



Document title:

**CONTRACT FLOWDOWN
REQUIREMENTS - build to Greenray
drawing**

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1. Purpose

- To define contractual requirements that pertain to the item being purchased in which this document is specified

2. Scope

- Applies additional requirements, contained within, to a contract when specified in a contract or specification.

3. Definitions:

3.1 GRI: Greenray Industries Inc.

3.2 Part: the lowest level of separately identifiable items (e.g., Piece parts)

3.3 Part Obsolescence: a part that is being discontinued and will no longer available for purchase.

3.4 Counterfeit part: a part that is a copy or substitute without legal right or authority to do so or one whose material, performance or characteristics are knowingly misrepresented by a supplier at any level in the supply chain. Examples of counterfeit parts may include, but are not limited to:

3.4.1 Parts which do not contain the proper internal construction (die, manufacturer, wire bonding, etc.) consistent with the ordered part.

3.4.2 Parts which have been used, refurbished, or reclaimed, but represented as new product.

3.4.3 Parts which have a different package style or surface plating/finish than the ordered parts.

3.4.4 Parts which have not successfully completed the OEM's full production and test flow but are represented as completed product.

3.4.5 Parts sold as up screened parts, which have not successfully completed up screening.

3.4.6 Parts sold with modified labeling or markings intended to misrepresent the part's form, fit, function, grade, or manufacturing date.

4. Contract Requirements – all apply and shall be flowed down to the seller's suppliers at all tiers

4.1 Quality Management System (QMS) Requirements

The Supplier shall implement and maintain a QMS which complies with the applicable standard or specification listed in Table 2. Any exceptions to these requirements may be approved by Greenray Quality Manager, through the Greenray Procurement Representative.

Table 2: Quality Management System Requirements Product/Service	Minimum Required QMS
Manufacturer with Design Authority, Manufacturer Build to Print, or Value-Added Distributor	ISO 9001 (or equivalent), AS9100 Preferred
Inspection and Test Services	ISO 9001 (or equivalent), AS9003, AS9100 Preferred
Pass Thru Distributor	AS9120
Special Processing	NADCAP AC7004 Preferred
Commercial	ISO 9001 (or equivalent)
Services	ISO 9001 (or equivalent)
Calibration Services	ISO 17025 or ANSI-Z540-1
Catalog Items	As specified by contract or Purchase Order
Customer Directed, Engineering Directed or Sole Source of proprietary parts or Program Justified Source	Supplier's recognized quality system imposed. Exempt from Greenray requirement to be 3rd party certified.

4.2 Change in QMS Certification Status

The Supplier's QMS is subject to review and audit by Greenray. Any changes to the Supplier's registration, such as a change in certification status (e.g., update, withdrawal, or disapproval) or registration body, must be forwarded to the Purchasing Representative within 30 days. A change in Supplier name, ownership, or facility location will subject the Supplier's System and Processes to reevaluation by Buyer. The Supplier shall notify their Procurement Representative of any of these changes in writing within 60 days prior to the change occurring.

4.3 Supplier Audit – Performance of any audit of the supplier's quality system and/or test and inspection documentation at the supplier's facility may be required in association with this order. The audit may encompass parts procured to this order or any parts in-process for GRI, to assure conformance to the associated procurement documentation. A supplier representative shall be available to provide technical assistance to the auditor in those areas of a technical nature, i.e., ATE, test programs, etc.

4.4 Right of entry – GRI and GRI's customer's representative(s) reserve the right to access the supplier's facilities and lower-tier suppliers, to assure the supplier's product(s) and processes fully comply with the requirements of this PO. Procurement quality engineering reserves the right to audit and approve/reapprove existing and potential suppliers and their sub-tier suppliers, prior to award of a PO, as well as post award, as GRI considers necessary to assure product conformance and completion of the PO.

