplier of the responsibility to supply each part to specification.

## Age Control and Limited Life Products

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All purchased items that require shelf life control or have any perishable characteristic (i.e. solderability) must have a date code on the part or packaging. Any component that is returned to the supplier for rework must have a new date code or identification indicating rework.

Items with a set shelf life, like adhesives, sealants, solder paste, and flux shall have at least 50% of their shelf life remaining when shipped to Beckwith.

#### Retention of Records

Quality records shall be retained for a minimum of 5 years or as required by the purchase order or the length of the warranty period, whichever is longer.

#### Deviations / Waiver

A formal written request initiated by the supplier upon identifying any or potential non-conformances prior to or post completion of manufacturing activities needing review by Beckwith Electric's engineering team for review and approval if acceptable. Deviations shall be Purchase Order # specific and not to be interpreted as acceptance for follow-on orders. Approved deviations / waivers shall be included with shipping documentation until completion of Purchase Orders to include blanket orders. Deviation / waiver requests can be submitted via the Vendor's internal request form or by way of email communication with the Beckwith purchasing agent. The purchasing agent will forward the request to Engineering for review and disposition as applicable.

#### Returned Products

All products returned to suppliers will be tracked with a RMA number. In the event the supplier does not have a RMA system, Beckwith Electric will create a RMA number for return of the item, for the supplier's awareness, and tracking purposes. The supplier will pay shipping cost. When requested by Beckwith Electric, the supplier will generate a Supplier Corrective Action Report (SCAR) within 15 days after repairs are completed and report corrective action to Beckwith Electric.

## The Purchase Order

The Beckwith Electric purchase order is the document with which suppliers should familiarize themselves. It is the contract to which all work must be manufactured or performed.

The purchase order will contain, or make reference to, additional documentation which may specify standard requirements for the order. These attachments may include the following:

Terms and Conditions of Purchase

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- Specified conditions that are to be applied to the purchase orders.
- Beckwith Electric Workmanship Standards.

NOTE: A frequent reason for rejected material at Beckwith Electric is failure to supply a Certificate of Conformance as required.

# **Printed Circuit Board Assemblies (PCBA)**

- The supplier shall maintain an electrostatic discharge program that satisfies the requirements of an ANSI/ESD S20.20 or IEC 61340-5-1 facility certification.
- 100% First Article Inspection is a requirement of this purchase order. First Article Inspection shall be performed when one or more of the following apply:
  - Manufacture of new designed part.
  - Manufactured by a supplier for the first time.
  - Manufactured to a new part number revision affecting form, fit, or function.
  - Manufactured by a new supplier.
  - Significant changes to process or change of physical manufacturing location.
  - Supplier shall record actual data inspection results against all dimensions on the drawing(s) and deliver the data with the material(s).
- Design changes to production drawings shall not be performed without written authorization from Beckwith Electric Procurement Department. The supplier shall report all departures from drawings, specifications, and software prior to delivery. Acceptance of nonconforming material shall be at the discretion of Beckwith Electric.
- The supplier shall submit in process work instructions, test procedures, quality workmanship standards and any section processes in English for Beckwith Electric approval.
- The warranty on product shipment is free from defects in components and workmanship for a period of three years from date of manufacture. In the event an assembly becomes defective within warranty period; Beckwith Electric will return the unit for repair/rework. Alternately, Beckwith Electric may repair the unit and invoice the supplier for materials (if required) and labor. Also, any units that fail power-up will be returned under warranty or repaired at Beckwith Electric and the supplier will be invoiced for material (if required) and labor.
- Protective packaging for ESD on electrical devices and bulk shipments is the supplier's responsibility. Any shipment damage will be the supplier's responsibility for repair(s) or replacement.

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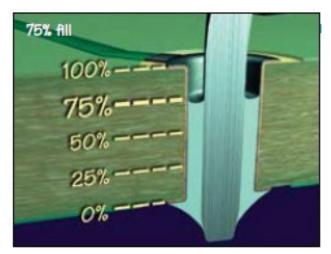
 The supplier will have a confidentiality agreement with Beckwith Electric for the product documentation for the purpose of production and/or selling the product.
 All deliveries will free on board (F.O.B.) Beckwith Electric dock, or designated receiving location by Beckwith Electric (or otherwise noted).

#### Cross Section

Bare PB Cross Section shall be sent with each Purchase Order along with a Certificate of Compliance. If there is more than one shipment per Purchase Order the Cross Section shall be sent with the first shipment. The Certificate of Compliance for the next shipments shall indicate that the cross section was already sent to Beckwith with the first shipment. (Exception: cross sectioning is not required on single sided boards).

