


Supplier Quality Manual

GKN Aerospace Alabama

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<https://www.gknaerospace.com/globalassets/downloads/aerospace-suppliers-portal/usa/alabama/>

INTRODUCTION

Warmest greetings from GKN Aerospace Alabama (GKN). GKN strives to meet the needs of our customers by delivering both conforming & compliant products, either on time or early, either at or under cost. In order to meet the needs of our customers in this highly competitive environment, more apparent in the wake of the COVID-19 global pandemic, GKN both anticipates & expects our supply base to strive to meet our needs in the same manner. By collectively working to these ends, it is the intention of GKN to build long-lasting, performance-based, symbiotic relationships with Suppliers across the globe.

The purpose of this document is to communicate information needed by Suppliers to facilitate GKN receiving both products & services that meet our aforementioned needs. Note that any specification or standard quotes within are of the latest revision at the time of this document's publication. Should you have any comments, concerns, ideas, questions or other feedback with respect to this document, please relay this information to your respective Buyer(s).

GKN looks forward to working with your company.

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REFERENCES

- AS9100
- AS9102
- AS9110
- AS9120
- AS9145
- AS13100
- BSO 10.1.0.1
- BSO 10.1.0.2
- ISO9001
- ISO14001
- NIST (www.nist.gov)

- GKN T&Cs
- PUR 1.1.2
- PUR 1.3.3.1
- PUR 1.9.1.2
- PUR 1.9.1.3
- PUR 1.9.1.5

CONTRACTING

GKN Suppliers must adhere to GKN's Terms & Conditions, Procurement Quality Clauses, as well as any instructions within the Purchase Order, including any & all engineering flow downs (e.g. Vendor Instruction Sheet(s) (VISs), drawing(s) / parts list(s) / operation sheet(s) / 3D model(s) at their listed revisions, etc.).

GKN Suppliers must flow down any & all specified requirements to their sub-tiers, as well as for any & all sub-tier activity completed against these requirements, in accordance with (IAW) AS9100, § 8.4.1.

The organization shall be responsible for the conformity of all externally provided processes, products and services, including from sources defined by the customer.

Any Supplier responsible for design activity must allow GKN to review objective evidence of activities conducted IAW AS9145 if requested.

GKN Suppliers must acquire any & all needed information to produce both conforming & compliant product from either GKN or reputable sources (e.g. Original Equipment Manufacturer(s)).

GKN may coordinate with GKN's Global Commodity Team (GCT) to complete activities relevant to Supplier selection, monitoring and development. GCT personnel act on behalf of GKN Aerospace Alabama and must be given the same access and privileges as GKN Aerospace Alabama site personnel.

GKN Suppliers should ensure any directions given from GKN personnel outside of the Procurement department do not violate the terms and conditions of any individual Purchase Order; GKN Suppliers may validate any instructions by contacting the GKN Supplier's Buyer(s) of Record. GKN Suppliers are responsible for any damages caused by following directions not confirmed with the Supplier's Buyer(s) of Record.

APPROVAL OF NEW SUPPLIERS

GKN Suppliers must be on GKN's Approved Supplier List (ASL) to be able to supply product to GKN. GKN Suppliers are placed on GKN's ASL by proving their Quality Management System (QMS) either meets or exceeds the requirements flowed down from GKN to the Supplier in the T&Cs, Quality Clauses & Purchase Order(s).

NOTE: GKN is required to maintain this ASL per AS9100, § 8.4.4.1.1(b).

The organization shall:

b. maintain a register of its external providers that includes approval status (e.g., approved, conditional, disapproved) and the scope of the approval (e.g., product type, process family);

GKN will approve new Suppliers via any of the following means:

1. Certified to ISO 9001 (Quality Management requirements related to business-to-business dealings) or AS9100 (Requirements for Aviation, Space, & Defense Organizations), as well as NADCAP (industry-managed program for aerospace industry special processes), or equivalent standards as applicable. GKN Suppliers are responsible for providing objective evidence of compliance to any & all applicable standards upon request, including any Federal Aviation Administration (FAA) requirements.

NOTE: As applicable, GKN Suppliers may be certified to either AS9110 (Requirements for Aviation Maintenance Organizations) or AS9120 (Requirements for Aviation, Space, & Defense Distributors).

2. A Supplier currently in good standing with GKN, that has current work, may take on additional GKN work.
3. If GKN's Customer, via written approval, mandates the use of a certain Supplier.
4. Completion of the GKN Supplier Survey Questionnaire (PUR 1.9.1.2) prior to the start of production if the Supplier does not either have an industry standard certification, cannot demonstrate a pre-existing Supplier relationship, or is not mandated to be used by GKN's customer(s). All GKN Suppliers, even certified Suppliers, must complete PUR 1.9.1.2, which considers if any Supplier is certified and / or compliant.
5. The Supplier may pass an on-site assessment by GKN, conducted at our sole discretion. If an on-site assessment is conducted, the Supplier should be assessed according to several metrics within the GKN Supplier Process Assessment (PUR 1.9.1.3), and GKN reserves the right to deem additional metrics necessary as required.

