

Supplier Quality Manual



Revision History				
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07	Added section for Cybersecurity.	04/16/2024	M. Barnett	T. Jackman
08	Removed Acknowledgement Sheet. PO's link to latest SQM and supplier is responsible for ensuring they follow the latest version	05/20/2026	T. Jackman	A. Mazurkiewicz

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1. Purpose

The PNA, Inc. Supplier Quality Assurance Manual provides a concise understanding of our quality expectations and outlines the minimum requirements that our suppliers and sub-suppliers must meet. It is the intent of PNA to do business with suppliers who provide parts, materials, processes, and services consistently to procurement specifications, at a competitive price, and in accordance with the required delivery schedule.

Suppliers are expected to understand and comply with the applicable requirements as defined in this manual. Copies of the latest revision and other required documents can be obtained from your PNA Buyer Contact or on the PNA website in the Quality Section.

It is the responsibility of all PNA suppliers to verify the most current revision is in use. Any questions shall be directed to supplier's PNA Buyer for referral to PNA's Quality Assurance Manager. Supplier requirements contained in this manual will only be modified or waived in writing on a case-by-case basis by PNA's Quality Assurance Manager.

2. Scope

This Manual specifically applies to all suppliers and sub-suppliers which require approval as defined by PNA's ISO 9001 Quality Assurance Manual. This Manual does not alter or reduce any other contractual requirements covered by PNA's purchasing documents or any requirements defined by engineering drawings or specifications. This Manual does not supersede any applicable government regulations or quality requirements of PNA's customers.

In addition to the requirements in this Supplier Quality Manual, all Plasan Suppliers are expected to adhere to the Plasan Supplier Code of Conduct, which can be found on the PNA website in the Quality Section.

3. Cooperative Management Attitude

PNA expects suppliers to share in our commitment to meeting our product quality and delivery expectations through continuous improvement efforts. It is also expected that suppliers will fully support the relationship between PNA and our customers by demonstrating flexibility in meeting PNA customer requirements.

Due to the serious nature of the Defense Industry, PNA has concerns when supplier products or services negatively affect PNA's ability to meet our customer's delivery requirements. Our industry is driven by quality products and services delivered on time. PNA maintains that all suppliers should have contingency plans in place to eliminate risk associated with the demanding schedules. When a priority rating is specified on an PNA purchase order ("PO"), it indicates that the PO is a rated order certified for national defense use and the supplier is required to follow all the provisions of the Defense Priorities and Allocation System (DPAS) Regulations (15 CFR 700). Under DPAS Regulations, if the PO supports the U.S. Government and is DX or DO Rated, then the supplier must acknowledge acceptance within ten (10) days (for DX-Rated Order) or within fifteen (15) days (for DO-Rated order) of receiving the PO and follow the DPAS Regulations on order fulfillment priority.

4. Quality Management System, Qualification and Approval

PNA requires all suppliers to comply with their own quality management systems certified to ISO 9001 or equivalent quality management system. In the absence of an ISO Certification, suppliers are encouraged to develop quality systems to meet ISO 9001 requirements and strive to obtain certification. At a minimum, suppliers shall have a documented Quality System consisting of a quality organizational structure, trained personnel, procedures, and a documentation system which ensures that all products conform to drawing specification, procurement requirements and zero product defect, on time shipments, on time delivery, and excellent supplier services are expected.

ISO Certified suppliers shall provide a copy of their ISO certification upon request and shall notify PNA's Buyer within ten working days if their Certificate of Registration is suspended. The supplier shall forward a new copy of their certificate if it has expired.