- PCBA shall have 5 mils of conformal coating (if not indicated on Beckwith Electric drawing). All mechanical parts on PCBAs (nutserts, etc.) must be free of conformal coating.
- Program chips are to be to Beckwith Electric specifications.
- Workmanship shall meet the requirements of IPC-A-600 Class 2, IPC-A-610 Class 2, IPC/WHMA-A-620 Class 2, J-STD-001 Class 2, and J-STD-006 Class 2.

A total maximum of 25% depression, including both component (primary) and solder (Secondary) sides are permitted on through hole solder joints.



# **BARE PCB Requirements**

- Manufacturer Logo.
- UL 94V Flammability marking.

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- Revision Level.
- Certificate of Compliance document.
- Certificate of Origin document.
- Electrical Test Certificate document.
- Test Stamps on PB.
- UL Traceable to File Number.
- Meets Beckwith Electric STD-005 Requirements.
- Date Coded.
- Test Certification.
- Cross Section Analysis (Coupon)- except for single layer boards.
- Printed Circuit Board Sample

NOTE: Retention of Cross Section Analysis (Coupon) and Printed Circuit Board Sample shall be retained for 1 year from date of receipt.

## **Mechanical Items**

- 100% First Article Inspection is a requirement of this purchase order. First Article Inspection shall be performed when one or more of the following apply:
  - Purchased Item is not a Commercial Off The Shelf (COTS) item.
  - Manufacture of new designed part.
  - Manufactured by a supplier for the first time.
  - Manufactured to a new part number revision affecting form, fit, or function.
  - Manufactured by a new supplier.
  - Significant changes to process or change of physical manufacturing location.
  - Supplier shall record actual data inspection results against all dimensions on the drawing(s) and deliver the data with the material(s).
  - As identified on the Beckwith Electric Co. Inc. purchase order for needed First Article Inspection activities based on the above criteria.

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#### Criteria for FAIR submission:

- No Blank spaces on FAIR forms Note "N/A" if not applicable.
- Inspection equipment / tools shall be identified via the Tool ID number.
- Bubbled drawing shall identify all Notes, Attributes, Variables, and (REF) dimensions.
- All Notes, Attributes, and Variables identified on Bubbled drawing shall coincide with FAIR report.
- Features having multiple locations shall be identified via Inspection item # with subsequent lettering; a, b, c, d, ... and listed on separate report lines.
- The FAIR shall indicate the drawing tolerance for each feature and whether the feature is within the drawing tolerance.
- Raw material Certification of Compliance (C of C) shall be included with FAIR Submission Package.
- Special process Certification of Compliance (C of C) shall be included with FAIR Submission Package.
- FAIR shall be signed and approved by a Quality Representative or an authorized designee.

#### Criteria for Delta FAIR submission:

- Delta FAIR is applicable if the vendor has already satisfied the Full FAIR submission for drawing part number in question.
- All Eng. requirements, specifications, and activities identified during Full FAIR activities are applicable to Delta FAIR submissions excluding the isolated changes that will need validation from the newly released drawing revision.
- Delta FAIR activities are applicable to isolated change(s) to the product design resulting in a drawing revision update.
- Delta FAIRs shall reference the baseline FAIR number on the report.

#### Design Changes

Design changes to production drawings shall not be performed without written authorization from Beckwith Electric Procurement department. The supplier shall report all departures from the drawings, specifications, software, manuals,

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service instructions or purchase order requirements prior to delivery. Acceptance of nonconforming material shall be at the discretion of Beckwith Electric.

## Paint Samples

A paint sample shall be provided for manufactures of new designed parts, manufactured by a supplier first time or manufactured by a new supplier. The paint sample will be maintained in the Mechanical Inspection area.

#### All Returned Products

All products returned to suppliers will be tracked with a supplier RMA number. The supplier will pay shipping cost. When requested by Beckwith Electric, the supplier will generate a Supplier Corrective Action Report within 15 days after repairs are completed and report corrective action to Beckwith Electric.

# **Vendor Packaging Requirements**

- All COTS items shall be shipped in their Original Equipment Manufacturer (OEM) packaging for product preservation to prevent damage, movement, deterioration, and contamination during transit. This requirement also includes shipments of quantities less than typical full amounts from the supply source.
- All electrostatic sensitive devices / components shall be protected during and
  after manufacturer, during shipment, device assembly, and in the finished
  device. Protective packaging for ESD on electrical devices and bulk shipments
  is the supplier's responsibility. Any shipment damage will be the supplier's
  responsibility for repair(s) or replacement.
- All products designed by Beckwith Electric Co. shall be packaged in a manner that will protect the items against corrosion, contamination, and physical damage during shipment from the supply source to Beckwith Electric Company Inc.