4.5 Manufacturer's lot traceability - Each part delivered on this purchase order shall be clearly marked with a lot code or date code which provides traceability to the manufacture's process. If the part is too small to mark, the minimum protective package shall contain the information.

4.6 Counterfeit Components - No counterfeit parts, as defined herein, shall be used in parts supplied to GRI.

To mitigate the possibility of the inadvertent use of counterfeit parts, the buyer shall only purchase authentic parts and/or components directly from the original equipment manufacturer (OEM or OCM) or through the OEM or OCM authorized distribution chain. Purchases of parts or components from independent distributors are not authorized unless first approved in writing by a program quality representative. The term "independent distributor" shall mean a person, business or firm that is neither authorized nor franchised by an OCM to sell or distribute the OCM's products but which purports to sell, broker, and/or distribute such OCM products. Independent distributors are also referred to as non-franchised distributors, unauthorized distributors and/or brokers. The contents of this paragraph shall be flowed down to the seller's suppliers at all tiers.

4.7 Changes affecting GRI product - Supplier shall notify GRI prior to changes in product, critical process, material, changes of suppliers, and changes of manufacturing facility location and shall not implement changes without written approval from GRI MRB Team. Changes affecting non-critical processes, production equipment, tools and programs shall be documented. Procedures shall be available to control the change implementation.

- 4.8 Record Retention** - The supplier shall retain in a safe and accessible location all records associated with the manufacturing of serialized or lot controlled items providing continued traceability of serial numbers or lot number identification through all manufacturing phases commencing with raw material and continuing through final acceptance. This shall include verifiable objective evidence of all inspections and testing with final results and the dispositions of non-conforming items. These records shall be identified to associated items including the heat lot numbers, unit or lot serialization. Records shall be made available to GRI, GRI customer and/or government representative upon request for a period of seven (7) years.
- 4.9 FOD** - the supplier shall maintain a foreign object (FO) control program with a documented plan assuring work is accomplished in a manner preventing foreign objects or materials from entering and remaining in deliverable product. Prior to closing inaccessible or obscured areas and compartments during assembly, the supplier shall inspect for foreign objects and materials. The supplier shall flow down requirements as required to their suppliers to ensure compliance to this requirement.
- 4.8 Prohibited finishes** - Cadmium or zinc plating is prohibited as a final finish or as an undercoat. The supplier shall provide a certificate of compliance, with each shipment of product certifying they are meeting this requirement.
- 4.9 Acceptable Finishes** - The finishes defined below are acceptable to be used when by Greenray documentation such as on the PO, Greenray Drawing, or as specified by the Greenray Part number. The Greenray Part number suffix (PB, LF, E, E1) specify the expected termination finish, see details below. The supplier shall provide a certificate of compliance, with each shipment of product certifying they are meeting this requirement.
- 4.9.1** Suffix PB = Tin-lead (Sn-Pb) this finish is acceptable provided it is in accordance with the GRI drawing requirements and that the minimum lead content is three (3) percent.
- 4.9.2** Suffix LF = Tin (Sn) this finish is acceptable provided it is in accordance with the GRI drawing requirements and it meets the RoHS directive for a Lead Free (Pb free) product, such as <0.1% Pb within the homogeneous finish.
- 4.9.3** Suffix E = This finish suffix encompasses several possibilities such as Palladium Silver (PdAg), Electroless nickel immersion gold (ENIG), Electroless Nickel / Electroless Palladium / Immersion Gold (ENEPIG), these finishes are acceptable provided they are in accordance with the GRI drawing requirements and they meet the RoHS directive for a Lead Free (Pb free) product, such as <0.1% Pb within the homogeneous finish AND they do not include Tin (Sn)
- 4.9.4** Suffix E1 = This finish is Gold (Au) that is not Electroless nickel immersion gold (ENIG) or Electroless Nickel / Electroless Palladium / Immersion Gold (ENEPIG) and that may require additional processing /mitigation for it to be used in product. The supplier shall communicate the Gold (Au) thickness on the C of C or in the shipping documentation.
- 4.10 Cage Code** - The manufacturer's cage code shall be conspicuously identified on certificate of conformance or other documentation accompanying this order.
- 4.13 Non-Conforming Product** - The organization shall provide a Corrective Action Response when requested by GRI regarding product that does not conform to the part /specification ordered.

