Supplier Quality Manual – Industrial Electric Mfg. (IEM)

IEM – SQM – 001
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Contents

Purpose

The purpose of this manual is to define Industrial Electric Manufacturing (hereafter referred to as IEM) processes and requirements for Suppliers. The manual is intended to be communicated with all IEM suppliers, clarify IEM's expectations of processes and requirements that come with the administration of this manual, to eliminate any ambiguity and improve communication between IEM and its suppliers. The goal is to meet and/or exceed customer requirements for quality, cost, and on time delivery.

Scope

This manual is applicable to all suppliers providing production components and/or services to IEM.

As part of our company policy and to support the requirements of our customers Industrial Electric Manufacturing (IEM) must periodically update our Approved Supplier List (ASL). This document contains Industrial Electric Manufacturing's expectations of our vendors.

Ownership/Responsibility

IEM's Supplier Quality team is responsible for the content within this module.

Application

This manual and all requirements stated within are part of the supply contract and purchase order at all locations of IEM.

To cover all requirements for products and services, specific supplements to this standard can be agreed upon, but must be documented in the supply contract and/or purchase order.

Quality Management System of Supplier

1. IEM requires its suppliers to implement and maintain an established and documented Quality management system with specific goals to ensure product quality, on-time delivery, continuous improvement, and reduction of defects.
2. IEM prefers that all suppliers possess at least one of the following standards.
    a. ISO 17025: Calibration Laboratories
    b. ISO 9001: Quality Management System (General Manufacturing)
    c. AS 9100: Quality Management System (Aerospace)

    Suppliers are encouraged to be certified to ISO 14001: Environmental Management System. Any exceptions to a-c must be approved by the Director of the Supply Chain and require further action.
3. IEM Supplier Quality may request evidence from the supplier to verify the effectiveness of their subcontractor's Quality Management System (QMS), performance monitoring, and other applicable assessments.
4. All suppliers to IEM are responsible for management and control of their own suppliers. Visits and audits conducted by IEM on suppliers' subcontractors are not considered part of management and control of subcontractors.
5. Maintain documented training for all personnel.
6. Maintain an organization chart showing the relationship of the Quality Assurance department to other management functions available.
7. Use stamps, initials, stickers, or other markings to indicate inspection and test status.
    a. Marking method(s) used must be adequately controlled.
8. Ensure Purchase Orders, drawings, and specifications are reviewed by Quality Assurance, prior to start of production, to ensure planning complies with Customer requirements.
9. Ensure written procedures in use are controlled for purchasing materials and services.
10. Maintain an Approved Supplier List (ASL).
11. Periodically evaluate Suppliers for continued conformance to specified requirements.

12. Ensure materials and services are purchased only from suppliers listed on the Approved Suppliers List.
13. When specified, only customer-approved sources are used for the procurement of materials and services.
14. Suppliers shall have documented processes to verify that incoming material is properly identified, segregated, and inspected for conformance to specified requirements prior to storage or release to production.
15. Certificates of Conformity (C of C) and test reports required for purchased materials, are to be maintained as a quality record.
16. Ensure adequate controls are in place to guarantee that the latest revision of drawings and specifications are used by engineering, production, and quality assurance.
17. Documented work instructions shall be used for all manufacturing and inspection operations performed.
    a. Work instructions to include in-process and final inspection operations as appropriate to ensure conformance to specified requirements.
18. Product identification is maintained throughout the manufacturing process.
19. There is a documented procedure for the calibration of Inspection, Measuring, and Testing Equipment used in the acceptance of deliverable items.
20. Nonconforming material is identified, segregated, and controlled pending its final disposition.
21. Procedures must include the documentation of the root cause and effective corrective action for nonconformances.
22. Reworked and/or repaired products shall be re-inspected prior to being returned to production.