Suppliers agree to respond to Quality System surveys, audits, and Inspections, to be arranged in advance, including, without limitation, production process capability, and product evaluations. Audits and Inspections may be conducted by PNA's Quality Assurance Team for supplier evaluation, verification, and qualifications where:

- a) A supplier is being qualified as a new supplier or considered for new product or additional business.
- b) First Article Inspection and Testing for product and process qualification and/or acceptance is performed at the supplier's facility.
- c) Supplier fails to submit an acceptable First Article Inspection package, Production Part Approval Process package, or response to Supplier Corrective Action Reports (SCAR).
- d) The quality of supplied product does not meet PNA's Drawing or Math Data/CAD Model requirements requiring supplier evaluation to determine responsibility and cause.
- e) Supplier and Sub Tier Technical Reviews of Requirements, specifications, tolerances, capabilities, etc. shall be self-evaluated and subsequently reviewed by PNA Advanced Engineering.
- f) Suppliers need or request assistance in improving performance.

PNA Supplier Quality Representative, PNA's customer representative, or a Government Source Inspector may conduct source inspection prior to or during the product qualification run, inspection and testing. The Government has the right to inspect and evaluate all supplies called for by the contract, to the extent practicable, at all places and times, including the period of manufacture, and in any event before acceptance. The Government shall perform inspections and tests in a manner that will not unduly delay the work. The Government assumes no contractual obligation to perform any inspection and test for the benefit of the Contractor unless specifically set forth elsewhere in this contract.

All personnel of the supplier who have direct impact on PNA's product or material quality shall be trained and qualified to applicable Standard Operating Procedures that are specifically utilized or developed for PNA's product, including, without limitation, special processes such as welding, soldering, painting, and coating.

Welding Processes, Inspectors and Operators shall be certified to AWS Weld Codes or as specified on PNA purchase order or drawings.

All Welding shall require PQR's (Procedure Qualification Record) against all applicable PNA Welding Procedure Specifications (WPS).

Documentation and records described herein shall be maintained by supplier for seven (7) years and shall be made available for review or retention by PNA and/or PNA's customer representative upon request:

- a) Records of inspection and testing to verify compliance with applicable drawings and/or specifications.
- b) Records of calibration for inspection and test equipment used for product acceptance.
- c) Records of supplier personnel's experience, training, and qualifications.
- d) Records of certification of processes and personnel for processes such as welding, heat treating, plating, anodizing, NDE, painting etc., utilized for production of PNA product.
- e) Records of PNA's Purchase Orders and contracts, applicable drawings, specifications, and manufacturing processes.
- f) Records of Non-Conformance and Supplier Corrective/Preventive Actions related to PNA's product.

All documents, including, without limitation, prints, CAD Models, drawings, manuals, specifications, records, and functional parts received from PNA, are the property of PNA and shall be returned to PNA upon request.

When PNA issues revised prints, specifications or manuals, the obsolete copies shall be marked obsolete and returned to PNA's Buyer upon request.

To comply with the requirements in our DoD contracts regarding the safeguarding of covered defense information (DFARS 252.204-7012, NIST 800-171), PNA requires that Suppliers DO NOT send technical drawings or documents to a Plasan-na.com email address. Contact your PNA Buyer or Quality Representative for access to a secure upload portal or an alternate email address.

Before use of a supplier's product for production purposes, suppliers shall be qualified for "Approved" rating status and placed on PNA's Approved Supplier List. The minimum qualifications are:

- a) The supplier's quality system is approved by PNA's survey and/or audit processes.

- b) The supplier's product is approved for production by the First Article Inspection or Production Part Approval Process.
- c) PNA is directed by the Customer to use a specific Supplier as a Customer Approved Supplier.

5. Product Qualification

This section defines the requirements for production part qualification and approval. Minimum submission requirements listed below shall be completely fulfilled unless otherwise waived by PNA's Supplier Quality Representative in writing. PNA reserves the right to request additional information.

At a minimum, a First Article Inspection (FAI) shall be used to qualify a part/process for supplier approval. Level 1-4 Production Part Approval Process (PPAP) may be required in accordance with the Purchase Order. Refer to the Submission Requirements Table below for document requirements.