GKN grants approval to any new Supplier with the understanding that GKN may either revoke, suspend or otherwise discontinue said approval at any time, either with or without notice.

MAINTAINING APPROVAL

GKN periodically monitors metrics directly related to each Supplier's quality & delivery performance. The Supplier will remain on the ASL by maintaining both a quality rating of ninety-eight percent (98%) & a delivery rating of ninety-five percent (95%). If a Supplier fails to maintain either one of these two levels of performance, GKN should monitor their performance over a six-month period before considering the Supplier for ASL removal. GKN considers this six-month "grace period" to be more than sufficient for the Supplier either to get their performance back on track, either with or without GKN assistance, or to plan their next actions (e.g. exiting the GKN supply chain). GKN anticipates that, by providing this generous "grace period", the Supplier will be forthcoming with any plans to exit the GKN supply chain so that both GKN & the Supplier can work together for our mutual benefit until dissolution.

GKN reserves the right to conduct on-site assessments of its Suppliers, which GKN expects Suppliers to pass.

Removal from GKN's ASL may occur if any Supplier either meets or exceeds any of the following conditions:

1. The Supplier fails to respond to Supplier Corrective Action Requests (SCARs) within (15) business days after receipt of the SCAR.
2. The Supplier fails to notify GKN of customer exposure to any nonconformance within (2) business days of initial discovery.
3. The Supplier fails to notify GKN of loss of any applicable industry accreditation (i.e. ISO, AS, NADCAP, etc.) within (2) business days of receiving an official notice.
4. The Supplier fails to provide a completed annual representations and certifications form (PUR 1.9.1.5).

Continued approval as a Supplier is granted with the understanding that GKN may either revoke, suspend or otherwise discontinue said approval at any time, either with or without notice.

Lastly, for Suppliers that are required to be used via customer-provided engineering documentation, GKN reserves the right to explore options other than ASL removal to resolve unfavorable quality & delivery performance trends.

SUPPLIER PERFORMANCE

As previously stated, GKN expects our Suppliers to help us meet the needs of our Customers by delivering both conforming & compliant products, either on time or early, either at or under cost by means of a symbiotic relationship. GKN will first trust that Suppliers are meeting their objectives, then verify via monitoring performance.

GKN will periodically monitor Supplier performance. GKN should provide Supplier scorecards monthly as objective evidence of this monitoring, and must provide an updated Supplier scorecard to any Supplier upon request. GKN Supplier scorecards provide a glimpse of a Supplier's quality & delivery performance against the targets detailed here.

QUALITY RATING (QR)

GKN expects high quality standards from our Suppliers; because of this, GKN will gauge a Supplier's quality performance against a QR target of 98%, calculated against parts received in GKN's system as follows:

$$R_Q^S = \left(\frac{P_{Total} - P_{NC}}{P_{Total}} \right) \times 100\%$$

Where:

- R_Q^S = Supplier Quality Rating
- P_{Total} = Total Pieces Delivered
- P_{NC} = Nonconforming Pieces Delivered

DELIVERY RATING (DR)

GKN expects high delivery standards from our Suppliers; because of this, GKN will gauge a Supplier's delivery performance against a DR target of 95%, calculated against parts received in GKN's system as follows:

$$R_D^S = \left(\frac{P_{Total} - P_{Early} - P_{Late}}{P_{Total}} \right) \times 100\%$$

Where:

- R_D^S = Supplier Delivery Rating
- P_{Total} = Total Pieces Delivered
- P_{Early} = Pieces delivered more than (10) business days before the ODD*
- P_{Late} = Pieces delivered after the ODD*

NOTE: ODD = Original Dock Date, the original PO delivery promise date agreed between the Supplier & GKN

In addition to the Supplier scorecards, GKN will also actively both monitor & inquire about items related to costs to GKN, customer service, & other issues that GKN deems relevant. GKN reserves the right to either modify, add, or remove any performance metric, with notice provided to the Supplier before the modified metrics become effective.

FIRST ARTICLE INSPECTION (FAI)

Per AS9102, § 1.2:

The primary purpose of FAI is to validate that product realization processes are capable of producing parts and assemblies that meet engineering and design requirements.

GKN has adopted AS9102 as a standard for FAI completion, flowing down this requirement, as well as customer-specific requirements, via our Purchase Orders; this includes the creation of FAI reports (FAIRs). GKN Suppliers must meet all requirements of AS9102 unless otherwise specified, in writing, that AS9102 is not a requirement.