Supplier Selection (RFQ)

1. IEM Purchasing and Supplier Quality will select suppliers from their current supply base and other supplier listings in line with procedure OP-74-01 Supplier Evaluation. Customer mandated suppliers must be approved prior to doing business with them.
2. All present and potential suppliers to IEM shall be able to demonstrate with objective evidence that they plan to or have implemented and maintain a Quality Management System that conforms to requirements detailed in ISO 9001:2015.
3. A supplier qualification assessment audit by IEM may be required prior to approval if Supplier does not have Quality Management Certificate. The Supplier Quality Questionnaire Supplement (IEM-SQQ-001) is structured to evaluate the suppliers' QMS conformance to ISO 9001 standard requirements.
4. The Supplier's employees must be competent and qualified for their job function. The Supplier must ensure this through appropriate internal or external training courses. A training record must be available for all employees manufacturing products for IEM.
5. The supplier shall be able to demonstrate, upon request, compliance with local, national, and international standards and regulations regarding health, safety, and environmental issues relevant to the supplier's business.
6. At the discretion of IEM, the technical, quality, manufacturing, engineering, purchasing, delivery, capacity, and business issues shall be reviewed to ensure the supplier understands IEM's requirements and expectations. In some cases, suppliers may be required to identify subcontractors and/or suppliers of raw materials in their quotes.
7. The supplier accepts the manufacturing feasibility of the product by submitting a quote to IEM. IEM Purchasing, with input from Supplier Quality and other stakeholders, will select a supplier based on quality, cost, timing, QMS, risk assessment, financial stability, and supplier performance rating.
8. IEM will notify the nominated supplier of the new business by issuing a letter of intent to purchase and/or a purchase order.

9. All products supplied to IEM must be accompanied by a Certificate of Conformance (CofC). [In most cases a Packing List P/L will suffice] A copy of the manufacturers CofC will be required to accompany each shipment of the specified material. The actual content of the CofC will include at a minimum:
    a) *Product Identification – Part Number, Description, Batch Number*
    b) *Manufacturers Information – Company Name, Address*
    c) *Industry Standard / Customer Standard*
    d) *Third Party Lab Details (Accreditation) – If tested at 3rd Party Lab*
    e) *Safety Regulation Information - If applicable*
    f) *Expiration Date – If applicable*
    g) *Purchase Order / Sales Order / Invoice Details*
    h) *Safety Data Sheet – Required for all hazardous chemicals*

Changes in Process for an Approved Supplier

10. All process changes shall be reviewed by IEM prior to manufacturing.
11. Changes to a previously approved manufacturing process, including changes of sub-tier Suppliers, require the Supplier to notify the appropriate Buyer and/or Supplier Quality. Additional testing and its associated costs may be required. Failure to comply with these requirements shall make the Supplier fully responsible for the absorption of all costs relating to customer acceptance of the changed component and any failures (including field failures) attributed to the change.
12. IEM expects its Suppliers to identify, document, and communicate any issues or concerns with design, materials, performance, appearance, and durability based on their expertise, knowledge, and lessons learned from similar products.
13. The Supplier must notify IEM Purchasing/Supply Chain if there is a change in delivery times.

Packaging, Product Identification, and Traceability

1. Packaging must be developed and defined to eliminate damage during transportation and storage. Ergonomic handling and environmental criteria must be considered along with inventory restrictions, size, and cost.

2. Material shall be packaged in such a manner that ensures the integrity of each piece during all aspects of normal transit. Unless otherwise agreed to in writing, material shall also be protected from corrosion for a minimum of 90 days after delivery. Each container, box, package, etc. must be identified with, at the minimum:
    a. *Supplier's name*
    b. *Part name*
    c. *Part number*
    d. *Revision level*
    e. *Quantity*
    f. *Date of shipment*
3. If no specific requirements for packaging are defined by IEM, the Supplier must define the packaging agreement with IEM Purchasing prior to production and or delivery. Transportation and/or packaging trials may be required prior to confirming robustness of dunnage to protect product. This also applies to low volume shipments of material including production and test pieces.
4. The Supplier must ensure identification and traceability of products supplied. This identification shall include labeling of packaged products, manufacturing location, manufacturing date, part identification, and sub-contractor traceability.
5. The Supplier's traceability strategy must enable the Supplier to work back through their process to the incoming material used in the manufacture of defective or suspect product. Certain components, assemblies, and services must be individually identified. IEM's Quality department will identify and specify any additional requirements regarding traceability. There shall be a process in place to ensure the lot and/or serial traceability is managed according to customer, industry, government, and/or international standards.
6. Records shall remain legible, readily identifiable, and retrievable for up to 10 years, or as applicable.
7. The Supplier shall ensure that there is a controlled storage environment that all parts are protected against damage and deterioration. The Supplier shall have a process in place