Submission Requirements Table

Element No:	Requirement	Level				
		1	2	3	4	FAI
1	Design Record	R	S	S	*	S
2	Engineering Change Documents, if applicable	R	R	R	*	S
3	Customer Engineering Approval, if any	R	S	S	*	S
4	Design FMEA (If Design Responsible)	R	S	S	*	*
5	Process Flow Diagrams	R	R	S	*	S
6	Process FMEA	R	R	S	*	*
7	Control Plan	R	R	S	*	*
8	Measurement System Analysis Studies	R	R	S	*	*
9	Dimensional Results	R	R	S	*	S
10	Material, Performance Test Results	R	R	S	*	S
11	Initial Process Studies	R	S	S	*	*
12	Qualified Laboratory Documents	R	S	S	*	*
13	Appearance Approval Report (AAR)	S	R	S	*	*
14	Sample Product	R	S	S	*	*
15	Master Sample	R	R	R	*	S
16	Checking Aides	R	R	R	*	*
17	Records of Compliance with Customer Specific Requirements (CSR)	R	R	S	*	S
18	Part Submission Warrant (PSW)	S	S	S	S	S
S	The Supplier shall submit to PNA and retain a copy of records or documentatyon items at appropriate locations.					
R	The Supplier shall retain at appropriate locations and make available to PNA upon request.					
*	The supplier shall retain at appropriate locations and submit to PNA upon request.					

The supplier should possess all AIAG (Automotive Industry Action Group) Core Quality Tool Manuals at the current revision. The reference AIAG manuals are listed below:

- APQP-Advanced Product Quality Planning and Control Plan PPAP-Production Part Approval Process
- PFMEA-Process Failure Mode Effects Analysis
- SPC-Statistical Process Control
- MSA-Measurement Systems Analysis
- *Note: suppliers can obtain the above manuals from www.AIAG.org*

FAI/PPAP Sample Requirements

- a) The samples shall be produced with production intent processes, including, but not limited to, equipment, tooling, personnel, and Standard Operating Procedures. Three (3) samples for production part qualification are to be submitted to PNA.
- b) For multiple-cavity tool process, three (3) samples from each cavity are required for production part qualification unless otherwise specified by PNA's Quality Assurance Representative.

Before shipment to PNA, all samples shall be identified by the PNA Supplier PPAP/FAI Part Package Identifier, CF-915, which can be obtained by contacting the PNA Buyer or PNA's Quality Assurance Manager.

6. Supplier Requests/Change Notification Requirements

Informal Requests for the following shall be submitted and sent to PNA Buyer:

- a) Authorization to differ from requirements imposed by PNA
- b) Clarification of drawing, specification, or Purchase Order requirements

Formal requests for Temporary Deviation or Permanent Changes from a specification and/or drawing requirements shall require the Supplier to prepare and submit a Request for Deviation/Change form, CF-889, to the PNA Buyer for review by PNA Advanced Engineering and Quality. Reference the Change Notification Requirement Matrix below identifying examples of changes requiring approval by PNA Advanced Engineering and Quality.

If a Supplier Change Request is Approved by PNA, incoming product shall be identified by the Supplier reflecting the PNA Change Notice Number (CN Number).

A Supplier Change Notification applies only to the item(s) for which it was submitted and is limited by date and/or quantity; the approval may not be extended to any other item or piece on the same Purchase Order or to any other Purchase Order.