4.14 Customer verification - Customer verification activities performed at any level of the supply chain should not be used by the organization or the supplier as evidence of effective control of quality and does not absolve the organization of its responsibility to provide acceptable product and comply with all requirements.

4.15 Certificate of compliance (general) - Supplier is to provide a certificate of compliance (CoC) with each shipment which certifies that the product provided complies with all the item specific as well as any general purchase order requirements. When applicable, the lot, heat, batch, date code, and/or serial number must appear along with customer's order number, part number, name and address of manufacturing location, quantity, unit of measure and be signed by an authorized official of the company. The CoC may be part of the packing list. The supplier is required to retain the CoC and certification data for all lots in a safe accessible location and shall be made available to GRI, GRI customer and/or government representative upon request for a period of seven (7) years.

4.16 MRB Authority - Supplier does not have MRB authority and cannot "Accept As Is" or "Repair" without receiving written approval from GRI MRB Team.

4.17 Contract requirements flow down - Supplier shall flow down to the supply chain the applicable requirements including customer requirements.

4.18 Part Obsolescence – Suppliers shall notify us prior to any sourced part becoming obsolete and aid in establishing a new source. Greenray requires a minimum of year prior notice of a part becoming obsolete. Greenray shall be given the opportunity to make a last time buy.

4.19 Sampling – wherever sampling is used as an inspection method; all sampling must be based off a statistically sound sampling table.

4.20 Supplier Awareness - The following is being communicated to Greenray's external providers (i.e. Suppliers) in support of Greenray's Quality Management System and continued improvement:

a. Greenray's "Quality Policy" states, in part: To provide competitive, quality products and services which fully meet our customers' specifications first time, on time, every time achieved by constantly striving for continuous improvement in all areas of operations". This cannot be accomplished without our Supplier supporting continual improvement.

b. Greenray's Suppliers maintaining a Supplier Quality Acceptance Rating of $\geq 90\%$ and an overall On Time Delivery Rating of $\geq 80\%$ to support Greenray's goals of: Customer Satisfaction and On Time Delivery to Customers.

c. Accuracy and compliance to Purchase Order requirements by external providers contribute to the overall effectiveness of Greenray's Quality Management System by improved performance and meeting mutually beneficial Quality Objectives. Furthermore, external providers contribute to **product safety** by supplying products and or services in compliance with requirements.

4.21 Supplier Ethics

- Greenray will conduct business in compliance with all applicable federal, state, local, and foreign country laws. We also expect all of our employees and others with whom we do business (i.e. you the Supplier) to conduct their business activities with the utmost integrity, honesty, and to maintain high ethical standards.

- Greenray's provides awareness training for our employees that includes importance of ethical behavior. It is expected that our Suppliers have and support similar practices to ensure full compliance. Suppliers must only provide those products and services that conform to contract requirements, including all testing requirements, and you must ensure that sub tier suppliers of raw materials, parts and components used in our products have an acceptable quality control system and that no counterfeit or malicious parts are utilized in our products.
- Many special laws and regulations apply when we do business with U.S. Government agencies and prime contractors. It is our responsibility and those whom we do business with to know, understand and comply with these laws and regulations, as well as with the Company's own high ethical standards in conducting business. Failure to comply with these rules can subject Greenray, its employees, and those whom we do business with to serious civil and criminal liability, and penalties. We are committed to complying with all laws and regulations that apply to our government contracts and to acting ethically in all transactions with the Government and we thank you our Suppliers for your shared commitment to meeting these principles.