that ensures all defective or obsolete material is contained, segregated, reworked, and/or disposed of properly.

Supply Chain Management

Supplier Commitment

IEM has high expectations of all Suppliers and will seek to work with suppliers that demonstrate a strong commitment to quality, continuous improvement, and cost savings.

Supplier Development

IEM will contact suppliers for QMS development based on supplier performance, potential risks, and importance of component to product quality and customer satisfaction.

1. The supplier development plan identifying the path to low risk shall be initiated based on quality and delivery performance.
2. The plans may include support of quality management systems, lean manufacturing, six sigma, and other team-oriented problem-solving methodologies.

Audits

1. The Suppliers must allow IEM to establish thorough audits of quality assurance procedures and policies to fulfill the requirements in this manual. The audit can be a potential Supplier QMS assessment, process audit, product audit, or tooling audit. The Supplier will be notified in advance of the audit date.
2. The Supplier shall allow IEM personnel and its customer representatives reasonable access within their premises to verify manufacturing, and that product or service conforms to specified requirements.
3. The Supplier shall allow IEM personnel to evaluate the Supplier’s ability to sustain contracted production capacity.

4. The Supplier Quality team shall specify these arrangements and methods of performing these verification activities.
5. The Supplier will grant IEM reasonable access to all operating sites, checkpoints, stores, adjoining areas, and any related documents required to complete the audit.
6. IEM may require the Supplier to implement corrective actions and/or action plans to improve product or processes based on the audit results. The plan must include responsibilities and due dates for completion.
7. The Supplier shall report on the status of the plan as per the agreement with Supplier Quality.

Supplier Rating/Evaluation

Evaluation of Approved Suppliers

1. Ongoing performance of key parameters is monitored and reported utilizing the IEM Supplier Scorecard System. This system is used to determine the Supplier's performance to requirements, efforts on improvement and is a key tool in determining new business awards.
2. When Supplier contact information changes (example; new contact for Quality Representative at the Supplier's location) the Supplier should report the changes to IEM. This will enable IEM to update databases to ensure continued, uninterrupted performance feedback to Suppliers.
3. Supplier audits may be used for: Supplier risk assessment, supplier monitoring, supplier QMS development, product audits, and process audits. The scope for these audits will be defined when scheduling the audit based on the available data. The frequency of these audits will be determined based on the effectiveness of actions.
4. IEM's expectation is 100% on-time delivery. The Supplier shall notify IEM Purchasing/Supply Chain of any shipment interruption(s).

The Supplier Vendor Performance Report calculates and reports on the performance of vendors in two key areas: (75%) Product Quality and (25%) On-Time Delivery (OTD). OTD points are based on purchase order promise date versus date received. Quality points are based on the number of items received versus the number of non-conforming items.