Change Notification Requirement Matrix

No.	Examples of Changes REQUIRING Notification to PNA	Clarifications
1	Use of other construction or material than what was used in the previously approved part of product.	For example, other construction as documented on a deviation (permit) or included as a note on the design record and not covered by the engineering change
2	Production from new or modified tools (except perishable tools), dies, molds, patterns, etc. including additional or replacement tooling	this requirement only applies to tools, which due to their unique form or function, can be expected to influence the integrity of the final product. It is not meant to describe standard tools (new or repaired), such as standard measuring devices, driver (manual or power), etc.
3	Production following upgrade or rearrangement of existing tooling or equipment	Upgrade means the reconstruction and/or modification of a tool or machine or to increase the capacity, performance, or change its existing function. This is NOT meant to be confused with normal maintenance, repair or replacement of parts, etc., for which no change in performance is to be expected and post repair verification methods have been established. Rearrangement has been defined as activity that changes the sequence of product/process flow from that documented in the process flow diagram (including the addition of a new process). Minor adjustments of production equipment may be required to meet safety requirements such as, installation of protective covers, elimination of potential ESD risks, etc.
4	Production from tooling and equipment transferred to a different plant site or from additional plant site.	Production process tolling and/or equipment transferred between buildings or facilities at one or more sites.
5	Change of Supplier for parts, non-equivalent materials, or services (e.g., heat treating, plating).	The organization is responsible for approval of supplier provided material and services.
6	Product produced after the tooling has been inactive for volume production for 12 months or more.	For product that has been produced after tooling has been inactive for twelve months or more: Notification is required when the part has had no change in active purchase order and the existing tooling has been inactive for volume production for twelve months or more. The only exception is when the part is low volume, e.g., service or specialty vehicles. However a customer may specify certain PPAP/FAI requirements for service parts.
7	Product and Process changes related to components of the production product manufactured internally or manufactured by suppliers.	Any changes, including changes at the suppliers to the organization and their suppliers, that affect customer requirements, e.g., fit, form, function, performance, durability.
8	Change in test/inspection method-new technique (no effect on acceptance criteria).	For change in test method, the organization should have evidence that the new method has measurement capability equivalent to the old method.
9-10	<u>Additional, for Bulk materials:</u> 9. New source of raw material from new or existing supplier 10. Change in product appearance attributes	These changes would normally be expected to have an effect on the performance of the product.

7. Prohibited Chemicals

Products delivered to PNA, Inc. shall not contain asbestos, cadmium, lead, mercury, hexavalent chromium (also known as Hex-Chrome), polychlorinated biphenyls, nor radioactive materials. Please contact the PNA Quality Assurance Department with any questions.

8. Product Marking and Identification Requirements

Where required, product drawings, engineering specifications, specific part markings or supplier identification markings shall be applied as required by PNA.

9. Product Packaging, Shipment and Delivery Requirements

PNA's quality and delivery targets are:

- a) 100% on-time delivery to the designated location in the full quantity listed on the PO.
- b) Zero defects
- c) Pricing as stipulated on the PO.

Any defective product may result in rejection and return of the defective product to the supplier at the supplier's expense.

Packaging shall prevent any product damage, including, without limitation, breakage, marring, paint defects, or chipping during shipping and in accordance with any pre-approved packaging and labeling specification where applicable.

Returnable packaging owned by PNA shall be handled and stored in a manner that will prevent damage or loss. Prior to use, it is the supplier's responsibility to inspect, clean and repair or replace returnable packaging to ensure that the packaging will protect the product during storage, handling, and transit.

All supplier packing slips shall reference the PNA PO number.

With each applicable shipment, suppliers are required to provide "Certificate of Conformance" with the following information:

- a) Printed name of certifying individual
- b) Signature of certifying individual
- c) Title of certifying individual; Must be from Quality or test department
- d) Date: yyyy-mm-dd
- e) PNA's part number and revision level
- f) PNA's Purchase Order (PO) number
- g) Quantity being certified
- h) If applicable, special process information as specified on the Purchase Order (PO)

Any shipment that fails to comply with the above requirements or other SQM requirements may be rejected and not received until any product Non-Conformance Reporting (NCR) or Supplier Corrective and Preventive Action (SCAR) are resolved. Payment is owed by PNA only if the shipment is accepted and all supplier issues are resolved.

10. Shelf Life/Age Control Requirements

Suppliers providing items subject to age control, such as paint, adhesives, rubber, etc., shall mark the parts and exterior shipping container with manufacture and expiration dates. Products shall have a minimum of 80 percent of shelf-life remaining (based on the date on manufacture) upon receipt by PNA unless specified on the PNA purchase order or drawing.