GKN Suppliers must complete either full or partial (“delta”) FAIs in accordance with AS9102, including:

1. When a new product is introduced, per AS9102, § 4.1(a).
 - a. *The organization shall perform FAI on new product representative of the first production run. The first production delivery parts require an FAI.*
2. When any of the conditions outlined in AS9102, § 4.1(f), occur.
 - f. *The organization shall perform a full FAI or a partial FAI for affected characteristics, when any of the following occurs:*
 1. *A change in the design characteristics affecting fit, form, or function of the part.*
 2. *A change in manufacturing source(s), process(es), inspection method(s), location of manufacture, tooling, or materials that can potentially affect fit, form, or function.*
 3. *A change in numerical control program or translation to another media that can potentially affect fit, form, or function.*
 4. *A natural or man-made event, which may adversely affect the manufacturing process.*
 5. *An implementation of corrective action required to complete a previous FAI, as described in 4.4.*
 6. *A lapse in production for two years shall require an update for any characteristics that may be impacted by the inactivity. This lapse is from the completion of last production operation to the actual restart of production.*

Packages with FAIs must be both clearly & visibly marked, on the outside of the package, with either “FAI enclosed” or equivalent. All paperwork must be placed inside an envelope within the shipping container; the envelope must be clearly labeled, stating either “FAI documentation enclosed” or equivalent.

GKN Suppliers must adhere to all Procurement Quality Clause (PUR 1.1.2) requirements regarding FAI completion.

GKN Suppliers must send all items necessary to complete the FAI (e.g. drawing(s), model(s), Mylar(s), tool(s), etc.) along with the FAI part & documentation. Failure to do so will result in delays in completing the FAI. Once the FAI is bought-off, GKN will promptly return all necessary items provided for FAI completion to the Supplier.

Additionally, GKN Suppliers must provide necessary items to facilitate FAI completion upon request.

PARTS RECEIVING

GKN may reach out to the Supplier when there are issues with receiving product into our facility. GKN anticipates that Suppliers will respond to inquiries related to parts receiving in a timely manner. After reaching out to the Supplier via email, GKN may initiate returning parts if the Supplier has not responded to communication within (3) business days after initial receipt of GKN's communication.

SUPPLIER CORRECTIVE ACTION REQUESTS (SCARs)

At our discretion, GKN may issue a SCAR in the event we discover a nonconformance with the Supplier's product. At our discretion, GKN may request objective evidence of a root cause & corrective action (RC/CA) investigation in lieu of issuing a SCAR. At our discretion, GKN may give the Supplier an opportunity to correct documentation issues in lieu of immediately creating a Supplier tag. Following feedback to the Supplier via email, this "grace period" should extend no longer than (2) business days.

In the event that a Supplier receives a SCAR from GKN, we expect to receive responses in line with the following:

- The Supplier must notify GKN within (2) business days of initial receipt of the SCAR that containment of the nonconformance has been achieved.
- The Supplier must formally respond to the GKN-issued SCAR within (15) business days.

GKN Suppliers must conduct a RC/CA investigation upon receipt of the SCAR. If, during the containment period of (2) business days, it is both determined & communicated to GKN that a prolonged investigation of more than (15) business days is required, GKN anticipates Suppliers will keep GKN informed of the progress of the RC/CA investigation by providing updates every (5) business days after the initial response period of (15) business days.

If GKN requests additional information in relation to a SCAR response, this additional information must be provided within (5) business days after the request is initially received.

Failure to respond to SCARs in the manners described above may result in either loss of approval status, suspension of deliveries, review of future contracts, or any combination of these ends.

The Supplier should use BSO 10.1.0.1 and BSO 10.1.0.2 to explain activities against corrective action requests.

DEVIATION REQUESTS

Outside of allowed deviations explicitly stated within Customer documentation (i.e. engineering drawing, specification, etc.), no substitution of material specification, size, or any other characteristic is allowed except by amendment of the Purchase Order. GKN must be notified of any utilization of allowed deviations specified above via the FAIR. GKN Suppliers must specify both the actual condition (Is), the stated condition (Should Be), as well as the rationale for the deviation (i.e. Deviation allowed per ...).

If a deviation outside of the aforementioned conditions becomes necessary, Suppliers must submit a Supplier Technical Support Request (STSR) (PUR 1.3.3.1) to their respective Buyer(s). Upon receipt of the STSR(s) by GKN, they will be promptly dispositioned (i.e. either approved or not approved), to either allow or not allow the requested deviation. GKN should include all necessary rationale behind any & all unfavorable dispositions.