GOLD	95% - 99 %
GREEN	90 – 94.9 %
YELLOW	80 – 89.9 %
RED	</= 80 %

Supplier Charge Back

1. If non-conforming material is received by IEM, The Supplier is required to take immediate containment action as soon as reasonably possible to isolate the instance and ensure further delivery of defective material to IEM is prevented. The Supplier is required to provide a Corrective Action Plan (RCCA needed actions, completion dates, and action owners) and a detailed 8D report within specified timeframe determined by IEM. If additional time is required, the Supplier must contact IEM Supplier Quality to request extension. All corrective actions (CAR) responses from suppliers shall either be documented in IEM's 8-D CAR format or Supplier format. This document must contain IEM's CAR number and all sections of IEM 8-D.
2. Costs incurred by IEM due to poor product quality, nonconforming products, and delivery based on contractual requirements may be charged back to the Supplier, using IEMs Material Rejection Report (MRR) [non-conforming material] and matching Supplier RMA.

3. If deemed necessary, Suppliers are expected to sort defective material delivered to IEM facilities, as required to maintain production. IEM may sort defective material at the Supplier's expense.
4. IEM expects 0% defects, and that all Supplier delivered materials are ready for use without need for incoming inspection.
5. Special circumstances will be handled on a case-by-case basis through IEM Purchasing and Supplier Quality.
6. If non-conforming supplied material impacts IEM's ability to meet their customer's requirements, the Supplier will be expected to replace that quantity with conforming parts to meet their contract.

Product/Supplier Resourcing

1. If a Supplier continues to have quality or delivery issues with IEM, resourcing of that product to a different supplier may be considered.
2. Suppliers are required to provide products until the contract expires and additional amounts as needed to protect product availability and quality to customers.

Non-conforming Materials

Non-conforming Material: Immediate Action

Suppliers are required to inform IEM as soon as non-conforming material is discovered. Upon discovery of a Supplier non-conformance, all suspect material at all points of manufacture, will be placed in quarantine until one of the following conditions are met:

1. Product is confirmed to be conforming.
2. An engineering deviation is approved by the IEM Design and Engineering team.
3. Product is reworked and verified for conformance via an approved rework procedure.
4. Product is scrapped.
5. Product at IEM is returned to Supplier.

The Supplier is required to account for and document the disposition of all non-conforming material. IEM at its sole discretion, may request formal confirmation of the disposal of non-conforming or obsolete material.

Non-conforming Material: Corrective Action

1. A Corrective Action Report (CAR) will be issued to Supplier when IEM receives material or service that fails to conform to specification. The CAR response shall detail the root cause of the non-conformance in IEM's CAR format, and the corrective actions implemented to prevent future recurrence. The response may require Control Plans and verification of effectiveness. Informal actions may be taken to record non-conformance elimination efforts and can be documented in a Material Rejection Report (MRR).
2. A formal notification of non-conformance will be issued when there is evidence of systemic failure of Supplier QMS (e.g. repeat occurrences of non-conformances, failure to inform IEM of a known quality issue, failure to implement corrective actions or lack of responsiveness, delivery) whenever they are found.

Deviation for Non-conforming Material

IEM does not accept products that do not meet the required specifications. However, in the rare case of exceptional circumstances, Suppliers may approach IEM for relief of specific requirements. IEM may choose to request a concession on non-conforming material. Requests should be submitted to the IEM Supplier Quality and/or Quality Engineer. Any such request must be accompanied by a completed CAR and any data necessary to support the request. All costs relating to a deviation are the responsibility of the Supplier. Suppliers must not ship without a formal deviation authorization.

Risk management

IEM may conduct a risk assessment to mitigate risk to all parties as part of IEM supplier qualification questionnaire and the risk assessment will also be used as required during the launch process.

REFERENCE DOCUMENTS

Document Name	Document #
ISO 9001- Quality Management System	
Supplier Qualification Questionnaire Supplement	IEM-SQQ-001
Supplier Evaluation	OP-74-01
Supplier Registration Prequalification	PUR-01

REVISION HISTORY

Rev.	Description of Change	Created By	Approved By	Date
0	Initial Release	Varun Sarma	Rebecca Rutherford, Austin Walker	April 29, 2024
1	Added scorecard criteria, updated responsibility, added reference documents, changed layout of Ref. documents table, Rev. history table, and header/banner.	Terry Prevatt	Rebecca Rutherford	March 28, 2025
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