11. Non-Conforming Material Control Requirements

When defective material is detected by PNA, a "Non-Conformance Report" will be initiated internally and the supplier will be contacted with PNA's disposition decision. Within 24 hours, the supplier shall respond by either issuing a written return authorization or a written scrap authorization to PNA. If PNA's disposition is to use the material after 100% sorting or rework, then the supplier will be responsible for arranging the sorting or rework at supplier's cost and reimbursing any

costs incurred by PNA.

If a response is not received from the supplier within 48 hours of issuing a non-conforming material report, PNA’s Buyer may issue a debit memo and return the product to the supplier without supplier’s authorization and at supplier’s expense.

12. Supplier Corrective Action Report (SCAR) Requirements

All Supplier Corrective Actions will use PNA 8D Form, CF-816. When a Supplier Corrective Action is received by supplier from PNA, responses are required per the table below.

SCAR 8D Requirements	
8D ELEMENT	RESPONSE TIMING REQUIREMENT
D1/D2/D3	Completed and submitted within 24 hours of notification.
D4	Completed and submitted within 7 days of notification.
D5	Completed and submitted within 14 days of notification.
D6/D7/D8	Completed and submitted no later than 30 days after notification.

If Long Term Corrective Action Implementation will exceed 30 days, the Supplier is required to request this extension to the PNA Quality Assurance Representative.

A copy of the SCAR and 100% inspection report shall be attached and shipped with any further shipments. Without written approval from PNA’s Supplier Quality Representative, the shipment without the SCAR copy and 100% inspection report will be rejected at PNA’s Incoming Inspection.

The supplier shall continue the Containment Plan until root-cause analysis is completed and corrective action is implemented and verified by PNA’s Supplier Quality Representative. A completed Supplier Corrective Action Report (SCAR) shall be submitted to PNA’s Quality Assurance Representative within 30 days of SCAR issuance or a written extension, which may be granted by the PNA Supplier Quality Representative upon request.

13. Counterfeit Product Mitigation

The Supplier shall establish, implement, and maintain documented procedures, which shall detect and/or preclude the use of counterfeit/used parts. All PNA Suppliers shall have developed and documented purchasing procedures that reduce the risk of purchasing and utilizing counterfeit material. All Suppliers shall have defined and documented product verification procedures that assure the detection of counterfeit parts prior to formal product acceptance. All Suppliers shall have developed and documented Material Control procedure that reduces the risk of utilizing counterfeit material.

14. Supplier Monitoring and Rating

PNA’s Procurement and Product Assurance Departments continuously monitor and rate all strategic suppliers quarterly using a Supplier Scorecard. Supplier performance is measured by the supplier’s ability to meet PNA’s requirements for product/material quality and delivery performance. Suppliers must remain in good standing on PNA’s Approved Supplier List. A Strategic Supplier Development Plan will be initiated by PNA if any of the three scenarios in the table below are applicable.

Supplier Quarterly Scorecard Rating and Development Plan Initiation Criteria

ON TIME DELIVERY (MAX 50 POINTS)	90%-100%	70%-89.99%	< 70%
	50 points	25 points	0 points
INCOMING QUALITY PPM (MAX 50 POINTS)	0-500 PPM	501-1000 PPM	>1000 PPM
	50 points	25 points	0 points
QUALITY SCAR	5 POINT DEDUCTION FROM QUALITY SCORE PER SCAR ISSUED		
WHEN TO INVOKE STRATEGIC SUPPLIER DEVELOPMENT PLAN			
1	TWO CONSECUTIVE QUARTERS WHERE OTD AND/OR QUALITY RATING IS BELOW 25 POINTS		
2	TWO CONSECUTIVE QUARTERS WHERE OVERALL RATING IS BELOW 75 POINTS		
3	ANY QUARTER WHERE OVERALL RATING IS 0 POINTS		

The PNA Buyer or Quality Assurance Representative will notify all suppliers at risk based on the Supplier Development Plan criteria. (SCAR), Supplier Corrective Action Report may be issued for evaluation, continued supplier approval, and continuous improvement purposes.