CERTIFICATES OF CONFORMANCE (COCs)

Certificates of Conformance (COCs) must be sent along with each shipment of product beyond the FAI unit(s).

COC(s) must be attached to the packing list, & contain the following information:

- GKN part number (with revision(s))
- Part description
- Batch / Lot number(s)
 - Batch and Lot numbers must be explicitly stated on the CoC
- Quantity
- Purchase Order number (with line item(s))
- Supplier name & address
- Name & title of person completing the form
- Original signature (in blue ink only) (with date)

COST RECOVERY

GKN may pass along to the Supplier, either in part or in full, costs incurred due to the processing and / or handling of Supplier nonconformance records and Supplier-requested deviation requests due to any Supplier-generated nonconformance.

The decision of both when & how GKN passes along any costs is left to the discretion of both GKN's Finance Department & the Buyer(s) of Record.

SITE ACCESS

When access to the site of either a Supplier or their sub-tier Supplier is required for auditing & / or source inspection purposes, GKN will provide reasonable notice, in advance of the required site visits.

SOFTWARE

Before the release of any data to any Supplier, that Supplier should submit a completed Audit Data Route Questionnaire (ENG 1.2.2). The Supplier must maintain effective revision control, ensure adequate security of electronic data / media, & adhere to requirements regarding software within the Procurement Quality Clauses (PUR 1.1.2).

COMMUNICATION

GKN must be notified of any & all changes within a Supplier's QMS that affect quality of product delivered to GKN. Per GKN's T&Cs, we may unilaterally change the scope of any Purchase Order in writing, without notice.

ENVIRONMENT, HEALTH & SAFETY (EH&S)

GKN is committed to protecting the environment, & expects all Suppliers to partner with us in a commitment to both a safe & eco-friendly workplace. Our goals are to reduce consumption of water, energy, solid waste & eliminate Volatile Organic Compound (VOC) emissions. We expect Suppliers to share these goals & provide information that either might relate to a supplied product that would be a significant aspect to meeting these goals or have a negative impact on either the environment, health or safety.

A Safety Data Sheet (SDS) / Material Safety Data Sheet (MSDS) must accompany all potentially hazardous materials.

Domestic deliveries must abide by Occupational Safety & Health Administration (OSHA) regulations, whereas European international materials must abide by European Union (EU) & / or other relevant regulations. All part & material deliveries must be marked, labeled, & packaged according to United States Department of Transportation (USDOT) regulations.

SDSs (MSDSs) must include VOC content, preferably in pounds per gallon (lbs. / gal.).

NOTE: GKN is compliant to ISO 14001.

SUPPLIER STAMPS & TAGS

All parts received must have positive traceability to inspection status; additionally, both tags & stamps must both identify the individual inspector & be unique to the Supplier.

PART MARKINGS

All materials must be identified with part markings that are traceable to original certification. In-process material traceability must begin with raw material & continue through final product inspection.

Markings must be transferable both during & after operations that remove part markings. Markings must be unique, & duplication of markings must be prevented.

Markings must be traceable to test data & unique to the individual Supplier.

NONCONFORMANCES, REJECTS & SCRAP

During production, any & all nonconforming & rejected parts must be identified, documented & quarantined to prevent mixing of both conforming & nonconforming product. Quarantined areas must be access-restricted.

WORK ORDERS

All manufacturing processes & procedures must have specific work orders. Work instructions must define the requirements needed to complete each of these processes & / or procedures.

GAUGES

Gauges & other tooling used during both inspection & special processing must be both calibrated & traceable to NIST standards.

GKN-SUPPLIED MATERIALS

GKN-provided materials (e.g. drawing(s), tool(s), model(s), etc.) must be both controlled & identified.

HOUSEKEEPING

GKN Suppliers are responsible for maintaining both safe & clean work environments. GKN expects Suppliers to both supply & encourage use of appropriate personal protective equipment (PPE) during production. Controlled areas must have accompanying objective evidence of such control.

TERMS & CONDITIONS (T&Cs) & QUALITY CLAUSES

GKN Suppliers must both read & adhere to the GKN's Terms & Conditions (T&Cs). GKN Suppliers must both read & adhere to any & all Procurement Quality Clauses called out within the GKN Purchase Order(s) (REF PUR 1.1.2).

NO ADDITIONAL REQUIREMENTS

GKN does not impose any additional requirements on the Supplier outside of those referenced within the Purchase Order. If GKN does not state an additional requirement for any sub-section of AS9100 section 8.4.3, the Supplier must adhere to GKN Customer and International Standard (AS9100) requirements for these same sub-sections.

REVISION HISTORY

- Revision E: 20 August 2023
- Revision D: 26 October 2022
- Revision C: 12 August 2022
- Revision B: 04 April 2017
- Revision A: 12 September 2008