15. Expectations for Suppliers in support of “Conflict Minerals”

In support of PNA’s policy on conflict minerals, suppliers are expected to supply materials to PNA that are “DRC Conflict-Free.” DRC includes the countries of Democratic Republic of Congo, Republic of Congo, Central Africa Republic, South Sudan, Zambia, Angola, Tanzania, Burundi, Rwanda, and Uganda. Suppliers are expected to adopt policies and management systems with respect to conflict minerals and to require their suppliers to adopt similar policies and systems. PNA expects suppliers to establish their own due diligence program to ensure conflict-free supply chains.

In the event PNA determines that a supplier’s efforts to comply with this Policy have been deficient and the supplier fails to cooperate in developing and implementing reasonable remedial steps, PNA reserves the right to take appropriate action, up to and including discontinuing purchases from the supplier.

Under the definition of “DRC Conflict-Free,” products supplied to PNA: Do not contain tantalum, tin, tungsten, or gold (3TG) as elements necessary to their production or functionality PNA may survey direct suppliers as a part of our conflict minerals due diligence program. Suppliers are expected to respond to survey requests in a timely manner, and with full disclosure.

16. Confidentiality

PNA shall only disclose proprietary information to suppliers on a need-to-know basis. PNA and our suppliers maintain a healthy and confidential relationship via a SIGNED and ACTIVE Non-Disclosure Agreement (NDA). Proprietary Information may include, but not be limited to, Bill of Material (BOM), solid models, 2D and electronic drawings, software, etc. By acceptance of and/or by starting work on any Purchase Order/Contract, the supplier accepts accountability in protecting PNA’s, and PNA’s Customer’s Proprietary Information, and agrees that this constitutes an acceptance of PNA’s standard Non-Disclosure Agreement Terms.

THIS INCLUDES NOTIFICATION TO PNA PRIOR TO THE RELEASE OR TRANSFER OF PROPRIETARY INFORMATION TO A THIRD PARTY; PNA WILL THEN MAKE THE DECISION TO INITIATE A THIRD-PARTY NDA OR PROVIDE WRITTEN AUTHORIZATION FOR DISCLOSURE.

Original proprietary information, as well as all copies of proprietary information must be destroyed when it is no longer needed or must be returned to the originating source when requested. Proprietary Information is not to be released and/or disclosed to competitors of PNA.

17. Cybersecurity

The US Government has several acquisition rules and standards regarding cybersecurity, and PNA is now incorporating these cybersecurity standards into our Supplier Manual and Supplier evaluation process. Periodically, you will receive additional information and questions about your company’s cybersecurity from PNA. Please be sure to complete and return all questionnaires and certifications. Supplier resources regarding these requirements can be found on the Quality page of the PNA website.

18. PNA Quality Codes (also known as Q-Codes)

These codes may be used on purchase orders to identify requirements. If clarification is needed, contact the PNA buyer.

Q01	Level 1 PPAP required (See Table 1, Level 1) - PNA template to be provided
Q02	Level 2 PPAP required (See Table 1, Level 2) - PNA template to be provided
Q03	Level 3 PPAP required (See Table 1, Level 3) - PNA template to be provided
Q04	Level 4 PPAP required (See Table 1, Level 4) - PNA template to be provided
Q05	First Article Inspection (FAI) - PNA template to be provided
Q06	First Piece Inspection (FPI) - PNA template to be provided
Q07	Certificate of Conformance (C of C) required
Q08	Material Certificate(s) required (chemical/physical test reports)
Q09	Material/Part Traceability and ID required
Q10	Inspection records/test reports required
Q11	Welding/soldering qualification required (WPS/PQR)
Q12	Non-Destructive testing required
Q13	Destructive Testing required
Q14	Special process approval
Q15	Special packaging requirements